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Research Article

Romania: Childbearing metamorphosis within a changing context

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Romania: Childbearing metamorphosis within a changing context

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Abstract

In 1989, the socialist regime in Romania collapsed and the state's coercive pro-natalist policy ended. Since then, fertility has gone through major changes, namely, a massive reduction in fertility and important structural changes: birth postponement, an end to universal childbearing, and the emergence of non-marital births. Family formation has been postponed, but a pattern of early marriage still persists compared to other European countries. Although unmarried cohabitation is rising, it is rarely seen as an alternative to marriage. Modern contraceptive methods are being used increasingly, but traditional contraceptive methods continue to be widespread. Abortion, which was re-legalized in 1989 and made available after two decades of prohibition, has been practiced extensively ever since, especially after first birth. Romanians in 2004 continue to have a universal preference for parenting. However, the preference for the two-child family has declined and the desire for a larger family has become the exception. The transformation of the socialist regime into a democratic society with a market economy generated a socio-economic crisis, and the majority of social benefits have therefore been oriented towards alleviating poverty. Other social policies, including those affecting the family, were redefined. However, fewer funds were made available than for those geared to promote economic development or reduce poverty and, as a consequence, their impact on childbearing has been small.

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1. Introduction

In recent decades, all European countries have experienced a similar development in fertility timing and level, namely, childbearing postponement and decreasing fertility. The decline of fertility is most pronounced in the former socialist countries. In the early 21st century these countries had by far the lowest fertility rates compared to other European countries (Council of Europe 2003). Romania experienced a sharp decline of fertility after 1990. This is not surprising, as the former socialist regime (1967–1989) had applied strong coercive pro-natalist policies to maintain extraordinarily high levels of fertility. The fall of that regime in 1989 also spelled the end of socialist family policies, and a sharp decrease of fertility followed. At the present time, a typical Romanian couple will have one or two children, and the trend is toward single-child families. Although most couples desire to have children, only a few decide to have more than one. Among the higher birth orders we find the strongest decline. However, with a total fertility rate (TFR) of 1.3 children per woman from 1995 onwards, fertility rates seem to have stabilized over the last ten years.

In postponement of childbearing, the formerly socialist countries (especially Romania, Bulgaria, and the countries of the former Soviet Union [FSU]) have the lowest mean maternal age at childbirth. Although Romania and other FSU countries still have a pattern of early childbearing, the country experienced a moderate but continuous increase of maternal age at birth in recent years. Today, Romania is characterized by the postponement of first and second births, especially in the most fertile age group. At the same time, there are only weak signs that postponed births might be recuperated at higher ages.

Romania's proportion of non-marital births, although rapidly increasing, is about average in Europe. Countries like Estonia or Sweden have the highest rates of non-marital births (56%), followed by Bulgaria, Denmark, and France; the lowest rates are reported by Greece, Italy, and Poland (Council of Europe 2003).

Romania is one of the countries with the highest abortion rates, after Russia and Belarus. In the past, the Soviet Union had proven to be the "initiator" of the "abortion culture". In general, post-socialist countries are among those experiencing the highest rates of abortion. However, higher rates are also due to better reporting by individuals in these countries. According to Philipov and Dorbritz (2003), the high prevalence of abortion is also the result of the high level of unmet need for family planning. They argue that women prefer to prevent births rather than to prevent pregnancies. Yet, we observe an underlying change in this behavior. Women increasingly tend to use modern contraceptives. Consequently, there is a (moderately) growing trend towards the substitution of "birth prevention" with "pregnancy prevention."

The aim of this contribution is to provide an overview of recent fertility trends (Section 2) and of the proximate determinants of childbearing behavior, such as family formation patterns (marriage, cohabitation, and divorce) and the use of contraceptives and abortions (Section 3). We describe the role of economic and societal changes, and values and attitudes towards the family in Romania (Section 4), followed by a review of family policies and their impact on fertility behavior and family formation (Section 5). The chapter concludes with a summary and brief discussion of the need for a demographic policy in Romania.

2. Trends in fertility

Childbearing is affected by changing demographic patterns of marriage, divorce, and cohabitation as well as by rising numbers of non-marital births and changes in family planning practices. The current low fertility levels in Western Europe are the result of a long, slow and persistent decline since the 1960s. Fertility figures in Romania, however, have followed a different path (Table 1). From 1960 to 1966, fertility dropped to below the replacement level (less than 2 births per woman since 1964). However, from 1967 onwards the socialist regime pursued a brutal pro-natalist policy: The state imposed severe restrictions on access to contraception and abortion. As a consequence, the decline in fertility rates was abruptly halted (Mureşan 1999) and initially rose sharply, even though the total cohort fertility rate, which in Hajnal's (1947) view is a proxy for the actual average family size, declined more slowly. The family size most preferred by birth cohorts born after the First World War shifted down towards two children. The drop of fertility began in 1990 and rapidly reached levels below replacement. However, especially among younger birth cohorts, preference for single-child families has been steadily growing.

Table 1: Main indicators of birth, natural and migratory increase, and fertility

Calendar year	Total live-births	Natural increase	Net migration	Non-marital births (%)	Abortions to 100 live births	Total Period Fertility Rate	Period mean age at birth
1960	352 241	191 521	-16 103	n.a.	219	2.34	26.7
1961	324 859	162 923	-25 527	n.a.	n.a.	2.18	26.3
1962	301 985	129 556	-12 160	n.a.	na.	2.04	26.2
1963	294 886	139 119	-13 571	n.a.	n.a.	2.01	26.1
1964	287 383	134 907	-30 121	n.a.	n.a.	1.96	26.2
1965	278 362	114 969	-11 278	n.a.	400	1.91	26.1
1966	273 678	116 233	-4 521	n.a.	n.a.	1.90	26.0
1967	527 764	348 635	-1 684	n.a.	n.a.	3.67	26.7
1968	526 091	337 582	-1 010	n.a.	n.a.	3.64	26.9
1969	465 764	264 539	-3 614	n.a.	n.a.	3.20	26.8
1970	427 034	233 779	-12 190	3.5	68	2.90	26.7
1971	400 146	205 840	-5 090	n.a.	n.a.	2.67	26.5
1972	389 153	199 360	-7 330	n.a.	n.a.	2.55	26.4
1973	378 696	175 137	-11 719	n.a.	n.a.	2.44	26.3
1974	427 732	236 446	-12 368	n.a.	n.a.	2.70	26.2
1975	418 185	220 647	-8 957	3.5	86	2.60	26.0
1976	417 353	212 480	-7 290	n.a.	n.a.	2.55	25.9
1977	423 958	215 273	-13 088	n.a.	n.a.	2.57	25.8
1978	416 598	204 752	-9 843	n.a.	n.a.	2.52	25.7
1979	410 603	193 094	-15 866	n.a.	n.a.	2.48	25.5
1980	398 904	167 028	-17 804	2.8	104	2.43	25.2
1981	381 101	156 466	-14 114	n.a.	n.a.	2.36	25.3
1982	344 369	120 249	-17 260	n.a.	n.a.	2.17	25.1
1983	321 498	87 606	-21 121	n.a.	n.a.	2.07	25.0
1984	350 741	117 042	-23 388	n.a.	n.a.	2.27	25.2
1985	358 797	112 127	-20 877	3.7	84	2.31	25.3
1986	376 896	134 566	-18 132	n.a.	49	2.40	25.5
1987	383 199	128 913	-20 169	n.a.	48	2.39	25.6
1988	380 043	126 673	-18 954	n.a.	49	2.31	25.5
1989	369 544	122 238	-22 364	n.a.	52	2.20	25.3
1990	314 746	67 660	-86 781	4.0	315	1.84	25.0
1991	275 275	23 515	-404 397	n.a.	315	1.58	24.5
1992	260 393	-3 462	-29 397	n.a.	266	1.50	24.4
1993	249 994	-13 329	-17 177	17.0	234	1.44	24.3
1994	246 736	-19 365	-16 268	18.3	215	1.41	24.4
1995	236 640	-35 032	-21 217	19.7	212	1.34	24.6
1996	231 348	-54 810	-19 473	20.7	197	1.30	24.8
1997	236 891	-42 424	-13 345	22.2	147	1.32	24.9
1998	237 297	-31 869	-5 629	23.0	114	1.32	25.1
1999	234 600	-30 594	-2 516	24.1	111	1.30	25.3
2000	234 521	-21 299	-3 729	25.5	110	1.31	25.5
2001	220 368	-39 235	1 029	26.7	116	1.27	25.8
2002	210 529	-59 137	-1 572	26.7	118	1.26	26.0
2003	212 459	-54 116	-7 406	28.2	106	1.27	26.2
2004	216 261	-42 629	-10 095	29.4	88	1.29	26.4

Table 1: (continued)

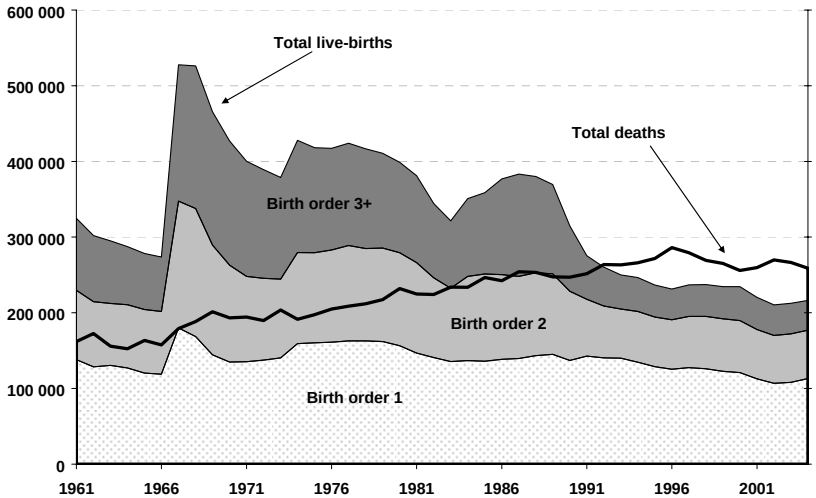
Birth cohort	Total Cohort Fertility Rate	Cohort mean age at birth
1935	2.38	26.8
1936	2.37	26.8
1937	2.37	26.8
1938	2.38	26.7
1939	2.41	26.7
1940	2.43	26.5
1941	2.44	26.3
1942	2.42	26.1
1943	2.47	25.9
1944	2.43	25.7
1945	2.44	25.6
1946	2.39	25.4
1947	2.39	25.3
1948	2.46	25.2
1949	2.50	25.1
1950	2.45	25.1
1951	2.36	25.2
1952	2.31	25.2
1953	2.28	25.1
1954	2.27	25.1
1955	2.28	25.0
1956	2.26	24.9
1957	2.24	24.8
1958	2.22	24.7
1959	2.18	24.6
1960	2.15	24.5
1961	2.10	24.4
1962	2.06	24.3
1963	2.02	24.2
1964	1.97	24.1
1965	1.91	24.2
1966	1.81	24.3
1967	1.71	24.4
1968	1.64	24.6
1969	1.62	24.8
1970	1.61	24.9
1971	1.59	25.0

Source: NIS (2001, 2005a, 2005b). For total period fertility rate and total cohort fertility rate series we used CE (2005). For cohort mean age at birth we used Ghețău (1997b).

2.1 Main developments in birth and fertility

The population of Romania (21.7 million in 2004) has been declining since 1990. This development is mainly due to an imbalance between the number of births and the number of deaths. In addition, Romania has consistently experienced negative net migration. Meanwhile life expectancy increased: by 1997 it reached 67.7 years for men and 75.1 years for women. Table 1 shows the distribution of natural and migratory components of population increase, while Figure 1 depicts total births and deaths over the period 1961–2004, as well as births by birth order. These data reveal the impact of the pro-natalist policies imposed by the socialist regime from 1967 to 1989. After the regime collapsed, however, family policies became ineffective for a number of reasons, including inflation that caused a decline in the real value of child allowances. Moreover, the end of the socialist regime marked the beginning of important changes in childbearing behavior. Birth numbers began to fall steeply, stabilizing briefly only in 1995–2000. Then, the years 2001–2002 brought another decline, followed by a reversal in 2003 and 2004. Overall, between 1989 and 2004 the birth rate slumped by 41%. From 1992 onwards, the number of deaths exceeded the number of births (Figure 1). As regards the deficit of births, we observe that it differs by birth order. Comparing 2004 data to those of 1989, the highest difference is found among higher-order births (3+); in 2004 we find 67% fewer higher-order births; 40% fewer second-order births, and 22% fewer first-order births.

Figure 1: Total births by birth order and total deaths, period 1961–2004



Source: NIS (2001, 2005b).

