

FERTILITY DEVELOPMENT IN THE CZECH REPUBLIC AFTER 1989 (COMPARED WITH THE SITUATION IN POLAND AND SLOVAKIA)

Kryštof Zeman

*Department of Demography and Geodemography, Faculty of Science,
Charles University, Prague, Czech Republic*

Abstract: Among political, economical and social changes after 1989 also fertility behaviour gradually changed. The decline of total fertility rate, postponing of marrying and childbearing to later years, spread of consensual marriages and increase of share of children born out of wedlock are a manifestation of transformation of demographic behaviour which began in western European countries in the second half of the sixties. It can be said that in the Czech society changes of fertility behaviour are the fastest, comparing to Poland and Slovakia. The character of reproduction in the Czech Republic have distinctly approached to the west European model, meanwhile in Poland and in Slovakia changes are less pronounced and slower, however with the same tendencies.

Keywords: fertility, Czech Republic, Poland, Slovakia

Among political, economical and social changes after 1989, there occurred also important changes in reproductive behaviour of Czech, Polish and Slovak population. After the period of the eighties, characterised by two-child model, high fertility of married women, early childbearing, short intervals between childbearings, high intensity of induced abortions and low childlessness, in the nineties in conjunction with the fall in number of born children appeared weighty structural changes.

The fertility decline started already before 1989, but it was held back by state's population and social policies, and had another character. The situation in the Czech Republic was not far from the situation in Poland and in Slovakia. Slovak and Czech Republic, as parts of former Czechoslovakia were separated only on 1st January 1993 and therefore their demographic behaviour was close. In the eighties, the total fertility

rate (i.e. average number of children per one woman) of Slovak and Polish women was comparable, gradually diminishing from 2,3 in 1980 to 1,43 in 1997 in Slovakia and 1,51 in Poland respectively. The total fertility rate in the Czech Republic was all the time few tenths lower, but the trend was the same, diminishing from 2,07 in 1980 to 1,17 in 1997. The age distribution of fertility was different: in 1980, the mean age of mother at birth of child was the least in the Czech Republic (24,7), it was 25,3 in Slovakia and traditionally it was high in Poland (26,3). The mean age rose in these countries with different velocity. The fastest growth has been noticed in the Czech republic, where the mean age rose to 26,4 in 1997 and overtook the mean age of Slovak mothers (25,7). The mean age of Polish mothers rose to 26,9 in 1997.

The development of fertility process after 1989 may be divided into two main periods. In the period 1989-1993, the fall in number of live-births was moderate and structural changes didn't occur significantly. Distribution of fertility remained unimodally asymmetric with a peak at 20-24 years' age group. The reduction of the total fertility rate in this period was around 10 % and the mean age of mother also didn't change much.

In the period since 1993 many structural changes occurred, mainly in the Czech Republic, less in Slovakia and Poland. The decline in fertility accelerated, the average age of mother began to rise faster and the age distribution of fertility became less asymmetric, with more equable level of 20-24 and 25-29 age groups.

The main cause of the reduction of fertility in the Czech Republic lies within young women. Between 1990 and 1996, age-specific fertility rates of age group 17-21 fell by more than one half and only fertility rates of women over 35 remained unchanged. The maximum of fertility moved from ages 20-23 into ages 22-25 (and 23-26 in 1997). In Poland and Slovakia the age distribution changed much less significantly. In Poland, the fertility maximum still lies in ages 22-25 and the biggest decline was 33 % for ages 21 and 22. The share of main age groups 20-24 and 25-29 on overall fertility, which was in 1990 40 % and 30 % respectively, changed slowly and in 1997 the share of both of them is one third. The decline of fertility was thus equally distributed among all age spectrum. On the other hand, the realisation of childbearing was in the past around two years later than in Czechoslovakia, so in the nineties the Czech and Slovak populations are "gaining" the Polish fertility situation. In Slovakia, the maximum of fertility also didn't move from ages 21-23 and the deepest decline (by more than one third) was in ages 18 - 22. The fertility of age group 20-24 is only slightly moving for the benefit of the age group 25-29. Fertility rates of women over the age of 37 remained unchanged.

The share of the youngest age group 15-19 changed only in the Czech Republic, in Poland and Slovakia the share remained nearly constant. The proportion of fertility realised before the age of 25 dropped intensively in the Czech Republic from 60 % in the end of eighties to almost 40 % in 1998, catching up on the situation in Poland, where it fell from 48 % to 40 % (in 1997). In Slovakia, the share is around half to half.

