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Higher order births in Germany and Hungary

Comparing fertility intentions in a national context

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Comparing the determinants of fertility intentions in a national context

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Editorial Note:

Stefanie König *was a guest researcher at the MZES where she was working in a project about fertility intentions in partnerships. She studied education, psychology and theatre at the Ludwig-Maximilians University Munich and the Stockholms University and obtained her master's degree in 2009. Her main research interests are gender differences at the labour market, demographic behaviour and international comparisons.*

Now she is a researcher at the ifm (Center for Research of Small and Medium-Sized Businesses) in Mannheim in a project about dual-careers and self-employment.

Abstract

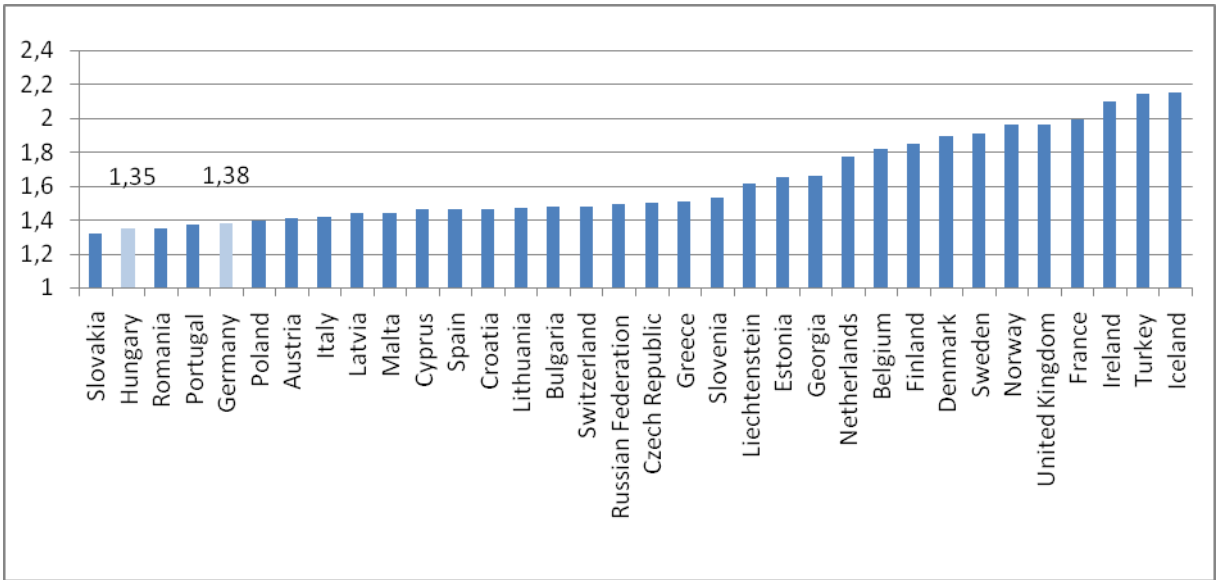
This study examines fertility intentions for second or higher order births in Germany and Hungary. Fertility intention can be described on several levels: the individual level, the partner level and the country level. From an economic point of view, the wish to get more than one child is determined by opportunity costs of women and direct costs for children. Opportunity costs depend on their human capital and can be mediated through partnership and country characteristics. I assume that household income for example can only mediate the effects on opportunity costs for women in countries, where a broad childcare system is offered or paid private childcare arrangements are common. By using data from the Generations- and Gender Survey, differences between the two countries concerning household income and mothers' educational level can be found. Income seems to be more important in Hungary, where full-time day-care is often available. In Germany, education is more important than income. It can be assumed that higher educated German women, who already decided to have a child despite their high opportunity costs are more family oriented. All in all, a rather different picture for fertility intentions can be found, where none of the three levels should be neglected.

Contents

1. Introduction[1]

In the course of the so-called second demographic transition childbearing behaviour and the relationship between partners have changed a lot in all European countries (Huinink and Konietzka 2007). New patterns of relationships and family structures emerged such as non-marital unions and extra-marital children accompanied by a decrease or postponement of marriages and births can be found (Peuckert 2008). All European countries show this trend, however varying in speed and intensity. Besides, traditional gender role orientations have changed to more egalitarian values. Following Lesthaeghe (1992) and van de Kaa (1987), a major explanation of the second demographic transition is the increasing control of reproductive behaviour, so that conception and the birth of a child can be planned. Therefore, the consideration of opportunity costs of children and the wish to reconcile work and family have become more salient, in particular for women (see Fux 2005). This paper concentrates on one aspect of these general trends in family formation, namely the influence of several factors on the decision of mothers to have another child comparing Germany and Hungary.[2] Both countries show very low fertility rates (Figure 1) with Hungary like most of the post-communist counties picturing a more drastic fall compared to Germany (Sobotka 2004; Macura and MacDonald 2003).

Figure 1. Total Fertility Rate (TFR) 2008



Source: GGP contextual database.

Looking at countries with low fertility, it is reasonable to focus not only on family formation, but on the influences on having *another* child. The number of children in family households is different in both countries. In Germany 28% of households with children have one child, 48% have two and 24% have

[1] I thank Prof. Dr. Marita Jacob for the helpful discussions and the continuous contributions to this paper.

