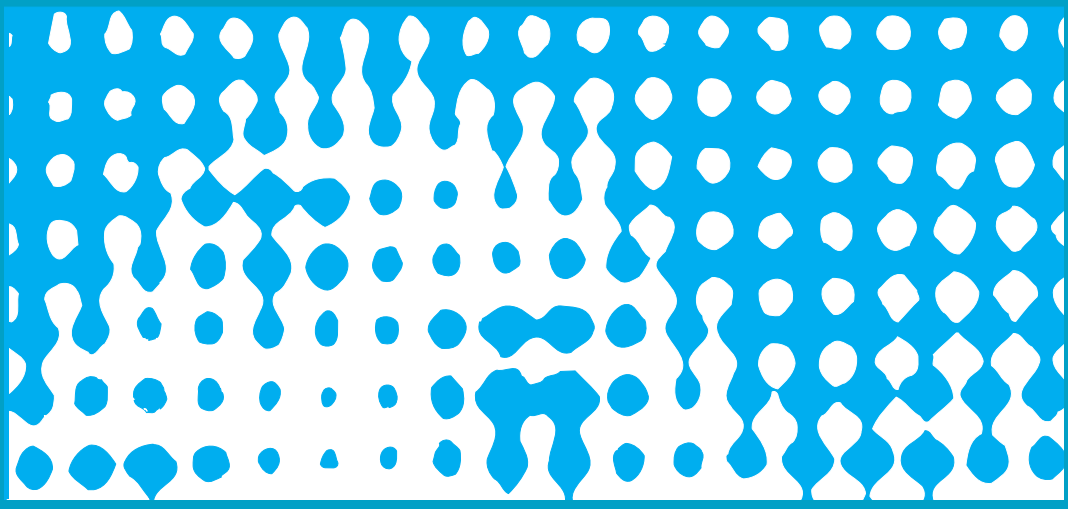
CZECH DEMOGRAPHY

2007, Vol. 1



Czech Demography, 2007, Vol. 1

In 2007 the Czech Statistical Office begins to publish an English electronic version of the journal *Czech Demography*. The contents will include a selection of articles, reviews, and summaries from the quarterly journal *Demografie*, *Review for Population Research*.

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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.

*) This article was published in *Demografie* 2006, 48, p. 153–165. The contents of the journal are published on the Web site of the Czech Statistical Office at: http://www.czso.cz/csu/redakce.nsf/i/demografie
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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 (1st 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

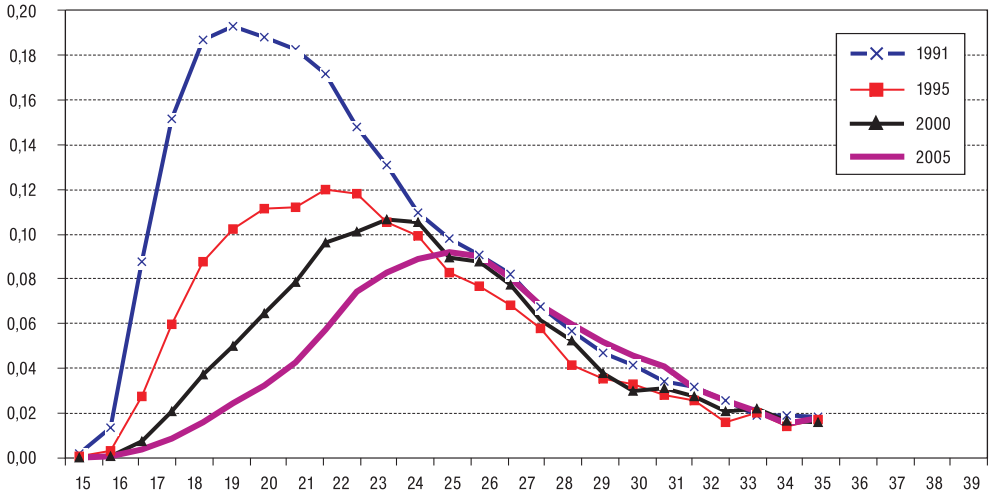
There has also been a slow decline in the percentage of protogamous marriages, in which both the bride and the groom are single. In 2005 there were 33 446 such marriages, that is, 65% of all marriages (at the start of the 1990s the figure was around 70%). Conversely, there was an increase in the percentage 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.

Natality[1)]

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 that 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

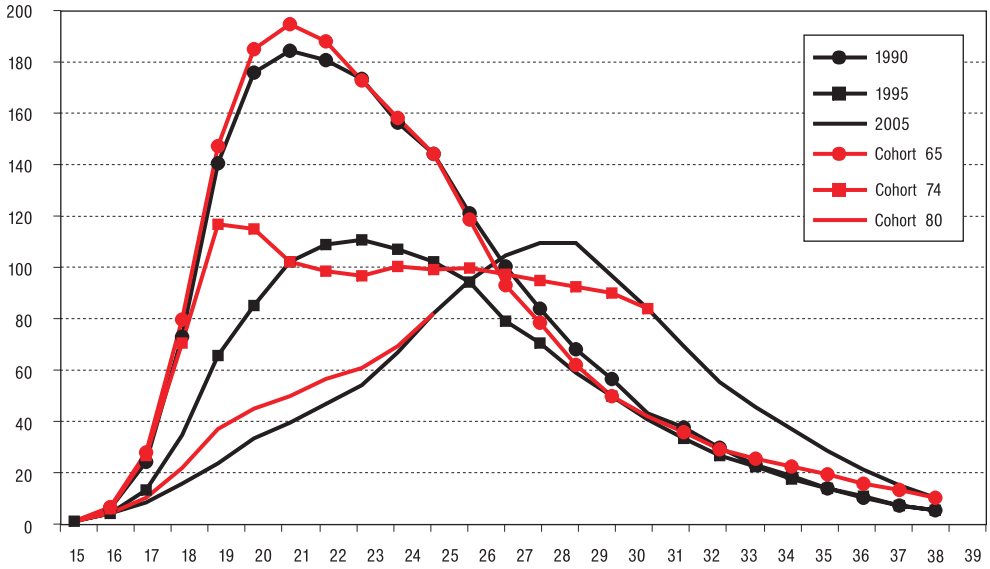
Age of women	1990	1995	2000	2001	2002	2003	2004	2005
20	176.0	85.3	44.9	39.6	36.9	35.5	34.6	33.4
21	**184.9**	102.3	53.5	49.4	45.8	42.5	41.4	39.8
22	181.1	109.4	65.0	57.8	56.6	50.1	48.3	47.1
23	173.6	**110.7**	79.9	69.9	65.8	61.2	56.2	54.5
24	156.6	107.4	91.3	82.2	80.2	74.3	69.6	66.8
25	144.3	102.5	98.2	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 cohabitating 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-natality 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 address[2)] 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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TRENDS IN CENSUS HOUSEHOLDS IN THE CZECH REPUBLIC IN THE LAST THIRD OF THE 20th CENTURY*)

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Abstract: The analysis focuses on evaluating the trends of census households over the course of the past forty years, with an emphasis on the 1990s, when changes in the demographic behaviour of the population of the Czech Republic occurred in connection with the transformation of society after November 1989.

Keywords: census, census households, family household, one-person household, average number of members

The growth in the number and the decline in the average size of census households in 1961–1991 as a result of the joint effect of demographic development and socio-economic factors

Since 1961, when for the first time in the history of Czechoslovak censuses family ties were surveyed in connection with cohabitation and household arrangements by means of so-called census households (CH), the number of census households increased, up by one-third to 2001. Although until 1991 the development of the internal structure and size of households seemed to resemble development in advanced countries, it was based on a different demographic and socio-economic situation, and in a detailed analysis it is possible to discover relatively significant differences. Generally, however, household development can be described as relatively fluid, stabilised by a generally high rate of early marriage, a planned family policy, and by the real possibilities of obtaining independent housing, even when taking into account the shifts in the age structure of the adult population and efforts on the part of nuclear families and individuals to obtain independent housing. The rising divorce rate brought about an increase in the number and percentage of lone-parent family households with children and one-person households, while the percentage of the numerically largest group – couple (two-parent family) households – decreased, even though their numbers had been on the rise up to 1980. The stagnating, or just slowly improving, mortality rate among women and the worsening mortality rate among men, starting in middle age, contributed to an increase in the percentage of households of single widows and of lone-parent family households of older people. The result of these trends was a continuous decrease in the average size of census households. Even the increase in fertility intensity in the 1970s, which only temporarily slowed the decline in the average size of two-parent family households, did not prevent this decrease, as the reduction in the fertility rate that began in the second half of the 1950s slowly started again toward the end of the 1970s. In addition to demographic development other factors had an effect on the reduction in the size of census households, factors of a social and economic nature – mainly the spread of the objective possibility of acquiring a flat, owing to intensified flat construction, the improving financial situation of households, which enabled them to attain independent housing and run their households independently (e.g. among individuals of retirement

*) This article was first published in *Demografie*, 2005, 47, p. 1–12. The contents of the journal are published on the Web site of the Czech Statistical Office at: http://www.czso.cz/csu/redakce.nsf/i/demografie.
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Table 1 Numbers and increases of Census households: by type, 1961–2001

Households by type	Hosehoulds total (thous.)					Increase (thous.)		Increase (in %)	
	1961[1)]	1970	1980	1991	2001	1970–01	1991–01	1970–01	1991–01
Census households, total	3 214.3	3 502.7	3 875.7	4 051.6	4 270.7	768.0	219.1	21.9	5.4
Family households	2 655.0	2 794.2	2 881.9	2 947.3	2 910.0	115.8	–37.3	4.1	–1.3
Couples	2 405.4	2 487.5	2 556.8	2 512.9	2 333.6	–153.9	–179.3	–6.2	–7.1
– with dependent children	1 405.4	1 404.4	1 475.4	1 395.9	1 090.8	–313.7	–305.1	–22.3	–21.9
– without dependent children	1 000.0	1 083.1	1 081.4	1 117.0	1 242.8	159.7	125.8	14.7	11.3
Lone-parents	249.6	306.7	325.1	434.4	576.4	269.7	142.0	87.9	32.7
– with dependent children	114.7	157.0	203.9	254.1	343.4	186.4	89.3	118.7	35.1
– without dependent children	134.9	149.7	121.2	180.3	233.0	83.3	52.7	55.6	29.2
One-person households	514.7	668.6	938.8	1089.6	1276.2	607.6	186.5	90.9	17.1
Multi-person non-family households[2)]	44.6	39.9	55.0	14.7	84.5	x	x	x	x
Lone-parents without dep. children + multi-person non-family households[4)]	179.5	189.6	176.2	195.0	317.5	127.9	122.6	67.5	62.8
Share of households out of total Census households (CH) in %									
– Family households	82.6	79.8	74.4	72.7	68.1	–11.7	–4.6	–14.7	–6.3
Couples	74.8	71.0	66.0	62.0	54.6	–16.4	–7.4	–23.1	–11.9
– with dependent children	43.7	40.1	38.1	34.5	25.5	–14.6	–9.0	–36.4	–26.1
– without dependent children	31.1	30.9	27.9	27.5	29.1	–1.8	1.6	–5.8	5.8
Lone-parents	7.8	8.8	8.4	10.7	13.5	4.7	2.8	53.4	26.2
– with dependent children	3.6	4.5	5.3	6.3	8.0	3.5	1.7	77.8	27.0
– without dependent children	4.2	4.3	3.1	4.4	5.5	1.2	1.1	27.9	25.0
– Multi-person non-family households	1.4	1.1	1.4	0.4	2.0	x	x	x	x
– One-person households	16.0	19.1	24.2	26.9	29.9	10.8	3.0	56.5	11.2
Average number of persons in CH, total	2.95	2.78	2.64	2.53	2.38	–0.40	–0.15	–14.4	–5.9
– Couples	3.45	3.30	3.27	3.21	3.12	–0.18	–0.09	–5.5	–2.8
– with dependent children[3)]	4.23	4.03	3.97	3.92	3.88	–0.15	–0.04	–3.7	–1.0
– without dependent children[3)]	.	2.65	2.32	2.33	2.45	–0.20	0.12	–7.5	5.2
– Lone-parents	2.55	2.51	2.49	2.44	2.46	–0.05	0.02	–2.0	0.8
– with dependent children[3)]	2.97	2.73	2.66	2.64	2.62	–0.11	–0.02	–4.0	–0.8
– without dependent children[3)]	.	2.37	2.21	2.17	2.24	–0.13	0.07	–5.4	3.5
– Multi-person non–family households[4)]	2.15	2.14	2.14	2.06	2.12	x	x	x	x

Note: 1) Differences in the definitions of one-person households, etc.
2) In 1991 defined differently – slightly incompatible with other censuses (see text), in 2001 this group included 34.5 thous. households of grandparents with grandchildren – incompatible with previous censuses.
3) 1961, 1970 children up to the age of 15.
4) Comparable data in this total.

age), along with changes in lifestyle (the effort among CH to live as independent households, the spread of urban lifestyles into rural areas, which indirectly contributed to changes in the structure of the housing stock, as smaller flats were built during mass housing construction).

The increase in the number of census households was fastest in the 1960s and especially in the 1970s, when there was a one-tenth increase of CH in each intercensal period. A decisive role in these increases was played by the very dynamic growth in the number of one-person households. During the 1970–1980 intercensal period there was a 40% increase in one-person households (270 000).

In the 1980s the tempo of the growth in the number of census households fell to half its previous tempo. The increase of just under 180 000 households in the 1980s (4.5%) derived from the continuously high increase in the number of census households of individuals (CHI) – 16% of the figure in 1970 (151 000) – and by the accelerated rate of the increase in the number of lone-parent family households (110 000)[1]. For the first time there was a decrease in the number of two-parent family households as a whole, owing to the effect of the reduction in the number of couple households with dependent children (a decrease of 80 000).

Changes in the structure of family households in the 1990s – especially under the effect of the changes in marriage and fertility patterns

The dramatic changes in demographic behaviour after 1990 and the socio-economic transformation of society began to have a significant effect on development trends in the structure and numbers of census households. Compared to the previous census, the changes in the demographic behaviour and way of life that had been under way since the mid-1990s became apparent in the 2001 census, despite the fact that the considerable inertia in household structure and in household formation somewhat weakened the effect of these changes. Changes primarily occurred in marriage and fertility patterns (mainly the decline of marriage and fertility intensity and a shift to higher rates of these events at a later age), a decrease in the mortality rate among women and men, and other changes of a more social nature (an increase in the intensity of the divorce rate, more widespread unmarried cohabitation, which changed the composition of census households by increasing the percentages of one-person households, lone-parent households, and couple households without dependent children. But the relative increase in the total number of census households in the last intercensal period did not differ much from the increase in the 1980s.

The internal structure of households – mainly couple households with or without dependent children, and lone-parent households – changed markedly, and changes also occurred in the composition of one-person households, both in terms of gender and in terms of age and marital status. There was also an increase in the proportion of multi-person non-family households (even when methodological changes of distinguishing such households are taken into account).

The total number of census households increased in the most recent intercensal period by just under 220 000, relatively by 5.4%. In absolute numbers, the increase in the number of one-person households by 187 000 (17%) was again of key significance, as they came to comprise 30% of census households. Like in the 1980s, there followed an increase in lone-parent households by 142 000, but in terms of the dynamics of growth it was the fastest growing group of households, increasing by approximately one-third. However, they still only accounted for 13.5% of households. The relative increase in lone-parent households was almost equally as high as in the previous decade, even though a change in the methodology for distinguishing such households resulted in some of them (lone-parent households of grandparents with grandchildren) being reassigned to the group of multi-person non-family households (if the method of categorisation had not been changed, the increase would have been 34.5 thousand higher). There was an increase in the methodologically comparable data file of "other" multi-person households (lone-parent households without dependent children + multi-person non-family households) between 1991 and 2001 of a total of 122 000 households (63% of their number in 1991), both owing to the decline in the marriage rate among divorcees and to the changes in lifestyle and household management of these CH.

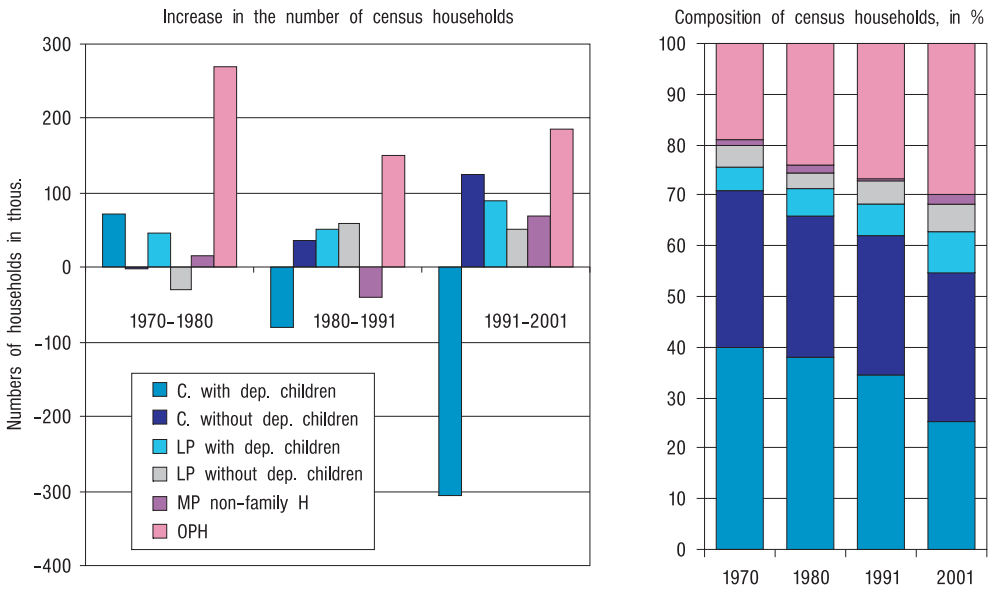
[1] More detailed analysis of all these changes is limited to the 1970–2001 period, as since the 1970 census the methodology used to define census households has changed somewhat.

Family households

The high numerical increases in these types of households were reduced in the total number of CH by the substantial decrease in households of couples (180 000). In terms of the internal structure of these households, there was a reversal of the relationship between family households with dependent children and family households without dependent children. The signs of an increasing proportion of couples without dependent children, as this group was increased by couples that previously had dependent children, born in the population wave in the 1970s, that were gradually reaching adulthood, became evident in a comparison of the results of the censuses in 1991 and 1980, but the increase of 11% represented by 126 000 couple households without dependent children in 2001 signified the first time they constituted an absolute majority and at the same time prevented a massive decrease in the number and percentage of couple households. The effect of the decrease in the intensity of the marriage and fertility rates among young women, especially aged 25 and under, brought about a decline in the intensity of the formation of couples with children among women up to the age of 30 at the head of couple households. The start of what had previously been the constant renewal of the family cycle shifted in the most recent census to a later age or stopped. During the 1990s there was a decrease of more than 300 000 couple households with dependent children, that is, more than one-fifth of their number in 1991.

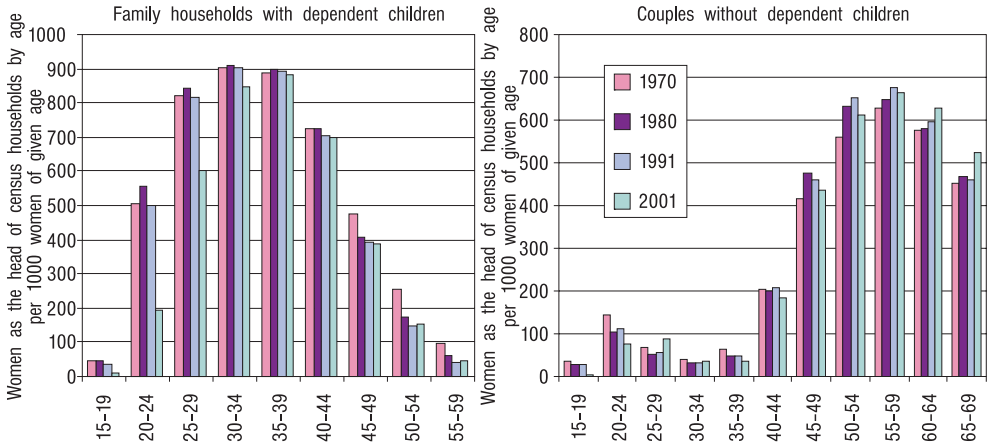
The growth in the number and proportion of couple households without dependent children was mainly a consequence of the improving mortality rate among the elderly, which was reflected also in the higher intensity of the formation of couple households without dependent children headed by a woman over the age of 60 (Figure 2) and an increase in the number of

Figure 1 Number and structure of census households



Key: Couples with dependent children = C. with dep. children
Couples without dependent children = C. without dep. children
Lone-parent with dependent children = LP with dep. children
Lone-parent without dependent children = LP without dep. children
Multi-person non-family households = MP non-family H
One-person households = OPH

Figure 2 Intensity of forming family households with a woman as the head: 1970–2001



them over the age of 70; it was further reinforced by the higher intensity of the formation of these households in the 25–34 age group (the result of the postponement of childbirth by couples). Even as couple households decreased proportionally to 55% of the total number of CH, they remained the most widespread form of household, and the majority of the population still lives in this form of household (more than 6.6 million people, of which 4 million live in couple households with dependent children).

However, the significance of family households as a whole in society declined owing to the reduction in the number and percentage of couple households with dependent children. As the dynamics of the growth in the number of family households slowed (only 2% in the 1980s), in the recent intercensal period this was translated into a decline (by 1.3%, a decrease in absolute numbers of 37 000), so that the proportion of family households was less than the 70% of the total census households. The reduction in the proportion of family households was not even prevented by the increase in the intensity of the formation of lone-parent family households with children, primarily headed by women aged 25–39, which, together with the higher number of women born in the 1970s, was the main cause in the 1991–2001 period for the total increase of these households by 89 000. Lone-parent family households with dependent children still made up only a small part of the number of family households with children, and in the Czech environment they continue to be a numerically less significant group of CH. However, the situation is different in terms of ratios: in 1970 for every 100 couple households with dependent children there were just 11 lone-parent households with dependent children, but by 2001 this figure had risen to 31. If we look at lone-parent family households with children from the perspective of family cohabitation, raising children, and the social problems of their existence, these increases should on the contrary be given more attention.

Unmarried cohabitation

The decline in the proportion of couple households was not even prevented by the growing numbers of unmarried cohabitation registered in the census. Their number grew in the 1991–2001 period by one-half, but they still represented only 5.4% of all couple family households (2 percentage points more than in 1991). Although the number of cohabitations counted in the censuses are, considering the method used to ascertain and process this information, certainly undervalued[2)], the development

[2)] Only those cases where both partners were registered as permanent residents in the same flat were recorded.

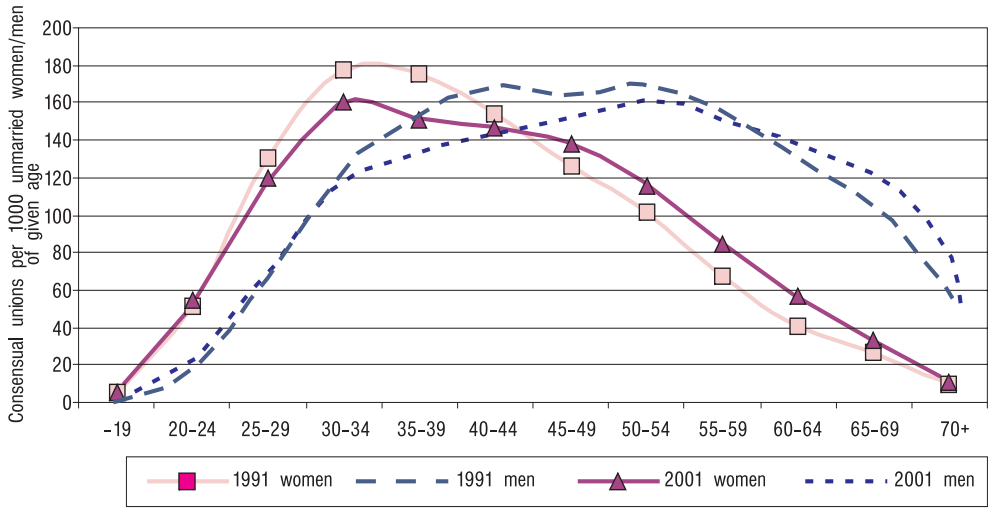
Table 2 Consensual unions in 1991 and 2001

Type of consensual unions	Number of consensual unions (thous.)		Increase 1991–2001		Percentage in family households	
	1991	2001	thous.	%	1991	2001
Total	84.9	125.3	40.3	47.5	3.4	5.4
– without dependent children	45.4	73.9	28.4	62.5	4.1	5.9
– with dependent children	39.5	51.4	11.9	30.2	2.8	4.7
– with 1 child	19.2	28.2	9.0	47.0	3.4	5.9
– with 2 children	13.8	16.4	2.6	18.8	2.1	3.2
– with 3+ children	6.5	6.8	0.3	5.0	4.1	6.8

of their composition in terms of the number of children living in these families and in terms of marital status seems to be relatively reliable. The biggest increase occurred in the number of cohabitations without dependent children (by 60%), of which 74 000 were recorded (60% of all UC). Unmarried cohabitation with children was most often with one child (28 000), and this category made up just less than 6% of all couple households with one child, which was the same as the percentage of UC without dependent children out of total couple households without dependent children.

An increase in the number of unmarried cohabitations can be observed in all age groups. The biggest increase was among young people of both sexes under the age of 35, while there was an increase of 2.5 times in the 25–29 age group, and in the 50–59 age group it increased by more than three-quarters. The number of unmarried cohabitations in the largest age group, 40–49 years, grew by one-fifth for both sexes. Thus the relation changed in favour of young people living in unmarried cohabitation: women under 35 made up 42% of those in unmarried cohabitation, while the proportion of middle-age women (35–59 years) fell to 46%; the proportion of men under the age of 35 in unmarried cohabitation grew to 35%, but middle-aged men made up more than one-half of those in unmarried cohabitation. Among both men and women there was a decrease in the proportion of people over the age of 60 in unmarried cohabitation (men 17%, women 15%). As a result there was a change even in the relation by marital status of people living in unmarried cohabitation.

Figure 3 Intensity of forming consensual unions: by age and sex



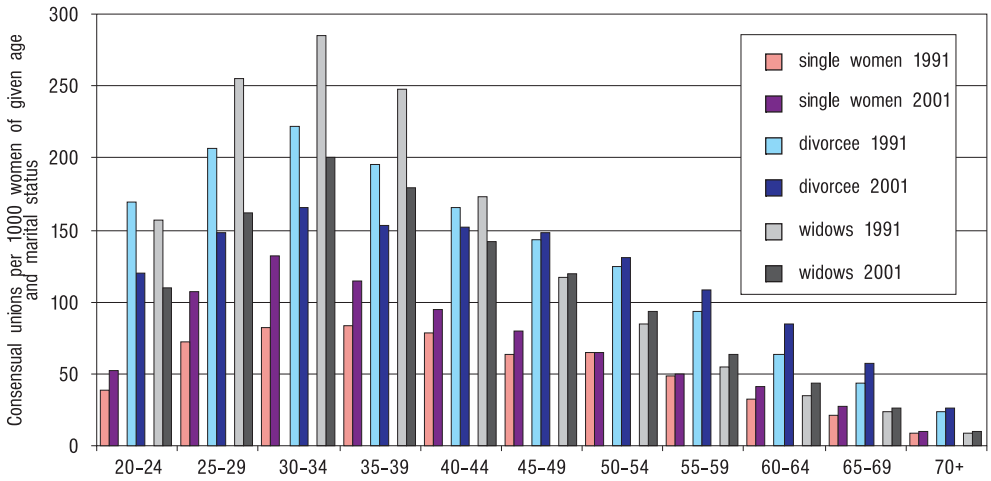
Note: Number of consensual unions including married persons living in a consensual union (CU) with an unmarried person

Table 3 Numbers and composition of consensual unions: by sex, age and marital status

Age group	Men					Women				
	Total	Composition by marital status (%)				Total	Composition by marital status (%)			
		Single	Married	Divorced	Widowed		Single	Married	Divorced	Widowed
2001										
18–24	10 277	96.9	0.6	1.7	0.0	19 207	94.2	1.3	3.6	0.1
25–29	19 007	84.9	1.5	12.5	0.1	20 195	71.1	2.6	24.2	1.0
30–34	14 774	55.7	2.9	39.6	0.3	13 653	34.9	3.7	56.3	3.7
35–39	13 272	35.9	3.2	58.3	1.0	11 927	19.7	3.4	68.7	7.1
40–49	28 098	23.7	2.8	70.1	2.3	25 315	9.9	2.9	73.4	12.7
50–59	23 464	16.7	2.7	73.9	5.5	20 805	6.3	2.0	62.7	28.2
60–69	9 922	15.1	2.8	63.1	18.0	8 952	4.7	1.4	38.2	54.8
70+	6 365	11.7	2.5	39.5	45.3	5 159	3.8	0.6	21.1	73.9
Total	125 269	41.4	2.5	49.5	5.4	125 269	35.2	2.4	46.0	15.5
1991										
18–24	4 526	86.7	1.1	11.6	0.1	8 545	75.4	1.5	21.7	1.0
25–29	7 155	59.2	1.4	38.6	0.3	8 062	32.7	1.9	60.5	4.5
30–34	9 370	38.2	1.6	59.0	0.8	9 604	16.2	1.6	73.0	8.8
35–39	12 831	27.9	1.3	69.0	1.4	12 273	11.2	1.4	73.7	13.4
40–49	23 433	20.9	1.2	74.7	2.8	21 556	8.6	1.3	69.5	20.4
50–59	12 818	20.5	1.5	68.0	9.6	11 752	7.2	1.3	49.0	42.3
60–69	9 258	17.9	1.7	52.0	28.1	9 019	5.7	1.2	27.4	65.4
70+	5 517	11.3	1.8	28.8	57.7	4 102	5.5	1.0	13.1	80.0
Total	84 934	29.6	1.4	59.2	9.4	84 934	18.2	1.4	54.8	25.3

Note: Remainder to 100% are cases where family status was not determined.

Figure 4 Intensity of forming consensual unions of women: by age and marital status



There was an increase in the proportion of single people in unmarried cohabitation, although there was always a higher proportion of single men than women – in 2001 it rose above two-fifths and thus approached the percentage of divorced men, who by 2001 constituted less than one-half. While the proportion of single women almost doubled, they still made up only 35% of the total. As a consequence, the proportion of divorced women decreased to 46% (down by 9 percentage points), and the proportion of widows fell to 15%. Single men and women up to the age of 30 formed the absolute majority, divorced women began predominating from the age of 30, while divorced men began predominating five years later, but maintained this predominance up to the age of 70. Despite the decrease in the proportion of widows, they continued to predominate from the age of 60.

The composition of people living in unmarried cohabitation by age and marital status depended primarily on the number of people in individual categories and their changes during the life cycle. An idea of the real intensity of the formation of unmarried cohabitation cleansed of the effects of age structure can only be obtained by calculating the intensity of the formation of unmarried cohabitation for individual age groups separately for both sexes and even more strictly by marital status. The Figure 4 reveals the seemingly surprising decline in the intensity of unmarried cohabitation in the most recent intercensal period among unmarried women aged 25 to 40 and among unmarried men aged 30 to 60 let (to simplify, the low numbers of married people living in unmarried cohabitation are included). It is at a later age that the intensity of the formation of unmarried cohabitation rises for both sexes. The increase in the number of unmarried cohabitations is thus primarily the result of increases among young people.

This is more evident from the graph of the intensity of the formation of unmarried cohabitation among women by marital status, and it is also revealed in a comparison of the composition of people by marital status from the years 1991 and 2001. The increase in the number of unmarried cohabitations among young women was affected by both the higher intensity with which these cohabitations were formed by single women (even up to 50 years of age) and by their higher numbers (in comparison with 1991 up to 60 years of age); a decline in the intensity of the formation of unmarried cohabitation was recorded among divorced and widowed women aged 20–44, also amidst higher numbers of divorced women. Among men the intensity of the formation of unmarried cohabitation by marital status developed similarly – it increased among singles to 40 years, among divorced men if fell up to 60 years (the results for widowers up to the age of 30 are not reliable owing to the small number of cases). The increase in the number of singles up to 60 years and divorced men over 45 had, as in the case of women, a decisive effect on the increase in unmarried cohabitation among men.

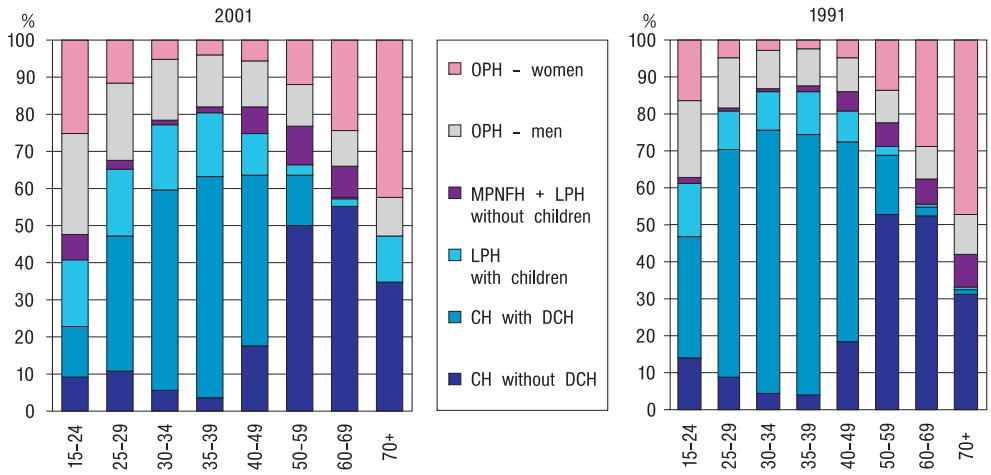
The number of unmarried cohabitations thus increased mainly under the effect of the growing proportion of single people, of which more were living in unmarried cohabitation than was observed in the census in 1991.

Other multi-person households and one-person households

The results of the censuses in 1991 and 2001 showed a substantial increase in the number of multi-person non-family households – especially ones headed by a person aged 20–29 or over the age of 70 – and also of lone-parent family households without dependent children, especially those headed by women aged 45–59. Among households headed by older people in particular the increases reflected the methodological changes (as indicated above); for this reason the two groups were combined for further analysis.

The increase in one-person households in the 1990s compared to the previous intercensal period was not too large, though there was a change in the relation of one-person households by sex. Owing to the effect of larger increases in the number of households among men than among women, their numbers became closer, so that for 100 one-person households of women there were already 80 one-person households of men, while in 1991 the figure had been just 63. What contributed to reducing the difference between the proportion of one-person

Figure 5 Composition of census households: by age of household head



Note: In couple households the household head is the woman

Key:

OPH – women, men = One person household – women, men

MPNFH + LPH without children = Multi-person non-family household + Lone-parent household without dependent children

LPH with children = Lone-parent household with dependent children

CH with DCH = Couple household with dependent children

CH without DCH = Couple household without dependent children

households by sex was the number of divorced men aged 40–59, who in 2001 made up more that one-half of one-person households of men. The cause of the high increase in the number of households of divorced men was the decrease in the marriage rate among divorced men in this age group (in 1991 divorced men made up 9.7% of men in this age group, and by 2001 the figure was 14%). The increase in the number of all one-person households in the last intercensal period was primarily influenced by the higher numbers of people reaching the age at which one-person households predominate (in this case, up to the age of 30), and structurally higher percentages of single and divorced people in practically all age groups, and partly also the higher intensity of the formation of these households among women aged 25–39.

Average household size and the composition of family households by the number of members

In the 1990s the trend of the decreasing size of census households continued and did so at just a slightly faster tempo than in the previous two intercensal periods. The biggest effect on this trend was again mainly the increase in the number and percentage of one-person households and also the decreasing size of two-parent households with dependent children. If we compare the average size of just multi-person households, they decreased from 3.20 in 1970 to 2.97 members in 2001, thus by 7%, with the decrease from 3.09 to 2.97 between 1991 and 2001 again being the fastest decrease.

Family households with other members

In the 2001 census, for the first time an increase was recorded in the average number of members in couple and lone-parent family households without dependent children: in the first case the increase was from 2.33 in 1991 to 2.45 members in 2001, and in the second case from 2.17 to 2.24 members. The reasons for this may be on the one hand the more common occur-

Table 4 Family households with additional occupants

Year	Total		Family households with dependent children						Family household without dependent children					
	Num. of house-holds in thous.	Two-parent family households (Lone-parent family households) in %	Total in thous.	With 1 additional occupant				With 2+ additional occupants in thous.	Total in thous.	With 1 additional occupant				With 2+ additional occupants in thous.
				in thous.	of which (%)					in thous.	of which (%)			
					Mother	Father	Other				Mother	Father	Other	
Two-parent households with additional occupants														
1980	114.5	4.5	54.2	52.9	75.1	16.8	8.1	1.3	60.3	59.2	76.0	12.6	11.4	1.1
1991	87.1	3.5	48.8	47.4	76.1	16.1	7.8	1.4	38.3	37.7	79.3	12.1	8.6	0.6
2001	93.2	4.0	40.8	39.8	63.0	15.7	21.3	1.0	52.4	50.4	57.0	8.1	34.9	2.0
Lone-parent family households with additional occupants														
1980	17.8	5.5	9.1	8.8	50.2	7.5	42.3	0.3	8.7	8.5	58.7	6.7	34.6	0.2
1991	43.2	9.9	14.5	13.3	65.9	10.0	24.1	1.2	28.7	25.9	87.1	10.0	2.9	2.8
2001	32.2	5.6	20.7	19.9	64.7	12.6	22.7	0.8	11.5	10.7	54.1	6.8	39.1	0.8

Note.: In 1980 family households with or without children up to the age of 15. In 1991 the Lone-parent household data set included cases of a lone-grandparent with grandchildren, in 2001 they were no longer included.

rence of other members living with family households, and on the other hand the extension of the period during which adult independent children continue to live with the family as a result of the postponement of marriage among young people or because they are not living with a partner.

While during the 1970s and 1980s the number of couple households with other cohabiting members decreased, in the 1990s it grew in absolute numbers by more than 6000 households; the number of couple households without dependent children in which one or more other persons – not including parents (spouses) and potentially also their independent children – were living increased by one-third. Among couple households with dependent children the decline in the number of households with other cohabitating members continued even in the most recent intercensal period. Among lone-parent households the number and percentage of households with additional members decreased, but the decrease only occurred among lone-parent households without dependent children, which given the low number of this group may just be a result of a methodological change – the exclusion from this group of lone-parent households of grandparents without dependent children. Conversely, more often than before other members lived with lone-parent households with dependent children. The proposition that the numbers of households with other members also increased as a result of methodological changes in the classification of households of grandparents with grandchildren is supported by the change in the structure of additional household members; particularly in households without dependent children the previously predominant portion of cohabiting mothers or mothers-in-law of head of household substantially decreased in favour of other persons (a proportion comparable to past censuses was formed by cohabiting mothers or mothers-in-law only in lone-parent families with dependent children). However, at the same time it is necessary to take into account that the increase in couple households with other members is also a reflection of an alternative solution to the difficulty of finding independent housing[3)].

[3)] Another alternative may be, for example, the increase in the number and percentage of dwellings containing two or more census households (in the 1990s there was an increase of 54 000 dwellings, that is, 17% of the number in 1991); if an adult, economically active individual was living together with a family household, it depended only on the declaration of the household arrangement of the individual within the shared housing as to whether it would be regarded as an independent household or as an independent child within one family census household (in addition, the declared household arrangement need not have corresponded to reality).