Table 1 Basic fertility indicators, 1980-1998

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Czech Republic												
Live Births	153801	135881	128356	130564	129354	121705	121025	106579	96097	90446	90657	90535
Still Births	864	607	525	530	496	437	445	336	300	317	273	294
Total Births	154665	136488	128881	131094	129850	122142	121470	106915	96397	90763	90930	90829
Live Births per 1000 Inhabitants	14,9	13,1	12,4	12,7	12,6	11,8	11,8	10,3	9,3	8,8	8,8	8,8
Still Births per 1000 Live Births	5,6	4,5	4,1	4	3,8	3,6	3,7	3,1	3,1	3,5	3	3,2
Total Fertility Rate	2,07	1,95	1,87	1,89	1,86	1,72	1,67	1,44	1,28	1,18	1,17	1,16
Average Age of Mother at Birth of Child	24,7	24,6	24,8	24,8	24,7	24,8	25	25,4	25,8	26,1	26,4	26,7
Share of Live Births out of Wedlock (%)	5,6	7,3	7,9	8,6	9,8	10,7	12,7	14,5	15,6	16,9	17,8	19
Net Reproduction Rate	0,98	0,93	0,9	0,91	0,89	0,82	0,8	0,69	0,61	0,57	0,56	0,56
Poland												
Live Births	695759	680091	564431	547720	547719	515214	494310	481285	433109	428203	412635	395,61
Still Births	5794	5214	4138	3940	3736	3455	3398	3813	2552	2385	2531	-
Total Births	701553	685305	568569	551660	551455	518669	497708	485098	435661	430588	415166	-
Live Births per 1000 Inhabitants	19,5	18,2	14,9	14,3	14,3	13,4	12,8	12,5	11,2	11,1	10,7	10,2
Still Births per 1000 Live Births	8,3	7,7	7,3	7,2	6,8	6,7	6,9	7,9	5,9	5,6	6,1	-
Total Fertility Rate	2,28	2,33	2,08	2,04	2,05	1,93	1,85	1,8	1,61	1,58	1,51	-
Average Age of Mother at Birth of Child	26,3	26,3	26,2	26,1	26,2	26,3	26,5	26,7	26,8	26,9	26,9	-
Share of Live Births out of Wedlock (%)	4,7	5	5,8	6,2	6,6	7,2	8,2	9	9,5	10,2	11	-
Net Reproduction Rate	1,07	1,1	0,98	0,97	0,97	0,92	0,88	0,86	0,77	0,75	0,72	-
Slovakia												
Live Births	95100	90155	80116	79989	78569	74640	73256	66370	61427	60123	59111	-
Still Births	620	490	366	401	381	357	327	274	241	240	245	-
Total Births	95720	90645	80482	80390	78950	74997	73583	66644	61668	60363	59356	-
Live Births per 1000 Inhabitants	19,1	17,5	15,2	15,1	14,9	14,1	13,8	12,4	11,5	11,2	11	-
Still Births per 1000 Live Births	6,5	5,4	4,6	5	4,8	4,8	4,5	4,1	3,9	4	4,1	-
Total Fertility Rate	2,32	2,25	2,08	2,09	2,04	1,98	1,92	1,66	1,52	1,46	1,43	-
Average Age of Mother at Birth of Child	25,3	25	25	25,1	24,9	25	25,1	25,4	25,5	25,7	25,7	-
Share of Live Births out of Wedlock (%)	5,7	5,7	7,2	7,6	8,9	9,7	10,6	11,7	12,6	14,1	15,1	-
Net Reproduction Rate	1,1	1,08	1	0,99	0,98	0,95	0,92	0,8	0,73	0,7	0,69	-

Table 2 Five-year age groups' fertility rates, total fertility rates (TFR) and mean ages of mother in 1989-1996 and their relative changes in different periods