[2] No difference is made between East and West Germany, so Germany is counted as a western European country.

three or more children. In Hungary there are 24% with one child, 42% with two children and 34% with three or more children (OECD 2010a). Table 1 shows the number of children of women who have finished their fertile phase using data from the Generations- and Gender Programme[3]: only a minor part of women stays childless up to age 45: (20 percent in Germany, 10 percent in Hungary, see Table 1). Regarding higher order birth, Germany and Hungary are especially worth a closer inspection. Although both countries show one of the lowest fertility rates in Europe the number of children differs markedly.

Table 1. Parity distribution in Germany and Hungary

	Germany	Hungary
No child	19.9%	9.9%
One child	26.3%	25.2%
Two children	34.7%	46.3%
Three or more children	19.1%	18.6%
	100%	100%
N	2740	8600

Note: Women older than 45 years, all biological children.

Source: GGP, own estimations.

Against this background, the aim of this study is to shed light on different individual's characteristics and couple's arrangements that favour higher order births comparing two countries with different institutional arrangements and family policies: *Is the influence of women's education and employment situation different in the two countries? Does the couple's financial situation and the couple's arrangement of childcare and domestic tasks matter for higher order births in both countries?*

2. Theoretical framework

To build a theoretical framework it is important to include several levels that may influence an individual's fertility decision. The individual decision has to be set into context: Besides individual characteristics, the joint resources of the two partners can be considered and last but not least cultural and structural aspects may exert influence on fertility decisions that will be reflected in nationally different birth rates. The cultural context includes norms and values for gender roles in different societies while the structural context describes obstacles and chances of the reconciliation of work and family (Muszynska 2007; Liefbroer and Corijn 1999). In the following I start with individual characteristics, followed by a partner perspective including considerations on gender roles and couple's arrangement of house-

[3] The GGP is a programme including several Generations- and Gender Surveys, a panel survey with at least 3 waves and a national representative sample. It is coordinated by the UNECE Population Activities Unit (PAU). http://www.unece.org/pau/ggp/acknowledge.htm (United Nations 2005).

work. I finally integrate both by discussing whether and how these factors are mediated by institutional settings and family policies in the two selected countries.

2.1 Individual characteristics: education and employment

One of the most influential theories on fertility is the *New Home Economics* theory (Becker 1993) that models fertility decisions as utility maximisation under certain restrictions. Children represent an emotional utility which makes parenthood desirable (Huinink 2002). This utility is calculated against the costs of a child that consist of direct costs for childrearing as well as of indirect costs – so called opportunity costs – as a result of an income loss during pregnancy and parental leave and possibly reduced labour market participation in the following years. Furthermore, future income loss due to employment gaps and decreasing human capital has to be taken into account: As these opportunity costs in particular vary with education and current labour market participation, one would expect that high educated, employed and career oriented women refrain from motherhood and decide against having a second or third child if it is incompatible with their work (Becker 1993).

However, empirically a bimodal distribution for education and fertility has been shown: For Germany Kreyenfeld (2002) finds that higher educated women are more likely to have two or more children but they were also more likely to remain childless than less educated women. This finding is supported by analyses for the Nordic countries, where a positive relationship between higher education and higher birth rates is reported (e.g. Andersson 2000). Higher educated women have a greater probability for higher order births, although they face the highest opportunity costs (Brodmann et al. 2007; Andersson 2000; Kravdahl 2001; Kreyenfeld 2002). One explanation for this surprising finding is that higher educated women who already have one child are a quite selective group, in particular in countries where the opportunity costs of having children are high. They tend to have a higher family orientation than their childless counterparts which makes higher order births more likely compared to women with lower education (see Köppen 2006 for Germany and France).

Strictly speaking, when I discuss education and opportunity costs I assume educational attainment to be an indicator of earning *potential*. Therefore, to capture actual opportunity costs, employment status and working hours have to be added as they refer to consequences – income losses - in case of a temporary withdrawal from the labour market. Being full-time employed implies higher opportunity costs than working only part time or with reduced working hours. From this argument it follows that being out of the labour force, e.g. being a housewife fosters fertility because opportunity costs are rather low. Besides, Schröder and Brüderl (2008) argue being out of the labour force might also reflect anticipated fertility. Regarding unemployment some studies have discussed another issue: A situation of economic uncertainty such as during unemployment may lead to postponement of fertility until a secure job is found (Mills et al. 2005; Gebel and Giesecke 2009).

