



Demographic Research a free, expedited, online journal
of peer-reviewed research and commentary
in the population sciences published by the
Max Planck Institute for Demographic Research
Konrad-Zuse Str. 1, D-18057 Rostock · GERMANY
www.demographic-research.org

DEMOGRAPHIC RESEARCH

VOLUME 19, ARTICLE 22, PAGES 795-854
PUBLISHED 01 JULY 2008

<http://www.demographic-research.org/Volumes/Vol19/22/>

DOI: 10.4054/DemRes.2008.19.22

Research Article

Poland:
**Fertility decline as a response to profound
societal and labour market changes?**

Irena Kotowska

Janina Józwiak

Anna Matysiak

Anna Baranowska

This publication is part of Special Collection 7: Childbearing Trends and
Policies in Europe (<http://www.demographic-research.org/special/7/>)

© 2008 Kotowska *et al.*

This open-access work is published under the terms of the Creative Commons Attribution
NonCommercial License 2.0 Germany, which permits use, reproduction & distribution in any medium
for non-commercial purposes, provided the original author(s) and source are given credit.
See <http://creativecommons.org/licenses/by-nc/2.0/de/>

Table of Contents

1	Introduction	796
2	Family changes in Poland	798
2.1	Fertility	798
2.1.1	Trends in period fertility	798
2.1.2	Completed fertility and parity distribution	805
2.1.3	Fertility intentions	812
2.1.4	Out-of wedlock births	813
2.2	Union formation and dissolution	815
2.2.1	Marriage	815
2.2.2	Cohabitation	818
2.2.3	Union dissolution	819
3	Determinants of childbearing trends in Poland	821
3.1	The socio-economic context	821
3.2	The labour market and the family	824
3.2.1	General trends	824
3.2.2	Female labour-force participation	825
3.2.3	Educational attainment	829
3.3	Family policy	830
3.3.1	Family benefits	832
3.3.2	Childcare	833
3.3.3	Maternity leave	834
3.3.4	Parental leave	834
3.3.5	Part-time employment	836
4	Remarks on ideational change	837
5	Policy measures intended to reverse the declining fertility in Poland	840
6	Concluding remarks	845
7	Acknowledgements	847
	References	848

**Poland:
Fertility decline as a response to profound
societal and labour market changes?**

Irena Kotowska¹

Janina Józwiak²

Anna Matysiak³

Anna Baranowska⁴

Abstract

This article opens with a review of the main trends in family-related behaviour, i.e. fertility decline and changes in fertility patterns, a decreasing propensity to marry, postponement of marriage, and a slowly increasing frequency of divorces and separations. The analysis takes into account urban and rural differences. We then aim to identify the main determinants of family changes within the general conceptual framework of the Second Democratic Transition (SDT) in Poland. However, contrary to mainstream interpretations of the SDT, the main emphasis of this study is on the structural components of change, which need to be reformulated to account for processes specific to the transition to a market economy. The focus is, therefore, on labour market developments and family policy, and to a lesser extent on ideational change.

¹ Institute of Statistics and Demography, Warsaw School of Economics. E-mail: iekoto@sgh.waw.pl

² Institute of Statistics and Demography, Warsaw School of Economics. E-mail: janina.jozwiak@sgh.waw.pl

³ Institute of Statistics and Demography, Warsaw School of Economics. E-mail: amatys@sgh.waw.pl

⁴ Institute of Statistics and Demography, Warsaw School of Economics. E-mail: a.w.baranowska@gmail.com

1. Introduction

Family-related behaviour observed in Poland since the 1990s differs remarkably from the behaviour observed up to 1989. To demonstrate how specific recent developments are, we will refer to trends of previous decades. Moreover, due to the notable dissimilarity of fertility patterns and their changes between urban and rural regions special attention is devoted to their comparison

Fertility in Poland is strongly related to marriage; therefore declining nuptiality and postponement of starting a family contribute remarkably to fertility decline. However, developments in out-of-wedlock births, especially since 2000, seem to indicate that this relation is gradually weakening, particularly in urban regions.

This article focuses on a comparison of family-related behaviour in Poland with the main trends observed in other countries that have progressed further into the Second Demographic Transition (SDT). The interpretation uses a conceptual framework that refers to three main components of the modernisation process: *structure* (industrialisation and development of services, urbanisation and other processes leading to the development of post-industrial society and the welfare state), *culture* (political and global changes, leading to the development of democracy and changes in values and norms), and *technology* (contraception, medicine, telecommunications, with the spread of information via television) (see, for example, van de Kaa 1994). In explanations of marital and procreative behaviour within the frame of the SDT, the main emphasis is usually placed on culture and technology. In our opinion, structural processes are intrinsically important for ideational change and technological advantage. Economic developments, the rising standard of living, the growing employment of women, and the development of the welfare state are associated with higher educational attainment and an increasing social and spatial mobility of the population. Taken together, these factors influence people's capability to benefit increasingly from technological progress and to support ideational change.

The objective of this article is to describe the main changes in family formation processes in Poland and to explore their possible determinants. The main focus is on the years 1989 to 2004/2005, with references to the period before 1989. In this discussion of trends, we refer to the SDT and, more precisely, to its three components (structure, culture, and technology). The structural component receives special attention in our proposed interpretation and explanation of family changes in Poland. This is because we consider the transformation of the economic and political system to be the main factor initiating deep shifts in the distribution of income, radical changes to the conditions of labour-market participation, and institutional adjustments to the political system, economic stability and organisation of the state and society. The resulting fundamental economic and social changes have, in turn, influenced the perception of

the preferences and constraints of individuals and groups. In examining trends, we also look at the differences between urban and rural populations. The urban-rural analysis is important for two reasons. First, the family-related behaviours and their changes over time differ between urban and rural populations; at the beginning of the 1990s these differences still existed. It seems, however, that family-related behaviour in rural areas follows the behaviour observed in urban areas. Second, the rural population still accounts for a substantial share of the Polish population.

The main data used in the study include the following:

- vital statistics, economic statistics, and labour force survey data (LFS);
- results of analyses based on three basic data sources⁵:
 - international data prepared under the DIALOG Project (PPAS data);
 - data from the representative survey 'Reconciling work, family, and education', carried out in May 2005 on the LFS sub-sample;
 - data from the representative survey 'Reconciliation of work and family' recommended by Eurostat as a module to the LFS;
- relevant findings of research in the field, including:
 - the retrospective survey 'Family-related attitudes and behaviours of young and medium age females and males in Poland' carried out in 2001 (Frątczak, Balicki 2003); and
 - the survey 'Changes in reproductive behaviours in Poland and their consequences for family and household formation and dissolution' carried out in 2006 (Frątczak et al. 2006).

Section 2 presents the main trends in family-related behaviour, i.e. fertility decline, changes in fertility patterns, the decreasing propensity to marry, the postponement of marriage, and the gradually increasing frequency of divorce and separation. Sections 3 and 4 address the main determinants of childbearing trends with a focus on the labour market, family policy, and ideational change. In Section 5 we discuss policy measures

⁵ The DIALOG Project, 'Population policy acceptance study – the viewpoint of citizens and policy actors regarding the management of population related change', funded by the European Commission for three years (January 2003 to December 2005), was coordinated by the Federal Institute for Population Research in Wiesbaden, Germany. Demographic change and population-related policies were analysed by demographers from 15 European countries using the international database composed from data of the national surveys carried out in the years 2000–2003 (Austria, Belgium (Flanders), Cyprus, Estonia, Germany, Italy, Hungary, Finland, the Czech Republic, Lithuania, the Netherlands, Poland, Romania, Slovenia). In Poland the survey was run in November 2001 on a sample of 4,505 individuals aged 18–64. The representative surveys 'Reconciliation of work and family' (N=37,849 aged 15–64) and 'Reconciling work, family and education' (N=5,564 aged 18–64) were carried out in May 2005. The first one was conducted on the full LFS sample on the recommendation of Eurostat. The second one was designed in order to collect more detailed data on reconciliation issues and was carried out only on a random LFS sub-sample. Hence the respondents who participated in the survey 'Reconciling work, family and education' were also covered by LFS and Eurostat's module.

that are supportive to reversing the downward fertility trend. In the final section (6) we offer some concluding remarks.

2. Family changes in Poland

In most general terms, during the last four decades family-related changes in Europe have been demonstrated through a decreasing propensity to marry, marriage and childbearing postponement, and even an increase in the decisions not to have children at all. The growing frequency of divorce and separation as well as the rising popularity of cohabitations and LAT relationships (living-apart-together) indicate that marriage has lost its instrumental significance in forming a family. These behaviours have contributed to the drop in fertility and shifts in fertility patterns: The decision to have a first child has been postponed and the number of extra-marital births has been rising. The depth and permanence of these changes has brought period fertility to a point well below the level that guarantees replacement of generations. The trend has also been observed in cohort fertility, though it has not been so pronounced.

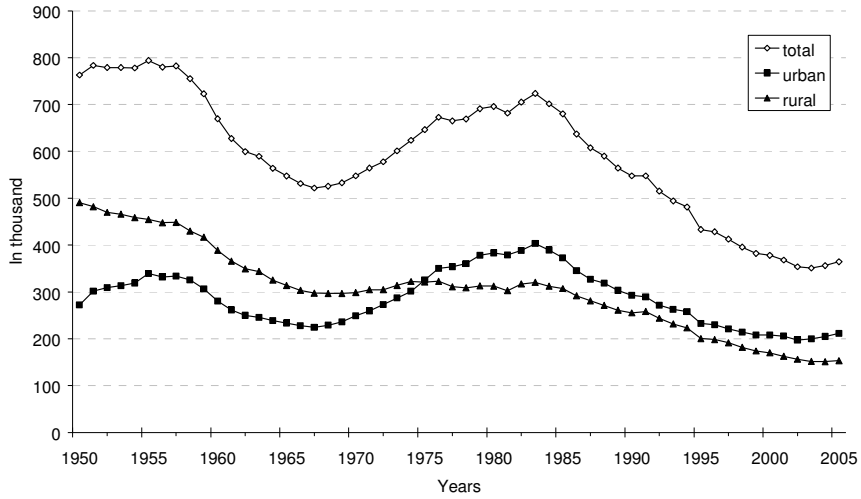
2.1 Fertility

2.1.1 Trends in period fertility

One of the most distinctive features of demographic developments in Poland since 1989 has been a rapid decline in births. The overall number of births has dropped by 37%, from 564,400 in 1989 to 352,785 in 2003 (see Figure 1). Recent data seem to indicate that in urban areas the downward trend has come to a halt. As a result, a slight increase to 357,900 in 2004 and to 364,400 in 2005 was observed.

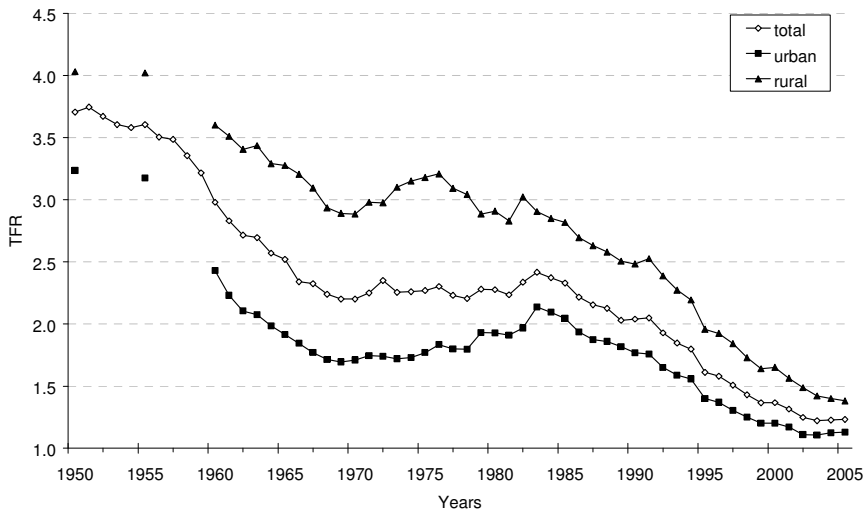
The overall decline is manifested as a continuation of the downward trend since 1983, the last year of the period of rising births related to the baby boom generation entering the most fertile ages. However, it is notable that the recent declines occurred despite the fact that numerous cohorts of women born between 1970 and 1979 (a consequence of the post-war baby boom) entered the age of the highest marital and procreative activity (20–29). The number of women aged 20–24 increased steadily, and the proportion of women aged 15–49 rose from 12.8% in 1989 to 16.4% in 2004. The share of women aged 25–29 declined slightly, from 1989 (14.4%) to 1994 (12%), and then increased markedly in the next decade (to 15.2% in 2004). Altogether, the proportion of women aged 20–29 rose from 27.2% in 1989 to 31.6% in 2004.

Figure 1: Live births by region, Poland, 1950–2005



Source: CSO data.

Figure 2: Total fertility rate by region, Poland, 1950–2005



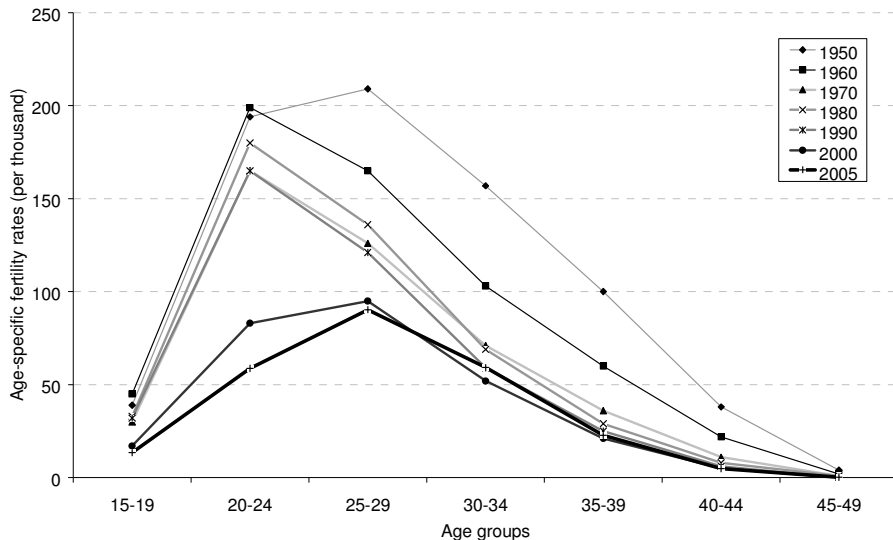
Source: CSO data.

Intensive decrease in the TFR and the postponement of childbearing, observed in the 1990s constitute a new stage in the trend of long-term fertility decline in Poland. The TFR dropped from 2.07 in 1989 to 1.22 children in 2003 (1.23 in 2004 and 1.24 in 2005; see Figure 2). Within the 15-year period Poland moved from the group of high-fertility countries to the group of lowest-low fertility.

The significant fall in the number of children born to women in the first (20–24) and second (25–29) most fertile age groups shaped the shifts in fertility patterns by age. Since 1998 highest fertility has moved to the 25–29 age group (see Figure 3). Recent years showed a slight increase in the fertility of women aged 25–34.

The total contribution to the TFR of the age groups 20–34 did not change during the years 1989–2003 and accounted for 84% of the TFR. However, remarkable shifts occurred between particular ages: In 1989 the fertility of women aged 20–24, 25–29, and 30–34 accounted for 40%, 30%, and 14% of the TFR respectively, while in 2004 these figures were 25%, 36%, and 23%.

Figure 3: Age-specific fertility rates (per 1000 of women), Poland, 1950–2005

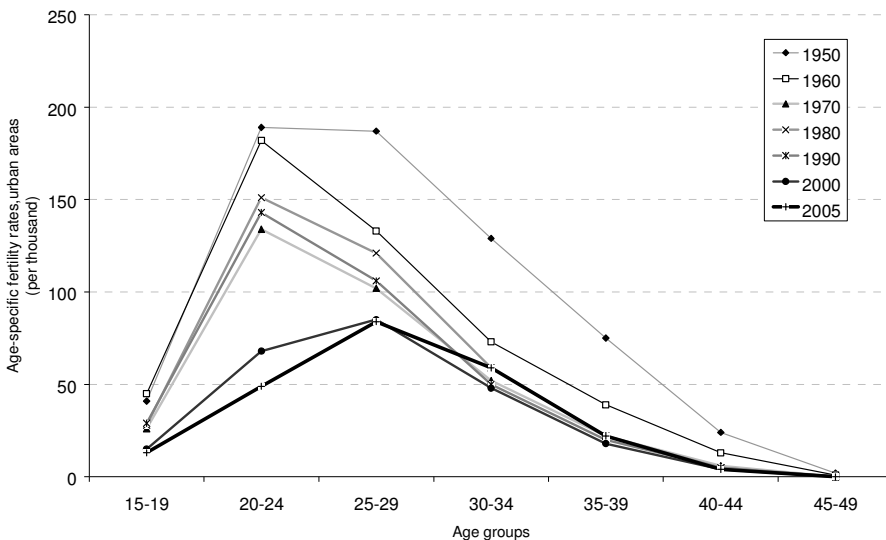


Source: CSO data.

Both fertility levels and patterns differed between urban and rural populations (see Figures 4 and 5). Fertility behaviour of urban women underwent more radical changes than the behaviour of rural women in the 1950–1970 period, especially in the 1950s. From 1963 fertility in urban regions remained below replacement level. It was only due to the high number of children in the rural population, which constituted the steadily declining share of Poland’s population until the 1990s, that overall fertility remained above replacement until 1988. The different pace of fertility changes in both regions resulted in increasing differences between the TFR values until 1970 and visibly different fertility patterns by age. The TFR in urban areas declined from 3.23 in 1950 to 1.7 in 1970, while that of rural regions fell from 4.03 to 2.88. Subsequently, the difference narrowed slightly to around 0.7 in 1989.

