Men's Transition to Adulthood in the Czech Republic[1]

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Men's Transition to Adulthood in the Czech Republic. This paper aims to bring a new perspective to and understanding of the way that Czech men aged 40-55 entered into adulthood in the light of the life course perspective and given specific key life events and historical context. We examine entry into adulthood (operationalized as entry into first marriage), depending on the timing and whether men do or do not go through certain life transitions (e.g. transition from education to first job, gaining independence from parents and first child's conception). The data have been taken from the *Male Reproductive Behaviour Study* conducted in 2011. Given the specificity of our data (retrospective) and stated goals, we employ discrete-time event history analysis and estimate the effects by use of binary logistic models. Timing of first marriage was related to completing school, labour force participation and leaving the parental home (at least for men who had entered first marriages before 1990). Completing education occupies a special place among these three transitions. It was commonly the first event in a series of partial transitions of entering into adulthood. The effect of completing education on entering into marriage was negative only in the case of premarital conception. Premarital conception also moderated the effects of labour force participation and parental home leaving.
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Key words: *transition to adulthood; male population; education; first job; premarital conception*

Introduction

Many studies focusing on changes in the family and life paths emphasize the transition from traditional (preindustrial) society to modern (industrial) society[4]. (e.g. Giddens 2012; Hunt 2005; Mayer 2004; Bartošová et al. 2012; Chorvát 2006; Katrňák et al. 2010; Rychtaříková 2007a) Other studies (see for instance Rabušic 1990, 2001a, 2001b; van de Kaa 2002; Lesthaeghe 2010) point out the changes in family and reproductive behaviour experienced in Western industrial societies in the 1960s and 1970s[5]. Changes similar to those which took place in the West in the 1960s and 1970s have been experienced by post-socialist countries in the last two and a half decades. Until World War II, Czech society belonged to the western type of demographic behaviour. (e.g.

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[4] In the context of the transition from traditional to modern society at the turn of the 18th and 19th centuries, emphasis is placed on the processes of industrialisation, urbanisation, secularisation, and education and social mobility. In the sphere of attitudes and values, emphasis is placed on growing individualism.
[5] These changes include the continuing decline in fertility rates below the level of reproduction, postponing marriages and childbearing, and the rise of alternative forms of partnership and co-habitation.

Hajnal 1965; Rychtaříková 2007a; Chromková Manea 2011) However, Czech demographic trends began to differentiate from the West when the communist regime took power in 1948. Whereas the development in western societies continued in its own direction, in Czechoslovakia, demographic development seemed to still lead towards "de-modernisation". (Možný 2009: 82)

In this paper, we study the transition from one life stage to another given certain socio-demographic circumstances. We focus on male transition in late socialist Czechoslovakia given the following:

- In terms of cultural context, literature distinguishes "pre-adult" and "adult" life stages. For this reason, the transition between these two stages is perceived as important.
- Events making up the transition to adulthood are closely related to family and female reproductive behaviour. They seldom focus on the male perspective. (e.g. Chaloupková 2010b: 15; Kynčilová 2009; Rabušic – Chromková Manea 2011)
- Men who entered adulthood in the 1970s and 1980s belong to a special cohort, as they lack the experience of the previous historical period (before and immediately after World War II).
- Given men's age at the time of the interview, their transition to adulthood may be considered completed.

The analytical part of the text will work with retrospective data from the *Male Reproductive Behaviour Survey* (*MRB 2011*), conducted on a representative sample of Czech men aged 40-55 in 2011. These men (born in 1956 – 1971) reached the age of 18 during the period of 1974 – 1989. Thus, it may be assumed that the transition to adulthood took place in the 1970s and 1980s, the latest in the early 1990s.

We look at the transition to adulthood from the life course perspective. A description of this perspective is briefly outlined in the first part of the paper. In the next section, we define marriage as the essential event confirming adult status. Then, we formulate hypotheses and describe the data and methodology. In the analytical section, using event history analysis (in the form of logistic regression), we model the entry to adulthood (operationalized as entering a first marriage) depending on the timing and completion of important partial transitions (the school-to-work transition, independence from parents, and first child's conception).

Theoretical background – the life course perspective and the key events in the transition to adulthood

The life cycle perspective has dominated the social sciences for a long time. Human life is associated with biological and psychological processes where a sequence of social roles based on biological age is assumed. In this regard,

parenthood is the most important social role. The reproductive system plays a crucial role among the biological factors determining the life cycle. Considering female reproductive capacity, three stages may be distinguished: pre-reproductive stage, reproduction, and menopause. Whereas for women an upper age limit of reproduction is determined, there is no clearly defined age for men. However, biological processes are subject to morality and values influencing "age-appropriate behaviour". (Hunt 2005: 11-12)

At the end of the 20th century, the idea of the life cycle was no longer sustainable in sociology. Life cycle models overestimated the effect of age, underestimated important social variables (e.g. social class, ethnicity, and gender) and were not applicable given societal diversity. Hence, the idea of the life cycle was replaced with a more flexible concept: the life course perspective[6]. Unlike the life cycle perspective, it allows for comparison across time and space. (Hunt 2005: 21-22)

Researchers agree that the life course approach operated in the traditional social regime approximately until the turn of the 19th and 20th century. Whereas Mayer (2004) refers to the unpredictability of the life courses in this period due to frequent natural disasters, disease, and a high risk of early death, according to Hunt (2005: 13-16), life courses during this time show a high degree of predictability owing to a slow social development. Hunt points to the regularity in the life course and the idea of continuous series of transitions into adulthood, which appeared in western industrial societies at the end of the 19th century. At that time, the adolescent stage appeared between childhood and adulthood[7]. (Hunt 2005) According to Mayer (2004), the idea of distinct life stages defined in the same manner for the majority of the population (education – employment – retirement) dates back to the period of late industrialism. At that time, there was a decline in the age of marriage entry and first childbearing.

The current post-industrial period is characterised by de-standardisation and differentiation of the life path. Post-modern western society is defined by uncertainty and unpredictability. Life events are postponed and the previously typical sequence of life events is changing.

In order to use the life course perspective, we need to select the key events defining the individual life course. However, the operationalization process of the transition to adulthood is not straightforward. According to Mayer and

[6] The origins of the sociological perspective of the life course may be found in four streams of empirical research, namely historical demography, sociology of ageing, developmental psychology, and methodological progress related to conducting longitudinal studies. (Giele – Elder 1998: 12-22) The same authors (1998: 8-11) identify four key factors determining the form of the life course, corresponding to the four functions of Parsons's social system and also corresponding to four streams of empirical research establishing the study of the life course: positioning in space and time (cultural environment), associating lives (social integration), effect of human behaviour / agency (focus on individual goals), and timing of life events (strategic adaptation).

[7] It is the period when young people become independent and learn the responsibility and skills necessary in adulthood.

Tuma, the life path is affected by particular historical events, social institutions, the legal system, and the norms prevailing in a specific society. (Mayer – Tuma 1990 in Hamplová 2003: 20-21) For this reason, these factors affect not only the course of the transition to adulthood, but also the social construction of adulthood.

Arnett (2001: 133-134) refers to marriage as a central event of the transition to adulthood in traditional cultures. Marriage was conditioned by other circumstances necessary for the recognition of adulthood, and the process of preparing for marriage usually comprised a learning period needed to acquire knowledge on complementary gender-specific roles.

However, Europe underwent substantial changes lengthening the process of the transition to adulthood, which made it unpredictable[8]. Based on both empirical research and theoretical assumptions, researchers emphasise various factors affecting the transition to adulthood. (e.g. Arnett 2001, 2003; Furstenberg et al. 2003; Chaloupková 2010a, 2010c, 2011; Iacovou – Berthoud 2001) They almost universally mention certain key role transitions: completing education, starting employment, acquiring economic and residential independence from parents, transition to marriage, and parenthood.