2.2 Partnership context: household income and the distribution of household tasks

Although this study analyses only mothers, it can be assumed that resources and traits of the partner also have an effect on women's fertility (Corijn et al. 1996; Bauer and Jacob 2008). Thus the *New Home Economics* theory is applicable to couples as well. Hence, I have to include partner and household characteristics that may be relevant for lowering the direct costs or may compensate of individual income losses. The financial situation of a couple can conduce to higher order births because more children are better affordable especially with regard to expensive private childcare options. This "income effect hypothesis" (Kreyenfeld 2002) mostly applies to Scandinavian countries and France where one can find a generous support scheme for families and well developed full-time childcare opportunities. According to that, it can be expected that countries with different conditions like Germany profit less from higher income (Köppen 2006). The "relative resource and bargaining theory" (Lundberg and Pollak 1996) explicitly uses the couple as unit of analysis. Here, it is supposed that the resources of both partners are traded against each other and couples bargain about joint decisions. In contrast to the New Home Economics, specialisation of partners into paid market work versus housework and childcare, it is assumed that both partners want to maximise individual utility that may differ from the individual contribution to the joint utility. With increasing education and labour market participation women increase their weight in the household's decisions and a more egalitarian distribution of joint tasks may emerge. In this case, men's contribution to unpaid domestic work and childcare should increase. This could facilitate the reconciliation of work and family for women, reduce their opportunity costs and hence facilitate the decision to have a second or third child.

Empirically, several studies found out that a father's participation in childcare and household work has a positive effect on higher order birth (Brodmann et al. 2007 for Denmark; Del Boca 2002 for Italy; Duvander and Andersson 2003 for Sweden). With Georgian data Balbo (2009) found a link between the satisfaction of the share of household tasks and the intention to get a second child whereas unsatisfied mothers were less likely to want another child. However, a more egalitarian distribution of joint tasks will not emerge if gender role models do not change accordingly. In countries with a strong support for a traditional male breadwinner model women are expected to do the major work at home irrespective of their labour market participation which leads to a double burden for working mothers (e.g. Alvarez and Miles 2003). Regarding higher order birth, employed women in countries with traditional gender roles may react to this overburden with fewer children (Matthews 1999).

2.3 Country level and comparative setting

When explaining differences on a country level, the welfare state typology by Esping-Andersen (1990) and its extension by Fenger (2007) for including Eastern European countries is often used. In the following I will concentrate on three aspects of family policy that in particular influence fertility decisions: gender role models, parental leave options and availability of childcare. The different aspects are not strictly separated because they partly depend on each other. Besides a direct effect on fertility, these

policies influence employment and working hours of women resp. mothers that in turn are assumed to be related to fertility decisions.

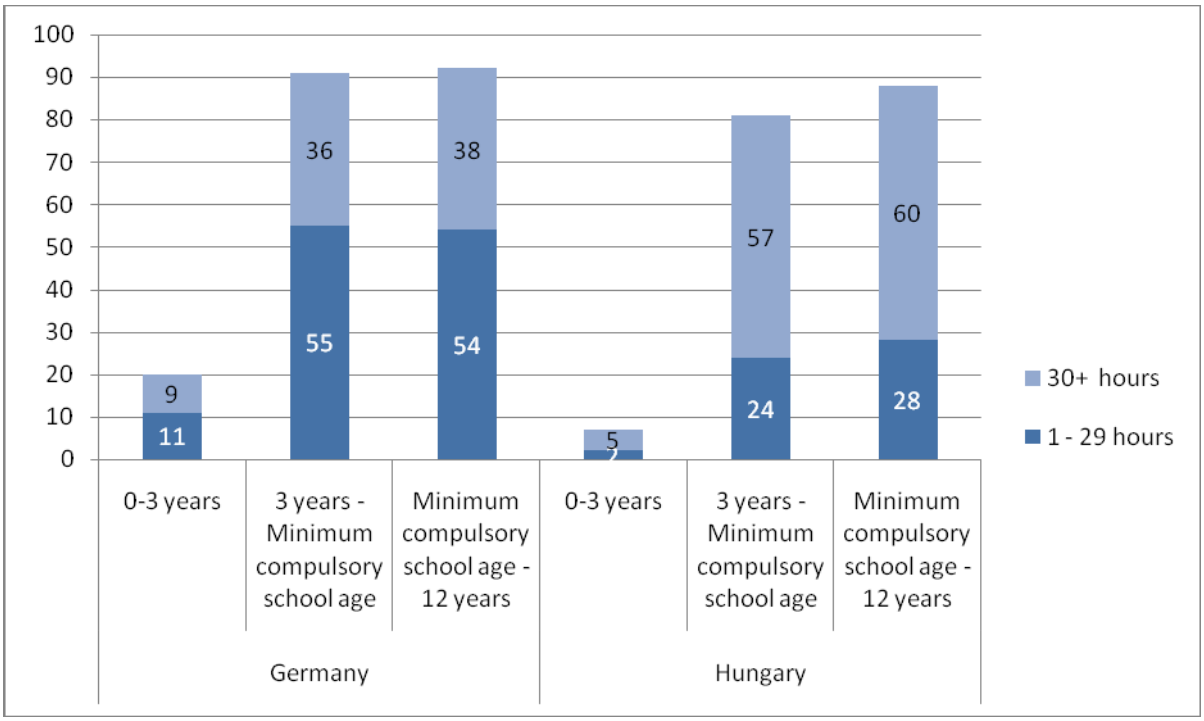
According to the welfare state typology, Germany falls under the category of conservative welfare states, where family policy strongly supports the male-breadwinner model. This model promotes traditional gender roles and family forms, among other things by the tax system. The system of income splitting allows married couples in Germany to have a joint taxation (*Ehegatten-Splitting*). The male-breadwinner model is hereby strengthened, because it is most beneficial for one-earner families with one partner not employed or working part time only. In addition, the health insurance of married housewives is automatically covered by the partner's insurance, which also supports the traditional roles (Dingeldey 2000).