Table 5 Composition of households with two or more members: by number of members, 1970–2001

Year	Census household with two or more members									Average number of members
	Total in thous.	With number of members (in thous.)				Composition by number of members in %				
		2	3	4	5+	2	3	4	5+	
	Census households with two or more members, total (incl. multi-person non-family households)									
1970	2834.1	975.6	810.7	701.5	346.3	34.4	28.6	24.8	12.2	3.20
1980	2936.9	1056.5	732.3	842.8	305.3	36.0	24.9	28.7	10.4	3.17
1991	2961.9	1125.5	752.3	827.2	256.9	38.0	25.4	27.9	8.7	3.09
2001	2994.5	1251.3	823.9	733.1	186.2	41.8	27.5	24.5	6.2	2.97
Difference 2001–1991	32.6	125.8	71.6	–94.1	–70.7	3.8	2.1	–3.4	–2.5	–0.12
	Two-parent households									
1970	2487.5	743.7	728.8	678.1	336.9	29.9	29.3	27.3	13.5	3.30
1980	2556.8	802.6	637.2	819.7	297.3	31.4	24.9	32.1	11.6	3.27
1991	2512.9	827.6	634.1	800.8	250.4	32.9	25.2	31.9	10.0	3.21
2001	2333.6	815.6	641.3	698.1	178.6	35.0	27.5	29.9	7.6	3.12
Difference 2001–1991	–179.3	–11.9	7.2	–102.7	–71.8	2.1	2.3	–2.0	–2.4	–0.09
	Lone-parent family households									
1970	306.7	196.4	78.2	22.9	9.2	64.0	25.5	7.5	3.0	2.51
1980	325.1	205.4	89.5	22.4	7.8	63.2	27.5	6.9	2.4	2.49
1991	434.4	284.1	117.5	26.3	6.5	65.4	27.0	6.1	1.5	2.44
2001	576.4	359.5	175.6	34.0	7.3	62.4	30.4	5.9	1.3	2.46
Difference 2001–1991	142.0	75.4	58.1	7.7	0.8	–3.0	3.4	–0.2	–0.2	0.02

The permanent decline in the proportion of census households with five or more members

In the past decade it has been possible to observe an increase in the proportion of two-member households (couple households and other multi-person households together) occurring at an accelerated tempo (by almost 4 percentage points). While the weight of three-member households has continued to increase, this category did not reach the level of 27% that it reached in 1970. Since 1970 the biggest change was in the proportion of four-member households, which, unlike three-member households, had increased between 1980 and 1991, owing to the natality wave of the 1970s. But in the 2001 census their proportion had fallen to a level lower than what was observed in 1970 (mainly owing to the effect of lower numbers of two-child two-parent families during the period of reproductive depression). The reduction in the size of multi-person households, among which family households figure significantly, resulted from the continuous decrease in the number and percentage of couple households with five or more members and earlier also by the decline in the proportion of lone-parent families with four or more members.

In the period between 1970 and 2001 the percentage of two-member two-parent family households increased to 35%, and starting in the 1980 census the percentage of three-member two-parent families also increased (to 28%), while the almost one-third proportion of four-member households recorded in 1980 and 1991 decreased in 2001 to less than 30% (the decline in the marriage and fertility rates and changes in the composition of households during the life cycle). In lone-parent family households the almost two-thirds predominance of two-member households over thirty years decreased in favour of three-member households, the proportion of which increased from one-quarter in 1970 to more than 30% in 2001. Two-member households made up 90% of the multi-person non-family households.

Changes in the structure of the composition of families and households is changing mainly among the younger generations

The relatively stable development in the number and composition of households that was observed between the 1960s and the end of the 1980s was in the last decade of the 20th century subjected to the effect of the new model of demographic behaviour of mainly the young generations. They were strongly affected by the new economic and social conditions connected with the emergence of the Western European model of a more highly differentiated society, including models of reproductive behaviour, individualisation trends, and changes in the value system, and by the opportunity to take advantage of more modern scientific knowledge (health care) and technological innovations (the role of new communications technology) in the newly forming environment of a market economy. All these changes were reflected in the living arrangements of people in families and households as they occurred on the level of population structures that emerged before the emergence of the new model of demographic behaviour, not just individual structures (age and marital status) but also past structures of households and families and previous demographic behaviour. For this reason, these dramatic changes are reflected on a much smaller scale than we would expect and relate primarily to the younger generations. (The significance of the reproductive function of family households is explained in more detail in **Family Households as Measured in the Census 2001** by *Milan Kučera*, also published in this volume.)

One-person households also warrant special attention, not just with respect to what percentage of the population they constitute and the relatively substantial changes in their composition that occurred during the 1990s, but also because one-person households are becoming a strong interest group, whose specific needs will have to be respected and quickly addressed.

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FAMILY HOUSEHOLDS AS MEASURED IN THE CENSUS 2001*)

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Abstract: The article focuses on family households with dependent children (including consensual unions) and on the change in household structure resulting from changes in demographic behaviour among young people.

Keywords: census, lone-parent and two-parent family households by the number of dependent children, intensity of formation of family households, average numbers of dependent children

Family households are the foundation stones of the formation of social collectivities and are defined differently in different periods. Originally, a family household was defined as a group of individuals who live together in one house (which was characterised as a dwelling by its chimney, i.e. the presence of a hearth) and later in one dwelling or living quarters or even as an economic household (when the layout of the dwelling and the composition of its inhabitants and their financial means allow for independent household units of two or more families or other households in one residential space). In the Czech case, up until the 1961 census, in the interest of obtaining a precise and reliable calculation of the "needs" of a flat, households were defined as a two-parent family household (TPFH) and a lone-parent family household (LPFH), accompanied by the further specification of whether there are dependent children in the household or not.

Over time, as people's views about living together changed, the key concept of households became the family household. Any analysis of census data on households must therefore include the study of trends in the number and composition of two-parent family households, at the centre of which are so-called nuclear families, and by extension also lone-parent households. Such data are collected in most countries, however differently they may be interpreted (households – dwelling, vs. housekeeping concept), and our detailed classification also contains comparable data.

Two-parent family households once made up the majority of social collectivities, and the loss of one of the two persons at the head of the household was usually quickly replaced with a new marriage. Detailed data from the 1930 census and the less sub-categorised data from the 1950 census confirm that the absolute majority of households were two-parent families (for every 100 married women in 1930 there were just 114 households with two or more members and in 1950 there were 125). The long-term rise in the divorce rate without a subsequent marriage, usually a woman-divorcee with a child (children), or with a marriage only occurring much later, led to an increase in the proportion of lone-parent family households: along with the ageing of the population and migration to the cities, this phenomenon contributed to the acceleration of the number and percentage of households of individuals. Thus while the number of two-parent family households continued to rise until 1980, their proportion in the population began to decrease gradually already in 1961 – from three-quarters of the population at that time to 55% in 2001. On the other hand, the proportion of lone-parent family

*) The article was first published in *Demografie*, 2005, 47, p. 13–20. The contents of the journal are published on the Web site of the Czech Statistical Office at: http://www.czso.cz/csu/redakce.nsf/i/demografie

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households with children increased during the same period from just under 4% to 8%, or, in absolute figures, from 115 000 to 343 000 in 2001. The changes in demographic behaviour among young people in the final decade of the 20th century ushered in a dramatic decline in the number and percentage of two-parent family households. The scope and the causes of these changes in the number and structure of all households have been described elsewhere, in an article by *Dagmara Bartoňová* (*Demografie*, 2005, 47, p. 1–12), so here I will concentrate just on family households and particularly on those households in which there are dependent children. The data for two-parent family households do, however, include cases of acknowledged consensual unions (common-law marriage).

The Effects of the Decline in the Intensity of the Marriage Rate after 1990

Although the percentage of married women, broken down by age group, decreased even before 1990, a substantial decline occurred during the 1991–2000 period in the under-40 age group. The timing of marriage, specifically, the shift in the age of highest marriage rate intensity among single women from age 21 (1991) to age 25–26 (more recently), combined with the considerable decline in marriage rate intensity among divorced and widowed women, are the reason that in 2001 just under 60% of women aged 25–29 were married, that is, 25 percentage points below the figure in 1980, and for the 35–39 age group the figure was almost 10 percentage points lower. It is only in the over-60 age group that, as a result of the effect of the decline in the intensity of the mortality rate among older men and consequently the smaller number of widows, there are relatively more two-parent family households than before.

Tabel 1 Intensity of forming two-parent family households: by age of women

Age group	Married women per 100 women with realised marital status				Couple household with a woman as the head per 100 married women			
	1970	1980	1991	2001	1970	1980	1991	2001
15–19	8.5	8.3	7.2	0.8	88.8	76.8	76.6	131.2
20–24	65.1	67.4	61.6	21.4	91.7	88.5	87.8	96.4
25–29	83.4	85.3	81.7	59.9	96.8	96.0	96.1	92.4
30–34	89.0	87.0	83.9	74.6	99.6	98.8	99.7	96.1
35–39	88.3	85.8	82.5	76.5	100.4	99.7	100.6	98.1
40–44	85.9	84.7	80.8	76.1	100.5	100.4	100.7	99.2
45–49	82.0	82.1	79.0	74.9	100.6	100.5	100.4	99.6
50–54	77.6	77.4	76.8	73.7	100.6	100.3	100.5	99.6
55–59	70.2	69.2	70.5	70.1	100.6	100.1	100.5	99.7
60–64	59.3	59.5	60.2	63.7	100.9	100.2	100.4	100.3
65–69	45.3	47.3	46.3	52.6	104.3	100.3	100.5	100.5
70+	22.2	22.7	19.9	24.7	101.1	99.3	99.0	100.7

At the same time, there were fewer married women aged 25 and over at the head of two-parent family households. The largest disproportion roughly up to the age of 25 was caused mostly by the existence of consensual unions. The "missing" married women at the head of two-parent families were either found as spouses living separately, owing to not having a shared household, or were found in cases of broken households prior to divorce or without a divorce. The fact that there were more of these cases than there were consensual unions was the second but weaker cause of the decrease in two-parent family households.

Although the intensity of the divorce rate in recent years has grown almost uninterruptedly, it was only reflected in the number of lone-parent family households – along with the less frequent case of a second marriage – in age groups over 30. Younger women, mostly still single, formed lone-parent family households with dependent children less often than ever

before. The explanation is simple: among the low number of originally married women with children there were relatively fewer lone-parent family households with children headed by a divorced woman, and the high number of extra-marital children born to single women stemmed from the considerable increase in the number of young single women, while the intensity of their fertility increased very little.

The decline in the intensity of the marriage rate thus resulted in a smaller proportion of married women, who at the same time were less often at the head of a two-parent family household, and divorced and widowed women less often re-married. Owing to the effect of these three factors, even with fewer women becoming widows, in 1991–2001 the number of married women decreased by 120 000 (the proportion of those over the age of 15 fell from 60% to just under 55%) and the number of two-parent families decreased from 2 513 000 to 2 334 000, thus by 180 000 (7%).

The Structure of Family Households by the Number of Dependent Children

Changes in the number of two-parent family households were accompanied by – and this is a more significant finding – a change in the structure of the two-parent family household. Two-parent family households without dependent children increased in one decade by 126 000 (11%) to 1 243 000, while two-parent family households with dependent children decreased by 305 000 (22%) to 1 091 000. This is the continuation of a trend that began around the year 1980. The proportion of two-parent family households without dependent children increased from 28% to just 29% of the total census households, while the proportion of two-parent family households with dependent children decreased from 38% to 26%. If we add to this lone-parent households with dependent children, then in 1961 reproductively "active" women still made up 47% of the total census households (1 520 000), in 1980 the figure was 43% (1 679 000), and in 2001 it was just 34% (1 434 000). In a way, data on the composition of family households by the number of dependent children reveal the population situation better than data on fertility modified by changes in marital status. They also reflect how the structure of two-parent family households and lone-parent family households by dependent children is affected by the decline in the intensity of the marriage rate and fertility – whether marital or extra-marital. Nevertheless, every piece of more recent data is improved by the increasing age of child dependency resulting from the greater intensity of study at secondary school and university and studies and exchanges abroad.

A comparison of structural indicators in the past censuses (in 1970, before the demographic boom that followed a period of reproductive depression; in 1980, after the boom had peaked; in 2001, following a period of more pronounced changes in demographic behaviour) shows that:

– the smallest changes occurred in two-parent family households headed by a woman aged 20 and under (the percentage with children clearly modified by the effect of forced marriage owing to pregnancy or by unmarried cohabitation);
– the percentage of childless women in the 20–29 age group grew substantially; among women aged 20–24 the percentage of women with two children decreased to almost one-half the level observed in 1991, and similarly among women aged 25–29 the percentage of women with one child increased, accompanied by a decline in the percentage of those with two and especially three children;
– in the 30–34 age group there was an increase in the percentage of women with one child, which was connected with the decrease in the percentage of women with three children; the percentage of women with two children remained stable;
– the changes observed in the age group over 35 are again small, because these are usually two-parent family households that emerged before 1990, with children that were also born at that time or with just some children born at the start of the last decade.

Table 2 Composition of two-parent family households: by number of dependent children (% in given age group of women)

Age group	Census year	Number of dependent children					Average number of children		Women in %
		0	1	2	3	4+	All women	Women with children	
15–19	1970	50.3	45.8	3.5	0.3	0.1	0.54	1.09	8
	1980	42.4	52.2	5.2	0.2	0.0	0.63	1.10	6
	1991	48.7	48.0	3.1	0.2	0.0	0.55	1.07	6
	2001	51.2	43.9	4.6	0.3	0.0	0.54	1.11	1
20–24	1970	24.0	55.0	18.8	1.9	0.3	1.00	1.31	60
	1980	17.1	47.2	32.1	3.2	0.4	1.23	1.48	60
	1991	21.1	51.8	25.0	1.9	0.2	1.08	1.37	54
	2001	37.4	47.7	13.7	1.0	0.2	0.79	1.26	21
25–29	1970	8.5	38.0	43.8	8.0	1.7	1.57	1.71	81
	1980	6.4	25.0	55.8	11.2	1.6	1.77	1.89	82
	1991	7.4	29.6	53.9	8.0	1.1	1.66	1.79	79
	2001	15.8	39.4	40.2	3.8	0.8	1.35	1.60	55
30–34	1970	4.7	23.3	51.5	15.8	4.7	1.93	2.02	89
	1980	3.7	16.0	59.3	17.6	3.4	2.02	2.10	86
	1991	3.8	15.5	62.1	15.8	2.8	1.99	2.07	84
	2001	5.1	23.8	59.3	9.8	2.0	1.80	1.90	72
35–39	1970	7.3	25.8	46.4	15.5	5.0	1.86	2.01	89
	1980	5.6	23.0	52.6	15.4	3.4	1.90	2.01	86
	1991	5.9	22.1	55.1	14.4	2.5	1.86	1.98	83
	2001	4.8	20.9	59.0	12.7	2.6	1.88	1.97	75
40–44	1970	23.6	37.7	28.6	7.5	2.6	1.29	1.69	86
	1980	23.7	39.8	29.0	6.0	1.5	1.22	1.60	85
	1991	25.6	40.7	28.1	4.9	0.7	1.15	1.54	81
	2001	24.7	36.4	32.3	5.5	1.1	1.22	1.62	75
45–49	1970	50.6	33.6	12.4	2.5	0.9	0.70	1.41	82
	1980	57.5	31.2	9.5	1.4	0.4	0.56	1.32	83
	1991	58.3	31.5	9.0	1.0	0.2	0.53	1.28	79
	2001	58.6	29.2	10.6	1.3	0.3	0.55	1.34	78

Note: Proportion of women in %: percentage of women at the head of two-parent households in the given age group (potencial no. of children of a two-parent family household)

These changes in the structure of the two-parent family households are correspondingly reflected in the average number of children, which is calculated in two ways (including or without childless women). The period of reproductive depression in the 1960s, when the average numbers of children in relation to each two-parent household was low, was followed by a demographic boom, during which all age groups up to the age of 40 saw an increase in both average values (this was a period of a real increase in fertility among those women who were affected by the positive changes in the living conditions of families with children at the peak reproductive age). In 1991 the average numbers of children were again lower, but usually still above the level they had been at in 1970. The data from the census in 2001 show a sharp decline in fertility in the under-30 age group, caused by the postponement of marriage, and in the 30–34 age group, caused, in my opinion, predominantly by the rejection of having children (or another child). In two-parent family households headed by older women over the age of 35, the data indicate an earlier higher marital fertility rate during the period of the demographic boom, together with an extension of the period of child dependency.

Similar changes in structure can be observed in lone-parent family households with dependent children; here, of course, for logical reasons, there is no "childless" item. The cited data include even the small, 11–13 % proportion of lone-parent households headed by men (2001).

In the 25–34 age group there is a distinct increase in the proportion of one-child households alongside a decline in two-child households and especially households with three or more children. This is reflected in the fact that single women heading lone-parent family households usually have just one child, and women-divorcees are leaving the marriage category with fewer children and entering the category of divorcees also with fewer children.

Table 3 Intensity of forming lone-parent family households: by age of women

Age group	Women with children as the head of lone-parent households per 100 single women			
	1970	1980	1991	2001
15–19	0.9	1.0	1.0	1.0
20–24	15.1	19.3	18.9	8.4
25–29	44.2	49.1	49.9	35.4
30–34	54.3	61.3	62.1	68.6
35–39	56.8	63.6	65.2	73.8
40–44	45.5	49.7	50.9	55.5
45–49	29.2	28.2	29.6	31.8

Note: The increase in the proportion of unmarried women, especially in 1991–2001, is evident from the data in Table 1.

A comparison of the average number of children in two-parent and lone-parent family households shows that the decline in fertility after 1990 was reflected in both indicators. With a lower fertility rate among women in the total population, the difference between the number of children in these two family categories decreases, as the limited fertility of single women and the premature termination of reproduction among divorced women (who make up the major part of lone-parent family households headed by a person over 30 years of age) do not play the kind of role they do in times when there is high fertility, when married women have tended to have three or even more children. Among the people heading lone-parent households with dependent children, in 2001 only 12% of those aged 20–24 were divorced, 54% of those aged 30–34 were divorced, and 63% of those aged 40–44 were divorced.

Since the census in 1961 the difference between two-parent and lone-parent family households with one and two children has increased, mainly as a result of the effect of the rising divorce rate. After 1990 a contributing factor was that the considerably larger number of single women than before also resulted in many more lone-parent families, mostly with just one child. In 1970 roughly one-eighth of one-child family households were lone-parent households, in 1980 around one-fifth, a decade later around one-quarter, and at the time of the census in 2001 almost one-third. Among two-child households, lone-parent households rose from an initial proportion of one-twentieth to one-fifteenth, one-tenth, and subsequently to one-sixth or one-seventh. The increase in the difference in 2001 was caused by the fact that divorced women were re-marrying less often than before. It is not possible to determine from the census data and how they were processed the extent to which marriage is postponed in a consensual union after the birth of a child and how much of an effect this has on the cited data.

A detailed calculation showed that while the number of lone-parent families of single women with dependent children gradually increased, the intensity of their formation between l991 and 2001 only changed more for the age group over 30. The main part of the increase in the number of children born outside a marriage and thus also the number of lone-parent families with children stemmed from the fact that owing to the effect of postponing or rejecting marriage there was a considerable increase in the numbers of single women. The "replacement" of reproductively active married women with reproductively active single women is occurring more at a later age, over the age of 30, but the rate of replacement is considerably insufficient (see the average numbers of dependent children).

It is sometimes thought that from the perspective of reproduction it essentially does not matter whether a young single woman marries or whether she lives in a consensual union; both groups of women can subsequently have the same fertility rate, or the number of children in families of both types of cohabitation will be the same. More detailed information can be obtained from the data on the numbers of common-law marriages. In 2001, just under 10% of single men aged 30–34 lived in a consensual union; among women this figure was exceeded only given a wider age span of 25–34 years, and in the age group over 25 it was always more

Table 4 Composition of lone-parent family households: by number of dependent children, % in given age group

Age group	Census year	Number of dependent children			Average number of children	Number of lone-parent households with children, in thous.
		1	2	3+		
15–19	1970	96.0	3.0	0.2	1.03	3.4
	1980	96.1	3.6	0.3	1.04	3.2
	1991	94.6	4.8	0.6	1.06	4.5
	2001	92.8	6.6	0.6	1.08	2.5
20–24	1970	88.4	10.6	1.0	1.13	23.5
	1980	82.4	16.1	1.5	1.19	22.3
	1991	86.1	12.8	1.1	1.15	25.6
	2001	86.2	12.2	1.6	1.15	27.8
25–29	1970	72.5	23.3	4.2	1.38	24.5
	1980	61.6	32.7	5.7	1.45	31.9
	1991	65.3	30.3	4.4	1.39	33.0
	2001	71.1	25.4	3.5	1.33	62.5
30–34	1970	55.2	33.4	11.4	1.58	18.3
	1980	48.6	41.1	10.3	1.64	36.9
	1991	45.8	43.5	10.7	1.65	36.6
	2001	52.6	39.3	8.1	1.56	63.4
35–39	1970	51.5	35.1	13.4	1.64	21.9
	1980	49.7	39.5	10.8	1.64	34.6
	1991	45.5	43.7	10.8	1.66	50.9
	2001	45.4	44.4	10.2	1.66	66.2
40–44	1970	62.4	29.1	8.5	1.48	24.0
	1980	65.0	28.7	6.3	1.43	24.1
	1991	65.7	29.2	5.1	1.40	48.9
	2001	61.9	32.5	5.6	1.45	53.6
45–49	1970	75.2	20.0	4.8	1.30	21.8
	1980	77.0	19.3	3.7	1.28	17.8
	1991	79.5	18.1	2.4	1.23	26.0
	2001	76.9	20.4	2.7	1.26	40.1

Note: Incl. male as the head of lone-parent households.

Table 5 Relationship between the number of two-parent and lone-parent family households with one child and two children

Age group	Lone-parent households with one child per 100 couples with one child				Lone-parent households with two children per 100 couples with two children			
	1970	1980	1991	2001	1970	1980	1991	2001
15–19	23.8	27.6	38.0	155.1	9.7	10.5	29.7	105.8
20–24	14.7	19.1	23.5	59.6	5.1	5.5	7.3	29.4
25–29	16.0	23.5	27.5	48.5	4.5	5.6	7.0	16.9
30–34	17.4	30.7	38.5	58.4	4.8	7.0	9.2	17.5
35–39	16.7	25.2	31.6	57.0	6.3	8.8	12.2	19.7
40–44	13.9	16.8	23.1	36.3	8.5	10.2	14.9	21.4
45–49	16.5	18.3	24.0	35.9	11.9	15.1	19.2	26.2

Note: Couple households by age of woman, lone-parent households by age of woman or man.

often a case of a single woman in a consensual union with dependent children than a case without children. According to the 2001 census, consensual unions only very slightly offset the decrease in marriages among young people.

From a demographic perspective, i.e. as part of the evaluation of the reproduction rate of

Table 6 Lone-parent family households of unmarried women with dependent children

Age group	1970		1980		1991		2001	
	Thous.	%	Thous.	%	Thous.	%	Thous.	%
	Single women							
15–19	371.0	91.4	307.2	91.6	393.9	92.7	330.2	99.2
20–24	139.5	32.4	101.6	29.7	117.3	35.1	315.9	77.1
25–29	32.9	9.3	36.3	8.9	36.7	10.9	134.2	32.0
30–34	13.6	4.8	21.3	5.0	19.1	5.7	36.0	10.8
35–39	11.1	3.7	13.4	3.9	16.5	4.1	20.4	6.1
40–44	13.1	4.0	9.1	3.3	14.7	3.5	14.7	4.4
45–49	16.4	4.6	8.8	3.0	11.0	3.2	14.1	3.6
	Lone-parent households of single women with dependent children							
15–19	1.4	0.4	3.8	0.9	1.5	0.4	2.0	0.9
20–24	3.8	2.8			4.4	3.8	13.4	4.2
25–29	2.5	7.5	3.0	8.3	4.1	11.1	14.6	10.9
30–34	1.4	10.4	2.7	12.5	3.3	17.1	7.5	20.7
35–39	1.3	11.6	1.8	13.2	3.0	18.2	4.9	23.8
40–44	1.2	9.4	1.4	8.9	2.3	15.7	3.0	20.3
45–49	1.0	6.4			1.0	9.5	1.9	13.5

Note: Percentage in the upper part of the table show the percentage of women out of total women, in the lower part of the table the percentage of single women forming a lone-parent family household with dependent children. Data for 1980 was processed for the age groups up to 25 and 40–49.

Table 7 Intensity of consensual unions of unmarried persons in 1991 and 2001 per 1000 unmarried persons of respective age group and sex

Age group	Single men		Single women					
	1991	2001	1991			2001		
			Total	Without children	With children	Total	Without children	With children
15–19	1.1	1.0	4.8	3.3	1.5	5.0	3.1	1.9
20–24	14.8	24.7	21.7	12.7	9.0	52.0	34.4	17.6
25–29	43.8	67.4	71.9	29.9	42.0	107.0	56.4	50.6
30–34	68.7	95.0	81.8	27.5	54.3	132.3	47.0	85.3

Table 8 Average numbers of dependent children in two-parent family households and in consensual unions of unmarried women in 2001

Age group	Percentage without children		Average numbers per women total (averages for total women)			Average numbers per women with children		
	Two-parent family households	Consensual unions	Two-parent family households	Consensual unions	Difference	Two-parent family households	Consensual unions	Difference
15–19	51	61	0.54	0.45	–0.09	1.11	1.16	0.05
20–24	37	66	0.79	0.45	–0.34	1.26	1.34	0.08
25–29	16	53	1.35	0.78	–0.57	1.60	1.66	0.06
30–34	5	36	1.80	1.16	–0.64	1.90	1.81	–0.09

groups of women with different living arrangements, the rise in the intensity of the formation of consensual unions and the increase in the number of extra-marital children (within or outside a consensual union) is thus manifested as an insufficient replacement to offset the decline in the number and percentage of married women living in two-parent family households at a higher fertility rate.

Single women in unmarried cohabitation are childless more often than they would be if

Table 9 "Replacement" of two-parent family households with consensual unions and lone-parent family households with dependent children of unmarried women

Age group	Married women per 100 women		Single women in CU and LPHDCH per 100 single women					
			1991			2001		
	1991	2001	Consensual unions	Lone-parent households with dependent children	Total	Consensual unions	Lone-parent households with dependent children	Total
15–19	7.2	0.8	0.5	0.4	0.9	0.5	0.9	1.4
20–24	61.6	21.4	3.8	3.8	7.6	5.2	4.2	9.4
25–29	81.7	59.9	7.2	11.1	18.3	10.7	10.9	21.6
30–34	83.9	74.6	8.2	17.1	25.3	13.2	20.7	33.9

Note: CU – consensual unions; LPFHDCH – lone-parent family household with dependent children.

Table 10 Structure of single women in consensual unions: by number of dependent children, in %

Age group	Consensual unions of single women, in thous.	Number of dependent children				Consensual unions of single women per two-parent family households total, in %
		0	1	2	3+	
15–19	1.7	61.3	33.1	5.3	0.3	48.6
20–24	16.4	66.2	24.7	7.3	1.8	19.5
25–29	14.4	52.7	27.1	13.2	7.0	6.2
30–34	4.8	35.5	32.4	20.3	11.8	2.0

married, and the substantial difference in the fertility of both groups of women cannot be explained by the unverifiable assumption that some young single women live in a consensual union as "a trial", so to speak, for a later marriage, and that after the birth of a child or even before they marry and become part of a different group of women in the observed population. This more often happens over the age of 30, when only 35% of this age group is made up of single women living in a consensual union (for women up to the age of 25 it is 94%, and in the 25–29 age group it is still 71%).

It can be assumed that the real numbers of unmarried young single women in a consensual union are higher than the partners indicated in their census forms. But any possible definition of a "trial marriage" is problematic. One verifiable fact is the finding derived from demographic statistical data that the proportion of first-order marital births from pre-nuptial conception (exactly within eight months of the marriage) decreased from an average of 55% in the long period up to 1994 to an average of just under 41% for the years 2000–2002. The decline in this indicator's values does not suggest that a consensual union before the birth of a child ends more often in marriage.

Information on the composition of family households – two-parent and lone-parent – is a manifestation of the characteristics of the fertility rate by age and marital status in the period immediately before a census, but also for the previous fifteen to twenty years. These data also make it possible to evaluate in greater detail the rate of extra-marital fertility, especially fertility among women living in a consensual union as a "substitute" for legitimate marriage. That is why it would be useful in future censuses to expand the categories in this direction.

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TRENDS IN MARRIAGE IN THE CZECH REPUBLIC IN THE 20th CENTURY*)

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Abstract: In the 20th century the significance of marriage for the reproductive behaviour of the population changed. However, the example of the Czech Republic is particularly interesting in that over the course of the century the marriage rate first increased significantly, accompanied by a simultaneous decline in the mean age at first marriage (at the start of the 1940s), and later the marriage rate fell again (in the 1990s), so that by the end of the 20th century young people were marrying at a later age and lower rate than they were a century earlier.

Keywords: nuptiality

The significance of family and marriage for individuals and society has meant that nuptiality has always been the object of attention in demographic research, but for a long time it was considered as more or less a reflection of the contemporary economic situation in society: the more favourable economic developments were, the more often young people acquired the necessary means to set up their own households, and the higher then the number of marriages that occurred as a result. Conversely, in periods of economic recession, as it was more difficult to accumulate the necessary resources, the number of marriages was lower[1)]. Yet it was never a matter of concern whether the formation of a marriage meant that a new household would be founded or whether the new married couple would continue to share the household of the parents of one of the spouses. This development was essentially modified only once the age structure of the marital eligibility of the population changed[2)]. This had not changed much even when the family economy gradually began to lose its position of key importance, and an increasingly larger proportion of the population supported itself by means of wage labour – in order to provide for one's household economy this meant simply looking for sources of livelihood elsewhere. This approach was based on a general awareness of the fact that it was usually the family, an orientational family or one's own family, that made it possible for people to maintain a dignified existence and position in society, and that it was marriage that represented the legal foundation of a newly established family and thus of its acceptance by society.

The marriage rate at any given time is the result of the effect of a variety of factors, one of which is the overall economic situation in a given country and in individual social strata of the

*) This article was prepared as part of work on the research project MSM 0021620831 *Geographic Systems and Risk Processes in the Context of Global Changes and European Integration*. The article was first published in *Demografie*, 2006, 48, p. 97–108. The content of the journal are published on the Web site of the Czech Statistical Office at: http://www.czso.cz/csu/redakce.nsf/i/demografie.

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1) T. R. Malthus first drew on this phenomenon at the end of the 18th century to formulate his opinions on the possibilities for limiting excessive population growth. Although his essay was a direct reaction to the Poor Law in England (Hinde, 2003: 111 ad.), it accurately captured the essence of the relationship between marriage and economic development.

2) The exception confirming the rule was the period of so-called demographic crises, when fluctuations in the marriage rate resulted from a high level adult mortality, even though essentially the mechanism was the same.

population in particular. Other factors include general attitudes among the population but in particular among unmarried individuals toward marriage, the population climate, and finally the preceding marriage rate and the divorce rate. The first of the factors cited here has an effect on the degree to which people have the opportunity and want to marry and at what age, and also how large the group of people that are eligible for marriage at a certain age is. The result is the annual numbers of marriages and the structure of spouses. However, it is evident from the character of the factors cited here that it is not possible to exactly determine their weight.

In analyses of population development in the Czech Lands, nuptiality has been somewhat sidelined, although it has been an integral part of every more comprehensive study of population development (e.g. *Boháč*, 1936; *Srb – Kučera*, 1959; *Srb*, 1975; *Kučera*, 1994). In the second half of the 20th century there emerged both a number of studies monitoring the main nuptiality trends in the country (*Růžička – Kučera*, 1967; *Konečná*, 1977a; *Konečná,* 1977b; *Lesný*, 1983; *Rychtaříková*, 1986; *Vereš*, 1991) and work focusing on methods of studying nuptiality (*Zbořilová*, 1977; *Pavlík – Rychtaříková – Šubrtová*, 1984). A gradual improvement in the quality of data also made it possible from the 1970s to retrospectively construct nuptiality tables (*Tabulky*, 1989; *Pikálek*, 1998).

The second half of the 20th century, or particularly the very end of the century, was marked by a fundamental turnaround in the approach to marriage, a shift that was caused by the effects of the external, economic environment, but also by the effects of the cultural environment on the family and the institution of marriage. Sociologists identified these changes relatively early on and drew on them to explain the changes that were occurring in family composition (*Alan*, 1989). A radical shift in the timing and intensity of entering into marriage during the 1990s was reflected in a boom in the number of articles on this topic and especially work relating to the growth in the number of informal partnership unions and the percentage of extramarital births. From the numerous studies that emerged during this time, it is perhaps enough to mention just some of the most significant among them: the annual report on population development published by the Czech Statistical Office and published in *Demografie*, written by *Vladimír Srb*, *Milan Aleš, Milan Kučera, Miroslav Šimek* and now by *Terezie Kretschmerová*, *Kryštof Zeman*, along with the analyses that were published between 1994 and 2002 edited by *Zdeněk Pavlík*, the most recent of which contains a synthetic summary of developments in the 1990–2002 period (*Pavlík*, 2002). Leaving aside the growing amount of work produced by the sociological community, which in itself could form the subject of a separate paper given the explosion in the number of articles published on the subject of the family, often conceived within the framework of "gender studies", and also the lengthy discussion on the topic of the second demographic transition that has been published on the pages of *Demografie*. Among larger publications I will mention only the work by *Rabušic* (2001) and a publications on contemporary Czech women by *Dana Hamplová, Jitka Rychtaříková* and *Simona Pikálková* (2003), which has a broader demographic subtext. The issue of nuptiality is today so much a part of analyses of other demographic processes that it would be necessary to cite a major part of all the demographic work produced over approximately the past decade.

While explanations of the occasional fluctuations in the marriage rate long made do with either a brief reference to economic trends or to changes in the age composition of the population at the peak age of nuptiality, today explaining changes in nuptiality behaviour among the population largely falls within the sphere of sociological studies, as it reflects not just the effect of the economic situation but also changes in the value system of a predominant part of the population and changes in attitudes toward the institution of marriage.

Therefore, it is interesting to document this development using just simple demographic data. Czech statistics offer relatively enough relevant data, but not enough to cover the entire

20th century. While data from the standard records of natural population growth provide information on the number of marriages throughout the period observed, the information they offer on the composition of spouses varies and changes over time. For example, only since 1961 has it been possible to calculate tables of first-marriage rates based on the number of marriages by age of the spouses (*Tabulky*..., 1989)[3]. Therefore, it is also necessary to draw on structural data contained in the population censuses that cover the entire 20th century. Given the significance of first marriages, most attention is focused on marriages between singles, even though the significance of repeat marriages of widowed or divorced individuals should not be overlooked or underestimated.

Table 1 Selected characteristics of first marriages among the population of the Czech Republic in the 20th century according to the population census

Sex	1900	1910	1921	1930	1950	1961	1970	1980	1991	2001
Singulate mean age at marriage										
Men	27.7	27.8	28.6	27.6	26.1	25.1	24.4	24.8	25.1	28.3
Women	25.2	24.9	26.2	25.9	21.8	20.9	21.1	21.4	21.8	25.8
Percentage never married aged 15–19 years										
Men	100.0	100.0	99.9	100.0	99.2	99.2	98.8	98.7	98.4	99.8
Women	97.9	97.8	97.9	97.2	91.0	91.5	91.4	91.5	92.6	99.1
Percentage never married aged 20–29 years										
Men	46.1	47.2	54.6	45.8	34.1	24.9	20.9	23.3	27.6	53.2
Women	36.3	31.8	41.1	32.9	17.3	9.1	9.3	8.9	10.9	31.5
Percentage never married aged 45–49 years										
Men	6.6	7.2	7.1	6.3	6.0	5.9	5.9	5.8	6.3	8.8
Women	9.7	10.3	10.1	10.9	9.3	6.0	4.6	3.0	3.2	3.6

Using census data the effect of nuptiality trends on the structure of the population by age and marital status can be monitored relatively well, and they reveal both the intensity of marriage and the timing of marriage. It is enough to compare the percentages of people who never married at a given age, for example, in the 15–19 age group, from which it is possible to glean the intensity of nuptiality at a low age, in the 25–29 age group, as this age interval indicates the intensity of marriage at an age of high physiological fertility. Traditionally, the percentage of people who never married at the age of around 50 (e.g. 45–49 years) has been regarded until recently as an indicator of the percentage of men or women who remain definitively outside reproduction. It is also possible to use the census data to calculate the average age at first marriage (assuming that migration is not taken into consideration).

The census data, combined with some selected indicators of population growth, clearly show that the 20th century can be divided into three periods. The dividing lines between these three periods (or transitional periods) can be approximately set as the end of the 1930s and the start of the 1940s and then the start of the 1990s. These two dividing lines are also connected with major historical events of significance for all of society, which fundamentally affected not just the political but also the social and economic situation of the Czech Republic and its population. Therefore, they can also be usefully applied as dividing lines in the analysis of nuptiality trends, even though the first and second periods can be viewed as more or less open intervals – the start of the 20th century was a logical continuation of the development that preceded it, its conclusion then clearly augurs the situation in the immediate future.

[3] We can leave aside other characteristics that can be used to describe marrying partners – their nationality, religion, social position, or educational background, all of which are difficult to compare the long term even though they could be useful for a deeper analysis of marriage behaviour.

Table 2 Marrying partners by marital status in the Czech Republic in selected years

Periods	Type of marriage per 100 marriages								
	Single groom			Widowed groom			Divorced groom		
	Single bride	Widowed bride	Divorced bride	Single bride	Widowed bride	Divorced bride	Single bride	Widowed bride	Divorced bride
1901–1910	83.8	2.7	0.0	9.5	3.9	0.0	0.1	0.0	0.0
1931–1937	85.4	1.5	1.6	5.4	1.5	0.6	3.0	0.4	0.6
1961–1970	79.8	0.6	4.6	0.7	0.8	1.0	6.0	0.9	5.6
1991–2000	67.2	0.3	8.3	0.2	0.3	0.8	8.7	1.0	13.2

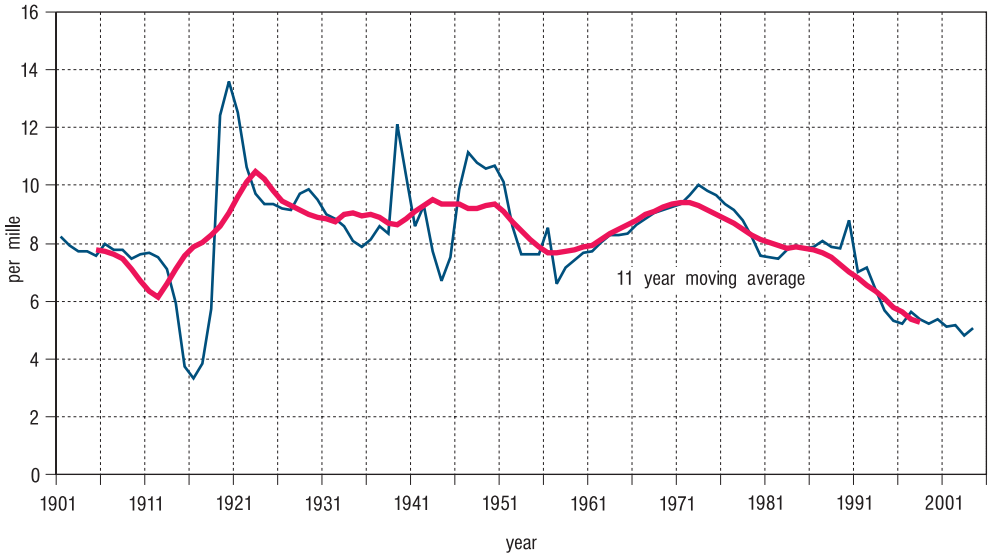
Source: Population and vital statistics, author's calculations

Table 3 Marrying partners by gender and marital status in the Czech Republic in selected periods

Periods	Men			Women		
	Single	Widowed	Divorced	Single	Widowed	Divorced
1901–1910	86.5	13.4	0.1	93.4	6.6	0.0
1931–1937	88.5	7.5	4.0	93.8	3.4	2.8
1961–1970	85.0	2.5	12.5	86.5	2.3	11.2
1991–2000	75.8	1.3	22.9	76.1	1.6	22.3

Source: Population and vital statistics, author's calculations

Figure 1 Crude marriage rate in the Czech Republic in the 20th century



The period of waning "European-pattern" nuptiality ("the postponement of marriage")

If we monitor the number of marriages in the first four decades of the 20th century, we find that, despite fluctuations resulting from significant external stimuli, the marriage rate remained relatively stable over time and the crude marriage rate varied between 8 and 10‰. With the exception of the First World War (when the crude marriage rate fell below 4‰) and the subsequent compensatory wave (when the crude marriage rate went up to 14‰), the values were similar throughout the century to those that prevailed throughout most of the 19th century.

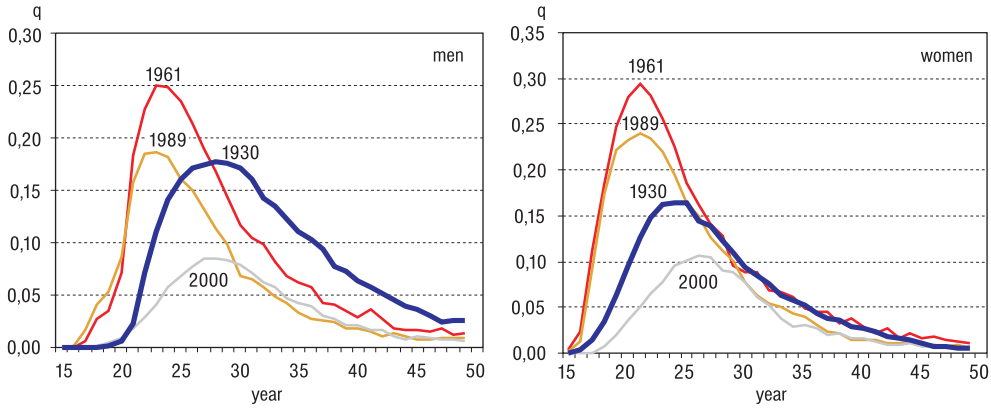
During the first decades of the 20th century there was no substantial change in nuptiality. If we leave aside the abnormal circumstances of the First World War, nuptiality indicators in the 20th century remained at the level of the late 19th century, information on which is provided by data from the censuses of 1900 and 1910. Men most often married for the first time after the age of 25 and women around the age of 25; 10% of women and 6% of men remained never married. These formed the major part of all marriages, as usually around 85% of grooms were single and 93% of brides were single (with the exception of the war years and the post-war compensatory wave). The remainder were marriages of widowed persons, while only a marginal proportion of divorced people re-married at that time.