Each of the aforementioned conceptualisations of the transition to adulthood is based on different historical and local contexts. The contemporary Czech Republic is among the countries with a Western European demographic regime. It is situated west of the so-called Hajnal line. (e.g. Puur et al. 2012; Chromková Manea 2011) However, Czechoslovakia of the 1970s and 1980s represented a specific context. After World War II, like to other European countries, Czechoslovak society experienced a post-war baby boom, with a common model of practically universal early marriages. Even though Rychtaříková (2007a) labels this model as traditional, in accordance with the classification of historical demographic regimes by Mayer (2004) and Hunt (2005), it would be more appropriate to call it a (late) industrial or modern regime. In the 1950s, unlike the Western countries, Czechoslovakia experienced a decline in fertility rates (Rychtaříková 2007b), while the marriage regime remained the same as in the West until the turn of the 1960s and 1970s. (Rychtaříková 2007a)

In the 1960s, the Czechoslovak government responded to the declining in fertility rates by adopting pronatalist measures[9], which led to a shift in the demographic regime - a transition to the Eastern European demographic

[8] Young people leave and return to the home of their parents, frequently living without a partner or living with a partner without entering into marriage. This eliminates the mutual link between the partnership and parenthood. Owing to changes in the labour market, young people today remain in the education process for a longer period of time and face a higher risk of unemployment than in previous generations.

[9] For instance, the period of maternity benefits was extended, there was an increase in the subsidy paid upon the birth of a child, and the state provided newly-weds with housing loans at favourable terms.

patterns. In the 1970s, the combination of the high fertility level of the baby-boom generation and family-friendly climate resulted in a demographic expansion. (Kučera – Fialová 1996; Rychtaříková 2007a, 2007b: 2-3; Rychtaříková 2007a: 6; Sobotka et al. 2003; Kantorová 2004) According to Kučera and Fialová (1996), the collapse of the totalitarian system meant the beginning of a gradual return to democratic traditions, the rule-of-law state, market economy, as well as the demographic behaviour of the Western European countries[10].

Apparently, completing education, starting the first job and getting married were considered important events of the transition to adulthood even in the era of late socialism. For the purpose of this paper, entering into marriage will be considered as the most important event confirming adult status. As marriage was virtually universal across society, there were only few people living together unmarried, and in such cases, these were hardly ever first cohabitations. (See Kučera – Fialová 1996) Apart from the universal character of marriage, Kučera and Fialová (1996) mention other facts that emphasize the crucial role of marriage for achieving social adulthood, such as reaching the age of maturity. Starting a first marriage was frequently the first independent step taken by young people, as "their school or apprenticeship had been selected by their parents when they were 14-15 years old, they started their jobs initially on the basis of public/state-driven assignment, with more freedom of choice starting from the 1960s, yet commonly also under a strong influence of their parents or friends. Only the partner selection and taking a decision on entering into marriage were free from state and usually parental interventions, thus frequently becoming the first independent step in life". (Kučera – Fialová 1996: 14)[11] Some female students married even before completing their studies due to pregnancy. For this reason, some men entered into marriage before coming of age[12]. In the case of conceiving a child before getting married, weddings took place soon afterwards, so that the child was not born out of wedlock. For these reasons, marriage is perceived as the most significant event, which explicitly confirmed adult status in socialist Czechoslovakia.

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[10] Rychtaříková (2007a, 2007b) agrees that the political and economic developments of the 1990s led the Czech Republic to converge with Western demographic trends in terms of marriage and abortion rates. Nevertheless, in her opinion, the changes in Czech fertility rates differ from those in the West by their speed and depth.

[11] In the case of unmarried men, the intensity of the marriage rate consistently oscillated in the age interval of *22-25 years*, i.e. immediately after completion of compulsory military service, while for unmarried women in the interval ranged from *19-23 years*, i.e. shortly after completing education. (Kučera – Fialová 1996: 14)

[12] In Czechoslovakia, the marriage rate intensity in the 1970s and 1980s remained continuously high. "In the 1970s, approximately *95 % of unmarried men and 97 % of unmarried women* entered into marriage. In the course of the 1980s, these shares dropped to 90 % in the case of men, yet still 96% in the case of women". (Kučera – Fialová 1996: 14) Marriages were begun very early, frequently prompted by pregnancy. According to Kučera and Fialová (1996: 14), between the end of the 1960s and the end of the 1970s, approximately half of first-born children born in wedlock came from pre-marital conceptions.

Research hypotheses

According to Oppenheimer (1988), when examining marriage timing, we should trace the transitions into economic roles in late adolescence and at the onset of adulthood. Indeed, one's capability of getting married can be affected by one's position in the labour market. Kalmijn (2011) tested the hypothesis of Oppenheimer (1988) using data from several European countries gathered from 1994 – 2000 and confirmed the negative effect of career uncertainty on marriage timing[13]. Employment position and security on one hand, and income, on the other hand were proved to positively influence the transition to marriage and entery into marriage. (e.g. Oppenheimer 2003; Thornton et al. 1995) This positive relationship is quite straightforward for women, but less clear for men. (e.g. Oppenheimer 1994, 1997 or Sweeney 2002) Concerning the situation in the Czech Republic, Hamplová (2003) analysed data on women from the *Family and Fertility Survey* of 1997 and found a negative effect of schooling on entering into partnerships. According to Hamplová's conclusions, the effect of school attendance is stronger in the case of marriage than cohabitation. Štípková and Kreidl (2012) using data gathered in 2009[14] described the relationships between the completion of education, employment, entering into marriage and parenthood. Also Kreidl (2012: 125) showed on Czech data from the *International Social Survey Programme* (ISSP 2002) that "ongoing study and unemployment reduce the chances of entering into first marriage". (Kreidl 2012: 125) Given the scarce of data and research focus on men, and also previous research findings on Czech and international data, we aim to test hypotheses related to the transitions leading to economic independence, i.e. completing education and starting a first job. In addition, we believe that in order for society to recognise men as adults, it is necessary to obtain not only public "adult" roles, but also independence from one's own parents (respondents living in their own household outside the parents' household). Consequently, we formulate and test the following hypothesis:

H1: Completing education and starting the first job have a positive effect on first marriage entry.

H2: Moving away from parents has a positive effect on first marriage entry.

Liberated sexual behaviour in combination with a negative attitude to the use of contraceptives led to relatively frequent out-of-wedlock conceptions. At the same time, parenthood probably remained a role which stood outside the transition to adulthood and was considered a constituent part of full adulthood.

[13] Also, using American data from the 1980s, Oppenheimer, Kalmijn and Lim (1997) showed that marriage timing for young men is dependent on the difficulty of their career stabilization.

[14] Data from study *Naše společnost – Our society* (2009).

Therefore, we assume that premarital conception intervened in the association between completing education, starting a first job, moving away from the family home and entering into first marriage. We assume that the positive effect on first marriage of the three above-mentioned partial transitions will be reduced by premarital conception:

H3. Premarital conception reduces the positive effect on entry into first marriage of completing education, starting a job and leaving the parental home.

Methodology

Data

Data from the *Male Reproductive Behaviour* survey, which took place in the Czech Republic in the second half of 2011, are used in the analysis. A representative sample of men aged 40-55 years was selected with the help of a random selection method and surveyed using a standardised questionnaire. If the man shared a household with a partner, she/he was interviewed as well (there was no limitation on the partner's age surveyed in this manner). We have retrospective data on a representative sample of 1,251 Czech men who were 40–55 years old in 2011[15]. In this age group, the transition to adulthood is assumed to be completed. These men were born between 1956 and 1971. By looking at the timing of attaining the age of legal adulthood, we find that the oldest men reached the age of 18 in 1974. The youngest men turned 18 during the revolutionary year of 1989. The sample representativeness does not refer to the cohort of Czechoslovak men entering into adulthood in late socialism or to the cohort of men born in 1956–1971 in Czechoslovakia. The collected data provide information on Czech men who were 40-55 years old in 2011 and whose transition to adulthood took place in late socialist Czechoslovakia or even in the post-revolutionary 1990s[16]. Data in the person-period format have been used for the purposes of modelling and contain 14,417 person-years.

Methods and measures

Data in the required format will be used in running event history analysis, which is employed in sociology for the purposes of studying life course events. Event history analysis requires using a specific data format. Time (continuous or discrete) is the key variable. The suitability of the approach depends on the

[15] The number of observations included in the analysis was limited to 1,129 respondents. Respondents, whose values of key variables had not been determined, were excluded from analysis.

[16] A short sample description is included in the Appendix 1.

data character[17]. Entering into marriage may take place at any point in time. Nevertheless, the *MRB* survey collected the information only on the age of entering into first marriage. For this reason, time will be treated as a *discrete variable*.