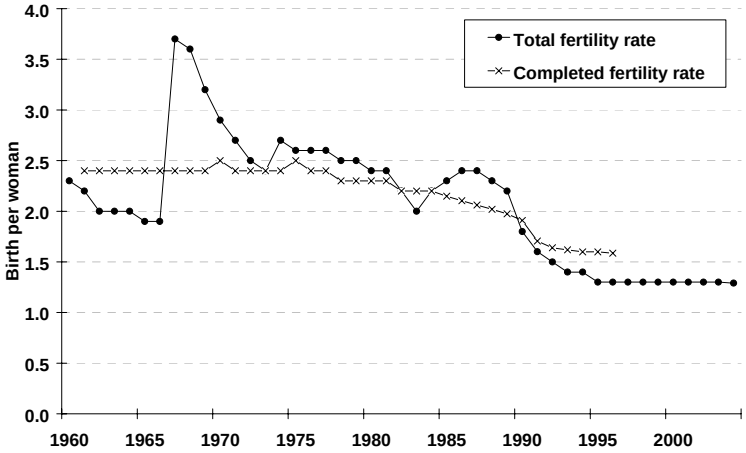
Immediately after 1989, the total (period) fertility rate (TFR) started to decrease dramatically. The average number of births a woman would have in her lifetime declined by 1 child, from 2.2 in 1989 to 1.3 in 2004 (Figure 2a), followed by the stabilization of the TFR at 1.3 births per woman after 1995. The stabilization was due to a change in the age pattern of childbearing rather than less steeply declining rates of cohort fertility. Evidence for this development is found in the sinuous evolution of the mean age at childbearing and the decrease of total cohort fertility rate. Although the latter decrease was not as strong as the decline of the TFR, actual numbers declined steadily. First, the mean age at childbearing fell from a maximum of 25.6 years in 1987 to a minimum of 24.3 years in 1993. From 1993 onwards, Romanian women tended to postpone childbirth, and every year the mean age at birth increases by 0.2 years. The period and the cohort mean age at birth both have a U-shape (Figure 2b and Table 1).

The unusual "rejuvenation" in childbearing started in the mid-1980s and lasted until 1993. However, it had two episodes: The first was triggered by the pro-natalist policy, which pressured young women to anticipate births. The second episode was characterized by a continuing decrease in the mean age at birth as a result of declining higher-order births. This development continued for another three years after 1989 and was mainly due to declining higher-order births, which usually took place at later ages under the pro-natalist policy.

The total fertility rate of second-order births almost halved between 1985 and 1993 (from 0.73 children per woman in 1985 to 0.38 in 1993) and that of higher-order (three or more children) fell even more (from 0.67 children per woman in 1985 to 0.28 in 1993; see Figure 3a for more details.) Figure 3b shows cohort fertility by birth order and confirms that the decline of third and higher-order fertility has been long-lasting and persistent. Every cohort born after 1944 made a 1% to 10% lower contribution to the total cohort fertility rate of third-order birth than the previous cohort. Second-order cohort fertility decreased more slowly than higher-order fertility, whereas first-order fertility remained almost unchanged: 85% to 93% of women belonging to the 1944–1967 birth cohorts experienced a first birth. Although we observe a long-term stabilization of the TFR (over the past ten years), it seems that the decline in cohort fertility has not yet come to an end, and there is no indication that it will come to an end soon.[5]

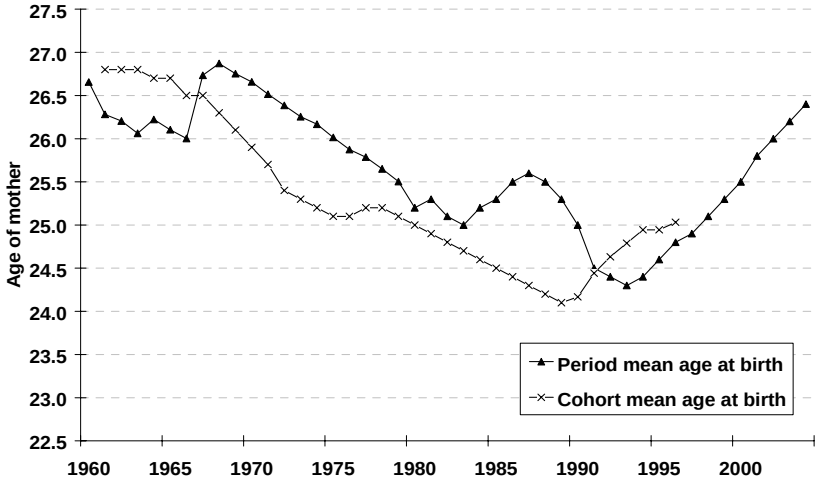
[5] Using a methodology based on recent developments in Total Cohort Fertility, together with the Cumulated Cohort Fertility Rates (on the one side up to age 27, on the other side above age 27), Frejka and Sardon (2005) argue that in post-socialist countries (Romania included) the Projected Completed Fertility of the 1975 birth cohort is closer to the 'without recuperation' scenario than it is to the '50% recuperation' scenario, while the 'full recuperation' scenario is almost impossible to achieve.

Figure 2a: Total (period) fertility rate and completed fertility rate lagged by the average age at childbearing (cohorts 1935-1971)



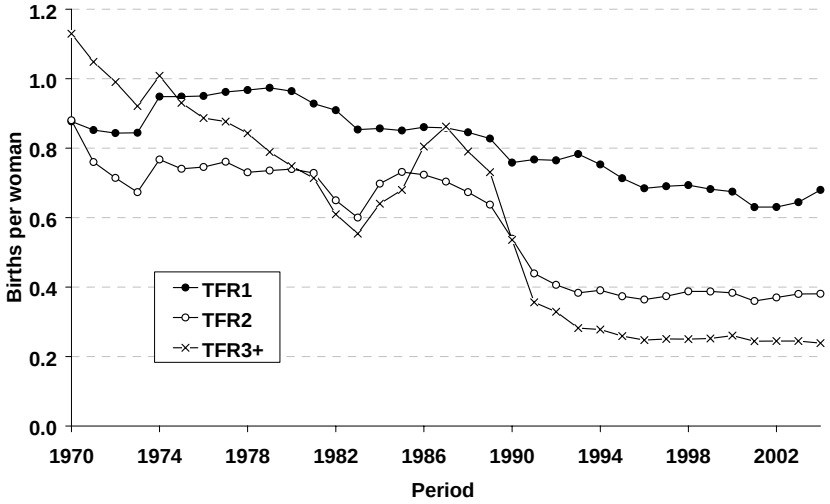
Source: CE (2005).

Figure 2b: Period mean age at childbearing and cohort mean age at childbearing lagged by the average age at childbearing (cohorts 1935-1971)



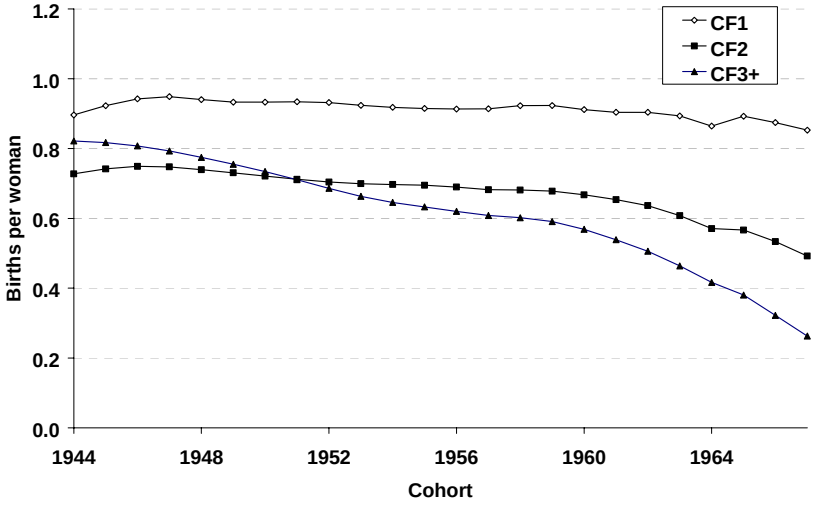
Source: NIS(2001, 2005b), Gheţău (1997b).

Figure 3a: Total (period) fertility rates by birth order, 1970-2004



Source: Calculations of the author based on NIS (2001, 2005b)

Figure 3b: Completed (cohort) fertility rates by birth order, 1944-1967

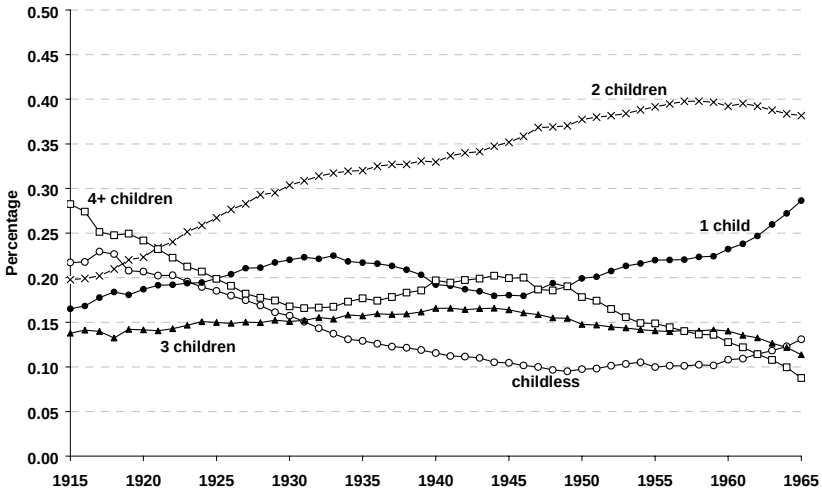


Source: Observatoire Démographique Européenne.

2.1.1 Parenting and family size

Continuing with a longitudinal perspective, we see that the decision to become a parent has become more widespread, whereas the preference for a large family size has decreased (see Figure 4, based on census data). Childlessness declined from 15 to 20% among birth cohorts born before the Second World War to 10% among those born after the war. The proportion of women with one child increased in all birth cohorts except those born during the Second World War. Women born in 1921 were the first to adopt the two-child model, which has become the most common family size since then. However, especially among the younger birth cohorts a new tendency has emerged: an increasing number of single-child families (among women born after the Second World War) and a slight rise in childlessness (among women born after 1960). Younger birth cohorts have not yet completed their reproductive period, and although, theoretically, they would be able to recuperate their postponed births, this is very unlikely to happen, as cultural norms do not encourage childbirth at later ages.

Figure 4: Distribution of women by parity, 1915-1965 cohorts

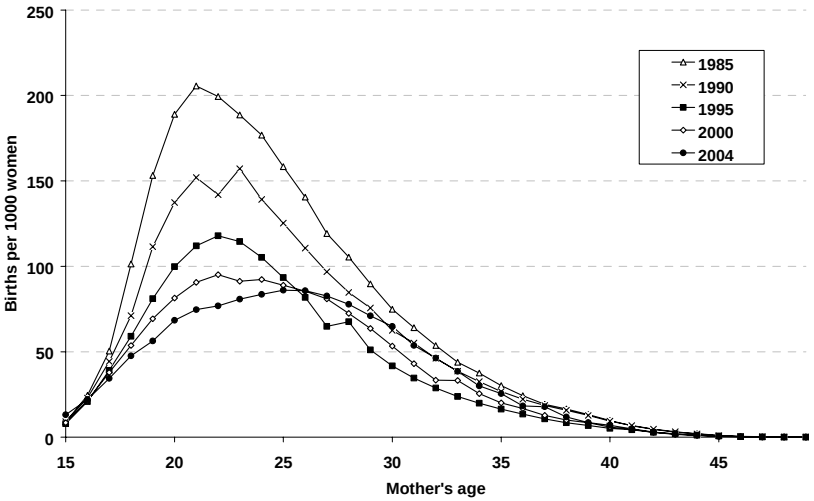


Source: Calculation by the authors based on NIS (1994) for birth cohorts 1915-1954 and on NIS (2003) for birth cohorts 1955-1965.

2.1.2 Postponement of childbirth

As regards the age patterns of fertility, age-specific fertility rates reveal that important changes have taken place (Figure 5a). Until 1995, we observe a reduction in fertility level among all age groups. Between 1995 and 2000, this reduction affected only mothers aged 18–25 (the most fertile ages in Romania). At the same time, fertility rates increased at all ages above 25. This trend continued, so that by 2004 fertility patterns had changed profoundly: Whereas for many years 21- to 22-year old women tended to be the driving force of fertility, now women aged 25 were those with the highest fertility rates. To sum up, Romania has definitely begun to experience a trend towards postponement of childbirth.

Figure 5a: Age-specific fertility rates, 1985-2004



Source: NIS (2001, 2005a).