That men married for the first time at around the age of 30 and women around the age of 25 was not considered in any way an old marriage age, and it corresponded to contemporary practice, while younger grooms and brides were not favoured. In 1936 *Antonín Boháč* stated that weddings were premature if they occurred before the groom was 25 or the bride 21 (*Boháč*, 1936). In 1937 only one-fifth of men's and one-eighth of women's marriages could have been described as premature in this sense. We should add that in 1918 the minimum age of marital consent was lowered from 24 to 21, but this had no notable effect on the age at which people tended to marry, probably owing to the continuing obligation of military duty among men, which came to an end around the age of 22–24 years, or in cases somewhat later.

In the 18th and most of the 19th century a similar marriage age was typical for the populations of many European countries, and *John Hajnal*, who was the first to draw attention to this fact (*Hajnal*, 1953), referred to this type of marriage-age pattern as the European marriage pattern (*Hajnal*, 1965). Later the significance of marriage age for differentiating marital fertility in Europe in general was demonstrated (*Coale – Watkins*, 1986), and it was found that the Czech Lands also followed this marriage pattern (*Fialová*, 1981; *Pavlík – Fialová – Vereš*, 1990), regardless of the country's ethnic heterogeneity (*Boháč*, 1936). The "postponement of marriage" could be regarded as a means of controlling marital fertility, and after the transition to family planning at the end of the demographic revolution it gradually lost its function.

The decline in the percentage of marriages of widowed persons was mainly a reflection of improving mortality rates, as within the period of 1910–1930 alone the life expectancy of men at the age of 20 increased from 40.8 years to 45.4 years and women from 42.9 years to 48.0 years (*Dějiny*..., 1996: 396); the number of widowed persons of middle age thus decreased and therefore so did the number of those who after the death of their partner tried to marry again. Repeat marriages of divorced individuals had almost no effect on the marital rate, even though the percentage of such cases slightly increased during the years of the First

Figure 2 First-marriage probabilities in the Czech Republic in the years 1930, 1961, 1989 and 2000 men, women



Czechoslovak Republic as a result of the gradually rising divorce rate (in 1920–1924 the crude divorce rate was just 0.46‰, in 1935–1937 it was 0.65‰).

The period of the "golden age" of the family (under state socialism)

The situation began to change toward the end of the 1930s. On the one hand, the relationship between the marriage rate and marital fertility completely weakened, as the majority of the population accepted the idea of family planning, and thus the number of children born in a family began to depend on the conscious decisions of parents and was not then too influenced by the spouses' age at the time of marriage, especially the age of women. Also, the economic and political situations changed, as the economic crisis of the early 1930s was followed by an economic revival. However, a long and complicated effect was produced by political crises, which culminated in September 1938 with the annexation of the border area of Czechoslovakia by Germany and with the Nazi occupation and the establishment of the Protectorate of Bohemia and Moravia in March 1939.

The only reliable data on population development in 1939–1944 are for the Czech population under the Protectorate, but they point to a turnaround in nuptiality during these years. The marriage rate among young people increased during the occupation and jumped especially at the start of 1940 (*Kučera*, 1994: 46). In 1937 the average age at first marriage among the total population (without distinguishing ethnicity) was 27.5 years for men and 24.9 years for women. In 1938, among the Czech population under the Protectorate, this indicator was 28.1 years for men and 25.0 years for women; however, by 1944 it had fallen to 26.4 years for men and 22.5 years for women. Although a certain deviational effect on the age structure may be expected from the large cohorts born in the compensational waves in the early 1920s, thus increasing the high marriage rate during these years, the data nonetheless indicate a change in nuptial behaviour.

There were several reasons for this change, though it is not possible to exactly distinguish the scope of the effect of each one. Therefore, the order in which they are presented here has nothing to do with their order of importance. The first reason was the compensation for low nuptiality in the first half of the 1930s, which resulted from the effects of the economic crisis, and certainly also from the effect of the increased level of employment at the end of the 1930s and the full employment from the start of the Protectorate, as the population was forced to supply Germany with military and other products. Other factors were the dissolution of the Czechoslovak army, the abolition of compulsory military service, and the closure of Czech universities in 1939, all of which mainly affected the lives of young men, but given that grooms tended to select younger brides, it may also have had an effect on the marriage age of women. Also, the Protectorate conscripted labour to work in Germany – one way of avoiding being sent to work outside the Czech Lands was by marriage. At the end of the 1930s and in the early 1940s pro-nuptial attitudes clearly prevailed: in 1939 the crude marriage rate was the second highest recorded in the 20th century, but as the occupation continued it again decreased.

The trend that began at the start of the war years continued however even after the end of the war. During the socialist period the state exhibited a dualistic stance toward families. On the one hand, it tried to weaken the family, when by nationalising private property everyone gradually became an employee of the state and the family ceased to be an important economic production unit. On the other hand, it provided initially just declaratory but later even material support for marriage, which was based on a value system that survived from the preceding period, when the institution of marriage enjoyed enormous credibility and most people endeavoured ultimately to become part of a marriage (*Hamplová*, 2001). After the 1948 communist coup, the wage equalisation applied across the state contributed to increasing the homogenisation of society, a trend later confirmed by sociologists (*Machonin*, 2005: 127). In

society most people continued to wish to marry at least once in their life, and this attitude was supported by the continuously high social prestige accorded to married men and women (especially in comparison with singles). The equalisation of the living standard seemed to make it easier to achieve this ideal. This situation was not unique: the high prestige ascribed to marriage and the elimination of social barriers between classes at the end of the Second World War occurred all over the European continent – sociologists refer to this period as the "golden age" of the family and marriage (e.g. *Sullerot*, 1991). Marriages at a relatively young age were facilitated by numerous other circumstances, such as full employment, the slow increase in the percentage of young people at universities, the lowering of the age of marital consent to 18, and the shortening of the period of compulsory military service to two years, so that most men had completed service by the age of 21. In the 1970s a contributing factor was also that people closed themselves off within their families, as the regime made other forms of social intercourse impossible (*Možný*, 1991).

Nevertheless, the short-term fluctuations in nuptiality in Czechoslovakia during the first decade after the end of the Second World War indicate the continuation of a close connection between nuptiality and the social development and economic situation of the population. First the marriage rate significantly increased again, so that in 1948–1952 it surpassed the level of 10‰ (the third time this occurred in the 20th century). This was followed by a period during which the rate ranged between 7 and 9 ‰ and only grew to a level above 9 ‰ in 1969; in 1973 the crude marriage rate for the fourth and final time exceeded 10‰ (10.03). Since then it tended to decline, and in the 1980s it hovered around 7.5–8‰. The increases in nuptiality corresponded to periods of a more favourable population climate, especially at the start of the 1970s, when the high numbers of marriages reflected both changes in the age structure, as people born in the post-war population boom were reaching peak marriage age, and pro-natal measures introduced in support of marriage among young people under 30 years of age, which included a housing policy aimed at mass construction of pre-fabricated panel tenement buildings (cf., e.g., *Kučera*, 1994). Decreases were connected with the deterioration in the economic situation (the 1950s and 1960s) and from the mid-1970s it was possible to observe a continuous, slight decline in nuptiality in general.

During this period were men and women typically married at a young age (men most often around age 25 or even younger, women most often around age 20–22) – and only a very small percentage of women remained unmarried (fewer than 3%). But for the 1970s, data indicate that this trend had turned around and that the percentage of people marrying was no longer growing, which is shown in the increasing numbers in the marriage-rate tables for single men and women by age (Table 5).

A decline in nuptiality among widowed people (Tables 2 and 3) could also be observed, occurring amidst conditions of stagnating mortality among middle-aged men and just slightly improving mortality among women (in 1950–1990 life expectancy at 30 among men decreased by 0.2 years and among women increased by 3.5 years). Conversely, the percentage of divorcees among marriage brides and grooms increased relatively quickly, but they still tended to marry single people. This was a reflection of the rapid rise in the divorce rate, affecting the marriages of people who were still relatively young. In 1984–1989 the highest rate of divorce occurred between the third and fifth year of marriage (the total divorce rate had by then reached almost 40%; *Pavlík*, 2002: 33). However, owing to the continuing prestige (and rewards) associated with marriage, divorcees tended to re-marry relatively soon after divorce, and in doing so they contributed not only to the higher marriage rate but also to the high percentage of people living in a marriage.

The nuptiality model typical for the Czech Lands up to the end of the 1980s was one in which almost 97% of women and 94% of men marry at least once in their lives amidst a relatively high level of repeat nuptiality, so that usually around 80% of the middle-aged pop-

Table 4 Total first marriage rates by gender and the index of marital fertility (i_m) in the Czech Republic in the 20th century (for selected years)

Year	Men	Women	i_m
1900	.	.	0.519
1910	.	.	0.529
1921	1.49	1.23	0.462
1930	0.94	0.93	0.536
1937	0.84	0.99	0.575[1]
1950	1.20	1.21	0.680
1960	1.05	1.05	0.727
1970	0.92	0.93	0.704
1980	0.84	0.88	0.733
1989	0.88	0.91	0.674[2]
2000	0.53	0.46	0.503[3]

Note: [1)] 1936, [2)] 1991, [3)] 2001

ulation (aged approximately 24–45, but with small differences between men and women) is married. This was similar to the situation in other countries in Eastern Europe, with the difference that the model in the other countries was traditional and no major changes occurred in the character of the nuptiality model after the Second World War: a young marriage age and a low percentage of people who never married was characteristic in this region especially earlier in history (that is why it tends to be referred to in historical-demographic literature as the "non-European" marriage pattern, *Hajnal*, 1965). In this regard it was interesting to observe how the situations in the Czech Lands and in Slovakia converged and owing to developments in the Czech Republic became very similar (*Fialová*, 1991). In the majority of countries in Western and Northern Europe an increase in nuptiality also occurred after the Second World War, but the change in nuptiality circumstances was not as substantial and long-term, and since the 1960s it has been possible to observe the emergence of different trends signalling a decline in the marriage rate along with an increasing average marriage age (*Sullerot*, 1992).

Although at first glance this model looks stable (by the 1980s it was affecting de facto the second generation), it was essentially very fragile – the highest number of first marriages in the Czech Republic occurred during the first few years of a young person's adult life. Young people most often married immediately after completing their secondary education in circumstances where only around one-tenth of the young generation attended a post-secondary school. Full employment meant a guaranteed regular income, there was an established system of social welfare, and housing allocation made it possible for people to eventually obtain their own housing. Other important factors conducive to a higher marriage rate should not be ignored – poor contraception, which given the high prestige enjoyed by the institution of marriage and the relaxation of intimate relations among young people resulted in an increased number of unplanned pregnancies, the preference for childbirth over abortion, and efforts to ensure a child was born within a marriage, all these increased the number of marriages (in the 1950s, 40% of first-order children were born within the first nine months of marriage, in the 1960s roughly one-half did, and in the 1970s it was sometimes as high as 60% (*Kučera*, 1994: 105). During this period there was a significant relationship between nuptiality and fertility.

The period of the postponement and rejection of marriage

The change in the political system in 1989 was not reflected immediately in the marriage rate; on the contrary, in 1990 the number of marriages even increased somewhat (in this case it was a kind of pragmatic reaction to a statement issued by the banks that they would only be providing newlywed loans to the end of 1990). However, in 1991 the number of marriages began and continued to fall. Instead of the usual 70 000 marriages annually, from 1995 the number began to average around 55 000 annually (the low point thus far was reached in 2003, when just under 49 000 marriages took place, and the crude marriage rate thus fell to 4.8‰). The decline was largely caused by the decrease in the intensity of nuptiality among younger people: among young men at the age of 25 it fell to one-third of its previous level (e.g. at the age of 23, which in 1989 was the age of peak nuptiality, when 187 men out of 1000 single men married, in 2002 only 40 men out of 1000 single men married; the age of peak nuptiality increased to 28 and 29 years of age, when 78 men out of 1000 married). Similarly, the highest

intensity of nuptiality among women shifted from age 20 (240 brides out of 1000 single women in 1989) to age 25–27 (97 brides out of 1000 single women in 2002). Among both men and women marriage under the age of 20 became extremely rare (among men such marriages accounted for just 1% of all marriages in 2002 and among women only 6% out of almost 53 000 marriages) and marriages among people over the age of 30 began to account for an increasingly significant proportion of all marriages – in 2002 more than one-third of single grooms and more than one-fifth of single brides were over 30 (*Kretschmerová*, 2004: 157). The average age at first marriage increased in 2002 to 28.8 years and among women to 26.4 years. According to the nuptiality table for 2000, more than one-third of all men and almost one-third of women at the age of 35 would remain unmarried.

However, in the 1990s, which can be described as a transitional phase leading to later marriage, the change in the intensity of the timing of first marriage is revealed less well by transversal data (transversal indicators are still somewhat affected by the preceding long-term high rate of marriage at a young age) and is demonstrated better by the values derived from a longitudinal study of individual cohorts. From the cohort born in 1954, 66% of men and 87% of women married at least once by the age of 25, while in the cohort born in 1974 only 34% of men and 58% of women did.

The percentage of protogamous marriages significantly decreased, accounting for less than two-thirds of all marriages by the end of the 20th century (Table 2). The decline in nuptiality was also affected by the decline in the intensity of nuptiality among divorcees and to a certain extent also widowed people. Among the latter the phenomenon can partly be explained by the increase in life expectancy among middle-aged people. Among divorcees, whose numbers continued to increase as the rate of divorce remained high in the population (in 2001 out of 100 people over the age of 15.10% were divorced men and 11% were divorced women), much of the same reasons as those observed among singles lie behind the reduced appeal of repeat marriages. Except for those divorcees who reject the idea of remarrying after the collapse of their first marriage, the reasons probably include the rapidly spreading changes in the overall value orientations that occurred, as Czech society opened up to contemporary European society and relevant associated phenomena, such as changes in the economic situation (the re-establishment of a market economy, the re-emergence of unemployment, the re-evaluation of the responsibility of individuals for their own economic situation).

Another key factor contributing to the low marriage rate was clearly the fact that marriage

Figure 3 Women and men ever married by age and generation, Czech Republic

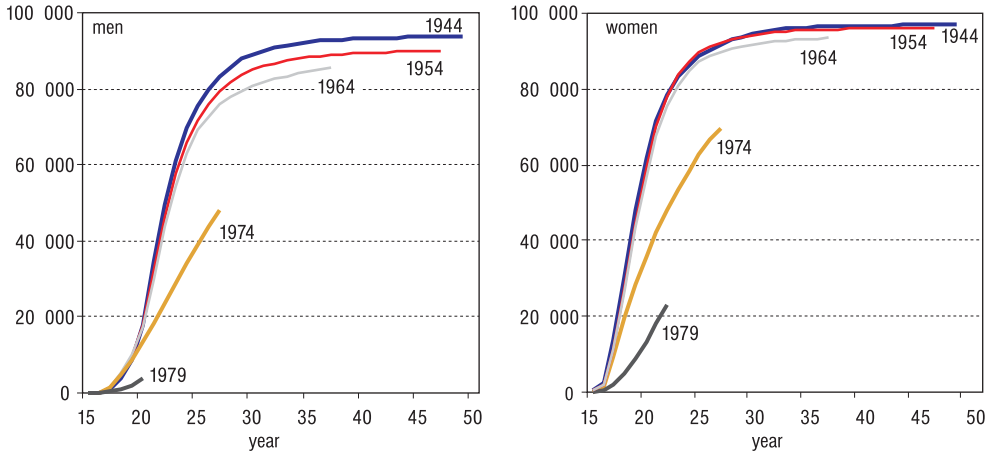


Table 5 Proportion never married at the relevant age (I_x) according to net nuptiality tables for Czech Republic

Year	I_{25}		I_{30}		I_{35}		I_{50}	
	Men	Women	Men	Women	Men	Women	Men	Women
1930	68 856	41 793	26 790	20 080	12 135	13 614	4 995	9 719
1961	30 792	11 218	10 705	5 184	6 531	3 512	4 170	2 346
1970	31 150	13 380	13 300	6 404	8 842	4 691	5 830	3 491
1980	38 765	14 172	19 343	6 168	13 887	4 108	10 259	3 103
1990	31 114	13 125	14 915	6 544	11 151	4 824	8 910	3 804
2000	79 259	62 288	51 759	38 181	38 813	30 725	30 430	25 503

Source: Tables, 1989; Pavlík, 2002; year 1930 – author's calculations

is above all a legal act, in which the rights and responsibilities of the spouses are precisely defined, and among the part of the population embracing liberalism in its broadest form it was perceived as an act signifying the loss of freedom or identity. Among the younger generation, essentially only practising Christians regard marriage as a step that leads obviously to starting family, while other young people hold this view only if their partnership is doing well, and for others it no longer has any appeal (*Představy*..., 2000: 69). And it may be that there is a growing percentage of people in the population who have consciously given up the idea of establishing any kind of partnership.

The decline was also partly brought about by the tolerance of Czech society toward informal unions. According to survey findings, up to 70% of single people regard premarital cohabitation as an acceptable start to partnership life (*Představy*..., 2000: 68). What must also be taken into consideration are the better quality and more widespread use of contraceptives, which reduced the risk of unwanted pregnancy, especially among young people.

Since the start of the 1990s there has also been general evidence of the postponement of marriage to a later age and among part of the population even the outright rejection of the idea of marriage.

Conclusion

Nuptiality trends among the population inhabiting the territory of the Czech Republic in the 20th century can be regarded above all as a reflection of the significance of marriage for starting a family (and setting up a household). It must after all be remembered that marriage is a legal act and so it also depends on how important it is from the perspective of society that a partnership have a legal basis. As long as the position of individual members of a family in their own family was connected to their position in society, as long as it was directly connected, for example, to their access to higher society, to obtaining appropriate employment in the labour market, to being eligible for their inheritance, etc., marriage was an appealing prospect for everyone. And if reproduction was also viewed as something that is part of marriage, then the marriage rate had a direct influence on the fertility rate and it could be – and was – a significant factor co-determining the rate of reproduction in the population. This link gradually slackened, as the notion of consciously limiting the fertility rate, primarily in marriage, began to spread, beginning in the middle of the 19th century. That stage ended in the first half of the 20th century. It should be remembered that the marriage rate was also a reflection of the opportunities that were open to the population at a given time; almost every tenth woman and every fifteenth man did not want to or did not succeed in marrying, and this occurred for various different reasons. The annual number of marriages in this period certainly varied (as the crude marriage rate indicates), but the marriage rate did not change over the long term.

The following period, which could be described as the "golden age" of the family, but modified by the specific circumstances of society under the Protectorate and under state socialism, is a period in which the marriage and fertility rates were interdependent, but at a

somewhat different level. Marriage continued to be an important step connected with starting a family (probably mainly owing to a cultural tradition formed by Christianity), but because the view of premarital intimate relations became more relaxed, the high marriage rate was not just a reflection of the continued significance that the population assigned to marriage for starting a family, but also reflected the significance people assigned to the need for children to be born within a marriage, even though the legal code gradually accorded illegitimate children the same legal status. This occurred amidst an overall increase in the homogenisation of society, when there were no pronounced differences between people based on social background, and marriage was based on romantic love (in one-half of the cases owing to pregnancy). The marriage rate was thus again connected with the character of reproduction.

However, in the 1990s the situation changed dramatically. The characteristic feature of this period was that the demographic model that was established in the 1950s began to wane within just several years (even though it would continue to be reflected in the population structure for a long time), and demographic behaviour shows an evident trend toward "returning" to the previous (pre-war) situation. In this development there is a clear, gradual turn toward the contemporary method of reproduction in advanced European countries, which it resembled most in the pre-war period, and which now also includes new aspects of reproductive behaviour (the postponement of marriage to a later age, the increasing divorce rate, the postponement of childbearing to a later age and more frequent extramarital fertility, a low abortion rate, increased life expectancy).

This fully corresponds with the close connection between demographic behaviour and the external environment. The contemporary European population climate, and within it the Czech population climate, is to a large degree a reflection of the circumstances formed by the economic situation and by the wider developments in society under the increasingly significant effects of liberalism and individualism. This also indicates that for a part of the population marriage is a legal act that is of little interest or even represents an unacceptable option (even though the part of the population that still subscribes to Christian values does not question the significance of marriage).

If at the start of the 20th century nuptiality was regarded as a fact that can have a long-term effect on the fertility rate (and that is why demographers even devoted any attention to it), by the end it had become a significant indicator of changes in reproductive behaviour and all its concomitant phenomena – including the interest it began to receive in research.

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THE INTERGENERATIONAL TRANSMISSION OF DIVORCE BEHAVIOUR – THE EXAMPLE OF THE CZECH REPUBLIC AND AN INTERNATIONAL COMPARISON*)

ANNA ŠŤASTNÁ**)

Abstract: An increasing share of children in the Czech Republic live part of their childhood in lone-parent or reconstructed families, and the incidence of so-called social orphanhood is higher than that of factual orphanhood caused by death of one of the parents. Therefore, the author concentrates on the issue of the intergenerational transmission of divorce behaviour. Her analysis is based on data from the Fertility and Family Survey conducted in the Czech Republic in 1997, which she compares with the results of similar surveys in Great Britain and the United States.

Keywords: Czech Republic, divorce, union dissolution, intergenerational transmission, childhood, international comparison

Demographic behaviour evolves out of everyday human behaviour on the level of socially motivated individual decision-making. According to cohort theory and the theory of the family cycle and the life cycle, changes in behavioural patterns in one stage of the life cycle of a certain population (or generation) are reflected in the structure of its behaviour over the course of its entire history. Demographic processes are grounded in the structure of individual life course, the course of which is significantly influenced by such vital events as marriage, the birth of a child, divorce, and death. These processes are simultaneously determined by historical, thus generational, factors. Generational behavioural patterns as a manifestation of historical changes in social processes also include shifts in the timing of individual phases in the life course of people.

When demographers study divorce their attention focuses generally on analysing the process from the perspective of the former spouses. They also monitor the divorce rate and the timing of divorce in combination with other differentiating factors, such as the age of the spouses at the time of marriage, the order of the spouses' marriage, socio-economic status, the duration of the marriage, and the number of children. However, in this case children are regarded as a characteristic and not as the object of research in the sense of representing an independent sub-population.

In recent years in Western countries the number of children who experience at least a part of their childhood in a lone-parent family as a result of the divorce of their parents has been continually rising. In the United States the interest in studying this group of children has been evident for several decades. In Europe, similar studies have been emerging since the 1990s.

*) This article is based on the author's dissertation which she defended in the Department of Demography and Geodemography at the Faculty of Sciences of Charles University in Prague in 2004. The author would like to thank the supervisor of this dissertation, RNDr. Ludmila Fialová, CSc., for her valuable advice and comments. This article was published in *Demografie,* 2005, 47, p. 21–31. The contents of the journal are published on the Web site of the Czech Statistical Office at: http: //www.czso.cz/csu/redakce.nsf/i/demografie

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Since the 1950s the Czech Republic has ranked among the countries with a high divorce rate, and so-called social orphanhood is today much more common than factual orphanhood resulting from the death of one of the parents. An ever-increasing number of children spend part of their childhood in a lone-parent or reconstructed family. Therefore, this is by no means a marginal phenomenon, and it should be taken into account in the study of reproductive behaviour.

According to the *Levinger* model of the marital instability of children, the likelihood of divorce increases when various factors reduce the rewards derived from marriage, weaken the barriers to dissolving a marriage, and increase the number of alternatives to marriage (*Amato*, 1996: 628). Using Levinger's theory, *Paul R. Amato* (1996) assumes that parental divorce has three types of effects on children: a) it effects the variables in the life course and socio-economic variables (it lowers the age at marriage, increases the occurrence of cohabitation prior to marriage, results in a low socio-economic status); b) it effects attitudes towards divorce (parental divorce liberalises children's attitudes towards divorce and weakens the main psychological barrier to dissolving a marriage); and c) it causes problems in interpersonal behaviour (parental divorce increases the likelihood that offspring exhibit the kind of interpersonal behaviour that interferes with the quality of marital relationships and thus reduces the rewards associated with marriage).

The Social Inheritance of Divorce Behaviour

Therefore, let us focus on the effect of the family experiences connected with parental divorce that children acquire while growing up on their family behaviour as adults. The basic question is how and whether at all parental divorce affects the life course of a child and the timing of some demographic events when they are adults. The starting point for this study is the concept of the transition to adulthood, based on the broader theory of the life course. The effect of parental divorce in the context of the Czech population was studied using data from the **Fertility and Family Survey**[1)] carried out in 1997 (*Rychtaříková – Kraus*, 2001). The data was processed using the method of event history analysis (*Courgeau – Lelièvre*, 1989; *Lelièvre*, 1992; *Lelièvre – Bringé*, 1998), specifically, life tables and Cox regression. The method of research was selected to enable, using life tables, a comparison of the duration of important life stages and the timing of important life events for two groups of women, for whom the differentiating characteristic was the divorce of their parents. Using the proportional hazard model the effect of variables on the risk of experiencing the given event is studied – in this case the focus is on the even of the dissolution of the first partnership and the divorce of the first marriage.

Out of a total of 1735 women, 308 (i.e. 17.8%) indicated that their parents had divorced[2)]. In the majority of cases the divorces occurred when the respondent was relatively young (Table 1) – at the age of ten more than one-half of these women (as children) had divorced parents, at the age of 20 the figure was almost 90%.

The divorce rate and thus the cumulative percentage of children experiencing divorce was higher in each subsequent generation. While among women born in 1952–1957 (the 40–44 age group) 10.2% of them experienced parental divorce by the time they were fifteen, among the generation of women born in 1968–1972 (the 25–29 age group) the figure was 14.1% of women, and among the youngest generation born in 1978–1982 (the 15–19 age group) the figure was more than 19% of women, that is, almost double that of the oldest generation studied.

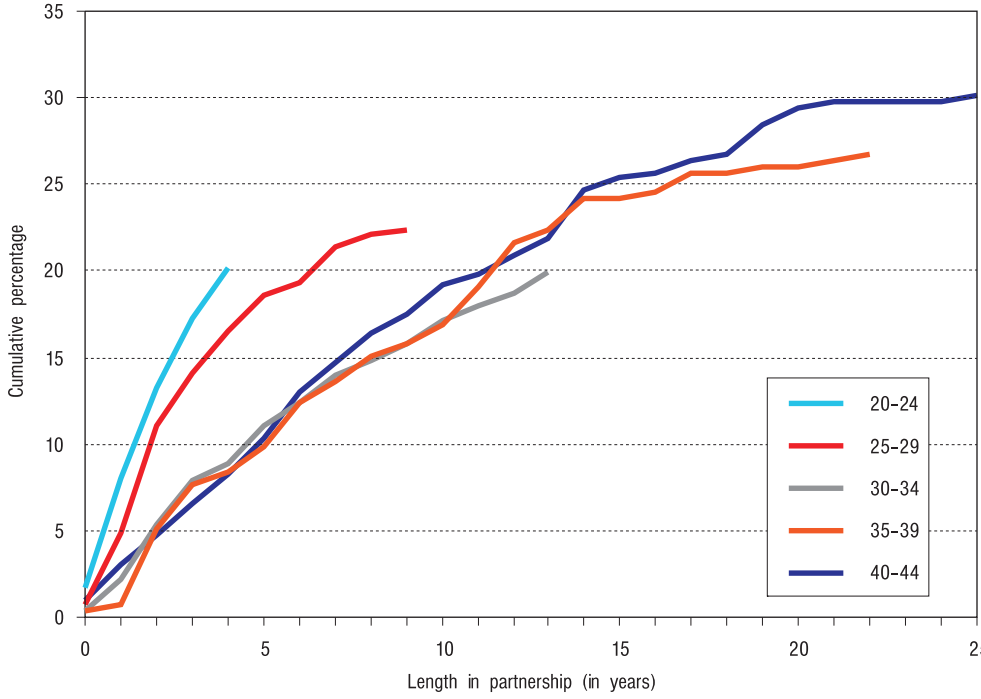
[1)] The sample analysed in this study contained 1735 women aged 15–44 (the generation born in the years between 1952 and 1982), of which 1279 had been married (1255 women married the first partner they shared a household with). The sample includes marriages that took place between 1969 and 1997 and dissolved between 1974 and 1997.
[2)] Out of the total number of women two did not know whether their parents had divorced or not.

The high divorce rate in post-war Czechoslovakia and the Czech Republic is reflected in a high dissolution rate of the first partnership of the women in the sample. Figure 1 shows the first partnership dissolutions overall, which includes both the dissolution of a first marriage and the declared dissolution of the first partnership in which a woman lived in cohabitation. There was a much higher tendency for the first partnerships of women in the youngest age group (aged 20–29 at the time of the survey) to break up than among women in the three older age groups, which are considerably homogenous with regard to the duration of the first partnership (Figure 1). A similar difference can be observed between the youngest and the oldest generations if we calculate the cumulative percentage of divorces for first marriages not preceded by cohabitation.

Table 1 Parental divorce: by age of the child, woman, CR, FFS 1997

Age	Number	%	Cumulated %
0–4	66	21.43	22.68
5–9	72	23.38	47.42
10–14	59	19.16	67.70
15–19	63	20.45	89.35
20+	31	10.06	100.00
Unknown	17	5.52	x
Total	308	100.00	x

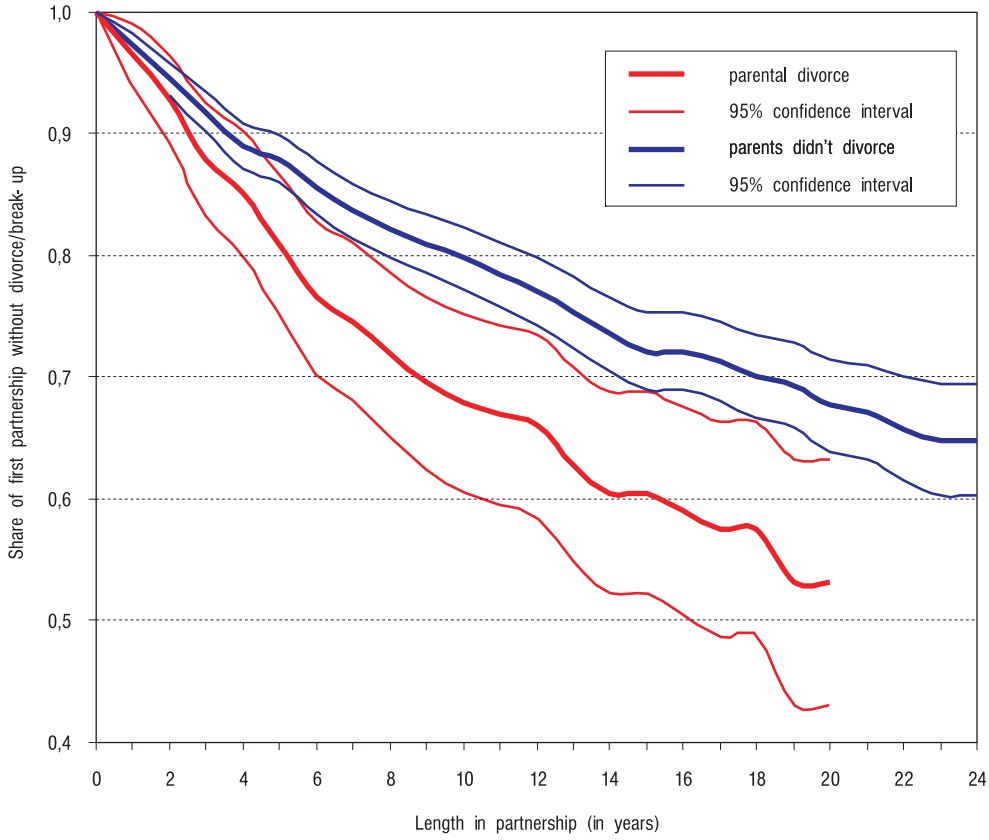
Figure 1 Cumulative percentages of first partnerships that broke up: by length of partnership (completed years) and by age at the time of the survey, women, CR, FFS 1997



The effect of parental divorce on the dissolution of the first partnership of offspring

In the following analysis the dissolution of a first partnership signifies those cases that ended in a dissolution or divorce or forced separation. The initial event is the woman's first partnership; the studied event is its dissolution. The time variable is the duration of the first partnership calculated in months, the stratification variable is the divorce of the parents if it occurred before the woman reached twenty years of age. The reference category is the group of women whose parents did not divorce or who divorced after the woman was twenty years old. The survival

Figure 2 Effect of parental divorce on the break-up of first partnership: women total, CR, FFS 1997



function along with the 95% confidence interval calculated using life tables for the entire sample of women illustrates the probability that the first partnership will not break up. If the survival function expresses the probability that the studied event will not occur before the date *t*, thus, the proportion of respondents who have not yet experienced the studied event at time *t* (at the end of interval *t*), from the figure it is clear that there is a higher risk that the first partnerships of daughters of divorced parents will break up, higher for the duration of their partnership, than there is among daughters who grew up in two-parent families (Figure 2).

The effect of parental divorce on the dissolution of the woman's first partnership, depicted as the difference between the curves, is in this case significant, and the results of the Cox regression (Table 2) show that parental divorce has a strong effect on the risk of the dissolution of the women's partnership – in the total sample the risk of the dissolution of the first partnership is 60.9% higher among women from divorced families than for women from families in which the parents remained married until the women reached adulthood (the result is significant at, $p \leq 0.001$).

When other explanatory variables[3)] are added to the regression model the effect of parental

[3)] Other explanatory variables included were the size of the place of residence till the age of 15, generations corresponding to two age groups with different timing of the event, the age at the start of the first partnership and whether marriage was preceded by unmarried cohabitation or whether the partners began sharing a household after marriage, and whether the first partner remained as unmarried cohabitation throughout its duration, and whether the woman married her first partner.

divorce is no longer significant. Here then parental divorce did not have a direct effect on the risk that the women's first partnership would dissolve, but rather an indirect effect mediated by the woman's age at the time of the first partnership and by the form of partnership. The analysis showed that parental divorce influences the age at which children leave home and at which they begin living with a partner, the effect being to reduce the age of these two events. It is the age at the time of the start of the first partnership that partly mediates the effect of parental divorce on the dissolution of this partnership. The younger age at the time of the start of the first partnership (14–18 years old) increases the risk that it will dissolve later on by 40% in comparison with women aged 19–22 at the start of partnership cohabitation. On the other hand, when a woman begins to live with her first partner at a later age (specifically, when aged 23–26), the risk of the dissolution of this partnership decreased as a result by 52.4% (Table 2).

The form of partnership – cohabitation throughout the duration of the partnership or marriage to the first partner – has the strongest effect on the probability of the partnership dissolution. When the woman lives with her first partner in cohabitation the risk of partnership dissolution is seven times higher than it is for marriage (direct marriage or marriage after cohabitation prior to marriage). This can also be regarded as one of the factors mediating the effect of parental divorce on the partnership stability of the children. In the research sample the percentage of women who lived with their first partner in cohabitation and never married them was significantly higher among women from lone-parent families.

Table 2 First partnership dissolution: women total, CR, FFS 1997 (Cox regression)

Indicator	MODEL A		MODEL B	
	Exp(B)	sign.	Exp(B)	sign.
Divorce of parents by child's 20th birthday				
Yes	1.609	***	1.088	
No	1		1	
Cohabitation				
Started living together in cohabitation			1.295	
Started living together after marriage			1	
Marriage with first partner				
Yes			1	
No			7.016	***
Generation				
1968–1952			1.489	**
1952–1967			1	
Age at the start of partnership				
14–18			1.393	**
19–22			1	
23–26			0.476	**
27+			0.721	
Municipality size group to child's 15th birthday				
up to 2000			0.389	***
2000–9999			0.461	**
10 000–99 999			0.660	*
100 000–999 999			0.441	**
over 1 000 000			1	

Note.: ***p ≤ 0.001 **p ≤ 0.01 *p ≤ 0.05.

The effect of parental divorce on the divorce of the first marriage of offspring

In addition to the dissolution of first partnerships in general, the probability of first marriages ending in divorce was also studied. A first marriage was defined as a first partnership, which either began as a marriage (the woman began sharing the same household with her partner after they were married) or began as cohabitation and was followed after some time by marriage.

In the total sample of women the risk of divorce of the first marriage was 52.2% higher among women from divorced families than among women from two-parent families (this finding was significant at $p \leq 0.01$; Table 3).

Table 3 Divorce of first marriage: women total, CR, FFS 1997 (Cox regression)

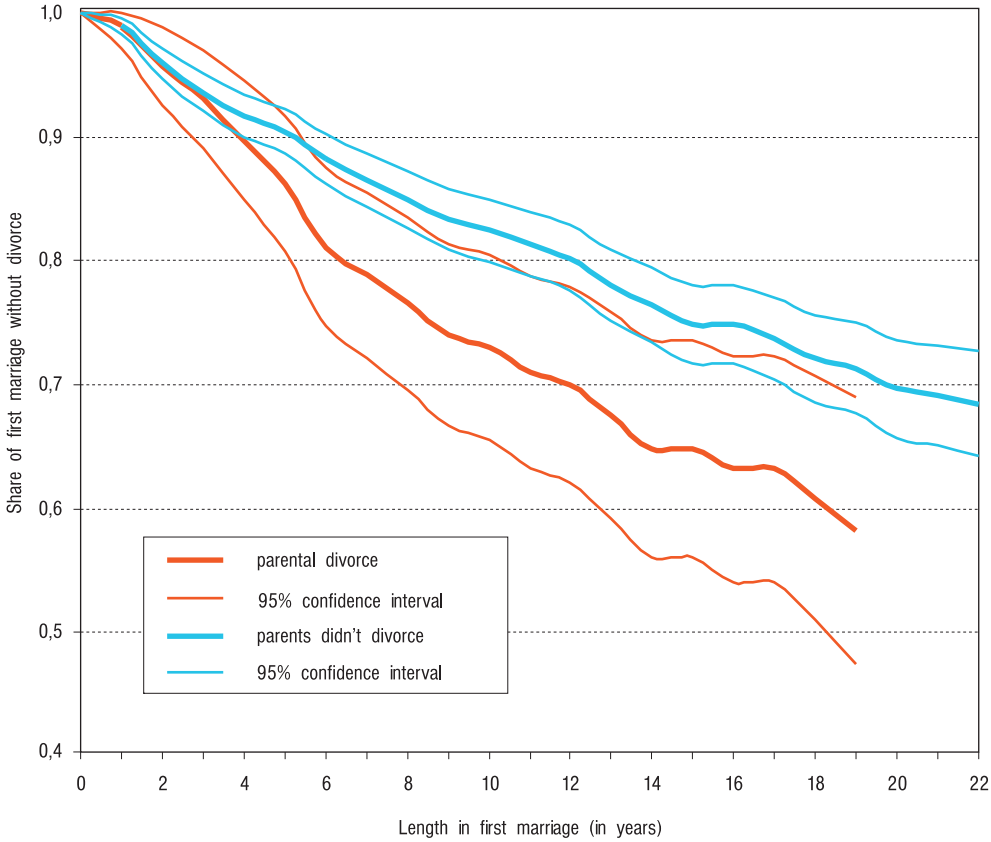
Indicator	MODEL A		MODEL B	
	Exp(B)	sign.	Exp(B)	sign.
Divorce of parents by child's 20th birthday				
Yes	1.522	**	1.272	
No	1		1	
Cohabitation				
Started living together in cohabitation			1.574	***
Started living together after marriage			1	
Generation				
1968–1982			1.716	***
1952–1967			1	
Age at marriage				
15–18			1.428	**
19–22			1	
23–26			0.630	*
27+			1.161	
Municipality size group to child's 15th birthday				
up to 2000			0.290	***
2000–9999			0.400	***
10 000–99 999			0.564	**
100 000–999 999			0.514	*
over 1 000 000			1	

Note: ***$p \leq 0.001$ **$p \leq 0.01$ *$p \leq 0.05$.

However, after controlling for additional variables (Model B in Table 3) the effect of parental divorce ceased to be significant. Like the analysis of the dissolution of the first partnership, in the sample of women parental divorce did not have a direct effect on the risk of the children's marital dissolution, but indirectly, through age at the time of marriage and through cohabitation prior to marriage. A very young marriage age (15–18 years) increases the risk of the first marriage ending in divorce by 42.8% in comparison with the age of 19–22 years. Conversely, if the marriage takes place at a later age (specifically at the age of 23–26 years), the risk of marital divorce decreases by 37% (Table 3).