Under the recent transformation, the timing and intensity of fertility changes differed between the urban and rural populations; however, together they resulted in

Figure 4: Age-specific fertility rates (per 1000 women), Poland – urban areas, 1950–2005

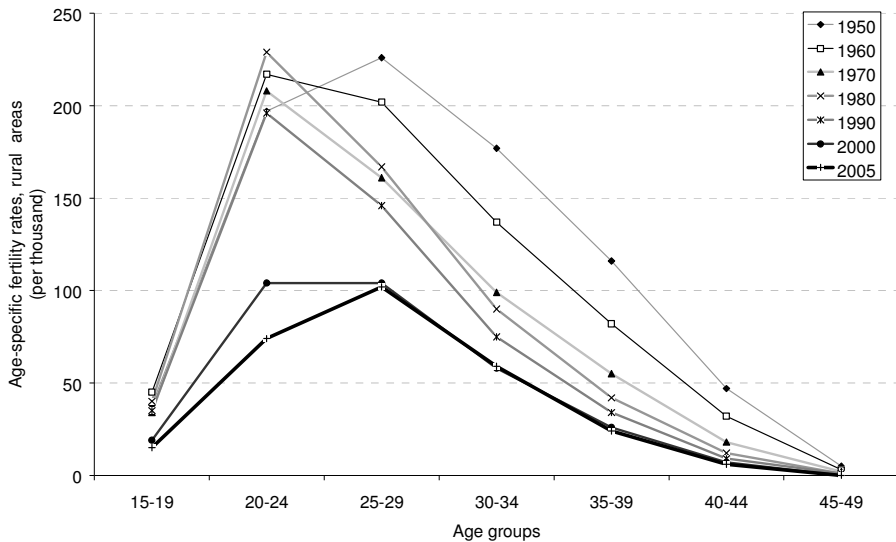


Source: CSO data.

declining regional differences in terms of TFR values and fertility patterns by age. In total, the TFR in urban areas declined from 1.82 in 1989 to 1.11 in 2003. The rise started in 2004 (to 1.12 in 2004 and 1.15 in 2005). For rural areas a steady decline from 2.51 to 1.40 in 2004 was observed. From 1997 onward, urban women aged 25–29 have had the highest fertility; since 2000 the fertility of those aged 30–34 has been rising. In rural regions the maximum fertility shifted to the age group 25–29 in 2001. One can conclude that age-specific fertility changes of rural women followed patterns observed earlier in urban regions. Still, further transformations in age patterns can be expected.

The observed change of fertility reflects quantum as well as tempo effects. Analyses based on the Bongaarts-Feeney formula (Bongaarts, Feeney 1998) indicated that postponing the decision to have children had a significant role in the drop of the TFR in the 1990s (see Frątczak and Ptak-Chmielewska 1999, Frątczak 2003). By decomposing the birth decline into tempo, quantum, and age structure effects, Sobotka, Lutz, and Philipov (2005) showed that fertility postponement contributed markedly to that trend, but in the second half of the 1990s and the early 2000s (until 2003) the fertility quantum played the main role.

Figure 5: Age-specific fertility rates (per 1000 women), Poland – rural areas, 1950–2005

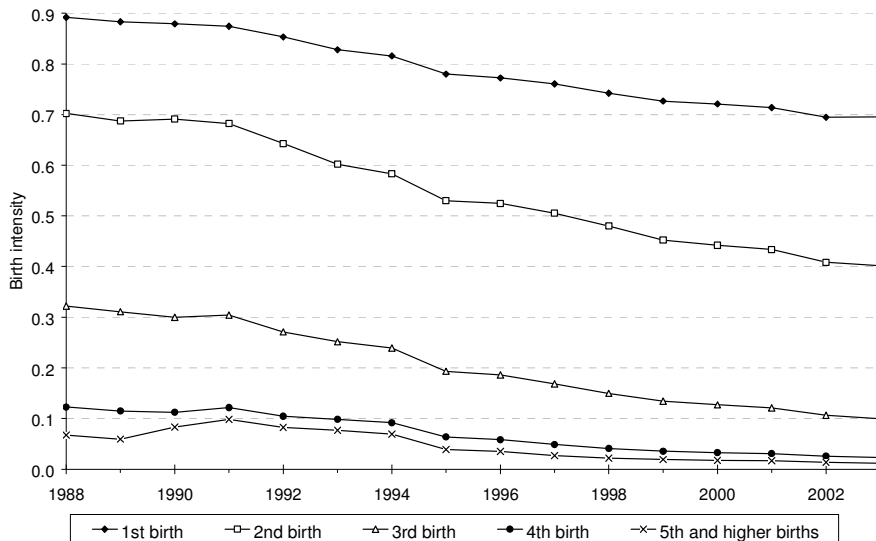


Source: CSO data.

The postponement of parenthood is reflected in the rising mean age at motherhood from 26.3 in 1989 to 27.3 years in 2003. The mean age at first birth has increased even more, from 23.3 in 1989 to 25.6 years in 2005. Delays in the transition to parenthood were more evident among urban women – the mean age at first birth given by urban women increased to 26.1 years in 2005 while that of rural women was 24.6 years. The indicators are, however, still relatively low compared to other European countries.

Childbearing intensities, as specified by the age and parity-specific fertility index, based on life-table computations (PATFR, see e.g., Rallu and Toulemon 1994), declined for each birth order. The decline was stronger for higher-order births (Figure 6). While first-birth intensity fell from 0.89 in 1988 to 0.69 in 2003 (i.e. by 23%), second-birth intensity declined from 0.7 to 0.4 (i.e. by 43%), and the intensity for third-birth order decreased from 0.32 to 0.10 (i.e. by 70%). As a result, first births constituted 51% of live births in 2005 (55% and 46% in urban and rural regions, respectively), which was 13 percentage points more than in 1989. The share of first and second births increased as well, from 71% to 83% (87% and 78% in urban and rural regions, respectively).

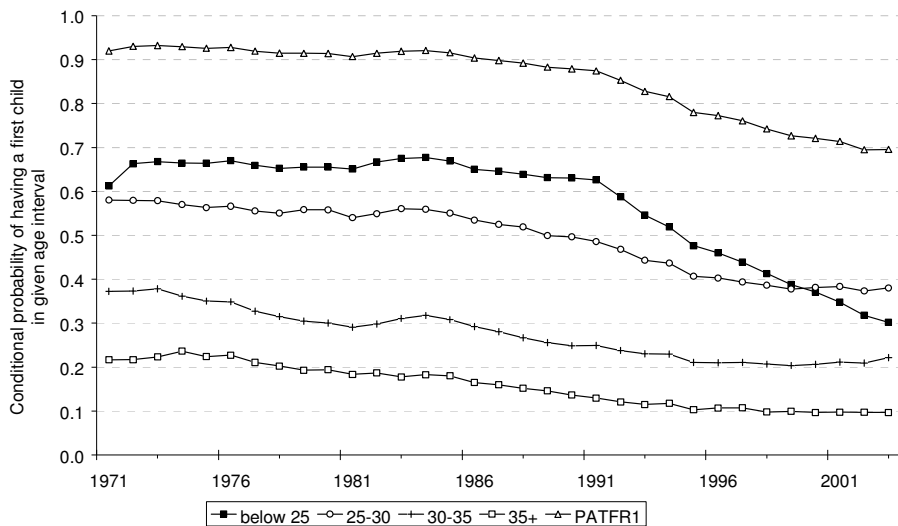
Figure 6: Order-specific index of period fertility (PATFR), 1988–2003



Sources: Boleslawski 1993, Demographic Yearbook 1989–2003, computations by T. Sobolka.

Analyses of conditional first-birth probabilities, computed for women remaining childless at the beginning of a given age interval, show that it was mainly the younger women (aged 25 or below) who contributed to the fall in first birth intensity (Figure 7). In 2003 the probability of having the first child before age 25 was less than half of that in 1989. Until the mid-1990s a fall in first birth intensities was also observed for older women. Since 1995, the conditional first birth probability, computed for women remaining childless at the beginning of a given age interval, stabilized at around 0.4 for women aged 25–30 (0.5 in 1989), 0.2 for women aged 30–35 (0.26 in 1989), and 0.1 for women aged 35 and above (0.15 in 1989). Recently, a slight increase in first birth intensities has been observed for women aged 30–35, which may indicate a tendency toward recuperation of postponed motherhood.

Figure 7: Conditional probability of having a first child at selected age intervals among women who were childless at the beginning of these intervals

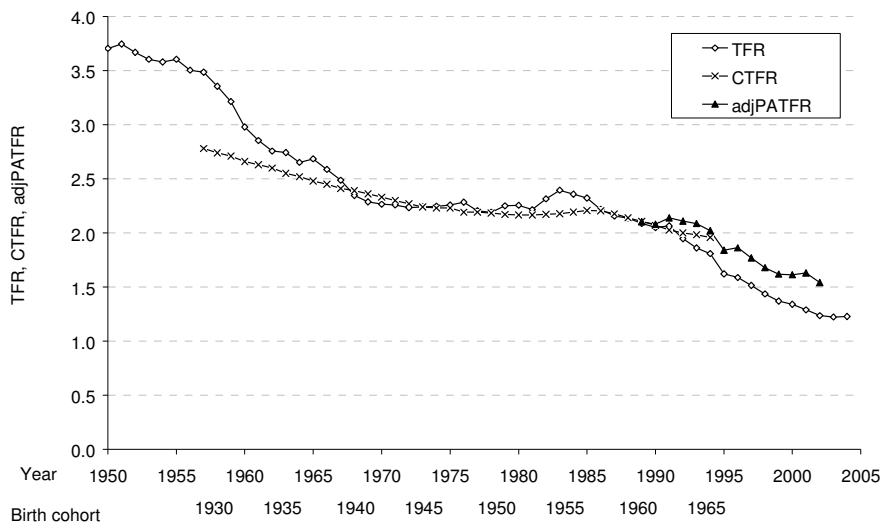


Sources: Boleslawski 1993, Demographic Yearbook 1989–2003, computations by T. Sobotka.

2.1.2 Completed fertility and parity distribution

Although the period fertility measures presented in the previous subsection show a remarkable decline in fertility, the decrease may partly be a period phenomenon caused by fertility postponement. Indeed, the Kohler-Ortega (2002) adjusted total fertility index (adjPATFR) shows that if the shift of childbearing to higher ages had been taken into account, fertility would have been higher by 0.2–0.3 children per woman for the whole period after 1993. This would mean a total fertility of 1.54 in 2002, as indicated by adjPATFR, which is, however, still low and represents a considerable decline when compared to 1990, when the adjPATFR was 2.08.

Figure 8: Period (1950–2004) and cohort (1930–1966) total fertility rates, Poland

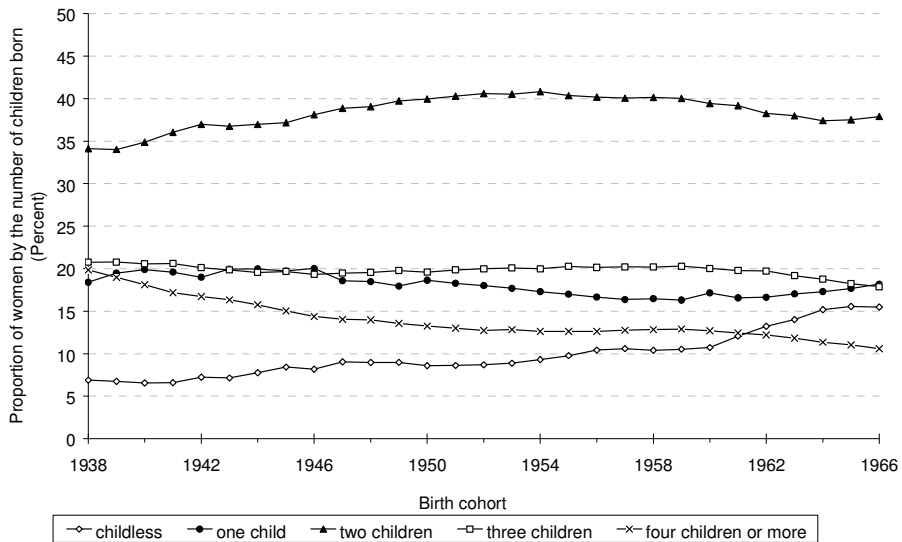


Sources: Council of Europe 2006, AdjPATFR computed by T. Sobotka from the data of Eurostat (2006) and Boleslawski (1993).
 NOTE: The Adjusted PATFR index was computed according to the formula proposed by Kohler and Ortega (2002) for first and second births. It is constructed from the schedule age and parity-specific birth probabilities, which are adjusted to remove distortions caused by changes in the timing of childbearing. The (unadjusted) TFRs were used for third and higher birth orders.

Focusing only on women who reached the upper limits of their reproductive life, one can see that the cohorts born before 1966 gave birth to more than two children on average. After a gradual decline from the level of 2.78 for the cohort born in 1930, the completed total fertility stabilized at around 2.17–2.20 for women born in 1949–1959. Then, a further decline was observed, and the cohort total fertility dropped below replacement for women born after 1966.

The gradual decrease in the fertility of cohorts born after 1938 was linked to the steady decrease in fertility at fourth and higher birth order. This decline was most pronounced for cohorts born in 1938–1946. It stopped for women born in the 1953–1959 period, i.e. those who entered their most reproductive ages in the 1970s, and continued again among the youngest cohorts. At the cost of fourth and higher parities, initially a constant increase in the proportion of women with two children was observed. Among women born in the 1950s, around 40% gave birth to two children. For younger cohorts, however, a decline in the proportion of two-child families was

Figure 9: Parity distributions, cohorts born in 1938–1966

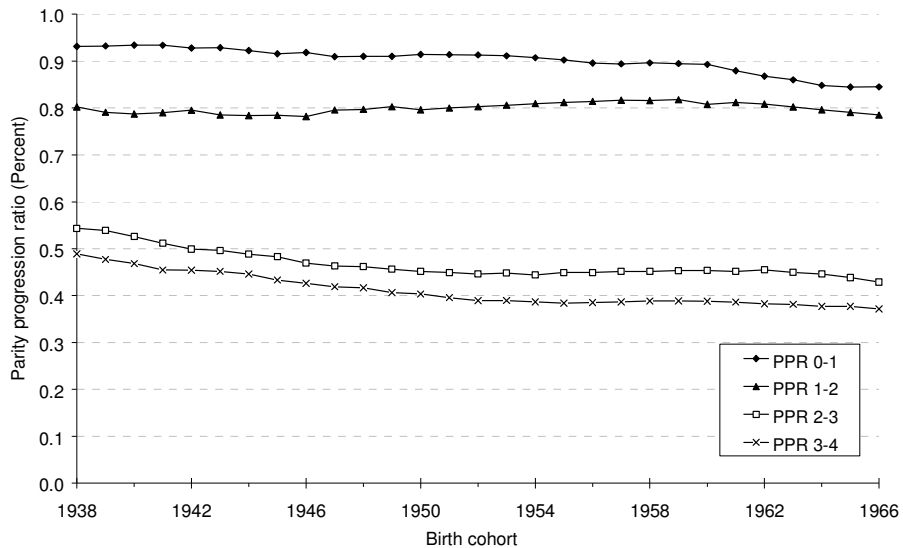


Sources: Observatoire Démographique Européen and computations by T. Sobotka from the data of Eurostat (2006) and Boleslawski (1993).

observed. Nevertheless, among women who completed their reproductive careers, the proportion of mothers with two children is still the highest and the progression rate to the second child has remained stable, around 0.8 (see Figures 9 and 10).

The fall in the number of two-child families has been accompanied by a drop in the proportion of women with three or more children. In parallel, a sudden increase in childlessness has been noted. Among women born in 1966, the childless account for 15% (for those born in 1938 it was 6.9%). The steep rise in childlessness was more pronounced than the increase in the proportion of one-child families.

Figure 10: Parity progression ratios, cohorts born in 1938–1966



Source: Observatoire Démographique Européen and computations by T. Sobotka from the data of Eurostat (2006) and Boleslawski (1993).

The comparative analyses of cohort data by birth order by Frejka and Sardon show that the proportion of women born in 1965 who gave birth to their first child in Poland (0.845) was the lowest among the CEE countries. According to the latest available estimates for the 1971 birth cohort, Poland remains at the same position, with the proportion declining to 0.802 (Frejka and Sardon 2006a, Table 1, p.152).⁶ The proportion of women born in the 1960s who delivered a second child was about average, while the share of those who gave birth to the third child declined more than average (Frejka and Sardon 2006b, Figures 2 and 3, pp. 23–24).