	1989	1990	1991	1992	1993	1994	1995	1996	1996/89	1993/89	1996/83
Czech Republic											
15 - 19	44,9	44,7	46,7	44,7	42,9	32,6	24,9	20,1	0,45	0,96	0,47
20 - 24	172,9	174,3	171,3	154	145,4	121,8	102,3	91	0,53	0,84	0,63
25 - 29	103,9	105,2	101,1	94,8	94,3	85,6	81,4	79,2	0,76	0,91	0,84
30 - 34	36,6	37,4	36,5	35,1	37,1	35,8	35,2	35,1	0,96	1,01	0,95
35 - 39	11,2	11,2	11,1	10,3	11,2	10,7	10,6	11	0,98	1	0,98
40 - 44	1,6	1,6	1,8	1,8	1,8	1,8	1,7	1,7	1,06	1,13	0,94
45 - 49	0,1	0	0,1	0,1	0,1	0,1	0,1	0,1	1	1	1
TFR	1,87	1,89	1,86	1,72	1,67	1,44	1,28	1,18	0,63	0,89	0,71
Mean Age	24,8	24,8	24,7	24,8	25	25,4	25,8	26,1	1,05	1,01	1,04
Poland											
15 - 19	30,9	31,5	32,2	29,3	27,2	25,5	22	21,1	0,68	0,88	0,78
20 - 24	168	165,2	164	150,2	138	128,6	113	107,6	0,64	0,82	0,78
25 - 29	124,8	121,4	122,3	117,9	114,2	113,4	104,5	103,9	0,83	0,92	0,91
30 - 34	60,2	58,6	59,8	57,7	57,9	59	53,7	54,6	0,91	0,96	0,94
35 - 39	24,9	24,5	25,2	24,5	25,4	26,2	23,2	23,2	0,93	1,02	0,91
40 - 44	6,3	6,2	6,2	6	6,3	6,5	5,5	5,5	0,87	1	0,87
45 - 49	0,4	0,3	0,3	0,4	0,4	0,3	0,3	0,3	0,75	1	0,75
TFR	2,08	2,04	2,05	1,93	1,85	1,8	1,61	1,58	0,76	0,89	0,86
Mean Age	26,2	26,1	26,2	26,3	26,3	26,7	26,8	26,9	1,03	1,01	1,01
Slovak Republic											
15 - 19	46,8	45,5	50,2	49,4	47,6	38,1	32,3	30,5	0,65	1,02	0,64
20 - 24	185,3	187,1	182,4	176,4	166,7	139,6	124,4	112,9	0,61	0,9	0,68
25 - 29	116,8	116,8	111,6	108,1	106,7	95	90,6	91,1	0,78	0,91	0,85
30 - 34	46	46,3	44,8	43,4	44,6	42,1	40	40,3	0,88	0,97	0,9
35 - 39	15,5	15,2	15	15,3	15,2	14,8	13,8	14,9	0,96	0,98	0,98
40 - 44	2,6	2,9	3	3,2	3	2,9	2,8	2,6	1	1,15	0,87
45 - 49	0,1	0,1	0,1	0,1	0,1	0,2	0,1	0,1	1	1	1
TFR	2,08	2,09	2,05	1,98	1,92	1,66	1,52	1,46	0,7	0,92	0,76
Mean Age	25	25,1	24,9	25	25,1	25,4	25,5	25,7	1,03	1	1,03

Source: Recent ... (1998)

Table 3 The proportion of fertility realised before and after the age of 25, 1989-1998

Age Group	Czech Republic		Poland		Slovakia	
	-25	25+	-25	25+	-25	25+
1989	59,3	40,7	47,9	52,1	56,2	43,8
1990	59,1	40,9	48,2	51,8	56,2	43,8
1991	59,5	40,5	47,9	52,1	57,1	42,9
1992	58,3	41,7	46,5	53,5	57	43
1993	56,4	43,6	44,7	55,3	55,8	44,2
1994	53,4	46,6	42,9	57,1	53,4	46,6
1995	49,7	50,3	41,9	58,1	51,5	48,5
1996	46,6	53,4	40,7	59,3	49	51
1997	43,6	56,4	39,9	60,1	-	-
1998	41,3	58,7	-	-	-	-

Source: Recent... (1998)

Comparing the development of parity - specific fertility, there is a difference between Czech Republic and other two compared countries: In the Czech Republic, the most pronounced decrease was recorded in the total fertility rate of first children which fell by 42 % between 1990 and 1996. (In 1997, there was a slight rise in the total fertility rate of first children in the Czech Republic, primarily thanks to the increase in fertility of married women aged 25-29, and this trend continued in 1998.)

In addition, the total fertility rate of second and third children significantly fell - by more than one third. The decline in Slovakia and Poland was similar for all first, second and third rank - around 25 % in Poland and around 28 % in Slovakia (here for years 1989 and 1995). That means, that in the Czech Republic, the parity composition changed in the nineties in contrast to Poland and Slovakia, where the situation remained almost unchanged. The fall of fertility of fourth and subsequent order was smallish, mostly 16 % in Poland, where the fertility of higher orders is still the largest.