Hungary is counted as a post-socialist country. Regarding parental leave options, in Hungary the full-time equivalent period of parental leave and public expenditure for maternity / parental leave is particularly high in a European comparison, even higher than in Scandinavian countries (OECD 2010b). In Germany there are also generous leave options regarding the duration. However, it does not come close to matching the duration of full-time refund in Hungary. So fathers, who usually have the higher salary, have little incentive to take parental leave[4] (Beckmann 2001). The relatively long possible duration of parental leave in both countries is not necessarily positive for the reconciliation of work and family for mothers. Long family-related career interruptions may pose a high risk for future working careers (see Beblo and Wolf 2003) and they may lead to further consolidation of traditional roles within couples. Although it is possible to return to the labour market before having taken the full length of the leave, public childcare for children under 3 years is scarce in both countries.

Childcare in Hungary is more scheduled for longer hours, while the opposite picture is shown in Germany (see Figure 2). This reflects the orientation on full-time employment in Hungary that was state-aided through better public childcare during the time of socialism (Oláh 2003). Mothers in Germany, however, are often confronted with the situation of having only part-time childcare, which makes full-time work difficult for them. One must fall back on private solutions, which are usually either more expensive, or consists of help from the private sphere. The low employment rate of women in Germany is often attributed to this, especially because even part-time jobs become difficult due to inflexible opening hours of childcare facilities (Hank and Kreyenfeld 2003; Spieß and Büchel 2003). In Germany, there is no adequate private market for childcare that counteracts this misfit. There are several possible explanations. On the one hand, education and childcare is largely seen as a public responsibility, so the willingness to pay privately for it is low (Engelbrech and Jungkunst 1998). On the other hand there is the strong orientation to the male-breadwinner model in Germany, not only concerning state benefits, but also concerning the traditional role orientation. Maternal employment is often assessed as negative, since it is often seen to harm the wellbeing of the child (Geisler and Kreyenfeld 2005).

[4] This has changed recently when parental leave options in Germany were reformed also to increase fathers' percentage for care responsibilities (Spieß and Wrohlich 2008).

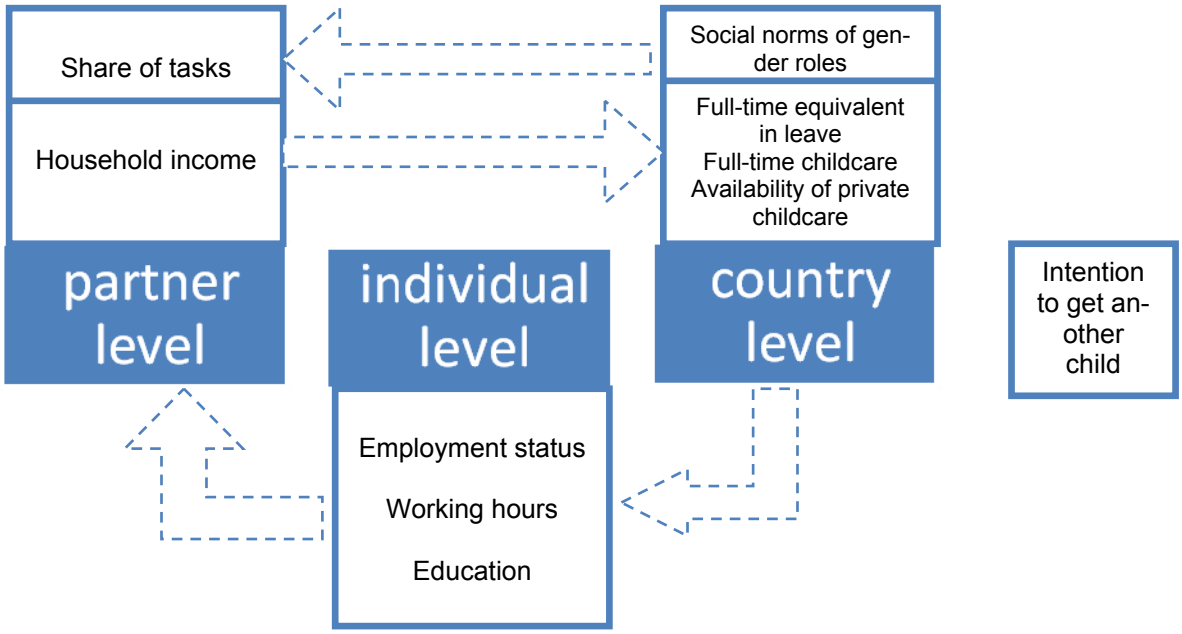
Figure 2. Formal childcare by age group - duration (% over the population of each age group)



Source: GGP contextual database.