Cohabitation prior to marriage increases the risk of eventual divorce by 57.4% compared to direct marriages (or to the case where the partners first began living in the same household after they were married). The daughters of divorced parents significantly more often lived with their partner in cohabitation than women who grew up in two-parent families. Also, in the case of first partnerships, a significantly higher percentage of women from divorced households began living with their first partner in cohabitation and a lower percentage of these women's first partnerships were direct marriages. In this case the effect of parental divorce on

Figure 3 Effects of parental divorce on divorce of first marriage: women total, CR, FFS 1997



the divorce of the daughters' marriages is mediated by the chosen type of private life arrangement.

According to researchers that study the issue of the effect of parental divorce on the children's life course, cohabitation is more often found as a type of partnership among children from divorced families (e.g. *Bumpass – Sweet – Cherlin*, 1989; *Bumpass et al.*, 1991; *Thornton*, 1991). However, it is not clear even in the cited studies why children from divorced families prefer this form of partnership.

Even the data from the **Czech Fertility and Family Survey** (FFS) are no help in answering the question of why cohabitation as a form of partnership is more often chosen by children from lone-parent families, as there was no special part in this quantitative research in which respondents could offer interpretations of their own behaviour as they see it, interpretations influenced by the time elapsed since the event and the significance the individual ascribes to it. These approaches are typical for qualitative research, which were not available to complement the given quantitative data. Another limiting factor in this regard was the fact that we are working with data from retrospective not longitudinal survey. Responses to questions on attitudes often do not reveal the motives that were relevant at the given point in the past, because the declared view at the time of the research has already been influenced by events experi-

Table 4 Cohabitation with first partner: in relation to parental divorce, women, CR, FFS 1997

Indicator	"Were you married to your first partner when you started living together?"		
	Yes	No	Total
Divorce of parents	107	99	206
%	51.9**	48.1***	100
Parents didn't divorce	807	355	1162
%	69.5	30.5	100
Total	914	454	1368

Note: ***p ≤ 0.001 **p ≤ 0.01.

enced since then. Each decision taken can be retrospectively rationalised, and the person can also draw on different explanatory motivations than those they experienced as the main motivations for their decisions at the time in the past.

However, using the FFS data we can trace whether there is a difference between the proportion of women from divorced families who cohabited with their first partner and the proportion of women who came from two-parent families (Table 4). The findings calculated from a sample of women who had at some time lived in a partnership indicate that in the case where the woman's parents had divorced before she reached the age of 20, the women tended to start sharing a household with their first partner in an arrangement of unmarried cohabitation, and conversely significantly fewer of them were married to their partner when they began living with them.

This confirms the indirect conclusions of some studies outside the Czech Republic showing that women from all divorced families are three times as likely (this calculation applies for the research in Great Britain, not for the Czech Republic) to live in unmarried cohabitation before their twentieth birthday than women from two-parent families or from families that broke up as a result of the death of one parent (*Kiernan*, 1992).

An International Comparison

The findings for the Czech society correspond to findings in studies carried out in Great Britain and the United States. They also demonstrate repeatedly the effect of the family arrangement a person lives in during childhood on their future life course, demographic behaviour, and family arrangement. The life strategies of children are influenced by the divorce situation, and with the emergence of a more complex network of relationships this has an effect on modifying relationships in the family system. In selected studies conducted outside the Czech Republic it was demonstrated that the intergenerational transmission or social inheritance of divorce behaviour exists (*Amato*, 1996; *Amato – Booth*, 1997; *Booth – Edwards*, 1989; *Du Feng et al.*, 1999; *Cherlin et al.*, 1995; *Kiernan – Cherlin*, 1999; *Kiernan*, 1992; *Kiernan – Hobcraft*, 1997).

In Great Britain the transmission of divorce behaviour was demonstrated among members of a cohort studied as part of **The National Child Development Study**[4]. The probability that the first relationship remains intact was higher in each age group up to the age of 33 (the last study was conducted on this age) for those who grew up in a two-parent family – around three-quarters of their relationships lasted. The second highest probability of an intact relationship was detected among those whose parents had divorced after the cohort member had reached the age of 20 – two-thirds of these relationships lasted. The lowest probability was observed among respondents whose parents had divorced while the respondents were children (i.e. before they reached the age of 20) – in this group the probability of the union

[4] The National Child Development Study (NCDS) monitored children born in Great Britain during the first week of March in 1958. Interviews were conducted with 17 414 mothers which represented 98% of all children born in that week. Follow-up interviews were conducted then with parents and teachers at the time when the children from the studied cohort were at the ages of 7.11 and 16 let. At the ages of 16.23 and 33 the birth cohort members themselves were interviewed. At the age of 33 the interview also included questions on information relating to the respondents' lives to that time and about any dissolutions of marriage or cohabitation they may have experienced. Also monitored was whether the parents are permanently separated or divorced, and in the case of positive responses the age of the respondent at the time this event took place was also recorded.

enduring is around 55–58% (*Kiernan – Cherlin*, 1999). A parental divorce during a person's childhood or adolescence has therefore the strongest effect on their future partnership. The findings apply even when control variables are added, such as the age at first partnership, the type of first partnership (marriage, cohabitation prior to marriage, unmarried cohabitation), including indicators that monitor the social background of the child, their school achievement, and behavioural problems. In this regard it is estimated that parental divorce before a child's twentieth birthday directly increases the risk of the dissolution of a partnership by 16% for women and by 41% for men (*Kiernan – Cherlin*,1999)[5].

Studies of the intergenerational transmission of divorce behaviour and the effect of parental divorce on the life course of children in the United States often use data from longitudinal studies such as **The Study of Marriage Over the Life Course**[6] (*Amato*, 1996). Couples, in which one of the partners, the man or the woman, experienced parental divorce, were more likely to divorce than couples in which neither of the spouses experienced parental divorce. This was true for both first and second marriages. The risk that a marriage will break up increased mainly when both spouses were from lone-parent divorced families. Further analysis showed that the age at marriage, cohabitation, the completed education level, and interpersonal behavioural problems are the most probable variables that can play a role in mediating the effect of parental divorce on the marriage stability of offspring.

The author of the cited study reached the conclusion that the risk of divorce is especially high if both partners are from divorced families. The analysis identified two cases in which the effect of parental divorce was strongest: 1) in offspring marriages of short duration (for respondents married less than four years, the divorce of the wife's parents and the divorce of both spouses' parents increased the risk of divorce by 87% and 620%, respectively) and 2) if the spouses from divorced families experienced parental divorce before their twelfth birthday – parental divorce that occurred by the child's twelfth birthday increased the risk of divorce in the child's own marriage by 60%, with no difference detected according to the child's gender (*Amato*, 1996).

It was thus shown that life course variables (in particular, age at marriage and cohabitation) mediate some of the estimated effects of parental divorce. However, the study provided mainly longitudinal data enabling the formulation of further explanations of the intergenerational transmission of divorce behaviour. It was found that people's attitudes towards divorce are only slightly influenced by parental divorce. Therefore, parental divorce does not increase the risk of divorce among offspring by making children more accepting of the possibility of marital dissolution. In contrast, it was also found that the effect of parental divorce is much more strongly manifested through the interpersonal behaviour of spouses. Compared to people who grew up in two-parent families there was a higher probability of personal problems (problems with anger, jealousy, communication, infidelity, etc.) occurring in the interpersonal behaviour of people whose parents divorced, and these interpersonal problems then increased their risk of divorce.

In the 1990s studies began appearing in American journals that no longer dealt just with the effects of parental divorce but also posed a wider and, from the perspective of empirical research, harder to answer question. They focused more on the effect of the quality of the parents' marriage on children and their future life course, as some effects can be caused by the relationship differences that preceded the divorce. This claim has been supported in other studies (e.g. *Cherlin et al.*, 1995b), in which the family environment (factors such as a dys-

[5] The above-mentioned findings correspond with the conclusions from a project titled "Transitions to Adulthood in Europe: from a Matter of Standards to a Matter of Choice", based on data from the FFS (Corijn, 1999).

[6] The *Study of Marriage Over the Life Course* (SMOLC) is a study that was conducted in four waves between 1980 a 1992 – in the form of telephone interviews in the years 1980, 1983, 1988 and 1992. The analysis was based on individuals for whom information was obtained in at least two telephone surveys.

functional family and marital conflicts) prior to a divorce is shown to explain a number of effects of divorce on the level of children's education and behavioural problems.

However, problems remain with measuring the quality of the parents' marriage and the children's marriage. The study by *Booth* and *Edwards* (1989) revealed a positive correlation between the quality of marriage among children and their perception of the quality of their parents' marriage, but in order to study these issues directly it would be necessary to conduct longitudinal research, in which the parents themselves would comment on the quality of their marriage and the children would comment on it once they were adults. A study by *Amato* and *Booth* (1997) directly examined the quality of the marriage of parents and that of their children and showed a positive correlation between the quality of the marriage of parents in 1980 and the quality of their children's marriage in 1992.

In the **Longitudinal Study of Generations** (LSG), which examined the long-term effects of parental divorce on the quality of the marriage of children and on their marital instability, several hypotheses were tested that explain the intergenerational transmission of divorce behaviour (*Du Feng et al.*, 1999). Using data from a survey that studied both parents and their children, in addition to the questions of intergenerational transmission, various explanations for it were also studied, and hypotheses relating to the transmission of the quality of a marriage were also tested. Three main areas of factors were analysed. The first were demographic and life-course factors, as previous studies had shown that children from divorced families have lower levels of completed education and lower incomes, marry younger, and are more likely to live in cohabitation before marrying than children from two-parent families. The second area involved the factors external to the marriage, based on Levinger's theory and linking the probability of divorce with a decrease in the rewards derived from marriage. According to this theory, children of divorced parents have fewer psychological barriers to opting for divorce as a solution to relationship problems and also have more alternatives (according to studies in the United States, young women from divorced families are more likely to be employed than young women from two-parent families; financial independence can represent one alternative to marriage). The third group were the factors internal to the marriage which include the issue of the quality of a marriage and is based on the hypothesis that children from divorced marriages themselves have poorer quality marriages than children from two-parent families, and the lower level of satisfaction with their own marriage increases the risk of divorce.

The results from the study demonstrated the inheritance of divorce behaviour between parents and their daughters (especially if the divorce took place when the daughter was under the age of eighteen), but as opposed to other studies no intergenerational transmission was demonstrated between parents and sons. In addition, as in the other studies mentioned above, the mediating effect of demographic factors and the life course on the interpersonal transmission of divorce behaviour was also demonstrated, in particular the effect of marriage at a young age and the low level of education among children of divorced parents. In the sample children of divorced parents married at a younger age (the average difference was 1.8 years for men and 1.5 years for women), and this younger marriage age proved to be the main mediating factor. Parental divorce was associated with a lower level of completed education and a younger age at marriage among daughters, and low educational attainment was also connected with a young age at marriage. Thus it appears that the age at first marriage mediates the effects of parental divorce and the completed level of education of daughters on the probability of divorce of their marriages (*Du Feng et al.*, 1999).

On the other hand, the hypothesis about the effect of parental divorce on the income of children and on employment was not confirmed, nor was the effect of parental divorce on the quality of the children's marriage confirmed. In the case of the intergenerational transmission of the quality of the marriage the hypotheses were partly confirmed in a correlation analysis –

negative feelings and perceptions of their marriage by parents in 1971 was linked in the case of sons to a declared level of satisfaction or dissatisfaction with their own marriage in 1991. The authors themselves had no theoretical explanation for why the positive interaction of parents was not related in the studied sample to the marital satisfaction of offspring later on, and why the low quality of the parents' marriage influenced satisfaction with marriage only among sons and not among daughters.

Conclusion

Analyses of a sample of women from the **Czech Fertility and Family Survey** (CR, 1997) demonstrated the effect of the family arrangement in which individuals live during childhood on their future life course, demographic behaviour, and type of family arrangement. Parental divorce did not directly affect the probability that the first marriage of children from a divorced family would break up, but rather the effect was mediated by the age of the child at the time of first partnership and by the chosen form of partnership. Parental divorce has the effect of lowering the age at which a child leaves home and the age at which a child begins living with a partner in a shared household. It is the age of the child at the start of their first partnership that partly mediates the effect of parental divorce on the probability of the partnership breaking up. Similar conclusions can be reached in the study of the risk of the first marriage ending in divorce. In the studied sample, women whose parents divorced more often married younger than women who grew up and reached adulthood in two-parent families. Similarly, cohabitation prior to marriage is linked to an increased risk of the marriage breaking up.

These findings could provide a stimulus for further studies that would expand and add to the acquired data. More and more children are passing through various types of family arrangement, wherein not only are changes occurring in the kind of effects families have on their members but also in the way society looks at and accepts various types of family arrangement. Space is opening up for more, and in many ways better, studies on the effect of the quality of parental marriage on the life course of children. On the other hand, a marriage that is unhappy, even if it does not divorce, can also have various negative effects on children, as the children who live in such households acquire long-term experience of unhappily married parents.

For a scientific understanding of changes in the family structure, longitudinal surveys are required to provide information on interpersonal behaviour, attitudes, and mental well-being during various stages of development. Data from such surveys would be useful for studying the role of individual factors as part of the intergenerational transmission of marriage quality, as that is influenced by individual events in various stages in life.

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HEALTHY LIFE EXPECTANCY IN THE CURRENT CZECH POPULATION*)

JITKA RYCHTAŘÍKOVÁ**)

Abstract: In this article the author deals with the current state of health of the Czech population, which she analyses using the indicator of disability (disability-free life expectancy) – based on a combination of life tables and the prevalence of health status indicators.

Keywords: healthy life expectancy, temporary life expectancy, self-perceived health, chronic disease, limitations on everyday activities

The extension of life expectancy at birth was in the past a relatively accurate indicator reflecting the improvement of health in different populations. Later, when life expectancy at birth exceeded 70 years of age, discussions surfaced on whether the extension of human life is not just the addition of years spent in illness. The strength of the statistical correlation between mortality and morbidity began to weaken in advanced countries. Three theories (scenarios) of the historical relationship between mortality and morbidity were formulated in this connection: 1) **the compression of morbidity theory**, which claims that the reduction of the intensity of mortality is accompanied by an improvement in the state of health (*Fries*, 1980, 1989, 2002), 2) **the expansion of morbidity hypothesis**, according to which the additional years are primarily spent in poor health (*Gruenberg*, 1977; *Kramer*, 1980; *Olshansky et al.*, 1991) and 3) **the theory of dynamic equilibrium**, which assumes that the share of additional years of life spent in morbidity out of the total additional years of life neither increases nor decreases, or the increased prevalence of morbidity relates only to less severe states of health (*Manton*, 1982).

Once the occurrence of infectious diseases declined, chronic illness began to be an integral and unpleasant part of the lives of many people. These diseases are long-term, they do not necessarily interfere with a person's independence, and they may not even be the primary cause of death. What is important is the degree of severity of the deterioration of a person's state of health. In this regard the need arose to quantify this new reality with the aid of some conventional indicator, and therefore today, in addition to traditional mortality and morbidity indicators (life tables and incidence or prevalence rates), another characteristic is emerging on the scene – **disability**, as **an indicator of health limitations**. Disability is an indicator of both of **the severity of illness and the quality of life**. The disability indicator actually reflects a content shift in how health is defined by the *World Health Organisation*, which today does not view health as just the absence of disease, but as "a state of physical, mental, and social well-being", thus viewing it in terms of the concept of the quality of life. The number of **disability-free** years remaining in a person's life is becoming a generally accepted measure of the state of health of individual populations. The indicator of the absence of disability, DFLE (disability-free life expectancy), is based on a combination of life tables and the prevalence of good health. This indicator expresses the average number of years a person can

*) This article was first published in *Demografie,* 2006, 48, p. 166–178. The contents of the journal are published on the Web site of the Czech Statistical Office at: http://www.czso.cz/csu/redakce.nsf/i/demografie.

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expect to live without health disabilities, and it is usually calculated at birth and at age 65, separately for men and women. DFLE is intended to become a structural (routine) indicator that will be calculated and published in the Eurostat under the Environment section (http://europa.eu.int/estatref/info/sdds/en/health/hlye_base.htm). This indicator is also coming to be referred to as HLY (Healthy Life Years).

The main problem in calculating the DFLE, as well as other health indicators, is ensuring the comparability of the data. Data on the state of health can be drawn from registers or from sample surveys, but it is necessary that when collecting data individual countries employ the same definitions of health and that the content of the questions formulated in relation to prevalence or incidence is the same. One European survey that examined the state of health within the EU in one of its survey modules was the **European Community Household Panel** (ECHP). The ECHP was a panel (longitudinal) survey, repeated each year since 1994 in EU countries. It covered the population aged 16 and over, and data collection was conducted using uniform methodology. Another source of data on health is the **Eurobarometer** – a survey in which in 2002 a module was introduced that focuses on three areas of health status: **self-perceived health, chronic morbidity**, and **limitations on everyday activities**. This module also served as a test module, as the three concepts of health it introduced were later included in the **European Survey on Income and Living Conditions** (SILC). The SILC has currently replaced the ECHP.

In the Czech Republic the *Czech Statistical Office* conducted a large-scale representative survey of households in 2001 called the Social Situation of Households Survey, the content and methodology of which were based on the ECHP. As of 2005 the Czech Republic is also included in the internationally comparative SILC within the framework of the EU.

Methodology for calculating health indicators and source data

Numerous experts and organisations have published work on health indicators and methods of calculating them (*Crimmins et al*., 1997; *Jagger et al*., 2001; *Robine et al*., 2001). Today this issue is mainly focused on by the EURO-REVES team under the European Health Expectancy Unit (EHEMU). The goal of this project is to coordinate calculations, analyse the quality of data, examine methodology, and mediate information on the health status of European populations. It is funded under the European Health Programme 2004–2007. Thus far the team has calculated and analysed the DFLE for the period between 1995 and 2003 for fourteen EU countries (not including Luxembourg), separately for men and women, at time of birth and at age 65 (EHEMU, Technical Report 2, July 2005). Two questions posed in the ECHP were used to measure the prevailing health status: PH002: *Do you have any chronic physical or mental health problem, illness or disability?* and PH003: *Are you hampered in your daily activities by this physical or mental health problem, illness or disability*.

The DFLE was calculated from a combination of mortality indicators (life tables) and the prevalence of a given category of health status using the simple Sullivan method (*Sullivan*, 1971; *Jagger et al.*, 2001), the data requirements of which are not too demanding (other methods are, e.g., at: http//www.demografie.info/?cz_detail_clanku&artclID=107; *Rychtaříková*, 2000). According to Sullivan's method, the number of life years at a given age L_x is multiplied by the percentage of people $s_{x,i}$ with the given health status (i) at the given age (x), which is then calculated as $e_{x,i}$ and additively divided by health categories (i).

$$e_{x,i} = [\Sigma(s_{x,i} * L_x)]/l_x$$

The lower limit of the sum is x and the upper limit is usually the maximum age.

This indicator will be calculated once the results of the SILC survey for the EU 25 and for Island, Norway, the United States, and Japan are known.

In this article the **Generations and Gender Survey** (GGS) that was conducted in 2005 in the Czech Republic is used to study the health status of the Czech population. The GGS is an international survey coordinated by the United Nations Economic Commission for Europe in Geneva (http: //www.unece.org/ead/pau/ggp/Welcome.html). Among other things it enables an analysis of health status using the same questions as the ECHP, SILC or the Eurobarometer. The main Czech coordinator of the Generations and Gender Programme (GGP), of which GGS is a primary component, is the *Faculty of Science of Charles University in Prague* (*J. Rychtaříková*) and the co-coordinator is the *Research Institute for Labour and Social Affairs* (*V. Kuchařová*). The field data collection was carried out by the SC&C agency. The sample contained 10 006 respondents of Czech nationality aged 18–79 during 2005. The survey was funded under the National Programme for Research TP-5 "Modern Society and Changes" theme (registration no. 1J 023/04-DP2). The module on the health status of the population contained questions on self-perceived health, chronic and long-term morbidity, and limitations on everyday activities. One constraint on evaluating health status in this survey was age, the upper limit of which was 79 years, which makes it impossible to construct a classic indicator defined by the maximum survival age. In this regard, all the indicators used capped by the 80th birthday. Health status was studied using several questions:

Self-perceived health – question no. 701 *How is your health in general?*: 1 – very good; 2 – good; 3 – fair; 4 – bad; 5 – very bad.

Chronic morbidity – question no. 702a *Do you have any long-standing illness or chronic condition?*: 1 – yes, 2 – no.

Limitations on everyday activities – question no. 703a *Are you limited in your ability to carry out normal everyday activities, because of a physical or mental health problem or a disability?*: 1 – yes, 2 – no.

The purpose of this article is: 1) to study the health status of the Czech population aged 18–79 from the perspective of the three points listed above; 2) to analyse the differences between men and women; 3) to analyse the effect of age, education, and partnership on the self-perceived health status among women and men separately.

The analysis is based on weighted data, where the weight was determined from the structure of the Czech population in the 2001 Census by gender, age, marital status, education, region, and municipality size. The variables studied in this analysis are: health status, gender, age, education, and partnership. The distribution of these variables for unweighted cases (respondents) is indicated in Table I Appendix.

Self-perceived health, chronic morbidity, and limitations on everyday activities in the Czech population in 2005

The first step in the analysis was to assess the quality of the collected data in terms of their statistical significance and logical coherence. The percentage of records in which health was missing did not exceed 2% in any of the surveyed health statuses or in the category of education. Age, sex, and partnership were always indicated. The combination (based on weighted cases) of the variable of self-perceived health status and the variable for long-standing or chronic illness showed a strong association (Figure 1). Those who were not suffering from any chronic illness indicated in 99% of cases that their self-perception of health was very good, good, and fair (in 3/4 of cases they indicated very good and good). Men evaluated their health status just slightly better than women did. Conversely, people who answered that they were suffering from some long-standing or chronic illness described their health status as fair, bad, or very bad (Figure 1). However, in this case women suffering from a long-standing or chronic illness indicated slightly less often than men that they felt bad or very bad (28.8% vs. 30.4%).

Self-perception of health

The most important determinant of health status is age, and age is connected with how well people evaluate their own health. As people grow older their health difficulties increase, and their statements on their own health move from a declared sense of very good health to good and then to fair, and then the number of respondents describing their health as bad or very bad begin to be more significant (Figure 2a, 2b). Nevertheless, up to the age of 80, three-quarters of the Czech population subjectively assessed their health in positive terms (as very good, good, or fair), and only 27% of men and 25% of women aged 75–79 described their health as bad or very bad. Young men are more optimistic and more often than women describe their health as very good.

An interesting anomaly along the gradient of changes in the declared subjective perception of health by age is the age group of 60–64 year old men (the generation born in 1941–1945) and 65–69 year old women (the generation born in 1936–1940) – Figures 2a, 2b. Both groups show no decline in the subjective perception of health and feel just as good or just slightly better than the immediately preceding age group. These men and women were born during the period of a fertility revival in the Czech Lands, and they lived most of their lives after the Second World War. We could hypothesize that in the case of men these are individuals who just entered retirement and are not threatened by unemployment, as their slightly younger

Figure 1 Association between self-perceived health and the incidence of chronic disease

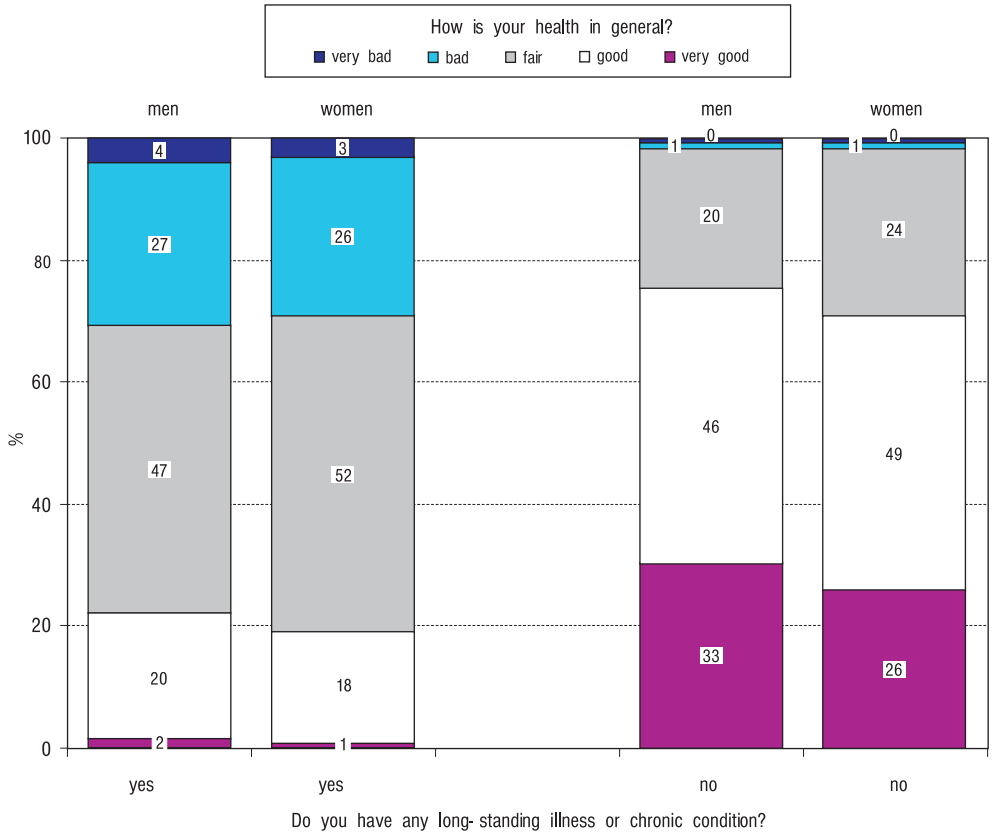


Figure 2a The decrease in good self-perceived health with age among men

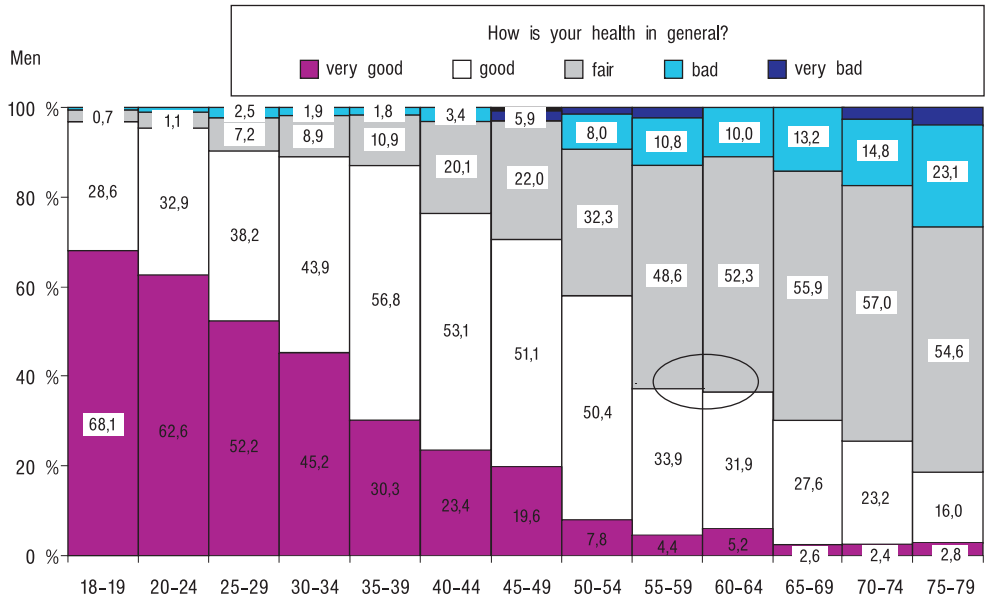
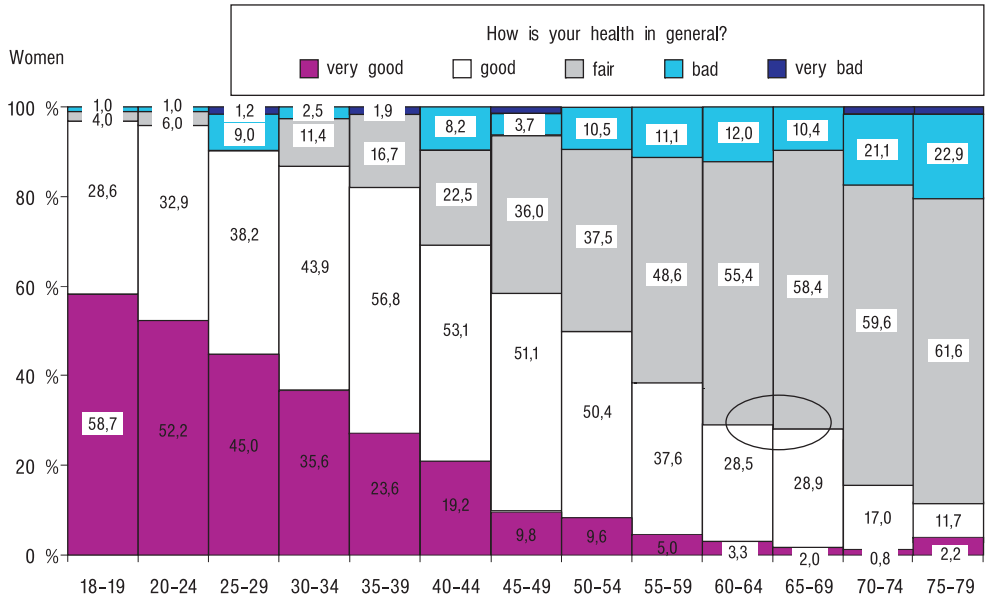
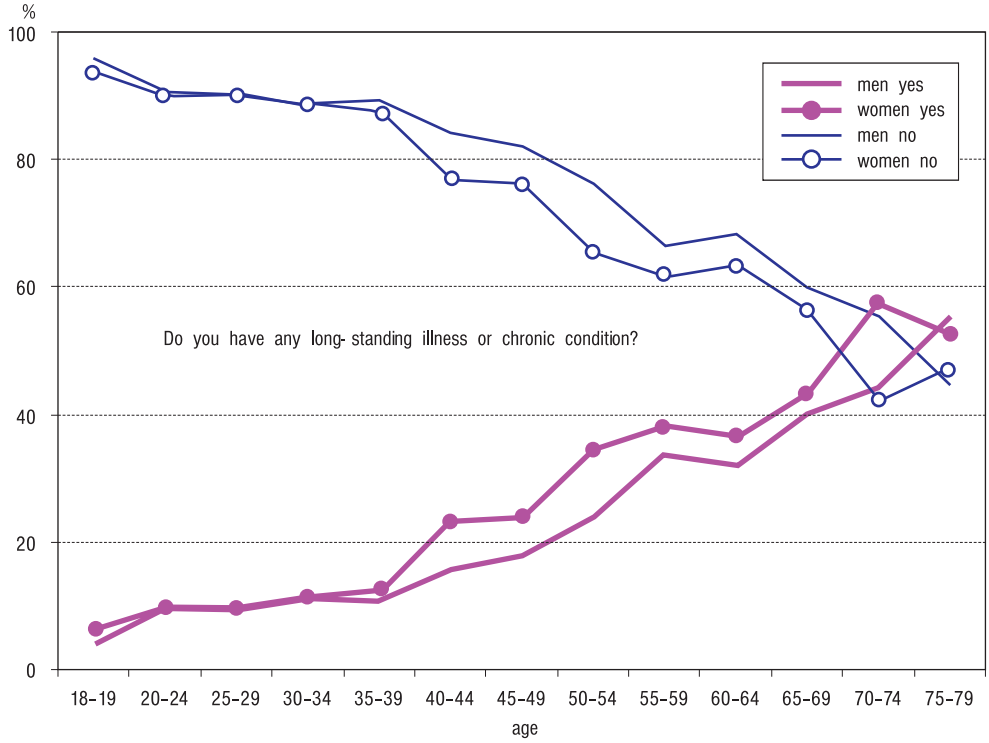


Figure 2b The decrease in good self-perceived health with age among women



Note: Categories add up to 100%, some small percentages could not for technical reasons be presented in the figure.

Figure 3a Increase in the incidence of chronic or long-standing illness with age



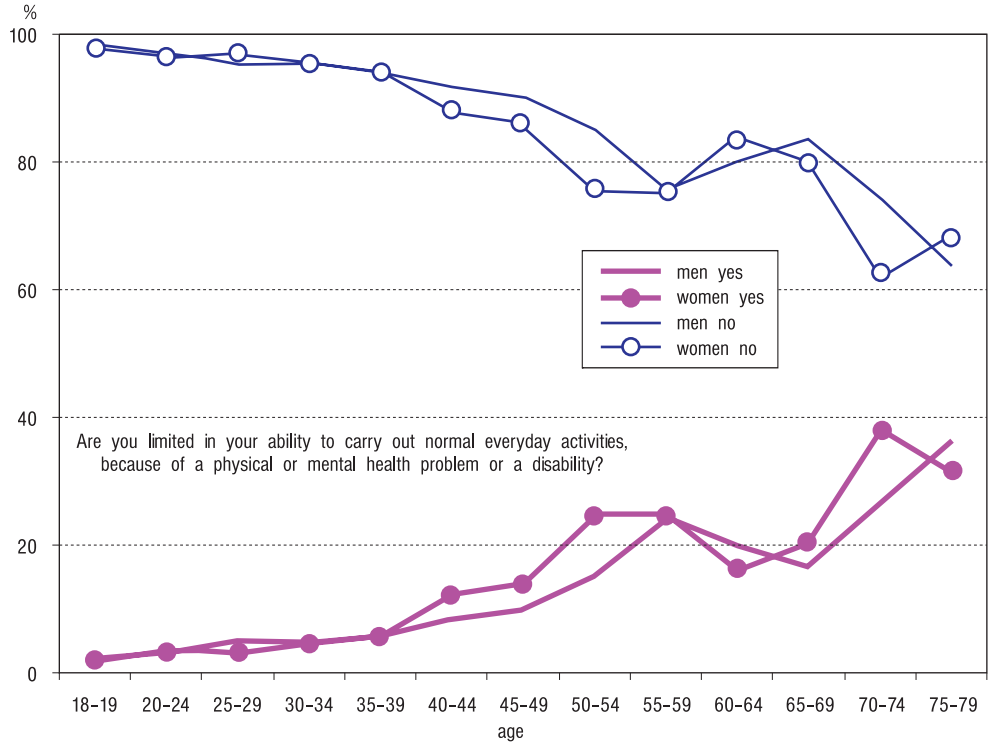
peers of pre-retirement age are, and therefore subjectively they feel better. In the case of women the situation is more complicated, but if we combine the three categories of health together (very good, good, and fair), it seems that "younger" retired women evaluates their health relatively better than slightly older and even much younger women.

Chronic and long-standing morbidity and limitations on everyday activities

Chronic and long-standing illness and limitations on everyday activities exhibit a deterioration in relation to age (Figures 3a, 3b). The gradient of change is most pronounced in the case of chronic and long-standing illness, where an almost constant increase, or decrease, can be observed (Figure 3a), while the case of limitations on everyday activities only deteriorates after the age of 70 and does so for both sexes (Figure 3b).

The relationship between limitations on everyday activities and age is less regular than in the case of chronic illness. Here again there is an anomaly similar to that observed in the self-perception of health. In the 50–59 age group the incidence of limitations on everyday activities is higher than in the 60–69 age group. This peculiarity is observed for both sexes. Again it is possible to speculate that during the period of economic transition "young" retirees not just feel better but are also more satisfied/healthier compared to the just slightly younger age group that is still economically active. There may be various reasons for this, and therefore, this finding warrants further analysis, for example, according to education, family background, and other characteristics.

Figure 3b Decrease in ability to provide daily activities with age



Life expectancy by health status

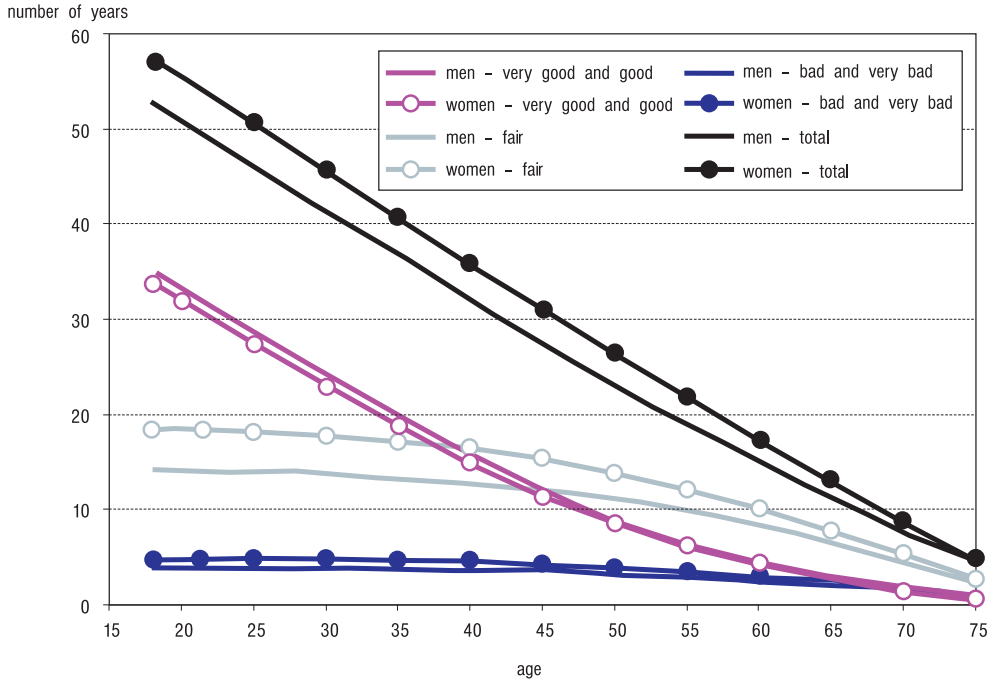
Combining life tables for men and women in the Czech Republic from 2004 and the prevailing health status as based on the GGS, Sullivan's method was used to calculate the years of life expectancy in individual aspects of health studied. This means the number of years between age x and a person's 80th birthday (so-called temporary life expectancy). The calculation is made with the classic formula $\Sigma[s_{x,i}*L_x]/l_x$, but the upper limit of the sum is 79 years inclusive instead of the usual 100 or 110 years.

The average number of years remaining in the life of an individual gradually decreases with increasing age. We are primarily interested in **how the structure of those years changes, whether health status also deteriorates in a parallel and continuous manner, and whether the trends are the same for men and women**. These questions were examined within the three areas of health: **self-perceived**, in relation to **chronic morbidity**, and in relation to **limitations on everyday activities**. The **self-perception of health** was evaluated in three categories: 1) very good + good, 2) fair, and 3) bad + very bad.

The change in the average number of years of the temporary life expectancy of an x-year old until their 80th birthday was especially in younger age groups determined by trends in the categories of years lived in good or very good health, with just a negligible difference between men and women in the case of this indicator (Figure 4).

The two pairs of curves (total number of years and number of years in good health), which decreased linearly, remained parallel from age 18 to age 50. After this age the number of years of life expectancy continued to decrease linearly and the years according to self-perception of good

Figure 4 Temporary life expectancy up to the age of 80 by self-perceived health

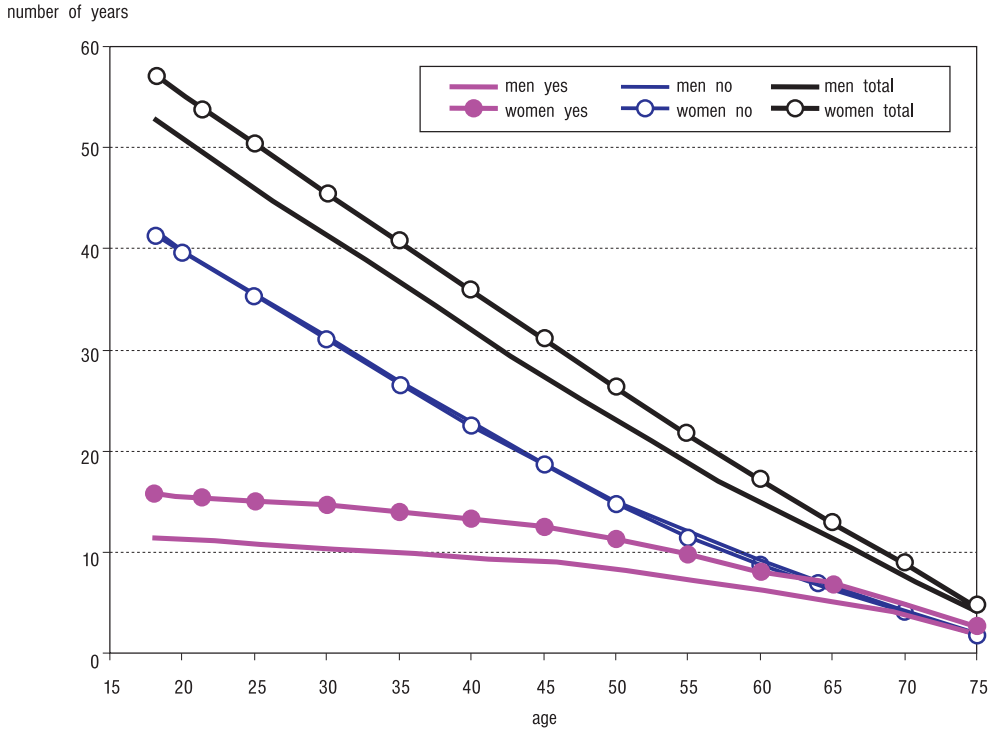


health no longer followed this trend, and the speed of their decline slowed. Years lived in bad or very bad health, which changed little in relation to age, had almost constant values. This of course means that with increasing age, and with it decreasing life expectancy, the weight of the number of years lived in bad health increases. Roughly from age 60 the number of years of temporary life expectancy in good and in bad health are the same up to age 80. The difference between men and women in bad health is negligible, just as in good health, thus both sexes have good and bad perceptions at similar year values. A difference between the life expectancy of men and women is found in the category of fair health, in which men live fewer years than women (Figure 4). Between age 40 and 45 years lived in fair health begin to dominate in the structure of temporary life expectancy, while in younger age groups good and very good health have the biggest weight.

