AUCO Czech Economic Review 3 (2009) 48–68
Acta Universitatis Carolinae Oeconomica

The Financial Impact of Government Policies on Families with Children in the Czech Republic, Hungary, Poland, and Slovakia

Natálie Švarcová[*], Petr Švarc[**]

Received 3 November 2008; Accepted 2 February 2009

Abstract In the presented paper we focus on the two ways in which family policy influences life of the society. Firstly, we discuss incentives that the family policy provides to families when they are deciding about having a child. Secondly, we describe the impact of family policies on standard of living and well-being of the families with children. European countries already acknowledged the fact that increase in the fertility rates would be natural solution of the ageing of the European population and family policy is seen as one of the tools available to achieve higher fertility rates. At the same time empirical evidence suggests that the families with children are overrepresented among the population at risk of poverty and family policy can be seen as an instrument for alleviating the financial burden of the families with children. Presented study compares the impact of the government policies on the net income of families with children in the Czech Republic, Hungary, Poland and Slovakia. Comparative analysis of the birth grants, the maternity allowances, the child-rearing allowances and child allowances in the four examined countries is undertaken followed by the assessment of tax systems in these countries. Second part of the paper is devoted to the discussion of the income situation of the families with children in the four countries and tries to shed light on the impact of family benefit system on the households with dependent children. Our results indicate that family provisions in the Czech Republic and Hungary are relatively generous with the Czech system working simultaneously as a social assistance to poor families and the Hungarian system working on much less of a sliding scale of benefits. Poland provides only very modest financial support to families with children and the burden imposed by the parenthood is much heavier than in the three other countries. Czech and Slovak family support systems are similar in its structure but amounts paid to Slovak families are lower.

Keywords Family policy, income taxation, subsidies, fertility, family benefits
JEL classification H24, J13

1. Introduction

Family policy is generally seen as an important instrument of the government policies that influences vast share of the population. In this paper we focus on the two aspects

[*] Ph.D. Candidate, Charles University, Institute of Economic Studies, Opletalova 26, 110 00 Prague 1, Czech Republic. Phone: +420 776 146 909, E-mail: natalie.svarcova@email.cz.
[**] Ph.D. Candidate, Charles University, Institute of Economic Studies, Opletalova 26, 110 00 Prague 1, Czech Republic. Phone: +420 732 183 088, E-mail: petrsvarc@email.cz.

of the family policy in which it impacts life of society. Firstly, we discuss incentives that the family policy provides to families when they are deciding about having a child, and secondly, we describe the impact of family policies on standard of living and well-being of the families with children. We narrow the analysis of family policies and focus on financial aspects of the government measures. Obviously, well-being of the families with children is influenced not only by the system of subsidies and taxes affecting their disposable income; childcare provisions, services provided by the government and generally speaking the friendliness of the state towards families with children decides about the well-being of families with children and possibility to reconcile work and family life (for the discussion see e.g. Szelewa and Polakowski 2008).

The structure of the paper reflects two above mentioned ways in which government affects life and decisions of the families. In the first part of the paper we focus on the incentives that the system of subsidies and taxes provides to families making fertility decisions. We anchor our analysis in the broader context of the population ageing in the European countries and provide brief literature review on the relationship between income, family policies and fertility. In the second part of the paper we pay our attention to the level of income of families with children and to the problem of poverty of families with children. We provide empirical evidence showing actual level of standard of living of the families with children as well as discussion of efficiency of the government programs focused on families with children.

2. Family policy and fertility decisions

Let us first discuss the relationship between fertility decisions of the households and government measures influencing their income. We begin this section by a short description explaining why the ability of the government to influence fertility decisions became of crucial importance in the last years. The European population is ageing and according to demographic projections for January 1, 2045, each and every Member State of the EU-27 will experience a decline in its number of citizens.[1] The general decline in population will be accompanied by a change in demographic structure, a growing number of old people and a diminishing share of young people in the population. This overall development will have great implications for economic and social systems. The decline in the working-age population will lead to downward pressure on economic growth rates and the average annual GDP growth rate will decline from 2.4 over the period 2004–2010 to about 1.2 between 2030 and 2050 in the case that no measures are taken to prevent and alleviate the impact of population ageing (Commission of the European Communities 2006). One of the solutions for the long term with regards to population ageing is a growth in fertility rates. This fact is mirrored in the official documents of the European Commission (Commission of the European Communities 2006, p. 7) as well as national strategies on ageing that call for the promotion of demographic renewal in Europe and the adoption of family-friendly institutions.

Hence, the question arises whether the government can influence fertility decisions

[1] Eurostat 2008 – Population projections – no migration variant – 1 January population – accessed on February 9, 2007.

of the citizens at all. From the point of view of economic theory, influencing fertility means influencing the costs and benefits of having children. The microeconomic analysis of fertility dates back to the 1960s and Gary Becker's article *An Economic Analysis of Fertility*. Becker (1960) saw the fertility decision as equivalent to consumer choice and postulated: "Since children do not appear to be inferior members of any broader class, it is likely that a rise in long-run income would increase the amount spent on children," and an "...increase in income should increase both the quantity and quality of children."(Becker 1960, p. 211–212) Since then Becker's assumptions and conclusions were challenged (e.g. Easterlin 1966; Turchi 1975) and empirically tested (e.g. Borg 1989; Shields and Tracy 1986; Freedman and Thornton 1982) by many academics and researchers. Becker's conclusions seems to be confirmed by the empirical evidence as concerns "quality of children" but the relationship between income and the number of children seems to be of the opposite direction (for the discussion see e.g. Isserman 1986). While numerous competing theories of fertility decisions exist in economic, sociological and demographic literature, most researchers see the following determinants of fertility decisions as relevant (Sleebos 2003):