According to Singer and Willet (2003a), we are supposed to determine the *key event* whose occurrence we intend to observe, i.e. in our case age at first marriage. We are interested in the transition to adulthood, operationalized by the respondent's entering into marriage; the state space therefore includes two states. Initially, all respondents were unmarried. The original state could then be interrupted (by the first marriage), which would take the respondent into the destination state (marriage, and social adulthood).

Furthermore, it is necessary to determine the *starting time point*, when none of our respondents experienced the key event, and the *time scale*. At the point 0, all the respondents are 15 years old. From the age of 16, men are at risk of entering marriage[18]. Due to the fact that the *MRB* survey recorded the respondents' age at marriage, time will be measured in years from the respondents' age of 15. Appendix 2 illustrates how the data file was reorganised. In total, the data file, adapted to our analytical purposes, contains 14, 417 rows – person-years, out of which there are 984 positive events.

Censoring is a typical problem of event history data. The *MRB* survey aimed to map individual reproductive and marriage histories in a retrospective perspective. Because we are only interested in the beginning of the destination state (first marriage), rather than its potential end, and we are interested in the cohort of men born in 1956–1971, whose transition to adulthood is deemed to be completed, the problem of data censoring should be avoided[19]. We employ binary logistic regression in our analysis, although in the event history analysis it is most common to use Cox regression model. Allison (1982: 64) states that if the explanatory variables are categorical, we only need log-linear methods for the analysis of contingency tables in the case of discrete models of event history. If we use non-categorical explanatory variables, a more suitable method for the analysis will be the OLS regression. Given the fact that we have a dichotomous dependent variable and we treat time as a discrete variable, the event history models will be estimated by using binary logistic regression.

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[17] Allison (1982: 62-64) describes the situation where it is preferable to treat time as a discrete variable. These are cases where the observed situation takes place at regular discrete time points (e.g. every four years). In addition, these are cases where the event may occur at any point in time, yet the records of these events are only available for a specific time interval.

[18] Pursuant to § 13, para. 1 of the Family Act (94/1963 Coll.), a court could grant minors over 16 years of age permission to get married in cases that complied with the social purpose of marriage.

[19] Nevertheless, 122 out of the original 1,251 respondents had to be excluded from the research sample due to non-response, which was otherwise necessary to establish the dependent variable and explanatory variables. It is not possible to distinguish informative and non-informative censoring in a reliable manner.

"First marriage entry" is used as the dependent variable in our binary logistic regression models. At the starting time, each man is unmarried (the value of the "first marriage entry" is 0). From the age of 16, men are at risk of getting married. At the moment of marriage, the value of the "first marriage entry" changes to 1, and the married man is no longer included in the risk file[20].

When estimating the model, the key explanatory variable is "time" in its discrete form. The risk of first marriage entry is estimated in individual years. When modelling the timing of marriage, time is used in the form of a fourth polynomial. The shape of the risk function over time is specified using five parameters: constant, time effect, time effect^2, time effect^3 and time effect^4.

With respect to the variability in time, we distinguish time-constant and time-varying variables[21]. We use several time-varying explanatory variables, e.g. "completing education", "starting first job", "moving away from parents" and "conception". The estimated effects are examined for various segments of the studied population using the following time-constant variables: "level of education", "marriage after 1990" and "cohort".

"Completing education" indicates whether the respondent completed his highest level of education. It has a zero value until the moment the respondent completes the level of education. At the moment of education completion, the value changes to 1[22]. The value of the binary variable of "starting first job" changes from 0 to 1 at the moment when the respondent starts his first job[23]. Another time-varying explanatory variable, "moving away from parents", is derived from the answer to the question "At what age did you start living in your own household outside the parents' household?" "Moving away from parents" takes a positive value at the moment when the individual moves to his own household.

The next independent variable we use is "conception". Its value remains 0 until the respondent conceives his first child; then the value of this variable changes to 1. It is a gross indicator, as we do not have any precise data available. The respondents answered only the questions concerning the year when their children were born and indicated whether it was their own child in each case ("Could you possibly tell me the year of birth of your child?" and

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[20] We should not forget that we work with retrospective data on men aged 40-55. Less than 1 % of all men married after the age 45.

[21] Different authors label them differently. Allison (1982: 63) uses the term of time-varying explanatory variables. Singer and Willet (2003b: 451) speak of time-varying effects and Blossfeld, Golsch and Rohwer (2007: 25) of time-dependent covariates.

[22] The values are derived from responses to the question "In what year did you complete it [the highest level of your education]?" With respect to the research question of timing the events of transition to adulthood, this is not a perfect indicator. In fact, it disregards the possibility of return to the educational process or dropping out of any of the studies. It would be more practical to observe school attendance. (cf. Hamplová 2003; Škop 2006; Kreidl 2012) Nevertheless, it is the most suitable indicator of men's transition from the education system that is available to us using the MRB survey.

[23] The values are derived from responses to the question "At what age did you start your first job?"

"Could you possibly tell me whether the (x-th) child is your own child (i.e. not a stepchild or adoptive child)?") For this reason, the year of conceiving the child was roughly estimated as the year of birth of the child minus one.

The analytical section also works with several control variables treated as constant ("level of education", "marriage after 1990", and "cohort"). The "level of education" divides men into three categories according to whether in the course of their life until 2011 they completed primary or secondary education without GCSE or apprenticeship[24] (0), whether they completed upper secondary education (1), or university education (2).

By using the variable "marriage after 1990", we observe whether the detected association functions differently for men entering into first marriage after 1990[25] (1) and for those who married earlier or did not marry at all (0).

The variable "cohort" divides men into two groups: those born in 1956–1961 (entering into adulthood in the 1970s) (0), and those born in 1962–1971 (entering into adulthood in the 1980s or early 1990s) (1).

Results of the analysis

At first, we present the pattern of the timing of first marriage, i.e. the events explicitly confirming achieving social adulthood. We use life tables and identify the risk and survival functions by establishing what periods carried the highest risk in terms of entering into first marriages in the life of men in socialist Czechoslovakia. In addition, we identify the most appropriate shape of the risk function for estimating the discrete-time model of entering into marriage and we continue testing the hypotheses, i.e. adding other explanatory variables into the model of binary logistic regression.

Descriptive statistics

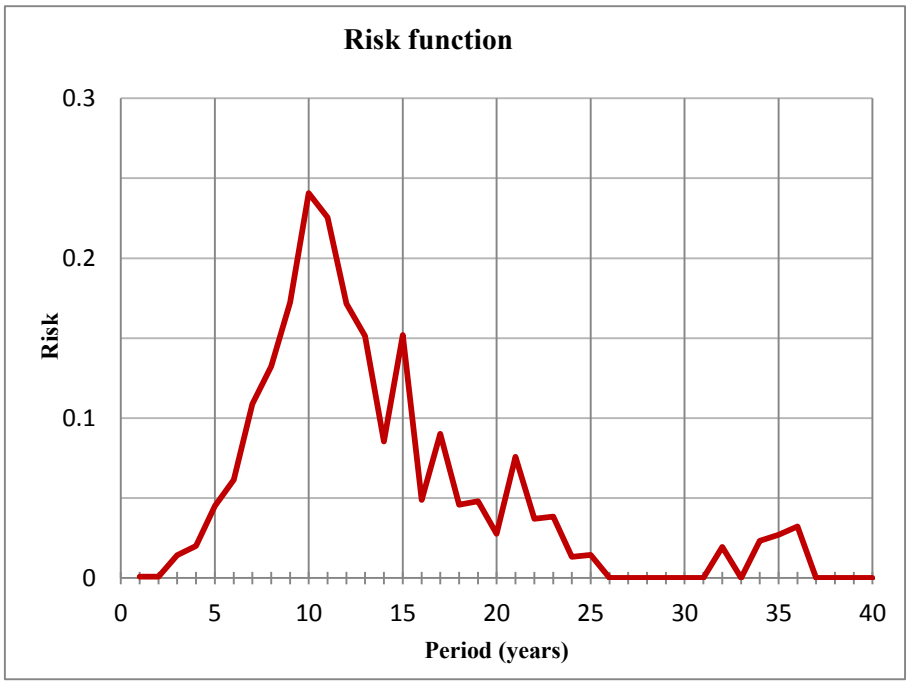
Based on the life table, we calculate the values of the risk and survival functions in each single year of the men's lives[26]. The risk function allows us to describe the pattern of entry into first marriages, as it shows the risk value at a certain age (see Figure 1).

