DEVELOPMENT AND PROJECTION OF SINGLE-PARENT FAMILIES IN THE CZECH REPUBLIC

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Abstract

The first part of the analysis will be focused on the description of the number of single-parents households in the Czech Republic in the period 1995-2016. The analytical part will focus on a comparison of single-parent families compared to the total number of the family households. The age and gender of the single-parent will be a complementary factor in this analysis. The second part of the analysis will focus on projection of the number of single-parents families in 2050. The essential source for this study are the data from Labour Force survey. LFS is a continuous survey with the possibility of resulting value on an annual basis unlike Census. The headship rate according to age groups and the relative share of individual types of households will be used as a basic methodological approach for this study. The advantage of this method is the possibility of linking to population projection. The population projection is the basic source for the following projection of households.

Key words: single-parents families, headship rate method, Labour Force Survey.

JEL CODE: J10, J11, J13

Introduction

The number and structure of private households is implicitly influenced by demographic and non-demographic factors of population development; for instance changing attitudes towards marriage, divorce and birth. In the case of the projection of the private household, further non-demographic factors (trends toward consensual union, an early departure from the parental home) may also be important. The demographic and non-demographic factors, which, in a population projection, are considered to be related to the individual person, together influence the entire process of household formation, extension, reduction, and dissolution (Linke, 1989).

Other changes emerged in the sixties with an increase in secularization, individual rights and freedoms of the individual in Europe, which brought about an increase in the share of other forms of cohabitation at the expense of marriage (Lesthaeghe, 1983). In the case of the Czech Republic the non-demographic factors as an increase in individual rights and freedoms after 1989 play a specific role. In the period after 1989 there were major changes in the society, which had a significant influence on the formation of households. Before 1989 the financial benefits associated with entry into marriage in the socialist Czechoslovakia logically discouraged people from living in such unions, reflected in the minimum values of extramarital fertility. After 1989, the expansion of various alternative behaviours in family history led to an unprecedented increase in extramarital fertility (eg. Lesthaeghe – Surkyn, 2002, Rychtaříková, 2003, Kennedy - Bumpass, 2008, Dominguez-Folgueras, 2013).

The development after 1989 gradually shifted away from clear preference of marriages, when the Czech Republic was characterized by an extremely low age of entry into the first marriage, absence of cohabitation or other alternative forms of cohabitation (including for example Mingles, Singles) (Kučera, 1994). The development in the Czech Republic was characterized by the phenomenon of relatively high divorce rates (Nývlt – Bartoňová, 2011). This caused the rise of the number of single-parent family households. The normalization in Czechoslovakia contributed to a delay in the onset of the second demographic transition, with the exception of the extension of single-parent family households and one-member households (Kučera, 2005). The period after 1989 can still be characterized by an increase in the divorce rate and rise in the number of women living alone with a child under 15 years of age. While in 1995 the number amounted to 100.3 thousand women, in 2015 it was already 151.3 thousand women, the increase of approximately 33% (Nývlt, 2016).

This confirmed by a study in the Czech Republic itself, the marriage is still considered an institution in which children should be brought up and the predominant type of cohabitation is a premarital cohabitation of childless persons (Heuveline - Timberlake, 2004; Sobotka - Toulemon, 2008). Development of an individual rights and the expansion of social security for the population led to the growing number of family cohabitation, where the children live in a household with only one parent. This development, of course, also contributed to a rise of the intensity of the creation of a new one-parent family with children household. In a way, the negative phenomenon of the expansion of social security

for the population of developed countries in Europe led to the growing number of family cohabitation, where the children live in a household with only one parent (Lesthaeghe, 1983).

1   Data Source

Labour Force Survey is the main data source for this study. LFS is a household sample survey, the largest in the Czech Republic. This is a continuous survey which has been providing comparable data in the time series since 1993. The sample includes approximately 25,000 households, representing approximately 63,000 people. The survey covers all persons usually living in surveyed private household dwellings. The usual residence is based on the intension to remain in the territory of the Czech Republic at least one year.