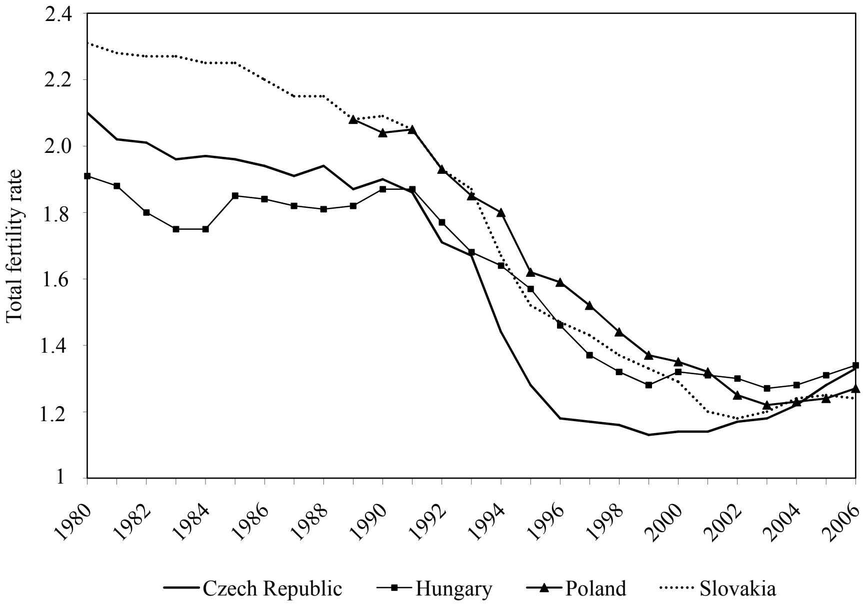
- The material and psychological benefits provided by children,
- the direct and opportunity costs of children incurred by their parents,
- the broad economic environment in which reproductive decisions take place,
- individual lifestyle factors,
- societal and cultural norms.

National governments try to influence fertility decisions directly (through tax payments and subsidies related to childbearing and childrearing) and indirectly (as a side effect of policies focused on other unrelated goals). Gauthier (2007) provides a comprehensive overview of family policies in industrialized countries together with a rich analysis of various kinds of empirical evidence on the impact of family policies on fertility.

The conclusions of empirical studies looking for a direct relationship between fertility and family-directed policies are ambiguous. Public opinion polls generally show a significant discrepancy between the desired and the actual number of children (see e.g. Esping-Andersen 2002). Respondents to the question of the perceived causes of low fertility generally mention reasons related to housing, the level of governmental child support and other economic variables (European Foundation for the Improvement of Living and Working Conditions 2004, p. 40). In a Population Policy Acceptance Survey (Bundesinstitut Für Bevölkerungsforschung 2006) around 11 to 44 percent of the respondents answered that they would reconsider the possibility of having another child in the case of the introduction of new or improved family policy measures. Descriptive studies analyzing the impact of policies on fertility that are based on the historical experiences of particular countries generally show a positive impact of policy on fertility. For recent evidence from European countries see, e.g. Rønsen (2004), Rondinelli (2006), Bjørklund (2002). Studies using multivariate statistical analyses also generally find the positive impact of policies on fertility (Gauthier 2007, p. 331).

Volumes of work have been published about changing fertility patterns in European countries and the impact of government measures on fertility decisions (Sleebos 2003; Kohler, Billari and Ortega 2006). We have chosen four countries to analyze in this study; the Czech Republic, Hungary, Poland and Slovakia. These countries had a relatively turbulent fertility development in the past 20 years (e.g. Sobotka 2002) (see Figure 1) that was influenced by the political and economic transition from socialist to democratic societies. Governmental family policies in these countries are relics of the family ideologies of past communist governments combined with the modern welfare state policies of Western states constrained by government budget possibilities (see e.g. Saxonberg and Sirovatka 2006). The development of family policies in Central and Eastern European countries within the first 15 years of the transition from socialism to free market systems has been traced by Rostgaard (2004) and Steinhilber (2005) who compare policy reforms in the Czech Republic and Poland. Pascall and Kwak (2006) provide an insightful study of gender and family-related issues with a special emphasis on the gender situation in Poland. Fodor et al. (2002) investigate the gendered nature of the welfare state in Hungary, Poland and Romania, discussing historical developments and the main differences between the three states. Hantrais (2004) explores changes in family patterns in EU-25 countries and the responses and political debates about corresponding family policies.

Figure 1. Fertility rates, CZ, HU, PL and SK, 1980–2006



Source: Eurostat (2008)

There are numerous studies describing particular family policy measures and the rules applied in different countries. However, quantitative indicators surveyed usually cover only macro indicators such as family or social policy expenditures, benefit coverage, average family allowances etc; the micro analysis discussing the impact of family policies is mostly descriptive. We extend the family policy analysis by investigating incentives that the systems of taxes and subsidies in the Czech Republic, Hungary, Poland and Slovakia provide to the families when deciding about having a child. By comparing income loss during the first three years after the birth of the first child we show that the incentives differ significantly among countries as well as among income groups.

There are two main variables influencing the net income of families with children: transfers and taxes. Transfers represent direct financial support from the government, and its net impact reflects the tax and social contribution regime applied to the transfers. Hereafter, the government influences the net income of families through tax credits, tax allowances, joint taxation schemes and other tax rules. The following sections analyze government policies affecting the net income of families with children in the Czech Republic, Hungary, Poland and Slovakia.[2]

Above mentioned inconclusive empirical relationship between fertility and family policy suggests that our contribution to the discussion of fertility issues is rather limited. As concerns financial situation of the families with children our results are more relevant. However, even here the conclusions are bounded by the fact that we study only one family type and include only basic family-related subsidies and tax measures. Full analysis of the financial impact of the government policies would have to include also detailed discussion of the systems of VAT, health and pension systems, specific subsidies provided e.g. on regional basis, governmentally supported services for families with children etc. Nevertheless, such analysis by far exceeds the extent of the journal article.

3. Transfers

We began the analysis of family-related subsidies and taxes with the overview of transfers and taxes while summarizing eligibility conditions and reporting respective amounts.[3] Families with children receive financial support generally in three stages. Firstly, maternity benefits are paid during the period shortly before and after birth. Secondly, a child-rearing allowance is paid to the parent who provides care for a child usually up to the age of 2 to 4 years. Thirdly, a child benefit is paid to families with children usually up to the end of the child's compulsory education.

The first transfer family generally receives from the state is a birth grant, the one-time benefit generally covering costs connected with childbirth. The amount of the birth grant ranged between 23 to 91 percent of the monthly AW[4] in 2007 in the four countries and was not means tested (except for the supplement to the family allowance in Poland). The amounts of the birth grant were lowest in Slovakia (23% of AW), a little

[2] Amounts and rates quoted valid in 2007.

[3] Based on European Commission (2007a,b). If not mentioned otherwise, family with 2 adults and 1 child considered, both parents receiving the same wage prior to the childbirth.

[4] Average wage for the year 2006 as published by OECD (2007).

bit more generous in Poland and Hungary (around 40% of AW) and most generous in the Czech Republic with the birth grant equal to 91% of AW. As we will see later, birth grant generally does not influence the net income of families in the long run. However, it might help overcome initial costs connected with childbirth to low-income families.