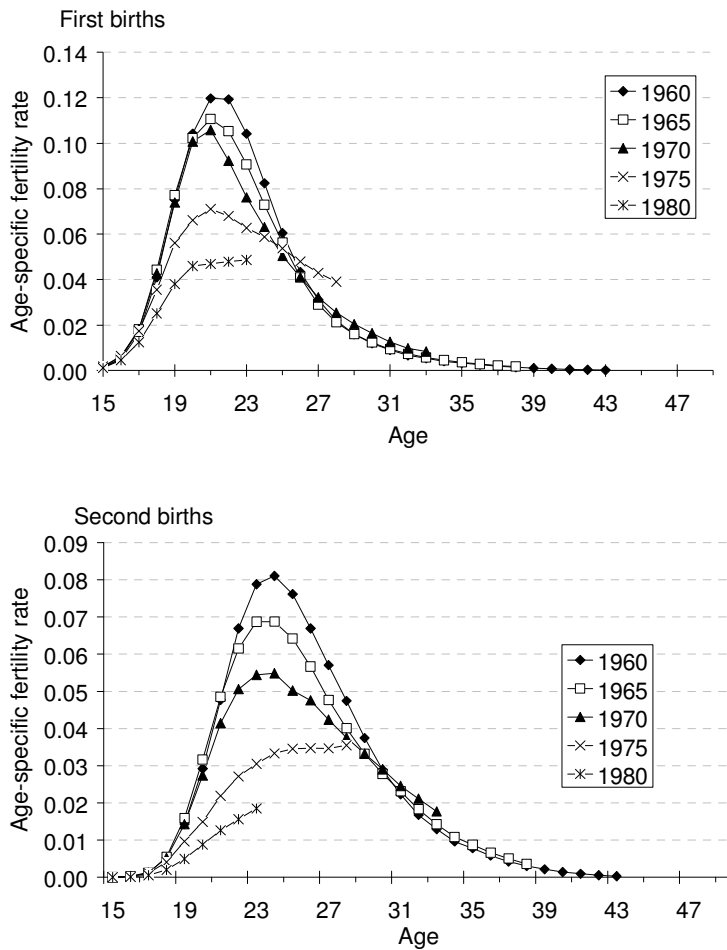
Up to this point we have described the trends for women who already completed their fertility histories. The main changes in childbearing trends, however, have occurred among women born after 1966. At the time of the economic transformation in Poland they were still in the middle of their reproductive years. Figures 11a–c present the childbearing patterns for this group of women as regards first and second order births.

A substantial decline in the progression to first and second birth for each subsequent cohort can easily be seen at younger ages. For example, by age 28 the progression rate to first birth was reduced by 0.1 for women born in 1970 and by 0.2 for those born in 1975, when compared with women born in 1960 (Fig 11c–1). Progression to second birth at this age declined even more markedly, by 0.14 for the 1970 cohort and by 0.29 for the 1975 cohort (Fig. 11c–2). Nevertheless, some signs of fertility postponement are also noticeable. Frejka and Sardon estimated that the cohort mean age at first birth would increase from 23.3 for the 1960s birth cohorts to 23.9 among women born in 1972 (Frejka and Sardon 2006a, Table 2, p.156).

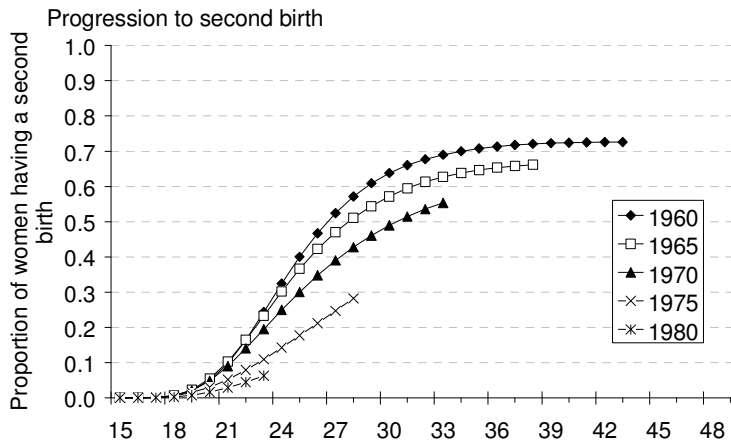
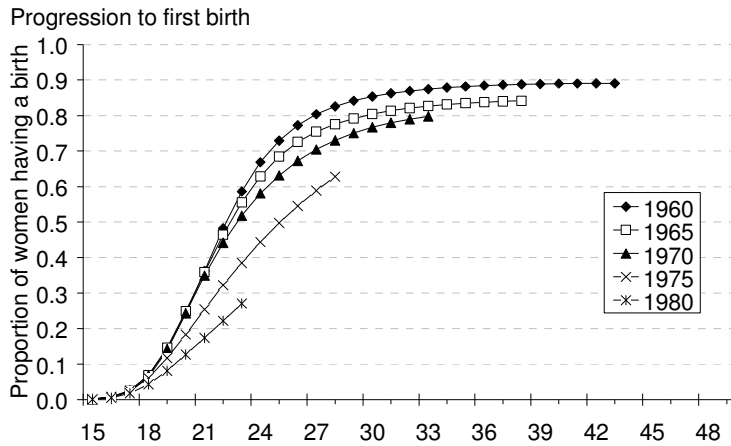
⁶ The cohort fertility rates computed by Frejka and Sardon (2006a) for the youngest cohort, who have not completed their reproductive careers yet are based on estimates. The yet unknown age-specific fertility rates are assumed to be equal to those of the youngest cohort for which the data are available.

Figure 11: Transition to first and second birth by age among women born in 1960–1980

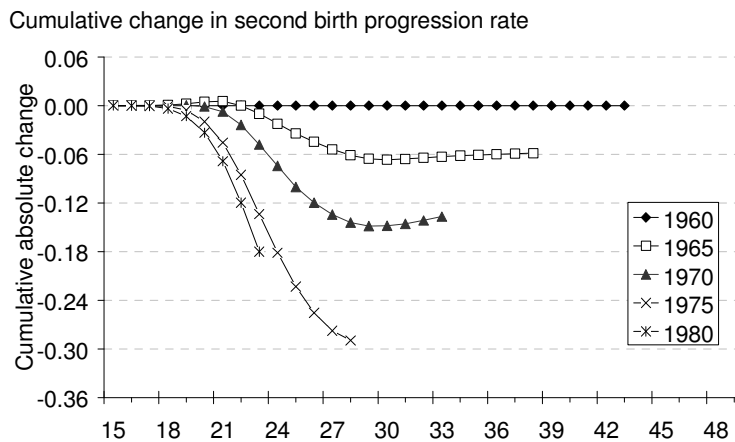
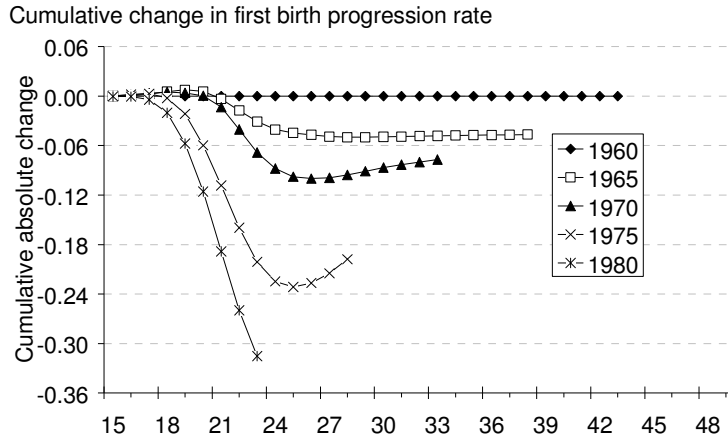
a: Number of live births of first and second order per woman, by age and cohort



b: Cumulative progression rate to first and second birth



c: Cumulative change in first and second birth progression rate by age (benchmark cohort 1960)



Source: Observatoire Démographique Européen.

2.1.3 Fertility intentions

According to the Family and Fertility Survey (FFS) results, the average number of expected children in 1991 was 2.2 among females and 2.0 among males (Holzer and Kowalska 1997). For the youngest cohort (20–29) the average number of ultimately expected children was much lower: 1.7.

Furthermore, the data from the Population Policy Acceptance Survey (PPAS) shows that in 2001 Poland recorded the lowest intended fertility among childless people⁷. The average number of children expected by childless respondents aged 20–40 was very low (1.05) and comparable with the low values found for Germany (Esveldt and Fokkema 2005). The same indicator for childless Poles aged 20–29 was the lowest among the PPAS countries (1.18).

What distinguished Poland among the PPAS countries was a high level of uncertainty about fertility intentions among childless people – 33% of women and 40% of men were undecided in that respect. Only Finland returned similar figures (Fokkema and Esveldt 2005). Again, the reconciliation survey data of 2005 showed a high level of uncertainty among childless respondents – one third of childless respondents aged 18–39 were undecided.

The survey ‘Changes in reproductive behaviours in Poland and their consequences for family and household formation and dissolution’ carried out for the urban population in 2006 showed that the average number of children expected for the young cohort (below 30) was around 1.5. At the same time, the proportion of respondents who planned to have two children increased compared to 2001, as did the proportion of those who intended to remain childless – a finding that seems to be a sign of the polarisation of attitudes towards parenthood (Jóźwiak 2006).

Poland reported the highest proportion of childless women of the 1960s and early 1970s birth cohorts among the CEE countries. However, different sources of data indicate a relatively low level of intended childlessness compared to other European countries. For example, the study by Sobotka and Testa (forthcoming) on the PPAS data shows that that 8.5% of childless women aged 18–39 and 13.5% of childless men at that age declared that they intend to stay childless. These figures situated Polish women in the group of rather low intended childlessness, while Polish men belonged to the group with a moderate level of intended childlessness (Sobotka and Testa, forthcoming).⁸

⁷The Population Policy Acceptance Survey was conducted in the years 2000–2003 in 14 European countries: Austria, Belgium (Flanders), Cyprus, Estonia, Germany, Italy, Hungary, Finland, the Czech Republic, Lithuania, the Netherlands, Poland, Romania, and Slovenia.

⁸Other studies also revealed the low childlessness intentions of Poles, which are stronger for men than for women (Billari 2005, the 2005 survey ‘Reconciling work, family, and education’).

Results of the Eurobarometer survey of 2006 confirm the low level of intended childlessness: Among childless Poles aged 15–39, only 1.6% of women and 3.4% of men declared a preference to remain childless (Testa 2006). Moreover, Poland belongs to the group of countries with the lowest intended childlessness and with high intentions to have at least one child. This can be partly attributed to growing fertility intentions, which is also illustrated by the results of two sample surveys carried out in Poland in 2006 (Jóźwiak 2006, Kotowska and Baranowska 2006).⁹

The PPAS data enable us to evaluate population attitudes towards childlessness. Some 65% of respondents disapproved of the increasing number of childless couples (i.e. the trend received negative and very negative assessments), situating Poland slightly above the mean level (nearly 63%) for the participating countries. Polish men and women below age 34 and single persons expressed markedly less disapproval of rising childlessness (Kotowska et al. 2003).

The low fertility intentions among childless people and the high uncertainty about the fertility intentions of childless respondents along with postponed fertility decisions may result in increasing childlessness in Poland, and this despite the fact that intended childlessness is low and despite the relatively low approval of rising childlessness.

2.1.4 Out-of wedlock births

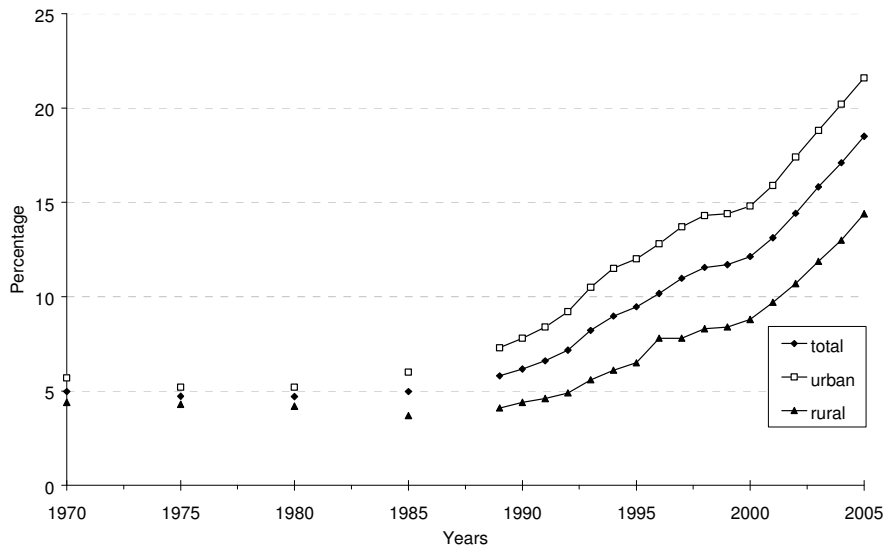
The data for the early 1990s shows a new trend – a systematic rise in out-of-wedlock births. The number increased systematically from 32,700 in 1989 to 67,239 in 2005. The percentage of out-of-wedlock births, which remained stable at around 5% during the years 1960–1990, increased from 5.8 to 18.5%, and did so more markedly in urban regions (see Figure 12). From 2000 the rise accelerated: 14.8 and 21.6% of children were born out-of-wedlock in urban regions in 2000 and 2005, respectively. In rural areas the percentage rose from 8.8 to 14.4.¹⁰ Despite the fact that the figures are still

⁹ The proportion of women aged 25–39 intending to have at least one child was 86% (the highest among the countries under study, the EU average was 66%), of whom 75% planned to have a child in the next three years (the EU average was 43%) and 67% were sure of being successful (37% at the EU level). For males, these indicators were lower: 81% of men aged 25–39 declared the intention to have at least one child (a relatively high level, the EU average being 66%) and among them 41% planned to have a child in the next three years (the EU average was 35%) while 60% were sure of being successful (46% at the EU level).

¹⁰ This indicator, which combines both fertility- and nuptiality-related changes, is strongly diversified across regions (voivodships). In the years 1995–2004 its values became more diverse, especially in rural regions, proving ongoing polarisation of relevant behaviour. The general picture remained, however, roughly stable: i.e., lower extramarital births in the south-eastern regions and remarkably higher in the western regions of Poland (Stolarek 2005).

moderate by European standards, the change is a distinctive feature of recent fertility developments in Poland.

Figure 12: Percentage of out-of-wedlock births, 1970–2005



Source: Central Statistical Office (CSO) data.

The detailed fertility analysis of married and unmarried women for the years 1989–2000 by Boleslawski (2001) indicate that the observed changes in the number and structure of births (marital and extramarital) were intrinsically related to the greater decline in marital fertility (by 17%) rather than in extramarital fertility (by 5%). Additionally, an in-depth study into age patterns revealed that extramarital births were most frequent among urban women aged 30–34 (246 births per 10,000 unmarried women) and rural women aged 25–34 (253 births per 10,000 unmarried women) (Stolarek 2005, Szukalski 2001).

The majority of out-of-wedlock children was born in urban regions (67% in 2005) and to never-married mothers, who accounted for 79% of non-marital children in 1990 and 88% in 2005. Moreover, the proportion of children born outside marriage to women aged 15–19 declined, while that of women aged 20–29 rose (to 62.8% of all out-of-wedlock births in 2005). However, among the considerably lower number of

births given by women aged 15–19 (see Section 4), the proportion of out-of-wedlock births increased from 19.3% in 1989 to 58.2% in 2004.

Taking these developments into account, one can make the assumption that the trend in out-of-wedlock births provides evidence that the shifts in behaviour resulted from gradually changing attitudes towards births delivered out-of-wedlock by never-married women or women in cohabitation, especially among young persons living in urban areas. The data from the Population Policy Acceptance Survey (PPAS) in 2001 shows that the increasing proportion of out-of-wedlock births was disapproved of by 60% of the respondents; however, single persons, people under 30, and residents of big cities showed a higher approval (Kotowska et al. 2003).

Since marriage disruption by divorce and separation remained low,¹¹ it seems that changes in out-of-wedlock births contributed remarkably to a rise in the proportion of one-parent families. The census data showed that over the years 1988–2002 the proportion of lone parents among families increased from 15.4% to 19.4% (from 16.8% to 21.1% in urban areas and from 13.0% to 16.4% in rural areas).

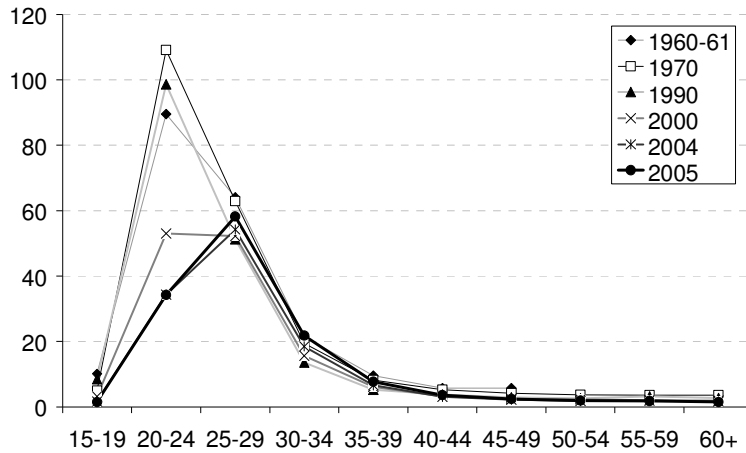
2.2 Union formation and dissolution

2.2.1 Marriage

Between 1960 and 1990, marriage patterns by age of females and males remained almost stable, especially for females. The highly right-skewed curves, with a high prevalence of marriage among persons aged 20–24, reflects the Eastern European model of family formation based on universal marriages contracted at early ages (see Figures 13, 14, and 15). The declining propensity to marry, along with marriage postponement, which is characteristic of family formation behaviour under the SDT, are manifested by remarkable changes in marriage patterns by age and sex. The marriage curves visibly flattened. A significant decrease in contracted marriages was mostly noted in the 20–24 age group for both males and females and the 25–29 age group for males. Additionally, for males the highest rate shifted to age 25–29. Since 1997 a gradual increase in the marriage rate for persons of both sexes aged 25–29 has been observed, with more marked changes being noted for women. This is accompanied by a slight increase in marriages by women aged 30–34 and a more marked increase by men aged 30–34 (see Figures 13, 14).

