# Trends in fertility in the Czech Republic and Slovakia at the end of 20th century

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Abstract: The paper concentrates on fertility patterns in the Czech Republic and Slovakia. To find differences and common features of fertility development in both republics was the purpose of the comparative study. The study covers main periods of development. The course of demographic revolution in both population is the first period under examination. The second one is development of fertility level after World War II. The more detailed analysis concerns on the last decade of 20th century, the period of rapid and unexpected changes in demographic behaviour. Total fertility rate, completed fertility, mean age of women at childbearing, age specific fertility rates and proportion of extra marital births were the main characteristics used for this comparative study.

Key words: fertility, Czech population, Slovak population

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Population of the Czech Republic and Slovakia were living in the common state since 1918. They started their independent existence after the dissolution of the Czechoslovakia in 1993. Both population went through distinct historical development before their common existence and their social-economic characteristics and demographic patterns were different with the tendency of gradual convergency all the time. The Czech and Slovak population can be counted as demographically developed because they have already passed through the process of demographic revolution. Fundamental changes in demographic behaviour started already in the first half of the 19th century (around 1830) in the Czech population and their end is given around 1930. The Czech population was not lagging too far behind the countries of western Europe where these changes began. Crude birth rate of the Czech population was permanently below the value of 20 per mille already from 1927 with the only exception in the period immediately after the World War II (1946-1951). Tendency to the low fertility rates was permanent and the total fertility rate fell below the replacement level for the first time in the period 1931-1937. In Slovakia, the demographic revolution started later - at the beginning of 20th century and its course was shorter (approximately 50 years). The crude birth rate dropped below the value of 20 per mille in Slovak population since 1965.

The development of fertility level had the same tendencies in both population (Fig. 1). The higher fertility level in Slovak population compared with the Czech population is observed all the time. The fall in fertility in both population between World Wars was followed by a period of substantial fertility increase immediately after the World War II.

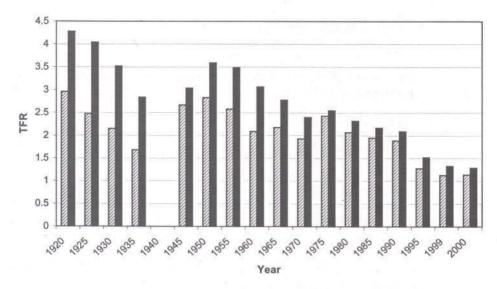


Fig. 1 Total fertility rate in the Czech Republic (CZ) and in Slovakia (SK) 1920-2000

From the beginning of 1950s period fertility started a new decline accelerating by adoption of the abortion law in 1958. At the beginning of 1970s there was a new temporary rise in fertility supported by pronatalistic population policy in former Czechoslovakia. The fertility was more or less stabilized in 1980s reaching relatively high level. Both population represented the East European model in reproductive behaviour. The majority of the first children were born soon after marriage, two-child family model was preferred with only a small age difference between the children, the mean age of women at birth of first child was very low (around 22.5 years) and the proportion of extra-marital births was lower than 10 per cent. The high proportion of premarital conceptions and the low proportion of childless women were also typical for both population. The long-term generation replacement of Slovak population was insured till the end of 1980s and in this period Slovakia belonged to the countries with the highest fertility level in Europe. At the end of 1980s, total fertility rate was already slightly below the replacement level in the Czech Republic reaching the value of 1.88 in 1989.

Total fertility rate provides fertility level in calendar years and represents the average number of children a woman would have if current age specific fertility rates remained constant at each age. The value of the indicator vary considerably depending on timing of births. To evaluate fertility is possible also by completed fertility, which indicates family size in true generations. The changes in fertility are much less abrupt over the time without an influence of timing the births. Data on completed fertility show gradual converegency in demographic behaviour of both population mainly for postwar generations (*Fig. 2*). The completed fertility for women born in 1930 was 2.14 in the Czech republic and 2.86 in Slovakia; the difference in family size was 0.72 child while for generation 1965 only 0.13. The replacement of generations is ensured in Slovakia where completed fertility for generation 1965 reaches the value of 2.02 children. In the Czech Republic the completed

fertility started to fall below the replacement level sooner (generation 1962) and the latest data for generation 1965 are 1.89 children.