Table 1. Transfers overview (2007)

	Czech Republic	Hungary	Poland	Slovakia
Birth grant	11.1 times the minimum subsistence level for a child	225% of the minimum old-age pension	PLN 1,000 plus lump-sum supplement PLN 1,000 to families entitled to the family allowance	SKK 4,460
Maternity allowance	69% of the daily assessment base (= based on gross earnings, up to CZK 550 per day 100% taken into account, CZK 550 to CZK 790 per day 60%, over CZK 790 not taken into account)	70% of the daily average gross earnings of the previous year	100% of the reference wage	55% of the gross wage
Child-rearing allowance	CZK 7,582	*child home-care allowance* is equal to the minimum old-age pension *child-care fee* equals 70% of the previous gross average earning	PLN 400 per month if monthly income per family member does not exceed 25% of the average wage for the previous year	SKK 4,440
Child allowance	CZK 256 to CZK 810 per month (depending on the age of the child and the familys net income)	HUF 11,700 to HUF 15,900 (depending on the number of children and parents being single or spouses)	families with a per capita income lower than PLN 504 per month eligible, PLN 48 for a child younger than 5 years, PLN 64 for a child between 5 and 18 years and PLN 68 for a child between 18 and 24 years	SKK 540 per child

Note: Amounts per month if not stated otherwise.

The maternity allowance is the benefit payable to mothers after childbirth for a period of 18 weeks in Poland, 24 weeks in Hungary and 28 weeks in the Czech Republic and Slovakia. In all four countries the amount of the allowance is related to the previous earnings. The principle of the allowance relation to the previous income is exerted fully in Poland, where maternity allowance equals to 100 percent of the reference wage and is subject to the taxation and deduction of contributions for health care, old age, disability and survivors' insurance. Hence, Polish woman does not face any decline in the income for the first 18 weeks after the childbirth. Similar system is applied in Hungary with the replacement ratio 70% but longer eligibility period. Slovak replacement ratio is given as 55% of the gross wage with the minimum and maximum amounts equal to 21% and 85% of AW respectively. Czech system of maternity allowances is part of the sickness benefits system, which leads to relatively complicated calculation of the real amount of the benefit. In general, maternity allowances range between 39% (for women whose gross monthly earnings exceeded CZK 23,967 which is 123 percent of the AW) and 74% of AW. In between these two boundaries the amount is slightly responsive to the gross wage level. The replacement rate for woman with a previous gross income between 40 and 120 percent of the average wage does not differ considerably among the countries. With rising incomes the gap increases due to the ceiling on maternity benefits in the Czech Republic and Slovakia that does not allow the benefits to exceed 74 and 85 percent of the average wage respectively.

The system of financial support for parents taking care of children up to the age of 2 to 4 years is mostly based on the flat-rate benefits independent on family's income. In the Czech Republic and Slovakia child-rearing allowances were in 2007 paid to parents who personally provided regular care for at least one child up to the age of four years in the Czech Republic and three years in Slovakia. The amount of the benefit equaled 39% (the Czech Republic) and 23% (Slovakia) of AW. In Poland the child-rearing allowance was a flat-rate supplement to the family allowance which means that only families with monthly income per family member lower than 25 percent of the average wage for the previous year were eligible. The amount was equal to 16% of AW in 2007. Non-insured parents in Hungary received child home-care allowance up to the child's third birthday that equaled approx. 17% of AW in 2007. Unlike the three above described systems Hungarian child-care fee is income-related benefit payable to insured parents with the same rates applied as for the maternity allowance with the ceiling at 68% of AW. Between the second and third birthday of their child, insured parents taking care of their children receive the child home-care allowance.

Child allowances are paid for the longest period of time (generally up to the end of the child's compulsory education) in all four examined countries and the monthly amount does not exceed 8 percent of the monthly AW (for a family with one child under 6 years old). In fact, there are four possible parameters of the eligibility: income of the family, number of the children in the family, age of the child, or parents' status (single vs. married couple). Child allowance is means tested in the Czech Republic and Poland with the eligibility threshold at around 90% of AW in the Czech Republic and 42% of AW in Poland. The amount paid to families per child depends on child's age and generally does not exceed 5% of AW. In Slovakia child allowance is a flat rate benefit payable to all families and equaled 3% of AW per child in 2007. In contrast to the other three countries, Hungarian system of child allowances treats families as one unit and the amount of the benefit is specified for each family type (family characterized by number of children and parents' status (single vs. married)). The monthly amount ranges between HUF 11,700 for a family with one child and HUF 15,900 per child for a single parent with three or more children.

4. Taxation

Tax schemes in the four examined countries to some extent reflect family policy goals. However, the impact on the net incomes of families with children is generally limited.

Tax credits for families with children are frequently used by the governments as a part of family policy. In the Czech Republic a payable tax credit of CZK 6,000 per child has been introduced in 2006 for parents of children younger than 18 years (26 years in the case that the child receives full-time education). Tax credits for children in Hungary are provided to families with three or more children; the exact amount of tax credit depends on family income and the number of children (the maximum amount of tax credit is HUF 4,000 per month per child). The tax credit may be either claimed by one parent or split between spouses. In Slovakia the allowance for children was replaced by non-wastable tax credit in 2004: The amount of the credit was SKK 6,480 per child in 2006. An interesting aspect of the tax system is that only high income families are eligible for the credit (parents with an annual income greater than six times the minimum monthly wage). Poland is the only country that does not have the children related tax credit in its tax system.

Second instrument alleviating tax burden to families with children is mainly focused on the families with big income differential between spouses' earnings. The possibility of joint taxation is incorporated in the Czech and Polish tax schemes. Polish couples married for a whole year as well as single individuals with dependent children can use the joint taxation scheme. In the Czech Republic the joint taxation of spouses with children was introduced in 2005. It is advantageous mainly for families with a significant difference in the incomes of spouses. The tax liability is reduced in two ways: Firstly, joint taxation may lead to a lower tax rate on taxable income and secondly, the spouse's tax credit can be used even if one partner earns no or very little income (in the case of filling taxes separately this credit could not be used). For a representative family with one parent taking parental leave (having no earnings) and the other earning 33 percent of the AW the amount saved equals 1.3 percent of gross earnings, and with a rising income the amount saved increases. For earnings equal to 200 percent of the AW the amount saved is about 7.9 percent of the income of the family.