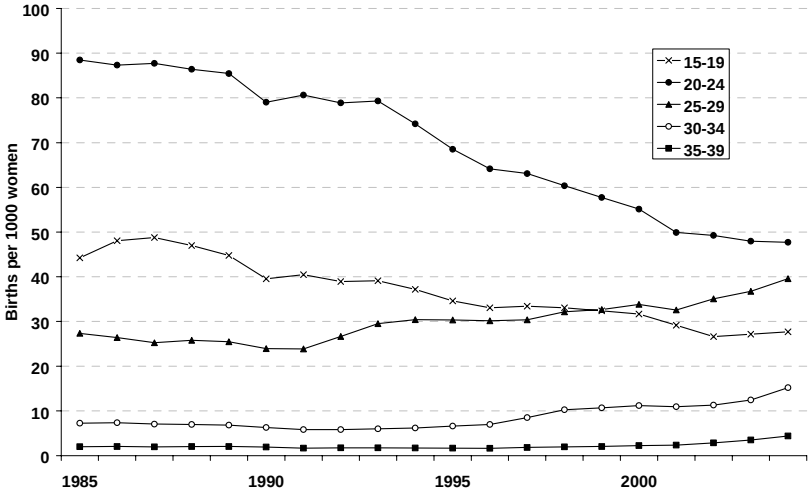
Figures 5b–5d show the analysis by birth order and provide even deeper insights into the postponement process. The birth rates by birth order are the so-called incidence rates or rates of the second kind, which are computed for all women in a given age group and not just for women of certain parity. The first-birth period fertility rates (Figure 5b) of the most fertile age group, women aged 20–24, decreased consistently

throughout most of the period 1985–2004. A continuous reduction is notable also among the youngest age group, women aged 15–19. The fertility reduction of women aged 25–29 lasted only until 1990. After that, it continuously reverted. By 1999 it had surpassed the fertility of women aged 15–19. After 1995, first-birth period fertility rates had started to increase also for women older than 30.

Second-order fertility rates (Figure 5c) of the 20–24 age group sharply declined. The reduction started to lose its pace only in 1991. For women aged 25–29, it came to a halt after 1994. In fact, in 1998 for the first time, second-order fertility rates were higher among this age group than among younger ones, where the latter showed instead a continuous decline. Following a reduction in fertility until 1993, period fertility rates have increased constantly for the age group 30–34. In 2004 they reached almost the same levels as those reached by women aged 20–24. Thus their fertility was twice as high as 10 years earlier. From 2000 onwards, even women older than 35 experienced higher second-order fertility.

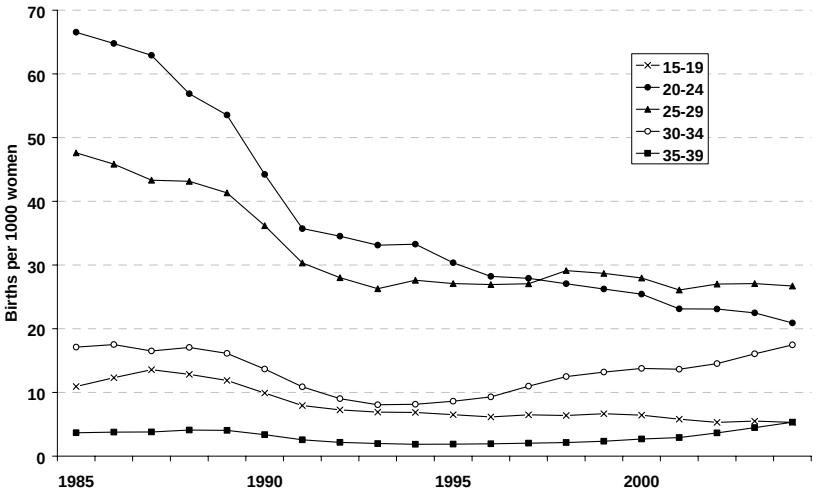
As to third- and higher-order period fertility rates (Figure 5d), we observe that between 1989 and 1993 they declined among all age groups. In the past ten years, however, there have been no major changes in these fertility rates. It seems that women who prefer to have large families decide for themselves, regardless of external circumstances.

Figure 5b: First-order fertility rates of the second kind by age group, 1985-2004



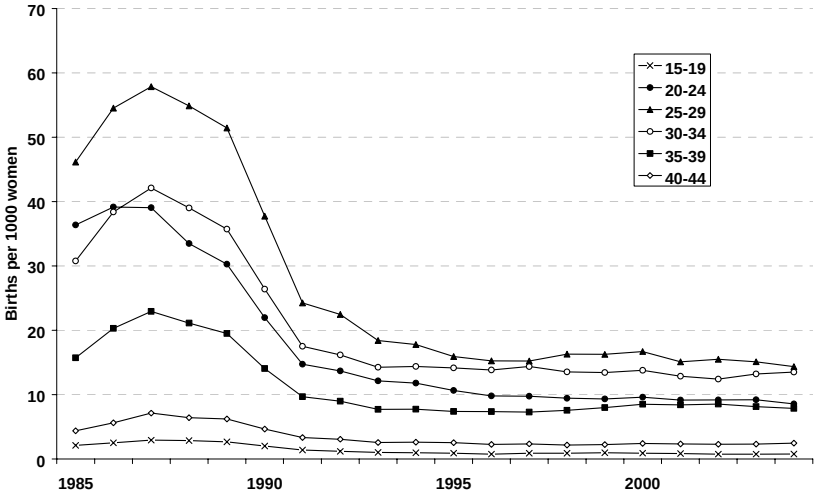
Source: Calculations of the authors based on NIS (2001, 2005b).

Figure 5c: Second-order fertility rates of the second kind by age group, 1985-2004



Source: Calculations of the authors based on NIS (2001, 2005b).

Figure 5d: Third and higher-order fertility rates of the second kind by age group, 1985-2004



Source: Calculations of the authors based on NIS (2001, 2005b).

2.1.3 Longitudinal (cohort) perspective

Up to now we have shown a cross-sectional perspective, observing the immediate effect of period on fertility age patterns. Behavioral changes, however, are revealed only from a longitudinal (cohort) perspective. Several age-parity cohort fertility rates are shown in Figures 6a–6f[6]. The birth cohorts of 1960 and 1965 completed their family formation mainly before the change of regime (in 1990, these women were aged 30 and 25, respectively). Their age-specific first-order fertility rates (Figure 6a) are almost identical. Differences emerge among women born in 1970. These women have a less sharp first-order fertility pattern (in their 20s), and they also differ strongly from younger cohorts born after 1975, whose curve has a much flatter shape. Changes in the age patterns of second-order births set in from the 1965 birth cohort onwards (Figure 6b). These women experienced fewer second births in their late 20s than older generations. This shift can be attributed to the change in the socio-political regime, which now allowed for modern contraceptives and abortion. Women born after 1970 underwent almost their entire reproductive period under a new political regime. These women have evidently postponed second birth (see the less evident peak, which is reduced to half in the fertility pattern in Figure 6b), as they tend to realize some of the births they postponed in their early years of adulthood.

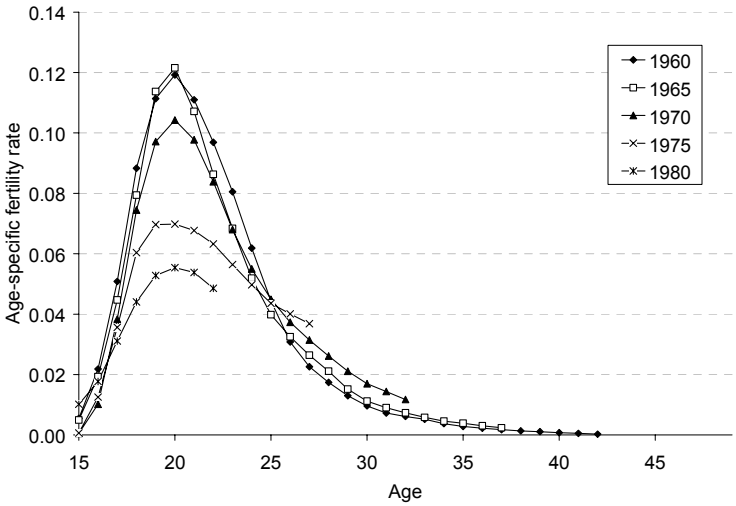
However, the metamorphosis of fertility toward later childbearing hardly compensates for the postponed births of earlier ages, especially as regards second births. Figure 6c displays the cumulative progression rate to first birth. About 90% of women born in 1960 experienced the transition to first birth. Taking a look at the 1965 and 1970 generation, we assume that they will reach this level too. The younger generations, however, will need to display higher recovery rates since their cumulated progression rate to first birth has been much lower than the corresponding rates of older generations. The postponement of second birth among the 1965 generation will apparently not be recuperated; fewer than 60% of women of this generation had a second child in their late 30s, compared with almost 70% of women from the earlier generation (Figure 6d). For those born after 1975, recuperation will even be harder. Though these women have enough time for recuperation, one has to consider that the delay is substantial and that according to the Romanian culture, births tend to occur at an early age.

Figures 6e and 6f display the differences between cohorts of cumulative progression rates to first and second birth, showing more clearly the extent to which postponement is widespread. Compared to women born in 1960, recuperation is

6 The figures are based on data from the Observatoire Démographique Européen, and they were given to us by Tomas Frejka, one of the editors of the project to which this article is a contribution.

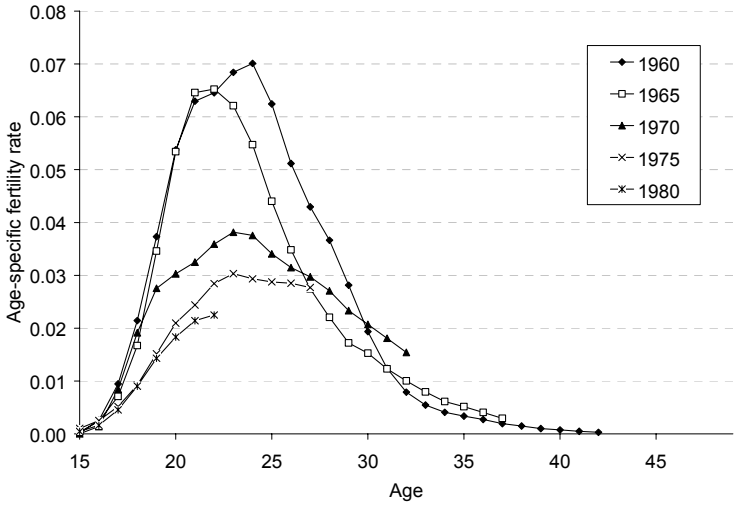
practically impossible, for first births among the cohorts born after 1970, and for second birth among those born after 1960.

Figure 6a: Age-specific fertility rates, first births, birth cohorts 1960, 1965, 1970, 1975, and 1980



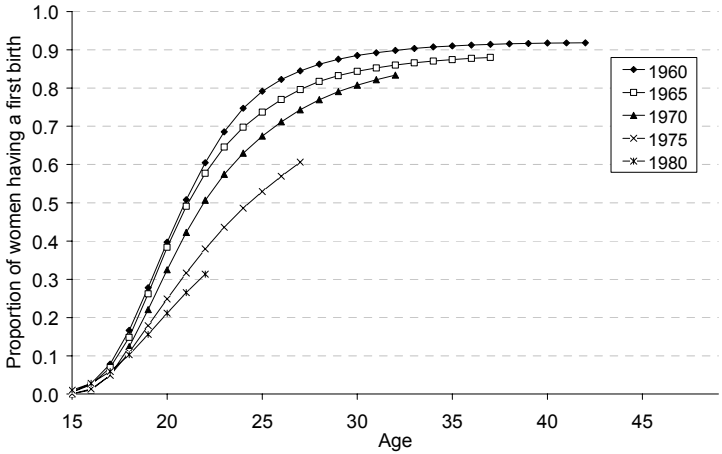
Source: Observatoire Démographique Européenne.

Figure 6b: Age-specific fertility rates, second births, birth cohorts 1960, 1965, 1970, 1975, and 1980



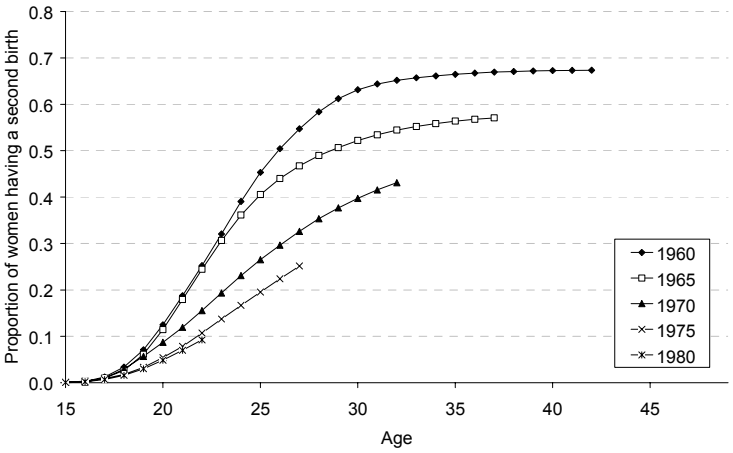
Source: Observatoire Démographique Européenne.