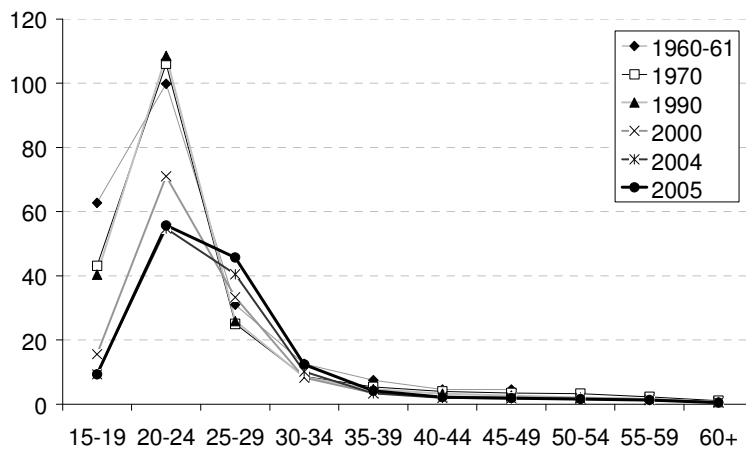
¹¹ Nevertheless, in very recent years an upward tendency in the number of marriages ending in divorce or separation has been observed.

Figure 13: Number of marriages per thousand men of a given age, Poland, 1960–2005



Source: CSO data.

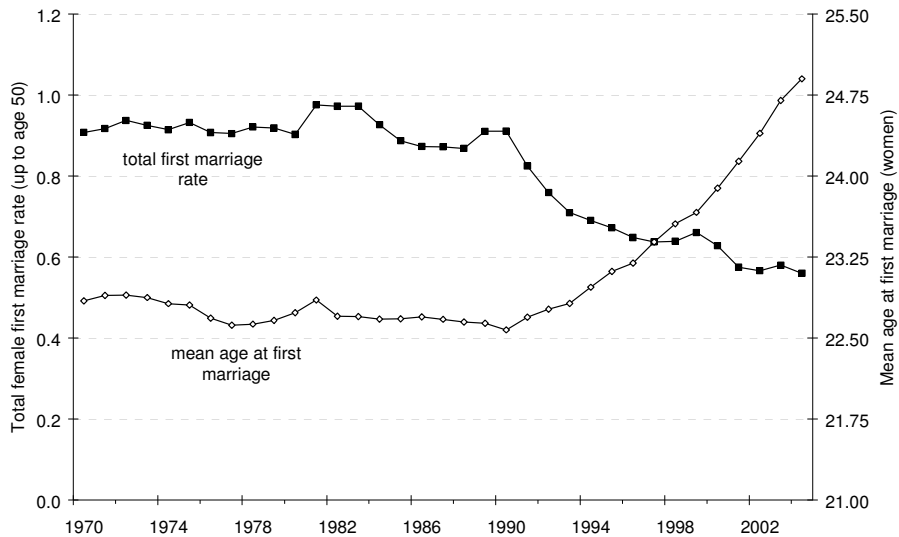
Figure 14: Number of per thousand women of a given age, Poland, 1960–2005



Source: CSO data.

A marked reluctance to marry, particularly among women, can be additionally illustrated by changes in first marriage patterns. The total first marriage rate of women aged up to 50 decreased from 0.91 in 1989 to 0.56 in 2004 (see Figure 15). From 1993 the total first marriage rate was higher for men than for women. The mean age at first marriage increased in the years 1989–2004 from 22.8 to 24.7 for females and from 25.1 to 26.9 years for males (CSO data).

Figure 15: Total first marriage rate and mean age at first marriage of females aged up to 50, Poland, 1970–2004



Source: Council of Europe data.

2.2.2 Cohabitation

In comparison to other countries in Europe, cohabitation in Poland is relatively uncommon. According to the population census of 2002, only 2.2% of persons living in unions participated in this form of partnership. Despite its marginal incidence, the number of consensual unions has been growing continuously since 1978, when 90,000 consensual unions were recorded (1% of all partnerships), rising to 197,400 in 2002 (Fihel 2005). The detailed analysis of the census data by Fihel shows an ambiguous and differentiated picture of cohabitation in Poland. Some features are of particular interest. For instance, cohabitation is practised by various social groups. Moreover, it is related to certain stages of the family life cycle: first, those who cohabit most frequently are the young (aged 20–29) living in cities who have never been married. Fihel estimated that nearly every third consensual union in Poland is a pre-marital cohabitation i.e. both partners were never married. Second, it is relatively widespread among divorced persons. In this group post-marital cohabitation seems to have become more popular than re-marriage.

Other findings by Fihel (2005) suggest that cohabitation is considered a temporary, unstable living arrangement rather than an alternative to marriage. Among households with children, the proportion of households inhabited by consensual couples is only 1.6 %. At the same time, women who become pregnant out-of-wedlock more frequently decide to get married before the child is born rather than to stay unmarried. Although this pattern changed somewhat in the 1990s, as the rise in extra-marital births illustrated, entering a marriage continues to provide the feeling of a secure and stable partnership, preferred for parenthood.¹² Moreover, cohabitation may be preferred by people without own employment-based sources of income. Cohabitants very frequently live on welfare and unemployment benefits. They are typically supported by others, perhaps most often their parents. Such sources of income do not guarantee economic stability, considered as a precondition to start a family.

Despite the marginal incidence of cohabitation, one can expect that it will become more popular among Poles. Kotowska et al. (2003) found that among different family-related developments, such as the increasing proportion of childless couples, the

¹² According to the study conducted by Slany (2001) among students, cohabitation was perceived as a temporary type of union. The qualitative analyses of meaning, attitudes, and experiences of cohabitation by Mynarska and Bernardi (2007), based on interviews of 48 young residents of Warsaw (women between 20 and 30 years of age, males between 20 and 35 years of age), medium to highly educated, showed that a positive perception was attached to cohabitation as a stage of interrelationship before marriage only. Additionally, the PPAS data revealed that, despite the gradually changing attitudes towards children born outside marriage, having children out-of-wedlock received more disapproval than did living in consensual unions (Kotowska et al. 2003).

decreasing number of marriages and births, the rising number of one-parent families, the rising proportion of out-of-wedlock births, and an increase in the proportion of consensual unions received most approval. Generally, these developments were perceived as negative by more than half of the respondents, with the exception of cohabitation, which was negatively evaluated by 42% of the respondents.

2.2.3 Union dissolution

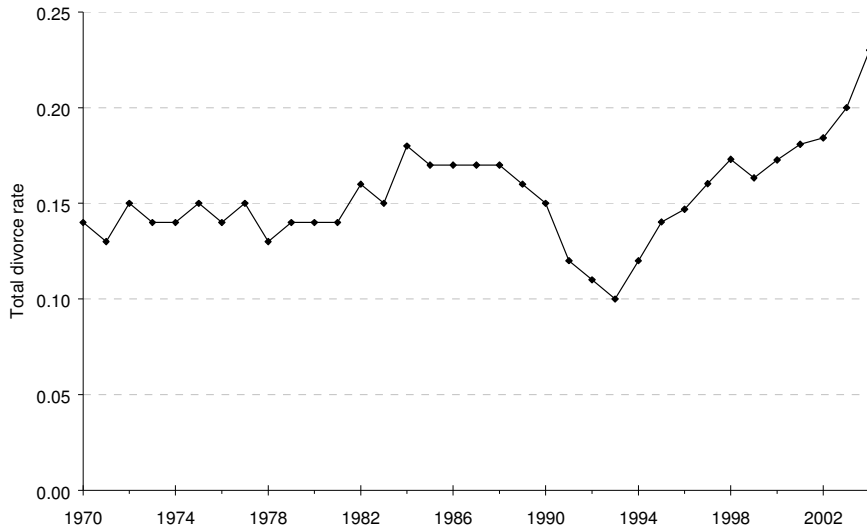
Poland belongs to a group of countries with low levels of divorce. The total divorce rate, defined as the sum of divorce rates by duration of marriage for a given year, oscillated between 0.13 and 0.18 during the years 1970–1988. The temporary decline observed in the years 1989–1993 was followed by an upward trend (see Figure 16). The change accelerated in very recent years. The number of divorces, which had oscillated between 42,000 and 45,000 in the years 1997–2002, increased to 67,600 in 2005 (the total divorce rate rising from 0.16 in 1997 to 0.23 in 2005). Moreover, the option of separation (introduced by law in 1999) resulted in the number of marriages dissolved rising, from 1,300 in 2000 to 11,600 in 2005.

Divorces were more frequent among persons living in urban areas. Crude divorce rates, defined as the number of divorces per 1000 of population aged 20 or more years, oscillated between 1.5 and 2.8 in urban regions and fell below 1.0 in rural areas. Until the mid-1990s there was either a decline (in urban regions) or stabilisation (in rural regions) of divorce rates (see Figure 17). Changes observed since 1995 illustrate that marriage dissolution by divorce or separation has become more frequent in both regions, while it is still not very widespread.

Summing up, the major characteristics of changes in family formation observed in Poland over the last 15 years are declines in fertility and nuptiality as well as postponement of birth and entry into union, similar to developments observed in other European countries over the last four decades. Given the infrequency of cohabitation and divorce, one can conclude that marriage still persists as a relatively stable institution and that it is a prevailing form within which to start a family – features that distinguish Poland from other countries. However, there are some signs that de-institutionalisation processes are already in place, especially among people residing in urban areas. An acceleration of the upward trend in out-of-wedlock births and increases in marriage dissolution since 2000 along with a rise in cohabitation indicate ongoing changes in family formation.

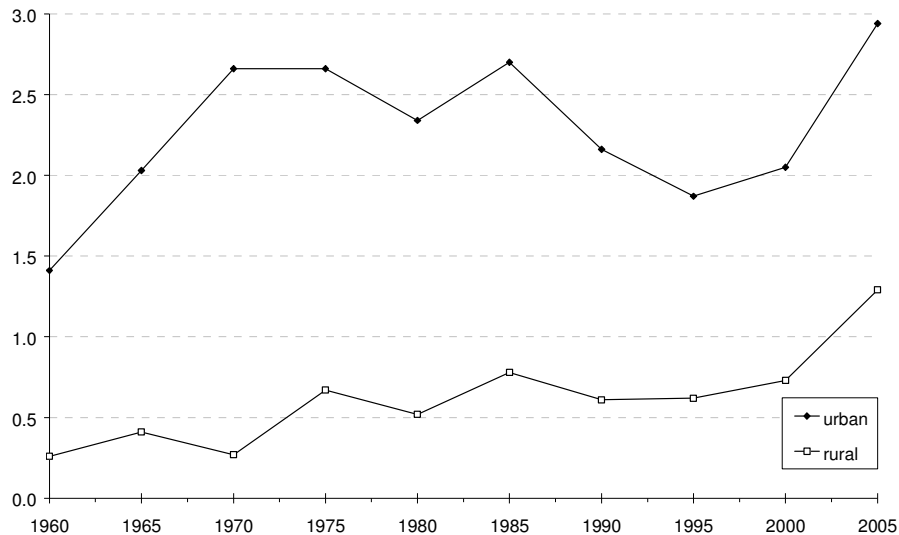
Delays in marriage and parenthood as well as de-institutionalisation processes were used by Hantrais (2005) to demonstrate country differences in family formation in the EU25.¹³ Despite the quite significant postponement effects documented here, Poland along with Hungary, the Czech Republic, Lithuania, Latvia, Estonia, and Slovakia still remain at the early stage of transition from conventional family formation (early marriages) to delayed family formation. In terms of de-institutionalisation, Poland may be clustered with Italy, Greece, Spain, Ireland, and Cyprus as countries where that process is less advanced compared to other European countries (Hantrais, 2005: 128–130).

Figure 16: Total divorce rate, Poland, 1970–2004



Source: Council of Europe data.

¹³ The following demographic indicators have been used in cross-country comparisons: mean age of females at first marriage, mean age at first birth, mean age at childbearing, percentage of extramarital births, and divorce rates.

Figure 17: Divorces per 1000 of population aged 20 years and more, 1960–2005

Source: CSO data.

3. Determinants of childbearing trends in Poland

3.1 The socio-economic context

The economic reforms that started in 1989 led to remarkable changes in GDP and employment. A steadily declining share of output by agriculture (3% in 2004), manufacturing, and construction (29%) and a rising share of output by the service sector (66%) have been accompanied by considerable shifts in employment composition. In 2004, services made up nearly 55% of employment; this compares to 28% in manufacturing and construction and 17% in agriculture. The growing private sector generated around 63% of GDP and accounted for 71% of employment.

Restructuring of the Polish economy resulted in a total decline in jobs by about 3.1 million between 1990 and 2003. In parallel, the working-age population increased by

about 2.2 million. With regard to changes in GDP, employment, and unemployment, four phases of economic transformation can be distinguished:

- In the ‘black’ years of 1990–1993, GDP and employment declined drastically while massive unemployment set in.
- In the period 1994–1998, GDP and employment rose and unemployment declined.
- In the period 1999–2002, GDP growth slowed, employment declined, and unemployment increased to levels exceeding the levels of the early 1990s (unemployment reached 20% in 2003).
- From 2003, GDP growth accelerated and employment increased (in 2004), this in contrast to unemployment, which declined visibly.

The transition to a market economy in Poland imposed economic modernisation and the reform of the institutional setting. Among many components of the transformation processes, two results of institutional changes can be seen as the main driving forces behind family-related behaviour (e.g., Kotowska 2004b):

- The reassignment of economic functions between the state, enterprise, and the family. This was fundamentally based on the removal of the state from its role as employer and provider of services and of social benefits; the erosion of the social function of companies led to an increase in the responsibility of households for their economic situation at a time when it was increasingly difficult to obtain income.
- Changes in the conditions of labour-market participation, caused by economic reforms and (since the mid-1990s) globalisation along with an influx of the baby-boomers’ descendants in the 1990s resulted in persisting high unemployment pressure.

The first group of processes relates to economic reforms as well as ‘welfare state’ reforms, the second relates to changes in the labour market. Their family-relevant main effects are:

- changes in household welfare,
- an increasing vulnerability of the family, and
- increasing difficulties to reconcile work and family.

The changes in income distribution that took place during the economic transformation (mostly due to labour-market changes) led to an increase in economic and social inequalities. Rising poverty and social stratification was combined with social exclusion of specific groups and a decrease in the feeling of social security. The

reassignment of economic functions of the state was not accompanied by the construction of effective markets and of the system of income transfers, including protection from poverty. Therefore, high economic and social inequalities seem to be considered rather as a non-transient effect of the reforms in the CEE countries. Social reaction to increasing economic stratification may be manifested not only through demanding attitudes¹⁴ or feelings of relative deprivation, but also through an emphasis on economic factors while making significant life decisions, including marriage and children.¹⁵ This can be strengthened by increasing consumption aspirations.

The growing vulnerability of the family is another highly important aspect of the changes in Poland. It is true that the position of the family has been weakened in countries with developed market economies, but there have been different reasons for Poland. In developed economies, family development was associated with the development of the welfare state through its social security system, education, and health services. In Poland, by contrast, the withdrawal of the state from numerous social entitlements for families (less access to institutional childcare, as reflected by the number of places and the costs of childcare, and declining direct and indirect financial support to families) made the family more dependent on its own resources. These resources were strongly influenced by labour-market changes, i.e. increasing competition and unemployment.

These new and (before 1989) unknown characteristics of the labour market constitute a threat to the economic well-being of a significant proportion of households. Additionally, the possibility of using existing social entitlements is related to employment, therefore a job loss also means a loss of many entitlements. Further, women very often forgo their rights to existing entitlements because they are afraid of losing their employment position. Consequently, the difficult situation in the labour market has an impact on access to family benefits, especially with regard to women. Families and households faced situations in which their obligations and responsibilities related to their economic situation have increased, while at the same time fulfilling these obligations and responsibilities has become much more difficult, mostly due to the developments in the labour market (e.g., Kotowska 1999, 2004b; Kocot-Górecka 2004; Muszyńska 2004; Matysiak 2005b).

¹⁴ According to PPAS data, for instance, 62.6% of respondents expected the state to take care of young persons looking for a job; 61.4% of respondents claimed that it is the state's responsibility to provide adequate housing for everyone (Kotowska et al. 2003).

¹⁵ Opinions that the state has the responsibility to support families in strict (e.g., financial benefits) and broad terms (housing, the labour market, gender equality) are expressed by both the population and experts in the field (e.g., Kotowska et al. 2003; Kotowska et al. 2005a). Other survey-based studies confirm how important economic reasoning is when it comes to deciding on children (e.g., Frątczak 2003, Frątczak et al. 2006).