[24] In order to maintain a sufficient number of observations in the subcategories, we do not distinguish between primary education, apprenticeship and secondary education without GCSE. On the other hand, we are aware of the fact that some earlier studies (e.g. Hamplová 2003; Kreidl 2012) suggest that distinguishing between primary and lower secondary education might sometimes come in useful for the results of the analysis.

[25] The year 1991 is the first year when marriage started to follow a new trend. (Rychtaříková 2007a)

[26] See more details in Appendix 3.

Figure 1: **Risk function of entering into the first marriage** (N=1129 men)



Source: MRB 2011, author's calculations.

The risk function of entering into first marriage is not monotonic. Even though the earliest events are observed already in the first two years of being at risk of first marriage entry, the risk value is practically zero before becoming a legal adult[27]. Starting from the age of 18, men began to face a statistically significant risk of entering into first marriage. The risk increases sharply, peaking at the age of 25. Our observations are consistent with Kučera and Fialová's findings (1996), which describe the marriage rate in socialist Czechoslovakia from the late 1960s. They claim that reaching the age of 18 is the first favourable circumstance to get married, and "the highest intensity of marriage rate among unmarried men was permanently found in the age interval of 22-25 years, i.e. immediately after completing the mandatory military service". (Kučera – Fialová 1996: 14)

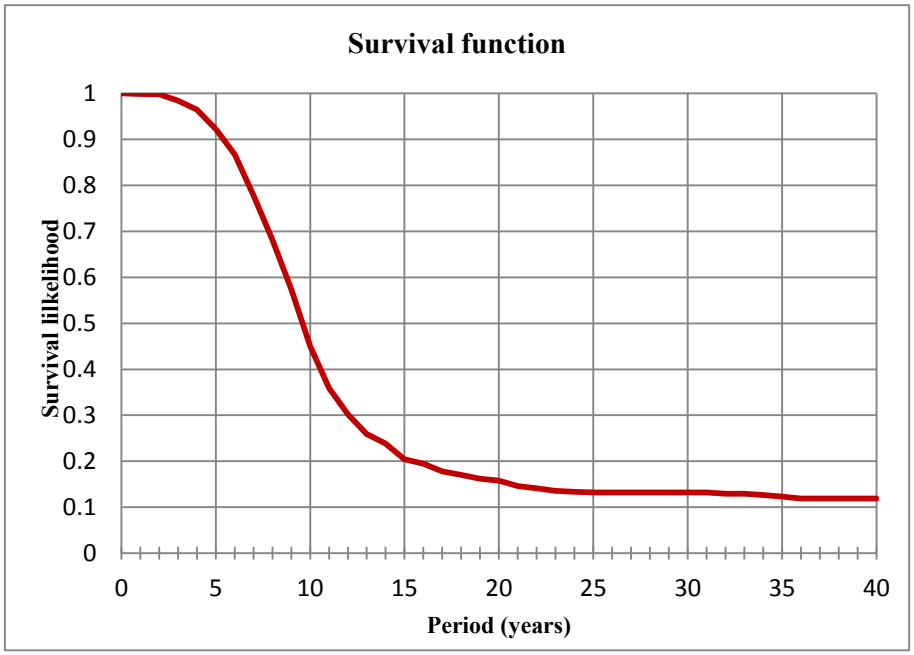
Interviewed men faced a relatively high risk of first marriage entry, thus usually starting their marriages at an early age. If they were not married by the

[27] At the age of 16 and 17 years, the value of the risk of entering into marriage stands at 0.009, whereas there is a relatively high standard error of 0.009.

age of 25, the risk of getting married dropped sharply until the age of 37 years. After that, the risk value remained permanently under 0.05.

The declining section of the risk function features several fluctuations, which may be caused by the sampling scheme. Probably, the relatively significant fluctuation at the age of 30 may be interpreted as efforts made by some of the men, who were motivated to make one of the important life transitions such as first marriage before the age of 30. In fact, the 30th birthday is perceived as an important milestone in the respondents' lives. Men in socialist Czechoslovakia were considered adult at the age of 30 years and probably experienced either social or subjective pressure to enter into a first marriage. The age heaping effect could be an alternative explanation for the fluctuation at the age of 30. The age heaping effect occurs when respondents prefer a certain number in their answers. In Western culture, there is a common tendency to round numbers in such a manner that the resulting number ends with zero or five. (Poston 2006: 34) Some respondents getting married around the age of thirty could have rounded the actual age at time of marriage in their responses.

Figure 2: **Survival function for men aged 40-55** (N=1129)



Source: MRB 2011; authors' calculations.

While the risk function shows a specific risk at a given time, the survival function provides information about how many people of a certain age are affected by the level of risk. Every survival function is initially set to 1 and gradually decreases. The final value estimates the survival rate of the examined population. In our case (see Figure 2), we can observe that the value of the survival function falls rapidly after reaching the age of legal adulthood. The curve stabilises between 30 and 35 years of age. By the age of 40 years, only approximately 12 % of men will have survived without entering into marriage.

The survival function allows for estimating the median survival, which is ten years in our case. This means that half of the men aged 40-55 years at the time of the observation had already married before the age of 25 years and the other half remained unmarried[28]. At the age of approximately 28 years, three quarters of men had been married for the first time. Similar conclusions on women and men population have been made by Štípková and Kreidl (2012). According to them, at the age of 20, 15-20 % of the generation of men and women born before the mid-1970s had been married, while less than a third of them remained unmarried by the age of 27[29]. The time range of first marriage for today's 40-55 year old Czechs was rather narrow. The vast majority of them concluded their first marriage between the ages of 18 and 28. Some of the still-unmarried men attempted to "catch up with what they had missed" and get married at the age of 30. Only a fraction of the total number of men married for the first time after this age. Additionally, only a very small proportion of men in socialist Czechoslovakia remained unmarried. According to Kučera and Fialová (1996: 14), in the 1970s, approximately 95 % of men got married, while in the 1980s approximately 90 % of all men married. Our analysis shows that in our sample approximately 88 % of men got married. The fact that our survey found a slightly lower percentage of married men may be due to the fact that the sample includes men who entered into adulthood in the early 1990s, when the marriage rate dropped[30].

Discrete-time event history models

Up to this point, the data have described the timing of first marriage. However, these statistics cannot be used to answer the question why for some male respondents adult life starts earlier and for others later. In order to find out the reasons why some enter into first marriage early while others postpone it, we

[28] In this case, the median corresponds to the period in which the risk of entering a first marriage was the highest, which is not the rule.

[29] Štípková and Kreidl (2012 did not have any upper age limit of the generational range, as they worked with a representative survey of people aged 15+ (the "*Our Society*" study, conducted in the Czech Republic in 2009).

[30] In 1989, there were 7.8 marriages per 1,000 middle-class inhabitants. In 1990, the gross marriage rate increased to 8.8 ‰. In 1991, it dropped to 7.0, in 1992 to 7.2, and in 1993 to 6.4 marriages per 1,000 middle-class inhabitants. Since 1994, the gross marriage rate has remained under 6 ‰ in the long term. (CSO 2014)

use binary logistic regression, in which time functions as a key explanatory variable.

Specification of time in the binary logistic regression

Time may be incorporated into the model in several ways, ranging from time in the linear form to time in the form of a series of dummy variables[31]. The aim is to specify time using as few parameters as possible but in such a manner that the estimated function copies the actual shape of the risk function as closely as possible. Using time as a series of dummy variables leads to the most precise and easy-to-interpret estimates. However, as we are observing 40 time points (years) – and for some of them, the risk of first marriage entry equals zero – using time in the form of dummy variables is unsuitable for the purposes of comparing the models. Thus, time needs to be specified in a more accurate and parsimonious manner.