Figure 6c: Cumulative progression rate to first birth, birth cohorts 1960, 1965, 1970, 1975, and 1980



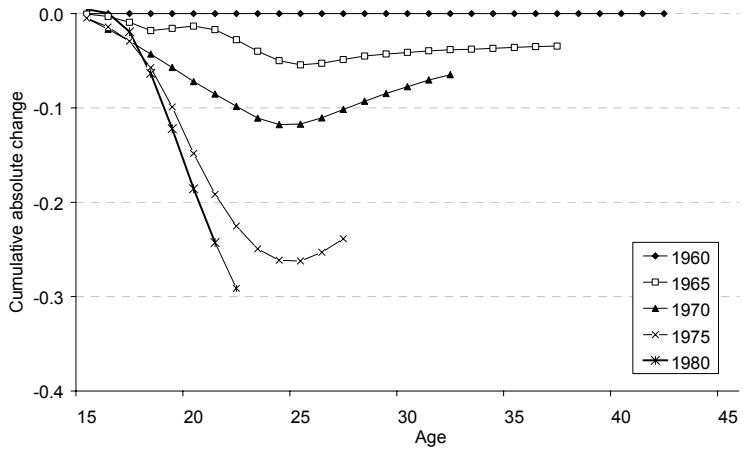
Source: Observatoire Démographique Européenne.

Figure 6d: Cumulative progression rate to second birth, birth cohorts 1960, 1965, 1970, 1975, and 1980



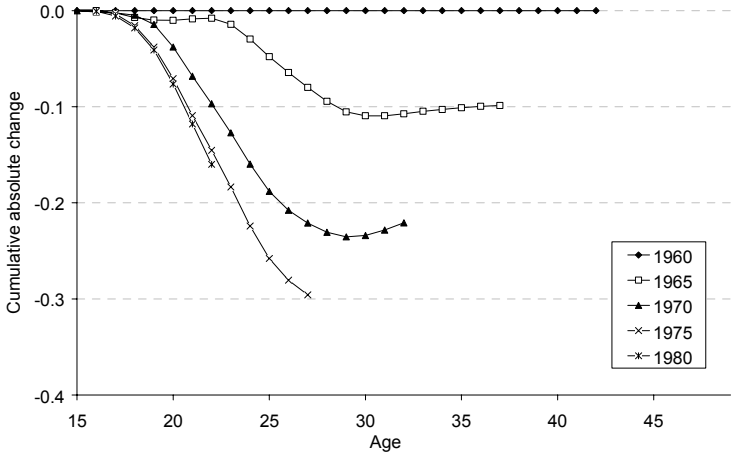
Source: Observatoire Démographique Européenne.

Figure 6e: Cumulative change in first birth progression rate by age, birth cohorts 1960, 1965, 1970, 1975, and 1980 (benchmark cohort 1960)



Source: Observatoire Démographique Européenne.

Figure 6f: Cumulative change in second birth progression rate by age, birth cohorts 1960, 1965, 1970, 1975, and 1980 (benchmark cohort 1960)



Source: Observatoire Démographique Européenne.

2.2 Fertility differentials and determinants

In Romania, surveys enabling the study of the impact of micro-level mechanisms on fertility are sparse and rather limited. One exception is the *Reproductive Health Survey 2004 (RHS 2004),*[7] in which the sample of 4441 women aged 15–44 allows us to study the influence of several proximate determinants on fertility as well as fertility differentials between individuals with different characteristics.

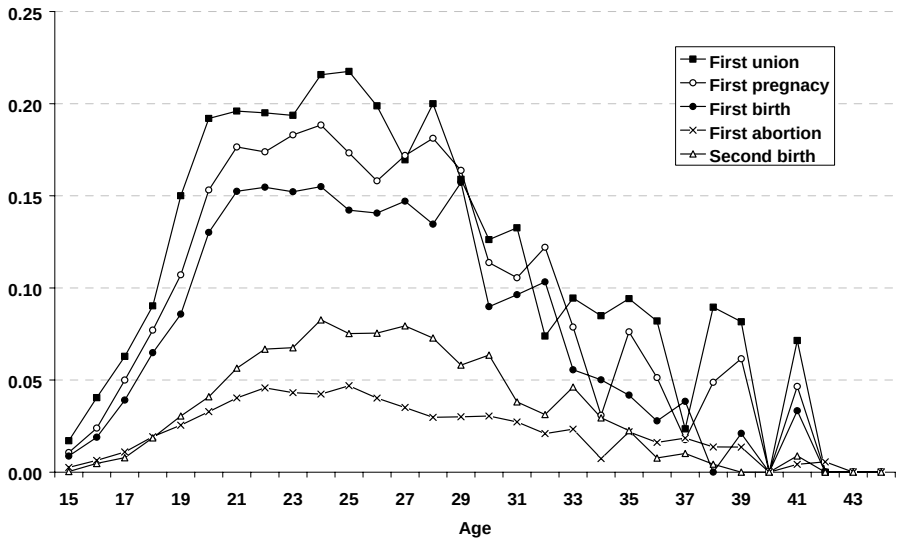
For our analysis we apply life-table analysis as well as proportional hazard regression. For the latter we use piecewise constant models, using both first birth and second-birth risks as dependent variables. Whereas life-table analysis allows for the study of fertility levels and timing differentials by factors, regression analysis enables us to measure the relative risks of individuals with different characteristics to experience a given event, while controlling for other factors.

7 The Synthetic Report (Ministry of Health 2005) claims a good response rate from the female sample, i.e. 91.1%. Our own estimates on live birth reporting show that compared to government statistics (from the National Institute of Statistics), the numbers of live births are almost identical.

2.2.1 Risk patterns for first union, pregnancy, birth, abortion and for second birth

Figure 7 indicates the hazard rates of first and second-order childbearing. We display also the risk patterns of other events such as transition to first union, first pregnancy, and first abortion, since they usually tend to have an influence on the birth pattern. All rates were estimated on a monthly basis, and represent the behavior of all 4441 respondents. Women in the RHS reported on every pregnancy they experienced throughout their life, regardless of whether pregnancy resulted in a live birth, a miscarriage, or an abortion. Since we observe similar patterns regarding first union, pregnancy, and birth, we assume that all three events are strongly related to each other and they are almost universal. Examining the cumulated percentage of these events, we find that 96% of all women experienced a first union, 93% a first pregnancy, and 89% a first birth. Women in their 20s face the highest risk of all three events. Second birth-risks are much lower by contrast: About 64% of all women experienced transition to second birth throughout their reproductive lifetime. Figure 7 also shows abortion risks – another factor that influences fertility. The abortion curve is flatter: 48% of all women had at least one abortion during their reproductive period.

Figure 7: Occurrence / exposure rates for first union, first pregnancy, first birth, first abortion, and second birth



Source: Calculations of the authors based on RHS 2004.

In the event-history model, we use the following covariates: period, human capital, and culture and norm proxies. We also control for union, fertility regulation, birth cohort,[8] and for age group. We divide each period into four intervals, corresponding to our findings based on macro data analysis. The period before 1990 was characterized by the coercive pro-natalistic policies of the socialist regime; the 1990–1994 period evidenced a sudden drop in fertility; the 1995–1999 period was marked by the onset of structural changes, and the 2000–2004 period by massive structural changes.

We decided to integrate human capital proxies because in several fertility theories they represent an important factor, especially with regard to economic approaches. In the analysis of fertility differentials among women with different characteristics, we use the level of education, working status, and socio-economic level as a proxy for human capital. For our event-history model, however, it is impossible to measure the impact of these factors because they were recorded at the time of the interview only. Thus, the RHS provides no information on the history of these events. Since these proxies do not suit the purpose of a causal analysis when reported as a time-constant variable instead of a time-varying one, we had to exclude these factors (see Kravdal 2004).

The proxies of culture and norms, instead, are considered to be more stable throughout life. Thus we use area of residence, religiosity, and region as time-constant covariates in our hazard regression models. In the grouping of Romanian regions, we apply the NUTS-2 classification, which divides Romania into eight regions (see Map 1). These regions were defined only at the end of the 1990s; however, they provide an adequate division of the 42 administrative units of Romania. The classification accounts not only for ecological differentiation, but also for historical, socio-economic, and demographic differences (Sandu 1996, 2000). Cultural differentiations within the country are rooted in Romanian history: In 1918 the country was formed[9] from three historical regions, called "provincii," which were mainly under the influence of the Ottoman Empire (South, South-West, part of the South-East, Bucharest), the Austro-Hungarian Empire (North-West, West, and Center), and the Tsarist Russian Empire (North-East, part of the South-East).

[8] The variable birth cohort used in our analysis does not interfere with period and age variables, because it is set by other criteria than just the passage of time. The only aim of the three categories of this variable is to differentiate the very special so-called 'forced born' from the other cohorts born before or after 1964–1974, as we describe later in Section 3.3. Although we control for birth cohort, it is not correlated with the five-year group period and age variables.

[9] The formation of the country was a long process that started January 1856, ending December 1918.

Map 1: Romanian regions according to NUTS-2 classification

2.2.2 Level and timing of first and second births

Table 2 represents the life-table indicators on the level and timing of first and second birth by different factors and the corresponding categories. Analyzing the impact of period, again we find that women continuously delay the transition to first birth from one period to the next. The increase in the median age at first birth was greatest at the transition from the first ("before 1990") period to the second (1990–1994) period and from the third (1995–1999) to the fourth (2000–2004): it was 1.5 years each time. The data show that the postponement process became more marked only about five years after the change of regime in 1989.

Table 2: First and second birth level and timing life-table indicators, by categories

	First birth			Second birth		
Factor and category	**Cumulative % of those who ever had the event**	**Median age**	**Number of cases**	**Cumulative % of those who ever had the event**	**Median age**	**Number of cases**
Period ***						
before 1990		20.6	965		22.0	467
1990-1994		22.1	799		24.5	397
1995-1999		22.8	679		25.2	397
2000-2004		24.4	541		27.3	378
Total		21.8	2984		24.5	1639
Workforce status ***						
working	88	24.3	2511	55	33.9	1810
not working	92	21.6	1930	78	25.5	1174
Total	89	23.2	4441	64	29.2	2984
Socio-economic level ***						
low	93	21.0	1445	80	25.2	1100
middle	85	23.6	1604	62	30.4	1038
high	91	25.3	1392	47	.	846
Total	89	23.2	4441	64	29.2	2984
Educational level ***						
no upper	92	20.5	1637	83	24.6	998
upper secondary	90	23.5	2257	58	31.2	1700
post-secondary	81	29.2	547	38	.	286
Total	89	23.2	4441	64	29.2	2984
Church attendance						
at least once a	91	23.2	1712	65	29.2	1148
less than once a month or never	88	23.2	2723	63	29.2	1832
Total	89	23.2	4435	64	29.2	2980
Area of residency ***						
urban	86	24.8	2486	53	35.7	1478
rural	93	21.6	1955	75	26.5	1506
Total	89	23.2	4441	64	29.2	2984
Region ***						
North-East	91	22.8	718	74	27.8	496
South-East	86	23.2	585	61	30.2	396
South	91	22.3	737	63	28.3	529
South-West	95	21.8	515	69	25.8	397
West	89	23.1	378	57	29.8	260
North-West	89	23.3	496	66	30.0	323
Center	86	24.2	553	63	31.2	348
Bucharest	84	27.4	459	43	.	235
Total	89	23.2	4441	64	29.2	2984
First union ***						
never in union		20.8	29		24.2	10
before birth		22.2	2581		24.5	1545
after birth		19.8	374		21.4	84
Total		21.8	2984		24.5	1639

Table 2: (continued)

Factor and category	First birth: Cumulative % of those who ever had the event	First birth: Median age	First birth: Number of cases	Second birth: Cumulative % of those who ever had the event	Second birth: Median age	Second birth: Number of cases
before 1967	93	22.2	888	70	27.0	823
1967-1974 ('forced	89	23.2	1617	59	31.2	1400
1975 and after	71	24.3	1936	54	28.8	761
Total	89	23.2	4441	64	29.2	2984
First abortion ***						
never aborted		22.3	1670		24.8	848
before birth		23.6	277		25.6	360
after birth		21.0	1016		21.1	46
Total		21.8	2		24.9	125

Source: Calculations of the authors based on RHS 2004 data.
*** Highly significant, $p < 0.001$.