Transformation processes generally created new career opportunities and related changes to the socio-economic position of individuals and households. Household welfare became more dependent on household resources, such as personal income, skills, and the ability to act in new circumstances. Simultaneously, growing labour-market competition resulted in growing job requirements. For these reasons, more effort had to be made by individuals to get and to maintain a job. Acquiring appropriate skills plays a particularly important role here. Additionally, the labour market in Poland remains under persistent demographic pressure, generated by the baby boom of the late 1970s and the early 1980s.¹⁶ The growing labour force combined with insufficient demand for labour resulted in large groups of people at risk of unemployment. Irrespective of the phases of economic development during the 1990–2005 period, young persons experienced a constant and very high threat of unemployment. Therefore, to find a job and to stay in the highly competitive labour market became of crucial importance for the younger generations. Moreover, unfortunate changes in the institutional setting made it more difficult for women to be flexible and mobile and to adapt to increasing employers' requirements. Many studies have revealed the discrimination of women in the labour-market (e.g., Heinen 1995; Siemińska 1997; Kotowska 1995, 2001; Kowalska, 1999; Ingham et.al. 2001; Sztanderska 2005). Under the new conditions of labour-market participation and the existing institutional setting, it has become more difficult to reconcile work and family, a problem perceived mostly as a women's issue.

3.2 The labour market and the family

3.2.1 General trends

The labour-market situation in Poland in the first half of the 2000s was the worst in the EU25. The employment rate of both women and men was exceptionally low (46.2% and 57.2% respectively in 2004) compared to the EU25 average (70.9% for men and 55.7% for women). In 2004 the unemployment rate was highest in the EU25 - 18% for men and 19.7% for women, while the EU25 average was 8.2% and 10.1%, respectively

¹⁶ In the period 2000–2005 the labour market remained under pressure from the increasing number of young people, being at the age that is extremely important as far as family formation is concerned; the labour force aged 20–34 increased by 621,378 people. In parallel, the size of the labour force aged 50–59 increased by 601,077 (author's estimates based on LFS data). It is expected that during the 2005–2010 period, the size of the group aged 20–34 will increase by 159,000 only (Labour Force Projections, Statistical Yearbook of Labour 2001, GUS, Warsaw 2002).

(according to Eurostat data of 2004). The most distinctive feature of the labour market, as mentioned previously, was a very high incidence of unemployment among young persons: The unemployment rate for the 15–24 age group was 38% for men and 41.4% for females (the EU25 averages were 18.1% and 19.3%, respectively). Several studies confirm that the difficulties the younger generations are facing in the labour market affect their declining propensity to start a family and to have a child. A negative influence of unemployment on family formation and fertility was revealed in studies based on LFS data (Kocot-Górecka 2004) and other surveys (Frątczak 2003; Kotowska et al. 2003; Majszczyk 2005; Kotowska and Baranowska 2006).

3.2.2 Female labour-force participation

Under the socialist regime, women's participation in the labour market was high. The wide access to paid work for women resulted mostly from the labour-intensive economy, low productivity, and low wage policies. Low wages led to the necessity of having two incomes to maintain a family. Additionally, women's economic activity was ideologically supported by equating emancipation with employment. The high labour-market participation of women co-existed with the traditional model of the family. Despite the social acceptance of the dual-earner family model, the female role was still perceived mainly as that of a wife and mother, while the husband's main responsibility was to provide income for the family. However, the conditions of labour participation (a right-to-a-job economy, i.e. an economy with a job guarantee and no open unemployment) as well as the provision of childcare facilities made it possible for women to reconcile family duties and paid work. At the same time women continued to be mainly responsible for home and care duties (e.g., Kotowska 1995; Titkow 2001).

This economic and ideological reasoning underpinning women's participation in paid work has rapidly been replaced by purely economic arguments. Moreover, it is a well-known fact that women's employment is more sensitive to declines in labour demand related to output contraction (e.g., Kotowska, 1995; Siemińska 1997; Sztanderska 2005). Thus, in our opinion, structural factors played the main role in the deterioration of women's position in the labour market.

The evident weakening of women's position in the labour market may be illustrated by a relatively high risk of falling into unemployment, greater difficulties to re-enter employment, and in worsening working conditions. Women experience more difficulties than men do at various stages of their professional life: when starting a career, holding on to a job, and re-entering the labour market. The family situation has become more decisive for their economic activity. In the course of hiring, employers use the age and the family situation (the marital status, and the number and age of

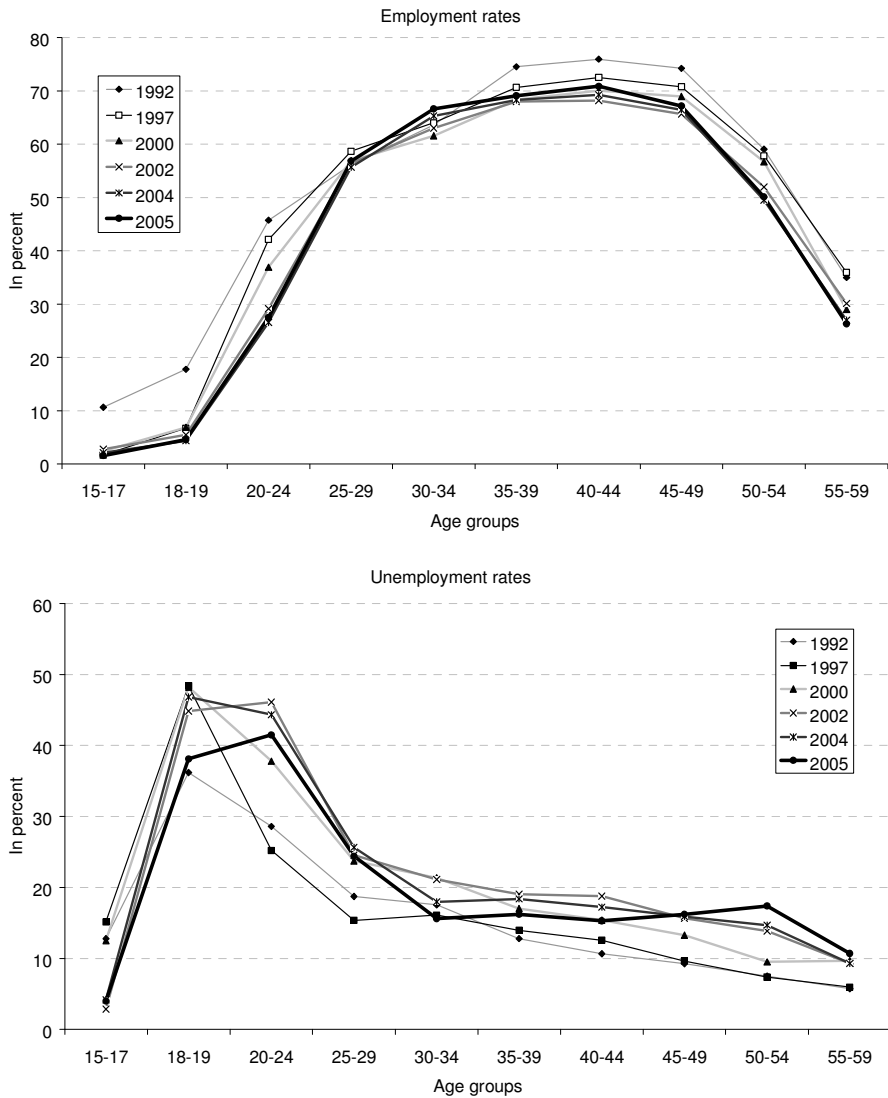
children) as a proxy measurement for female production-related attributes. New female labour-market entrants are exposed to a higher risk of falling into unemployment. Women re-entering the labour market after parental leave are confronted with serious obstacles to getting a job. Many studies have confirmed the discriminatory effects of sex as well as marital status and the presence of young children on female labour-market participation (e.g., Steiner and Kwiatkowski 1995; Puhani 1995; Kowalska 1996; Kotowska and Witkowski 1996; Kotowska 2001). Therefore, it can be stated that the labour market under transition was more open to men than it was to women (Domański 2001).

Women gradually adjusted to the new conditions of labour-force participation. Their main strategies were high participation in education and life-long learning, increasing participation in labour migration (to start education or to find a job), and acceptance of lower pay (Sztanderska 2005). Postponement of marriage and childbirth as well as a low propensity to marry and to have children may also be interpreted as symptoms of adjustment strategies (e.g., Kotowska and Witkowski 1996; Kotowska 2001). One may hypothesise that female employment would have declined more if women had not reduced their fertility. Indeed, the analysis of falling female employment in the years 1993–2002 decomposed by the number of children supports this suggestion. The average employment rate of women aged 25–34 would have fallen by 5.34 percentage points instead of 1.37 if not for the reduction in fertility (Matysiak, 2006). Since the end of the 1990s some symptoms of relative improvements in women's position in the labour market have been observed (Figure 18).

Labour-market participation of females is strongly influenced by the presence of children, especially small children (aged 0–5 years). Moreover, the higher the number of children, the less likely the woman is to have a job. The negative impact children have on mothers' employment in Poland is shown by several studies (e.g., Kotowska and Abramowska 2003, Kocot-Górecka 2004, Kotowska et al. 2005b, Matysiak 2005a, 2005b; Matysiak, 2008, Kotowska 2006). When the children are very small (0–3 years), women withdraw from the labour market. When the children are older, they try to re-enter. However, a remarkable proportion of them cannot find a job, and the percentage of unemployed women with children aged 3 or above increases considerably (Table 1). According to the survey 'Reconciling work, family, and education', some 54% of non-working mothers of children aged 4–6 years cite the main reason for staying at home as difficulty in finding a job.

Difficulties women are facing in the labour market result also from their dual role as caregivers and economic providers. The high labour-force participation of females in centrally planned economies has not been accompanied by changes in their social role, despite their educational achievements. The economic activity of women has been

Figure 18: Female employment and unemployment rates by age



Source: Author's calculations on LFS data from the second quarter.

Table 1: The labour-market status of women aged 20–39 by presence and age of children

Age	Percentage of women		
	Employed	Unemployed	Inactive
	Without children younger than 15		
20–24	27.5	19.6	52.9
25–29	69.2	17.7	13.1
30–34	80.6	10.2	9.1
35–39	75.2	12.2	12.6
	With at least one child up to 3 years		
20–24	23.7	15.9	60.4
25–29	38.0	11.1	50.9
30–34	53.0	5.4	41.5
35–39	50.9	7.8	41.3
	With at least one child aged 3–14		
20–24	43.4	30.1	26.5
25–29	50.4	27.6	22.0
30–34	67.5	16.1	16.4
35–39	70.0	14.8	15.3

Source: Authors' calculations on LFS, second quarter 2005.

externally driven by demand for female labour, by a low wage policy and low productivity. However, women were mostly perceived as the secondary labour force. As a result, the high economic activity of females before 1989, compared with the labour-force participation of females in the Nordic countries, co-existed with the patriarchal models and traditional views on gender roles prevailing in the post-communist countries. It is well known that under declining labour demand there is a strong preference for men to secure jobs at the cost of jobs for women in countries that adhere to the traditional perception of gender roles, (e.g., UNICEF 1999, Siemieńska 1997, Kotowska 1997, 2001, Fultz et al. 2003). This finding may partly explain the deep decline in female employment in the course of economic transformation.

Analyses by Matysiak (2005b), based on PPAS and LFS data, showed that in 2001 the majority of respondents practised the 'dual earner-female double-burden model', while most actually preferred the 'dual earner-dual carer' model. This discrepancy indicates that domestic tasks are mostly women's responsibility, irrespective of their participation in employment. This conclusion is in accordance with studies by Muszyńska (2004), who argues that women in Poland are still perceived as the main carers compared to Western European countries. An additional argument for the still

strong traditional perception of women's role is the relatively high preference given to the 'sequential male breadwinner' model (a woman should not work when children are small); some 18% of respondents opted for this work-family arrangement. Consequently, the male breadwinner model was the second most practised family model, especially by families with small children.

3.2.3. Educational attainment

Another important element of changes under the economic transformation is an increase in the significance of investment in human capital. This is a consequence of the stronger link between education and life opportunities as well as the position in the labour market. Economic returns to education have strongly increased (e.g. Kotowska and Abramowska 2003; Sztanderska 2005; Kotowska 2006). At the same time, the changes to income distribution that occurred during the transformation led to a shift in investments in human capital (through education, health, culture and recreation) from investment by the state to investment by the household. Previously, the state covered most of the related costs. Now, it is the household's responsibility, despite the limitation placed on the household to carry these costs. The limitation stems not only from a decrease in income in a large proportion of households but also from the marketisation of social services that contribute to a rise in the costs of human capital investments at the household level.

Moreover, under the economic transformation and globalisation processes there is a need of simultaneous investments in human capital in both children and adults. The latter need is determined by the necessary adaptation of current as well as future skills to the changes in the structure of labour demand resulting from the reform of the economy and technological changes.¹⁷ The shift of investments in the human capital of children to the household results in an increase in the direct costs of raising children. The need to cover other costs associated with the education of adults (parents) leads to a rise in the indirect costs of raising children and to a situation where the ability to access high quality education services is increasingly connected to the financial situation of the household and its access to centres of education.

¹⁷ The improvement of the employment ability of the labour force was one of the fundamental conditions of halting and reversing a further increase in unemployment between 1998 and 2003. Opportunities for new generations to get appropriate education and skills useful on the labour market are strongly related to the development of an appropriate education system facilitating continuous improvement of adults' skills. The scale of needs in this area is very large, especially if we consider the differences in education between the EU and Poland and the differences in education on national level by region and age (in particular, the discrepancies between rural and urban areas) (e.g., Józwiak et al. 2000).

The rising educational aspirations of Poles may be illustrated by the rapid increase of participation in university education. The number of university students in 2004 reached almost 2 million and was four times higher than in 1989. Among persons aged 19–24, nearly 55% were in education in 2004. Labour-market indicators confirm the crucial role education plays in employment prospects. During the years 2000–2005, the labour-force participation rate and the employment rate of persons with university education (around 80% and 76%, respectively) were the only rates that did not fall. Moreover, differences in unemployment rates between persons with the lowest and highest education categories increased markedly – in 2005 the unemployment rate was 25.9% for persons with primary education and lower versus 7.3% for persons with tertiary education, while in 1996 the same rates had been 12.0 and 2.9, respectively (LFS data from the fourth quarter).

There are two important aspects of this improvement in educational attainment in Poland. Prolonged education contributes remarkably to postponement of marriage and parenthood. Due to differences in educational activities, women and younger generations benefit more from advancement in education (Figure 19).

3.3 Family policy

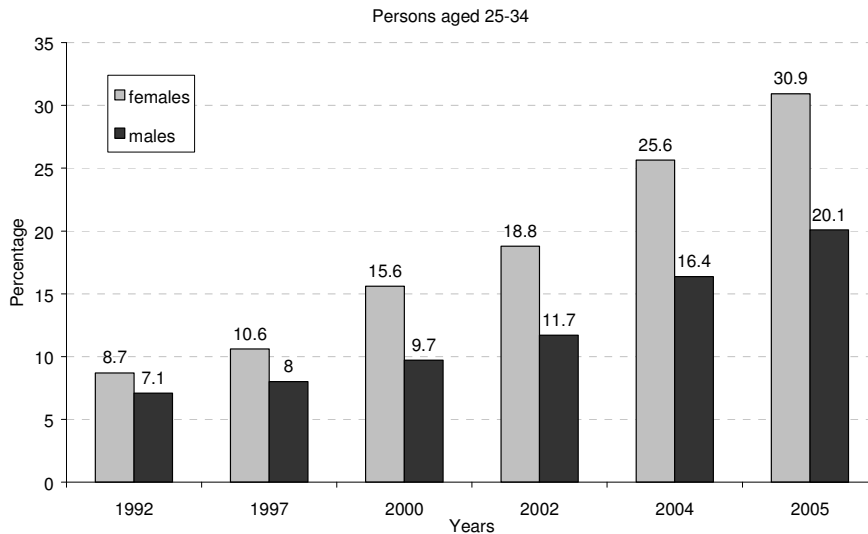
Family policy measures are usually divided into two groups: (a) direct and indirect monetary transfers and (b) work and family reconciliation measures (see Hofaecker, 2003). Direct transfers include family and childcare benefits and subsidies while indirect transfers concern tax reductions. Leave schemes and public childcare belong to measures oriented towards combining work and family. *Eligibility conditions, coverage and timing* of the measures (especially leave schemes) define to what extent the measures support families in their parenthood responsibilities and mothers' involvement in the labour market. The following short description of family policy regulations in Poland in the 1990s will focus on both groups of policy measures and the three factors mentioned above, defining their efficiency in supporting families.

Since the beginning of the 1990s the state has reduced its support to families both in terms of financial measures and provision of services. Changes in direct monetary transfers resulted from pressure to cut overall social spending on the one hand and from the necessity to implement anti-poverty measures on the other. The major changes in family and childcare benefits implemented in the period 1989–2003 can be characterised as follows (Balcerzak-Paradowska et al. 2003):

- Some benefits linked previously to employment (the insurance-based benefits) were converted into non-insurance benefits and transferred to the state budget or the local government.
- A new type of social assistance was introduced to address rising poverty.
- Financial support for multi-children families was expanded.
- The majority of family benefits (apart from maternity and childcare benefits) was converted from universal into income-tested benefits.
- Wage indexing was replaced by price indexing.
- More restrictive eligibility conditions were introduced.
- The majority of benefits decreased in real terms.

Generally, the system was transformed from the universal model to one supportive of low-income families with children.

Figure 19: Percentage of persons with university education among those aged 25–34, LFS, second quarter



Source: Author's calculations based on LFS data from the second quarter.