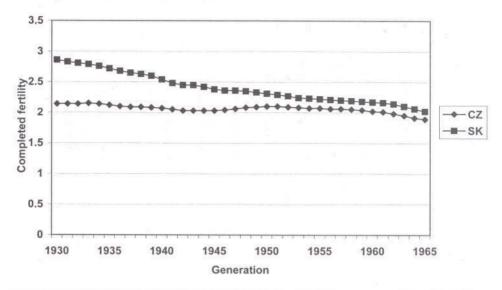


Fig. 2 Completed fertility in the Czech Republic (CZ) and in Slovakia (SK) women generations 1930-1965

After 1989 a strong reaction to the political, social and economic changes resulted to new patterns in demographic behaviour in both republics. The new tendencies in reproductive behaviour related to the second demographic transition started in former Czechoslovakia in 1990s. The analysis here concentrates primarily on this latest period (1990–2000) and evaluates changes in fertility in both republics (similarities or differences) under the new conditions. The period of the transformation in both republics has been accompanied by a sharp drop in the number of births (*Fig. 3*), although the age structures of both population were favourable and such development was not expected. Numerous generations from the first half of the 1970s have entered the reproductive age (in addition they represented the children of numerous postwar generations). Absolute number of live born children fell by 31.5 percent in the Czech Republic and by 29.7 percent in Slovakia in the period 1990–1999. Decline accelerated after 1993, stabilization in the Czech Republic and continuous slow decline in Slovakia is observed from 1996.

Changes in fertility level were accompanied by postponement the childbearing to the higher age. The mean age of mothers at the birth of first child was traditionally low in both republics in post-war period. In 1990 the difference between the Czech population and Slovak population in this characteristic was not remarkable (in the Czech Republic 22.5 years, in Slovakia 22.2 years) but at the end of the 1990s the difference was around one year (in the Czech Republic 24.7 years, in Slovakia 23.6 years). The shift of the childbearing to the higher age started early in the Czech republic – around 1993, in Slovakia from 1996 (Fig. 4).

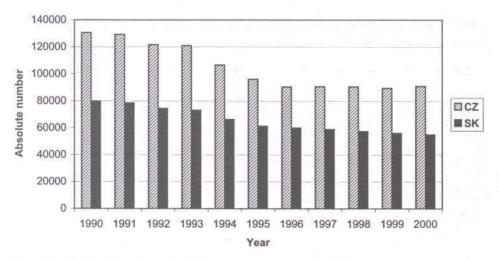


Fig. 3 Live births in the Czech Republic (CZ) and in Slovakia (SK) 1990-2000

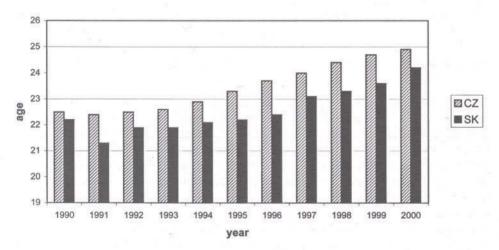


Fig. 4 Mean age of women at birth of first child in the Czech Republic (CZ) and in Slovakia (SK) 1990-2000

Until the end of the 1980s the distribution of fertility by age was unimodally asymmetrical with a peak at the age of 21 in both population. Period since 1990 is characterized by radical changes in fertility level which have moved away from the earlier model of reproduction in both republics typical for East European countries. The decline in fertility level in 1990s was accompanied by significant changes in fertility by age. The development of the process of fertility can be divided into three main periods (Fig. 5, Fig. 6). In 1990–1993 the fall in fertility rates was not accompanied by a significant changes in mean age at first childbirth and consequently the distribution of fertility by age kept asymmetrical form with a peak at the young age (21 year in 1990, 22 years in 1993 similarly in both republics). In the period 1993–1996 the fall in fertility accelerated and was

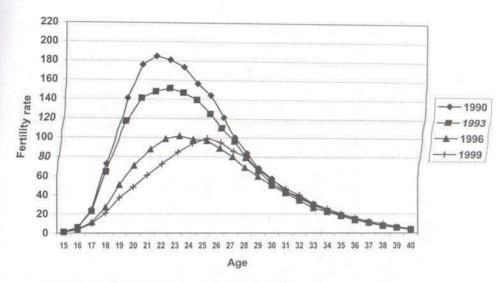


Fig. 5 Age specific fertility rates in the Czech Republic 1990-1999

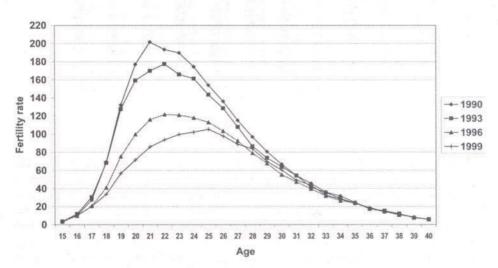


Fig. 6 Age specific fertility rates in Slovakia 1990-1999

accompanied by the postponement of childbearing to the higher age (in the Czech Republic 23 years of age, in Slovakia 22–23 years of age in 1996) and the distribution of fertility by age became less asymmetrical. The distribution of fertility by mother's age shows clearly that the main cause of the reduction lies with young women. The fall in fertility was recorded in all age groups in 1990–1996 but the most significant reduction was in the age group 20–24 (in the Czech Republic by 48%, in Slovakia by 39%). After 1996 the fall in fertility by age was not so remarkable and even a slight increase was recorded – in the

Czech Republic among women over the age of 25, in Slovakia over the age of 28. Fertility shift to the higher age continued in both republics.