Women who tend to postpone childbirth and decide less often for children are those who are working, have a higher educational degree, and occupy a middle position in the socio-economic strata. Religiosity (here measured by church attendance) does not have a significant effect on primo-fertility. By contrast, women living in rural areas become mothers more often (93% compared to 86% of women in urban areas) and do so earlier in life: on average three years earlier than women living in urban areas. Significant differences are found regarding the impact of region on fertility. Women from the North-East or South-West regions of Romania tend to have first births earlier than other women and do so in higher proportions. Bucharest shows the lowest and latest primo-fertility. For about 99% of women, being in some form of union is a pre-condition for having a first child. Since the RHS does not offer information on the form of union (marriage vs. cohabitation) we cannot study non-marital births. Nevertheless, women who formed their first union after the first birth generally were younger than other mothers (by about two and a half years). These very young women, of whom 50% were not yet in their 20s, contributed strongly to the increasing trend towards non-marital birth.[10]

When controlling for the impact of all factors in a regression analysis, a somewhat modified picture emerges. Table 3 indicates the relative risks for the transition to first and second birth, as well as first abortion. The period 1990–1994 serves as the basis for comparison, as these years witnessed the onset of changes in the fertility pattern. In the case of primo-fertility, the significant changes occurred only five years after the change

[10] Since the sample size of women who experienced a non-marital birth is too small in the RHS, we were not able to perform a differential analysis by ethnic group or religion.

of the political regime. At that time, first-order fertility dropped significantly—by 14%. This decline held for the period 2000–2004. Interestingly, both the periods "before 1990" and 1990–1994 seem to have had the same effect on the transition to first birth. We assume that these results are due to the fact that women of older age groups partly compensated for decreasing birth-intensities of younger age groups, and thus we controlled for the age-effect in our model. Furthermore, living in rural areas increases the risk of first birth by 28% compared to women living in urban areas. Women belonging to the North-East, South-West, or the West region of Romania have higher risks than women of the Center region. Bucharest continues to have the lowest first-birth risk, 16% lower than in the Center region. "Being in a union" remains one of the best explanatory variables. The highest risk for first birth is during the first or second year of union. Compared to women who are in their first two years of union, those who are in their third or fourth year of union have a 19% lower risk for first birth; women who are in the fifth or sixth year of union have a 48% lower risk; and those who are in union for more than seven years have a 69% lower risk. Women not in any union are least likely to have a first birth.

As for the transition to second birth, the life-table indicators reveal that the median age of women at second birth increased by 2.5 years between the period "before 1990" and 1990–1994, by 0.7 years between 1990–1994 and 1995–1999, and by 2.1 years between 1995–1999 and 2000–2004 (Table 2). As shown previously, we found a similar pattern for first birth. Human capital proxies show similar differentiations on second-birth risks, as is the case for first birth. The highest proportion of transition to second birth is found among women who are not working (78% versus 55% among working women), who have a relatively low education (83% versus 38% among highly educated) and among those who have a relatively low socio-economic position (80% versus 47% among women with a high socio-economic status). Interestingly, the median age at second birth reaches 34 years among working women and 25.5 years among women not working, so the latter experience this transition far earlier. As regards the area of residence, women from rural areas more often tend to have a second child than women from urban areas. Also here, the transition occurs earlier. Women from the North-East or the South-West region are more prone to have a second child than women from the Center region of Romania. Again, Bucharest shows the lowest rates of transition towards a second birth. Being in a union before second birth (which, with 94%, applies to the great majority of women) has a delaying effect compared to women who entered first union after this birth.

Table 3: Relative risks of first birth, second birth, and first abortion

Factor and category	First birth Hazard Ratio	Sig.	Second birth Hazard Ratio	Sig.	First abortion Hazard Ratio	Sig.
Period						
before 1990	1.00	0.960	1.31	0.002	0.67	0.000
1990-1994	1	-	1	-	1	-
1995-1999	0.86	0.010	0.77	0.001	0.78	0.002
2000-2004	0.80	0.004	0.91	0.375	0.57	0.000
Church attendance						
at least once a month	1	-	1	-	1	-
less than once a month or never	1.00	0.913	1.06	0.285	1.31	0.000
Area of residency						
urban	1	-	1	-	1	-
rural	1.28	0.000	1.74	0.000	0.91	0.123
Region						
North-East	1.18	0.017	1.37	0.001	1.06	0.610
South-East	1.14	0.075	1.02	0.837	1.76	0.000
South	1.13	0.075	1.02	0.870	1.22	0.066
South-West	1.30	0.000	1.31	0.006	2.50	0.000
West	1.17	0.055	1.08	0.489	1.54	0.000
North-West	1.14	0.087	0.98	0.856	0.84	0.198
Center	1	-	1	-	1	-
Bucharest	0.84	0.043	0.90	0.453	1.97	0.000
Years since union formation						
no union so far	0.04	0.000	0.13	0.000	0.42	0.000
during 1st or 2nd year of union	1	-	1	-	1	-
during 3rd or 4th year of union	0.81	0.000	2.55	0.000	0.84	0.032
during 5th or 6th year of union	0.52	0.000	1.59	0.000	0.53	0.000
during 7th and higher year of	0.31	0.000	1.02	0.872	0.40	0.000
Age group						
15-19	0.91	0.232	1.09	0.459	0.73	0.006
20-24	1.20	0.002	1.24	0.003	1.08	0.317
25-29	1	-	1	-	1	-
30-34	0.74	0.008	0.63	0.000	0.72	0.004
35-44	0.27	0.000	0.15	0.000	0.58	0.002
Years since first birth						
0-1			0.36	0.000		
2-3			1	-		
4-5			1.51	0.000		
6+			1.01	0.897		
Birth cohort						
before 1967	1.16	0.012	1.15	0.090	0.83	0.031
1967-1974 ('forced born')	1	-	1	-	1	-
1975 and after	0.99	0.921	0.91	0.307	1.23	0.025
Event experienced	Abortion exp.		Abortion exp.		Birth exp.	
no	1	-	1	-	1	-
yes	0.97	0.646	0.86	0.016	3.57	0.000
	LR chi2(23) = 6476.40		LR chi2(26) = 2514.91		LR chi2(23) = 1272.38	
	Prob > chi2 = 0.0000		Prob > chi2 = 0.0000		Prob > chi2 = 0.0000	

Source: Calculations of the authors based on RHS 2004.

The regression analysis (Table 3) provides evidence that every period after 1990 has significantly lower second-birth risks. Compared to the period before 1990, in 1990–1994 the relative risk for a second birth is 31% lower. And in contrast to the period 1990–1994, the risk in bearing a second child in the period 1995–1999 decreased by 23%. However, in the 2000–2004 period women had the same risk for a second birth as in 1990–1994. Again, we find that religiosity has no significant effect. Regarding area of residence, our model reveals that women coming from rural areas have a 74% higher propensity to have a larger family than their urban counterparts. This difference between urban and rural women is remarkably higher than in the first model, where we analyzed the transition to first birth (here, rural women had a 28% higher risk for the first birth compared to urban women). As found also for first birth, the North-East and the South-West are the most fertile regions. However, when considering second births, the differences between the Center region and Bucharest, or the West region, which were observed for first-order birth, disappear. Furthermore, the second child does not usually arrive very soon after union formation. After giving birth for the first time, women tend to wait four to five years to have a second birth.

3. Proximate determinants of fertility

3.1 Marriage patterns, cohabitation, divorce, and separation, 1985–2004

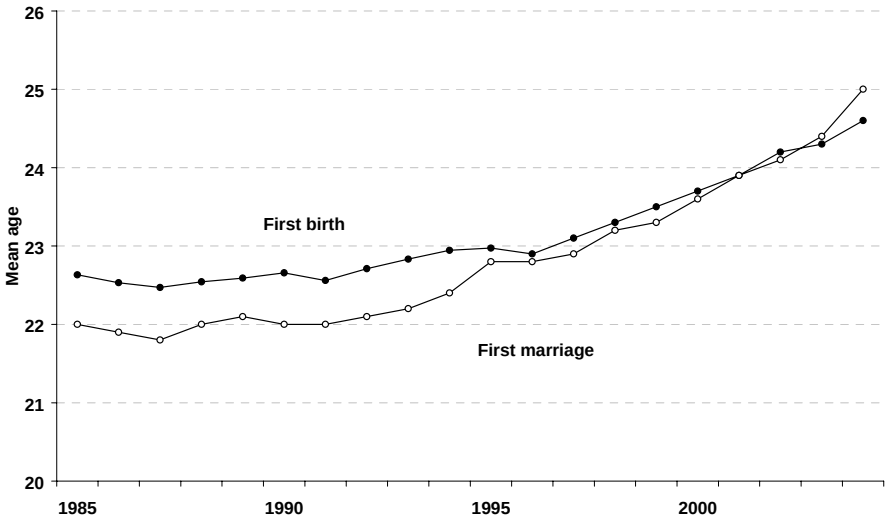
As in other European societies, the Romanian crude marriage rate decreased during the last two decades, declining from 7.1 per 1,000 (7.1‰) in 1985 to 5.9‰ in 2002. In 2004, however, the country recorded an increase in marriages up to 6.6‰. The total female first-marriage rate (below age 50) also fell. Between 1985 and 2002, it decreased from 0.89 to 0.66, though rising to 0.74 in 2004. Even today, the Romanian marriage pattern is characterized by early transition to marriage, by a relatively high level of persons who choose a marital union, by stability (a low divorce rate and a very low proportion of higher-order divorce), and by low levels of ultimate celibacy.

3.1.1 Marriage patterns

Between 1985 and 2004, the female mean age at first marriage increased from 21.9 years to 25.0 years (see Figure 8). We observe a similar development for the mean age at first birth: Romania experienced an increase from 22.6 years in 1985 to 24.6 years in 2004. Despite these recent changes, Romania continues to be characterized by both early marriage and early childbirth. The time difference between both events is short,

indicating that conception precedes marriage. However, these figures are biased, as we have to take into account that in recent years the number of births, the proportion of never-married persons, as well as the number of non-marital births markedly increased, with the latter reaching almost 30% in 2004. On the one hand, these women, who tend to be rather young, do not contribute to the mean age at first marriage. On the other hand, they contribute to the mean age at first birth (Mureşan and Rotariu 2000). Considering the proportion of women who have their first child inside (first) marriage, we notice that postponement is indeed taking place – the proportion of women who have a child during the first two years of marriage decreased from 61% in 1993 to 46% in 2004 (NIS 2005a). The interval between age at first marriage and age at first birth is much more pronounced in urban areas than in rural regions (in 2004, 46% of the population of Romania lived in rural areas).

Figure 8: Mean age of women at first birth and first marriage



Source: CE (2004) for the period 1985-2000 and NIS (2005b) for 2004.

3.1.2 Cohabitation

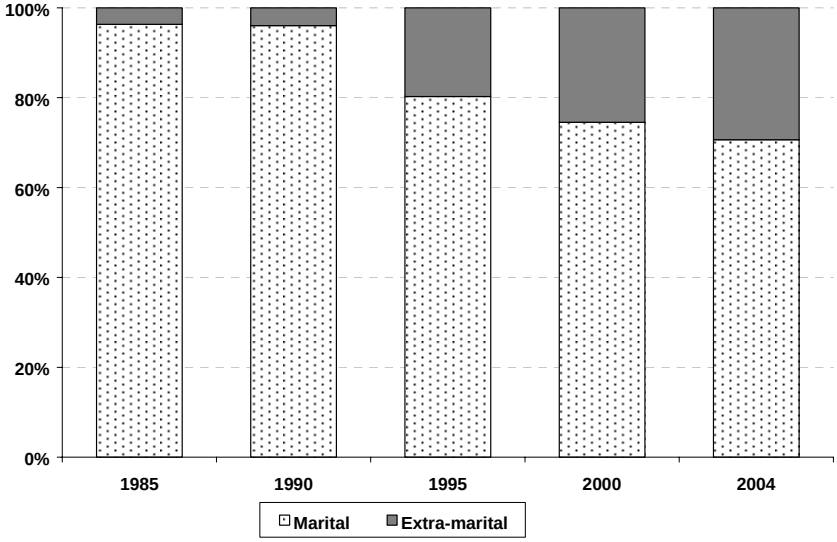
Today, Romania is characterized by a combination of a high proportion of non-marital births and a very low level of cohabitation. Non-marital births increased from 4% in 1985 to almost 30% in 2004 (see Figure 9), whereas the number of persons older than 15 who were cohabiting was fewer than 5% in 2002 (the first census records of cohabitation). Although the level of cohabitation is underestimated, it indicates that in Romania cohabitation does not account for modern behavior. Cohabitation is seen as a prelude to marriage rather than an alternative to marital union. According to RHS 2004 data, cohabitation is widespread among women with a lower education (31% of those with primary education cohabit compared to 2% of those with a university degree), among unemployed women (7% compared to 4% of employed women), among women with a lower socio-economic status (11% compared to 2% of those with a high socio-economic status), and among women from rural areas (7% compared to 4% in urban areas). This trend holds for all age groups. As regards ethnicity, 36% of Roma cohabit, compared to 4% of Romanians and 11% of Hungarians.[11] The proportion of female Roma in the sample is very small (slightly less than 2%); however, these women tend to be unemployed. In addition, they usually have a lower educational and socio-economic status, independent of their living arrangement (marriage or informal union).