The life expectancies **with** or **without chronic or long-standing illness** (Figure 5) are in principal similar to the course of life expectancies according to the category of self-perceived health. This finding is consistent with the previous finding that the declared self-perceived health correlates relatively well with the occurrence of chronic or long-standing illness (Figure 1).

While the differences between men and women in the case of self-perceived health described as good and very good were relatively small (Figure 4), in the **life expectancy without chronic or long-standing illness there are no gender differences** (Figure 5). It is the trend in the values for the absence of chronic or long-standing illness that mainly determine the trend of temporary life expectancy. The number of years lived with a chronic illness is higher among women than men, and this fact ultimately means that the years women live longer than men are years of illness. This fact is the source of the difference between the life expectancy of men and women. Since the 1960s the number of years lived with or without chronic illness has been roughly the same.

Figure 5 Temporary life expectancy up to the age of 80 by chronic or long-standing morbidity



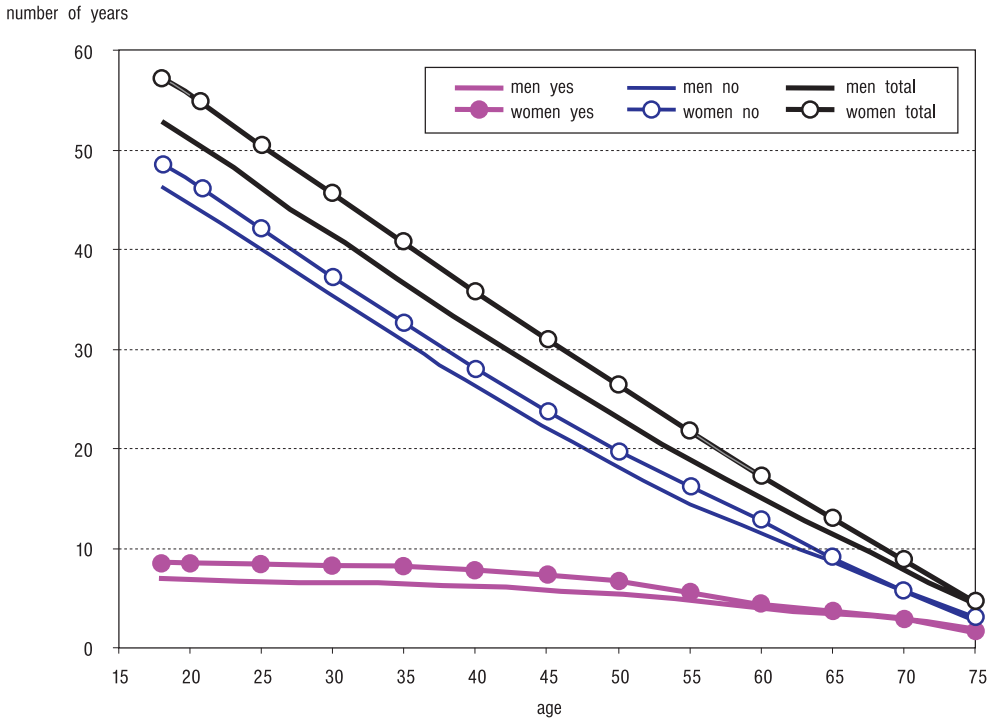
Long-standing chronic illness has the effect of limiting many people in their everyday activities. The impact and the severity of long-standing chronic morbidity is expressed in the life expectancy divided into two categories based on whether the person is or is not **limited in their everyday activities** (Figure 6).

Life expectancy without limitations on everyday activities is very similar by age to the total number of years of temporary life expectancy. Unlike chronic illness, the longer life expectancy of women here is connected with a higher number of years lived without limitations on everyday activities, and similarly men live a shorter number of years without limitations and proportionally fewer years with limitations on everyday activities. After the age of 70 the number of years of temporary life expectancy with and without limitations become similar (Figure 6).

A summary overview of the number of life years remaining to the 80th birthday of 18-year-olds and 65-year-olds structured by self-perceived health, chronic morbidity, and limitations on everyday activities is displayed in Table 1.

Between the ages of 18 and 80 men and women live 35 and 34 years, respectively, in very good and good health, and similarly between the ages of 65 and 80 they live 2.9 and 2.8 years, respectively, in this category (Table 1). A healthy self-perception of life expectancy is therefore absolutely longer in the case of men. If we contrast this finding with life expectancies without chronic illness, we can see in Table 1 that there are essentially no gender differences in the number of years (18–80: men = 41.4; women = 41.8; 65–80: 6.2 years vs. 6.3 years), or the life expectancies among men are just slightly shorter. In the case of limitations on everyday activities, the number of years of temporary life expectancy without limitations among

Figure 6 Temporary life expectancy up to the age of 80 by limitations on everyday activities



men is shorter than that of women (18–80: men = 46.5; women = 48.8; 65–80: 8.6 years vs. 9.1 years). Men are clearly more optimistic or more often describe their health as very good and good, although the indicator of chronic illness and especially limitations on everyday activities do not entirely confirm this as true. The different assessments men and women give

Table 1 Temporary life expectancies between the ages of 18 and 80 and between the ages of 65 and 80 according to different health statuses

Indicator	Men	Women	*Men*	*Women*	Men	Women	*Men*	*Women*
	18–80				65–80			
Self-perceived health	Years		%		Years		%	
Very good and good	35.0	34.0	*66.0*	*59.3*	2.9	2.8	*25.8*	*21.6*
Fair	14.1	18.5	*26.6*	*32.1*	6.4	7.7	*55.9*	*59.7*
Bad and very bad	3.9	4.9	*7.3*	*8.6*	2.1	2.4	*18.3*	*18.7*
Total	52.9	57.4	*100.0*	*100.0*	11.4	12.9	*100.0*	*100.0*
Long-standing chronic illness								
Yes	11.5	15.6	*21.7*	*27.2*	5.2	6.6	*45.3*	*50.9*
No	41.4	41.8	*78.3*	*72.8*	6.2	6.3	*54.7*	*49.1*
Total	52.9	57.4	*100.0*	*100.0*	11.4	12.9	*100.0*	*100.0*
Limitations on everyday activities								
Yes	6.5	8.7	*12.2*	*15.1*	2.8	3.8	*24.5*	*29.4*
No	46.5	48.8	*87.8*	*84.9*	8.6	9.1	*75.5*	*70.6*
Total	52.9	57.4	*100.0*	*100.0*	11.4	12.9	*100.0*	*100.0*

of self-perceived health emanate from the shift between the categories of good health and fair health, where women clearly more than men described their health as fair. The number of years remaining to the 80th birthday in bad and very bad health, or with chronic (long-standing) illness and with limitations on everyday activities is in these categories higher among women than among men, and this applies also to the proportional percentages (Table 1). These findings confirm the fact that the additional years of life of women in the Czech Republic are a period of reduced quality of life.

Factors of perceived health

The self-perception of health changes not just in relation to age but also in relation to a number of other lifestyle factors. It can depend on whether a person has a partner or not, and even the level of a person's education can indirectly say something about a person's lifestyle. Evidence of the relationship between the categories of self-perceived health, age, partnership and education can be derived from a multinomial logistic regression. The dependent (explained) variable was the four categories of self-perceived health (very good, good, fair; the categories of bad and very bad were combined given the low number of cases in each). The explanatory (independent) variables (predictors) were age (categorised), partnership (the person lives with their partner in a shared household, the person does not live with their partner in a shared household, the person does not have a partner) and education (basic, secondary without GCSE, secondary with GCSE, university). Two regression models were calculated, for men and for women. Given that the interactions were statistically insignificant, the model of the main effects is presented.

The self-perception of health as good or very good statistically significantly decreases with age. The gradient of the decline is more pronounced in the category of very good health. Among men the decrease is already statistically insignificant from the age of 60 (Table 2a). Age is not a strong determinant, and if people perceive their health as bad the odds ratios are very similar and often statistically insignificant. Living with a partner in a shared household tends to give men the perception of good health, but for a sense of very good health they no longer need to be living in the same household with a partner. In the case of bad health, living in the same household as their partner is very important and significantly decreases (to 46%) the feeling of bad health. With increasing education levels men also more positively evaluate their health, and the gradient is sharper in the category of very good health. Bad health is cited statistically significantly twice as often (2.1) among men with elementary education compared to men with university education.

Women essentially perceive their health similarly to men in relation to age, that is, with a sharper gradient in the case of a sense of very good health, and statistical insignificance and no trend by age in the case of bad to very bad health. With increasing education levels the sense of the quality of life also rises, as expressed in the self-perception of health. For women living in the same household with their partner is also statistically significant for their sense of very good health, but in the opposite sense as men! A sense of very good health is reduced by the presence of a partner in the same household. In the case of bad to very bad health living with a partner reduces this sense, but less significantly than in the case of men.

Conclusion

The analysis of the current health status of the Czech population revealed similar phenomena as observed in other countries, especially with regard to the differences in the numbers of years of temporary life expectancy according to individual categories of health status. Men have shorter lives, but the extra years of women lives are spent mainly in illness or with limitations on everyday activities. The sense of good health correlates negatively with age and positively with education. Partnership is particularly important among people with bad health.

Table 2a Men: Multinomial logistic regression for the reference category of fair health; model of the main effects without interactions

Men	Self-perceived health (dependent variable)					
	Very good		Good		Bad and very bad	
(independent variable)	Sig.	Exp (B)	Sig.	Exp (B)	Sig.	Exp (B)
Age						
18–29	**0.000**	**266.5**	**0.000**	**23.7**	**0.013**	**0.47**
30–39	**0.000**	**83.9**	**0.000**	**14.9**	0.074	0.62
40–49	**0.000**	**20.0**	**0.000**	**6.7**	0.060	0.68
50–59	**0.000**	**3.8**	**0.000**	**3.3**	0.156	0.79
60–69	0.276	1.5	**0.001**	**1.7**	**0.002**	**0.59**
70–79		1		**1**		**1**
Partnership						
He lives with a partner in a shared household	0.806	0.97	**0.001**	**1.38**	**0.000**	**0.46**
He doesn't live with a partner in a shared household	0.599	1.12	0.119	1.37	0.197	0.63
He doesn't have a partner		**1**		**1**		**1**
Education						
Basic	**0.00**	**0.39**	**0.000**	**0.50**	**0.001**	**2.1**
Secondary school without GCSE	**0.00**	**0.39**	**0.000**	**0.51**	0.136	1.4
Secondary school with GCSE	**0.00**	**0.60**	***0.021***	***0.74***	0.837	1.1
University		**1**		**1**		**1**

Table 2b Women: Multinomial logistic regression for the reference category of fair health; model of the main effects without interactions

Women	Self-perceived health (dependent variable)					
	Very good		Good		Bad and very bad	
(independent variable)	Sig.	Exp (B)	Sig.	Exp (B)	Sig.	Exp (B)
Age						
18–29	**0.000**	**269.2**	**0.000**	**20.4**	***0.044***	***0.55***
30–39	**0.000**	**88.2**	**0.000**	**12.9**	0.061	0.62
40–49	**0.000**	**19.4**	**0.000**	**5.8**	0.128	0.75
50–59	**0.000**	**7.8**	**0.000**	**3.3**	0.806	0.96
60–69	0.118	1.9	**0.000**	**1.8**	**0.000**	**0.58**
70–79		**1**		**1**		**1**
Partnership						
She lives with a partner in a shared household	**0.002**	**0.71**	0.889	0.99	***0.035***	***0.78***
She doesn't live with a partner in a shared household	0.235	0.80	0.686	1.07	0.247	0.69
She doesn't have a partner		**1**		**1**		**1**
Education						
Basic	**0.000**	**0.41**	**0.000**	**0.55**	**0.000**	**3.73**
Secondary school without GCSE	**0.000**	**0.47**	**0.002**	**0.66**	**0.001**	**2.69**
Secondary school with GCSE	***0.015***	***0.68***	0.044	0.77	0.114	1.65
University		**1**		**1**		**1**

This article emerged out of work on a project titled "Generations and Gender Survey: A Longitudinal Study" conducted under the National Programme for Research, TP-5 "Modern Society and Changes" (registration no. 1J 023/04-DP2) and research project no. 0021620831 Geographic Systems and Risk Processes in the Context of Global Changes and European Integration, under theme 3.4. Current Trends in Demographic Behaviour in the Light of Demographic Development and Risks of the Ageing Process.

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APPENDIX

Table I Basic distribution of the set of respondents – unweighted cases

Age	Men	Women	Total
18–19	242	231	473
20–24	439	412	851
25–29	525	485	1 010
30–34	467	506	973
35–39	405	446	851
40–44	401	463	864
45–49	384	429	813
50–54	418	432	850
55–59	421	477	898
60–64	332	385	717
65–69	281	361	642
70–74	260	266	526
75–79	222	316	538
Total	4797	5 209	10 006
Education			
Basic	989	1 292	2 281
Sec. school without GCSE	1 732	1 548	3 280
Sec. school with GCSE	1 286	1 752	3 038
University	717	535	1 252
Not identified	*73*	*82*	*155*
Total	4 797	5 209	10 006
Does respondent have a partner?			
Yes, he/she lives with him/her in household	2 724	2 807	5 531
Yes, he/she doesn't live with him/her in household	375	434	809
No	1 698	1 968	3 666
Total	4 797	5 209	10 006
Subjective health			
Very good	1 286	1 068	2 354
Good	1 827	2 013	3 840
Fair	1 232	1 613	2 845
Bad	331	406	737
Very bad	42	44	86
Not identified	*79*	*65*	*144*
Total	4 797	5 209	10 006
Long-standing chronic morbidity			
Yes	1 100	1 402	2 502
No	3 610	3 723	7 333
Not identified	*87*	*84*	171
Total	4 797	5 209	10 006
Limitation on activities of daily living			
Yes	631	783	1 414
No	4 164	4 421	8 585
Not identified	*2*	*5*	*7*
Total	4 797	5 209	10 006

THE COMPARABILITY OF INTERNATIONAL MIGRATION STATISTICS*)

BOHDANA HOLÁ**)

Abstract: The importance of international migration for the demographic situation in most countries, particularly developed ones, has increased in recent years. Attention must, therefore, be given to the statistics describing this phenomenon. However, statistics produced in individual countries do not appear to be mutually comparable. The author takes the example of migration flows between individual countries, from the point of view of the country of origin and the destination country, and describes the differences in observation, summarises the main reasons for these differences, and outlines possible ways of reducing the differences.

Keywords: International migration, migration flows, comparability of migration statistics, harmonisation of migration statistics, EU migration policy, immigrants

In recent years migration has become an important factor affecting demographic change. Foreign migration is also beginning to capture the attention of European politicians as one potential solution to the crisis of the pay-as-you-go pension systems in connection with demographic ageing, which is occurring in every European country to at least some degree. For this reason the issue has garnered more and more attention in international talks and conferences.

The interest of politics is turned towards migration policy and establishing the appropriate parameters for determining what kind of people (or what kind of attributes, qualifications, and experiences people should have) should be coming to European countries. On a worldwide scale this mainly involves determining how to harmonise the interest of advanced countries in "young blood" and a less demanding but highly qualified labour force with needs in developing countries, which need to release some of the pressure from an exploding population, but must try to avoid the occurrence of a massive "brain drain", as such individuals are an essential to the future development of such countries.

On a European level and from the perspective of individual states this is also a matter of the acceptance of migrants by the domestic population, without the emergence of negative side-effects in the form of nationalist and racist movements, so that migrants are able to become fully integrated in society.

Each state has slightly different ideas about the parameters of immigration policy, their acceptance of migrants, and balancing the rights of newcomers and their obligations towards their new homeland. Each country embodies these ideas in legislation governing the residence of foreigners, asylum procedures, employment, trade licences, and even in legislation on population records.

*) This text was presented at the international conference "Statistics – Investment in the Future" in the session on Social Statistics III – Demography and Migration, which was held on 6–7 September 2004 and was organised by the Czech Statistical Office. It was published in the journal *Demografie,* 2005, 47, p. 177–187. The contents of the journal are published on the Web site of the Czech Statistical Office at: http: //www.czso.cz/csu/redakce.nsf/i/demografie

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Table 1 Taxonomy of international mobility

Order	Group	Category
1.	Transients (not relevant for int. migration)	Border workers (pendlers)
2.		Transients
3.	International tourism	Excursionists (stay without accomodation for a night)
4.		Tourists (stay with accomodation for a night)
5.		Business travellers
6.	Traditionally excluded from international migration	Diplomatic and consular personnel (incl. dependants and employees)
7.		Military personnel
8.		Nomads
9.	International migration	Students
10.		Trainees
11.		Workers
12.		Employees of international organisations
13.		Persons excercising the right of free establisment in the country
14.		Settlements
15.		Family formations and reunions
16.		Refugees
17.	Others relevant for international migration but whose duration of stay in the destination country is uncertain	Asylum seekers
18.		Illegals

Source: UN Recommendation on International Migration Statistics, Revision 1, UN New York, 1998.

As part of the Treaty of Amsterdam migration policy in the EU was shifted from the third pillar (the independent responsibility of each state, with EU institutions in just an advisory position) to the first pillar (a common EU policy based on the EC Regulations and Directives). The transition to a common EU policy in this sphere requires a relatively long period of time because the process of harmonising the many diverse migration policies of individual states is considerably demanding, and even when the legislation of individual countries is altered to reflect EU policy harmonisation in practice will take much more time. While the rules for asylum procedures have been streamlined (the Dublin Convention), the free movement of EU citizens has been addressed, and some basic rules regarding procedures relating to citizens of third countries (e.g. the right to family reunification), other aspects of the common EU policy are being prepared.

The framework of foreign migration statistics

In relation to the increasing emphasis on migration policy, interest in data on migrants is also growing, both owing to the need for information about the background situation in order to establish the parameters of migration policy, and owing to the possibility to monitor the success of the given migration policy.

Data on migration and on the number of immigrants in a country (in the EU) and their characteristics is in most cases based on data taken from administrative records on foreigners and citizens. National legislative and registration terms also determine who qualifies as a migrant and how migration is monitored.

At the international level efforts exist to harmonise the statistics on foreign migration so that the data published on migration at least roughly refer to the same group of individuals in each country. Thus far the theoretical foundation for this has been the **UN Recommendations on Statistics of International Migration** from 1998. These Recommendations contain a

Table 2 Migration flows between European countries, 2002

From where	To where										
	CZ	DK	DE	CY	LV	NL	PL	PT	SI	FI	SE
Czech Republic	x	202	11 150	93	8	393	34	8	5	47	151
	x	56	1 087	24	8	159	1 117	8	19	39	57
Denmark	51	x	2 889	54	30	465	27	39	–		
	143	x	2 700	35	372	613	588	128	30	**376**	**4 337**
Germany	987	3 543	x	374	76	7 959	2 335	692	332	854	2 699
	9 691	2 974	x	242	1 378	9 336	78 739	11 315	2 502	2 658	3 876
Cyprus	12	13	260	x	–	29	4	–	–	26	59
	21	–	42	x	–	21	21	–	–	42	21
Latvia	8	455	2 195	–	x	92	5	5	–	53	189
	11	52	210	–	x	14	28	2	–	60	60
Netherlands	224	886	13 976	73	9	x	83	332	10	228	780
	207	540	10 822	32	11	x	492	710	26	299	659
Poland	1 679	962	100 968	29	23	2 275	x	32	3	95	1 186
	38	95	17 806	2	7	290	x	6	–	9	174
Portugal	23	171	8 806	–	3	1 653	4	x	2	52	178
	–	–	776	–	–	200	–	x	–	–	–
Slovenia	21	37	2 379	–	2	66	–	8	x	2	14
	18	6	907	1	–	45	10	6	x	4	44
Finland	34	396	2 203	8	23	408	4	24	–	x	
	30	384	730	22	24	270	37	28	2	x	**3 591**
Sweden	70		3 481	46	26	680	70	48	15		x
	68	**2 241**	1 659	64	46	551	190	100	24	**3 211**	x

Source: New Cronos – Eurostat database.

definition of the term "country of usual residence" (as the country in which a person resides for more than one year), and this description is subsequently used as a differentiating point between short-term and long-term migration: short-term migration is a change of residence for a period of over three months but less than one year; long-term migration is a change of country of usual residence; the three-month dividing line is a difference between tourism and short-term migration. Also defined here are categories of migrating individuals and their classification in or omission from international migration statistics. The distinction by state citizenship is only a secondary characteristic. Categories of migrating individuals and their classification are presented in the following table 1.

Recommendations, even when issued by international institutions like the United Nations, are not a legally binding standard, and this can pose a problem in their application. While in some states the Recommendations are regarded as a kind of "gentlemen's agreement", and the adherence to and application of this agreement is incorporated in the legislative system, in the Czech Republic these gentleman's agreements are not accepted by the *Foreign and Border Police* as a substantial enough argument, for example, to change the system of residence controls, making it possible to honour (in whatever form) the Recommendations.

Proposed EU directives on foreign migration statistics are currently in the approval process and are based on the UN Recommendations on International Migration Statistics and on the Eurostat Joint Questionnaire, the UN Statistics Division, the UN Economic Commission for Europe, the Council of Europe, and also the International Labour Organisation's guidelines

on international migration statistics, which all the member and candidate countries of the EU have been using since 1995.

Migration statistics and international comparisons

In addition to the above-mentioned problems, international migration statistics are also a problem in terms of the fact that unlike, for example, statistics on the labour market or national accounting there are always two subjects that are statistically affected by one and the same flow of migrants. While national accounts can only be compiled in the statistical office of the given state, information on the fact that a person moved, for example, from the Czech Republic to Germany is observed (or should be observed) by both the statistical office in the country of origin (in this case the Czech Statistical Office) and the statistical office in the destination country (Statistisches Bundesamt). When we add together all the cases of migration from the Czech Republic to Germany we have two items of data that should *in theory* the same. But these two items of data (and any other two items of data depicting migration flows from the perspectives of the countries of origin and destination) are not the same. And very often these two data items are not even similar in order, which can be discerned from the following table containing available pairs of information on migration flows in 2002. The data item within a single cell should be the same. The grey row indicates the situation from the perspective of country "A" (emigration from country "A" to country "B"), the white row indicates the situation from the perspective of the destination country "B" (immigration from country "A" to country "B"). The table contains data only for those countries where data on immigrants was available from the destination country and data on emigrants was available from the country of origin.

There are a number of evident differences in the table. Particularly noteworthy is the difference between the measurement of migration in Germany and in almost every other country. Also interesting is the measurement of migration flows between the Czech Republic and Poland and a comparison of the differences in reverse flows (records of flows are similar that actually need not necessarily be similar in the order, while data that should be similar show order differences).

A somewhat more relevant picture can be obtained from the following two tables. The first presents absolute deviations (the data in the white row – the data in the grey row, or immigration – emigration). The second table presents the relative deviations (absolute deviation in relation to the arithmetic average of both figures).

The data in the tables essentially call into question migration statistics and any analyses of migration flows based on these data. However, this is not a result of inconsistent data on international migration. Migration is part of the net population statistics or the registered number of inhabitants in a given state or community. Ultimately it can be asked how many inhabitants the EU really has, whether the "per capita" indicators are significantly distorted (e.g. in the Czech Republic and Poland undervalued), whether the problems with measuring migration flows are not also reflected in irregularities in the elections to the European Parliament (whether it would purely theoretically be possible to cast a vote in twenty member countries), problems with multiple taxation, or problems with overlapping social-benefits payments.

In any case it is necessary to devote more detailed thought to the background of the observed differences and attempt to find a possible solution that could help improve the measurement migration flows. As noted above, statistics in this field are to a large degree dependent on particular legislative parameters, and statistics themselves can do little to influence this. So improvement is often dependent on political will. However, politicians, who are one of the principal users of data on international migration, rarely recognise their role in the process of improving data collection.

Table 3 Absolute deviations of data on international migration flows, 2002

From where	To where										
	CZ	DK	DE	CY	LV	NL	PL	PT	SI	FI	SE
CZ	x	146	10 063	69	0	234	–1 083	0	–14	8	94
DK	–92	x	189	19	–342	–148	–561	–89	–30	–16	–87
DE	–8 704	569	x	132	–1 302	–1 377	–76 404	–10 623	–2 170	–1 804	–1 177
CY	–9	13	218	x	0	8	–17	0	0	–16	38
LV	–3	403	1 985	0	x	78	–23	3	0	–7	129
NL	17	346	3 154	41	–2	x	–409	–378	–16	–71	121
PL	1 641	867	83 162	27	16	1 985	x	26	3	86	1 012
PT	23	171	8 030	0	3	1 453	4	x	2	52	178
SI	3	31	1 472	–1	2	21	–10	2	x	–2	–30
FI	4	12	1 473	–14	–1	138	–33	–4	–2	x	–59
SE	2	147	1 822	–18	–20	129	–120	–52	–9	44	x

Table 4 Relative deviations of data on international migration flows, related to the mean of both data, 2002

From where	To where										
	CZ	DK	DE	CY	LV	NL	PL	PT	SI	FI	SE
CZ	x	1.13	1.64	1.18	0.00	0.85	–1.88	0.00	–1.17	0.19	0.90
DK	–0.95	x	0.07	0.43	–1.70	–0.27	–1.82	–1.07	–2.00	–0.04	–0.02
DE	–1.63	0.17	x	0.43	–1.79	–0.16	–1.88	–1.77	–1.53	–1.03	–0.36
CY	–0.55	2.00	1.44	x	–	0.32	–1.36	–	–	–0.47	0.95
LV	–0.32	1.59	1.65	–	x	1.47	–1.39	0.86	–	–0.12	1.04
NL	0.08	0.49	0.25	0.78	–0.20	x	–1.42	–0.73	–0.89	–0.27	0.17
PL	1.91	1.64	1.40	1.74	1.07	1.55	x	1.37	2.00	1.65	1.49
PT	2.00	2.00	1.68	–	2.00	1.57	2.00	x	2.00	2.00	2.00
SI	0.15	1.44	0.90	–2.00	2.00	0.38	–2.00	0.29	x	–0.67	–1.03
FI	0.13	0.03	1.00	–0.93	–0.04	0.41	–1.61	–0.15	–2.00	x	–0.02
SE	0.03	0.06	0.71	–0.33	–0.56	0.21	–0.92	–0.70	–0.46	0.01	x

The main reasons for the observed differences can be summarised under the following four categories: **legislation and methodology, the location of data collection, the approach of officials, registering immigration and emigration.**

Legislation and methodology

Several sub-categories in this area can be distinguished:

1) **Restrictions on entry and the strictness of residence terms:** Generally, the stricter entry and residence terms are, the better the information that can be obtained on migrants. There are good records on the people who enter the territory of a state for a period longer than three months and need a visa or residence permit (leaving aside the issue of illegal migration, which is not part of migration statistics in any regard) in the information systems of the Foreign and Border Police or similar institutions. The records are much worse wherever simple registration is all that is required. This is the case of the free movement of citizens between countries in the EU. With registration much less data may be requested from migrants than is required from migrants applying for a residence permit, and it is not easy to penalise those who do not register. In this area the differences between countries are likely to grow (unless some effective measures aimed at consolidation are taken). It is also important whether other rights or responsibilities are attached to a residence permit or registration, and how motivated an individual coming into a country is to legalise their stay.

2) **The distinction between tourism and migration:** Although there are recommendations for differentiating between tourism and short-term migration – three months – each country approaches this question individually and the distinctions differ considerably. Countries also vary in terms of how difficult it is to distinguish between short- and long-term migration (e.g. in some states in Germany it is necessary to register when a person is residing outside a hotel or accommodation facility if the period of stay is longer than two weeks, and all such cases are included under migration).

3) **Categories of arrivals and departures included under migration:** Some countries, for example, do not include students or asylum-seekers or detected illegal immigrants.

4) **The definition of the country of original/future residence:** Information on the country of prior residence or future residence is based only on what the person migrating provides to the foreign police or the registration office. People can deliberately conceal information about where they are from and where they are going, or they can change their mind. There is also a problem when the one-year limit is used to differentiate between short- and long-term migration, because a particular individual can leave country A and go to country B, but then soon after move to country C and only there actually reside for a longer period. Information about longer migration routes never reach country A. Similarly, country C need not know that the usual place of residence of the migrant was not country B but country A.

The appendix here contains a comparison of the systems for monitoring migration in the Czech Republic and in Germany, along with a more detailed comparison of migration flows between these two countries.

The gradual elimination of legislative discrepancies, at least within the EU and the European Economic Area should be achieved by means of a common migration policy and the harmonisation of residence terms through the introduction of EU Regulations and Directives.

The location of data collection

Data quality can be substantially affected by the fact that the data is collected (i) during a visa application and granting procedure (e.g. at the consulate of the destination country), (ii) when crossing the border into the destination country, or (iii) when applying for a residence permit at the foreign police or similar institution responsible for legalising the stay of foreigners in a country, (iv) during registration at a regional registration office in the location where residence is being applied for, or (v) in sample surveys, which is how it is done in England.

If all other differences were eliminated, however, the location of data collection would not play a big role.

The approach of officials

The human factor often relates to national character. For example, German immigration officials or officials at registration offices are regarded as considerably stricter than, say, Italian officials.

The relationship of this factor to national character necessarily means that overcoming differences in the approach of officials will be a "long haul", and it can only be achieved if, say, the national characters of the states of the EU were to converge.

Recording immigration and emigration

Generally, immigration is documented more than emigration, and there are several reasons for this. First, the failure to legalise residence can result in serious problems (deportation, prohibition on residence, repatriation, etc.), while the failure to legalise the end of stay need not be the source of any problems (if someone is no longer in a country, it is impossible to penalise them for not being in the country illegally). That is why emigration from a country is often not documented.

For foreigners there is a safety catch in that a visa or a residence permit is only valid for a specific period. Once the document expires the foreigner can "officially" leave.

In the case of a country's citizens things are more complicated, because there is no time limit on their residence. If there is no advantage to a citizen from reporting their departure (for example, tax registration and the minimum tax obligations in the place of residence, or penalties for not paying health and social insurance while absent and without announcing one's absence), citizens are not particularly motivated to report their departure and data on emigration are significantly undervalued.

This inconsistency can be solved, for example, by linking tax returns and social and health insurance payments to the registered main place of residence.

Another option is to use the principle applied in internal migration statistics for international migration. Internal migration statistics are based on the relationship between the new and the original municipality of residence. If a person moves from municipality A to municipality B and in municipality B registers as a resident, fills in a change of residence form, which municipality B sends to municipality A (or, more recently, as written communication is abandoned, municipality B enters the change in the **Central Population Registry** and the original municipality makes an electronic change of address entry).

This principle could be applied to cross-border migration if states were able to agree and allow the exchange of such data at the international level. In order to substantially improve the results of migration statistics, this procedure would best be taken up at the level of the EU and states cooperating with the EU (Norway, Switzerland, Island, and even the United States, Canada, Australia, and New Zealand). This approach should also include the institution of one main and several other places of residence, the way the system works today, for example, in Germany. All rights and obligations linked to place of residence (insurance, taxes, voting rights, etc.) would then be attached to the main place of residence.

The international cooperation described above already operates in the Nordic Union – an agreement between Denmark, Sweden, Norway, and Finland – and more recently also Belgium. The destination municipality registers the immigrant, who also fills in a registration form. If the person remains in the municipality longer than six months, the municipality sends a copy of the registration form to the previous place of residence, regardless of whether the place of residence is in the same or in a different country of the Nordic Union. If we compare in Table 2 the size of the migration flows shown by individual sides, we find that the countries associated in the Nordic Union exhibit just minor differences (in Table 2 the data for these countries are highlighted in a different colour).

The precondition for applying this approach is the political and public will to set up this kind of cooperation (which in a certain sense affects the issue of the protection of personal data – individual data on Czechs are at present provided to authorities outside the country only as part of legal assistance and on the basis of bilateral agreements pertaining to this assistance) and statisticians can do little to influence this political will. It is of course possible to draw the attention of politicians and the public at every opportunity to the existence of this problem and its further implications, but joining the Nordic Union or expanding it across the entire EU is a political and not a statistical matter.

Another problem can emerge in connection with the resources of regional authorities for covering new postal expenses. The issue of financial resources may to a considerable degree be a restrictive factor on the entire system, because international postage is understandably more expensive than domestic postage. One solution could be to use so-called clearing centres and the representative institutions of each state. Post could be sent through these centres and registration documents would thus be transferred in mass mailings, for example, once quarterly, and that would certainly reduce the costs of the process.

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APPENDIX 1

Comparison of reported migration flows between the Czech Republic and Germany

Order	Germany	Czech Republic
1.	Legal base	
	– **Law on Statistics on the Movement of Population and the Current Adjustment of the Population Figure** (Federal Law on Population Statistics) Registration and deregistration forms and communication between Local Registration Offices and Statistical Offices of the Federal States – **Federal Frame Law on Registration + Registration Laws in Federal States** – duty to register and deregister when moving into or out of a sole or main residence or other accommodation at the Local Register Office	– **Statistical Service Act** – items specification for demography, statistical balance, possibility of using administrative data sources – **Record of population and ID numbers' Act** – Population Record's Information system ("Population Register"), people and items in Record – **Foreigners Residence Act** – categories of stay, visa, purposes of stay, stay-mode
2.	Definition of internal migrant	
	Person (regardless of citizenship or length of stay) who changes the municipality of their sole or main residence within Germany within one or two weeks	**Czech citizen** who changes his **permanent residence** and or **foreigner** who changes **his usual or permanent residence** from one municipality to an other within the Czech Republic
3.	Definition of external immigrant	
	Person (regardless of citizenship or length of stay) who registers their main residence in Germany for more than two months (generally) and comes from abroad	**A. Czech citizen** who establishes their permanent residence again (after cancelling it and reporting it to authorities some time earlier) in the Czech Republic, or **B. a foreigner** belonging to one of a selection of categories (see point 5) coming to the Czech Republic from abroad
4.	Definition of external emigrant	
	Person (regardless of citizenship or lengths of stay) who deregisters their main residence in Germany and moves abroad	**A. Czech citizen** who cancels their permanent residence in the Czech Republic or **B. a foreigner** belonging to one of a selection of categories (see point 5 – bold ones) cancelling their residence in the Czech Republic (real emigration) or after the expiration of their visa, permit or permanent residence permit-card (administrative emigration)
5.	Categories of foreigners	
	EU citizens – Main residence in Germany – registration (if the stay is to be longer than a certain peroid of time – specified in the Registration Law in each of the 16 Federal States – 2 weeks to 2 months (federal maximum) **3rd-country citizens** – Residence permits and main residence in Germany registration (if the stay is to be longer than a certain period of time – specified in each Registration Law from 16 Federal States – 2 weeks to 2 months (federal maximum)	**EU citizens** – registered stay – **temporary residence** – **permanent residence** **Third-country citizens** – non-visa stay up to 90 days (if there is a bilateral agreement between the Czech Republic and the person's country of citizenship) – up-to-90 day visa (no agreement) – **90-day-and-over visa – valid for 1 year maximum – not prolongable** – **long-term residence – valid for 1 year – prolongable** – **permanent residence (incl. asylum-status holders)** – asylum seekers – under temporary protection

(Continued)

Order	Germany	Czech Republic
6.	Foreigners and registration	
	– **EU citizens – free movement** – Local Registration Office – when an EU citizen establishes their main residence in Germany and informs the Local Foreigners Office – from January 2005 – **Third-country citizens – residence permits** – Foreigner gets a permit from the Local Foreigners Office if the intended length of stay is more than 3 months and the person is establishing their main residence in the area of the Local Registration Office	– **EU citizens – free movement** – registration (within one month of arrival) at the local Foreign and Border Police's Office – **Third-country citizens – valid visa or residence permits** (within 3 days of arrival) local Foreign and Border Police's Office Directorate of FBP transfers individual records on present foreigners monthly to "Population Register"
7.	Organisation of registration system (approx. numbers)	
	– ca. 12 500 politically independent municipalities – ca. 5400 Local Registration Offices –> ca. 5400 local registers – 650 Local Foreigners Offices –> one Central Foreigners Register – 16 Federal States –> 16 Statistical Offices of Federal States – one Federal Statistical Office	– 6250 politically independent municipalities – 229 (207 + 22 districts of Prague) municipalities with extended competence (registration office) – on-line connection with one Central Population register – 77 (districts) – local Foreign and Border Police's Offices – Foreigners' Information System (Central Foreigners' Register – on-line) – one Czech Statistical Office
8.	Registration process	
	– every change of dwelling within one or two weeks – filling in the registration form at the Local Registration Office (LRO) of the new residence (for deregistration due to emigration from Germany – at LRO of last residence) – LRO at new residence informs the LRO of the municipality of departure LRO in municipality of departure checks data on departed municipality and inform the LRO of new dwelling if there are mistakes in data report – LRO at new residence sends copy of registration form (selected items) or electronic file to the Statistical Office of Federal State of new residence/ destination municipality – Federal State Statistical Office (SOFS) at new residence informs SOFS at departure municipality (if new residence is in another Federal State) From January 2007 – electronic revolution in registration process – no paper circulating among registration offices – electronic communication only through Federal States Clearing points	**A. Czech citizens** – change of permanent residence – filling in the registration form at the registration office of new address (or registering cancelation of permanent residence in the Czech Republic at registration office of former address in case of emigration abroad) + till the end of 2004 cooperation with reg. office on filling in the statistical Enumeration of migration – registration office updates the data in the Population Record – Ministry of Interior exports monthly file of migration (internal together with external) for all of CR Republic (from January 2005) **B. Foreigners** – filling in registration of new residence at the local Foreign and Border Police's office – local FBP office updates residence items in Foreigners Information System – Directorate of FBP monthly exports data on new, cancelled and changed residencies of selected categories of foreigners (bold in point 5) to the Population Record and to the Czech Statistical Office

(End of table)

Order	Germany	Czech Republic
9.	Registered items (bold go to the Statistical Office)	
	– family name, first name – address of former and future residence – **former and future municipality (country)** (if one of them abroad, country is recorded for that purpose) – **sex** – **marital status** – **date of birth** – place of birth – **citizenship** – **religion (catholic/evangelic/other)** – labour force participation – **status of dwelling (main-sole/further)** Date of migration derived from the date of delivery to the Statistical Office	– family name, first name – **ID number** – **date of birth** – **sex** – **marital status** – **citizenship** – **address of previous and new residence (when within the Czech Republic)** – **date of migration** no country (in case of external migration)
10.	Statistical processing	
	Current population adjustment – population stock in municipality X to term t–1 by citizenship (nationals/ non-nationals), sex, age, marital status (from NUTS3 up only for marital status) – ± current population adjustment (processed by flow statistics between t–1 and t): + births – deaths + inflows – outflows ± marriages ± divorces ± changes of citizenship ± changes of regional borders – = population stock in municipality X to term t by citizenship (nationals/ non-nationals), sex, age, marital status (from NUTS3 up only for marital status) Monthly adjustment for sex, annually for other items	**Population balance** – population stock in municipality X to term t–1 by sex, age, marital status (country level only for marital status) – ± population balance (processed by flow statistics between t–1 and t): + births – deaths + inflows – outflows ± marriages ± divorces ± changes of citizenship ± changes of regional borders (regional borders are being changed only at the beginning of the year for stat. purposes) – population stock in municipality X to term t by sex, age, marital status (country level only for marital status) Monthly balance for sex, annually for other items
11.	Deviations from UN Recommended Definitions	
	– migration flows not number of migrants (no personal identification available –> statistical office is not able to recognise multiple migration of one person – lengths of stay (intended/realised) not available –> overall migration, not only long-term is reported (overvaluated numbers on migrations) – double-counting due to system of local registers and system of deregistration dependent on the will and discipline of migrant	– Czech citizens – permanent residence change only and dependent on the will of person to inform authorities –> undervaluation of external migration flows – EU citizens – temporary residence – based on will –> undervaluation of external migration flows – Country of previous/next residence for external migrants not available in the Population Register (problem from January 2005)

Comparison of reported migration flows between the Czech Republic and Germany

from where –> to	Specification	According to:	2001	2002	2003
Czech Republic –> Germany	Total	CSO*	701	1 087	950
		SBA**	12 206	11 150	9 258
		Difference	**–11 505**	**–10 063**	**–8 308**
	Czech citizens	CSO*	328	406	298
		SBA**	10 907	10 029	8 265
		Difference	**–10 579**	**–9 623**	**–7 967**
	German citizens	CSO*	371	659	642
		SBA**	908	799	702
		Difference	**–537**	**–140**	**–60**
Germany –> Czech Republic	Total	CSO*	470	987	1 228
		SBA**	9 304	9 691	8 909
		Difference	**–8 834**	**–8 704**	**–7 681**
	Czech citizens	CSO*	214	164	360
		SBA**	8 355	8 694	7 914
		Difference	**–8 141**	**–8 530**	**–7 554**
	German citizens	CSO*	244	807	826
		SBA**	669	688	710
		Difference	**–425**	**119**	**116**

Note: *Czech Statistical Office, **Statistisches Bundesamt Deutschland.