5. Overall impact

To make the analysis of the overall impact of the system of benefits and taxes on the fertility incentives of the families tractable we have chosen one special family type – a couple comparing their net income during the first three years after the possible childbirth with the net income if the childbirth is postponed. The reason why we find this decision-making crucial for the overall impact of the government measures on the total fertility is following. The net income of families is mostly affected by child rearing within the first few years after the childbirth. During this period one of the parents generally stays at home to take care of the child and the family income consists of the spouse's income plus family benefits. The financial situation of a family dramatically changes compared to the situation when both spouses contribute to the family budget. Opinion polls persistently show that people do take financial matters into account when deciding about having a child. Hence, we can assume that higher income loss incurred in the first three years after the childbirth increases the likelihood of postponing first childbirth. And finally, empirical studies clearly show negative correlation between the age at first birth and completed fertility.

Let us first begin by comparison of the net income of a childless married couple over the period of three years and the net income of a family with one child over the period of three years beginning at the birth of the child (taxation rules and social benefit system of 2007, joint taxation used for the Czech Republic).

Table 2. Net income of a family with a child (as percent of a childless couple's income)

% of AW	CZ	HU	PL	SK
33	135	101	83	101
67	96	93	65	81
100	85	91	62	77
133	79	88	57	72
167	75	83	57	68
200	73	79	56	66

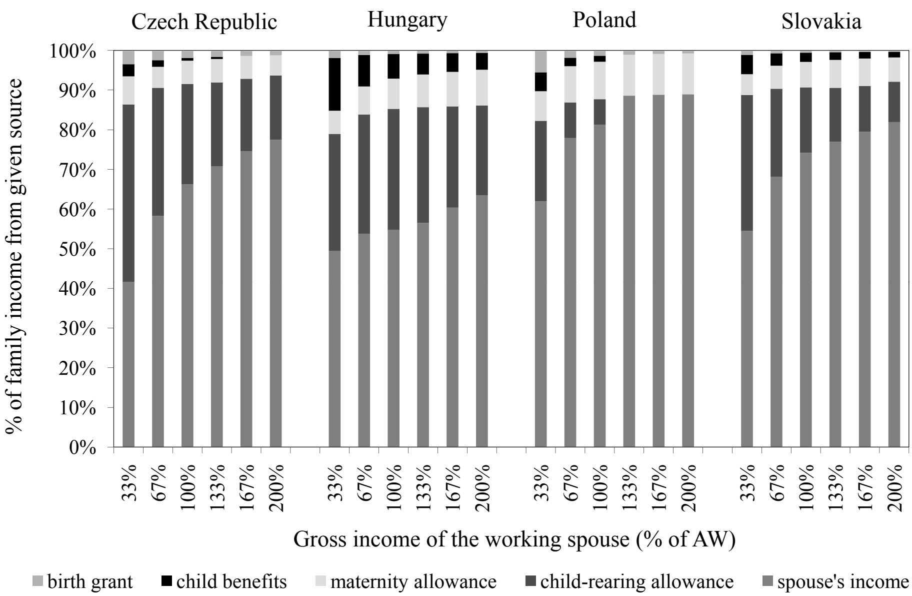
Source: Authors' calculations, used data from European Commission (2007b), OECD (2007).

In all four countries the loss of income due to parenthood is greater for families with higher earnings. The Czech system of family support is more advantageous for families with lower incomes; Table 2 shows that for a family with gross earnings at 33 percent of the AW the net income increases by 35 percent if they are raising a child. This is caused by the relatively high (40 percent of the AW) flat-rate child-rearing allowance. The family benefit system in the Czech Republic narrows income differences between families raising children and real financial incentives to have their first child exist for the lowest income group. Hungary is the country with the lowest differences in income gaps caused by parenthood; the gap between the previous income and the net income if raising a child only slightly increases with rising earnings. The main reason for this lies in the child-care fee, a relatively generous child-rearing benefit for insured parents. Polish families with children have significantly lower net income than childless couples for all wage levels; the gap between childless families and families with children increases with rising earnings. Table 2 shows that for families with earnings higher than 133 percent of the AW the net income of the family is only slightly above 50 percent, which indicates that government support is inconceivable. All investigated family types lose money compared to their childless counterparts. The Slovak family support system resembles the Czech one with slightly lower levels of support for all income groups.

In all four countries the income loss due to parenthood is smaller for low income families. In the Czech Republic it is even beneficial to stay at home to take care of the child for the families with very low income. Poland clearly stands out as a country with very limited support provided to families with children regardless of the income group.

The level of various family support benefits is often discussed by policymakers and constitutes a main interest especially in a pre-election period. However, changes in different benefits influence the net income of families over longer periods of time in different ways. In the following section we try to identify key elements of the governmental family support systems in these four countries.

Figure 2. Sources of income for family with one child over 3 year period from childbirth

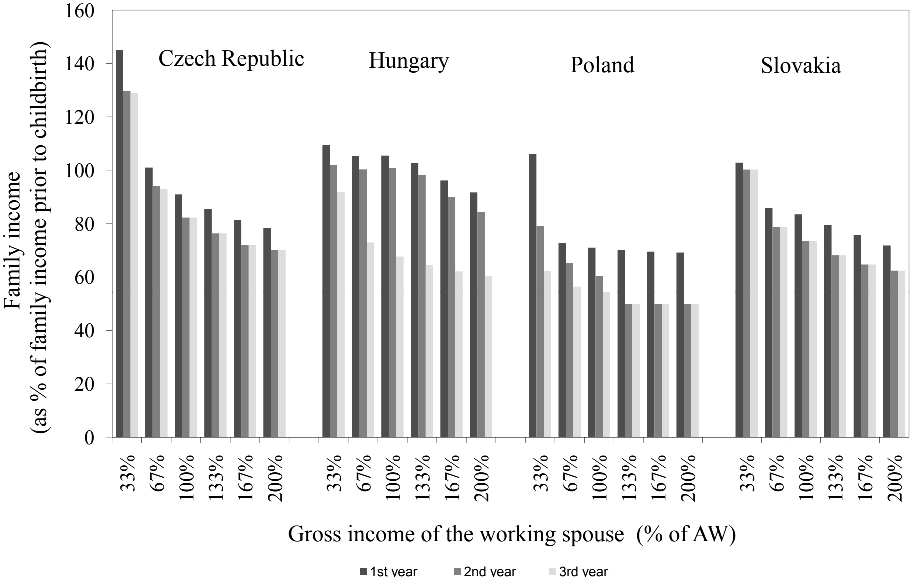


Source: Authors' calculations, used data from European Commission (2007b), OECD (2007).

