

# Abstracts of Articles Published in the Journal Demografie in 2017 (Nos. 1–3)

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Sylva Höhne

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## CHANGES IN PARENTAL ALLOWANCE TAKE-UP IN A DEMOGRAPHIC CONTEXT

The article analyses data on parental allowance recipients in the last 15 years, during which eligibility criteria and the system of payments considerably changed. It points out changes in the structure of recipients in demographic and other contexts (e.g. labour market, childcare). It is evident that the period of parental allowance uptake is getting shorter; however, there continues to be an interest in using it up to the time a child reaches the age of 3. The outcomes could contribute to the family policy discussion, which is currently underway.

**Keywords:** parental allowance, legislative changes, birth rate, childcare, family policy      *Demografie*, 2017, 59: 5–22

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Jan Fojtík – Tomáš Karel – Martin Matějka – Pavel Zimmermann

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## MODELLING THE MORTALITY OF OLDER PEOPLE IN THE CZECH REPUBLIC BASED ON COHORT DATA FROM SURROUNDING COUNTRIES

The article presents one possible way in which to reduce uncertainty in modelling the mortality of older age groups. The lack of reliable data is usually one of the most important problems of old-age mortality modelling. The uncertainty of the estimates is reduced in this article by using multiple sources of mortality data and using the credibility approach to mixing data from several countries. For the oldest age, the extinct cohort method is applied to increase the reliability of the population data. Using Czech data mixed with data from surrounding countries, results in narrower confidence intervals of estimates and consequently more accurate predictions than when only Czech data were used.

**Keywords:** old-age mortality, credibility data model, multi-population mortality models

*Demografie*, 2017, 59: 23–32

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Ladislav Průša

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## THE EFFECTS OF CHANGES IN THE POPULATION AGE STRUCTURE ON THE COSTS OF PROVIDING HEALTH CARE

This paper attempts to quantify the effects of changes in the population age structure on the costs of health-insurance companies for the provision of health care. Based on a population projection for the Czech Republic and data on health-insurance companies' expenditures on health care by gender and age, the expected development costs of health-insurance companies in 2030 are quantified

and the possibilities of financing the health- insurance system, including proposed changes to some parameters of the system, are assessed.

**Keywords:** projection of the population of the Czech Republic, health care, health insurance, health-insurance companies, incomes and expenditures of the health-insurance system **Demografie, 2017, 59: 33–48**

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Martina Šimková – Jitka Langhamrová

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### THE QUALITATIVE FACTORS OF POPULATION AGEING

Although the ageing of the population has become a much discussed issue in the Czech Republic, these discussions are often limited to the quantitative consequences of population ageing for the economy. However, the impacts of population ageing are also qualitative and concern ageing safely and with dignity and the appropriate living standards in old age. This article focuses on the qualitative aspects of population ageing.

**Keywords:** ageing of the population, living standards, retirement age, social and health care **Demografie, 2017, 59: 49–64**

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Martin Furmanik

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### THE NATIONAL AND SOCIO-ECONOMIC STRUCTURE OF THE SPIŠ REGION IN THE FIRST TWO DECADES OF THE 20TH CENTURY ACCORDING TO THE POPULATION CENSUSES IN 1910, 1919 AND 1921

This paper analyses the national and social structure of Spiš County in Slovakia in the early 20th century. It is mainly based on the published results of the population census in the years 1910, 1919, and 1921. The paper also looks at the literacy rate, the degree of urbanisation, and the religious structure of Spiš and Slovakia in the observed period. Analysis of these factors is important for understanding the complex development of society in the early 20th century and in followed period.

**Keywords:** Spiš, Slovakia, national structure, socio-economic structure, census **Demografie, 2017, 59: 99–117**

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Branislav Šprocha

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### THE ROMA POPULATION IN SLOVAKIA AND THE COHORT FERTILITY OF ROMA WOMEN ACCORDING TO THE 2011 POPULATION AND HOUSING CENSUS

Romanies in Slovakia are in many ways specific populations. Owing to their ethnicity and especially a degree of isolation from the majority, it is still possible to identify many differences in reproductive behaviour in the Roma population. Probably the one mentioned most is the fertility of Roma women. The paper analyses fertility from a cohort perspective in the population of women of Roma nationality based on data from the 2011 Population and Housing Census. It focuses on the development of cohort fertility, women by parity,

and parity progression ratios. The paper also points to possible differences in the cohort fertility of Roma women by marital status, educational attainment, economic activity, and place of residence.