Our estimates based on the national survey *Demography and Lifestyle of Romanian Women 2004* [12] indicate that marriage is still more attractive to Romanian women than cohabitation. Among women who have a non-resident partner, 42% wish to marry within the next two years, compared to 29% who wish to enter cohabitation. Cohabitation and childbearing outside the marital context are not seen as an alternative to marriage, and the large proportion of non-marital births shows, rather, that there is room for improvement in contraceptive education. Modern contraceptive methods might have been used insufficiently and inefficiently. Our interpretation is that a high number of non-marital births were probably not planned. According to data coming from the RHS 2004, the proportion of unintended births among women's last live birth was 27% (11% mistimed and 16% unplanned), i.e., twice as high overall as reported in the 1999 RHS (8% mistimed and 4% unplanned). The proportion of unplanned pregnancies resulting in abortion declined by 50% between 1999 and 2004, whereas in the RHS 1999, 88% of women whose last pregnancy within the past five years ended in

[11] The sample is representative of the whole Romanian population above age 18. According to the 2002 census, the distribution of ethnic groups among the Romanian population is 89.8% Romanian, 6.9% Hungarian, 1.8% Roma, and 1.5% other minorities.
[12] The national survey *Demography and Lifestyle of Romanian Women 2004* contains information on 1956 respondents (MMT 2005).

abortion declared that this pregnancy was unplanned (Şerbănescu et al. 2001), and in the RHS 2004, 42% of women in that situation made the same response.

Figure 9: Percentage distribution of births by mother's civil status



Source: CE (2004) for the period 1985-2000 and NIS (2005b) for 2004.

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3.1.3 Divorce

Although since 1989 we have observed changes in marriage patterns, the situation is entirely different for divorce. Not only is the (crude) divorce rate low compared to other European countries (1.5‰ in 2002), but we also find that the rate has shown no tendency to increase since the fall of the socialist regime after which a radical change in divorce legislation was introduced. With some minor annual oscillations, the divorce rate has stood around 1.5‰ since 1980. In general it is argued that several characteristics of Romanian society discourage people from choosing divorce (Rotariu 2000, 2003). The housing crisis and the general economic situation of Romania make it difficult to choose divorce. Moreover, Romanians face higher psychological costs of divorce than people in other European countries, as ”not being married” (any longer) is considered to be negative by society. Couples living in rural areas have a 2–3 times lower divorce rate than couples living in urban areas – the specific way of rural life causes several constraints that complicate the decision to divorce.

3.2 Contraception

Until 1990, the reproductive behavior of Romanian women was characterized by the prohibition by the socialist government on the use of modern contraception and family planning programs. Induced abortion (although being illegal) and traditional contraceptive methods – yet without sex education – were the only possibilities to control family size. In 1990, after 23 years of prohibition, abortion was re-legalized and family planning programs were established as well. As a consequence, important changes in the use of contraceptive methods took place.

According to the RHS, contraceptive use among women aged 15 to 44 increased from 41% in 1993 to 48% in 1999 and reached 58% in 2004. The growth was mainly based on an increase in the use of modern contraceptive methods (especially condoms and the pill), as seen in Table 4 and Figure 10a. However, the use of traditional methods remains high. The same traditions account for the prevalence of people not using any

contraception. Both represent a high level of unmet need for family planning. In 1999 as well as in 2004 we find a similar level of unmet need for modern contraception among women who live in a union. According to the RHS *2004* Synthetic Report, this level is as high as 40%, one consequence being the high proportion of abortions in Romania (Philipov and Dorbritz 2003).

Table 4: Contraception status of women at reproductive age, RHS 1993, 1999, and 2004

	1993	1999	2004
Modern methods	10.0%	23.3%	33.9%
Condom	3.0%	7.7%	13.1%
Pill	2.3%	6.5%	12.7%
IUD	2.5%	4.9%	4.4%
Sterilized	1.0%	1.9%	1.8%
Other	0.5%	2.3%	1.9%
Traditional methods	30.5%	24.7%	24.2%
Using no methods	59.5%	51.8%	41.9%

Source: RHS 2004 Synthetic Report.

3.3 Induced abortion: impact on fertility decline and influencing factors

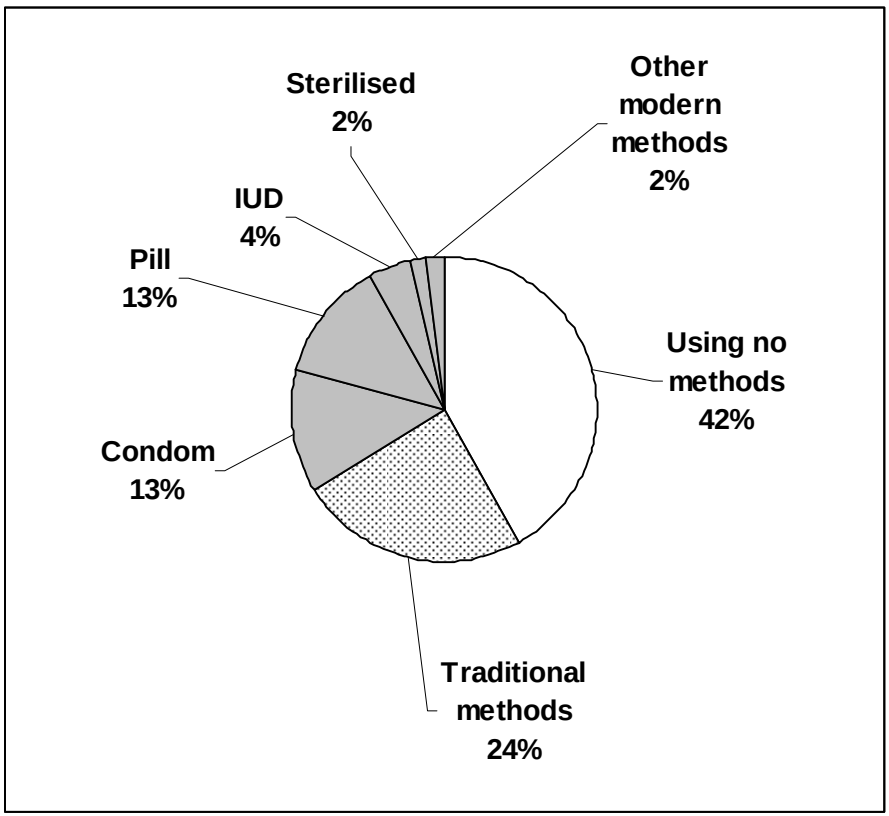
Although we observe decreasing abortion rates, the level of abortion continues to be high and characteristic of Romania's present fertility pattern. The Romanian age pyramid is evidence of the impact abortion has had on fertility (Mureşan 1996). In 1990, when free abortion was re-legalized, there were more than three abortions to one live birth. Only in 2004, fourteen years after the re-legalization, did this ratio fall below one abortion per live birth.

We analyzed the reciprocal impact of abortion and fertility between the 1970s and the early 2000s. We used RHS data[14] and calculated hazard regression models of first birth and first abortion. According to the percentage distribution of both events (Figure 10b), three groups of women dominate the sample: women who experienced at least

14 The Synthetic Report MH (2005) claims a good response rate from the female sample, i.e. 91.1%. Our own estimates on abortion reporting, however, show that compared to government statistics (National Institute of Statistics), the annual abortion numbers are underestimated by the survey data. The RHS 2004 reports 10% fewer abortions. Compared to the RHS 1993, where 19% fewer women report abortion, the proportion of underreporting in the RHS 2004 is rather modest. We think that this modest underreporting will not bias our results.

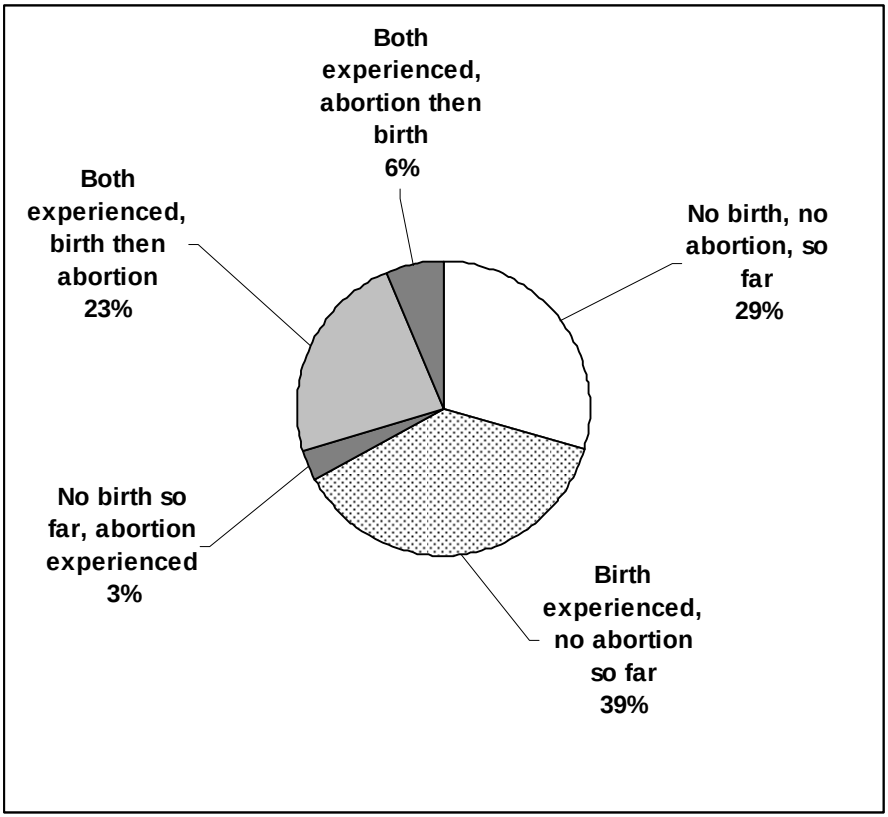
one birth, but no abortion; women who experienced at least one abortion; and women who neither experienced childbirth nor abortion. The groups are almost the same size. This distribution resembles the distribution of women who used traditional contraception, modern contraception, and who did not rely on any contraceptive methods at the time of interview (Figure 10a). Although these contraceptive practices are common among all ages, we suggest that, at least at the beginning of sexual life, abortion is seen as a substitute for failed traditional contraceptive methods.

Figure 10a: Contraception status of women at reproductive age, RHS 2004



Source: Calculations of the authors based on RHS 2004.

Figure 10b: Percentage distribution by first birth and first abortion, RHS 2004



Source: Calculations of the authors based on RHS 2004.

3.3.1 Impact of abortion on first birth

Experiencing either first birth or first abortion might induce women to change their reproductive behavior and to adopt modern contraception. Consequently, especially at the beginning of women's reproductive phase, abortion might be considered as a proxy for fertility regulation. We shall return to that point when reporting results from hazard rate regression, a more suitable research instrument that includes covariates such as women's ages. We measure the effect of different socialization conditions among the "forced born" birth cohorts (born during the 1967–1974 period) by introducing the birth

cohort covariate. These birth cohorts were twice as large as the cohorts before 1967. The sudden increase in births in 1967 was due to the strict prohibition of abortion, which had been available free until then. As a consequence, this cohort faced over-crowded kindergartens and schools, an over-subscribed labor market as well as an unbalanced marriage market. We expect that this different kind of socialization had a negative effect on their fertility.

Looking again at the differentials in mothers' median ages at first birth and second birth, we take into account their experiences with abortion (see last row of Table 2, the "First abortion" factor). Women who had an abortion before first birth (9% of mothers) "gained" more than 2.5 years in childlessness compared to women who decided in favor of an abortion after birth (34% of the mothers); compared to those women who never experienced an abortion, they gained 1.3 years in childlessness (56% of mothers). Abortion before second birth results in a postponement effect of 4.5 years on the median age at second childbirth, compared to women who chose abortion to regulate their fertility after second birth only. Compared to women who never decided for abortion, the former gained almost one year. Controlling for all important proximate determinants or explanatory factors on fertility (Table 3), we find that an early induced abortion (i.e. before any birth) has no significant effect on first birth.

3.3.2 Impact of abortion on second birth

Abortion has a significant impact on second birth: Having experienced an abortion reduces the risk by 14%. We interpret this reduction in second-birth risks on fertility as a measure of the impact of ex-post birth planning behavior of women. As for the cohort effect, we observe a constant postponement process of transition to first birth (see Table 2): The "forced born" cohort (1967-1974) gives birth one year later than the previous generations (in terms of median ages) and one year earlier than the youngest generation. The effect of the "forced born" on second birth is more pronounced, where the median age at second birth among this cohort is higher than for both the previous and the following cohorts. Compared to the younger birth cohort, women from the "forced born" cohort tend to have their second child on average 2.5 years later; compared to the oldest cohort, these women give birth 4 years later. However, only differences between the "forced born" generation and older cohorts remain significant in the regression model (Table 3). In contrast to the oldest cohort, belonging to the "forced born" birth cohort decreases the risk of having a first birth by 14%. The risk for having a second birth is 15% lower than for the previous birth cohort, though this figure has only weak significance.

In first abortions we distinguish between women who chose abortion after at least one childbirth and those did so before any birth. The relative risks estimated by the proportional hazard regression model (Table 3, last column) show the effect of birth and of other proximate determinants or explanatory factors on first abortion.