FAMILY POLICY IN THE CZECH REPUBLIC – WHY AND WHAT*)

VĚRA KUCHAŘOVÁ**)

Abstract: The article reports on contemporary approaches and topics. It draws attention to important aspects of family policy and contributes to the discussion of their objectives in the Czech Republic. The text does not contain any data, because it is assumed that the readers will be familiar with the relevant demographic data on population development.

Keywords: Family policy, family, population policy, social policy, work-life balance

In recent years family policy has begun to be seriously discussed on a broader scale in the Czech Republic and the discussion of its significance and content has spread beyond the narrower circles of the experts that specialise in this field. If family policy was at all discussed in the 1990s it was the subject of disputes over its significance, the need for it, and whether it could be implemented, but in recent years the discussions have moved to the areas of policy concepts, the degree of policy "explicitness", the legitimacy of individual forms of intervention in the family, the issues of the very concept of the "modern" family and forms of family cohabitation, and other conceptual topics. For example, one positive development has been the effort to discuss the essential issues that form the building blocks of family policy (in particular, at the annual conference organised by the *National Centre for the Family* and by the *Committee for Health Care and Social Policy of the Senate of the Parliament of the Czech Republic*, held since 1999, a conference of the Ministry of Labour and Social Affairs in 2005 and 2006[1)]; and discussions on demographic development in the pages of *Demografie*). This article is intended to stimulate thoughts on issues connected with the concept of family policy and to promote discussion in which theoretical and general findings are confronted with possible practical measures.

Key points of family policy essential to its formulation are still the subject of discussion. However, without a clarification of these points it is impossible to create family policy. Primarily this involves a series of basic and interconnected issues:
– the breadth of social policy as a concept,
– the relationship of family policy to social or pro-natal policy,
– the definition of the family and other forms of cohabitation for the purpose of family policy,
– the objectives of family policy.

Family policy must be based on both general conceptual principles and on an understanding of the needs and interests of people and how they can be met by various relevant subjects. The Czech Republic's membership in the EU adds a relatively new dimension to national family

*) This article was prepared as part of work on the project "Family, Employment, and Education", supported by the Ministry of Labour and Social Affairs, registration no. 1J051/05-DP2, conducted as part of the National Research Programme TP-5 "Modern Society and Changes to Modern Society". It was first published in *Demografie*, 2006, 48, p. 229–240. The content of the journal is published on the Web site of the Czech Statistical Office: http: //www.czso.cz/csu/redakce.nsf/i/demografie

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1) In 2005 the topic was *Family Policy Perspectives in the Czech Republic* and in 2006 the topic was *Family and Parenthood at the Turn of the Millennium – the Image and Transformation of the Family, Partnership, and Parenthood in Contemporary Society as a Challenge for Political Practice*, http://www.mpsv.cz/clanek.php?1g=1&id=2157

policy, even though family policy as such remains exclusively the domain of each individual state. Therefore, other important components for the formulation of family policy are:
– the legitimacy of family policy, that is, public demands and attitudes,
– the role and participation of individual subjects,
– the context of state family policy determined by membership in the EU (the principles and initiatives derived from EU legislation and documents).

The breadth of the concept of social policy and its relationship to pro-natal and social policy

The consensus today with regard to the concept of family policy seems to be that it should be based on the broadest possible approach. Sociological and demographic studies in the Czech Republic and experiences from outside the country indicate that family behaviour is the outcome of the synergic effect of a complex of factors, and the way these factors complement and condition each other complicate efforts to distinguish between the main and the less important among these factors (see, e.g., *Rabušic*, 2001; *Aassve – Mazzuco – Mencarini*, 2005: 296). The crosscutting, society-wide character of family policy is declared in the **National Concept of Family Policy** elaborated in 2005 at the Ministry of Labour and Social Affairs (*Národní,* 2005: 9) and by a number of Czech experts (*Tomeš*, 2002; *Sirovátka*, 2005; *Munková*, 2002; *Kuchařová – Tuček*, 1999). A basic argument for a broad concept is the fact that changes to the family are occurring within the overall context of modernisation and individualisation processes (cf., e.g., *Možný*, 2002: 200an.; *Sirovátka*, 2005: 20–21).

Different countries, even if they exhibit similar demographic development, need not have identical uses for family policy. Not just the decline in fertility, despite its almost universal applicability, took various courses, but also individual countries have different experiences with specific phenomena, such as divorce, the incidence of unmarried cohabitation, life expectancy, youth pregnancy, etc. Yet, the family policy of each individual country responds not just to the specifics of demographic development but also to cultural tradition, the degree of secularisation in society, or the course of modernisation processes. For example, even societies that share a similar religious orientation but have different historical experiences do not behave in the same way (cf. e.g. *Saxonberg – Sirovátka*, 2005). *L. Hantrais* (2005) cites France and Ireland as an example of how high fertility can emerge in countries with different family policies because their socio-cultural conditions differ. This is confirmed by the otherwise specific example of Sweden (*Hoem*, 2005)[2)].

In the history of family policy in different countries we can find approaches that range from a concept of family policy that can be practically identified with a pro-natal policy, to approaches that do not promote pro-natal policy but regard family policy as desirable and legitimate. They then either apply its explicit forms, which are based on a formal definition of their goals and principles and in which the pro-natal aspect is often obvious, or more often its implicit forms are applied, in which, on the contrary, the elements of social policy are more pronounced, but they include a more complex set of instruments that more or less directly support family or parenthood (cf., e.g., *Matějková – Paloncyová*, 2004: 9). Among European countries, the need for explicit family policy is especially recognised by Germany, France, and the Netherlands, but the differences between the instruments they use are by no means minor. Slovakia and Poland have both re-conceived their family policy. From the perspective of population characteristics it is not just states with explicit family policy that exhibit positive indicators but also countries that have no concept of family policy but support the interests of children and equal opportunities (e.g. Scandinavian countries), and countries that pro-

[2)] The complete version of Jan M. Hoem's article *Why Does Sweden Have Such High Fertility* in Czech translation was published in *Demografie*, 2006, 48, p. 241–250.

mote liberal approaches in the majority of relevant areas and policies (e.g. the UK, the US). In the Czech Republic, since the start of the 1990s various different approaches have been emerged back to back – from the liberal approach, favouring implicit family policy, to the conservative and universalistic approaches (both asserting an explicit concept). The **Family Policy Concept** (2005) was the first explicit family policy, but implicit family policy has a long tradition in the Czech Republic, even though in different periods the forms and effects of the policy have been accompanied by various different problems (cf., e.g., *Tomeš*, 2002; *Nešporová*, 2006).

Different systems of family policy are connected with different welfare state systems. *O. Poláková* (2003; *Krebs et al.*, 2002: 272), for example, has distinguished three types: liberal (the state has a small role and non-state subjects play a large role), social market (primary significance is given to families themselves, the state plays a strong role, and there is space for the non-state sector), and universalistic (the state plays the dominant role, minimum or no participation of non-state subjects). The last type is typical for totalitarian regimes, and it can only be fully realised in that form of regime. As *I. Možný* has demonstrated in his work, the version of this type of family policy that was applied in state socialist Czechoslovakia did not in reality lead to the fulfilment of its declared goals, but rather the reverse. The attempt of socialist ideology to replace family ties with collectivist ties actually reinforced the family. This course does not apply in all cases; ties within the family and between generations were strengthened, a high marriage rate was maintained, and the average number of children remained high, but, for example, the divorce rate increased, which was a consequence of the fact that family policy was primarily pro-natal. Here the more general question arises: how far does intervention from the state or the assertion of some "socially recognised" norms through various (state, non-state) subjects succeed in achieving its objectives? The advanced social state, which was intended to ensure the fulfilment of the basic functions of the family by substitute means, contributed to the simultaneous instability of the family and the diversification of forms of family cohabitation. In this regard it is useful to assess its effects in the support of the family in various socio-cultural environments.

Esping-Andersen created the "classic" classification of three basic types of social state in 2002, and it was family policy that he put at the centre of the discussion of the welfare state[3)]. In relation to family policy he also mentions the increase in general education and access to health care, the reduction of income differences, and the elimination of social exclusion. When he describes the "new" family policy, he underscores the need to take the following phenomena into account: new family forms, such as single-parent families and two-income families; growing employment of women, including mothers with small children, and the importance of working incomes of mothers for the material security of children; the significance of the quality of childhood for personal development; the significance of eliminating or preventing poverty and the social exclusion of children; and the significant of the concept of work-life balance and equal opportunities for men and women. According to Esping-Andersen, effective family policy must be based on an interest in children, it must accommodate the needs of women ("women friendly"), and it must be conceived as a social investment. Alongside his typology of social states he also distinguishes three types of family policies:

– The northern type of family policy, corresponding to the social-democratic type of social state, is based on the strong role of the state, equal opportunities, good living conditions for children, high employment of women, work-life balance, minimising the role of the market and to a certain degree of families themselves;

[3)] T. Sirovátka also draws attention, for example, to the increase in the significance of family policy and specifically the rise in family allowances in Germany during the period when the welfare state on the whole came into crisis, which resulted in changes such as the reduction of benefits for seniors and the unemployed (Sirovátka, 2000: 49).

– The continental type of family policy, corresponding to the conservative social state, emphasises the role of the traditional family, minimises the participation of women in the labour market, and provides less direct support for children;
– The Anglo-American ("liberal") type of family policy, stresses market solutions and responses to the higher rate of employment of women and focuses on the tension between the family and employment and other aspects of the child-woman-family relationship[4].

The degree to which these ideal types are applied in reality is expressed in the degree to which the focus is placed on pro-natal or "pro-family" family policy. One of many analyses of the relationships between family policy and fertility trends compares the situation in Sweden and Germany, that is, essentially the pro-natal effect of the first two types of family policy cited above (and also, although marginally, the two of them as opposed to the third). It points to the advantages of the first type (*Hoem*, 2005), which essentially involves – though the author does not exactly put it this way – the focus of the family policy measures on the basic "family unit", i.e. the mother-child, or the parent-child, as, for example, *I. Možný* describes it (2002: 205). The focus implied in Hoem's text is on the individual-parent and the child, unlike the German focus on the traditional family.

B. Matějková and *J. Paloncyová* (2004: 11) presented an up-to-date summary of approaches to family policy and in it enhanced Esping-Andersen's typology with the addition of a post-socialist type. They, too, took into account the concept of equal opportunities of men and women. The authors were also unable to avoid the difficulties involved in assigning particular characteristics to selected states. From their overview and from another detailed study (*Matějková – Paloncyová*, 2003 and 2004)[5] it is evident, for example, that "national" family policies reflect the different interpretations of the ("traditional") family, and that regardless of whether the states implement implicit or explicit family policy, the approaches they apply do not usually form entirely consistent units. This is owing to the fact that family policy is attached to other spheres and policies and is dependent on the specific cultural-historical-social context[6].

Alongside family law, the core part of family policy is always the assistance of the state (society) in reducing (not just) the financial costs to families of having children. Family policy usually concentrates on the more easily calculated direct costs (essentially consumption costs) and less on indirect costs, often described as opportunity costs. Not only are indirect costs impossible to calculate in precise figures, but they also have strong subjective determinants and are difficult to grasp empirically. In addition, while both parents may contribute to direct costs, in the absolute majority of cases the indirect costs are worn by the woman. The concept of costs connected with children is nonetheless a useful (though not the only) instrument for understanding the changes in demographic behaviour and for conceiving family policy measures. *I. Možný* (2004: 18) has pointed out that the increase in the opportunity costs during early parenthood since 1989 have decreased the interest in marriage and parenthood.

Family policy necessarily reflects changes in the position of women. An analysis by the OECD in 2005 cited as sources of the decline in fertility the higher education levels of now several generations of women, their ambitions in the area of economic activity and financial independence, the relative decline in the value of parenthood, problems achieving a work-life balance, and the need to achieve a certain economic standing before starting a family. Another factor is the level of unemployment and changes in the employment structure, such as the decline in the proportion of agricultural work. Outside economic factors, significance is ascribed to the decline in the marriage rate and changes in social security systems. Even the

[4] Cited from Kamerman, 2003.
[5] These authors (though not just them) devote attention to an important topic which it is not within the scope of this paper to address – the funding of family policy measures, their sources, and the forms of use and redistribution.
[6] For example, even between the post-socialist states there are many differences in family and social policy, despite the similarities of background and their subsequent transformations.

often-mentioned changes in the value orientations of women and the growing awareness of the incompatibility of family and employment have been taken into account. *Liefbroer* and *Corijn* (1999) distinguish between "structurally" based incompatibility (the discrepancy between the real opportunities open to women and the inhibitions to using them) and "cultural" incompatibility (relating to the discrepancies between recognised values and the attitudes towards the role of women in society), which is an important observation for both theory and practice.

A study by the European Commission on **The Social Situation in the European Union** (2005) also includes among the factors affecting fertility in individual EU countries socio-economic specifics, cultural specifics, and policies focusing on the family and fertility (p. 100). Here again the role of women's employment is emphasised: "In countries where women are employed, but where no corresponding support in public policy exists, and men do not participate in family responsibilities, fertility rates tend to fall. Conversely, wherever there are policies enabling women to combine employment and family and men take on a greater role in household responsibilities, couples who want children tend to fulfil their wish". These comments on procreative behaviour point to the need for state intervention, not just in the form of benefits and services, but also by means of creating the conditions for harmonising family and work (and for changes in the behaviour of men and even women).

A primary reason for applying a broad understanding of family policy is the parallel effect of the socio-economic and the culturally normative context on family behaviour and on the formation of the living conditions of families. Family policy should be based on the role of the overall economic conditions of family life and should be done so not just in the interest of eliminating poverty (which in the Czech Republic is relatively low). At the same time it is essential to cultivate a pro-family climate in society (*Zeman*, 2000: 55; *Hoem*, 2005: 568), without which no state measures can have any sufficient and long-term effect.

An important task is finding a way of incorporating within family policy those aspects important for developing a pro-family climate which lie within the spectrum of roles and responsibilities of the main actors in family policy but which form an essential part of this climate – this means the overall socio-economic context in which families, children, seniors, and young people at the start of their professional careers and (potentially) parenthood live. It is necessary to address the relationship between the public and private spheres of life. The most striking case is the role of the community, but also for instance the role of employers, whose approaches today rarely tend to be "family friendly". The fact that family policy is conceived at the level of government, which bears the responsibility for fulfilling the general and specific objectives, and yet these objectives can only be fulfilled with the participation of other subjects, who follow the policy through, means that the very relevance of family policy can be called into question.

A broad understanding of family policy creates a specific relationship between family and social policy, which is not a relationship of system to sub-system, even though they have areas in common. That is why many experts and politicians still view their relationship in this way or focus attention mainly on those areas that overlap (e.g. *Poláková*, 2003; *Munková*, 2002; partly also *Sirovátka*, 2005; *Neyer*, 2003). On the one hand, the family needs much broader support than what is provided by financial transfers and social services (see above). On the other hand, within social policy it is necessary to coordinate measures aimed at benefiting families with measures that primarily target, for example, senior citizens or the disabled. In this context *I. Tomeš* (2001: 6) observed a specific feature of social policy, and it is not the family that he includes under social policy, but "social events connected with the family, maternity, and raising children". Yet, as *T. Sirovátka* demonstrated in a similar context, the contemporary family is becoming a "more urgent" target of social policy than before, given the significant changes it has undergone and given the effects of the presence of children in

the household on family income levels and the employment of parents. However, the need for external assistance to families with elderly members is still underestimated, even though the elderly, especially in an era that supports active old age, should not be just the target of narrowly defined social-policy measures. Family policy must today reflect the extension of life expectancy and increased migration. A prominent expert on family policy theory, *M. Wingen,* has noted that family policy must form a separate system, distinct from the social policy of the state, a system that will formulate mutually complementary financial and non-financial, state and private, legislative and local measures. This system must be targeted at all families and cut across society as a whole (*Zeman*, 1999). The objectives of family policy derive from the understanding of its relationship to pro-natal policy. The majority of European countries today reject any explicit pro-natal policy regardless of their demographic development (*D'Addio – D'Ercole*, 2005: 49). Conversely, its integration with social policy is consistently (and naturally) strong.

The family policy concept drawn up by the Ministry of Labour and Social Affairs in 2005 is based on a broad and complex understanding of family policy, which is evident in the document's Preamble and Implementation Principles (*Koncepce*, 2005: 8–9). The authors realised that the first version of the concept could not be perfect and complete and instead interpreted it as the foundation for further work on the policy concept and programme. For this reason also they tried to situate the specific measures they proposed within the context of "current possibilities", and as a result the so-called implementation section (p. 9), describing the objectives and tasks for the most immediate period, does not replicate the breadth of the concept proclaimed in the introduction. One reason for this is that the Ministry of Labour and Social Affairs and the government, through which the family policy is implemented, have strictly defined responsibilities and authorities, but a broad understanding of family policy requires the involvement of a wide range of subjects.

Defining the family and new "family" forms

Although as the target of family policy the family needs to be defined as precisely as possible, it is almost impossible to find a suitable definition in the otherwise very rich literature on this topic. The family is not precisely defined even in the Czech Act on Families, the first part of which is devoted to marriage and states, in § 1, par. 2: "The main function of marriage is to start a family and raise children". In 1990 *I. Možný* has also described the family in relative detail: "...it is assumed that the characteristic, natural, and predominant form of family in the society of our culture is a monogamous couple family, thus a household made up of a male and a female as partners and their children" (*Možný*, 1990: 18). It is not clear whether he has in mind just marital couples or not, but he goes on to draw attention to the transitory nature of this family form. Later he writes that "the core of the human family is the relationship between the mother and child, not the relationship of the couple; the relationship between the mother and the father in the system of the human family is instrumental in character: the basic couple provides protection" (*Možný*, 2002: 205)[7]. It is necessary to stress the final part of this quotation. The protective role toward this "family core" that it mentions must be ensured in the interest of the child and the mother if the family breaks up or never originates, and must be done so by means of family policy and the involvement of another subject. If there is no mother, and it is the father (or foster parent) that is in the family core, the principle remains the same. What is important here is support for intergenerational solidarity and relationships, which in family policy is a topic that figures somewhat marginally.

Given the difficulty of defining the family, only some (and mostly earlier) efforts concentrate on the definition of the "uncomplicated" nuclear family, which for the ("modern") concept of

[7] An indirect confirmation is that we have no problem with the term "single-parent family".

family policy is a necessary but too narrow perspective. It even has the drawbacks recalled by *F. de Singly* (1999: 11), in that the effort "to define the family in terms of its form or structure ... involves the risk of detracting attention from the relationships that from a theoretical perspective are however the most important". From the perspective of family policy the basic object of interest are the relationships and functions of families and their "performance" (according to the latest and at least the best-sounding term). Authors dealing theoretically with the family and empirical research on the family do not attempt to define it and increasingly tend to analyse more the changes in family and demographic behaviour rather than the family as such.

Generally, the family is today understood as an institution that is formed by parents (a parent) and children, and preferably they are the parents' (the single-parent's) own children. The transformation of the family in recent decades complicates this definition. The instability of the family and the practical approaches for addressing the effects of the break-up of the family, when, for example, the needs of an orphaned child or children of divorced parents are catered to by – alongside the "remaining" parent (or in the case of deceased parents, instead of them) – other relatives or other persons of no relation, means that the family corresponding to the above-mentioned definition, i.e. the monogamous couple, two-generational family, is often referred to as the "traditional" family. Various people in practice can fulfil the function of providing for a dependent child[8]; the structure of the family changes, families are unstable, and all this cannot be overlooked and on the contrary must be taken into account in family policy (cf., e.g., *Možný*, 2002: 18 ff.).

For the purpose of family policy, or at least for some family policy measures, it is useful to define the household as their target (*Tomeš,* 2002: 61). This is an easily definable unit that can be statistically described (and statistically defined). Nevertheless, there are often situations in which it is desirable to use family policy or social policy where the household (family) members do not live in the same household but rather alone or separately from their families (single-parent families, foster families, family members in institutional care). Given the very clear and (at least today) irreversible trend of the decline of the "traditional" family and the increasing predominance of alternative family arrangements, it is necessary to conceive family policy for a wider circle of family living arrangements (parents-children, grandparents-grandchildren, etc.) and non-family living arrangements of children living with other people caring for them (foster parents, step-parents). The 28th session of the Conference of European Ministers of the Family recommends that "the activities of the state focusing on protecting the family not be restricted to the traditional family" (*28th session*, 2006: 4). In its closing declaration it proposes that governments respond to socio-demographic changes by adopting legislation that takes into account the various difference forms of the family (ibid., p. 9).

The **National Report on the Family** elaborated under the Ministry of Labour and Social Affairs in 2004 abandons defining the family. It criticises attempts at a broad concept and as an adequate basis proposes first defining the individual, socially relevant functions of the family (*Národní,* 2004: 9). According to the authors of the introduction to the report, "in a narrower concept, the natural nuclear family, which is by far the predominant type of living arrangement in the Czech Republic, can be regarded as an institutionally structured social community that is based on a family and a marital relationship as the two basic lines of relationship... The state should however in its family policy concept make a decision about what form of arrangement it considers the most appropriate. In this regard it is necessary to realise that in the light of the stability of the partnership union a family based on marriage best fulfils all socialisation, economic, and regenerative functions" (*Národní*, 2004: 10). Unlike

[8] There is no need for institutional facilities to immediately come to mind, as there are numerous more provisional forms, such as care provided by grandmothers, stepfathers, foster parents, adopted parents, etc.

the other documents cited above, this text clearly proposes orienting family policy primarily around married couples with children[9]. The family policy concept of the Ministry of Labour and Social Affairs developed in 2005 did not adopt this interpretation, but it in no way questions the precedence of a marriage-based family.

Goals, objectives, and effects of family policy

The basic goals of family policy derive from how explicit it is and how broad its conception is. The traditionally "narrow" goals are support for natality, income redistribution to benefit families with children, and the elimination or reduction of the poverty risk (as a result of the presence of children in the family or the inadequacy of employment incomes, these involve both support for social incomes and support for the employment of parents). Family policy saw a gradual increase in the emphasis on the well being and life chances of children and on the more balanced positions of both spouses or partners in a union (e.g. *Hantrais*, 2005, *Sirovátka*, 2000), on work-life balance (*Sirovátka*, 2005; *Kocourková*, 2002[10]), on preventing social exclusion, on the security of family members in various stages of life, and on developing human resources (*Kocourková*, 2002; *Zeman*, 2000). Briefly put, the family policy agenda has been expanding in the modern, globalised world, and the creators of family policies have no other option than to respond to this in the breadth of their concepts.

The effectiveness of family policy and the usual instruments of family policy can be assessed in an international comparison, but this naturally also suffers from certain drawbacks of a methodological and practical nature. The limitations of comparison result from the fact that they are incapable of capturing data on every contextual effect that differs between individual countries. The results of such comparisons are consequently not straightforward. According to a study by the OECD (*D'Addio – D'Ercole*: 59), the least reservations are found in the results of analyses from various countries on the positive effect of day care for small children as long as a series of basic conditions are fully met – that it is affordable and geographically accessible, that it is organised according to the needs of (working) parents, and that it provides services of adequate quality. Less consistent are the results of studies of the effects of financial subsidies and relief. Similarly inconsistent results are notes also by *J. Paloncyová* in the case of the relationship between child allowances and fertility in European countries (*Matějková – Paloncyová*, 2004: 34). In this comparison (for the year 2001) the Czech Republic is the country with the lowest fertility, despite ranking at almost the middle of the scale in terms of the amount of the allowance it provides as what percentage of the total average income it constitutes[11].

At any rate, a comparison of studies of family policy instruments confirmed that they contribute to increasing fertility, albeit with varying degrees of reliability. The direct relationship is usually evident in the case of financial transfers to families with children, in the case of benefits during parental leave, higher employment among women, and the higher percentage of women working part time. Conversely, fertility is reduced by higher unemployment, the amount of the opportunity costs to mothers, and the length of the parental leave.

The system of financial subsidies to families with children (and other families in low-income households), however generously conceived, need not have substantial effects if the relative value of the benefits (in relation to other incomes) is low and de-motivating. Although as a system family and social benefits in the Czech Republic are on the whole generous, their

[9] In the cited study J. Hoem uses the example of Germany to point out the limited effectiveness of this kind of approach (Hoem, 2005: 569).
[10] Kocourková notes, for example, the transition from the concept of the "welfare state" to the so-called "care-giving society", in which care for children and the elderly is adequately valuated by society.
[11] Critical comments relating to wage gaps, etc., would suggest themselves, but the conclusion about the weak correlation is losing validity.

impact in terms of benefiting children is small in comparison, for example, to the effect that benefits have on senior citizens. As *Trbola* and *Sirovátka* have shown, among children aged 15 and under the effectiveness of social transfers in reducing poverty is limited (around 59% compared to the average 79%), and the same applies in the case of families with four or more children, where the distribution of social benefits has the effect of decreasing the amount of poor by just 44% (*Trbola – Sirovátka*, 2006: 49).

Family policy in its narrow interpretation has no pro-natal goals, but it also focuses on the conditions and quality of parenthood. Yet, as *J. Kocourková* (2002) notes, "pro-natal measures are only one of a number of factors that can influence decisions about starting or the size of a family. The effect of these measures cannot be isolated or quantified. Their effect can only be evaluated in the context of the effect of other conditions". On the other hand, some measures are only effective in connection with some individuals or groups, while on others they can have a neutral or even the opposite effect (e.g. financial benefits and the length of parental leave appeal more to low-income groups). However, this evaluation is complicated by the fact that the positive effects only manifest themselves over a longer period of time (*D'Addio – D'Ercole*: 59, 63).

The needs and interest of the public – the legitimacy of family policy

There is little doubt about the legitimacy of family policy among the Czech public. Empirical studies have repeatedly shown that, on the one hand, Czech families value their autonomy, and their awareness of the responsibility that lies with them for their family life is growing, but on the other hand, families demand from the state an assured standard of living and assign the state a function of protection and assistance, especially for families that have been "weakened" in any way, i.e. mainly those with health disabilities, single-parent families, the unemployed, and families with many children (data from the **Family 2001** survey).

Studies have also recorded a critical stance towards social policy targeting the family. One finding reached by *V. Haberlová* (*Komplexní,* 2002: 13–14) is the following: "Doubts and misgivings are evoked by the effort to focus family policy preferentially on population measures. By contrast, support is given to the need for targeted and diversified family policy. ...According to the findings of representative surveys conducted by STEM on social policy, roughly one-half of the public feels that the provision of social services is more important than the provision of material support. ...The public is divided into two groups over the choice between a state family policy that financially supports women with small children so that they can remain at home with their children as long as possible and a policy that concentrates on creating conditions enabling mothers to at least partially re-enter the labour market. The slightly more numerous group in all types of family and household is the group that prefers improving the conditions for women with small children to enable them to re-enter the labour market". The results of a series of surveys conducted in 2006 as part of a project called **Family, Employment, and Education** strongly concur with these findings. More educated people and women tend to support the variant of women's employment more, but other differences are not significant.

From an analysis of ISSP data, *Saxonberg* and *Sirovátka* (2005: 15 ff.) found that the demands of women in the Czech Republic and Poland during the transition period with regard to work-life balance would be met by a family policy that differs from both the state-socialist and the conservative policy (the combination of which to some degree characterises the situation today). They point out the discrepancy between the change in the value system and the unchanged and thus inadequate character of family policy in the two countries. However, studies have also discovered a discrepancy between declared values and real expectations: for example, they note the adoption of the two-income model of the family and the demand to satisfy the work expectations of women, and at the same time the strong orientation of women

toward the family and motherhood. It appears that the very limited development of instruments to support work-life balance in this country is a fundamental problem.

The European context of state family policy

The European Union does not establish a uniform family policy, as it does in the case of social policy. However, attempts have been made to draw up EU family policy (*Národní*, 2004: 214). In conformity with the essential mission of the EU there are generally applicable directives that relate mainly to the relationship between family life and employment and the relationship between the fulfilment of family and professional functions of individuals. The basic directives focus on themes such as parental leave, measures aimed at support improved job safety and health protection for working pregnant women and women shortly after childbirth or still nursing, certain aspects of organising working hours, e.g. part-time work, or the unification of families[12)].

Other resolutions, programmes, and documents that refer to the position of the individual as an employee and a family member relate to, for example, the coordination of social security systems, health security, and social security requirements. *G. Munková* (2002: 7) summarises the main priorities of the EU in relation to the family, women, men, and children as follows:

– work-life balance (involving fathers in looking after children, the concept of parental leave, facilitating part-time work in order to reconcile work and family life),
– support for the multiplicity of family structures that are emerging, or in other words acknowledging differences between family models (creating uniform access to benefits for married and unmarried couples, for single-parent families, etc.),
– taking into account specific needs at individual stages of the family cycle, i.e. supporting solidarity between generations (especially focusing attention on children and their legal protection, care for the elderly).

In addition to these priorities, in the context of policy aimed at preventing social exclusion, the European Commission has, for example, engaged in tackling domestic violence, creating procedural materials to support parenthood in families at risk of social exclusion, etc.

Summary

Family policy is essentially the sum of government measures and the measures of other government-backed subjects designed to assist families and individuals in fulfilling their family and especially their parental roles[13)] and to assist the healthy development of children and their social integration. Family policy is intended to support the outlook of parenthood, protect the interests and guarantee the rights of children, parents, grandparents, and persons performing parental functions, and to do so in conformity with the rights of those persons in terms of their legal civic standing. The traditional content of family policy in the Czech Republic has been family benefits, paid maternity leave, and later also parental leave (including securing the return of women/men to their employment after leave), facilitating care for children of working parents from a young age, assistance in covering the costs of having children, and previously it also encompassed the provision of health care for children and mothers (during pregnancy and after childbirth) and partly also support for housing.

Later the focus of family policy became a kind of eclectic combination of various "ideal types". The state retains significant influence in the area of family benefits, whereby it resembles the "Scandinavian type", but with fewer financial resources compared to Scandinavian countries, and with the qualification that with regard to care for very small children (in nurs-

[12)] Accessible at: http://www.mpsv.cz/cs/2500
[13)] For example, the father's role after the dissolution of a marriage, when the child is consigned to the care of the mother, or in the case of the parental roles of unmarried partners.

eries) state support has been very limited. The increased responsibility families have assumed in the past decade thanks to the changes in values and norms in society, the reduction in the real amount of family benefits, and the targeting of family benefits at the most needy families is a scenario that bears features of the Anglo-American concept of family policy. While this concept requires the increased role of the market, it has only come to be managed recently with the greater involvement of the non-governmental sector (including efforts to make it a significant part of contemporary family policy). The extension of parental leave is itself a debatable form of "compensation" for the long-term high rate of women's employment (and corresponds more to the continental type), which has resulted in the need for numerous amendments to it. Nevertheless, its effect is still unclear. The length of leave corresponds to the wishes of many mothers, but its purpose from the perspective of supporting natality and the employment of mothers has been seriously questioned in some domestic and foreign studies (*D'Addio - D'Ercole*, 2005; *Kuchařová et al*., 2006).

One of the key issues of contemporary family policy is work-life balance, which is a necessity that has been evoked by the situation today where the requirements for success in the labour market come into conflict with people's ability to perform properly their roles as parents (cf., e.g., *Sirovátka*, 1999; *Sirovátka*, 2006; *Saxonberg – Sirovátka*, 2005). This is consistent with findings from international studies stating that countries with "above-average" fertility apply this policy in some form (and promote the model of "the two-income family"). This focus has proved more effective in the circumstances of the 21st century than policy oriented toward so-called familialism (the model of "general support for families"; cf., e.g., *Hoem*, 2005). *Sirovátka* proposes responsibly weighing the possibility of combining both models, which is the direction in which contemporary practices are headed, with an increasing "emphasis on combining the principles of individual choice and solidarity" (1999: 49). The author also points out that "while there is prevailing agreement that family policy supports the child-raising function of the family..., dispute reigns over the question of how much family policy influences reproductive behaviour". If we acknowledge – and there are many arguments for doing so – that family policy has an influence on fertility, then we can go on to ask which measures are more effective and which less so. In this regard, approaches that emphasise family benefits are often questioned (e.g. *Poláková et al*., 2003). *O. Poláková* herself considers the generous financial assistance to families in France to be one of the three main factors behind the country's high fertility, and France is a good example of the positive effect of measures directing at facilitating a work-life balance. *J. Kocourková* also notes that today "financial support for families is more a matter of social policy, while reconciling employment with the need to care for a family and the concept of the quality of men and women have moved to the centre of family policy" (*Kocourková*, 2002).

Family policy should be a kind of compromise between its explicit and its implicit interpretation in the sense that it requires formally and consensually defined goals, focuses, and basic principles, including the definition of the roles and competences of the main actors. But at the same time it should leave room for the activities of various other subjects, including the families themselves, which even amidst a "non-focus" on family policy can substantially assist in achieving these goals. Family policy should be comprised of informally, implicitly conceived policies that can provisionally be referred to as policies for children, policies for seniors, policies for parents, and policies for the socially vulnerable or those at risk of social exclusion, all under the umbrella of a policy aimed at the stable economic and social development of society. The idea arises in this sense of a kind of family mainstreaming[14)] as an expression of the understanding that the family, like old age (in relation to which "age mainstreaming" is promoted) or the equality of women and men (in the now established agenda of "gender

[14)] The European Parliament has been calling for the formulation of European "family-mainstreaming" since 1994.

mainstreaming") a complex phenomenon. It should be added that there could even be "frictional points", e.g. where support for prolonged economic activity in the interest of active old age comes up against the desirable possibilities of inner-family mutual assistance (grandparents caring for grandchildren). Similar "friction" points can be found even at a more general level, where, for example, at times one-sided interpretations of the rights of women and the rights of children can clash[15].

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[15] Here I have in mind, for example, the right of a child to parental care and the right of a woman to professional employment. Here, however, it is often not a matter of family-policy measures but is about a search for a rational and sensitive "compromise" in individual cases and in the general awareness.

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Book reviews

MULTILINGUAL DEMOGRAPHIC DICTIONARY (CZECH EDITION)*)

The second Czech edition of the **Multilingual Demographic Dictionary**, which was prepared by *Zdeněk Pavlík* and *Květa Kalibová*, came out in the spring of 2005, forty years after the first and more than twenty years after the second French and English editions of the volume[1)]. This in no way detracts from its significance, as the dictionary is much more than a translator's aid and serves also as a resource for the codification of demographic terminology, respecting international comparability, and at the same time taking into account differences based on specific national circumstances. The sections of notes that accompany the terms explain these differences and usually also outline in more detail the meaning of particular terms in one language that do not have exact equivalents in every other language.

The dictionary was developed as part of a large-scale project that was launched at the fourth session of *the Population Commission of the United Nations*, which presented the *United Nations Secretariat* with a proposal to prepare a demographic dictionary. The UN Secretariat took advantage of an offer from the *International Union for the Scientific Study of Population* to cooperate on its preparation. The Multilingual Demographic Dictionary Committee, established at the fifth session of the UN Population Commission, prepared versions of the dictionary in French, English, and Spanish. During the preparation process and in the first draft of the first edition in 1954, prepared in French, it became evident that there was also a need to define the terms and explain the different concepts they refer to in different languages. The Committee took this need into consideration and instead of aiming to find equivalencies in different languages and to standardise terminology, that is, instead of synthesising definitions, they developed the project with the objective of understanding the meanings of the terms in different languages and explaining the different concepts behind the terms used in three Romance (especially French) and English languages (the French and English editions were published in 1958, the Spanish in 1959). The first Czech edition, which was prepared at the Institute of Economics of the former Czechoslovak Academy of Sciences (edited by *Z. Pavlík*) and published in 1965 as the eighth language mutation of the dictionary, was also prepared in this spirit, that is, as the equivalent of an encyclopaedic dictionary rather than as a mere translation.

Based on the experiences of publishing the dictionary in other languages, a recommendation was made in the early 1970s at the fifteenth session of the UN Population Commission (1969) in Geneva and at a congress session of the International Union for the Scientific Study of Population that work on the dictionary project continue. In 1972 the re-established Multilingual Demographic Dictionary Committee began working again, and under the direction of *P. Paillat* (of France) the Committee processed an enormous amount of material, which *Louis Henry* from the French *National Institute of Demographic Studies* used to prepare the second edition of the volume in French (1981). This served as a model for the second English edition of the dictionary, published in 1982, which was prepared by *Etienne van de Walle*; these were followed by the Spanish edition in 1985 (edited by *Guillermo A. Macció*) and the German edition in 1987 (edited by *Ch. Höhn*).

The Multilingual Demographic Dictionary is conceived as a kind of reference dictionary, published in various languages, wherein the individual terms are identified in each language version using the same numerical codes. The dictionary has two parts: a reference section with explanations of the terms, and an alphabetical index of terms. In addition to professional demographic terminology the dictionary also lists and includes terms from other spheres of human activity that are used in demography. In order to find the correct term when translating from one language to another, the user looks up the term in the index section of the source language, where the terms are listed and marked according to the same system of numerical coding in every dictionary, and follows the number to the corresponding place in the reference section of

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*) This review was published in Demografie 2005, 47, p. 271–272. The contents of the journal are published on the Web site of the Czech Statistical Office at: http://www.czso.cz/csu/redakce.nsf/i/demografie

[1)] The second Czech edition of the *Multilingual Demographic Dictionary* (Mnohojazyčný demografický slovník*)* was published by the *Czech Demographic Society* as the 15th volume in the series *Acta demographica*. The technical editorship of the publication, with 184 pages, was successfully executed by *Ludmila Fialová*. The dictionary was published in Prague in 2005 with a print run of 1000 copies (ISBN 80-239-4864-4). The dictionary is distributed by the Czech Demographic Society (Česká demografická společnost), Albertov 6, 128 43 Prague 2 (e-mail: teskova@natur.cuni.cz, tel.: 221 951 418, fax: 224 920 657).

the target language edition that the number refers to, where there is an explanation of the term. When translating, for example, from Czech into another language, the user looks up the code number in the Czech version and from that locates the corresponding term in the target language edition.

There are two parts to the numerical code: the first part is a three-figure number, the second part, separated from the first by a dash, is a one- or two-figure number, sometimes followed by an asterisk. The very first number in the three-figure code refers to the number of the chapter in which the term is located (chapters 1–9) and the second two numbers indicate the paragraph in which it is located within the chapter. The numbers to the right of the dash directly identify the term, which is typed in bold (along with synonyms) in the relevant paragraph and chapter in the reference section, where the term is explained; if the term is located in other paragraphs in different contexts, it is typed in italics. All terms typed in bold in the main text have equivalents in other languages. Codes marked with an asterisk refer to other terms printed in bold and listed in the notes at the end of the paragraph, where an explanation is given of the relevant equivalent term. These are terms that do not have an adequate equivalent translation in other languages, but nonetheless do occur in some of them. In the index section these terms have the same code as the equivalent terms and are accompanied by an asterisk. These terms are typed in bold only once.

The reference section of the second edition maintains the same structure as the first edition of the dictionary. It is divided into nine chapters, beginning with explanations of the more basic and generally used terminology, proceeding to chapters on processing demographic statistics, the state of the population, mortality and morbidity, marriage and divorce rates, fertility, population growth and demographic reproduction, migration, and to a chapter explaining terms relating to the economic and social aspects of population development. There is no reason to analyse the correctness of the terms and the terminological accuracy; the professional qualifications and lengthy experience of the authors are adequate guarantee that this is a volume of high professional quality.

In the alphabetical index the authors made a successful effort to overcome as much as possible the one disadvantage of a printed index – that the entries are classified according to a single principle. In this dictionary the authors have addressed this problem by listing multi-word terms under each of the words in the term (except conjunctions).