3.3.1 Family benefits

New arrangements for financial support to the family were defined by the reform of November 2003, in force since May 2004. They result in reduced financial assistance for the family in general but have some particular effects for low-income families, especially those with three or more children. Additionally, the responsibility for the payment of family benefits was moved to social assistance institutions. Since 2003 there have been already several amendments to the new law. They resulted in a cut of assistance for lone parents. The most recent amendment was implemented on 18 July 2006. It changed the income threshold for farmers' households and increased allowance levels, as of 1 September 2006.

The income criterion for basic family allowance is lower than before the 2003 reform, i.e., the monthly household income per person should not exceed 504 PLN for families without disabled children (around 138 Euro, at an exchange rate of 3.65 PLN for 1 Euro) and 583 PLN (160 Euro) for families with disabled children up to 25 years of age.¹⁸ The basic allowance was dependent on the number of children: the monthly amount equals 43 PLN (12 Euro) for the first and second child, 53 PLN (15 Euro) for the third child and 66 PLN (18 Euro) for the fourth and each subsequent child. Since September 2006 the basic allowance is dependent on the age of the child; the level increases to a monthly amount of 48 PLN (13 Euro) for a child up to 5 years, 64 PLN (18 Euro) for a child aged 6–18 and 68 (19 Euro) for a child aged 19–24; families with three or more children receive 80 PLN (22 Euro) additionally for third and subsequent children (if the income criterion holds).

The basic family allowance may be increased by financial supplements, granted under special circumstances related to care and child-rearing (e.g., lone mothers, lone mothers who lost their entitlement to unemployment benefit [cancelled in 2006], persons on parental leave, parents of disabled children, birth grants, and nursing allowances).¹⁹ There are also educational supplements for children attending school outside the place of residence and lump sums paid once a year at the beginning of the school year for children from low-income families. Since the supplements are all

¹⁸ This criterion refers to households that derive their main income from non-agriculture sources. The calculation of farmers' incomes is based on the basic rate per 1 ha, which declined. From September 2006 onwards more farmers' families have been entitled to a basic family allowance and its financial additions.

¹⁹ On 1 January 2006 the level of the income-tested birth grant (for those families which are entitled to the basic family allowance) was increased from 500 PLN (137 euro) to 1000 PLN. At the same another grant for a newborn baby (1000 PLN, or about 274 euro) was introduced. Families are entitled to it irrespective of income. The main reason behind these decisions, as declared by the government, was to diminish costs of raising children and to encourage couples to have children.

income-tested (the eligibility criteria are the same as for family allowance), they are mostly paid to low-income families.

In April 2005 a new supplement to the basic family allowance was introduced to support families with three or more children and to counteract the poverty risk, which increases with the number of children. Families entitled to the family allowance received an additional 50 PLN (around 14 Euro) for the third and each subsequent child.

As a result of the reform, the number of family benefit recipients in 2004 was lower by 7.4% than a year ago (it amounted to 5.510 million in 2004). A further decline was observed in 2005 (to 5.192 million).²⁰ The average family allowance amounted to 46 PLN (around 13 Euro) and the average supplement to 57.7 PLN (around 16 Euro).

This new system of financial assistance supports low-income families with children more strongly than the previous one. Other families do not receive any significant state assistance.

3.3.2 Childcare

Moreover, the state delegated responsibility for running childcare institutions to the local authorities. Due to financial shortages, they moved some costs of running the public childcare institutions (about 30–40%) to parents in the form of increased fee for meals, charges for services beyond the minimum educational program, and contributions to parents' committee funds (Balcerzak-Paradowska et al. 2003). Any additional educational and recreations services (foreign languages, music lessons, swimming pool, sport activities, etc.) now have to be paid as an extra. Also, in primary schools any care services provided for small children are no longer free of charge. In sum, institutional care for children aged 0–6 and for those of primary school age was radically reduced, the costs of services have increased, while accessibility to the services declined. Over the years 1989–2003, the number of places in crèches declined by 76% and by 25% in nursery schools (CSO data). The indicators for children under institutional care belong to the lowest group compared to other EU countries (Matysiak 2005b). In 2004 only 2% of children aged 0–2 attended crèches, while 38% of children aged 3–5 attended kindergartens. Finally, no childcare subsidies are offered to families.²¹

²⁰ Ministry of Labour and Social Policy data.

²¹ According to the CSO data, around 5% of children aged 0–2 attended crèches in the 1980s, while the percentage of children aged 3–6 in kindergartens oscillated between 34.8% and 36.4%. In the 1990s the

3.3.3 Maternity leave

Maternity leave is granted to a female employee in the case of childbirth and to those who adopt children or provide foster care. The wage loss is fully compensated. Before 1999 the length of maternity leave was 16 weeks upon first birth (since 2001, it can be divided into 14 weeks for the mother and two for the father), 18 weeks upon each successive birth (14 weeks for the mother and four for the father), and 26 weeks in the case of multiple birth. Since 1999 there have been some temporary changes in the duration of the leave. In 1999 it was extended to 20 weeks upon the first and each successive birth and 30 in the case of multiple births, and in 2001 to 26 and 39 weeks, respectively. In 2002 the leave was cut back to pre-1999 levels. Recently, the government has prepared a proposal to extend it again.

3.3.4 Parental leave

Another reconciliation measure is parental leave. It may be taken for 36 months in four periods at most for a child up to the age of four by employees with a work record of at least 6 months. This may be extended for another 36 months if the employee is raising a child who is disabled, chronically ill, or mentally retarded and requires care. The leave is granted until the child reaches the age of 18 at the latest.

The total standard leave of 36 months is assigned to parents (or persons who take care of a child), and either the mother or father may take the leave. The time for both parents to be jointly on leave cannot exceed three months. Fathers have been entitled to parental leave since 1996.²² There are gender equality guarantees on stability of employment relations, on the return to work to an equivalent position and on the inclusion of the leave period as part of the total work record (for pension rights). Additionally, there is an opportunity to combine work, training, education, and parental leave if these activities allow for the child/children to be taken care of – the main purpose of the leave.

Since 2004, persons who start a job while on parental leave lose their parental benefit, irrespective of the income criterion. The parental benefit is means-tested – the monthly household income per capita cannot exceed 504 PLN (583 PLN in the case of a disabled child). Previously, it was possible to work and receive the parental benefit at

former declined to 2%, contrary to the childcare indicator for children aged 3–6, where the percentage increased from 32.8 to 40.4 in 2003 due to a declining number of births.

²² The right to family benefits and leave schemes was extended to include fathers but it was not individualised i.e. it was considered as a family entitlement to be used by parents.

the same time when the total income of the parent on leave did not exceed 60% of the monthly average remuneration in the national economy.

The parental leave scheme in Poland has been subjected to some criticism for its inflexibility (Matysiak 2005b). This inflexibility has been moderated by an option to replace the leave by part-time employment (since 2002), to divide it into four periods (since 2003), and to undertake any professional or educational activities during the leave (since 2003). However, these possibilities are hardly used. One of the reasons might be the tight income criterion for the parental benefit. One may also argue that a flat-rate parental benefit may affect the leave take-up rate by fathers. Since the father's income is usually higher than that of the mother, the family's welfare deteriorates further when the leave is taken by the father. Recently collected data confirm that 50% of mothers but only 2.5% of fathers entitled to parental leave made use of it between the second quarter of 2004 and the second quarter of 2005. Parental benefit was paid to nearly 70% women, more frequently to mothers in rural areas. The higher the education level, the lower the share of benefit receivers. Lone mothers made use of that leave slightly more frequently. Additionally, the data in Table 2 suggest that not only financial reasons (e.g., a lack of parental benefit, a benefit that is too low) but also concerns about negative effects for employment and preference for work are decisive as to parental leave take-up.

Table 2: Reasons for not taking up parental leave

Reasons	Total	Females	Males
No benefit /too low*	22.1	29.6	14.3
No flexibility to choose the leave period	2.3	2.1	2.3
Negative effects for social insurance	1.3	1.2	1.6
Negative effects for employment	16.9	19.8	14.3
Preference for work due to other reasons	16.7	17.3	16.0
Other reasons	40.7	30.0	51.5

Source: Author's calculations based on the survey 'Reconciling work and family', second quarter 2005
 *400 PLN per month (around 110 Euro monthly up to two years).

3.3.5 Part-time employment

Part-time employment is not a typical family policy measure. However, it is increasingly taken into account in discussions on women's employment, fertility, and the welfare state.

Part-time employment is very limited in Poland. Slightly more women than men work half-time: 13% versus 8% in 2004 (LFS data). Women with a higher education opt for part-time jobs less frequently. Those with the lowest education do not perceive part-time work as a measure to combine work and family either, probably due to low pay (World Bank 2004). Part-time work in Poland is rather an alternative for those who cannot find a full-time job, i.e., they engage in this form of employment involuntarily (around 30% of part-timers) than a reconciliation measure for those who need to combine work and care (Matysiak 2005a).

The scarce provision of childcare facilities, availability of leave schemes, underdeveloped flexible work patterns, and part-time employment on a limited scale constitute the 'imposed home care' model of family policy in Poland (Kontula and Metinnen 2005). This means that employed parents have to rely mostly on their own involvement and support of relatives to care for the children. The results of the survey 'Reconciliation of work and family' carried out in May 2005 showed that nearly 40% of working mothers of children of up to 14 years of age and living with partners were supported by relatives providing childcare. Support by household members is particularly important for single mothers (Table 3). Working mothers with a university education used child day-care centres relatively more often.

Table 3: Employed parents of children aged up to 14 by care arrangements*

Care arrangements	Total	Fathers	Mothers	Lone parents
Public care centres	16.4	13.7	19.6	20.7
Private care centres	0.6	0.5	0.7	0.0
Paid care	1.8	1.5	2.2	0.8
Partner	34.2	47.7	19.4	–
Relatives – members of the same households	17.8	12.9	22.0	40.1
Relatives – living in other households	14.2	11.6	17.8	14.0
Friends	0.5	0.4	0.7	1.2
No use of any care	14.6	11.6	17.8	22.3
Total	100.0	100.0	100.0	100.0

Source: Author's calculations based on the survey "Reconciliation of work and family", second quarter 2005.
*percentage of respondents who use the defined form of care while at work.

4. Remarks on ideational change

Despite the declining propensity for marriage and childrearing in Poland, family life and children are highly valued, and marriage remains the main form within which to start a family. Various survey-based studies still confirm the high importance attached to the family with children and based on marriage.²³ However, although a family with children remains the main choice among many life-style options, alternative life courses have been accepted and practised by an increasing number of people, especially by younger generations who are more receptive to recent economic and social changes. Gradually progressing changes in values and beliefs are reflected in intergenerational differences: Younger generations are less altruistic, more inclined to strive for self-fulfilment and appreciation outside the family, and they are more inclined to attach less importance to family life and children (Kowalska and Wróblewska, 2008).

The foregoing discussion about family-related behaviours in Poland has shown that in very recent years some changes accelerated (e.g., marriage dissolution, out-of-wedlock births) and are more progressed among the urban population. Hence, one may hypothesise that changes in values and norms are more apparent for that population. To identify ideational change behind both components of the overall observed changes selected, we refer to the results of two retrospective surveys carried out in 2001 and 2006. Our focus is on values attached to the family and its formation, secularisation, and contraception. The main data refer to the sample of urban population, aged 18–54, residing in towns with a least 20,000 inhabitants (Frątczak and Balicki 2003; Frątczak et al. 2006; Józwiak 2006).

Despite the fact that in Poland marriage is still the prevailing form of union, the level of acceptance for cohabitation has increased significantly. In 2001 as many as almost 12% of men and more than 16% of women expressed the opinion that cohabitation was not acceptable at all, while in 2006 the corresponding figures were 6% and 8%, respectively. What is important from the perspective of future demographic behaviour is that such an opinion was indicated by only 4% of respondents aged below 30 years and by 4.5% of respondents with higher education. Simultaneously, around 48% of respondents in 2001 and 57% of respondents in 2006 accepted cohabitation as a proper form of union under the condition that it suits both partners.

²³ Frątczak and Balicki (2003) provide analyses based on the retrospective survey on family-related attitudes and behaviour of young and medium-age females and males in Poland in 2001; Kotowska et al. (2003) refer to the national PPAS of 2001; Kajcińska (2005) makes use of the data of the third wave of the European Values Study; Esveldt and Fokkema (2005) use the international PPAS data similarly to Sobotka and Testa (2008), Stankuniene and Maslauskaitė (2008), Kowalska and Wróblewska (2008).

On the one hand, such level of cohabitation acceptance seems to be relatively low, regardless of the upward trend in respective proportions. On the other hand, the relatively high and increasing percentage of 'conditional supporters' seems to indicate at least an increasing tolerance towards consensual unions.

In 2001 as well as in 2006 respondents expressed very positive opinions on having children; some aspects of parenthood were perceived even more positively in 2006 than in 2001. On the basis of the two surveys, neither a decrease in the value of children and family nor any lowering of their position in the individual value systems of the respondents can be observed. There is, however, a notable increase in the proportion of respondents who believe that parents should not make sacrifices for their children and that a couple should remain childless if they preferred to do so for their own comfort. This is a symptom of increasing individualism and orientation towards self-fulfilment.

In the context of the value of children and family, opinions on the statement, 'Marriage cannot be complete without children' look interesting. In 2001, some 50.5% of respondents agreed or fully agreed with this statement, while in 2006 this proportion increased to 56%. The view was expressed relatively less frequently by younger respondents (below 30 years of age) but the relevant proportion increased as well (from 45% to 48%).

The extent of secularisation in Poland is not large, although in 2006 the percentage of respondents who declared themselves as being of 'no denomination' were three times the 2001 proportion (1% and 3% of respondents, respectively). In this period, the religiosity of Poles weakened, as measured by a self-classification of respondents into one of 10 categories of religious practise. The proportion of regularly practicing believers decreased from 38% in 2001 to 26% in 2006 among men and from 50% to 34% among women. However, the share of believers practicing irregularly increased from 55.5% to 63.5% among men and from 47% to 59% among women. In general, the share of practicing believers (both regular and irregular) decreased by 4 percentage points between 2001 and 2006.

The process of attitude change of Poles towards religion can be described as 'de-institutionalisation' and 'individualisation' of confession or religion more so than a 'secularisation' (Mariański 2007). The trend is manifested in declining church attendance, a weakening of feelings of ties with the church as an institution, and an increasing propensity for individual interpretations of norms and values formulated by the church. The importance of religion is still very high – though decreasing – for all respondents, including respondents under 30. In this group, religion was very important for 78% of respondents in 2001 and 69% of respondents in 2006 (Frątczak et al. 2006). The Catholic Church is still an important institution, with the highest ranks of social trust; however, its influence on people's behaviour is gradually weakening (Mariański 2007).

According to the SDT concept, the prevalence of modern, effective contraceptives plays a very important role as a 'technological' factor in reducing fertility. The more effective use of contraception is often singled out as important for fertility decline (Jaruga 1999; Bolesławski 2001; Frątczak 1999; Frątczak and Balicki 2003). Such effects seem to be indicated in analyses by Bolesławski (2001), which revealed that the percentage of marriages with a pregnant bride decreased significantly (from 47% to 38% between 1989 and 2000) and that the number of children born within marriage but conceived before marriage has also decreased, particularly for women under 25 years of age. This decline contributes to the reduction in the propensity to marry. Observations about the more widespread use of contraception and shifts towards modern contraceptives is confirmed by studies on the sexual behaviour of the young and older generations (Wróblewska 1998; Woynarowska 2007; Izdebski 2007; Frątczak et al. 2006) and by studies on fertility control (e.g. Szamotowicz 2007).

FFS data for Poland from 1991 showed that 49.4% of couples did not use any method, 19.3% practised periodic abstinence, 9.1% used condoms, 11.1% used withdrawal, and only 2.3% used the pill (female sample, Holzer and Kowalska 1997). Data from a special survey on the use of contraceptives, run in 2005, indicates that the main contraceptives used were condoms (36% of respondents) and the pill (24%). Natural methods were used by 16% of women (Woynarowska and Tabak 2007). A similar pattern of contraception was found for a non-random sample of mothers employed in sectors other than agriculture who produced a child during the years 1995–2004. Data from the survey carried out in November–December 2006 among mothers residing predominantly in urban regions showed that contraceptives most in use before the last pregnancy were condom (30% of mothers), the pill (23%), and natural methods (23%) (Kotowska et al. 2007).

The growing use of contraception is combined with a shift towards modern methods. However, despite the increasing use of the pill, especially among young women, the highest percentage of females made use of a condom (e.g. Szamotowicz 2007; Woynarowska 2007; Izdebski 2007).

The change in contraception practices is confirmed by the retrospective survey data of 2001 and 2006: Among respondents younger than 30 years, unconditional acceptance of using contraceptives increased to 70% of men and women in 2006 (from 66% of women and 60% of men in 2001). However, the analysis of opinions in the two surveys reveals a relatively high proportion of respondents for whom the reliance on contraceptives was unacceptable (around 9% in 2001 and 8.5% in 2006). For younger respondents, this percentage is lower and shows a slight decrease over the period 2001–2006 for women (from 5.8% to 4.7%) but an increase among men (from 4.5% to 6.5%) (Frątczak et al. 2006).

Another indication of shifts in birth control behaviour is a decline in adolescent fertility despite the decreasing age of sexual initiation and in spite of the increasing acceptance of sexual intercourse outside marriage. The birth rate dropped from 30.7 births per 1000 of women aged 15-19 years in 1989 to 13.8 in 2004 which situates Poland among the CEE countries with the lowest teenage fertility (Wróblewska 1998, 2007).