The 1990–1994 period, in which abortion was re-introduced, indicates the greatest risk of abortion. Gradually, from one period to the next the risk decreases by about 20%. Women with frequent church attendance have a significantly lower risk of experiencing an abortion (by 31%). Living in a rural area has only a weak influence on the abortion risk. The effect of region, however, is very pronounced. The South-West (with its maximum relative risk of 2.50), Bucharest (1.97), the South-East (1.76), and the West (1.54) have a significantly higher abortion risk than the Center and North-East regions. Findings show that abortion in the first two years of first union is very common, and is indeed, twice as high as after the fourth anniversary. These results confirm our initial hypothesis that abortion works as a substitute for modern contraceptives at the beginning of sexual life. Women aged 20–29 have the highest risk to decide for abortion. As regards the "forced born" cohort, these women have a 17% higher risk to experience abortion than women born earlier. Compared to women who belong to the youngest birth cohort, the "forced born" cohort has a 23% lower risk to abort. Thus, we find no extraordinary results as regards this birth cohort, as they occupy a middle position in an increasing trend towards the use of abortion. However, we find that the effect of giving birth on abortion is very high, even higher than the effect of abortion on second childbirth. Women who have given birth have a 3.57 times higher risk of abortion compared to women who have not yet had a child. Women who have had an abortion first have the same risk in giving first birth than women who have not experienced abortion, but they have a 14% lower risk of second birth.

4. Important societal conditions and their impact on fertility and the family

The metamorphosis of the Romanian fertility pattern and related demographic phenomena such as family formation processes took place within a changing socio-economic context, in transition from a socialist to a democratic political regime. This change implied a series of transformations in the most important spheres of life. In this section, we briefly describe the transformations that seem to have exerted most influence on the context in which individuals live (and consequently on their fertility intentions and behavior). So far, Romania lacks studies that provide a thorough investigation of the relation between these important societal changes and fertility patterns. We assume, however, that the Romanian situation is similar to those described

in studies on several other former socialist countries, i.e., with regard to family formation and conditions of young people. The economic decline, rising unemployment, and falling economic activity rates are also reflected at the individual level, where people suffer reductions in household income and living standard. As a consequence of these economic constraints, couples might opt for both postponing childbirth and limiting the number of children they want to have (Macura 2000).

4.1 Economic development

4.1.1 The socialist regime of Romania

By the end of the Second World War, Romania was characterized by an agrarian economy. Levels of both industrial employment and female labor-market participation were low. Between 1930 and 1948 the proportion of people living in rural areas declined only marginally, from 79% to 76% (National Institute of Statistics 2001). Upon its takeover, the socialist regime pursued a modernization plan that aimed at turning the country into an industrial society. All other aspects of political, economic, and social life were secondary to this goal. In the first years, the proportion of GDP invested in development reached high levels. As a consequence, Romania witnessed the formation of a universal health care system and the development of mass education and urbanization (based on forced migration from rural areas). In fact, in 1985 the distribution of the rural and urban population was more or less balanced. However, the means used by the socialist regime were not democratic. Private ownership of the means of production was abolished, and the market economy was replaced by a centralized, planned economy. We find evidence for this when looking at wage policies, where the socialist regime committed itself to the principle of egalitarian revenue. Although income varied in different sectors of the economy, differences within one sector were small. This policy was not the result of economic considerations, but of the ideological assumptions of the regime. Heavy industry, such as the mining and energy industry, was seen as the sector most important for the Romanian economy; hence, socialist Romania developed an oversized industrial sector, with higher incomes in the corresponding occupations.

We also find evidence for the leading role of industry when looking at the educational system. While participation in education increased,[15] the educational system itself was mainly designed to supply the requirements of an industrial economy, ignoring other aspects of social and economic life.

[15] By 1966, illiteracy was virtually eradicated among women below age 30 (Rotariu, 2003).

In the following years, Romania witnessed rapid industrialization expressed in the creation of single-industry areas and agricultural collectivization. More and more peasants became employees. These changes finally led to the demise of the traditional rural family and household model.

The early 1970s are often referred to as "the period of the socialist welfare state." Real income grew constantly during this period, and life expectancy at birth reached a maximum of 70 years – a level that was reattained only several decades later. However, real income started to decline, slowly but constantly, as a result of inflation. The Romanian socialist economic regime was autarkic, as national production supplied 95% of the internal market of goods.

4.1.2 Economic evolution

Although in Romania the transition from the socialist regime to a society based on democracy and market economy bears similarities to the transitions of other former socialist countries, the changes in Romania were unique.

One major effect the transformation had on the local economy was the steep decline of the GDP: Between 1988 and 1992, real GDP declined by 30%. The period after 1992 witnessed uneven growth as well as decline (OPPG Ro 2004). Between 1994 and 1995 the GDP experienced a rebound, which was followed by a period of recession (1997–1999). This recession was mainly caused by the onset of structural economic changes. Between 2000 and 2005 the development of the GDP was characterized by a stable growth of 5% on average, and similar growth is forecast for future years. In 2004 the European Commission incorporated Romania, according the country the status of a "functional market economy," a status that recognized the advances made by the country in areas such as economic stability. Yet, the inflation rate (CPI index) remains a constant political and economic concern, and for several years (1992–1994 and 1997), the CPI index went into triple digits. It has fallen below 10% only since 2004.

4.1.3 Structure of the economy

In 1989, i.e., at a time when the transformation was still in process, industry accounted for about 38% of Gross Value Added (GVA). The industrial sector made up 95% of the nation's export activities and approximately 37% of the labor force. In the same year, 28% of the labor force belonged to the agricultural sector, accounting for only 17% of GVA.

Since 1990 economic development has followed a sinuous path, often described by analysts as a period of "boom-and-bust" with major fluctuations in production. Although economic policy aimed at reducing the economic deficit (in Romania income per capita is about 30% of that in the EU-15 countries), recent political decisions, such as on the pace of economic reforms or attitudes towards foreign capital, had rather negative effects on the economic development of the country. The proportion of people working in the industrial sector has declined constantly since 1990. The same trend accounts for the proportion of industry's GVA to GDP. Compared to heavy industry (a male-dominated sector), light industry (a female-dominated sector) in the early 1990s witnessed a retrenchment, which until 1996–1997 led to a rise in female unemployment rates. Then the phenomenon reversed; heavy industry (mining, metallurgy) was downsized and light industry (e.g., the clothes, shoes, and food industry) re-grew. As a consequence, unemployment among men increased, whereas unemployment rates for women decreased. However, according to economic prognoses, light industry, a traditional sector in Romania that propels export and industry output, will also suffer from the adverse effects of current economic development (Dăianu 2001; SAR 2005).

The employment situation in Romania is rather peculiar. Since 1990 the agricultural sector, which in Romania is characterized by a high level of employment, has been growing constantly. Analysts suggest that the massive re-organization of the Romanian economy pushed people who previously worked in the industrial sector into the agricultural sector. In this respect, the agricultural sector has become an "employer of last resort." These changes occurred while the sector suffered low levels of investment,[16] low levels of productivity and mechanization, and high fragmentation of arable land (Dumitru et al. 2004). In general, the agricultural sector consists of rural households that own small patches of fertile land, which are cultivated by non-paid family members. In most cases, agrarian production is used for private consumption only (93% of the agricultural workforce are self-employed and family workers).

The services sector experienced the most positive development, where the proportion of total investment rose from 20% in 1990 to 50% in 2001, and pushed GDP growth. Thirty-six percent of the total workforce are employed in the services sector, and taken together with the construction sector, these two sectors account for 55% of GDP. However, compared to total employment, the proportion of services sector jobs remained at the same level.

[16] In 2004 merely 5% of the total investment in the economy was destined for the agricultural sector.

4.1.4 Employment

At the time of the regime change, about 5% of the workforce was unemployed (Zamfir et al. 1994). By 1999 the figure had risen to about 11%, then fell to about 6% in 2004 (NIS 2005b). The decrease in unemployment figures was more the result of migration than of job creation policy or measures. At least two million people – other estimates suggest a figure of about four million – left Romania to search for jobs outside the country. The Romanian job market is characterized by declining job opportunities and steep decreases in real wages.

Unemployment rates in urban areas are lower compared to rural areas, possibly due to the absorption of the workforce into the agricultural sector. This might hide real unemployment. At 18% in 2001, unemployment is highest among the younger generation, i.e. people aged 15–24 (NIS 1996–2003). High rates are also found among those above age 40. People between 25 and 40 years of age are the most active in the workforce.

Although unemployment rates are lower among women (in 2004, 7% of women and 9% of men searched for a job), labor-force participation rates by gender reveal that women have lower participation rates (52% of all women participate in the labor force compared to 64% of men). Yet their rates are rising. In 2004, 20% of the female labor force worked as "unpaid family workers" in the agricultural sector. This compares to a mere 7% of men. In Romania female employment rates are related to increasing female participation in education. Since more women than men attend higher education, these women are not available on the labor market. This in part and the number of women who are housewives (about 2.5 million according to NIS, 2003) might account for the gender differences in the Romanian unemployment rate.

4.1.5 Poverty and living standards in Romania

Both the falling GDP and the restructuring of the economy caused a steep decline in the value of household income. By the same token, it led to growing poverty and, most importantly, rising uncertainty. The Gini index rose from 0.155 in 1989 to 0.316 in 1995 and has fallen since then to 0.281. For the assessment of poverty, we used the CASPIS/World Bank (2003) program, which develops specific poverty measurement tools and indicators. The data show an increase in severe poverty from 6% in 1996 to 14% in 2000 (and a subsequent decline to 9% in 2003). In 2000, the poverty rate stood at 36%, falling to 25% in 2003. The severe poverty rate in 2003 was continually 3.6 times higher in rural areas than it was in urban areas.

There are significant ethnic differences as well. The risk of the Roma population falling under the severe poverty line is three times higher than for the rest of the population (77% below the poverty line, while 50% of the Roma population are below the severe poverty line). There are also differences at the regional level, with the North-East region being by far the poorest. The majority of poor people come from households where the head of the family has secondary or vocational education. Especially in recent years, a higher proportion of persons with vocational education experience poverty, mainly due to the lack of job creation.

Occupation has an important effect on the risk of severe poverty, and we notice a higher proportion among people who are self-employed in agriculture (32%), among unemployed (24%), and among housewives with children (43%). Families with three or more children are among those with a higher proportion of poverty (57% are below the poverty line). The youngest Romanian population group (10–24 years old) experiences severe poverty more often than pensioners. The poorest 20% of the population consume 9% of the total consumption, whereas the richest 20% of the population consume 66% of Romanians' total consumption.

In recent years the rise in GDP has resulted in the reduction of poverty, although mostly for urban areas and less so for rural areas (OPPG Ro 2004). These developments are related to the fact that rural areas are shaped by the agricultural sector. The rural areas also face other difficulties, such as lack of quality housing and of basic facilities such as running water and canalization, energy-related deficiencies, an underdeveloped infrastructure (including roads, hospitals, and pharmacies), a shortage of doctors and nurses, and even underdeveloped trading.

However, living conditions have improved, especially in recent years. These changes also affected the most disadvantaged region (North-East). Additionally, we recognize that the high number of people who left Romania in order to find a job have also had an impact on poverty development. On the one hand, there might be a lack of people due to emigration, since the workforce has subsequently downsized. On the other hand, many families benefit from the flow of capital into the country (estimated to be around 4 billion Euros in 2005). Furthermore, these people contribute to the diffusion of modern values and attitudes, especially in the underdeveloped regions.

4.2 Changes in social conditions

Developing a classification of Eastern European welfare regimes is rather daring and does not seem to generate trustworthy results, particularly in Romania (Zamfir 1999). The country is shaped by several peculiarities, rooted in its socialist past. Unofficial unemployment, a universal health care system, work-related social benefits, the lack of

concern toward poverty issues, and the virtual absence of social assistance are just some of the features that marked the socialist era. Certainly, these peculiarities will continue to influence the country in the future.

Today's Romanian welfare system can be identified as a Bismarckian-type of welfare state (corporatist-continental), as we find several of the standard "social contingencies." In 1997 the universal health care system was abolished and transformed into a system of health insurance (the change took until 1999). Furthermore, in 1991 compulsory unemployment benefits were introduced, and the pension system was transformed by freeing it from ideological principles. The introduction of means-tested benefits such as social assistance and the majority of family benefits (i.e., supplementary allowance, single parent allowance, and the minimum guaranteed income etc.) are the result of attempts by the World Bank and the International Monetary Fund (Deacon and Hulse 1997; Deacon 2000). Both institutions influenced the Romanian political regimes from 1992 onwards. However, in terms of the level of social provision and its marginal effect on preventing and containing poverty, Romania can be described as a "residual" welfare state. Universal aspects of benefits are of marginal importance in the country, pertaining mainly to child-related support, which is at a negligible level.