Summing up the considerations of the previous three sections on individual characteristics, partnership context and welfare state arrangements, a rather complex picture of the different aspects of opportunity costs and fertility emerges (Figure 3). If the household income is high, expensive full-time or private childcare is better affordable which can therefore mediate the opportunity costs for high educated women with full-time jobs. On the opposite side, low education and working hours lead to lower household income. The opportunity costs are lower in this case, but the direct costs for childrearing are less affordable. The availability of full-time childcare can have an effect on the working hours of mothers, so women are more likely to work part time which again reduces the earning potential. Social norms concerning gender roles can have an effect on the share of tasks between partners as well as on the employment status of the women. In countries like Germany where the male breadwinner model is supported and part time is common, women are more likely to work part time and take over the greater share of childcare and household tasks.

Figure 3. Explanatory model of opportunity costs and fertility intentions



3. Hypotheses

From these theoretical considerations I derive the following hypotheses for the probability to have a higher order birth for women in Germany and Hungary.

Education:

The *New Home Economics* theory (Becker 1993) states that higher educated women have higher opportunity costs and are therefore less likely to extent the family. However, the availability of full-time childcare may counteract opportunity costs. Opportunity costs are quite high in Germany for higher educated women, because full-time childcare is often not available and a lot of women return to the labour market after leave with reduced working hours. When looking at high educated women with at least one child, it is assumed that these women are often more family oriented (see Köppen 2006 for Germany and France) so they are on average more likely to have a second or third child than less educate mothers that are less selective and homogenous in their attitudes and orientations.

- H1a: Higher educated mothers in Germany are more likely to want another child compared to lower educated women.

In contrast, opportunity costs in Hungary are lower for higher educated women due to better full-time day-care and (therefore) less part-time employment. The positive effect of higher education on higher order birth that was shown in several countries is due to the higher earning potential and higher earnings so that there is no effect when controlling for income.

- H1b: There is no educational effect of mothers in Hungary that cannot be explained through income differences.

Employment status:

Employment status and number of working hours can have two possible effects on higher parity births. Mothers with few working hours or out of the labour force have on the one hand less opportunity costs and reconciliation problems which favour the decision to have another child.

- H2a: Mothers that are out of the labour force or that work part time only are more likely to have another child than full-time employed mothers.

However, depending on the household income, the effect of employment status may change with partner's resources resp. the household's income. Assuming that unemployment implies actively looking for work, I expect that if household income is low, unemployment has a negative effect on fertility due to the higher financial insecurity in that time and due to the anticipated return to the labour market (see Balbo 2009; Mills et al. 2005).

- H2b: Unemployed mothers in a low income household are less likely to have another child.

Income:

Higher income has a positive effect on the intention to get another child because the direct costs are better affordable (*New Home Economics theory* Becker 1993). Additionally it can compensate for opportunity cost to some extend when expensive childcare is used by full-time working couples (*income effect hypothesis* Kreyenfeld 2002). Therefore I expect that women with higher household income are more likely to want another child. However, when no use is made for expensive (private) childcare as it is the case in Germany (Engelbrech and Jungkunst 1998), I expect no consequences of the *income effect hypothesis* and barely any effect of the income.

- H3a: Hungarian women are more likely to want another child, if the household income is high.
- H3b: There is no effect in Germany regarding the household income.

Distribution of tasks:

The involvement of the father in childcare and household has a positive effect on the intention to have/get another child (Brodmann et al. 2007 for Denmark; Del Boca 2002 for Italy; Duvander and Andersson 2003 for Sweden). Since both Germany and Hungary are rather traditional in the sphere of household tasks, I test the individually perceived satisfaction of women. With higher satisfaction with the division of tasks, women are less likely to be overburdened and the intention for another child is more likely (see Matthews 1999).

- H4a: Satisfied women concerning the childcare tasks are more likely to want another child.
- H4b: Satisfied women concerning the household tasks are more likely to want another child.

Childcare:

After the institutional childcare has been described at the macro level, I will now examine the use of care at the micro level. A distinction should be made between paid help (e.g. day-care, child minders) and unpaid help (e.g. grandparents). Depending on income I expect that the use of paid childcare does not support the intention to get another child. When help is unpaid, I contrary assume that women who have access to social resources, are more likely to want another child.

- H5a: Women who already take paid help in childcare are less likely to want another child.
- H5b: Women who can rely on unpaid childcare are more likely to want another child.

4. Data and method

To investigate the influences on the intention[5] to have another child, data from the 2006 Generations and Gender Surveys (GGS) is used for Germany and Hungary. Both surveys are part of the Generations and Gender Program (GGP), which provides a contextual database in addition to the national surveys, containing the macro indicators for all countries.

The German sample consists in total of 10.017 and the Hungarian sample of 27.080 respondents. Because this study is limited to the intention to get another child, I reduced the sample to women between 18 and 45 in a partnership with at least one child. This results in an analyzing sample of 1.171 persons in Germany and 3.494 in Hungary.

4.1 Variables

For the intention to have another child, there are three complementary items in the GGP. The first item questions whether one wants another child now. The second item is about the concrete intention within the next 3 years, and the third asks for the general intention. This last question was asked only to those who responded to the previous questions with “no”. These three items were combined into one variable for Germany. In the Hungarian questionnaire the first item doesn’t measure the wish to get another child now but whether one has a general wish to have more children. Therefore only the other two items are combined one variable for Hungary. This resulting variable was recoded into “yes” or “no” and constitutes the *dependent variable* in the logit model used in this study. Since I want to compare two models (Germany and Hungary), I interpret the average marginal effects of the logistic regression on the fertility intention.