Total fertility rate fell by 40,2 percent in the Czech Republic (from 1.89 to 1.13) and by 36.4 percent in Slovakia (from 2.09 to 1.33) in the period 1990–1999. Slow decline in total fertility rate was observed in the very beginning of 1990s and was accelerated in the period 1993–1996 (Fig. 7). The continuous slight decline in total fertility rate in Slovakia and a stabilization in the Czech Republic is recorded since 1996. The difference between the Czech and the Slovak population in total fertility rate was 0.2 children at the beginning of the 1990s and remains the same at the end of the 1990s.

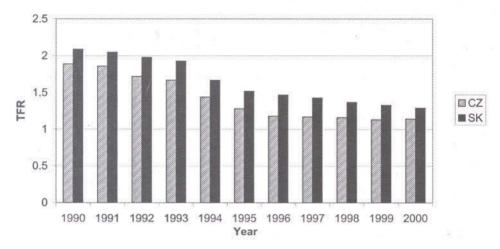


Fig. 7 Total fertility rate in the Czech Republic (CZ) and in Slovakia (SK) 1990-2000

Changes in fertility patterns were closely connected to changes in the value system. The proportion of extra-marital births was traditionally low in both republics in the postwar period and did not exceed 10 percent. While the total number of marital births dropped by 37% in Slovakia and by 40.5% in the Czech Republic in the period 1990–1999, the number of extra-marital births increased by 56% in Slovakia and by 65% in the Czech Republic (Fig. 8). In 1999, the proportion of births out of wedlock was 17% in Slovakia and almost 21% in the Czech Republic. Present figures of births out of wedlock leave both republics still among those countries with a relatively low percentage of extra marital births and show that marriage is still considered as an important condition for childbearing by the majority of both population.

## Conclusion

Development of fertility level in the period of economic and social transformation occured in three stages in both republics. The first one (1990–1993) is characterized by slow downwards trend in fertility. The sharp decline of fertility was observed in the second period 1993–1996. The moderate fertility decline or stabilization on low fertility level continues after 1996. It seems that dramatic changes in fertility have already ended. The total

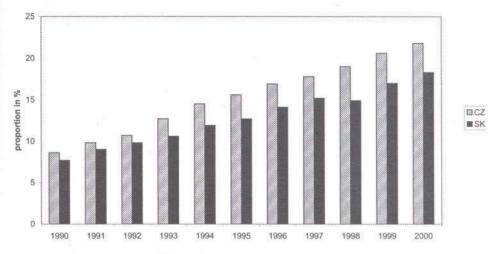


Fig. 8 Proportion of extra marital births in the Czech Republic (CZ) and in Slovakia (SK) 1990-2000

fertility rates have stabilized at a low level with the shift of fertility to a higher age in both population. The fall in fertility rates was primarily due to changes in timing of births. Both population keep up to now differences in their demographic behaviour but the gradual convergency in fertility patterns continued also in 1990s. The fertility development in 1990s is bringing both populations closer to the West European model of demographic behaviour.

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# TRENDY VE VÝVOJI PLODNOSTI V ČESKÉ REPUBLICE A NA SLOVENSKU NA KONCI 20. STOLETÍ

### Résumé

Příspěvek pojednává o vývoji plodnosti v České republice a na Slovensku. Cílem srovnávací studie bylo nalézt nejen rozdíly, ale i společné rysy tohoto vývoje. Studie zahrnuje hlavní etapy vývoje plodnosti v obou republikách. Úvod je včnován průběhu demografické revoluce na území České republiky a Slovenska, další část zahrnuje vývoj plodnosti v období po druhé světové válce. Podrobněji je hodnoceno poslední desetiletí 20. století, tj. 90. léta, kdy došlo v demografickém chování k velmi rychlým a neočekávaným změnám. Pro charakteristiku vývoje plodnosti byly použity následující demografické ukazatele: úhrnná plodnost, konečná plodnost, průměrný věk žen při rození dětí, rozložení plodnosti podle věku a zastoupení nemanželsky narozených dětí.