Table 1: **The goodness of fit statistics of models with various specifications of time**

Model	**Time specification**	**Log Likelihood**	**X^2**	**p-value**	**d.f.**	**AIC[32]**	**BIC**	**N**
M1	period	-3587.85	6.73	0.01	2	7179.696	7194.848	14417
M2	$period^2$	-3179.37	823.68	0.00	3	6364.745	6387.474	14417
M3	$period^3$	-3115.20	952.03	0.00	4	6238.398	6268.703	14417
M4	$period^4$	-3107.40	967.63	0.00	5	6224.793	6262.674	14417
M5	$period^5$	-3107.38	967.66	0.00	6	6226.762	6272.219	14417
M6	dummy variable series	-3074.30	932.88	0.00	29	6206.592	6424.865	13721
Contrasts								
M2-M1			816.95	0.00				
M3-M2			128.35	0.00				
M4-M3			15.61	0.00				
M5-M4			0.03	0.86				

Source: MRB 2011; authors' calculations.

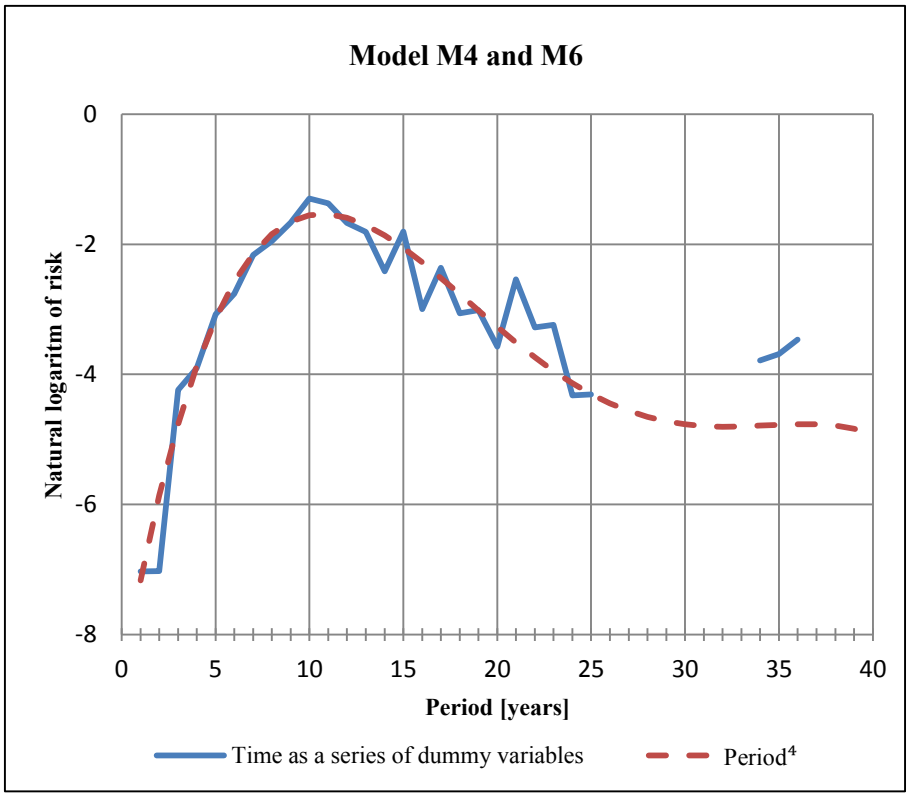
The M1 model is a first-order polynomial (it uses the linear form of time and its specification requires two parameters). In addition, we estimate a M2 model (as a second-order polynomial, three parameters are required to

[31] According to Singer and Willet (2003b: 408), the form of time used in the model affects the possibility of correctly estimating the natural logarithm of the basic risk function.

[32] The information criteria are listed as according to Singer and Willet (2003b: 416), the models with the lowest levels of information criteria tend to be the most attractive ones.

determine the quadratic curve). We move on in our analysis by using time expressed by a fifth-order polynomial function in the M5 model (with six parameters). In the M6 model, time is specified by a set of dummy variables. However, the M6 model does not work with the total number of cases, as this absolute specification of time is not suitable for our purposes.

Figure 3: **Comparison of risk functions estimated through models using time in the form of a series of dummy variables (M6) and in the form of a fourth-order polynomial (M4)**



Source: MRB 2011; authors' calculations

Following the comparison of various options of time specification, results indicate that the M4 model is the most suitable, being determined by five parameters: constant, period effect, period effect^2, period effect^3 and period effect^4. The statistics of each model and their comparison using the Pearson's chi-squared test are shown in Table 1. The comparison of risk functions estimated using the M4 and M6 models is shown in Figure 3[33].

The effect of partial transitions on the transition to adulthood

In addition to the time specified above, the logistic regression model may be complemented with other variables for the aim of testing our hypotheses. The following analytical section is divided according to the stated hypotheses. One by one, we test the effect of partial transitions (completing education and starting a first job [H1], and leaving the parental home [H2]). We check whether the association of each of these three transitions with entry into first marriage is moderated by premarital conception [H3], and whether in the detected association, there are statistically significant differences in the population according to the level of completed education (by the time of interview in 2011), birth cohort, and the fact whether the marriage took place in the old (Eastern European) or new (post-socialist) demographic regime.

Completing education, starting a first job and the risk of entering into marriage

The hypothesis H1 – predicting the positive effect of completing education and starting a job on the risk of entering into the first marriage – is tested by means of incorporating the variable "completing education" and "starting first job" into the M4 model[34]. (See Table 2) This produces the M7 model, in which there is a positive effect of "completing education" on entering a first marriage, as assumed in the hypothesis H1[35]. The M8 model emerges by including the variable "starting first job", and its results also indicate a positive effect[36]. Similar results were found by Štípková and Kreidl (2012), who detected only a small proportion of men and women[37] entering into their first marriages without having a paid job: about 6.3% of men and women born from 1955 to 1964 and 7.1% men and women born from 1965 to 1974.

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[33] The M6 Model, estimating the natural logarithm of the risk of first marriage entry, should copy the actual risk function. Due to the lack of events in some periods, this model is unable to estimate the coefficient values at several time points. The result of using time defined by five parameters in the M4 model consists in the function that addresses the issue of censoring in certain categories, and yet it still forecasts, with a sufficient level of precision, the actual values of the risk of entering a first marriage in the examined periods.

[34] Model M4 works only with effects of time.

[35] In the M7 model, the value of the effect of "completing education" on the natural logarithm of the risk of a man entering into marriage at a certain point is 0.734.

[36] The value of the effect of job commencement" on the natural risk logarithm that a man, at a certain moment, enters into marriage is 1.152 in the M8 model.

[37] These results are based on data analysis of the survey *Our Society*, in which six cohorts were distinguished: men and women born in the following years 1985 – 1994, 1975 – 1984, 1965 – 1974, 1955 – 1964, 1945 – 1954 and 1944 and earlier.

Table 2: **The goodness of fit statistics of the M7–M11 models**

Model	Model description	L^2	d.f.	p
M7	M4+completing education	995.14	6	0.00
M8	M4+ starting first job	1021.58	6	0.00
M9	M7+interaction of completing education* conception	1440.15	8	0.00
M10	M8+interaction of starting first job* conception	1458.89	8	0.00
M11	M9+ interaction of completing education* conception *level of education	1449.93	16	0.00
M12	M9+ interaction of completing education* conception *cohort	2114.01	12	0.00
M13	M9+ interaction of completing education* conception *marriage after 1990	1826.22	12	0.00
M14	M10+ interaction of starting first job* conception *level of education	1481.05	16	0.00
M15	M10+ interaction of starting first job* conception *cohort	1472.19	12	0.00
M16	M10+ interaction of starting first job* conception *marriage after 1990	1839.09	12	0.00
Contrasts				
M9-M7		445.01	2	0.00
M11-M9		9.77	8	0.28
M12-M9		15.47	4	0.00
M13-M9		386.06	4	0.00
M10-M8		437.31	2	0.00
M14-M10		22.16	8	0.00
M15-M10		13.3	4	0.01
M16-M10		380.21	4	0.00

Source: MRB 2011; authors' calculations.
Notes: L2 = likelihood ratio test statistic; d.f. = degrees of freedom; p = p-value.