Figure 2 shows the income sources for families with one child over a 3-year period from childbirth in the Czech Republic, Hungary, Poland and Slovakia. We took total net income of the family including family and social transfers as 100% and observed what part of this income comes from the spouse's income, child-rearing allowances, maternity allowances, child benefits and birth grant. In all four examined countries birth grant and child benefits constitute only a very limited resource of family income; child benefit reaching its maximum at 13% of the family income for the lowest income family type in Hungary. Maternity allowance constitutes relatively stable part of the family income in all countries over all income groups. Its contribution to the overall income ranges from 5 percent (the Czech Republic, Slovakia) to 10 percent (Poland, highest income group). As concerns child-rearing allowance Figure 2 clearly shows totally missing benefit for Polish families with the spouse earning more than 133% of average wage. In Poland, the contribution of child-rearing allowance to total income rapidly declines with rising earnings of the spouse. Compared to other countries Hungarian system of child-rearing allowances is less progressive, with the share of child-rearing allowance only slowly declining with rising earnings of the spouse.

Hence, the message for the families with children says that the parents taking their parental leave should be mostly concerned with the level of child-rearing allowances in the Czech Republic, Hungary and Slovakia. In the case of Hungary child benefits are of the importance as well. Popular discussions on the amount of birth grant seem to be irrelevant in the long time perspective.

Figure 3. Evolution of net income during first 3 years after childbirth



Source: Authors' calculations, used data from European Commission (2007b), OECD (2007).

Figure 3 shows the evolution of family's income over the period of first three years after the childbirth under the assumption that one of the spouses stays at home taking care of the child and the other earns 33, 67, 100, 133, 167 or 200% of average wage in the economy. Vertical axis compares family income in the first, second and third year after the childbirth as a percentage share of the family income prior to childbirth (under the assumption that both spouses earned the same wage). We can see that the evolution of family income in all four countries is characterized by more or less gradual decline in the family income which is the consequence of declining financial support from the government. The most stable income over the three-year period occurs for the Czech Republic and Slovakia, which is mostly the consequence of the ceiling on maternity allowance combined with child-rearing allowance staying stable over the whole three-year period. Income of the low income families in the Czech Republic is importantly enhanced by the generous birth grant in the first year. In Hungary, we can see sharp drop in the family income after the second year as a consequence of the switch from the child-care fee to the child home-care allowance. Similar drop occurs after the first year for Polish families that are eligible for quite general maternity allowance in the first year but most of which do not qualify for the child-rearing allowance leaving families with the spouse's earnings exceeding 133 percent of AW totally dependent on the spouse's earnings with no additional government financial support.

We can conclude that in the Czech Republic and Slovakia lowest income families are not motivated to return to work sooner than after the child's third birthday whereas the incentives for higher income families are stronger. Similarly, Hungarian family support system strongly motivates parents to return to work after the child's second birthday. Polish family support system significantly differs from other three countries. The loss of income for the lowest income families in the first year is comparable to the income loss incurred by Slovak and Hungarian families. However, in the second and third year Polish low income families are significantly worse-off than their Hungarian and Slovak counterparts. For the Polish families with spouse's earnings exceeding 67% of AW the decline in income due to parenthood is most profound of all four countries. Financial resources available to the families seem to be quite low especially if we realize that this "tough regime" applies on the families exceeding 67 percent of AW. As a consequence, both parents are strongly motivated to return to work immediately after the first 18 weeks of maternity leave during which they receive maternity allowance. Labor market consequences of the paid parental leave were investigated by Pronzato (2007) who has shown that the right to paid leave decreases the probability of being at work by 35 percentage points when the child is between 0 and 3 years old. Polish women are therefore more likely to return to work compared to woman in the three other countries.

We have shown that the net income loss due to parenthood significantly differs among countries as well as among different income groups. Let us now briefly show how many of the young couples are influenced by the analyzed incentive structures. Data taken from the EU-SILC database[5] provided by the Eurostat indicate that around 5 percent of the young couples in the Czech Republic fall within the lowest income group that has the strongest financial incentive to give birth to their first child. Another 9 percent of the couples in Hungary and 7 percent of the couples in Slovakia do not loose in the case of the decision to have their first child because their gross income does not exceed 33% of AW. If we look at the share of the young couples with the gross income lower than 67 percent of AW per person we see striking difference between the Czech Republic (28 percent of young couples in this income group) and Hungary and Poland (55 and 51 percent). This pattern is also reflected by the median income reaching 82 percent of AW for the Czech Republic and 62, 65 and 69 percent for Hungary, Poland and Slovakia. At the same time the Czech Republic shows slightly higher share of the young couples falling within the high income group category (with gross income per person exceeding 133 percent of AW).

[5] The European Union Statistics on Income and Living Conditions; data for 2005.

To sum up, the Czech system provides strong financial incentives to have a child for a very limited part of the population characterized by very low incomes. Hungarian and Slovak systems are less generous to low income groups but much more couples fall within this category. In Poland, all couples face important income loss due to parenthood if one of the parents decides to stay at home with a child.

6. Family policy and well-being of the families with children

The second part of this article tries to picture the financial impact of the government on the families with children in the context of the standard of living of the families with children. We examine the evidence on the financial situation of the families with children in the four countries and try to answer the question how well-off the families with children are. We compare income indicators for various household types and try to answer the question whether the financial support of the government is necessary and to what extent poor families are supported by the government.

Let us first stress that in all four countries households with dependent children account for over fifty percent of the population (62 percent in Poland, 61 percent in Slovakia, 56 percent in Hungary and 52 percent in the Czech Republic (Eurostat 2008)). The distribution of household types among total population reveals different patterns in the four countries. Polish and Slovak populations are characterized by very high share of households with three or more adults with dependent children (around 25 percent of the households) compared to the Czech Republic (11 percent) and Hungary (15 percent). If we look at the households with two adults and one, two or more dependent children, their representation in the populations of the four countries is very similar: 9 to 12 percent of households with one dependent child, 15 to 21 percent of households with two children and 5 to 9 percent of households with three children.

EU-SILC data for 2005 show that households with children have on average higher gross earnings than households without dependent children. The difference is even more pronounced for households with one adult person.