Naturally, the twenty-year period that has elapsed since the second editions of the French and English versions were published raises the question of the currency of the demographic terminology, which has not remained unchanged over such a long period, and new terms have also entered the field that at the start of the 1980s were not regularly used or did not even exist (most often these are terms from areas of marginal interest to demographers, e.g. from the field of medicine or law). However, given that the second Czech version of the dictionary corresponds in content to the second editions of the other language mutations of the dictionary it was not possible to update the dictionary in this way. However, I believe that whatever slight "ageing" of the content may exist in no way reduces the quality of the second edition. Basic demographic terminology has proven to be relatively fixed and internationally comparable. Some periodical updating would certainly be useful, as interest in the field of demography is increasing in every country around the world. Although this is clearly a demanding project, it has only to be hoped that the dictionary will be updated internationally. It would be useful if the second volume of the dictionary were published as an updated supplement only with terms in the five main world languages (English, French, German, Russian, and Spanish).

Dagmar Bartoňová

DEMOGRAPHIC HANDBOOK 2004*)

The **Demographic Handbook 2004** (Demografická příručka 2004) draws on a tradition of demographic handbooks published in Czechoslovakia and later the Czech Republic since 1958, when the **Demographic Handbook 1958** was published (written by *Dagmar Vysušilová*; at the time this publication was only for internal use), followed by the **Demographic Handbook 1959** (which was published by the *State Statistical Office* and written by *Dagmar Vysušilová* and *Milan Kučera*), the **Demographic Handbook 1966**, which was published by Svoboda publishers (written by *Vladimír Srb*), and the **Demographic Handbook 1982**, which was published by the *Federal Statistical Office* (written by a group of authors headed by *Vladimír Srb*).

The most recent edition, the Demographic Handbook 2004**,** retains the basic structure of the previous handbooks, but it has been enhanced by a number of features and especially by an appendix containing graphs[1)].

The group of authors was headed by *Jiřina Růžková*, and the publication's individual sections were prepared by: *Milan Aleš, Petra Brabcová, Štěpánka Morávková, Jarmila Molinová, Dana Pirníková, Magdaléna Poppová, Marie Radolfová, Eva Smrčková, Marcela Stoulilová, Josef Škrabal* and *Jana Štichauerová*, without any further specification of individual authorship of the sections and other work.

According to its foreword, the Demographic Handbook 2004 was published on the occasion of the 85th anniversary of the introduction of Act No. 49/1919 Coll. and the foundation of the State Statistical Office of the Czechoslovak Republic. The handbook contains the oldest Czech demographic statistical data, dating from 1785, and some estimates for older (pre-statistical) periods. The time series of demographic data from the period of the Czechoslovak Republic start in the year 1919, at which time two other publication series were launched, the **Source Book on Population Migration** (Pramenná díla o pohybu obyvatelstva) and the **Source Book on the Census Results** (Pramenná díla s výsledky sčítání lidu (domů a bytů)), issued for the first time in connection with the census of 1921. The foreword notes that the majority of the data are available on the Web site of the *Czech Statistical Office* at: http://www.czso.cz.

The contents of the Demographic Handbook 2004 are marvellously laid out on chalk paper and accompanied by colourful graphs. The book is divided into eleven sections, including an adequately large section on international statistics. The Appendix contains textual graphs (for individual sections) and three synthetic maps. An essential part of the handbook is the Methodological Notes (p. 15–20). There is even a kind of "crash course" in demographic statistics with regard to terminology and the meaning of the most commonly used indicators used in demography and demographic statistics.

This review will first look at the content of the publication.

Territory and population. Unlike older demographic handbooks, the most recent one is enhanced with the inclusion of a number of indicators that were not published in previous editions, which naturally adds to the publication's value by offering the use of other combined indicators, most of which must be calculated by the user. Given that the handbook limits its scope to the Czech Republic, in several places it is able to present overviews for the regions and districts. This is a big advantage, though I am aware that the frequent (and unnecessary) changes to administrative-territorial divisions detract from the value of the data almost immediately after their publication. The graphs for each section are labelled "Appendix – maps", and despite reservations about the territorial-administrative changes, these are an immensely valuable addition to the content of each section and of the entire publication.

Houses and dwelling. It is apparent that the absence of data on houses and dwelling in the censuses conducted between 1921 and 1961 cannot be subsequently compensated with solid estimates, and in this regard we must still rely on the past Reports and Analyses of the State Statistical Office, etc., which contain detailed data on building and dwelling construction in the interwar years, but only for a very narrow sample of towns and municipalities.

Families and households. These data are drawn from analogical data in previous demographic handbooks, expanded with the inclusion of a structural indicator. Item "B" in Tables 3–5 and 3–6 is not the

*) This review was published in Demografie 2005, 47, p. 121–123. The contents of the journal are published on the Web site of the Czech Statistical Office at: http://www.czso.cz/csu/redakce.nsf/i/demografie.
Vladimír Srb, a prominent Czechoslovak demographer, is no longer with us (he passed away in 2006). By including his last article we wanted to draw attention to Srb's enormous contribution to the development of demography and demographic statistics in Czechoslovakia. He was the author of many demographic studies, books, articles, and reviews. Older foreign colleagues may recall his review Demosta (published in English, French, Spanish, and Russian), which promoted Czechoslovak demography abroad.

1) *Demografická příručka 2004*. (Demographic Handbook 2004) Prague: Český statistický úřad, 2004, 373 pp., English translations of the text in the tables and graphs are provided.

fault of the Czech Statistical Office but of the Office of Personal Data Protection. These are data – married women according to the number of live births in the current marriage, based on the results of censuses in 1930–2001 – that the aforementioned not altogether qualifiedly blocked. The problem is now needlessly being addressed in court in a case that the Czech Statistical Office must win, as the verdict must confirm the obstinacy of the office involved.

Marriages. Although marriage and the marriage rate continues in the Czech Republic to be one of the determinants of the fertility rate, it cannot be the subject of any wider attention than it has been in previous years, given that the published data are enough for the assessment of the significance and weight of nuptiality for the reproduction of the population in the Czech Republic. The table is expanded to include educational levels of engaged partners, and this information is also provided in other sections, but unfortunately not in the section on deaths, where this information is missing but where it would have been especially useful. The traditional table on marriage balances is certainly very interesting and is perhaps the most vivid global indicator of the effects of socio-cultural and value changes in the Czech population.

Divorces. Statistics on divorce rates and the effects of divorce on natural population growth will be an increasingly frequent resource for demographic analyses of the development of society. As in the case of marriage, the statistics on divorce provide a sufficient amount of information about one possible fate of a marriage. Comparing the marriage and divorce rates by the education levels of couples, including an index of this type of separation, contributes especially to our knowledge of this social phenomenon for its analysis in natural population growth.

Births. The fifteen tables devoted to births and pregnancies reveal the natural focal point of the handbooks, which concentrates mainly on the reproduction of the population. The content in this section is typical in form, but the indicators in the individual tables – especially for recent years – are now coming to represent a kind of historical document on the most significant changes in population reproduction. Maps included directly in the section show the total fertility rates in 2001–2003 and the percentage of extra-marital births in 2001–2003. Thus, the indicators selected are ones which the authors correctly believe are the two synthetic indicators perhaps the most representative of the change in the natural reproduction of the population. The section also contains a passage in the table on total embryos born, which is an indicator little used in demographic summaries abroad owing to the absence of data necessary to create such a summary.

Abortions. I believe that previously Czechoslovak and today Czech and Slovak demographic statistics are among the few that can surpass in scope and relative accuracy similar statistics published abroad, which are usually substituted with clinical statistics or sample survey data. Consequently, the abortion rates recorded here sound worse than they are in a number of respects (volume, categorisation details, etc.). There is no graph section here that would allow me to compare these data with the data on total fertility. It will be up to analysts to explain the seemingly incomprehensible relationships between indicators in the 1980s.

Deaths. The mortality trend in the Czech Republic in recent years is among the more positive features in the country's population development. This finding is evident from all the indicators in this section. Nevertheless, analysts repeatedly note the continued existence of quite a significant gap in some indicators between the Czech Republic and other "advanced" countries, for example, the gap in life expectancy. From the data it is possible to see the biggest declines occurred in child mortality and old-age mortality, with some stagnation in productive old-age, and with more positive development in the mortality rate of men than of women, which is part of a process of compensating for previous developments, when male mortality stagnated while female mortality declined, and women's life expectancy rose to levels comparable to indicators abroad while men's did not. The addition of a new table on the percentage of the deceased at age over given a age limit seems like an unexpected return to "primitive percentage indicators of total mortality", but I do not regard the table as out of place among the more traditional tables. As stated above, what I do miss here is a breakdown of the deceased by education. Maps showing life expectancy by sex in 1996–2000 are a good addition to the numerical section.

Migration. I know no country that has such detailed statistics about the movement of the population as the information maintained by former Czechoslovakia and now the Czech Republic since 1949 or 1950. It is true that in recent years (since 2001) these statistics have been less reliable than before, specifically with regard to inter-state (external) migration, but this is not the fault of the Czech Statistical Office. The incomplete or illogical nature of the data on external migration is clear from a comparison of data from the Czech Statistical Office and the Slovak Statistical Office on Czech-Slovak migration. It is wonderful that Slovakia is interested in these comparisons, even though in terms of migration – compared to the Czech Republic – it continues to be an emigrant state. It is good that the data are not regarded as prestigious. However, it is unlikely that the user will seek *prima vista* statistics on the natural

increase by region and district in this particular chapter. Nevertheless, the question is where the table should be included in connection with net migration. This section also lacks an appendix with graphs, perhaps because the data for the past two years are not as reliable as we thought before, even with the awareness that migration is one of those changes that are difficult to assess anywhere in the world and tend to be inaccurate. In order to make data on inter-state migration more accurate it would be necessary to set up some kind of headquarters that would gather national data and attempt a "clearance calculation", the results of which would be communicated to national governments or individual countries.

Regional summaries. This new section is a truly innovative addition to the demographic handbooks and must be welcomed with warm praise. Territorial summaries are becoming an increasingly more common part of demographic analyses. This corresponds with the decentralisation of public administration and the needs of local authorities at various administrative levels. The selection of tables in this section was naturally not easy to make, but I consider the result, and the inclusion of a map, to be good.

International summaries. This section is also a new addition and is appearing for the first time in this volume. The collection of so many relatively similar indicators, and especially for so many countries, was a laborious task even given the wealth of sources we are now accustomed to. The appended maps on total fertility in 2002 and on life expectancy of men and women at birth in 1999–2002 serve as a valuable conclusion to this section and to the publication as a whole.

Overall my evaluation of the Demographic Handbook 2004 is very positive and remains so despite the following few remarks:

The organisation of some tables in the publication is done wastefully.

The arrangement of some tables does not permit the extension of time series, e.g. to 2020, when the next edition is intended to come out; the empty pages at the end of the publication are not a suitable solution.

The classification of analytical data in the tables continues in the tradition of previous handbooks, but is also the result of decisions about other analysers. Let the analysts sweat a little!

Perhaps the handbook should also include some summary or some analytical data on demography in the Czech Republic, like in the handbook in 1982. These data must usually be sought with some effort from inaccessible sources.

In my opinion, which is by no means overly benevolent, the Demographic Handbook 2004 is a new and essential resource for demography in the Czech Republic.

Vladimír Srb

STATISTICAL LEXICON OF MUNICIPALITIES IN THE CZECH REPUBLIC 2005*)

One of the lasting traditions of the *Czech Statistical Office* is that it continues to publish the **Statistical Lexicon of Municipalities** following each national census[1)]. The most recent edition is the sixth to be published since the end of the Second World War, and it is much richer in content that the previous edition, which came out in 1992 [and published sooner; the "delay" this time was not the fault of the Czech Statistical Office (CZSO)]. The Lexicon contains an overview of population numbers from censuses conducted between 1869 and 2001, broken down according to regions, districts, and towns with a population of ten thousand or more, a list of towns in the Czech Republic not arranged by district, lists of municipalities according to municipalities with extended competence and municipal authority, according to register and building offices based in another district, a summary of territorial changes and changes in geographical names in 1993–2004, a list of municipalities with extended competence, and summaries of the number of municipalities, parts of municipalities, and census local units by region and district along with basic census data. The main part of the Lexicon is made up of a list of municipalities, parts of municipalities, and census local units by region and district and a corresponding detailed alphabetical list of territorial units.

The Lexicon represents an invaluable guide to the complex hierarchical structure of the variously subdivided territorial settlement of the Czech Republic, without which it is impossible to imagine en-

*) This review was published in Demografie 2005, 47, p. 272. The journal's contents are published on the Web site of the Czech Statistical Office at: http://www.czso.cz/csu/redakce.nsf/i/demografie

1) Prepared by the Czech Statistical Office in cooperation with the Ministry of the Interior CR, published by Ottovo nakladatelství s. r. o., Prague, 2005, 1358 pp.

gaging in any work on territorial issues. The list of municipalities contains the names and codes of the municipalities, the parts of the municipalities, their census local units, their classification characteristics, postal codes, and area measurements, and main census statistics. I think that a good selection of data has been made, as they provide a good indication of the size of the population and the number of homes and flats in a necessarily concise format.

However, in my opinion the Lexicon has several faults, and if they could be eliminated the Lexicon would be a better or more concise piece of work. The first problem is the ineffectively wide columns for information of limited volume (especially the names of a municipalities with extended competence), in the place of which other data could have been presented (e.g. the percentage of the population over the age of 65, or the number of single-member economic units, both of which are indicators of the ageing of the population in rural areas). The use of crosses instead of figures is comical.

I regard a second flaw to be the double-spacing of all numerical data in the case of municipality = census local units, which only adds unnecessarily to the number of pages, and a third to be the absence of row numbering at the right end of the left-hand pages and at the left starting end of the right-hand pages: using just the numbers of the municipality is not enough, especially in the case of municipalities that comprise a large number of parts and census local units, so the user is required to number them him/herself. The authors no doubt yielded to the pressure of programmers, whose work was made easier as a result (e.g. the Lexicon from 1982 does not have double-spacing!).

The formerly anonymous approach to citing the authorship of the Lexicon has correctly been replaced with a list of authors from the census group at CZSO. What is incredible is the price of the Lexicon, which at 999 Czk remains beyond the means of private users. However, this is balanced by the opportunity to purchase the Lexicon on CD for 500 Czk.

Milan Kučera

TWILIGHT OF THE WELFARE STATE – FAMILIES AND CHILDREN IN THE GLOBAL SOCIETY*)

In this book[1)], *Jan Keller*, a professor at the *University of Ostrava*, a lecturer at several universities abroad, and a very active sociologist, thinker, and author, focuses on a prominent current issue in advanced countries at the start of the 21st century – the weakening and decline of the welfare state. I am not qualified to evaluate the entire study, so I limit myself here only to the author's numerous warnings about the situation of families and children in a society that puts a strong priority on high productivity. The author has a good understanding of the problem of population reproduction (the decline in fertility, increased longevity, ageing, and the shifting proportions of the economically active and inactive in the population), and he also has a good grasp of the issues affecting families and children.

According to the views of critics in the 1980s, the welfare state resulted in the increased instability of the family when it took over some of its functions. It played an important role of an intermediary between the languages of economics, politics, the social sphere, and culture. To this end it needed to base itself on redistribution as a manifestation of solidarity between different groups of the population. To operate it required the cohesion of the family to support members if they encountered problems in the labour market. Today, however, the family is experiencing a process of "flexibilisation" and is becoming just one of a number of projects in individualised lifestyles and a field of experimentation in new forms of private life arrangement. There is increased reluctance to start a family when the flexibilisation of the family poses a greater risk to women than men. In the author's view, to now the strategy of the welfare state in relation to the family has involved the provision of social services to compensate for the gaps in functions formerly fulfilled by the family. The family is clearly and irrevocably evolving from the model of the single-breadwinner household to the two-income household and from there to the model of the single-parent family. The economic advantages of childlessness increase the pressure on young couples to choose to remain childless in order to improve their living standard and increase the changes of being in a better situation in old age (loosely cited from p. 29–31). An increasing number of people have realised that they will only just manage to work off the expense of supporting themselves, and that the only way to save for a decent future is by not having children (p. 33). A family that gives thought to its

*) The review was published in Demografie 2006, 48, p. 51. The contents of the journal are published on the Web site of the Czech Statistical Office at: http://www.czso.cz/csu/redakce.nsf/i/demografie

1) Keller, Jan. *Soumrak sociálního státu*. Prague: Slon, ediční řada Studie, 2005, 158 pp.

economic situation will simply not have a child. University-education people with children are on average materially worse off than childless couples with lower levels of education. As the welfare state recedes, the costs of caring for children are increasingly borne by the family. Families with children at the same time take over the responsibility of providing for the retirement of those people who have chosen not to have children. As more and more limits are put on redistribution, children and the education of children will increasingly be regarded as a matter for parents to take care of, disregarding the importance of children as future contributors to the system of old-age security and thus even to the security of childless people (regardless of what kind of system is involved). This results in the discrimination of families with children. They bear the costs of future retirement even for those who "economised" by remaining childless.

Declining solidarity leads to the disadvantaging of families with children. Children become an economic burden on the family alone, as the solidarity between people with children and people who have "cleverly" remained childless decreases or ceases to exist (the latter having renounced the risks stemming from caring for children, and not just in terms of living standards).

The author does not address the demographic issue of global society and just draws attention to some of its aspects. In place of the author, readers can make their own conclusions: amidst the competition between states over GDP growth and the competition between individuals (self-fulfilment, success in life, a career, wealth, etc.), children represent an "unnecessary" life risk for many young people.

Luckily young people do not just think in economic terms, and for many, children and caring for children are an enrichment of life and a source or expression of their own self-fulfilment, so they are able to face the increased risks. Mutual regard between parents, love for one's children, and the children's love for their parents, which later evolves into friendship, are not, like honour and morality, economic categories. The basic question for future reproduction levels in the Czech Republic continues to be the relationship between these two groups of people (the last two paragraphs represent the opinions of this reviewer; the author of the study did not go into such detail).

Keller's study should be read by all demographers, especially those who "dream" of an increase in the total fertility rate in the Czech Republic to a level above 1.4.

Milan Kučera

Surveys

THE NATURAL POPULATION CHANGE IN THE CZECH LANDS IN THE YEARS 1914–1918*)

Keywords: historical demography, natural population change, Czech Lands, First World War

In June 2005 the *Czech Statistical Office* published, for the first time, reconstructed data on the natural population change in the Czech Lands in the years 1914–1918[1)]. These data were not analysed until after the Second World War by the State Statistical Office (SSO), and they long remained just in holographic tables.

The basic data on population change in 1914–1918 is based on the processing of quarterly reports from official registers of vital events (they do not include data from military registers). After the founding of Czechoslovakia, the only data published were on the total number of marriages, live-born and stillborn births, deaths, and the natural population increase for the Czech Lands[2)], evidently drawn from schedules from district authorities. The SSO only began processing the first reports after the Second World War. By that time the majority of the records from 1914–1918 had been lost. Employees at the SSO therefore analysed the remaining fragments, and then they multiplied the resulting tables (i.e. the determined internal structure of the data sets on births, deaths, and marriages) by coefficients that produced values corresponding to well-known summary data. The resulting data apply to the natural change of the civil population present in the Lands of the Czech Crown, but not including the Region of Český Těšín, for which there are no data available for the war years.

The coefficient values (in the range of 3,86–22,96) show that only a very small portion of the original records survived. In addition, today it is no longer possible to ascertain which specific areas the surviving data came from, or whether they came from the same areas for the entire 1914–1918 period, and whether all three data files are from the same source. There are also no available data on the population structure by age, religion, or marital status in 1914–1918, which makes it impossible to calculate a number of indicators that are essential for a comprehensive analysis of population development. The text below consequently presents only a summary of the basic findings that stem from the published data. While the total absolute numbers are based on provisional data and are thus reliable, the other data must be regarded as a reconstruction.

Marriages

In 1914, there were 58.5 thousand marriages in the Czech Lands and the crude marriage rate reached 5,9‰. From then to 1916 the marriage rate fell relatively quickly (to 3.3‰), which was followed by an increase again (to 5.7% in 1918). In Moravia and Silesia, in 1918 there were even 15% more marriages than in 1914. Even despite this very dynamic development, the seasonal variability in the marriage rate remained evident (Figure 1). People entered into marriage mainly in February and November, the minimum total marriages each year occurred in March and December. The collection of data on the occurrence of a wedding was thus still considerably influenced by events in the church and agricultural calendars.

Most women married between the ages of 22 and 23. The decline in the number of marriages in 1914–1916 was manifested in a decrease in the number of brides from all age categories, especially brides aged 20 and under. The subsequent rise in the number of marriages was notable primarily among women aged 25–29. Between 1914 and 1918 the average age of brides increased slightly from 25.9 to 26.7 years. Throughout the war period grooms were most often aged 24–25. However, until 1918 the proportion of grooms from this age group decreased, while the proportion of men who married by age 22 and the proportion of grooms over the age of 30 both increased.

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*) This article was published in Demografie 2006, 48, p. 68–72. The contents of the journal are published on the Web site of the Czech Statistical Office at: http://www.czso.cz/csu/redakce.nsf/i/demografie

1) *Přirozená měna obyvatelstva v zemích Koruny české v letech 1. světové války 1914–1918.* (Natural Population Change in the Czech Lands during the First World War 1914–1918) Prague: ČSÚ, Obyvatelstvo, volby, 2005, 324 p. Accessible at: http: //www.czso.cz/csu/edicniplan.nsf/p/4016-05.

2) *Předběžné výsledky měny obyvatelstva v Čechách, na Moravě a v Opavsku za válečná léta 1914–1918* (Provisional Findings on Population Change in Bohemia, Moravia, and the Opava Region during the War Years of 1914–1918). In Zprávy Státního úřadu statistického Republiky československé, Prague, 1920, no. 6, p. 41–48.

Table 1 Selected indicators of natural population change in the Czech Lands, 1914–1918

Indicator		1914	1915	1916	1917	1918
Mid-year population*		9 900 178	9 900 627	9 837 358	9 745 552	9 624 230
Marriages		58 552	37 188	32 726	37 354	55 242
Crude nuptiality rate		**5.9**	**3.8**	**3.3**	**3.8**	**5.7**
Births	Total	264 438	193 803	136 717	123 407	116 820
	Live births	257 265	188 657	132 818	119 938	113 489
	Stillbirths	7 173	5 146	3 899	3 469	3 331
	Inside marriage	234 882	173 531	120 534	108 414	101 067
	Outside marriage	29 556	20 272	16 183	14 993	15 753
	Outside marriage, %	**11.2**	**10.5**	**11.8**	**12.1**	**13.5**
	Total birth rate	**26.7**	**19.6**	**13.9**	**12.7**	**12.1**
	Late foetal mortality rate	**2.79**	**2.73**	**2.94**	**2.89**	**2.94**
Deaths	Total	181 981	193 900	179 796	182 554	227 729
	Men**	93 288	101 860	88 911	89 242	111 962
	Women**	88 693	92 040	90 885	93 312	115 767
	Deaths to 1 year	46 142	40 673	25 185	21 764	22 029
	Crude death rate	**18.4**	**19.6**	**18.3**	**18.7**	**23.7**
	Infant mortality	**178.1**	**192.3**	**166.3**	**175.2**	**190.5**
Natural increase		75 284	–5 243	–46 978	–62 616	–114 240
Crude rate of natural increase		**7.6**	**–0.5**	**–4.8**	**–6.4**	**–11.9**

Note: *Demografická příručka 2004. Prague: ČSÚ, 2004.
**The higher number of deceased women than men in the years 1916–1918 is a reult of the fact that data are based only on civil registration records.
These do not include men killed in battle, who are registered in the military registers.

Figure 1 Monthly aggregates of marriages, births and deaths in the Czech Lands, 1914–1918

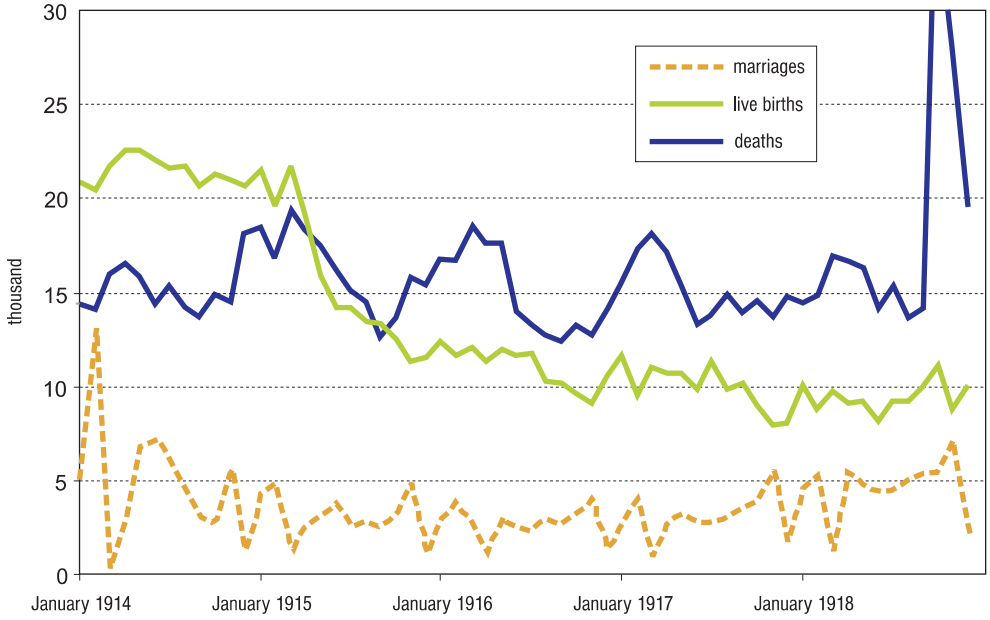


Table 2 Marriages by marital status of groom and bride in the Czech Lands, 1918, in %

Grooms	Brides			
	Total	Single	Divorced	Widowed
Total	**100.00**	**92.06**	**0.01**	**7.93**
Single	**84.95**	81.73	0.01	3.21
Divorced	**0.08**	0.07	–	0.01
Widowed	**14.97**	10.26	–	4.71

The absolute majority of brides were single at the time of marriage; the proportion of widows hovered around 6–9% (Table 2). In Moravia and Silesia, the percentage of widows among brides is always slightly higher than in Bohemia and divorced women make up a negligible percentage. There were more grooms who were widowers, at a percentage of around 12–17 %, and as in the case of brides the figure was slightly higher in Moravia and Silesia than in Bohemia. Over four-fifths of marriages were concluded between single people. Widowers primarily re-married with single women, approximately twice as often as with widows. However, widows more often re-married with widowers than with single men.

Births

The total number of children born in the Czech Lands in the years 1914–1918 decreased intensively. During this period the number fell by more than one-half, and the crude birth rate fell from 26.7‰ to 12.1‰. When the First World War broke out in 1914, it resulted in a sharp decline in the number of births during 1915 (Figure 1). In January of that year a total of 21.5 thousand children were live born, but by January 1916 only 12.4 thousand, which constitutes a decrease of 42%. The decrease in the number of births continued in the following two years, although at a much more moderate tempo. The relatively largest decrease in the number of children born in 1914–1918 occurred among women up to the age of 19 (by 70%), and while in the other age groups the decrease was more moderate, it still exceeded 50%. These developments occurred with roughly equal intensity in Bohemia and in Moravia and Silesia.

During the observed period there was a slight increase in the relative number of stillborn children. Late foetal mortality increased from 2.79 in 1914 to 2.94 in 1918, wherein there was usually relatively more late foetal mortality in individual months in Bohemia than in Moravia and Silesia. There were considerable differences in the internal structure of the data set on late foetal mortality, with a notably larger increase in the number of late foetal deaths of boys than girls. There was also a positive correlation between the percentage of late foetal deaths and the age of the mother. Finally, the legitimacy of a child also had a significant effect on late foetal deaths, especially in 1915–1916, when the percentage of late foetal deaths among illegitimate births was roughly twice as high as among legitimate births.

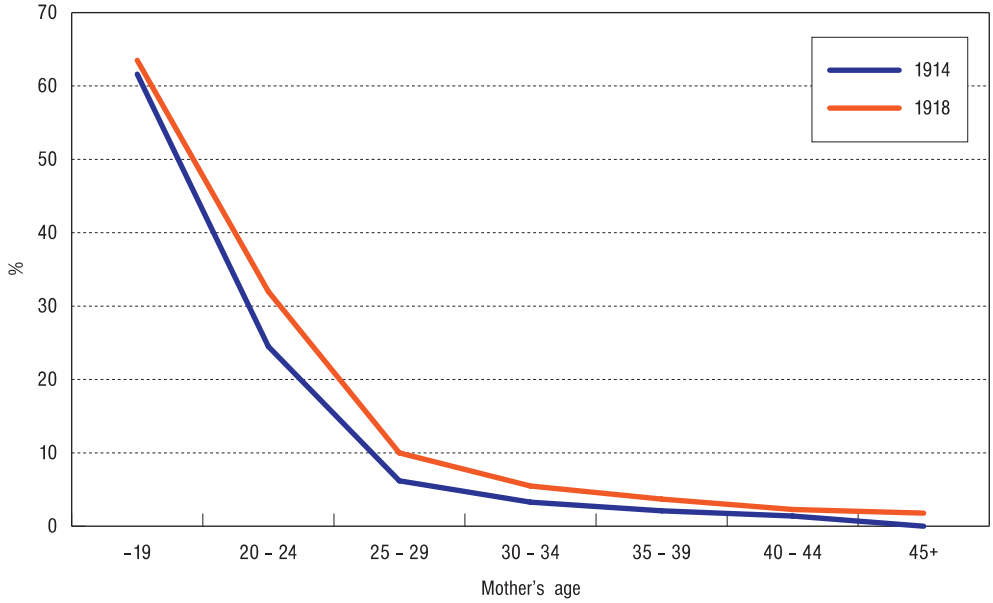
The percentage of illegitimate children out of the total number of children increased after the year 1916. In 1914, 11.2 % of children born in the Czech Lands were illegitimate, and by 1918 the figure was 13.5%; in Moravia and Silesia the increase was more pronounced. The percentage of illegitimate births was closely correlated with the age of the mother (Figure 2). Out of all the children born in 1914–1918 to mothers under the age of 20, more than 60% were illegitimate. This figure decreased as the age of the mother increased, especially at 25–29 years of age. In a comparison with the year 1914, in 1918 the proportion of illegitimate children was higher in all five age groups of mothers.

Married couples most often had children within the first year of marriage, and as the duration of the marriage grew the number of births decreased. In 1914 almost one-half of children were born during the first five years of the parents' marriage. By 1917 this percentage decreased to 40.6% in connection with the decreasing number of marriages, and in 1918 it increased by one percentage point. The percentage of children born after the longest interval between the marriage and the first birth thus grew, except in 1918. In Moravia and Silesia the average interval between marriage and the first birth was higher throughout the 1914–1918 period than in Bohemia, and in especially after 10–19 years of marriage more children were born Moravia and Silesia.

Deaths

During the First World War there was a temporary halt to the long-term trend of a declining death rate, which had been under way in the Czech Lands since the last quarter of the 19th century. In 1914–1917 the crude death rate ranged between 18.3‰ and 19.6‰, but in 1918 it grew sharply to 23.7‰. In the autumn of 1918 all of Europe was struck by a pandemic of the Spanish flu, which caused the deaths of ten million people (according to some estimates maybe even 20–40 million). The Spanish flu hit the Czech Lands in October. While in the previous four years there were 13.2–14.6 thousand deaths in

Figure 2 Share of children born out of wedlock by mother's age in the Czech Land, 1914–1918 (100% = total number of children born to mothers in the given age group)



October, in that same month in 1918 there were 43.3 thousand deaths, and 28.1 thousand in November. With the exception of that year, the highest number of deaths always occurred at the start of spring, and the fewest deaths usually occurred at the end of the summer.

Approximately one-sixth to one-fifth of live-born children in 1914–1918 did not survive to their first birthday. However, more than one-quarter of illegitimate children under the age of one died, as these children often lived in considerably poorer conditions or were left as foundlings. The highest infant mortality rate (adjusted using the so-called Rahts formula) was in 1915, when 192‰ of children died during the first year of life. The main reason was the considerable increase in the infant mortality rate in Moravia and Silesia, especially among illegitimate children, for which the rate in that year reached 361‰.

Primarily owing to the high infant mortality rate the largest group of deaths was among children aged 0–4 years. In the first two war years these accounted for more than 30% of the total number of deaths. By 1918 the effect of the low birth rate reduced the proportion of children under the age of 5 to 14% of all deaths. Conversely, each year the number (and except for 1918 also the percentage) of deaths among people over the age of 60 increased. According to the available data, in the other age groups there were no pronounced changes until 1918, when a sharp increase in the number of deaths did occur, especially in the 15–40 age group. This was caused by the flu pandemic, which primarily took the lives of people in this age group.

The most frequent cause of death was epidemic and infectious diseases, with a large majority succumbing to pulmonary tuberculosis. In 1914 epidemic and infectious diseases were the source of roughly every fifth death and that proportion gradually increased. In 1918, owing to the Spanish flu, these diseases were the source of almost one-third of deaths. Around 15% of the deaths were caused by respiratory diseases (more than one-half by lung infections), which in the observed period was the second or third most frequent cause of death.

Among the people who died after reaching the age of 60, old age was often indicated as the cause of death: 35% of deaths among people over 60 and three-quarters of people over 80 were assigned to old age. In conformity with the development of the mortality structure by age in 1914–1917 the percentage of this alleged cause of death increased from 13.3% to 19.3%. In 1914 a relatively significant percentage of deaths were due to diseases of the digestive tract. It was primarily children under the age of one year who died of these diseases, and the specific causes cited were mainly diarrhoea and enteritis. Most often people aged 15–39 were among the victims of epidemics and infections, but these diseases also became

Table 3 Structure of deaths by death causes in the Czech Lands, 1914–1918, in %

Causes of deaths	1914	1915	1916	1917	1918
I. Epidemic and infectious diseases	20.1	23.0	24.8	24.0	32.3
II. Overall diseases not included above	7.3	6.1	6.9	6.5	5.6
III. Diseases of the nervous system and sense organs	8.6	11.4	10.4	9.9	6.9
IV. Diseases of the circulatory system	8.1	7.9	9.2	9.5	8.0
V. Diseases of the respiratory system	15.5	15.8	13.7	13.0	17.0
VI. Diseases of the digestive system	12.1	9.7	7.4	8.2	4.9
VII. Non-venereal diseases of the urogenital system and adnexa	2.4	2.3	2.9	2.6	2.3
VIII. Puerperal diseases	0.4	0.3	0.3	0.2	0.3
IX., X. Diseases of the skin, subcutaneous tissue and skeletal system	0.7	0.7	0.5	0.5	0.5
XI., XII. Early age diseases and congenital abnormalities	6.8	4.6	3.7	3.2	2.9
XIII. Old age	13.3	14.1	16.7	19.3	16.0
XIV. External causes	3.7	3.6	2.7	2.4	2.5
XV. Diseases incorrectly defined	0.9	0.6	0.7	0.7	0.9
Total	100.0	100.0	100.0	100.0	100.0

the dominant group of causes of death in the 1–4 age group. However, while among infectious diseases adults succumbed almost exclusively to tuberculosis, among children the measles and whooping cough were very widespread.

In 1914–1918 there was a substantial decrease in the number of suicides, from 3000 a year in 1914 (1.7% of the total number of deaths) to 1.6 thousand in 1918 (0.7% of all deaths). There was a roughly 50% decrease in the number of suicides among men, while the suicides among women decreased somewhat, by around one-third. In 1914, 77% of the total number of suicides were men, and in 1918 the figure was 71%. Suicide was most often committed by people over the age of 40. But from the perspective of the structure of the mortality rate by cause of death, suicides were more significant among the deaths in the 15–29 age group. More than one-half of all suicides were committed by hanging or asphyxiation, and relatively frequent causes were drowning or shooting. There were differences between men and women in the method of suicide chosen. Men more often chose hanging or shooting, and among women drowning was much more common.

The sharp decrease in the fertility rate during the First World War, together with the increase in the mortality rate in 1918, resulted in a substantial population decrease in the Czech Lands. In 1914 the natural increase was still positive and at a value of 75.3 thousand people. After 1915 a rapid decrease occurred, more intensively so in Bohemia than in Moravia and Silesia. After 1915 the population change was negative in almost every month of the observed period, and only in September 1915 was there around 700 more births than deaths. During 1918 there was a natural population decrease of 114 thousand. A comparable decrease was only recorded once in the history of the statistical observation population change (since 1785), and that was in 1806, when the country was struck by a small pox epidemic.

Between 1785 and the 1990s, the First World War was the only multi-year period in which there was a natural population decrease. According to the calculations of *Vladimír Srb*, the war in the Czech Lands prevented the birth of 550 thousand children, 300 thousand men died in the war, and another 60 thousand people died as a result of the war[3)]. Through the decline in the fertility rate the war undermined what to that time had been the regular age structure of the population, and it left a deep several-year gash in the population structure, evidence of which could still be traced at the start of the 21st century.

The data analysed on population change in 1914–1918 were categorised in detail from various perspectives in the published tables. However, the reduced informative capacity of these data, the reasons for which were explained in the opening of this text, and the absence of more detailed data on the state of the population means that they are of limited use. However, within their capacity the published tables filled a substantial gap that existed in the over two centuries of time series in Czech demographic statistics.

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SINGLE MOTHERS – WHAT HAPPENS NEXT?*)

Keywords: single mother, marriage, next-order children, abortion, divorce

The standard data published by the *Czech Statistical Office* (CZSO) on demographic change in the Czech Republic year by year provide information about the number of births and the composition of the mother population by various criteria, for example, by age, marital status, birth order, the interval since the birth of the previous child, etc. The data thus provide an overview of the group of women that give birth during a single year, but even time series of these indicators do not make it possible to observe development of the given population in subsequent years. However, the basic database that the CZSO uses to compile the data above does facilitate a longitudinal analysis. This article monitors the further demographic development of the cohort of single mothers that gave birth in a given year to their first child and the child was live born.

The formation of the monitored data sets

Source data from the CZSO make it possible to monitor single mothers for the period between 1991 and 2004 and to monitor both the changes in their number (decrease) owing to death or emigration from the Czech Republic, and the changes in their demographic structure, as a result of marriage, the birth of other children, or divorce. The occurrence of abortions can also be monitored. The database is not complete for the year 1991, as data on abortions are lacking, or for the years 2003 and 2004, when the necessary indicator on divorces is missing.

During the period under observation the lowest number of single mothers with a first child was in the first year (1991), at 7368. In most subsequent years the number increased to reach its maximum to date in 2004, when the number exceeded 17 000, almost twice that of the first year of observation (an increase of 134%). The percentage of live-born first-order children of single mothers out of the total number of live-born children increased from 5.7% to 17.6%.

In order to reveal the above-indicated vital events in the basic sample, it was necessary to eliminate records with incomplete or erroneous identifiers. Also eliminated from the sample were entries that were illogical when previous vital events (birth, marriage, divorce) were added in. These were cases of women for whom prior to the data item on the birth of the first child while single had a record of a marriage, divorce, or birth of a child indicated in the database. The number of such cases is very small, so their effect on the sample is marginal. The total proportion of records eliminated owing to the cited deficiencies in individual years equals just 5.9–7.4%, so the samples that were ultimately analysed are adequately representative for the individual years, and the quality of the records in the database can be considered as very good.

Also eliminated from the base samples for individual years were women who in the period under observation died or emigrated from the Czech Republic. In the case of these women there was no way for the other monitored events to find their way into the sample or for these events to be traced, and thus the findings would have been slightly though not substantially influenced by this. The samples monitored thus comprised in the individual years between 90.9% and 93.8% of the base sample.

With the exception of Table 8, in which the data for women in total are entered, the data in the other tables are for the samples defined as above for continued monitoring (see the previous table).

Age structure of the data sets

The age structure of the women included in the data sets in the research indicates that, as in the case of the population overall, the age of mothers has been increasing. This is also confirmed by the averages cited here. The average age of the groups increased between the first and the final year of the studied time series by 3.5 years.

Also, the age of the highest intensity of first birth while single also increased to higher averages. In a conversion to 1000 women the highest percentage of women was included in the monitoring in 1991 among 18-year-olds, in 2004 among 21-year-olds, with a datum of 18.7 per thousand.

In comparison to the age structure of married mothers at the time of first birth, single mothers are younger, by 1.1 year at the start of the time series and by 2.4 years in 2004.