In addition, we are also interested in the intervention of premarital conception into the relationship between completing education and starting a first job on one hand, and entering into first marriage, on the other hand. Incorporating the interaction of these variables and the variable "conception" into the M7 and M8 models leads to the M9 and M10 models, respectively, which test hypothesis H3. If we are to compare the initial models (M7 and M8) with the new ones (M9 and M10) based on the likelihood ratio test statistics, we find that "completing education" functions contrary to our formulated hypotheses. If a man conceived a child before entering into marriage, the effect of "completing education" is not positive and weaker, as we expected, but rather negative[38]. On the other hand, the effect of "starting a first job" differentiates according to whether or not a man conceived a child before

[38] In the M9 model, the value of the effect of "completing education" on the natural logarithm of the risk that a man who has already conceived a child enters into marriage at a certain point is -0.397.

marriage, and points to the fact that regardless of premarital conception or non-conception, getting a first job increases the risk of entering into a first marriage. If premarital conception occurred, the "starting a first job" effect is significantly weaker[39]. Therefore, we find evidence for hypothesis H1 and against hypothesis H3 in the M9 and M10 models.

How do the effects work in the selected subpopulations according to level of education, birth cohort and the date of entering a first marriage? Models M11, M12 and M13 are created by extending the M9 model with a combination of three-way interaction of the variables "completing education", "conception", "level of education", "cohort" and "marriage after 1990". Models M14, M15 and M16 emerge by adding a combination of three-way interaction of variables "starting first job", "conception", "level of education" "cohort" and "marriage after 1990" to the model M10.

We do not find any differences in the effect of completing education and conceiving a child before marriage among men having various levels of education. A similar conclusion is reached by Hamplová (2003) when examining the educational stratification of entry into marriage and cohabitation among Czech women. When looking at the coefficients estimated by the M12 model (see Table 3), we find that in the older cohort, the effect of completing education functions in a similar manner to our observations in the previous models when controlling for premarital conception, and partially supports the hypothesis H1. In cases where there is no premarital conception, completing education has a positive (and statistically significant) effect on entering into first marriage. In cases with premarital conception, there is a negative (and again statistically significant) effect of education. This suggests, once again, that the positive effect of completing education is conditioned by the non-existence of premarital conception and that the effect of completing education contradicts hypothesis H3.

The effects resulting from the models combining "starting first job" with three-way interaction are included in Table 4. We will comment only on some of them. In the group of men who completed elementary or lower secondary education, "starting a job" positively affected the risk of entering into first marriage (in accordance with hypothesis H1). With respect to these men, the relation between a first job and a first marriage is conditioned by premarital conception, but not in the manner assumed in hypothesis H3. In the event of premarital conception, the effect of "starting a job" strengthens. In the group of men with upper secondary education, the effect of getting a first job functions according to the assumptions formulated in hypotheses H1 and H3.

[39] In the M10 model, the value of the effect „job commencement" on the natural risk logarithm that a man, who already conceived a child, at a certain moment enters into marriage is 0.375.

Table 3: **Estimated coefficients and standard errors** (in parentheses) **of selected binary logistic regression models of entry into first marriage**

Effect X	**M12**	**M13**
Period	1.469***	1.306***
Period^2	-0.114***	-0.086***
Period^3	0.003***	0.002***
Period^4	-0.0000292***	-0.0000144
Completing education	0.751***	0.856***
Conception	3.503***	3.303***
Cohort	-0.656*	
Marriage after 1990		-1.762***
Interactions		
Completing education* conception	-1.800**	-1.505**
Completing education*cohort	0.378	
Completing education* conception*cohort	0.463	
Completing education*marriage after 1990		0.179
Completing education*conception* marriage after 1990		-0.148
Conception*cohort	-0.199	
Conception* marriage after 1990		0.041
Constant	-8.577***	-8.154***

Source: MRB 2011; authors' calculations.
Note: *** = Statistically significant at the level of 0.005. ** = Statistically significant at the level of 0.05. * = Statistically significant at the level of 0.1.

Men with tertiary education are the only group in which the chances of marriage differ in a systematic manner as compared with men having other levels of education. If men do not go through any of the two partial transitions, men with tertiary education have 1.3 times lower chances of entering into first marriage as compared with men with upper secondary education (even if it is not statistically significant). In comparison with men with primary and lower secondary education, the chances of entering into the first marriage are 3.2 times lower (and statistically significant).

Analysis on the level of education also shows that the higher the level of education, the more differentiated the risk level is, depending on whether they commenced a job or conceived a child while they were unmarried. This fact supports the efforts by men to go through life's most significant transitions in a "standard succession" (graduation – first job– marriage). The higher the level of education attained the longer the time necessary to go through this process. It is probable that there would be larger time intervals due to the occurrence of unexpected events (including the conception of a child before marriage, which we examine) in the group with a higher level of education.

Table 4: **Estimated coefficients and standard errors** (in parentheses) **of selected binary logistic regression models of entry into a first marriage**

Effect X	**M14**	**M15**	**M16**
Period	1.373***	1.332***	1.213***
Period ^{2}	-0.105***	-0.102***	-0.078***
Period ^{3}	0.003***	0.003***	0.002**
Period^4	-0.0000254**	-0.0000239**	-0.0000114
Starting the first job	0.537	1.069***	0.905***
Conception	0.319	2.324***	2.635***
Level of education (primary and lower secondary – reference category)			
Upper secondary education	-0.905*		
Tertiary education	-1.162**		
Cohort		-0.693*	
Marriage after 1990			-3.028***
Interactions			
Starting the first job* conception	1.574	-0.569	-0.775
Starting the first job*upper secondary education	0,798		
Starting the first job*tertiary education	1.118**		
Starting the first job* conception*upper secondary education	-2.413*		
Starting the first job* conception*tertiary education	-4.840***		
Starting the first job*cohort		0.425	
Starting the first job* conception *cohort		-0.624	
Starting the first job*marriage after 1990			1.507**
Starting the first job* conception* marriage after 1990			-1.236
Conception*upper secondary education	2.561*		
Conception *tertiary education	4.346***		
Conception *cohort		0.855	
Conception *marriage after 1990			1.095
Constant	-8.103***	-8.376***	-7.842***

Source: MRB 2011; authors' calculations.
*Note: *** =Statistically significant at the level 0.005. ** = Statistically significant at the level 0.05. * = Statistically significant at the level 0.1.*

Effects of the cohort in the model M15 are not statistically significant (at the level of 0.05) and we cannot explicitly say that any given cohort has a lower or higher risk of entering into first marriage. Of those who entered into the first marriage after 1990, we find a rather strong and significant positive effect of starting a first job, if they have not conceived a child before marriage. The effect weakens (and loses statistical significance) if we control for the conception of the first child.

When controlling for entering into marriage after 1990, the analysis reveals that Czech men entering into marriage for the first time after 1990 always had a lower risk of entering into marriage under the same circumstances as their predecessors. We believe this fact is due to changes in historical conditions rather than to different levels of socialisation of the studied cohorts.

Moving away from parents and the risk of first marriage

In this section, we test hypothesis H2. In model M17, an expansion of model M4 by adding the explanatory variable "moving away from parents", the effect of moving away from parents is positive, as we expected[40]. In model M18, which adds the interaction of variables "moving away from parents" and "conception" to model M17, we again see a positive effect of "moving away from parents" on entering into first marriage. In the case of premarital conception, this effect is lower[41]. Models M17 and M18 support hypotheses H2 and H3. Let us look again if the control variables "level of education", "cohort" and "marriage after the year 1990" contribute to the explanation of our models. All three models – M19, M20 and M21 – are, when compared with model M18, more robust (see test statistics in Table 5). Therefore, we assume that the effect of moving away from parents will differ depending on the (non)conception of a child before marriage as well as level of education, birth cohort and on entering (or not entering) into marriage before 1990.

Table 5: **Goodness of fit statistics of models M17–M21**

Model	**Model description**	**L^2**	**d.f.**	**p**
M17	M4+moving away from parents	1368.95	6	0.00
M18	M17+interaction of moving away from parents * conception	1770.10	8	0.00
M19	M18+ interaction of moving away from parents * conception *level of education	1800.00	16	0.00
M20	M18+ interaction of moving away from parents * conception *cohort	1783.84	12	0.00
M21	M18+ interaction of moving away from parents * conception *marriage after 1990	2114.01	12	0.00
Contrasts				
M18-M17		401.16	2	0.00
M19-M18		29.90	8	0.00
M20-M18		13.73	4	0.01
M21-M18		343.91	4	0.00

Source: MRB 2011; authors' calculations; Notes: L^2 = likelihood ratio test statistic; d.f. = degrees of freedom; p = p-value.