[5] This study focuses on intention instead of actual behaviour. Based on the „theory of planned behaviour“ (Ajzen 1991) factors that influences intentions also have an influence on actual behaviour. Indeed not every intention results in actual realization but different studies show that intention is a proxy variable for fertility (see Schoen et al. 1997).

To examine the influences on the intention, the mentioned constructs of the individual level, the partner level and aspects of the national context were operationalized through several variables.

At the individual level, the *education* of the mother is included, which was divided into three groups according to primary, secondary and tertiary education. Moreover, I included the *employment status* of women distinguishing between full time, part time,[6] unemployed, housewife, in leave and others.

On the couple level, *household income* is examined, that I split into three similar groups. Furthermore, the distribution of *household and childcare tasks* is considered through the individual satisfaction of the mother. This was measured with a scale from 0-10 and dichotomously recoded into "unsatisfied (0-6)" and "satisfied (7-10)".

Considering the country context, I examined micro level variables about childcare, where respondents could indicate whether they get *regular help with childcare* and whether this is paid or unpaid help.

I control for the age of the mother, the age of the youngest child and the number of biological children. The age of the youngest child was classified into four categories: age 0-2, 3-5, 6-10 and over 10 years.

4.2 Sample description

The intention to get another child is rather low compared to the decision to get a first child. Only 20% in Germany and 24% in Hungary want another child. It has to be kept in mind that this includes also women with already two or more children and not only mothers with one child.

The satisfaction with the distribution of tasks is quite high for both countries although it can be assumed that the share of tasks is not at all equal between both partners. Nevertheless, less than 10% are not satisfied with the childcare tasks and less than 20% are unsatisfied with the household tasks.

Differences can be found for the use of childcare help. More than 60% receive unpaid help for example from their own parents in Hungary while this is only the case for 33% in Germany. 43% make use of paid childcare in Germany and 56% have a paid arrangement in Hungary.

Working more than 30 hours per week is less common in Germany (50%) than in Hungary, where 90% of the mothers work more than 30 hours. This mirrors clearly the longer working hours in eastern European countries and the popular part-time options in Germany.

Maternal employment in the two countries does not differ a lot regardless how much working hours a mother has. But differences can be found in the categories of housewives and leave-taking. 28% of the Hungarian mothers are on leave while only 12% are on leave in Germany. This might be an effect of the generous full-time equivalent pay during leave in Hungary. At the same time, 26% of the moth-

[6] Full-time and part-time employment can be quite differently concerning working hours in different countries. Therefore I used the actual working hours split into two groups: one working less than 30 hours and the other one working more than 30 hours.

ers in Germany claim to be housewives while the percentage in Hungary is very low with only 4%. This might reflect the difficulties with day-care facilities especially in Germany, where full-time day-care is scarce. Another possible explanation is the tax system that gives a "housewife bonus" in Germany.

Table 2. Sample description

	Germany		Hungary	
	N	Per cent	N	Per cent
Intention to get another child	244	20,4%	840	24,0%
Low income	258	26,0%	462	44,4%
Medium income	416	42,0%	272	26,2%
High income	317	32,0%	306	29,4%
Low education	138	11,5%	588	16,8%
Medium education	775	64,3%	2234	63,9%
High education	292	24,2%	672	19,2%
Satisfaction with childcare	902	94,5%	2558	95,3%
Satisfaction with household	981	80,3%	2738	79,0%
Unpaid childcare	313	32,7%	1676	61,3%
Paid childcare	407	42,6%	1540	56,4%
More than 30 working hours	284	49,9%	1762	90,2%
Employed	671	54,8%	1982	57,0%
Unemployed	67	5,5%	202	5,8%
On leave	143	11,7%	976	28,0%
Housewife	317	25,9%	144	4,1%
Others	26	2,1%	176	5,1%

Source: own estimations based on the GGP.

5. Results

The following results represent the average marginal effects for the fertility intention in Germany and Hungary.[7] The several models follow the hypotheses. Besides the control variables the first model includes the working hours. The second model includes the employment status. The third model adds the educational attainment and the forth model household income. In the fifth model both education and income are included to test their independent effect. The sixth model includes the satisfaction with the household and childcare tasks and the seventh model is about the help with childcare from paid or unpaid arrangements.

Concerning working hours and employment status, the change from part-time to full-time employment lowers the probability for further fertility intentions in average about 5 percentage points in both countries. Mothers working more than 30 hours a week are less likely to want another child in both countries. In Hungary, part time employment is often connected to mothers with smaller children, but even controlling for the age of the youngest child, there is still an effect of lower working hours. This might indicate the lower work-family conflict for this group which again can have a positive influence on fertility intentions. When it comes to housewives, they tend to be more likely to want another child in Ger-

[7] The coefficients of the logit model and another model including both countries and country interaction effects can be found in the appendix.

many compared to employed mothers, which indicates proof for the same instance. This effect is however not significant. In Hungary there is barely any change for being a housewife compared to employed mothers and it is not significant.