In any debate on birth control, one has to refer to the regulation of abortion. Since 1993 induced abortion has been restricted in Poland except for three situations: When the health or life of a pregnant woman is endangered, when prenatal tests indicate irreversible disability of the fetus, or when the pregnancy results from legally prohibited sexual contact and intercourse forced upon a woman.

The decline in induced and spontaneous abortions was observed as early as before 1993. According to registration data, the number of induced abortions declined from 138,000 in 1980 to 35,000 in 1989 and 4,500 in 1992. Spontaneous abortions dropped from around 70,000 in 1980 to 52,000 in 1989. Their number oscillated between 41,000 and 47,000 in the years 1994–2004. Estimates of illegal abortions differ remarkably, from 10,000 to 170,000 (Niemiec 2007). Analyses by Jaruga (1999) seem to confirm that abortion cannot be considered as a factor contributing to fertility decline in Poland before or after 1989.

Other studies also show progressing changes in sexual behaviours and methods to control fertility. They reveal an increasing acceptance of sexual contacts outside marriage, a decrease in the link between sexual behaviour and the decision to marry, and a lower age at sexual initiation (e.g., Wróblewska 1998; Woynarowska 2007).

To conclude, the results presented demonstrate slight changes in values and norms related to family and children in Poland. They are more visible among younger persons. The upward trends in divorces, one-parent families, and the decline in births were perceived negatively by more than 70% of Poles, while other family-related developments, such as the increasing proportion of cohabiting couples and the rising proportion of out-of-wedlock births and childlessness received less disapproval (Kotowska et al. 2003). Therefore, one can expect further developments in the direction indicated by the SDT. However, currently it can be said that the ideational change in Poland is relatively slow.

5. Policy measures intended to reverse the declining fertility in Poland

It is striking that Poland, where family and children are highly valued, has one of the lowest fertility rates in Europe. Although there is a lot of uncertainty about future

childbearing intentions of the childless, there exist large discrepancies between values attached to children and family life and procreative behaviours. This issue needs to be explained. One possible interpretation is that these discrepancies are affected by the restrictions people face. Due to the state's withdrawal from family support and the difficulties experienced in the labour market by particular population groups, the lack of resources available to individuals and families increasingly restricts their capabilities to cope with family responsibilities.

Several studies confirm the relevance of economic determinants related to the costs of raising children and the labour market for the family and parenthood. According to the two nationally representative surveys, carried out in the second half of 2001 in Poland, the main reasons to postpone marriage and childbearing were difficulties in finding a job and poor dwelling conditions. Less important was the need of young people for increasing independence, a longer period of education, and a decreasing importance of marriage (Frątczak and Balicki 2003; Kotowska et al. 2003). Having a job and a relatively stable position in the labour market was indicated as a precondition to family formation. Analyses based on LFS data showed that in the years 1992–2002 the correlation between marital status and employment changed, which seems to account for the sequence of education–employment–marriage adopted by women. In 1992 married females less frequently had a job than single females and were slightly more exposed to unemployment. Within the period of economic transformation, married women gradually improved their position in the labour market such that, by 2002, they had a considerably higher probability of employment and a lower probability of unemployment than single females (Kotowska and Abramowska 2003). The logistic regression run on the LFS data of 2005 confirmed that change. Moreover, married women with children were more exposed to unemployment than single women without children and less exposed than lone mothers. Simultaneously, married women with children had a significantly lower probability of employment than single females without children and they had a higher probability of employment than lone mothers (Kotowska 2006).

The most relevant determinants for limiting the number of children were the costs of raising children and an uncertain future for children. The costs of raising children were especially important for persons aged 20–29, people with a low education, and married couples (parents). Concerns about the future of children were expressed markedly by persons aged 25–34 and those with a low educational level (Kotowska et al. 2003). Childless respondents aged 20–40 indicated a lack of partner and expressed concerns about the future of children as the most important reasons to remain childless. Parents at that age group declared an uncertain future for children and high costs of children as decisive for the decision not to have an additional child (Fokkema and Esveldt 2005). Also, the results of the reconciliation survey of May 2005 again

indicated the costs of children influence parenthood intentions; additional reasons were related to employment (difficulties in reconciling employment and parenthood, concerns about continuing work after parental leaves). Moreover, logistic regressions run for negative intentions to become a parent contrasted with positive intentions confirmed the results obtained by Sobotka and Testa for Poland (Sobotka and Testa, 2008): Low education level considerably restricted plans to have a child for childless men. For childless women such a limiting factor was non-participation in the labour market (Kotowska and Baranowska 2006). Additionally, male unemployment increased the risk of childlessness. In the models explaining uncertainty about a transition to parenthood compared with specified fertility intentions, as in regressions by Sobotka and Testa, being single strongly determined the uncertainty of intentions.

Referring to the resources-restrictions-behaviour approach (Hoffman-Nowotny and Fux 2001), one may conclude that possible policy recommendations should focus on measures that support individuals and families in building their own resources and that reduce restrictions related to family formation and childbearing decisions. And measures aimed at reconciliation of work and family commitments have double effects – they strengthen the resources of individuals and families as well as weaken constraints.

Reconciliation is a key issue in debates on fertility and family since the increasing economic participation of women results not only from changes in their social roles but also changes in demand for their labour. Recently, female employment acquired a new rationale. Challenged by the shrinking labour force as well as the rapid ageing of the population and work force which are taking place under the pressure of globalisation and technological change, Europe is searching for solutions to increase its development potential. A rise in women's employment is indicated as one of the primary targets to be achieved. Additionally, rising uncertainty in the labour market prompts the need for dual earning to diversify risks related to deterioration of family welfare due to job losses. Also, the implementation of the defined contribution pension scheme, based on individual accounts of workers²⁴ creates new incentives for women's employment, since future old-age pensions are strongly determined by labour-market experience. However, more women in paid employment could have a negative effect on fertility, already at a low level (e.g. Kotowska et al. 2005). The challenge to combine increases in fertility and women's employment is even stronger in countries such as Poland, where low employment coexists with lowest-low fertility and where the perception of

²⁴ The reform of the pension system took place in Poland in 1998. Its main feature was a gradual replacement of the old pay-as you-go (PAYG) system by the defined contribution system. In other words the system in which current contributions are used to pay the expenses for the current old-age pensioners has been gradually replaced by the system based on individual accounts.

gender roles is still traditional, although gender equality is starting to be slowly recognized as an issue in public debates.

Additionally, economic globalisation, the restructuring of labour markets, and new technologies create major new conditions for actors of economic and societal change, among other conditions for individuals and families, employees and employers, various institutions, and the state. According to Mills (2001), McDonald (2002), and Mills and Blossfeld (2005) these developments may be labelled as family and child-unfriendly (e.g., Kotowska 2004a, 2004b, 2005a, 2005b). Pressures on increasing labour-market flexibility as well as unstable and discontinuous employment require more individual effort and time to be managed. These pressures lead to the growing incompatibility of family with labour-market participation as well as to rising uncertainty in the labour market.

Solutions that facilitate a combination of parenthood and work should be seen as preconditions for fertility increase. However, their effectiveness depends on the conceptualisation of women's (mothers') employment. And it is increasingly held that employment-family reconciliation solutions should be parent-oriented instead of only women-oriented (e.g., Leira 2002; Letablier 1998). Therefore, debates on reconciliation measures should include the issue of gender equality. The issue is increasingly important since in many countries rising female labour-force participation has not been accompanied by changing perceptions of their social roles or by implementing policy measures that account for the dual role of women as earners and care-givers. Liefbroer and Corijn (1999) refer to the former as a 'cultural incompatibility' between family and women's work, and to the latter as a 'structural incompatibility'. The concept of structural incompatibility between employment and family reflects, in fact, a kind of a structural lag in adapting the institutional setting to the increasing labour-force participation of women. Thus, in Poland as in other countries of Central and Eastern Europe ('the CEE countries'), there is a strong cultural conflict, accompanied by the rising structural incompatibility between work and family which began in the 1990s (Muszyńska 2004, 2005).

Analyses of fertility differentials in Europe in the context of gender roles and actual societal opportunities and constraints on the roles of women as an economic provider and home-carer showed that higher social approval for women's work and lower structural incompatibility were associated with lower opportunity costs and higher fertility levels (Adsera 2004; Muszyńska 2005). As cultural incompatibility reduces the impact of reconciliation policies on the labour-participation of mothers, one cannot neglect the cultural component in policy recommendations. Policies that diminish the traditional perception of gender roles by promoting equality between men and women are assumed to strengthen reconciliation measures already implemented (e.g., by encouraging fathers to use existing regulations on parental leaves for men and

to take advantage of flexible working hours or part-time work when caring for small children, etc.). The promotion of equal opportunities for employment and equality in family responsibilities seems to have a special relevance in Poland, as in other post-socialist countries with a high cultural incompatibility between family and work (e.g., Philipov 2005a, 2005b; Kotowska and Matysiak, 2008).

To sum up, policy measures needed to reverse downward trends in fertility in Poland are in line with suggestions by McDonald (2002) and Gauthier (2005). The proposed ranking is as follows:

1. Support for parents to combine work and family, including gender equality.
2. Financial support to families.
3. Developing family and child-friendly societies.

Among the reconciliation measures discussed under family policy in Poland (institutional childcare, leave schemes), primary importance should be given to increasing the accessibility of childcare services (nurseries and kindergartens) in terms of places and costs as well as the development of care activities for schoolchildren. Childcare facilities of good quality available at reasonable prices and time adjusted to working schedules of parents can be considered as a policy measure aimed at decreasing both costs of raising children at the family level and educational inequalities. The latter is related to rising income diversification and increasing costs of education. Additionally, childcare provision for schoolchildren should be extended. These developments would have a double employment effect: Mothers would stay in work and additional jobs in services would be created. The next important measures are flexible working arrangements for parents and part-time employment. A higher reliance on them, however, requires greater organisational efforts by employers. Monetary transfers to families need to be rearranged as well, i.e. they cannot be considered as anti-poverty measures only. There is also the suggestion to place a greater emphasis on indirect transfers (e.g. tax reductions). There is no direct family-related tax system; however, several measures could be considered as indirectly family-friendly: the potential for joint returns by spouses, a potential for single parents to use rules similar to those for married couples, tax relief with respect to various benefits and financial assistance. Some indications of family support changes in the tax system already exist. From 2007 income tax is reduced for families with three or more children irrespective of their income. Criticism has already been raised on its limited coverage – tax relief should be proposed for all families with children.

The survey data confirm the relevance of the suggested direction of change. According to the reconciliation survey of 2005, flexible work arrangements were hardly used by employees for reconciliation purposes. Part-time work was mostly a demand-driven measure. When asked for policy measures that would influence child-related

decisions, women who were uncertain about their fertility intentions identified the following as the most important (Baranowska, 2007):

- increasing accessibility of childcare services (nurseries and kindergartens, arrangements for school-age children) in terms of places and costs – between 53% and 61% of women declared these measures as important or very important;
- flexible working arrangements (the possibility to adjust working hours and to work at home) and part-time work – between 55% and 62% of women indicated these measures as important or very important;
- childcare support by family members and financial support by the state – indicated by slightly more than 50% of women.

Also, experts asked under the Delphi study about future policy scenarios for Poland concurred that reconciliation measures, gender equity, and tax reduction need to be implemented (Kotowska et al. 2005a).

6. Concluding remarks

The objective of this contribution was to describe the main changes in family formation processes in Poland as well as their possible determinants. To this end, we used the conceptual framework of the SDT with a focus on its structural component. We adopted this framework mainly because of the similarity of family developments in Poland to processes observed under the SDT in other European countries, particularly in terms of the main directions of change: the declining propensity to marry and to have children as well as the postponement of both decisions. However, one can also point to some dissimilarities. And the question arises whether the SDT can be used appropriately to explain family-related developments in Poland since ideational change has not advanced until recently compared with its progress in other European countries. Moreover, structural processes differ from those observed in the 1960s and 1970s in ‘western’ Europe due to economic and political reforms – the main driving force for changes in demographic behaviour. But the main direction of change, i.e. modernisation and development of the post-industrial economy, is the same. We have thus used the concept of the SDT as a kind of ‘reference framework’ to analyse possible factors of fertility reduction in Poland.

Taking into account the three main components of modernisation processes (i.e. structure, culture, technology) and their possible impacts on family changes under the SDT, we would argue that for the demographic behaviour observed in the 1990s the

structural component played a much more important role both in terms of economic restrictions and incentives than it did in developed economies. However, with time, changes in values and norms are assumed to become more relevant for people's preferences and life choices. Consequently, the results presented here show differences between younger (especially the under-30s) and older generations.

Among the structure-related processes, which cover economic developments, labour-market participation, household welfare, and social policies, our focus was on labour-market changes and family policies since they play a decisive role in the increasing direct and indirect costs of raising children. Moreover, the labour market in Poland, as in other countries, is becoming increasingly affected by globalisation processes, which lead to family-unfriendly developments. Unstable and discontinuous employment, which requires greater management of individual effort and time, expectations that employees will be highly available and mobile increase work-family incompatibilities and affect family-related decisions (e.g. Mills 2001; Mills and Blossfeld 2005; Kotowska 2004b, 2005b). Also, the growing uncertainty about jobs and incomes contributes to difficulties concerning decisions on long-lasting commitments, like family formation and (particularly) parenthood. Reconciliation between work and family is becoming crucial, especially in countries such as Poland where low levels of women's employment co-exist with the lowest-low fertility, the traditional perception of gender roles is still held by a substantial part of the population, and underdevelopment of flexible work patterns and institutional childcare makes work and family responsibilities hard to combine.

In the period under study, changes in family policies did not mitigate the difficulties that families were facing, which were those related predominantly to economic change and the labour market. Social policy (and family policy) has been formulated in terms of reaction to immediate social needs (unemployment, poverty) with measures concentrated on income support for dependent population strata. Increasing uncertainty and incompatibility between employment and family have been neglected in designing policies. As a result, the increasing vulnerability of the family is accompanied by a weakening intervention of the state. Therefore, family related behaviour seems to reflect mostly people's adaptations to new conditions. On the one hand, it seems that 'adjustments under pressure' as well as the importance of religion and the position of the church slow down value changes. On the other hand, however, these changes do progress gradually and the impact of the church is weakened by the 'de-institutionalisation' and 'individualisation' of religion.

There is no doubt that under new economic and political regimes the role of the state is subjected to change. However, reducing the role of the state in Poland has not solely resulted from a redefinition of its position and rapidly diminishing state resources. The main reason is a lack of ideas on how to respond to new social

challenges emerging under transformation and additionally strengthened by technological change and globalisation. Furthermore, under strong, steady pressure from unemployment, traditional perceptions of gender role have been re-voiced. The change in the family situation in the 1990s can be treated as a shift from 'defamilisation' towards 'familisation' of child-related duties (Leira 2002; Kotowska 2004) or to the 'imposed home care' model of family policy (Kontula and Miettinen 2005). Without reversing that shift, it is difficult to expect a fertility recovery in Poland even under improving conditions of household welfare.

7. Acknowledgements

The paper was prepared when Anna Matysiak stayed at the Max Planck Institute for Demographic Research. In the later stage of the preparation she was supported by the Foundation for Polish Science. The authors express their gratitude to anonymous reviewers for their valuable comments.

References

- Adsera, A. 2004. Changing fertility rates in developed countries: the impact of labor market institutions, *Journal of Population Economics* 17: 17–43.
- Balcerzak-Paradowska, B., A. Chłoń-Domińczak, I. E. Kotowska, A. Olejniczuk-Merta, I. Topińska, and I. Wóycicka. 2003. The gender dimensions of social security reform in Poland, in E. Fultz, M. Ruck and S. Steinhilber (Eds.), *The Gender Dimensions of Social Security Reform in Central and Eastern Europe: Case Studies of the Czech Republic, Hungary and Poland*. Budapest: International Labour Office, Subregional Office for Central and Eastern Europe, pp: 187–315.
- Baranowska, A. 2007. Child-related decisions – preferences and practices, in I.E. Kotowska, U. Sztanderska, I. Wóycicka (eds.), *Economic and educational activities and family responsibilities in Poland* (in Polish), Scholar Publisher, 2007, pp: 423–437.
- Bolesławski, L. 1993. *Polskie tablice dzietności kobiet 1971–1992*. Warsaw: Central Statistical Office.
- Bolesławski, L. 2001. Marital and extra-marital births in 1989–2000 (in Polish). *Wiadomości Statystyczne* 11: pp: 25–37.
- Bogaarts, J., and G. Feeney. 1998. On the quantum and tempo of fertility, *Population and Development Review* 24(2): 271–291.
- Domański, H. 2001. Social mobility in six East European nations, in M. Ingham, H. Ingham and H. Domański (Eds.), *Women on the Polish Labour Market*. Budapest European University Press, pp: 111–145.
- Esveldt, I., and T. Fokkema. 2005. *Comparative report on children and child-friendly policies*. Workpackage 7. DIALOG project. The Hague: The Netherlands Interdisciplinary Demographic Institute.
- Fihel, A. 2005. Consensual unions in Poland: an analysis of the 2002 population census, *Studia Demograficzne* 1: 104–121.
- Fokkema, T., and I. Esveldt. 2005. Family size – wishes and limitations, *Studia Demograficzne* 2: 35–53.
- Frątczak, E. 2003. Births. Fertility (in Polish), in *The demographic situation in Poland. Report 2001*. Warsaw: Governmental Population Council, pp: 48–71.
- Frątczak, E., and J. Balicki. 2003. Family-related attitudes and behaviours of young and medium age females and males in Poland (in Polish), in *The demographic situation in Poland. Report 2001*. Warsaw: Governmental Population Council, pp: 133–151.
- Frątczak, E., J. Balicki, A. Ptak-Chmielewska, M. Mynarska, K. Sienkiewicz, and M. Dębski. 2006. *A comparative study of two retrospective surveys 2001 and 2006: Family-related attitudes and behaviours of young and medium age females and males in Poland and changes in reproductive behaviours in Poland and their consequences for family and household formation and dissolution* (in Polish). Research report. Warsaw: Warsaw School of Economics, Institute of Statistics and Demography.
- Frątczak, E., and A. Ptak-Chmielewska. 1999. Bongaarts-Feeney's formula: an application for Poland (in Polish), *Studia Demograficzne* 2(136): 43–62.
- Frejka, T., and J.-P. Sardon. 2006a. First birth trends in developed countries: persisting parenthood postponement, *Demographic Research* 15: 147–180, www.demographic-research.org.