[40] In the model M17, the value of the effect moving away from parents" on the natural risk logarithm that a man enters into marriage at a certain moment was 1.552.

[41] In model M18, the value of the effect of moving away from parents" on the natural risk logarithm that a man, who has already conceived a child, at a certain moment enters into marriage is 0.502.

Table 6: **Estimated coefficients and standard errors** (in parentheses) **of selected binary logistic regression models of entry into first marriage**

Effect X	**M19**	**M20**	**M21**
Period	1.358***	1.336***	1.206***
Period ^{2}	-0.113***	-0.111***	-0.088***
Period ^{3}	0.003***	0.003***	0.002***
Period ^{4}	-0.0000321***	-0.0000319***	-0.0000194**
Moving away from parents	1.873***	1.725***	1.593***
Premarital conception	2.439***	2.314***	2.223***
Level of education (primary and lower secondary education – *reference category*)			
Upper secondary education	-0.063		
Tertiary education	-0.553**		
Cohort		-0.257*	
Marriage after 1990			-1.597***
Interactions			
Moving away from parents * premarital conception	-1.253***	-0.912***	-0.627**
Moving away from parents * upper secondary education	-0.359*		
Moving away from parents * tertiary education	0.012		
Moving away from parents * conception * upper secondary education	0.287		
Moving away from parents * conception * tertiary education	-0.593		
Moving away from parents * cohort		-0.038	
Moving away from parents * conception * cohort		-0.485	
Moving away from parents * marriage after 1990			0.094
Moving away from parents * conception * marriage after 1990			-0.969**
Conception * upper secondary education	0.253		
Conception * tertiary education	0.768		
Conception *cohort		0.569*	
Conception * marriage after 1990			0.642*
Constant	-8.051***	-7.917***	-7.405***

Source: MRB 2011; authors' calculations.
Note: *** = Statistically significant at the level 0.005. ** = Statistically significant at the level 0.05. * = Statistically significant at the level 0.1.

We also seek to answer the question whether the effect of moving away from parents varies according to different levels of education, cohort or marriage after 1990, when controlling for premarital conception. (See Table 6) For example, for men with primary and lower secondary education, model M19 estimates a positive effect of moving away from parents on entering into first

marriage. If a man has already conceived a child, the effect of moving away from parents is significantly lower than for those men who do not conceive a child before marriage. Therefore, in the group of men with the lowest level of education, moving away from parents affects the risk of first marriage in a manner that is in accordance with hypotheses H2 and H3.

Thanks to model M20, we can estimate the manner in which the effect of moving away from parents changes depending on (non)-premarital conception of a child in cohorts of Czech men born 1956 – 1961 and 1962 – 1971. Whether or not men from the cohort 1956 – 1961 conceived or did not conceive a child before marriage, they all faced higher risk of entering into first marriage when moving away from parents. The effect of moving away from parents is weakened by the conception of a child before marriage, as hypothesis H3 predicted, and it is also positive, as we assumed in hypothesis H2.

As for men who entered into marriage before 1990 or who did not marry at all, the effect of moving away from parents is positive (and statistically significant) regardless of whether they conceived or not before marriage. The conception of a child weakens the positive effect of moving away from parents on entering into first marriage. For men in socialistic Czechoslovakia, the effect of moving away from parents was positive and conditioned by the (non)-conception of a child before marriage in the manner we assumed in hypotheses H2 and H3.

Discussion, conclusions and limitations

The aim of this article is to determine and discuss the way that the transition to adulthood for men in took place during late socialism in Czechoslovakia. We have looked at this question from the life course perspective. We have defined events that could have been significant for male transition to adulthood in Czechoslovakia in 1970s and 1980s. We considered first marriage as the key event of transition to adulthood. This event should confirm the attainment of adult status and should be conditioned by other partial transitions to adulthood.

We have assumed that the transitions related to financial and residential autonomy (finishing education, starting a first job, moving to one's own household) are the most significant for men's transition to adulthood and that the conception of a child would moderate the effect of these partial transitions. We find some support in the data for the formulated hypotheses on the positive effects of educational attainment, first employment and moving away from parents on entering into a first marriage. The results presented in this section relate to the impact of the political events in Czechoslovakia on the transitions made by different cohorts. It is reasonable to suppose that those who lived their entire lives under communism might behave differently from those whose transition to adulthood occurred during and after the fall of the communist

regime. We acknowledge the existence and impact of social and family policy measurements during the communist period – incentives, newlyweds' loans, granting preferential flats for married couples, family allowances, and free pre-school education.

Beginning with the 60s, the Eastern European demographic regime has started to shape the reproductive and family behaviour of Czechoslovak population. At this time, the Czechoslovak government formulated a national pro-natal population policy aimed to react to the declining fertility by adopting measures such as the extension of paid maternity leave up to 26 weeks, the introduction of maternal allowances, increasing financial support at birth or providing favourable loans to newly married couples to purchase or furnish housing. (Kučera – Fialová 1996; Rychtaříková 2007b: 2-3; Rychtaříková 2007a: 6) Unfortunatelly, the *Male Reproductive Behaviour* study we work with did not gather any data on the received incentives. Thus, it is not possible to take into account any possible effects on entering first marriage. We reflected upon working with a macro—indicator of social and family policy support, but we decided to not include it in our analysis as we are aware of the fact that information on social and family support during the communist period is neither complete nor accurate.

If we do not control for various sub-populations, we find a positive effect on entering into a first marriage from education completion, start of the first job and moving to one's own household, for men who do not conceive a child before marriage. For men who did not conceive a child, the transitions had a positive effect. In cases of premarital conception, the effect of a first job and moving away from parents was positive; however, it weakened. The effect of educational completion was not positive in cases of premarital child conception, and it was also lower than we assumed. Under these circumstances, the completion of education decreases the chances of entering into a first marriage.

Further, we draw attention to the stratification of the effect of starting a first job on entering into a first marriage by level of education. Czech men with tertiary education have lower chances of entering into a first marriage (at least in comparison with men without upper secondary education) when not having a job or conceiving a child before marriage. On the contrary, entering into a first marriage is more likely for men with tertiary education who do conceive a child before marriage and without having a job.

We find a positive effect of the variable "moving away from parents" on entering into the first marriage for men who complete primary and lower secondary education in the year before conceiving the first child, and also for those who attain upper secondary education in the years before conception. In the group of men with tertiary education, the effect of moving away from

parents fades in the case of premarital conception (however, we cannot reliably generalize this finding to the whole population of men with tertiary education in the Czech Republic).

When controlling for entering into marriage after 1990, we can show that the positive effect of moving away from parents is likely related to the sub-population of men who married before 1990 or those who are unmarried. Differentiation by birth cohort reveals that the positive effect of this partial transition may be related only to men belonging to the older cohort.

The present analyses point to the continued, though differential, relevance of entering first marriage in the transition to adulthood for men. In general, it seems that, for men in socialistic Czechoslovakia, completing education, beginning a first job and moving away from parents were important life events to go through in order to be considered adult, thus increasing the chances of entering into first marriage. Completion of education is especially important among all these transitions. Apparently, completing the education was usually the first transition in a series of other transitions to adulthood. Therefore, a man who did not finish his education and conceived a child probably did not go through the remaining two key transitions. Therefore, he was not considered by society to be an adult, and in the situation when he became a father, he was "forced" by society to "defend" his adulthood by, at least, entering into marriage. In the case of starting a first job and moving away from parents, we observe a positive effect of these transitions, although weaker in the case of premarital conception.

However, we have to bear in mind that entering into marriage was universal for men in that period of time (88 % of men entered into marriage) and also that men married for the first time early (the risk of marriage rapidly grew from 18 until the age of 28, by which time 75% of all men were married).

Although our research provides interesting findings with respect to the timing of important events in the life of adult Czech men, we would like to point out some of the drawbacks in our analysis. The first weakness comes from the nature of data used in the analysis. A prospective study based on longitudinal panel methodology would have been a more appropriate tool for checking our research hypotheses. Such study would help us to identify and compare men's pathways to adulthood and to examine their sociodemographic preconditions and also the impact of intergenerational transmission. We could have investigated how role transitions in education, work, marriage, and parenthood intersected and linked across time.