The results show a clear picture for the educational level of mothers. Highly educated women are around 12 percentage points more likely to want another child than low educated women in both countries. Including income in the model, this effect disappears in Hungary but not in Germany. This gives proof to both hypotheses where opportunity costs for highly educated women are higher in Germany than in Hungary. Because of the focus on *further* fertility intentions, this leads to a selective group in Germany where high educated women with children might be more family oriented.

Table 3. Germany – fertility intention

Germany	I	II	III	IV	V	VI	VII	VIII
Age of mother	-.013***	-.015***	-.018***	-.015***	-.018***	-.016***	-.016***	-.015
Age of the youngest child (ref: 6-10 years)								
under 3 years	.125***	.100**	.099**	.129***	.104***	.171***	.171***	.093
3-5 years	.025	.051	.043	.038*	.032*	.075*	.089**	.033
Over 10 years	-.016	-.079*	-.076*	-.093***	-.090***	-.077+	-.076+	-.089
Number of children	-.054***	-.112***	-.097***	-.127***	-.115***	-.133***	-.128***	-.129
More than 30 working hours	-.044***							
Employment status (ref: employed)								
Unemployed		-.018						-.138
Housewife		.032						.047
Leave		.065+						.078
others		.151+						.131
Level of education (ref: low education)								
High education			.131**		.119***			
Medium education			.031		.017			
Income (ref: low income) (for VIII ref: low income and not unemployed)								
High income				.028*	.017			.044
Medium income				-.002	.003			.010
Interaction low income and unemployed								.213
Satisfaction with childcare tasks						.090		
Satisfaction with household tasks						.023		
Paid childcare							-.029	
Unpaid childcare							.011	

*** effect significant at p=0.00; ** significant at p<0.01; * significant at p<0.05; + significant at p<0.10.
[average marginal effects after logit y=Pr(fertility intention)]

A high income increases the probability for further fertility intentions about 10 percentage points compared to a low income in the Hungarian model while this effect is less strong in Germany. Including education, the effect stays the same in Hungary and gets even less strong in Germany. This affirms that the income effect hypothesis is less relevant in Germany. For Hungary the result indicates that in-

come can mediate opportunity costs even for highly educated women for example through making full-time childcare affordable.

When it comes to the satisfaction with the distribution of tasks between partners, there is a tendency that satisfied women are more likely to want another child. However these effects are low and not significant in Germany. In Hungary the effect is higher and significant for the satisfaction with household tasks (11 percentage points more likely compared to unsatisfied women). Unsatisfied women might have an overburden which is an obstacle for further fertility intentions. The results indicate that this is especially important for Hungarian mothers where this double burden phenomenon of full-time work and main responsibility in the household is rather common.

Table 4. Hungary – fertility intention

Hungary	I	II	III	IV	V	VI	VII	VIII
Age of mother	-.014***	-.012***	-.014***	-.008***	-.008***	-.010***	-.010***	-.007***
Age of the youngest child (ref: 6-10 years)								
under 3 years	.183***	.154***	.103***	.160***	.160***	.152***	.156***	.077***
3-5 years	.045***	.044*	.034+	.075***	.075***	.065***	.039*	.066***
Over 10 years	-.040***	-.061**	-.048*	-.090***	-.090***	-.029	-.009	-.088***
Number of children	-.149***	-.165***	-.161***	-.212***	-.211***	-.201***	-.201***	-.216***
More than 30 working hours	-.052***							
Employment status (ref: employed)								
Unemployed		-.017						-.008
Housewife		-.003						-.021
Leave		-.037+						.097***
others		-.008						.056*
Level of education (ref: low education)								
High education			.121***		-.002			
Medium education			.062**		-.000			
Income (ref: low income) (for VIII ref: low income and not unemployed)								
High income				.104***	.105***			.114***
Medium income				.077***	.077***			.079***
Interaction low income and unemployed								.030
Satisfaction with childcare tasks						-.040		
Satisfaction with household tasks						.114***		
Paid childcare							.030*	
Unpaid childcare							.057***	

*** effect significant at p=0.00; ** significant at p<0.01; * significant at p<0.05; + significant at p<0.10.
[average marginal effects after logit y=Pr(fertility intention)]

No clear picture can be found for received childcare help. Germany tends to confirm the hypotheses but without significance. Mothers who receive paid help are somewhat less likely to want another child, while mothers with unpaid help tend to want another child. In Hungary the effects of both kinds of help are positive. Mothers with help for childcare regardless whether paid or unpaid are more likely to want another child. Here the effect is particularly strong for unpaid help. The probability for fertility intentions of women who receive this kind of help rises in average nearly 6 percentage points. This

underlines the importance of social resources like the help of the own parents or neighbours for the fertility intention.

Obviously the control variables “age of mother”, “having a child under 3 years” and “number of children” have a strong effect on the fertility intention. With a higher age of the mother and a higher number of children, the probability to want another child decreases. Having a child under 3 years increases the probability for a further fertility intention.