4.3 Values and attitudes toward the family

Voicu (2001) argues that Romanians tend to have both traditional and modern value orientations. Given the contact with Western European countries, Romanians have started to adopt Western values and to imitate modern and post-modern behavior. At the same time, however, material insecurity enhances the importance of traditional values and favors conservative behavior. Voicu interprets this change in behavior as a way to counter the existential risk that emerged after the fall of the socialist regime.

Even today, religion still continues to be one of the most powerful and persistent characteristics of Romanian society. According to national survey data (Open Society 2005),[17] high proportions of Romanians believe in the ability of the Church to offer solutions to problems of everyday life. Sixty-two percent of the population state that the church provides the right answers to family life issues, and 70% to 80% state that the Church addresses people's spiritual needs and moral issues. Moreover, a high proportion of Romanians (39%) regards the Church as provider for right answers to the social problems of the country.

[17] The Public Opinion Barometer Survey was conducted by the Open Society Foundation in November 2005 and is representative on a national level. The survey is accessible at http://www.osf.ro.

In view of the important role of religion within the country and the turn towards traditional attitudes and behaviors, it is not surprising that family and children play a major role in the lives of Romanian people. Marriage is still considered as an important step in life and not as an outdated institution.

Rotariu (2006) found that Romanians tend to regard childbearing as both a moral duty (94%) and a means of personal fulfillment (85%). About 93% of Romanian women declared they prefer the classical model of a two-parent family. In contrast, 59% of women stated that it is acceptable for a woman to remain unmarried and to have a child. Based on these results, Rotariu argues that Romanian women appreciate the traditional family as the proper environment in which to raise children. However, they also show tolerance for single mothers. Rotariu found similar results when analyzing women's attitudes towards marriage. Whereas 85% of women do not consider marriage an outdated institution, about 40% see advantages of cohabitation over marriage (such as personal freedom, happiness, and having different friendships). Yet, Rotariu assumes that the positive attitude towards cohabitation does not result in a change of family formation behavior, but rather represents tolerance of women for various situations in life.

Notwithstanding, younger and better-educated women living in (large) urban areas and having a high income are in less agreement with these statements. These women tend to have less traditional attitudes regarding family. Thus, a change in value orientations applies only to a limited number of people. These women tend to have more possibilities of contact with western countries, and due to higher income they also experience less economic uncertainty. Both factors allow them to focus on higher-order needs (MMT 2005). However, as regards the larger part of the Romanian population, their life course is strongly shaped by high levels of economic uncertainty. This applies also to the decision to have one or more children. Using the national survey *Demography and Lifestyle of Romanian Women 2004*, which contains information on value orientations of women and characteristics of their partners, we found that although children and family are highly important for Romanian women, more and more couples tend to want only one child. Whereas the vast majority of childless women wish to have a child (91%), only 8% do not intend to give birth at all (the remaining women are undecided). As for women who are already mothers, we found that just 37% desire another child, whereas merely 7% of women with two or more children intend to have another birth.

Among childless women, we observe a strong impact of economic factors on childbirth intentions. While being employed increases the intention to have a first child, the occupational status of the partner has an impact, too, as an unemployed partner weakens the intention to have a child. Furthermore, being religious and considering children as a precondition for happiness increases the intention of becoming a mother,

while increasing age (over 35) reduces the intention. As for the time horizon where women desire childbirth, married women have the strongest intention to become mothers within the following two years. Interestingly, although employment increases the intention for childbirth, a high socio-economic status decreases this intention. We argue that this is due to a stronger focus on self-realization and the higher opportunity costs of childbirth among these women.

Regarding childbirth intentions of women who are already mothers, we found that the existence of more than one child strongly reduces the intention to have another birth. As much as employment seems to have no effect on the intention of these women, the lack of an income earner has a strong negative impact on further childbirth intentions. Women who believe that it is the parents' duty to afford their children the best possible life (even when daring to face poorer living conditions oneself) are especially prone to extending their family. Additionally, we found that women from rural areas tend to have stronger intentions to have another birth than women living in urban areas.

To sum up, family and children are still important aspects in the life of Romanian women, where most women desire to have at least one child. However, few women intend to have more than one birth. However, economic resources provided by stable employment enhance the desire for a (another) child in the near future.

5. Family policies and their impact on fertility behavior and family formation

Under the socialist regime, the family was seen as the "basic cell of society". In order to impose this philosophy on the Romanian population, the regime reverted to specific economic and non-economic incentives. On the one hand, unmarried people over age 25, for instance, had to pay higher taxes, while on the other hand, married people benefited from tax reductions. In addition, access to different services was controlled, among them access to housing.

Most analysts argue that under the influence of "homebred ideologies and to some extent of the World Bank" (Ferge and Juhasz 2004: 233), former socialist countries developed rather restrictive family policies (Sipos and Toth 1998; Macura 2000; Forster and Toth 2001).

5.1 Family benefits

Family benefits have only an indirect influence on fertility (Gheţău 1997a), inasmuch as they aim at reducing the economic costs of children and do not necessarily promote higher fertility rates. When comparing current family benefits with those of the socialist regime (where they used to be connected to income), we observe a drastic reduction in their real value. Taking into account that Romania witnessed increased cost of living, the current family benefits fail to reduce the direct costs of children.

In 2007, Romania provided the following family benefits:

Child allowances are universal. Until the child is aged 18, parents receive a small amount of 25 RON per month (1 Euro equals approximately 3.5 RON).

Universal benefits for pre-school and primary school children (one cold meal per day of 1 RON).

Complementary allowances are paid on a means-tested basis. Families with an income below 176 RON per family member receive a monthly amount of 36 RON if they have one child; up to 52 RON for four or more children.

Single-parent family allowances are means-tested. Single parents with a monthly income below 176 RON per family member receive 52 RON monthly if they have one child; up to 79 RON monthly if they have four or more children.

Other benefits provide support in special financial emergencies, such as accidents or natural disasters.

5.2 Maternity leave and childcare

The Romanian socialist regime, unlike other socialist regimes, did not make provisions for childcare leave, although it offered maternity leave. During socialist times, Romanian mothers had the option to take 112 days maternity leave. During this leave they received between 55% and 85% of their previous salary; however, the amount depended upon work experience. After the third childbirth, mothers received 94% of their previous income. Moreover, applications for paid leave in order to care for sick children were possible only for children below age three (Popescu 2004). Childcare leave was introduced in Romania as recently as 1990 and applied to employed mothers only. The amount of support represents 65% of the salary women earned when making the application. In 1997, new legislation changed the conditions for paid childcare leave. It gave mothers employed for at least six months before birth the right to take paid leave up to two years. They received about 85% of the salary they earned in the six months preceding birth. Two years later, in 1999, paternity leave was introduced, and although optional, it consists of a five-day leave with a wage compensation of 100%. In

2000, a new act provided maternity leave for up to 126 days. Economic benefits were fixed at 85% of the mean wages of the last 6 months.

Similar financial limits were assigned to childcare leave. Three years later, in 2003, a legislative act paved the way for an "optional insurance". This law allowed for substantially increasing childcare benefits for mothers who signed an "insurance contract", yet, only five weeks later, this law was superceded by another act. On 31 December 2003, childcare leave stood at 85% of the average gross national wage. In January 2006, the latest changes were made. The right to childcare leave was restricted to people who were employed for at least 12 months before birth. From then on, benefits were paid on a flat rate of 800 RON. In addition, the government introduced a premium of 300 RON for mothers who return to work. The same act, however, consists of modifications, effective in 2007, that include the following: Childcare benefits decreased to 600 RON monthly; the premium for mothers returning to employment were reduced to 100 RON; child allowances increased (to 200 RON monthly for children below age two; for all children above that age, child allowances remained at the previous rate of 25 RON monthly). Since 2001, women receive a premium when delivering a child (204 RON). This applies to the first four children.

Looking at the evolution of childcare provision, the introduction of paid childcare leave in January 1990 was a reaction to the lack of such provision in socialist regime times. The increase in the length of childcare leave by another year (two years in total), introduced in 1997, is more a measure aimed at decreasing female unemployment than at increasing the attractiveness of motherhood. The same intent pertains to anticipatory retirement as well. Another important modification is the extent of these regulations; whereas previously they applied up to the first four children, these regulations now applied only to the first three children. This reduction recognized that the attempt to promote larger families was futile. In addition, politicians recognized that family policies had a sparse impact on certain social groups, who in any case tend to have a higher number of children. Unfortunately, this measure discriminated against some ethnic groups such as the Roma population, who are prone to have larger families.

Almost all regulations implemented after 2000 advantaged women with smaller income and disadvantaged women with higher income, as they were based on fixed amounts of money and were not income-related. Furthermore, the above-cited changes in the amount of provision (from 85% of the average gross national wage to a flat-rate sum) contribute to increasing opportunity costs of childcare leave and childbirth in general, as the flat rate is not connected to inflation. Without further modifications, within a few years the rate will not suffice to cover living costs. Data show that in December 2003, approximately 25% of all employed women had an income that surpassed the amount provided by childcare benefits.

With respect to childcare services, the former socialist regime established daycare centers (crèches for children below age two, kindergartens, and kindergartens with extended opening hours), yet the number and the quality of the centers did not satisfy the need. The introduction of childcare leave in 1990 and its subsequent expansion to two years from 1997 onwards contributed to the decreasing importance of crèches. In fact, the number of crèches and their coverage is rather small, while kindergartens are most widespread in urban areas and less so in rural regions. In 2002, about 70% of all children aged 3 to 6 years attended pre-school. Most institutions that take care of these children have long opening hours (from 8.00 a.m. to 5.00 p.m.). The fees parents have to pay for these services are limited and amount to about 1 Euro per day for food. Private childcare services have emerged, too, owing to the lack of public provision, yet for the majority of the Romanian population, the costs (from 100 to 500 Euros per month) are prohibitive.

5.3 Housing

Problems in the housing market intensified, especially in the final years of the socialist regime. The number of dwellings built between 1986 and 1989 was approximately 50% of the number built between 1980 and 1985 (Popescu 2004). At the beginning of the 1990s the public stock of dwellings was privatized, with the construction of new housing rising strongly only in recent years. Private investments take on more importance here than public provision. Recently, the housing market has oriented itself towards high-income families and has thereby pushed up the cost of dwellings. In this way housing problems contribute to the increasing uncertainty of young people and complicate decisions on family formation.

6. Discussion

After the fall of the socialist regime in 1989, the coercive population policy, which had dominated fertility development in Romania until then, was one of the first regulations abolished by the new government. Since then, fertility has undergone two important changes: a sharp reduction in the level of fertility, followed by structural changes. These changes consist of childbirth postponement, an end to the prevailing universal fertility pattern, and a steep rise in non-marital births. Today, contraception and abortion, which were re-legalized after the regime change and are affordable for all strata of the Romanian population, are increasingly used and accepted among couples to control fertility. Although abortion still tends to be used as a measure to prevent birth

(especially after first childbirth), it is being gradually replaced by the use of modern contraception. Data for 2004 reveal that the desire for children is still widespread; however, preferences for a two-child family have decreased and only a few women declare the desire for a large family.

Bearing in mind that Romania experienced decades of "pro-birth" policies, it has become difficult to address the newly emerging issue of low fertility by new population policies. As Trebici (1997) states, inhuman methods with dramatic consequences for individuals and families must be rejected. They should be replaced instead by policies based on the rights of individuals. Still, there is need for a population policy that assists couples to achieve the number of children they desire. Trebici (1997) argues, "If couples have the right to decide for childlessness, then it is an obligation for the government to support families who want children."

The transformation of the socialist regime towards a country with a market economy caused both an economic and a societal crisis. Obviously, the majority of social benefits are aimed at alleviating poverty. In Romania the economic decline caused a reduction in government revenues and spending. Consequently, funds for social policy that are not oriented towards poverty reduction or economic development are scarce.

The need for a demographic policy is widely discussed among Romanian analysts and policy makers. Gheţău (1997a) stresses that Romanians should have children because they desire to have them, and not because they are compelled to give birth, as was the case under the socialist regime. Zamfir (Urse, 2001) picks up on this idea and argues that policy should aim at developing a certain degree of social security for children and thus at minimizing the risk of experiencing poverty. Furthermore, he assumes that in the current situation, population policies that are targeted at recovering fertility decline will influence only the most disadvantaged segments of the population. In fact, the major goal should be to improve the material conditions of the whole society, as this would lead to increasing fertility rates of the middle class. According to Rotariu (Urse, 2001), the improvement of the economic situation in itself does not lead to demographic change. He suggests that policies oriented towards the reduction of poverty are by far insufficient to reverse the fertility trend of the last years. In this context, we argue that future policy should aim at improving the living conditions of individuals and thus the social context in which Romanians take fertility decisions. The value of parenthood should be emphasized, and opportunity costs for children must be reduced. In addition, policy should contribute to achieve a certain level of work–life balance. The reconciliation of family life and professional life is a large challenge to future policy in Romania.

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