Table 4 Total fertility rates and mean age of mother according birth order in two different years and their comparison

	Year	Total Fertility Rate				Mean Age			
		1	2	3	4.+	1	2	3	4.+
Czech Republic	1990	0,90	0,71	0,21	0,07	22,47	25,62	29,25	31,74
	1996	0,52	0,47	0,13	0,06	23,67	26,78	30,22	32,13
Poland	96/90	0,58	0,66	0,64	0,86	1,21	1,16	0,97	0,39
	1990	0,86	0,66	0,33	0,23	23,82	26,94	29,85	32,90
	1996	0,65	0,50	0,24	0,19	23,86	27,21	30,09	32,91
Slovakia	96/90	0,75	0,76	0,75	0,84	0,04	0,27	0,24	0,01
	1989	0,88	0,74	0,30	0,17	22,64	25,42	28,11	31,01
	1995	0,63	0,53	0,22	0,15	23,00	25,92	28,71	31,13
	95/89	0,72	0,71	0,72	0,92	0,35	0,50	0,59	0,12

Source: Demografická příručka (1996), Rocznik demograficzny (1991, 1997)

The change of the mean age of mother at birth according the birth order was most pronounced in the Czech Republic. The raise of mean age of women at birth of first order by 1,2 years and the drop of total fertility of first order show, that the most important reason for the decline of fertility in the Czech Republic in the nineties is postponing of birth of first child. First-order fertility fell by more than half among women aged 17-20 years. Among women aged 28 and more the first-order fertility slightly rose.

Also, the mean age of women at birth of second child rose in the Czech Republic by more than one year. Second-order fertility fell most of all among women under the age of 25 and even women who had already married and had one child often postponed having a second one. The second-order fertility rate in the 25-29 years' age group also fell, although less fast and thus overtook that in the 20-24 years' age group. Fertility rates for subsequent orders fell in all age groups up to 35 and remained unchanged in older groups.

In Poland and Slovakia, the age distribution of parity-specific fertility didn't change significantly. Mean age of Polish mothers of first child rose only inconsiderably and that of second and third child rose by one quarter of the year between 1990 and 1996. As in the case of overall fertility, the decline of each parity-specific fertility was equally distributed among all age spectrum. The change of first and second parity fertility in Slovakia was most important in ages 18-20, however not as eminent as in the Czech Republic; above the age of 30 parity-specific fertility rates remained mostly unchanged.

Table 5 Level of reduced nuptiality rate of single persons (average number of first marriages per 100 single persons)

		1980	1990	1996
Czech Republic	M	80	101	50
	W	91	103	49
Poland	M	84	86	67 (1995)
	W	90	90	68
Slovakia	M	81	93	N.A.
	W	88	97	54 (1995)

Source: Monnier (1996)

Note: Measures for 1990 in Czech Republic are higher than 100, because the measure is computed from transversal (and not generational) numbers. In 1990, lot of marriages in the Czech Republic was forwarded as a reaction to the announcement of de facto abandoning of loans for newly-married from the beginning of 1991.

The fall in the level of fertility was closely related to the decline of nuptiality rates, what copied the process that began in western European countries in the second half of the sixties. The level of reduced nuptiality rate of single persons (average hypothetical number of first marriages per 100 single persons in the age of 50) fell down in all postcommunist countries, what led to the fall of numbers of live born in the wedlock. The average age of Czech women marrying for the first time rose from 21,8 years in 1989 to 25,4 years in 1997 according nuptiality tables and also the interval between marriage and the birth of the first child rose from 1,18 to 1,48 years. The marital fertility

rate fell in all age groups, although mostly among women aged 16-24. The average age of married mothers rose from 24,8 in 1989 to 26,6 in 1997.

The increase in extra-marital fertility led to the increase of share of live-births out of wedlock. The proportion of children born out of marriage was unnaturally low in the most of socialist countries (around 5 %). After 1989, this measure began to increase and in 1997, it was 17,8 % in the Czech Republic and 15,1 % in Slovakia. In catholic Poland, the share of children born out of marriage rose only to 11 % in 1997. In the Czech Republic, total fertility rate of married women decreased from 1,73 in 1989 to 0,97 in 1997 whereas total fertility rate of unmarried women increased in the same period from 0,14 to 0,21. The increase was highest in the 25-29 years' age group and in second-order fertility, indicating that these were probably wanted children born in the increasing number of consensual marriages. The percentage of extra-marital children born to Czech women under the age of 20 which rose from 16,6 % in 1989 to 48,8 % in 1998 suggests that many young women who previously would have married on becoming pregnant are now remaining single or in consensual marriages. This age group so showed the greatest reduction in the social pressure to marry on becoming pregnant. The average age of unmarried mothers rose from 24,6 years in 1989 to 25,4 years in 1997.