The sample includes men who were coming of age in socialistic Czechoslovakia and also men who were coming of age after 1990. However, the fall of the socialist regime represents a significant moment in the life of our respondents. In the context of the political, economic and social transformation,

a change in the social definition of adulthood could have occurred (and it is very likely that it did). We have tried to address the issue of historical change in the course of men's transition to adulthood in our sample by implementing a variable that checked if a man entered into his first marriage after 1990. We have shown that the detected associations are statistically significant for men who did not marry under the new social and demographic post-socialist regime.

Furthermore, another problematic aspect of the analysis comes from the use of insufficiently exact tools for measuring some of the variables that resulted from the way the data were collected. As a criterion in our measurement, we used years elapsed from each respondent's fifteenth birthday, which could lead to a slight distortion of the real timing of examined events while constructing the variables[42].

The last weakness of the analysis we like to point out is related to the selection of explanatory variables, more precisely to the limitation in selection. Our view on the transition to adulthood was simplified. We worked with one, easily measurable, dimension of the transition to adulthood – with role transitions. We completely ignored criteria, which Arnett (2001, 2003) calls individualistic, norm compliance and biological transitions.

Our findings suggest a continued relevance of entering first marriage as the main event in the transition to adulthood despite the social and family climate in the communist Czechoslovakia and also the changes occurred in 1989. Some authors (e.g. Roberts 2009) suggest that the economic patterns established after the IIWW - economic growth and full employment (the last especially in the communist countries) has been weakened. The present study can be used as a starting point for comparison with the younger generations socialized and growing up in the post-communist Czech society. These younger generations delay the completion of education and entering the first job, which however occur before the entry first marriage or cohabitation and having a first child. The transition has prolonged and is not fully predictable, having more elements of uncertainty and diversification.

Our results represent a challenge to further investigation, which should map the life transition of Czech men and women in the light of the generalization of tertiary education and family postponement.

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[42] For example – if we recorded entering into marriage and moving away from parents in one "period", the events could have occurred simultaneously or they could have closely followed one another. In the case of moving away from parents, such distortion is likely. Owing to the housing situation (lack of flats), it was common in socialistic Czechoslovakia for young married couples to live with the parents of one of the spouses. Families with children were favoured in the housing assignment process. Therefore, family formation could have been a strategy for young men to obtain their own housing and become independent from their parents. (For comparison see Kučera – Fialová 1996; Sobotka 2006)

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Appendix 1: **Short sample description by main socio-demographic characteristics**

Variable	*Category*	*Abs.*	*Percentage*
Attained level of education	Primary and lower secondary	546	43.6
	Upper secondary	504	40.3
	Tertiary	200	16.0
Children	Own	832	66.5
	Not own	32	2.5
	No children	387	31.0
Time of entering into marriage	Before 1989	621	59.0
	Early in the 1990s	432	41.0
Cohort	1956 – 1961	483	38.6
	1962 – 1971	768	61.4
Have job before 1st marriage	Yes	970	92.6
	No	78	7.4

Source: MRB 2011; authors' calculations

Appendix 2: **Illustration of the conversion of dataset MRB 2011 into the person-period form**[43]

Original data format			Person-period data format			
ID	**Marriage**	**Age of entering into first marriage**	**ID**	**Total risk period**	**Period**	**Marriage**
635	1	16	635	1	1	1
662	1	21	662	6	1	0
691	0	.	662	6	2	0
			662	6	3	0
			662	6	4	0
			662	6	5	0
			662	6	6	1
			691	27	1	0
			691	27	2	0
			691	27	3	0
			691	27	4	0
			691	27	5	0
			691	27	6	0
			691	27	7	0
			691	27	8	0
			691	27	9	0
			691	27	10	0
			691	27	11	0
			691	27	12	0
			691	27	13	0
			691	27	14	0
			691	27	15	0
			691	27	16	0
			691	27	17	0
			691	27	18	0
			691	27	19	0
			691	27	20	0
			691	27	21	0
			691	27	22	0
			691	27	23	0
			691	27	24	0
			691	27	25	0
			691	27	26	0
			691	27	27	0

Source: MRB 2011; authors' calculations

[43] The left side of the table shows that the man with the identification number 635 was married at the age of 16 years. The right part of the table shows that this is manifested in the restructured data in a manner that the marriage variable acquires a value of 1 immediately in the first year when the respondent is subject to the risk of entering marriage. The respondent with the identification number 662, who entered into the first marriage at the age of 21 years, had faced the risk of entering a marriage for six years. For this reason, the information is recorded in six rows. In row six, the value of the marriage variable changes from 0 to 1. The respondent with the identification number 691 has not yet entered marriage. For this reason, he has faced the risk of entering a marriage in every examined period, i.e. starting from his 16th birthday for a period of 27 years, until reaching the age of 42 years in 2011 (the year of the survey).

Appendix 3: **Life table describing number of years which 1,129 men spent at risk of entering into the first marriage**

Age	Period	Risk set	Marriages	Censored	Risk	Standard error	Survival	Standard error
15	[0, 1)	1129	-	-	-	-	1.000	-
16	[1, 2)	1129	1	0	0.001	0.001	0.999	0.001
17	[2, 3)	1128	1	0	0.001	0.001	0.998	0.001
18	[3, 4)	1127	16	0	0.014	0.004	0.984	0.004
19	[4, 5)	1111	22	0	0.020	0.004	0.965	0.006
20	[5, 6)	1089	48	0	0.045	0.007	0.922	0.008
21	[6, 7)	1041	62	0	0.061	0.008	0.867	0.010
22	[7, 8)	979	101	0	0.109	0.011	0.778	0.012
23	[8, 9)	878	109	0	0.132	0.013	0.681	0.014
24	[9, 10)	769	122	0	0.172	0.016	0.573	0.015
25	[10, 11)	647	139	0	0.241	0.020	0.450	0.015
26	[11, 12)	508	103	0	0.226	0.022	0.359	0.014
27	[12, 13)	405	64	0	0.172	0.021	0.302	0.014
28	[13, 14)	341	48	0	0.151	0.022	0.260	0.013
29	[14, 15)	293	24	0	0.085	0.017	0.238	0.013
30	[15, 16)	269	38	0	0.152	0.025	0.205	0.012
31	[16, 17)	231	11	0	0.049	0.015	0.195	0.012
32	[17, 18)	220	19	0	0.090	0.021	0.178	0.011
33	[18, 19)	201	9	0	0.046	0.015	0.170	0.011
34	[19, 20)	192	9	0	0.048	0.016	0.162	0.011
35	[20, 21)	183	5	0	0.028	0.012	0.158	0.011
36	[21, 22)	178	13	0	0.076	0.021	0.146	0.010
37	[22, 23)	165	6	0	0.037	0.015	0.141	0.010
38	[23, 24)	159	6	0	0.039	0.016	0.136	0.010
39	[24, 25)	153	2	0	0.013	0.009	0.134	0.010
40	[25, 26)	151	2	25	0.015	0.010	0.132	0.010
41	[26, 27)	124	0	18	0.000	-	0.132	0.010
42	[27, 28)	106	0	8	0.000	-	0.132	0.010
43	[28, 29)	98	0	11	0.000	-	0.132	0.010
44	[29, 30)	87	0	8	0.000	-	0.132	0.010
45	[30, 31)	79	0	9	0.000	-	0.132	0.010
46	[31, 32)	70	0	15	0.000	-	0.132	0.010
47	[32, 33)	55	1	6	0.019	0.019	0.129	0.010
48	[33, 34)	48	0	3	0.000	-	0.129	0.010
49	[34, 35)	45	1	3	0.023	0.023	0.126	0.010
50	[35, 36)	41	1	7	0.027	0.027	0.123	0.011
51	[36, 37)	33	1	3	0.032	0.032	0.119	0.011
52	[37, 38)	29	0	3	0.000	-	0.119	0.011
53	[38, 39)	26	0	8	0.000	-	0.119	0.011
54	[39, 40)	18	0	7	0.000	-	0.119	0.011
55	[40, 41)	11	0	11	0.000	-	0.119	0.011

Source: MRB 2011; authors' calculations