2   Methodology

The number of households may be projected by using either the microsimulation or macrosimulation approach. The first approach requests access to individual data on one hand, and a relatively large number of assumption about individual transition probabilities on the other hand (Linke, 1988). The macrosimulation model does not require access to individual data. The headship rate method in modelling households is one of the best-known application of the macroanalytical approach. The advantage of this method is the possibility of linking to population projection. The population projection is the basic source for the following projection of households.

This model projection of households is based on the calculation headship rate according to age groups and the relative share of individual types of households. The projection in this analysis is only illustrative. The projection does not use the non-demographic factors for future developments. In this analysis we will assume that the relative proportion of individual household types does not change over time. The result is only one option of the projection, not three.

For the purpose of the projection, the headship rate is calculated for each five-year age group according to the sex of the person in the head of the household:

$$K_{x,t} = \frac{H_{x,t}}{P_{x,t}} \qquad (1)$$

where $H_{x,t}$ *is the number of the person in the head of the household in age group x, in year t*

and $P_{x,t}$ average population in age group x, in year t

In this projection, we assume unchanging headship rate for the whole period until 2050. For this reason we can calculate the total number of the persons in the head of the household according to the formula:

$$H_{x,t}^{p} = v_{x,t} * P_{x,t}^{p} \quad (2)$$

where $H_{x,t}^{p}$ is the projected number of the persons in the head of the household in the household in the age group x, in year t,

$v_{x,t}$ is projected headship rate in the age group x in year t,

a $P_{x,t}^{p}$ is projected population in the age group x, in year t

After that, it is only sufficient to change the total number of heads of households for the total number of households and to divide by the age of the head of the household and sex, depending on the projected relative size of each household type according to the formula:

$$H_{x,t}^{p,j} = h_{x,t} * H_{x,t}^{p} \quad (3)$$

where $H_{x,t}^{p,j}$ is the projected number of the persons in the head of the household according to the type of the household in the age group x, in year t,

$h_{x,t}$ is the projected relative share of individual types of households in the age group x, in year t

a $H_{x,t}^{p}$ is the projected number of the persons in the head of household in the age group x, in year t

By summing up the five-year age groups we obtain the projected numbers of individual types of households in year t according to the formula:

$$H_{x,t}^{p} = \sum_{i=1}^{n} H_{x,t}^{p,j} \quad (4)$$

3   Analysis

Due to the positive migration balance, there was a relatively large increase in population from the beginning of the 21st century until 2008. After 2008, the population growth was not so steep. The population growth also reflected the absolute growth in the number of households during this period. A decrease of the average household size was another reason for a higher absolute growth in the number of households. The most intensive growth for the whole period was in households of individuals. Total number of single parent family households grew by 2008, then on contrary began to decrease and in 2013 it was 408,7 thousands of single family households. The period between 2002 and 2008 was characterized by a significant change in the household structure as a result of demographic changes in society. After 2008, there were not major changes in the development of individual types of households. This rule is valid also for number and share of single parent family households. Therefore, the constant rate of growth of individual types of households can be considered as the basis for the household projection.

Tab. 1: Number of households in the Czech Republic (2002, 2008, 2013)