**Keywords:** Roma women, cohort fertility, 2011 Population and Housing Census, marital status, education, economic activity, Slovakia

Demografie, 2017, 59: 118–131

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Kateřina Podolská – Jitka Rychtařiková

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## IMPACT OF COSMIC-ORIGIN BACKGROUND RADIATION ON HUMAN SURVIVAL IN THE CZECH REPUBLIC

We evaluate the lifetime attributable risks induced by an increasing concentration of cosmic radiation and cosmogenic radionuclides during periods of low solar activity for the specific conditions in the Czech Republic. The concentration of cosmic radiation and cosmogenic radionuclides reaches its highest values during the solar minima when the Earth's magnetosphere is more penetrable. The computed estimate of lifetime attributable risks from solid neoplasms (colon, lung, and stomach) induced by doses of natural background radiation is higher for the period of low activity in solar cycle No. 24 than for the forced solar activity in the previous solar cycle Nos. 19 – 23. We estimated the lifetime attributable risks induced by the annual dose of natural background radiation by sex for the Czech Republic and the USA. In addition, three different scenarios based on dose radiation level were explored. The cosmogenic radionuclides in our environment may thus play a greater role than in the last decades.

**Keywords:** mortality, incidence, solid cancer, lifetime attributable risk, age at exposure, solar activity, natural background radiation dose

Demografie, 2017, 59: 132–149

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Jana Křestánová – Roman Kurkin – Michaela Němečková

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## POPULATION DEVELOPMENT IN THE CZECH REPUBLIC IN 2016

This analysis describes the demographic situation in the Czech Republic in 2016 and demographic trends in the past decade based on demographic statistics from the Czech Statistical Office. The article evaluates changes in sex-age and marital status structure, nuptiality, the divorce rate, fertility, the abortion rate, mortality and international migration. In 2016 the population of the Czech Republic rose as a result of positive international migration and natural increase. The total fertility rate was above 1.6 children per woman and life expectancy at birth increased to 76.2 years for males and 82.1 years for females. The total first marriage rate for both men and women also rose. Conversely, the total divorce rate declined.

**Keywords:** demographic development, population, age structure, nuptiality, divorce, fertility, abortion, mortality, migration, Czech Republic

Demografie, 2017, 59: 187–206

Anna Šťastná – Jitka Slabá – Jiřina Kocourková

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### THE PLANNING, TIMING, AND FACTORS BEHIND THE POSTPONEMENT OF FIRST BIRTHS IN THE CZECH REPUBLIC

The transition to childbearing at a later age is one of the most striking features of demographic change in recent years. Employing both vital statistics and survey data, the paper analyses the causes and consequences of fertility postponement in the Czech Republic. The authors focus on the planned age of childbearing and on the reasons why women fail to fulfil their plans and postponing childbearing for a much longer period than originally planned.

**Keywords:** first birth, fertility postponement, fertility planning, Czech Republic **Demografie, 2017, 59: 207–223**

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Branislav Šprocha – Pavol Ďurček

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### COHORT FERTILITY AND THE CONCENTRATION OF REPRODUCTION OF WOMEN IN CZECHIA AND SLOVAKIA BY EDUCATIONAL ATTAINMENT

Educational attainment is one of the most important features of differential fertility. The aim of this paper is to analyse the development of cohort fertility in Czechia and Slovakia by level of education, to identify changes in the structure of women by the number of births and education, and to highlight the development of parity progression ratios across educational groups in a cohort perspective. The paper also focuses on trends in the concentration of reproduction by education and selected characteristics of reproduction. The results of the analysis clearly confirm the significant impact of education on cohort fertility, family size, and the variability of reproduction and redistribution.

**Keywords:** cohort fertility, concentration of reproduction, educational attainment, Czechia, Slovakia **Demografie, 2017, 59: 224–241**

# NA TABLETU I V MOBILU

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