- Frejka, T., and J.-P. Sardon. 2006 b. *Cohort birth order, parity progression ratio and parity distribution trends in developed countries*. Paper presented at European Population Conference, Liverpool, England, June 2006.
- Fultz, E., M. Ruck, S. Steinhilber. (Eds.) 2003. *The gender dimensions of social security reform in Central and Eastern Europe: Case studies of the Czech Republic, Hungary and Poland*. Budapest: International Labour Office, Subregional Office for Central and Eastern Europe.
- Gauthier, A. H. 2005. Trends in policies for family friendly societies, in M. Macura, A. L. MacDonald and W. Haug (Eds.), *The New Demographic Regime: Population Challenges and Policy Responses*. New York and Geneva: United Nations, pp: 95–110.
- Hantrais, L. 2005. Living as a family in Europe, in L. Hintrais, D. Philipov and F. C. Billari (Eds.), *Policy Implications of Changing Family Formation*. Population studies No.49. Strasbourg: Council of Europe Publishing, pp: 117–181.
- Heinen, J. 1995. Unemployment and women's attitudes in Poland, *Social Politics* 2(1): 91–110.
- Hoffman-Nowotny, H.-J., B. Fux. 2001. Sociological analysis, in A. Pinelli, H.-J. Hoffman-Nowotny and B. Fux. *Fertility and New Types of Households and Family Formation in Europe*. Strasbourg: Council of Europe, pp: 19–45.
- Holzer, J. Z., and I. Kowalska. 1997. *Fertility and family surveys in countries of the ECE region. Standard Country Report: Poland*. New York and Geneva: United Nations.
- Ingham, M., H. Ingham, and H. Domański. (Eds.) 2001. *Women on the Polish Labor Market*. Budapest: Central European University Press.
- Izdebski, Z. 2007. Sexual behaviours of females, in *Reproductive Health: UNDP Report on Social Development (in Polish)*. Warsaw: UNDP–UNFPA and Ministry of Health, pp: 87–88.
- Jaruga I. 1999. Proximate fertility determinants. application of Bongaarts' model for Poland, the years 1991 and 1995, *Studia Demograficzne* 2(136): 63–87.
- Jóźwiak, J. 2006. *Changes in fertility intentions between the years 2001 and 2006. Research report*. Warsaw: Institute of Statistics and Demography, Warsaw School of Economics.
- Jóźwiak, J., I. E. Kotowska, and A. Kowalska. 2000. Demographic processes, the labour market and education, in *Economic and Social Effects of Education (in Polish)*. Warsaw: Institute for Problems of Contemporary Civilisation, pp: 87–120.
- Kajcińska, B. 2005. *The second demographic transition and changes in the family-related attitudes: Poland and selected European countries (in Polish)*. Master's thesis, Warsaw: Warsaw School of Economics. Institute of Statistics and Demography.
- Kocot-Górecka, K. 2004. *Fertility changes and labour force participation of women in Poland with a focus on the transformation period. (in Polish)*. PhD thesis, Warsaw: Warsaw School of Economics. Institute of Statistics and Demography.
- Kohler, H.-P., and K. A. Ortega. 2002. Tempo-adjusted period parity progression measures, fertility postponement and completed cohort fertility, *Demographic Research* 6: 92–144, www.demographic-research.org.
- Kontula, O., and A. Miettinen. 2005. *Synthesis report on demographic behaviour, existing population related policies and expectations men and women have concerning the state*. Work package 4. DIALOG project. Helsinki: The Population Research Institute. Family Federation of Finland.
- Kotowska, I. E. 1995. Discrimination against women in the labour market in Poland during the transition to a market economy, *Social Politics* 2(1): 76–90.

- Kotowska, I. E. 1997. Equality of women and men in the labour market, in R. Siemieńska (Ed.), *Around Problems of Occupational Equality by Gender* (in Polish). Warsaw: Scholar Publisher, pp: 85–106.
- Kotowska, I. E. 2001. Demographic and labour market developments in the 1990s, in M. Ingham, H. Ingham and H. Domański (Eds.), *Women on the Polish Labour Market*. Budapest: Central European University Press, pp: 77 – 110.
- Kotowska, I. E. 2004a. Demographic changes and the future labour market in S. Borkowska (Ed.), *Future of Labour in the 21st Century* (in Polish). Warsaw: Institute of Labour and Social Affairs. Central Statistical Office, pp: 115–138.
- Kotowska, I. E. 2004b. Fertility and nuptiality in the CEE countries in the context of weakening families and a weakening state in T. Knijn and A. Komter (Eds.), *Solidarity Between the Sexes and the Generations: Transformations in Europe*. Cheltenham, UK: Edward Elgar, pp: 111–130.
- Kotowska, I. E. 2005a. Europe towards family changes: is there a need for a European family strategy?, in M. J. Radło (Ed.), *Poland towards Redefinition of the Lisbon Strategy: Green Book of the Polish Lisbon Strategy Forum* (in Polish). Warsaw-Gdansk: Gdansk Institute on Market Economies, pp: 223–241.
- Kotowska, I. E. 2005b. Work and parenthood: main findings of comparative data analysis and policy implications, *Studia Demograficzne* 2: 54–73.
- Kotowska, I. E. 2006. *Reconciling work and family in Poland*. Research report (in Polish). Warsaw: Institute of Statistics and Demography. Warsaw School of Economics.
- Kotowska, I. E., Witkowski, J. (1996). “Labour market developments and demographic processes in countries making transition to a market economy.” *Studia Demograficzne*, 1–2: 123–124: 55–81.
- Kotowska, I. E. (Ed.) 1999. *Demographic changes in Poland in the nineties from the perspective of the second demographic transition* (in Polish). Monografie i Opracowania 461. Warsaw: Warsaw School of Economics.
- Kotowska, I. E., and A. Abramowska. 2003. *Reconciliation of paid work and family in Poland*. Paper presented to the EAPS European Population Conference, Warsaw, August 2003.
- Kotowska, I. E. (Ed.), A. Abramowska, B. Balcerzak-Paradowska, I. Kowalska, M. Muszyńska, and W. Wróblewska. 2003. *Population Related Policy – Goals, Measures, Opinions*. Research report, Warsaw: Institute of Statistics and Demography. Warsaw School of Economics.
- Kotowska, I. E. (Ed.), A. Matysiak, A. Domaradzka. 2005a. *Scenarios of Population Related Policy in Poland. The Delphi Study* (in Polish). Warsaw: Warsaw School of Economics,
- Kotowska, I. E., A. Abramowska, A. Matysiak, M. Muszyńska. 2005b. Comparative Report on Work and Parenthood (D18): Summary Policy Implications Regarding Work and Parenthood (D19), Workpackage 6. DIALOG project. Warsaw: Institute of Statistics and Demography. Warsaw School of Economics.
- Kotowska, I. E., and A. Baranowska. 2006. Fertility intentions in Poland. Research report (in Polish). Warsaw: Institute of Statistics and Demography. Warsaw School of Economics.
- Kotowska, I. E, and A. Matysiak. 2008. Reconciliation of work and family under different institutional settings, in Ch. Höhn, D. Avramov and I. E. Kotowska (Eds.), *People, Population Change and Policies: Lessons from the Population Policy Acceptance Study*, vol. 1, European Studies of Population, Springer. pp: 299–318.

- Kotowska, I. E., E. Słotwińska-Roslanowska, M. Styrz, and A. Zadrożna. 2007. *The labour market situation of mothers after job breaks related to child care*. Research report (in Polish). Warsaw: Polish Association of Social Policy.
- Kowalska A. 1996. *Females' economic activity and their position in the labour market*. *Studies and Statistical Analyses*. Warsaw: Central Statistical Office.
- Kowalska A. 1999. Women in the labour market (in Polish), in I. E. Kotowska (Ed.), *Demographic Changes in Poland in the 1990s from the Perspective of the Second Demographic Transition*. Monografie i Opracowania, 461. Warsaw: Warsaw School of Economics, pp: 35–81.
- Kowalska, I., and W. Wróblewska. 2008. Intergenerational changes in value systems in Europe, in Ch. Höhn, D. Avramov and I. E. Kotowska (Eds.), *People, Population Change and Policies: Lessons from the Population Policy Acceptance Study*, vol. 1, European Studies of Population, Springer. pp: 157–175.
- Leira, A. 2002. *Working Parents and the Welfare State: Family Change and Policy Reform in Scandinavia*. Cambridge: Cambridge University Press.
- Letablier, M.-T. 1998. *Comparing family policies in Europe*. Periodic progress report no.1 of the Thematic Network: Working and mothering: social practices and social policies, TSER Programme of the European Commission, Area III: Research into Social Integration and Social Exclusion in Europe, 1st TSR Seminar, Lund, Sweden, November, 1998.
- Liefbroer, A. C., and M. Corijn. 1999. Who, what, where, and when? Specifying the impact of educational attainment and labour force participation on family formation, *European Journal of Population* 15(1): 45–75.
- Majszczyk, A. 2005. *Fertility intentions by the labour market status* (in Polish). Master's thesis, Warsaw: Institute of Statistics and Demography. Warsaw School of Economics.
- Mariański, J. 2007. New dimensions of religiosity differentials in Poland in A. Kojder (Ed.), *One Poland? Old and New Social Differences*. Cracow: Polish Academy of Sciences, Committee of Sociology. WAM Publishing, pp: 177–204.
- Matysiak, A. 2005a. *Part-time employment in Poland: Family-friendly employment form or a mere alternative for the low-skilled?* Paper for the LOWER Annual Conference, Mannheim, April 2005.
- Matysiak, A. 2005b. The sharing of professional and household duties between Polish couples: preferences and actual choices, *Studia Demograficzne* 1: 122–154.
- Matysiak, A. 2006. Decomposition of the change in female employment. The case of Poland. Warsaw: Institute of Statistics and Demography. Warsaw School of Economics (mimeo).
- McDonald, P. 2002. Sustaining fertility through public policy: the range of options, *Population* (English edition) 57(3): 417–446.
- Mills, M. 2001. *Does globalization impact family formation? The influence of irregular work schedules in the 24-hour economy*. Paper presented at EAPS European Population Conference, Helsinki, June 2001.
- Mills, M., and H.-P. Blossfeld. 2005. Globalization, uncertainty and the early life course: A theoretical framework in H-P. Blossfeld, E. Klizing, M. Mills and K. Kurz (Eds.), *Globalization, Uncertainty and Youth in Society*. London and New York: Routledge, pp: 1–24.
- Muszyńska, M. 2004. *Family models in Europe in the context of women's status*. Working paper on population, family and welfare, no 6. Budapest: Hungarian Central Statistical Office. Demographic Research Institute.

- Muszyńska, M. 2005. *Structural and cultural determinants of fertility in Europe*. PhD thesis, Warsaw: Institute of Statistics and Demography. Warsaw School of Economics.
- Mynarska, M., and L. Bernardi. 2007. *Meanings and attitudes attached to cohabitation in Poland*. MPIDR working paper WP 2007-006, February 2007. Rostock: Max Planck Institute for Demographic Research.
- Niemiec, T. 2007. Abortion, in *Reproductive Health: UNDP Report on Social Development*, (in Polish). Warsaw: UNDP-UNFPA and Ministry of Health, pp: 97–100.
- Philipov, D. 2005a. *Comparative report on gender roles and relations (D16); Summary policy implications regarding gender roles and relations (D17)*. Vienna: Vienna Institute of Demography (OEAW).
- Philipov, D. 2005b. Gender roles and relations, *Studia Demograficzne* 2: 74–85.
- Puhani, P. 1995. *Labour supply of married women in Poland: A microeconomic study based on the Polish Labour Force Survey*. Discussion Paper no. 95–12. Labour Economics, Human Resources and Social Policy Series. Mannheim, Zentrum für Europäische Wirtschaftsforschung GmbH (Center for European Economic Research).
- Rallu, L., and L. Toulemon. 1994. Period fertility measures: the construction of different indices and their application to France, 1946–89, *Population: An English Selection* 6: 59–94.
- Siemieńska, R. 1997. Values and attitudes conditioning females' presence in the labour market, in R. Siemieńska (Ed.), *Around Problems of Occupational Equality by Gender* (in Polish). Warsaw: Scholar Publisher Company, pp: 61–83.
- Slany, K. 2001. Marital and family orientations among students in Poland (in Polish), *Problemy Rodzin* 3: 7–13.
- Sobotka, T. 2004. *Postponement of Childbearing and Low Fertility in Europe*. Amsterdam: Dutch University Press.
- Sobotka, T., W. Lutz, and D. Philipov. 2005. *Missing births: Decomposing the declining number of births in Europe into tempo, quantum and age structure effects*. European Demographic Research Papers, 2. Vienna: Vienna Institute of Demography.
- Sobotka, T., M. R. Testa. 2008. Childlessness attitudes and intentions in Europe, in Ch. Höhn, D. Avramov and I. E. Kotowska (Eds.), *People, Population Change and Policies: Lessons from the Population Policy Acceptance Study*, vol. 1, European Studies of Population, Springer. pp: 177–221.
- Stankuniene, V., and E. Maslauskaitė. 2008. Family transformations in the post-communist countries: Attitudes toward changes and the ideational shift, in Ch. Höhn, D. Avramov and I. E. Kotowska (Eds.), *People, Population Change and Policies: Lessons from the Population Policy Acceptance Study*, vol. 1, European Studies of Population, Springer. pp: 113–137.
- Steiner, V., and E. Kwiatkowski. 1995. *The Polish labour market in transition*. Discussion Paper no.95–03. Labour Economics, Human Resources and Social Policy Series. Mannheim: Zentrum für Europäische Wirtschaftsforschung GmbH (Center for European Economic Research).
- Stolarek, R. 2005. *Extramartial births in Poland* (in Polish). Master's thesis, Warsaw: Warsaw School of Economics. Institute of Statistics and Demography.
- Szamotowicz, M. 2007. Fertility, infertility and birth control, in *Reproductive Health: UNDP Report on Social Development* (in Polish). Warsaw: UNDP-UNFPA and Ministry of Health, pp: 89–91.

- Sztanderska, U. 2005. Economic activity of women in Poland: opportunities and results. (in Polish), in I. Woycicka (Ed.), *Possibilities for Fertility Increase: Implications for the Family Policy*. Blue Books of the Polish Lisbon Strategy Forum (in Polish). Warsaw-Gdansk: Gdansk Institute for Market Economies, pp: 43–63.
- Szukalski, P. 2001. *Fertility and Extra-marital Births in Poland* (in Polish). Łódź: University of Łódź.
- Testa, M. R. (2006). Childbearing preferences and family issues in Europe. Special Eurobarometer 253/Wave 65.1. Strasburg: European Commission.
- Titkow, A. 2001. On the appreciated role of women, in M. Ingham, H. Ingham and H. Domański (Eds.), *Women on the Polish Labour Market*. Budapest: Central European University Press, pp: 21–40.
- UNICEF. 1999. *Women in transition: The MONEE Project CEE/CIS/Baltics. Regional Monitoring Report, no.6*. Florence, Italy: International Child Development Centre.
- van de Kaa, D. J. 1994. The Second Demographic Transition revisited: theories and expectations, 1993, in G. C. N. Beets, R. L. Cliquet, G. Dooghe and J. de Jong Gierveld (Eds.), *Population and Family in the Low Countries 1993: Late Fertility and Other Current Issues*. NIDI-CBGS Publications, Amsterdam/Lisse: Swets & Zeitlinger BV, pp: 81–126.
- World Bank. 2004. *Gender and Economic Opportunities in Poland: Has Transition Left Women Behind?* Warsaw: World Bank.
- Woynarowska, B. 2007. Sexual behaviours of females aged 16 and 18, in: *Reproductive Health: UNDP Report on Social Development* (in Polish). Warsaw: UNDP–UNFPA and Ministry of Health, pp: 85–86.
- Woynarowska, B., and I. Tabak. 2007. Subjective evaluation of health by women, in *Reproductive Health. UNDP Report on Social Development* (in Polish). Warsaw: UNDP–UNFPA and Ministry of Health, pp: 76–79.
- Wróblewska, W. 1998. *Sexuality of Polish teenagers*. Research report (in Polish). Warsaw: Warsaw School of Economics. Institute of Statistics and Demography.
- Wróblewska, W. 2007. Procreative behaviours of teenagers, in *Reproductive Health. UNDP Report on Social Development* (in Polish). Warsaw: UNDP–UNFPA and Ministry of Health, pp: 120–125.