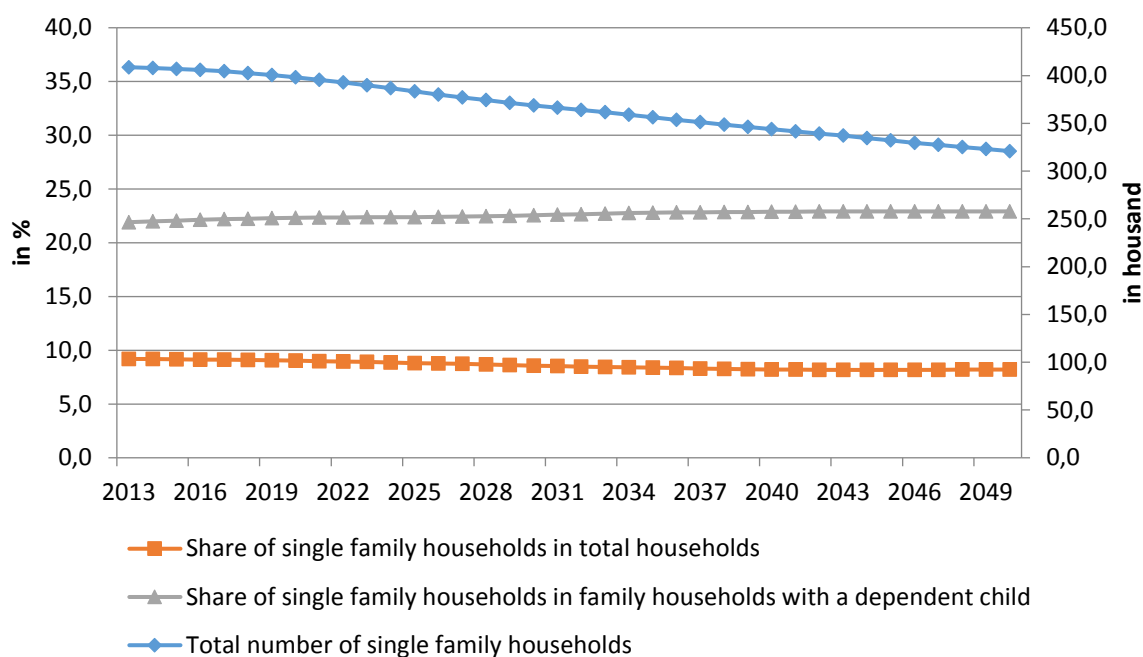| Type of household	2002	2008	2013
Partner family households	2544471	2602989	2665099
Single parent family household	393072	436671	408717
Household of individual	898484	1174367	1257980
Non-family household	108291	92196	114645
Total households	3944319	4306223	4446442

Source: Labour Force Survey 2002-2013

Tab. 2: Share of individual type of households in the Czech Republic (2002, 2008, 2013) – in %

Type of household	2002	2006	2013
Partner family households	64,5	60,4	59,9
Single parent family household	10,0	10,1	9,2
Household of individual	22,8	27,3	28,3
Non-family household	2,7	2,1	2,6
Total	100,0	100,0	100,0

Source: Labour Force Survey 2002-2013

Household projections are based on the basic projection of the population. In the first step we will have a look at the average population for year 2013 according to the basic age groups. For the purposes of this study, the projection of the Czech Statistical Office from 2013 has been chosen (Projekce obyvatelstva do roku 2100, 2013). We will take into account only the middle variation of the projection. It then calculates the formulas described above. Due to the decline in the middle-aged population and the growth of the older population during the period 2013 to 2050, the number and the share of the family households will be lower. This decline will be less relevant for single parent households. In 2013 the share of single parent households of individuals to the total number of family households was 21.9 %, in 2050 22.9 %.

Fig. 1: Projection of single family households, Czech Republic, 2013–2050

Source: Labour Force Survey 2002-2013

Conclusion

The growth of single parent households is one of the negative features of the current development of demographic development. The Continuous growth began in the eighties of the last century and continued until the middle of the first decade of this millennium. In this period, for example, the total divorce was up to 50%. In recent years, development of number and share single parent households has stabilized.

In the second part, the study focused on the household projection to 2050. The headship rate method was used as the application of the macroanalytical approach. The advantage of this method is the possibility of linking to the population projection. For the period up to 2050, this projection counts on the stagnation of the share of single parents households. Given the aging of the population, the number of family households will fall, which will be reflected in a decrease in the number of single parent households. This study is based on the unchanged intensity of creating individual types of households. This approach reflects the stability of the number and share of individual type of households in recent years.

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