6. Conclusion

The aim of this study was to examine the determinants of further fertility intentions in the national context of Germany and Hungary. The main hypothesis was that high opportunity costs for women have an effect on their intention to get another child and that these costs can be mediated through structural aspects and partnership resources.

This could be affirmed by the differences of the influence of household income and the educational level in Hungary and Germany. Opportunity costs are high for highly educated mothers especially in Germany, where births are often followed by reduced working hours of the mother. This might be mediated in Hungary through a better provision of full-time day-care so that the education itself does not have a significant effect on the intention to get another child for Hungarian women. The positive effect of education on fertility intentions in Germany might be explained through a higher family orientation of women who already decided to have children. It cannot solely be explained by a higher income potential because after controlling for income this effect still exists in Germany. In Hungary on the other hand this effect disappears when income is included in the model. Income can mediate the opportunity costs of women because longer or more expensive private childcare is affordable. This “income effect hypothesis” can be confirmed for Hungary but not for Germany, which again gives prove to the different national context. Although both countries seem to be similar when it comes to the negative judgment of maternal employment and the traditional role distribution at home, there are still structural differences. If possibilities for full-time childcare are scarce like in Germany and the willingness to pay for private childcare is low, a higher income is not useful to compensate the opportunity costs. According to the *New Home Economics* theory, the income should still have an effect on the fertility intention at least for the consideration of the direct costs. The tendency for mothers with high household income to be more likely to want another child can be found. Nevertheless income seems to play only a minor role in Germany. This might be an indicator for other factors being more important such as family orientation. As Köppen (2006) indicates, women in countries where the reconciliation of work and family is difficult and already decided to have a child, are a rather selective, family oriented group. For further research, a complete model including aspects of family orientation in an explaining approach for the intention to higher order births could be useful. A complete model could show in more detail which variables have an effect on the intention to get another child after controlling for the other variables. Besides this cross sectional design also a longitudinal design could be helpful to shed light on the complex aspects of fertility intentions.

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Appendix

Table A1. Germany logit model fertility intention

Germany								
Age of mother	-.154***	-.125***	-.155***	-.127***	-.152***	-.118***	-.118***	-.126***
Age of the youngest child (ref: 6-10 years)								
under 3 years	1.105**	.774**	.776**	.981***	.812**	1.129***	1.132***	.738*
3-5 years	.274	.412	.349	.310	.267	.517+	.613*	.276
Over 10 years	-.195	-.759*	-.735*	-.909*	-.879*	-.616	-.617	-.880*
Number of children	-.625**	-.967***	-.845***	-1.094***	-.999***	-.995***	-.964***	-1.131***
More than 30 working hours	-.620*							
Employment status (ref: employed)								
Unemployed		-.158						-1.534
Housewife		.266						.385
Leave		.501*						.622*
others		1.133*						1.009
Level of education (ref: low education)								
High education			1.002**		.919*			
Medium education			.258		.142			
Income (ref: low income)								
High income				.230	.141			.360
Medium income				-.016	.026			.083
Interaction low income and unemployed								1.569
Satisfaction with childcare tasks						.616		
Satisfaction with household tasks						.165		
Paid childcare							-.222	
Unpaid childcare							.082	
Constant	4.795***	4.169***	4.753***	4.565***	4.982***	3.242***	3.959***	4.399***
Pseudo R^2	.209	.275	.275	.286	.290	.252	.251	.295
N	540	1178	1159	951	935	959	965	951

*** effect significant at p=0.00; ** significant at p<0.01; * significant at p<0.05; + significant at p<0.10.

Table A2. Hungary logit model fertility intention

Hungary								
Age of mother	1.329***	-.099***	-.113***	-.065*	-.065*	-.070***	-.068***	-.059*
Age of the youngest child (ref: 6-10 years)								
under 3 years	.377***	1.087***	.757***	1.166***	1.168***	1.003***	1.027***	.600
3-5 years	-.384*	.339*	.267+	.570*	.571*	.445**	.270+	.517+
Over 10 years	-1.339+	-.526**	-.408*	-.806*	-.809*	-.209	-.063	-.819
Number of children	-.5162***	-1.345***	-1.328***	-1.791***	-1.792***	-1.497***	-1.502***	-1.871*
More than 30 working hours	1.329*							
Employment status (ref: employed)								
Unemployed		-.1359						-.069**
Housewife		-.027						-.181
Leave		-.312+						.744*
others		-.067						.442
Level of education (ref: low education)								
High education			.880***		-.020			
Medium education			.474**		-.002			
Income (ref: low income)								
High income				.778**	.786**			.862***
Medium income				.584*	.589*			.613*
Interaction low income and unemployed								.239
Satisfaction with childcare tasks						-.290		
Satisfaction with household tasks						.764***		
Paid childcare							.212+	
Unpaid childcare							.388**	
Constant	5.625***	4.301***	4.223***	3.376***	3.368***	3.151***	3.110***	3.224***
Pseudo R^2	.265	.298	.305	.345	.345	.285	.280	.346
N	1916	3430	3444	1022	1022	2664	2732	1018

*** effect significant at p=0.00; ** significant at p<0.01; * significant at p<0.05; + significant at p<0.10.