*) This article was published in Demografie 2005, 47, p. 287–292. The contents of the journal are published on the Web site of the Czech Statistical Office at: http://www.czso.cz/csu/redakce.nsf/i/demografie

Table 1 Selected birth indicators in the Czech Republic in 1991–2004

Fertility	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	Total 1991–2004
Live-born children	129 354	121 705	121 025	106 579	96 097	90 446	90 657	90 535	89 471	90 910	90 715	92 786	93 685	97 664	1 401 629
Live-born children of single mothers	9 226	9 441	11 269	11 378	10 910	11 244	11 946	12 875	13 966	15 064	16 359	18 095	20 753	23 451	195 977
Share of live births to single mothers out of total live births	7.1	7.8	9.3	10.7	11.4	12.4	13.2	14.2	15.6	16.6	18.0	19.5	22.2	24.0	14.0
First-order (live) births to single mothers = initial number	**7 368**	**7 421**	**8 717**	**8 609**	**7 979**	**8 121**	**8 719**	**9 214**	**10 070**	**10 957**	**11 697**	**12 944**	**15 071**	**17 226**	**144 113**
Share of first-order live births to single mothers – total	5.7	6.1	7.2	8.1	8.3	9.0	9.6	10.2	11.3	12.1	12.9	14.0	16.1	17.6	10.3
Exclusion of records with errors	543	518	525	405	581	530	620	620	642	770	710	765	898	1094	9 221
Cases that moved or died	125	98	80	75	62	50	48	45	32	36	19	32	30	8	740
Sample for further observation	**6 700**	**6 805**	**8 112**	**8 129**	**7 336**	**7 541**	**8 051**	**8 549**	**9 396**	**10 151**	**10 968**	**12 147**	**14 143**	**16 124**	**134 152**
Percentage of the initial number	90.9	91.7	93.1	94.4	91.9	92.9	92.3	92.8	93.3	92.6	93.8	93.8	93.8	93.6	93.1

Marriages

The basic question set out in the research was to determine how long the period is before single mothers marry and what percentage of them remain single. The data in the following table show this information for the data sets for the individual years after the lapse of a certain period of time (to the end of 2004). Given that in the data set of each subsequent year there is one less year in the period during which the occurrence of a marriage could be observed, it is not possible to compare the individual data sets. (The occurrence of a marriage or not in some of the other monitorings divided the basic data set of individual years into two subgroups.)

During the time period monitored a permanent shift occurred in the direction of there being a longer period after birth and a related increase in the percentage of those who remained single. Given than from the time of nine years after the birth the increases in the percentage of married women become quite small, it is possible to deduce that in the groups from the start of the 1990s approximately 40% remain single, and in the groups from recent years more than one-half. The largest number of marriages occurs within one year of the birth of a child, and with each additional year after the birth the number of marriages decreases.

A more detailed look at the period between a birth and first marriage by months (in the first two years after a birth) shows an evident shift in the occurrence of marriages to a later period after the birth. While up until the mid-1990s, for example, marriages within the first four months after a birth accounted for almost 40% of the marriages within one year, the current figure is around 20%.

Divorce

As in the case of other vital events, in the case of divorce each monitored data set has a different period during which the event could take place. The data clearly show that the divorce rate is high, for example, of the first three groups monitored, approximately one-quarter of the first marriages end in divorce within 10–12 years.

A comparison of the percentages of divorced first marriages among women in total and the single mothers observed here (those whose marriages were preceded by the birth of at least one child) shows no significant differences. In the data sets of the oldest cohorts (1991–1993) the divorce rate is higher among the single mothers observed here (the highest is in the data set for 1991, by 3.0 percentage points for the entire period up to 2004). The difference between the two groups then decreases, and in the data set for 1995 the divorce rate among total women is higher, with a maximum difference in 1999 at 3.3 percentage points. In the data sets for the next years this difference falls, but it is necessary to take into account the fact that the period during which the event could occur is no longer very large

(0–5 years). These data indicate that a small portion of single mothers are women who lived with their partner (usually the father of the child), and this pre-marital cohabitation may have a slight influence on the stability of the subsequent marriage, whether with the same or even with a different partner.

The birth of other children

The decline in the birth rate and the postponement of childbirth to a later age, which is evident throughout the entire population, is also exhibited by the data on the birth of other children in the monitored groups of single mothers. While the data sets from the start of the period show the largest number of second-order births within two years after the birth of the first child, in the data sets from the second half of the 1990s the span is four years. In a conversion to 100 women there is a notable decline in the first half of the 1990s, after which it is possible to speak of stagnation.

The decline in the birth rate of second-order and other children in the first half of the 1990s and the subsequent continuation of the birth rate at similar levels is confirmed for comparable periods by data on the percentage of women who remain without a second child.

Table 2 Characteristics of the age structure of the sets

Age	Set for year													
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Mode	18	19	19	19	19	19	19	20	20	20	21	22	20	25
Median	19.6	19.6	19.5	19.8	20.1	20.4	20.6	21.0	21.4	22.0	22.6	23.0	23.6	24.2
Average age total	21.3	21.2	21.2	21.3	21.6	21.8	22.1	22.4	22.7	23.2	23.7	23.9	24.4	24.8
remained single	22.4	22.2	21.9	22.0	22.1	22.3	22.5	22.6	22.9	23.2	23.7	23.9	24.4	24.8
married	20.4	20.4	20.5	20.5	20.9	21.2	21.4	21.9	22.4	22.9	23.7	23.9	24.4	24.6

Table 3 Number of marriages and structure of the sets by marital status

Indicator	Set for year													
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	Nomber of marriages													
First	3730	3678	4120	3866	3321	3058	3047	2842	2781	2619	2286	1872	1351	456
Other	408	338	295	235	155	131	92	46	35	12	9	–	1	–
Total	4138	4016	4415	4101	3476	3189	3139	2888	2816	2631	2295	1872	1352	456
	%													
Married	55.7	54.0	50.8	47.6	45.3	40.6	37.8	33.2	29.6	25.6	20.8	15.4	9.6	2.8
Remained single thus far	44.3	46.0	49.2	52.4	54.7	59.4	62.2	66.8	70.4	74.2	79.2	84.6	90.4	97.2

Table 4 First marriages by time since childbirth

Years	Set for year												
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
0	1104	981	989	826	682	663	665	655	784	809	806	754	839
1	632	562	613	559	520	530	509	540	602	665	675	755	
2	408	441	516	466	458	404	442	470	507	486	541		
3	252	340	425	455	342	382	437	411	404	432			
4	265	264	331	354	323	326	359	321	318				
5	223	235	267	334	288	250	260	278					
6	204	223	287	263	281	213	256						
7	145	158	186	222	188	190							
8	121	143	157	169	146								
9	126	108	141	143									
10	87	95	127										
11	73	91											
12	62												

Table 5 Share of women with first marriage by time since childbirth to marriage, in %

Years	Set for year												
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
0	16.5	14.4	12.2	10.2	9.3	8.8	8.3	7.7	8.3	8.0	7.3	6.2	5.9
1	9.4	8.3	7.6	6.9	7.1	7.0	6.3	6.3	6.4	6.6	6.2	6.2	
2	6.1	6.5	6.4	5.7	6.2	5.4	5.5	5.5	5.4	4.8	4.9		
3	3.8	5.0	5.2	5.6	4.7	5.1	5.4	4.8	4.3	4.3			
4	4.0	3.9	4.1	4.4	4.4	4.3	4.5	3.8	3.4				
5	3.3	3.5	3.3	4.1	3.9	3.3	3.2	3.3					
6	3.0	3.3	3.5	3.2	3.8	2.8	3.2						
7	2.2	2.3	2.3	2.7	2.6	2.5							
8	1.8	2.1	1.9	2.1	2.0								
9	1.9	1.6	1.7	1.8									
10	1.3	1.4	1.6										
11	1.1	1.3											
12	0.9												
to 5 years	39.7	38.0	35.4	32.7	31.7	30.6	30.0	28.0	27.8				
to 10 years	51.9	50.8	48.2	46.6									

Table 6 First marriages within 2 years of childbirth by time in months

Months	Set for year												
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
0	43	33	29	23	17	12	24	12	14	14	17	13	8
1	115	113	103	59	54	49	55	49	61	54	45	51	49
2	147	132	124	102	73	68	68	68	74	95	67	69	47
3	113	101	100	73	75	81	67	67	88	74	79	57	66
4	105	92	99	86	68	60	57	57	76	83	88	83	54
5	102	96	75	65	69	65	63	63	74	62	88	67	62
6	86	89	80	87	62	58	66	56	68	78	71	74	66
7	102	63	81	83	58	57	60	49	73	63	69	76	93
8	79	76	84	72	53	62	63	56	66	66	64	60	91
9	60	69	85	66	52	45	42	67	63	63	72	57	104
10	76	61	63	58	54	53	60	49	64	74	71	64	106
11	76	56	66	52	47	53	40	62	63	83	75	83	93
12	67	61	58	50	47	44	55	61	64	96	82	70	
13	52	58	52	44	46	45	49	45	46	59	57	69	
14	57	53	61	47	38	48	44	34	57	57	59	61	
15	58	35	57	55	61	60	49	39	51	57	61	63	
16	58	47	63	51	48	54	33	55	58	53	48	51	
17	60	48	50	44	29	37	50	43	42	51	54	44	
18	48	40	51	38	40	40	39	44	50	48	50	63	
19	53	48	37	48	47	49	35	54	54	39	50	65	
20	45	49	44	39	49	48	39	39	40	62	56	63	
21	48	43	51	51	44	41	46	42	56	50	50	63	
22	51	36	49	44	38	29	32	41	43	44	58	56	
23	35	44	40	48	33	35	38	43	41	49	50	87	

In the data on the birth of other children broken down into mothers who remained single and mothers who married refer to the marital status at the end of the monitored period, not at the time of the specific birth. Given that every subsequent data set in this monitoring has a shorter period in which the birth of a

Table 7 Divorces

Divorces	Set for year												
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Divorces total	1243	1025	1063	877	654	555	437	333	244	163	79	21	4
First	1161	971	1022	852	641	544	434	332	243	163	79	21	4
Other	82	54	41	25	13	11	3	1	1	–	–	–	–
Per 100 marriages:													
Total	30.0	25.5	24.1	21.4	18.8	17.4	13.9	11.5	8.7	6.2	3.4	1.1	0.3
First	31.1	26.4	24.8	22.0	19.3	17.8	14.2	11.7	8.7	6.2	3.5	1.1	0.3
Other	20.1	16.0	13.9	10.6	8.4	8.4	3.3	2.2	2.9	–	–	–	–

Table 8 Share of divorced first marriages of women in total and of unmarried mothers, in %

Indicator	Set for year												
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	Number of monitored years after marriage												
	13	12	11	10	9	8	7	6	5	4	3	2	1
Women total	28.1	24.4	24.1	22.0	20.4	18.7	16.6	14.9	12.0	8.9	6.4	3.6	1.2
Single mothers	31.1	26.4	24.8	22.0	19.3	17.8	14.2	11.7	8.7	6.2	3.5	1.1	0.3
Difference	3.0	2.0	0.7	0.0	–1.1	–0.9	–2.4	–3.2	–3.3	–2.7	–2.9	–2.5	–0.9

Table 9 Children of next birth order per 100 women

Number of years from birth	Set for year										
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
3	35.5	31.1	26.8	25.6	26.6	24.4	24.5	23.5	24.4	23.4	23.9
5	55.0	50.2	45.8	45.2	46.4	44.9	44.3	43.5	44.5		
8	77.7	71.7	68.9	68.5	70.9	70.1					
10	88.8	83.8	80.9	80.4							
12	97.3	93.5									

Table 10 Share of women without another child, in %

Number of years from birth	Set for year										
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
3	68.3	71.8	75.2	76.5	75.7	77.8	77.6	78.3	77.5	78.3	77.7
5	55.7	58.6	61.5	61.8	61.3	62.1	62.3	62.8	62.0		
8	44.2	46.7	48.3	47.9	46.8	47.3					
10	40.1	41.7	42.9	42.2							
12	36.9	38.0									

Table 11 Share of women without another child, in %

Indicator	Set for year													
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
All women	35.6	38.0	40.7	42.2	43.6	47.3	51.2	56.8	62.0	69.4	77.7	87.6	96.4	100.0
Remained single	53.0	53.7	56.9	56.1	56.3	58.9	61.3	64.7	68.8	74.6	81.0	89.1	96.7	100.0
Married	21.8	24.6	25.1	26.8	28.2	30.3	34.5	40.9	45.8	54.3	65.2	79.8	93.3	100.0

Table 12 Average number of children per woman

Indicator	Set for year													
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
All women	2.03	1.93	1.86	1.80	1.78	1.70	1.62	1.53	1.44	1.34	1.24	1.13	1.04	1.00
Remained single	1.82	1.76	1.67	1.63	1.62	1.57	1.51	1.44	1.37	1.29	1.21	1.11	1.03	1.00
Married	2.19	2.09	2.05	1.99	1.96	1.89	1.79	1.70	1.62	1.50	1.36	1.21	1.07	1.00

Table 13 Abortion indicators

Indicator		Set for year												
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	Average number of abortions per women													
All women	0.82	0.73	0.71	0.73	0.68	0.64	0.60	0.53	0.37	0.38	0.32	0.26	0.23	0.19
Remained single	0.79	0.73	0.69	0.76	0.71	0.63	0.62	0.54	0.39	0.39	0.33	0.27	0.23	0.20
Married	0.85	0.73	0.73	0.69	0.66	0.66	0.56	0.49	0.33	0.33	0.28	0.24	0.20	0.19
	Women without abortion, in %													
All women	51.5	54.7	55.0	53.6	55.1	57.1	58.5	62.2	70.7	70.6	74.0	77.9	80.6	84.0
Remained single	54.3	56.2	57.0	52.4	54.9	57.5	57.8	61.5	69.5	69.5	73.3	77.7	80.5	82.7
Married	49.3	53.5	53.1	55.0	55.3	56.5	59.6	63.8	73.5	73.7	77.0	79.0	82.0	84.0

second child can occur, the data in the table are not comparable over time but can be used to compare mothers according to the two alternative marital statuses cited above. There is clear evidence that a subsequent marriage has an effect on the birth of other children, or the opposite effect appears, i.e. that the birth of other children while single is affected by the subsequent marriage. For example, in the case of the data set for 1991, the proportion of mothers among single mothers that had no further children was almost 2.5 times as high as the proportion among the women who married.

The differences in natality behaviour among the groups are confirmed by a comparison of the average number of children per woman married and unmarried.

Abortions

An abortion is the only vital event monitored that relates to women even the year before their inclusion in the monitored data set, that is, before the birth of the first child and while single. (We must, however, also take into account that there are no available data for the period before 1992 and since 2003, which obstructs a comparison of the data sets from different periods.) Therefore, the data in Table 13 can only be used for a comparison between the cited groups of women and not for a comparison over time.

The highest number of abortions, the major part of which are induced abortions, occurs in the year after the birth, which is likely connected with an increased interest in preventing the birth of another child so early after the birth of the first child. From the period prior to the birth, the most abortions occur one year or two years before the birth. Even this comparison shows a notable decrease in the abortion rate – the relative values in data sets from later years are lower.

There is no substantial difference in the abortion rate between the women who married and the women who remained single. The average number of abortions per woman differs very little between these two groups. More often, but not every year, there is a higher abortion rate among women who did not marry. A similar conclusion regarding the insignificant and ambiguous differences between the compared groups can be drawn from a comparison of the percentages of women who had no abortion in the monitored years.

Conclusion

An analysis of the data sets from the CZSO presents a different view on some aspects of demographic trends and makes it possible to observe the development and changes that affect certain groups over time. In this article, attention was devoted to women who had their first child while single. The percentage of data that for various reasons had to be eliminated from the analysis was not large (roughly 5%), and the findings offer a reliable portrait of the phenomena monitored. There is a clear shift in the age

structure of mothers in the direction of older mothers. The age group with the largest relative number of single mothers of a first-order child out of the total number of women is currently the group of 21-year-olds, while in 1991 it was 18-year-olds. There is an evident postponement of subsequent marriage to a later age. The data indicate that there is also an increase in the percentage that never married. In the case of all the data sets most marriages occur within one year of the birth. In the data sets from earlier years this primarily occurred within months, soon after the birth, but this is no longer true. The data for more recent years indicate a decline in the divorce rate among the monitored group of women and possibly a slightly lower divorce rate compared with total women. Marriage has an effect on the birth rate in this monitoring – women who married have more children than those who did not marry. Conversely, there is no difference in the abortion rate between women who married and those who did not. These data summaries represent a basic departure point for this form of analysing basic statistical data. Further work will draw on these summaries and will be devoted to elaborating the topic further.

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Population change in the Czech Republic in 2005 / regions and districts

Area	Marriages	Divorces	Live births	Abortions	Deaths			Increase (decrease)			Marriages	Divorces	Live births	Deaths	Total increase	Deaths	
					Total	Under 1 year	Under 28 days	Natural	Net migration	Total	Per 1000 inhabitants					Infant mortality	Neonatal mortality
Czech Republic	**51 829**	**31 288**	**102 211**	**40 023**	**107 938**	**347**	**206**	**-5 727**	**36 229**	**30 502**	**5.1**	**3.1**	**10.0**	**10.5**	**3.0**	**3.4**	**2.0**
Capital	**6 777**	**3 680**	**11 943**	**4 507**	**12 673**	**23**	**10**	**-730**	**11 769**	**11 039**	**5.8**	**3.1**	**10.2**	**10.8**	**9.4**	**1.9**	**0.8**
Středočeský kraj	**5 989**	**3 692**	**12 113**	**4 518**	**12 850**	**34**	**15**	**-737**	**14 774**	**14 037**	**5.2**	**3.2**	**10.5**	**11.2**	**12.2**	**2.8**	**1.2**
Benešov	446	264	882	382	1121	4	1	-239	454	215	4.8	2.8	9.4	12.0	2.3	4.5	1.1
Beroun	379	174	831	319	887	3	2	-56	980	924	4.9	2.2	10.7	11.4	11.9	3.6	2.4
Kladno	864	616	1 637	757	1 757	7	3	-120	824	704	5.7	4.1	10.9	11.7	4.7	4.3	1.8
Kolín	478	310	1 024	338	1 156	4	3	-132	1 265	1 133	5.0	3.2	10.6	12.0	11.8	3.9	2.9
Kutná Hora	339	213	682	245	809	-	-	-127	434	307	4.6	2.9	9.3	11.0	4.2	-	-
Mělník	485	324	986	466	990	1	-	-4	272	268	5.1	3.4	10.3	10.3	2.8	1.0	-
Mladá Boleslav	642	400	1 190	438	1 200	4	1	-10	1 386	1 376	5.6	3.5	10.3	10.4	11.9	3.4	0.8
Nymburk	449	258	950	314	1 021	3	-	-71	853	782	5.2	3.0	11.0	11.8	9.0	3.2	-
Praha-východ	571	386	1 240	382	1 114	2	1	126	3 793	3 919	5.4	3.7	11.8	10.6	37.2	1.6	0.8
Praha-západ	534	300	1 221	323	936	4	3	285	3 970	4 255	5.7	3.2	13.0	9.9	45.2	3.3	2.5
Příbram	538	282	986	370	1 245	1	1	-259	342	83	5.0	2.6	9.2	11.6	0.8	1.0	1.0
Rakovník	264	165	484	184	614	1	-	-130	201	71	4.9	3.0	8.9	11.3	1.3	2.1	-
Jihočeský kraj	**3 075**	**1 886**	**6 137**	**2 294**	**6 399**	**21**	**13**	**-262**	**2 316**	**2 054**	**4.9**	**3.0**	**9.8**	**10.2**	**3.3**	**3.4**	**2.1**
České Budějovice	934	570	1 791	741	1 732	5	2	59	1 295	1 354	5.2	3.2	9.9	9.6	7.5	2.8	1.1
Český Krumlov	333	218	669	277	561	1	1	108	456	564	5.5	3.6	11.1	9.3	9.3	1.5	1.5
Jindřichův Hradec	417	248	880	241	974	2	2	-94	188	94	4.5	2.7	9.5	10.5	1.0	2.3	2.3
Písek	330	204	662	238	715	4	2	-53	57	4	4.7	2.9	9.4	10.2	0.1	6.0	3.0
Prachatice	233	174	499	246	574	2	1	-75	17	-58	4.5	3.4	9.7	11.1	-1.1	4.0	2.0
Strakonice	308	203	666	193	806	3	2	-140	273	133	4.4	2.9	9.6	11.6	1.9	4.5	3.0
Tábor	520	269	970	358	1 037	4	3	-67	30	-37	5.1	2.6	9.5	10.1	-0.4	4.1	3.1
Plzeňský kraj	**2 745**	**1 683**	**5 445**	**2 553**	**5 846**	**16**	**8**	**-401**	**2 311**	**1 910**	**5.0**	**3.1**	**9.9**	**10.6**	**3.5**	**2.9**	**1.5**
Domažlice	283	173	595	231	659	2	1	-64	172	108	4.8	2.9	10.1	11.2	1.8	3.4	1.7
Klatovy	400	251	865	343	944	7	4	-79	259	180	4.6	2.9	9.9	10.8	2.1	8.1	4.6
Plzeň-město	909	541	1 673	856	1 721	2	1	-48	180	132	5.6	3.3	10.3	10.6	0.8	1.2	0.6
Plzeň-jih	319	217	646	288	741	2	1	-95	483	388	4.6	3.1	9.4	10.7	5.6	3.1	1.5
Plzeň-sever	356	179	737	347	806	2	1	-69	710	641	4.8	2.4	9.9	10.8	8.6	2.7	1.4
Rokycany	212	148	399	209	516	1	-	-117	233	116	4.6	3.2	8.7	11.3	2.5	2.5	-
Tachov	266	174	530	279	459	-	-	71	274	345	5.2	3.4	10.3	8.9	6.7	-	-

(Continued)

Area	Marriages	Divorces	Live births	Abortions	Deaths			Increase (decrease)			Marriages	Divorces	Live births	Deaths	Total increase	Deaths	
					Total	Under 1 year	Under 28 days	Natural	Net migration	Total	Per 1000 inhabitants					Infant mortality	Neonatal mortality
Karlovarský kraj	**1 583**	**1 192**	**3 014**	**1 517**	**2 983**	**12**	**7**	**31**	**-345**	**-314**	**5.2**	**3.9**	**9.9**	**9.8**	**-1.0**	**4.0**	**2.3**
Cheb	406	350	944	569	898	3	–	46	233	279	4.5	3.9	10.5	10.0	3.1	3.2	–
Karlovy Vary	639	508	1 138	501	1 301	5	4	-163	-489	-652	5.3	4.2	9.4	10.7	-5.4	4.4	3.5
Sokolov	538	334	932	447	784	4	3	148	-89	59	5.8	3.6	10.0	8.4	0.6	4.3	3.2
Ústecký kraj	**4 320**	**2 894**	**8 725**	**4 466**	**8 951**	**65**	**39**	**-226**	**1 266**	**1 040**	**5.2**	**3.5**	**10.6**	**10.9**	**1.3**	**7.4**	**4.5**
Děčín	743	434	1 450	724	1 445	8	6	5	307	312	5.5	3.2	10.8	10.8	2.3	5.5	4.1
Chomutov	573	469	1 336	713	1 288	13	12	48	79	127	4.6	3.7	10.7	10.3	1.0	9.7	9.0
Litoměřice	644	344	1 171	443	1 289	4	2	-118	-286	-404	5.6	3.0	10.2	11.2	-3.5	3.4	1.7
Louny	416	243	840	383	950	5	5	-110	88	-22	4.8	2.8	9.8	11.1	-0.3	6.0	6.0
Most	569	484	1 192	652	1 261	11	5	-69	220	151	4.9	4.1	10.2	10.8	1.3	9.2	4.2
Teplice	694	488	1 345	814	1 472	15	5	-127	99	-28	5.4	3.8	10.5	11.5	-0.2	11.2	3.7
Ústí nad Labem	681	432	1 391	737	1 246	9	4	145	759	904	5.8	3.7	11.8	10.5	7.6	6.5	2.9
Liberecký kraj	**2 278**	**1 394**	**4 271**	**2 030**	**4 227**	**23**	**14**	**44**	**1 424**	**1 468**	**5.3**	**3.3**	**10.0**	**9.9**	**3.4**	**5.4**	**3.3**
Česká Lípa	540	393	1 102	552	946	11	5	156	-84	72	5.1	3.7	10.4	8.9	0.7	10.0	4.5
Jablonec nad Nisou	433	272	820	481	862	1	1	-42	495	453	4.9	3.1	9.3	9.8	5.1	1.2	1.2
Liberec	949	507	1 608	751	1 619	9	7	-11	1 128	1 117	6.0	3.2	10.1	10.2	7.0	5.6	4.4
Semily	356	222	741	246	800	2	1	-59	-115	-174	4.8	3.0	9.9	10.7	-2.3	2.7	1.3
Královéhradecký kraj	**2 706**	**1 716**	**5 405**	**2 277**	**5 708**	**12**	**9**	**-303**	**1 375**	**1 072**	**4.9**	**3.1**	**9.9**	**10.4**	**2.0**	**2.2**	**1.7**
Hradec Králové	829	506	1 547	781	1 631	4	2	-84	293	209	5.2	3.2	9.7	10.2	1.3	2.6	1.3
Jičín	348	194	776	283	884	2	1	-108	383	275	4.5	2.5	10.1	11.5	3.6	2.6	1.3
Náchod	543	385	1 135	392	1 104	1	1	31	43	74	4.8	3.4	10.1	9.8	0.7	0.9	0.9
Rychnov nad Kněžnou	397	212	744	283	798	–	–	-54	312	258	5.0	2.7	9.4	10.1	3.3	–	–
Trutnov	589	419	1 203	538	1 291	5	5	-88	344	256	4.9	3.5	10.0	10.8	2.1	4.2	4.2
Pardubický kraj	**2 468**	**1 417**	**4 909**	**1 534**	**5 168**	**14**	**11**	**-259**	**998**	**739**	**4.9**	**2.8**	**9.7**	**10.2**	**1.5**	**2.9**	**2.2**
Chrudim	492	285	1 027	323	1 120	5	3	-93	66	-27	4.7	2.7	9.8	10.7	-0.3	4.9	2.9
Pardubice	810	447	1 471	403	1 654	5	5	-183	1 133	950	5.1	2.8	9.2	10.3	5.9	3.4	3.4
Svitavy	488	260	988	349	1 009	1	1	-21	-92	-113	4.8	2.6	9.7	9.9	-1.1	1.0	1.0
Ústí nad Orlicí	678	425	1 423	459	1 385	3	2	38	-109	-71	4.9	3.1	10.3	10.0	-0.5	2.1	1.4
Vysočina	**2 428**	**1 247**	**5 070**	**1 728**	**5 339**	**18**	**13**	**-269**	**922**	**653**	**4.8**	**2.4**	**9.9**	**10.5**	**1.3**	**3.6**	**2.6**
Havlíčkův Brod	409	235	927	342	1 024	3	2	-97	239	142	4.3	2.5	9.8	10.8	1.5	3.2	2.2
Jihlava	572	294	1 109	381	1 090	4	3	19	693	712	5.3	2.7	10.2	10.1	6.6	3.6	2.7
Pelhřimov	331	142	673	246	842	3	2	-169	231	62	4.6	2.0	9.3	11.7	0.9	4.5	3.0

Area	Marriages	Divorces	Live births	Abortions	Deaths			Increase (decrease)			Marriages	Divorces	Live births	Deaths	Total increase	Deaths	
					Total	Under 1 year	Under 28 days	Natural	Net migration	Total	Per 1000 inhabitants					Infant mortality	Neonatal mortality
Třebíč	592	290	1 160	392	1 227	5	4	–67	–170	–237	5.1	2.5	10.0	10.5	–2.0	4.3	3.4
Žďár nad Sázavou	524	286	1 201	367	1 156	3	2	45	–71	–26	4.4	2.4	10.2	9.8	–0.2	2.5	1.7
Jihomoravský kraj	**5 693**	**3 154**	**11 149**	**3 893**	**12 059**	**33**	**24**	**–910**	**1 028**	**118**	**5.0**	**2.8**	**9.9**	**10.7**	**0.1**	**3.0**	**2.2**
Blansko	509	297	1013	388	1116	–	–	–103	654	551	4.7	2.8	9.4	10.3	5.1	–	–
Brno–město	2 146	1 307	3 906	1 345	4 010	14	10	–104	–868	–972	5.8	3.6	10.6	10.9	–2.6	3.6	2.6
Brno–venkov	817	401	1 796	537	1 817	8	6	–21	869	848	4.7	2.3	10.4	10.5	4.9	4.5	3.3
Břeclav	580	258	1 129	396	1 289	1	1	–160	171	11	4.7	2.1	9.2	10.5	0.1	0.9	0.9
Hodonín	713	361	1 385	513	1 650	7	4	–265	–131	–396	4.5	2.3	8.8	10.5	–2.5	5.1	2.9
Vyškov	373	238	825	270	934	1	1	–109	141	32	4.3	2.7	9.5	10.7	0.4	1.2	1.2
Znojmo	555	292	1 095	444	1 243	2	2	–148	192	44	4.9	2.6	9.6	10.9	0.4	1.8	1.8
Olomoucký kraj	**3 063**	**1 926**	**6 183**	**2 208**	**6 479**	**20**	**10**	**–296**	**34**	**–262**	**4.8**	**3.0**	**9.7**	**10.1**	**–0.4**	**3.2**	**1.6**
Jeseník	201	141	394	131	415	3	2	–21	–102	–123	4.8	3.4	9.4	9.9	–2.9	7.6	5.1
Olomouc	1 197	747	2 260	776	2 227	9	4	33	–16	17	5.2	3.3	9.9	9.7	0.1	4.0	1.8
Prostějov	470	261	1 055	378	1 263	3	2	–208	270	62	4.3	2.4	9.7	11.6	0.6	2.8	1.9
Přerov	636	406	1 288	492	1 351	1	1	–63	147	84	4.7	3.0	9.6	10.1	0.6	0.8	0.8
Šumperk	559	371	1 186	431	1 223	4	1	–37	–265	–302	4.5	3.0	9.5	9.8	–2.4	3.4	0.8
Zlínský kraj	**2 804**	**1 420**	**5 670**	**1 869**	**6 265**	**17**	**9**	**–595**	**31**	**–564**	**4.7**	**2.4**	**9.6**	**10.6**	**–1.0**	**3.0**	**1.6**
Kroměříž	507	285	975	339	1 150	3	2	–175	94	–81	4.7	2.6	9.0	10.7	–0.8	3.1	2.1
Uherské Hradiště	695	310	1 355	471	1 568	4	3	–213	229	16	4.8	2.2	9.4	10.9	0.1	3.0	2.2
Vsetín	641	353	1 454	415	1 513	4	2	–59	–128	–187	4.4	2.4	10.0	10.4	–1.3	2.8	1.4
Zlín	961	472	1 886	644	2 034	6	2	–148	–164	–312	5.0	2.4	9.8	10.5	–1.6	3.2	1.1
Moravskoslezský kraj	**5 900**	**3 987**	**12 177**	**4 629**	**12 991**	**39**	**24**	**–814**	**–1 674**	**–2 488**	**4.7**	**3.2**	**9.7**	**10.4**	**–2.0**	**3.2**	**2.0**
Bruntál	425	268	978	410	992	2	2	–14	–409	–423	4.3	2.7	9.9	10.0	–4.3	2.0	2.0
Frýdek–Místek	1 060	562	2 110	731	2 332	4	2	–222	488	266	4.7	2.5	9.3	10.3	1.2	1.9	0.9
Karviná	1 261	911	2 429	1 118	2 849	6	3	–420	–472	–892	4.6	3.3	8.8	10.3	–3.2	2.5	1.2
Nový Jičín	717	475	1 608	522	1 607	8	4	1	54	55	4.5	3.0	10.1	10.1	0.3	5.0	2.5
Opava	784	547	1 783	623	1 818	3	3	–35	–135	–170	4.3	3.0	9.9	10.1	–0.9	1.7	1.7
Ostrava–město	1 653	1 224	3 269	1 225	3 393	16	10	–124	–1 200	–1 324	5.3	3.9	10.5	10.9	–4.3	4.9	3.1

Population change in the Czech Republic in towns with population above 20 thous. in 2005

Town	Mid-period/ year population	Marriages	Divorces	Live births	Abortions	Deaths		Increase (decrease)			Marriages	Divorces	Live births	Deaths	Total increase	Infant mortality
						Total	Under 1 years	Natural	Net migration	Total	Per 1000 inhabitants					
Praha	1 176 116	6 777	3 680	11 943	4 507	12 673	23	-730	11 769	11 039	5,8	3,1	10,2	10,8	9,4	1,9
Brno	366 904	2 146	1 307	3 906	1 345	4 010	14	-104	-868	-972	5,8	3,6	10,6	10,9	-2,6	3,6
Ostrava	310 681	1 653	1 224	3 269	1 225	3 393	16	-124	-1 200	-1 324	5,3	3,9	10,5	10,9	-4,3	4,9
Plzeň	162 659	909	541	1 673	856	1 721	2	-48	180	132	5,6	3,3	10,3	10,6	0,8	1,2
Olomouc	100 491	588	394	1 017	362	962	2	55	-426	-371	5,9	3,9	10,1	9,6	-3,7	2,0
Liberec	97 596	633	323	997	472	907	3	90	460	550	6,5	3,3	10,2	9,3	5,6	3,0
České Budějovice	94 635	524	339	941	455	893	4	48	-17	31	5,5	3,6	9,9	9,4	0,3	4,3
Hradec Králové	94 436	510	315	839	528	933	1	-94	-169	-263	5,4	3,3	8,9	9,9	-2,8	1,2
Ústí nad Labem	94 021	552	368	1 118	629	990	7	128	311	439	5,9	3,9	11,9	10,5	4,7	6,3
Pardubice	87 947	473	292	771	229	879	1	-108	187	79	5,4	3,3	8,8	10,0	0,9	1,3
Havířov	84 662	437	281	730	347	840	1	-110	-247	-357	5,2	3,3	8,6	9,9	-4,2	1,4
Zlín	78 428	406	231	752	310	842	2	-90	-224	-314	5,2	2,9	9,6	10,7	-4,0	2,7
Kladno	69 245	444	300	753	420	772	3	-19	-7	-26	6,4	4,3	10,9	11,1	-0,4	4,0
Most	67 891	348	295	695	402	674	9	21	-31	-10	5,1	4,3	10,2	9,9	-0,1	12,9
Karviná	63 439	246	228	559	312	677	3	-118	36	-82	3,9	3,6	8,8	10,7	-1,3	5,4
Frýdek-Místek	59 759	294	204	604	277	534	2	70	-285	-215	4,9	3,4	10,1	8,9	-3,6	3,3
Opava	59 681	285	241	625	245	617	1	8	-425	-417	4,8	4,0	10,5	10,3	-7,0	1,6
Děčín	51 963	309	181	566	315	544	3	22	33	55	5,9	3,5	10,9	10,5	1,1	5,3
Karlovy Vary	51 241	290	243	396	178	580	3	-184	-460	-644	5,7	4,7	7,7	11,3	-12,6	7,6
Teplice	51 083	295	194	522	323	565	7	-43	-140	-183	5,8	3,8	10,2	11,1	-3,6	13,4
Chomutov	50 118	223	191	521	303	505	3	16	-165	-149	4,4	3,8	10,4	10,1	-3,0	5,8
Jihlava	49 849	287	164	487	208	501	2	-14	1 008	994	5,8	3,3	9,8	10,1	19,9	4,1
Prostějov	47 121	219	135	453	200	553	1	-100	-7	-107	4,6	2,9	9,6	11,7	-2,3	2,2
Přerov	46 837	246	172	416	181	434	1	-18	-62	-80	5,3	3,7	8,9	9,3	-1,7	2,4
Jablonec nad Nisou	44 653	218	164	429	282	398	-	31	146	177	4,9	3,7	9,6	8,9	4,0	-
Mladá Boleslav	42 886	260	185	409	186	400	1	9	181	190	6,1	4,3	9,5	9,3	4,4	2,4
Třebíč	38 699	219	124	408	168	365	2	43	-104	-61	5,7	3,2	10,5	9,4	-1,6	4,9
Česká Lípa	38 674	218	166	405	229	292	5	113	-454	-341	5,6	4,3	10,5	7,6	-8,8	12,3
Třinec	38 002	175	92	328	120	432	2	-104	-273	-377	4,6	2,4	8,6	11,4	-9,9	6,1
Tábor	35 957	205	124	348	158	335	2	13	-128	-115	5,7	3,4	9,7	9,3	-3,2	5,7
Znojmo	35 134	189	103	317	189	358	-	-41	-104	-145	5,4	2,9	9,0	10,2	-4,1	-
Příbram	35 001	208	119	325	139	355	-	-30	-233	-263	5,9	3,4	9,3	10,1	-7,5	-
Orlová	33 910	146	136	308	148	251	-	57	-366	-309	4,3	4,0	9,1	7,4	-9,1	-

(End of table)

Town	Mid-period/ year population	Marriages	Divorces	Live births	Abortions	Deaths		Increase (decrease)			Marriages	Divorces	Live births	Deaths	Total increase	Infant mortality
						Total	Under 1 years	Natural	Net migration	Total	Per 1000 inhabitants					
Cheb	33 605	151	150	389	256	300	1	89	130	219	4,5	4,5	11,6	8,9	6,5	2,6
Trutnov	31 216	176	126	305	178	299	3	6	–50	–44	5,6	4,0	9,8	9,6	–1,4	9,8
Písek	29 829	149	99	313	131	261	3	52	24	76	5,0	3,3	10,5	8,7	2,5	9,6
Kolín	29 561	150	154	298	137	337	1	–39	725	686	5,1	5,2	10,1	11,4	23,2	3,4
Kroměříž	28 996	159	96	244	119	334	–	–90	73	–17	5,5	3,3	8,4	11,5	–0,6	–
Vsetín	28 332	133	94	309	98	299	–	10	–99	–89	4,7	3,3	10,9	10,6	–3,1	–
Šumperk	28 279	138	111	265	112	282	2	–17	–262	–279	4,9	3,9	9,4	10,0	–9,9	7,5
Valašské Meziříčí	27 362	106	65	281	95	297	2	–16	–32	–48	3,9	2,4	10,3	10,9	–1,8	7,1
Litvínov	26 968	124	109	258	139	333	1	–75	104	29	4,6	4,0	9,6	12,3	1,1	3,9
Nový Jičín	26 286	137	95	279	139	281	3	–2	–58	–60	5,2	3,6	10,6	10,7	–2,3	10,8
Hodonín	26 242	140	76	229	117	278	–	–49	–15	–64	5,3	2,9	8,7	10,6	–2,4	–
Uherské Hradiště	26 183	144	67	254	103	243	1	11	–160	–149	5,5	2,6	9,7	9,3	–5,7	3,9
Český Těšín	25 980	136	73	276	94	257	–	19	–165	–146	5,2	2,8	10,6	9,9	–5,6	–
Břeclav	25 679	124	69	233	102	295	–	–62	–2	–64	4,8	2,7	9,1	11,5	–2,5	–
Krnov	25 340	119	85	252	99	259	1	–7	–153	–160	4,7	3,4	9,9	10,2	–6,3	4,0
Sokolov	24 681	137	93	208	132	191	–	17	–162	–145	5,6	3,8	8,4	7,7	–5,9	–
Havlíčkův Brod	24 273	132	63	243	149	230	1	13	–13	–	5,4	2,6	10,0	9,5	0,0	4,1
Litoměřice	24 221	142	85	245	120	232	1	13	–493	–480	5,9	3,5	10,1	9,6	–19,8	4,1
Žďár nad Sázavou	23 949	113	81	230	105	195	1	35	–170	–135	4,7	3,4	9,6	8,1	–5,6	4,3
Chrudim	23 461	128	81	263	104	228	–	35	–148	–113	5,5	3,5	11,2	9,7	–4,8	–
Kopřivnice	23 399	116	92	230	69	182	1	48	–123	–75	5,0	3,9	9,8	7,8	–3,2	4,3
Strakonice	23 300	95	78	238	73	260	1	–22	–69	–91	4,1	3,3	10,2	11,2	–3,9	4,2
Bohumín	23 052	131	74	217	90	284	1	–67	17	–50	5,7	3,2	9,4	12,3	–2,2	4,6
Klatovy	22 866	105	102	236	96	239	3	–3	8	5	4,6	4,5	10,3	10,5	0,2	12,7
Jindřichův Hradec	22 659	105	76	238	67	224	1	14	–37	–23	4,6	3,4	10,5	9,9	–1,0	4,2
Vyškov	22 096	109	78	194	61	213	–	–19	–227	–246	4,9	3,5	8,8	9,6	–11,1	–
Jirkov	21 170	96	80	249	154	223	1	26	–136	–110	4,5	3,8	11,8	10,5	–5,2	4,0
Náchod	21 139	106	84	191	100	239	–	–48	–70	–118	5,0	4,0	9,0	11,3	–5,6	–
Kutná Hora	21 079	89	64	200	88	193	–	7	26	33	4,2	3,0	9,5	9,2	1,6	–
Blansko	20 447	100	73	186	97	173	–	13	254	267	4,9	3,6	9,1	8,5	13,1	–

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DEMOGRAPHY

Published by the Czech Statistical Office at Studio GSW, Čs. armády 31, 160 00 Praha 6

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Printed and graphic design by – Studio GSW, Čs. armády 31, Prague 6, 160 00, Czech Republic, tel./fax: 233 326 945, e-mail: gsw@gsw.cz, weber@chello.cz

Translated by: Robin Cassling