The first step in assessing real standard of living of the families is to take into account system of government taxes and benefits applied on the gross earnings. OECD (2007) has provided data on tax burdens for different family types for the time period 2000 to 2006. Because our analysis focuses on the comparison of the income conditions of the families with children and households without children we have chosen two household types for which OECD (2007) allows this type of comparison. Table 3 shows the evolution of tax burdens for a single person at 67 percent of average earnings and a dual-earning married couple with one spouse at 100 percent of the average earnings and the other at 33 percent of the average earnings without children and with two children.

In the Czech Republic the tax burden of single persons and families without children is significantly higher than the tax burden of people with children with regards to families with the earnings indicated in the table. There was about a 10 percentage-points difference in the tax burden for a dual-earning couple with and without children in 2006. For single individuals the difference is even more visible with a 28 percentage point gap. Since 2000 there has been a tendency towards the convergence of the tax burden. Still, a profound differentiation in the tax burden between families with and without children especially with regards to single persons persists.

Table 3. Income tax plus employee contributions minus cash benefits as a percentage of gross wage earnings

		2000	20001	2002	2003	2004	2005	2006
Single persons without children at 67% of average earnings	CZ	20.8	20.7	21	21.2	21.5	21.7	19.1
	HU	30	30.5	27.9	23.7	24.3	22.2	22.8
	PL	30.4	29.9	29.8	30.1	30.4	30.5	30.8
	SK	17.9	18.9	18.1	18.3	18.4	18.3	18.7
Single persons with 2 children at 67% of average earnings	CZ	-17.2	-15.5	-14.9	-12.8	-10.3	-10.9	-9
	HU	4.8	3.6	2.1	-1.8	0	-1.1	-1.7
	PL	22.4	21.7	21.4	21.8	27.6	27.7	28.1
	SK	-3.9	-1	-2.1	-0.9	1.2	1.5	1.9
Two-earner married couple with no children, one at 100% average earnings and the other at 33%	CZ	21	20.9	21.3	21.7	22.2	22.5	20.3
	HU	31.9	34.2	32.2	27.9	29.2	28.6	29.1
	PL	30.4	29.9	29.8	30.1	30.4	30.5	30.8
	SK	17.9	19.4	19.1	19.5	19	18.9	19.3
Two-earner married couple with 2 children, one at 100% average earnings and the other at 33%	CZ	7.7	9.4	9.4	11.2	13.2	12.5	10.3
	HU	20.4	21.8	20.4	16.2	18.2	18	17.8
	PL	27.7	27.2	29.8	30.1	30.4	30.5	30.8
	SK	10.1	11.9	10.5	11.1	10.2	10.3	10.9

Source: OECD (2007)

The difference in the tax burden in Hungary in 2006 was 24.5 percentage points for single persons with earnings of 33 percent of average earnings and 11.3 percentage points for a dual-earning married couple with one spouse at 100 percent of their average earnings and the other at 33 percent of their average earnings. Compared to the year 2000, the tax burden decreased for all family types with the most profound decline for single persons.

In Poland the tax burden differentials between families with and without children are very small, and these differences even narrowed during the 2000 and 2006 period when the tax burden on single persons with two children was increased from 22 to 28 percent. This indicates that despite decreasing fertility rates and commitments of Council of Ministers “to assure the growth of wealth of Polish families, to strengthen their material independence and their feeling of security” (Zieschank 2004) the real determination to support families with children in Poland is still weak.

Slovakia shows a stable tax burden for all types of families over the observed period. There is 16.8 percentage point gap between single persons with earnings that are 33 percent of the average earnings and 8.4 percentage points gap between dual-earning married couples with zero and two children.

When comparing the tax burdens for family types summarized in Table 3, we can conclude that in most cases the tax and subsidy systems are set to favor families with children; it is only in the case of Poland that tax rates are within the range of 3 percentage points for all family types, which indicates low support for the analyzed types of families with children compared to other three countries.

Therefore, the difference in total income between the households with and without children should be even higher after the application of appropriate tax schemes especially in the Czech Republic, Hungary and Slovakia. In contrast to these first results, statistics show that the households with dependent children in the four countries are overrepresented in the at-risk-of-poverty population Eurostat (2008). Seventy to seventy six percent of the households fall within this category in the four examined countries compared to 24 to 30 percent of the households without dependent children. An interesting pattern is revealed by the examination of household types at risk of poverty in the four countries. In the Czech Republic and Hungary much more households at risk of poverty are single parents with children whereas in Poland and Slovakia, most frequent households within this category are households with three or more adults and dependent children.

Reasonably, poverty is not assessed based on the gross income and not even based on the disposable income per household. To reflect costs of living that differ according to the number of members of the household Eurostat, OECD and other statistical offices use equivalized income to compare standard of living of various households. Presented equivalized income is computed based on the modified OECD equivalence scale which assigns a weight of 1 to the first adult in a household, 0.5 to other adults and 0.3 to children. Through this simple mechanism differing costs connected with the number of household members are imputed into the income data.

Looking at the median equivalized income of the families with children compared to their childless counterparts (Eurostat 2008) statistics indicate expected pattern. The country with the lowest difference in median equivalized net income between households with and without children is the Czech Republic followed by Slovakia and Hungary. In Poland median equivalized net income of the households with children is 82 percent of the income of households without dependent children. To complete the picture we must add that the income gap for Polish families with two and more children is by far the greatest of all countries. Median equivalized net income of the family with two adults and three and more children in Poland is 55 percent of the median equivalized income of the family with two adults without children. Compared to the other countries, Poland is characterized by the highest loss in median equivalized net income with each additional child in the family. Part of this income gap can be most likely explained by lower government benefits provided to the families with children in Poland compared to other three countries.

In the following paragraphs we will examine level and scope of the government support to families with children. First rough indicator of the government support are government expenditures on social policies aimed at families and children. Table 4 summarizes government expenditures on the support of families and children in 2004 as a percentage share of the GDP. It mirrors a similar pattern visible in the previous section, with the highest expenditures in Hungary (non means-tested benefits account for 2.2 percent of the GDP) followed by Slovakia, the Czech Republic and Poland with only 0.9 percent of the GDP devoted to family and children supporting policies.

In comparison with other European countries the expenditures aimed at families and children in Poland are the lowest of all EU-27 countries. Only in Hungary do expenditures on family policies exceed the EU-27 average.