The level of fertility also depends on the situation on the field of interruptions, which is exceptional in Poland. On the 15th April 1993 was in Poland implemented the anti-abortion law, which permits induced abortion only in the case of threatening the life or health of women, in the case of serious insult of foetus and in the case of rape or incest. The law provoked lot of controversies in Polish society including attempt at abolishing the law. Bad influences of any kind of prohibitions are generally known, in this case see for example David (1994). The increase of accessibility of modern contraceptives and a more generally responsible attitude to sexual behaviour led to significant decrease of the share of pregnancies terminated with induced abortion in the Czech Republic and in Slovakia. In Slovakia the number of induced abortions per 100 live births fell from 61 in 1990 to 37 in 1997, the same measures for the Czech Republic were 82 and 48 with further tendencies to decline (45 in 1998).

Table 6 Number of legal abortions per 100 live births

	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
Czech Republic	44,8	61,1	81,7	79,4	76,5	57,1	50,2	50,1	51,2	47,6
Poland	19,8	19,9	10,8	5,7	2,3	0,2	0,2	0,1	0,1	-
Slovakia	32,8	40,2	60,6	58,4	57,1	53	52,6	47,9	40,5	36,9

Source: Monnier (1998), Pavlík (1999)

In fine it can be concluded that current developments in the nature of fertility are bringing this three compared countries closer to the reproductive model common in western European countries. More frequent postponing of childbearing to a later age (mainly in the Czech Republic) and to some extent the rise in the percentage of childless women tend to diminish the total fertility level. The level of extra-marital fertility is no

longer a distinguishing factor between eastern and western Europe, but now divides between countries with different cultural traditions. It is the average age of mothers, which is now the indicator, which most dramatically distinguishes the countries of central and eastern Europe from western European countries. The mean age of mothers rises in the Czech Republic faster than in western European countries, so this difference (2-3 years) is gradually being reduced. The character of reproduction in the Czech Republic is thus distinctly approaching the west European model. In Poland and in Slovakia the changes are less pronounced and slower, but with the same tendencies.

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Resume

Vývoj plodnosti v České republice po roce 1989 (porovnání se situací v Polsku a na Slovensku)

V rámci politických, ekonomických a sociálních změn po roce 1989 došlo k významným změnám v reprodukčním chování české populace. Po období let osmdesátých, charakterizovaných dvoudětným modelem, vysokou plodností vdaných žen, časným rozením dětí, vysokou úrovní umělé potratovosti a nízkou bezdětností dochází v devadesátých letech spolu s prudkým poklesem počtu narozených dětí k výrazným strukturálním změnám. Úroveň úhrnné plodnosti klesá ze 1,87 v roce 1989 na 1,17 v roce 1997 přičemž roste průměrný věk matek, výrazně klesá podíl plodnosti nejmladších věkových skupin a klesá též podíl plodnosti prvního pořadí. Podíl dětí narozených mimo manželství vzrostl ze 7,9 % v roce 1989 na 17,8 % v roce 1997, přičemž jde stále častěji o děti druhého pořadí, což je odrazem vyššího výskytu nesezdaných soužití.

Pokles plodnosti úzce souvisí s poklesem sňatečnosti a umělé potratovosti a postupně tak dochází ke přiblížování charakteru reprodukčního chování v České republice k situaci v západoevropských zemích.

Též v Polsku a na Slovensku došlo od roku 1989 k důležitým změnám reprodukčního chování, byť v menší míře nežli v České republice. Počet živě narozených dětí klesl více než o čtvrtinu. Úroveň úhrnné plodnosti klesla z hodnot okolo úrovně prosté reprodukce (2.1) na hodnoty okolo 1,5, snížil se podíl 15-25letých na úhrnné plodnosti a mírně vzrostl průměrný věk matek. Úroveň umělé potratovosti byla na Slovensku vždy nižší než v Česku, i když v polovině devadesátých let došlo ke přiblížení ukazatelů interrupčnosti u obou populací. V Polsku platí od roku 1993 nový zákon, umožňující interrupci jen v přísně vymezených případech.

Lze říci, že charakter reprodukce v České republice se již výrazně přiblížil západoevropskému modelu, zatímco v Polsku a na Slovensku zatím dochází k pomalejším a méně výrazným změnám.