Table 4. Government expenditures on families/children, 2004, percent of GDP

	CR	HU	PL	SK
Social protection benefits	1.6	2.5	0.9	1.8
Non means-tested	0.8	2.2	0.3	1.8
Means-tested	0.8	0.3	0.6	0
Cash benefits	1.4	1.9	0.9	1.6
Non means-tested	0.6	1.6	0.3	1.6
Means-tested	0.8	0.3	0.6	0
Periodic	1.2	1.8	0.9	1.6
Non means-tested	0.5	1.6	0.2	1.6
Means-tested	0.6	0.3	0.6	0
Lump sum	0.2	0	0	0
Non means-tested	0	0	0	0
Means-tested	0.1	0	0	
Benefits in kind	0.2	0.6		0.1
Non means-tested	0.2	0.6		0.1
Means-tested	0	0		

Source: Eurostat (2008)

However, Table 4 does not tell us anything about the structure and coverage of the benefits. Do all families receive the same small vs. big amount of money? Or does the government focus on low income families providing more financial resources to the families in need compared to the families that are relatively better-off? By how much is the government support higher during parental leave period compared to the subsequent periods? To answer these and other questions we will again use EU-SILC data. Let us first summarize the information on coverage and average amount of the subsidy. Hungarian system is characterized by a generous coverage as well as the highest average amount of the subsidy. Over 92 percent of Hungarian households with dependent children receive family or children related allowances that on average amount 1 073 EUR per household per year. Czech and Slovak Republic have very similar systems with the Czech one being a little bit biased towards lower coverage and higher average amount of the benefit (83 percent of households are covered; average amount of the benefit per household is 791 EUR per year). Slovak system exhibits by far the greatest coverage: 97 percent of the households receive children related benefits from the government and the average amount of the benefit is 457 EUR per household and year. Polish low government expenditures on children related benefits are reflected in a very low coverage compared to other three countries (only fifty percent of the households with dependent children are covered) and also lowest average amount of the benefit per household (386 EUR per household per year).

To answer the second question we will focus on the family allowances provided to the families with children living below the poverty threshold as defined by Eurostat (income below 60 percent of the national median equivalized disposable income). As suggested in the previous sections the Czech system of child related benefits serves simultaneously as a social assistance. Not surprisingly, low income families in the Czech Republic are widely covered and family and children related allowances are provided to 97 percent of families below the poverty threshold. At the same time the average amount of the benefit for households below the poverty threshold is by about 58 percent higher than the average benefit. Unexpectedly, in Slovakia the coverage of below poverty threshold families is lower than the coverage for whole population showing inability of the government to detect effectively families in need and provide them with the support. The amount of the benefit exceeds national average by only 4 percent in Slovakia. Hungarian system with its wide general coverage provides benefits to 94 percent of families living below poverty threshold and the amount provided exceeds national average by 30 percent. The highest number of households living below poverty threshold and not receiving family and child related allowances lives in Poland (26 percent of families below poverty threshold). The amount provided to the low income families is insignificantly higher than the national average. The efficiency of child related benefits in combating child poverty was investigated by Rostgaard (2004) who stresses that for example generous Hungarian system of child allowances significantly reduces the child poverty rate in the country. The study quotes UNICEF's calculations indicating that the child poverty rate in Hungary would rise from 14 percent to 22 percent without the family allowance.

As stated above first few years after the childbirth are special period in the life of the household because small child needs full-time care and one of the parents very often stays at home to take care of the child. As a result income of the family substantially declines and government support is most needed. Using EU-SILC data we can easily compare average benefits with the benefits paid to families taking care of the children younger than three years. We found out the greatest difference in benefits in Slovakia where the average benefit for family with the child younger than three years constitutes almost 270 percent of the average benefit. In Hungary the difference is only a little lower with the families with children younger than three years taking 220 percent of the average benefit. The Czech Republic favored families with small children by providing benefit exceeding the average by 60 percent in 2005. Nevertheless, we should bear in mind that the total amount of benefits to families taking care of children younger than three years has considerably increased since 2007 in the Czech Republic. Finally, Polish families with children younger than three years receive the benefit by about 46 percent higher than is the national average. We have to stress that this amount is calculated based on the families receiving the benefit greater than zero. Poland is exceptional by the large share of families with very young children that do not receive benefits at all (around 35 percent of households).

7. Conclusions

The financial benefits and tax relief the government provides to families with children have three major implications for a society.

Firstly, they influence people's decisions about childbearing and thus fertility rates. Esping-Andersen (2002) identifies three key obstacles that citizens face in forming families — the costs that children impose, increased difficulties young people face in "getting started" and the incompatibility between motherhood and work (Esping-Andersen 2002, p. 63–66). All of these factors are affected by family policies and its financial consequences for the net incomes of families with children. Based on our analysis we can conclude that the Hungarian system is the most supportive. Families in Hungary face the lowest net income loss due to parenthood. When looking at fertility rates in the four countries, we see that since 2002 fertility rates in Hungary are slightly above fertility rates in other three countries. It would be an exaggeration to claim that this is caused by the net income considerations of families. Rather, we can conclude that the system of taxes and benefits reflects the general preferences of the government and is one of the factors contributing to higher fertility rates in Hungary. On the contrary, Polish families' budgets are most influenced by parenthood, which has been reflected by a total fertility rate below 1.3 in 2006.

Secondly, the structure and scope of the benefits greatly affects child poverty in all four countries. Hungary and the Czech Republic have much lower child poverty rates than Slovakia and Poland (European Observatory on the Social Situation 2005, p. 27). The Czech benefits and tax system seem to incorporate a social assistance function in addition to the family support function because family benefits are mostly set as flat benefits that relatively favor low-income families. A similar bias is present in the Slovak system of family benefits. However, on average the lower level of support decreases the total impact on the child poverty rate in Slovakia.

Thirdly, the system of family benefits influences gender inequality. We did not focus on the dimensions of the governmental family support system that are mostly relevant for gender inequality issues: eligibility criterions, provisions concerning single parents, etc. (for a discussion see Fodor et al. 2002). However, the overall level of benefits affects women's options on the labor market. Higher benefits allow the financing of private nurseries and the part-time participation of women on the labor market; a lower dependence on labor income allows fathers to participate more in child-raising (e.g. by cutting back their working hours), etc.

In sum, we examined the impact of government tax and benefit systems in the Czech Republic, Hungary, Slovakia and Poland regarding the net income of families with children and compared their situation with childless couples. Thus, we have been able to evaluate the opportunity costs of parenthood for one particular family type over the first three years after childbirth. We have found more generous provisions in the Czech Republic and Hungary, with the Czech system working simultaneously as social assistance to poor families and the Hungarian system working on much less of a sliding scale of benefits. Czech and Slovak family support systems are similar in its structure but amounts paid to Slovak families are considerably lower. Poland provides only modest financial support to families with children. Bearing in mind empirical findings presented in the first part of this article, we can deduce that positive impact of family policies on fertility rates will be much less pronounced in Poland. Hereafter, efficiency of government policies focused on ageing might turn out to be of limited scope and demographic change in Poland might have unfavorable consequences for the whole society and its economic system. Similarly, the standard of living of the families with children in Poland is affected by the low support from the government.

Acknowledgment Financial support from the IES (Institutional Research Framework 2005–2010, MSM0021620841) is gratefully acknowledged.

References

Becker, G. S. (1960). An Economic Analysis of Fertility. In Becker, G. S. (ed.), *Demographic and Economic Change in Developed Countries*. Princeton, Princeton University Press.

Björklund, A. (2002). Does family policy affect fertility? Lessons from the Swedish policy experiment. *Journal of Population Economics*, 19, 3–24.

Borg, O. M. (1989). The Income-Fertility Relationship: Effect of the Net Price of a Child. *Demography*, 26(2), 301–310.

Bundesinstitut Für Bevölkerungsforschung (2006). Population Policy Acceptance Survey. Available at: http://www.bib-demographie.de/ppa/dialog_ps_no7.pdf. Retrieved on October 25, 2007.

Commission of the European Communities (2006). The demographic future of Europe – from challenge to opportunity. Available at: http://ec.europa.eu/employment_social/news/2006/oct/demography_en.pdf. Retrieved on September 2, 2007.

Easterlin, R. A. (1966). On the Relation of Economic Factors to Recent and Projected Fertility Changes. *Demography*, 3(1), 131–153.

Esping-Andersen, G. et al. (2002). *Why We Need a New Welfare State*. Oxford, Oxford University Press.

European Commission (2007a). MISCEEC, Mutual Information System on Social Protection in the Central and Eastern European Countries Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia. Available at: http://ec.europa.eu/employment_social/missceec/index_en.html. Retrieved on June 6, 2007.

European Commission (2007b). MISSOC, Comparative Tables on Social Protection. Available at: http://ec.europa.eu/employment_social/social_protection/missoc_tables_en.htm. Retrieved on June 6, 2007.

European Foundation for the Improvement of Living and Working Conditions (2004). *Fertility and family issues in an enlarged Europe.* Luxembourg, Office for Official Publications of the European Communities.

European Observatory on the Social Situation (2005). Network On Social Inclusion And Income Distribution - Final Report. Available at: http://www.euro.centre.org/data/1141830237_35347.pdf. Retrieved on June 6, 2007.

Eurostat (2008). New Cronos Database. Available at: http://epp.eurostat.ec.europa.eu. Retrieved on June 6, 2007.

Fodor, E., Glass, C., Kawachi, J. and Popescu, L. (2002). Family policies and gender in Hungary, Poland and Romania. *Communist and Post-Communist Studies*, 35, 475–490.

Freedman, D. S., Thornton, A. (1982). Income and Fertility: The Elusive Relationship. *Demography*, 19(1), 65–78.

Gauthier, A. H. (2007). The impact of family policies on fertility in industrialized countries: a review of the literature. *Population Research and Policy Review*, 26(3), 323–346.

Hantrais, L. (2004). *Family Policy Matters: Responding to Family Change in Europe*. Bristol, The Policy Press.

Isserman, A. C. (1986). Population Change and the Economy: Social Science Theories and Models. Boston, Springer.

Kohler, H., Billari, F. C. and Ortega, J. A. (2006). Low Fertility in Europe: Causes, Implications and Policy Options, In Harris, F. R. (ed.), *The Baby Bust: Who will do the Work? Who Will Pay the Taxes?* Lanham, Rowman & Littlefield Publishers, 48–109.

OECD (2007). *Taxing Wages*. Paris, OECD.

Pascall, G. and Kwak, A. (2006). Gender Regimes in Transition in Central and Eastern Europe. *Social Policy and Administration*, 40(5), 564–565.

Pronzato, C. (2007). Return To Work After Childbirth: Does Parental Leave Matter In Europe? Colchester, Institute for Social and Economic Research, Working Paper No. 30.

Rondinelli, C., Aassve, A. and Billari, A. C. (2006). Income and Childbearing Decisions: Evidence from Italy. Colchester, Institute for Social and Economic Research, Working Paper No. 6.

Rønsen, M. (2004). Fertility and Public Policies – Evidence from Norway and Finland. *Demographic Research*, 10, 143–170.

Rostgaard, C. (2004). Family Support Policy in Central and Eastern Europe - A Decade and a Half of Transition. Paris, UNESCO. Available at: http://unesdoc.unesco.org/images/0013/001337/133733e.pdf. Retrieved on August 25, 2007.

Saxonberg, S. and Sirovátka, T. (2006). Failing Family Policy in Post-Communist Central Europe. *Journal of Comparative Policy Analysis*, 8(2), 185–202.

Shields, M. P. and Tracy, R. L. (1986). Four Themes in Fertility Research. *Southern Economic Journal*, 53(1), 201–216.

Sleebos, J. (2003). Low Fertility Rates in OECD Countries: Facts and Policy Responses. Paris, OECD, Labour Market and Social Policy Occasional Paper No. 15.

Sobotka, T. (2002). Ten years of rapid fertility changes in the European post-communist countries: Evidence and interpretation. Groningen, Population Research Centre, Working Paper No. 1.

Steinhilber, S. (2005). Gender and Post-socialist Welfare States in Central Eastern Europe: Family Policy Reforms in Poland and the Czech Republic Compared. Geneva, United Nations Research Institute for Social Development. Available at: http://www.unrisd.org/80256B3C005BCCF9/(httpPublications)/A43028C3E5D35E6BC1257013004DE188?OpenDocument. Retrieved on September 25, 2007.

Szelewa, D. and Polakowski, M. P. (2008). Who cares? Changing patterns of childcare in Central and Eastern Europe. *Journal of European Social Policy*, 18(2), 115–131.

Turchi, B. A. (1975). Microeconomic Theories of Fertility: A Critique. *Social Forces*, 54(1), 107–125.

Zieschank, R. (2004). Poland Case Study, Analysis of National Strategies for Sustainable Development. Available at: http://www.iisd.org/pdf/2004/measure_sdsip_poland.pdf. Retrieved on January 25, 2008.