Support Environments for Families and Fertility Intentions

Kristen Harknett

Carla Medalia

University of Pennsylvania

Francesco C. Billari

Bocconi University

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Abstract: We examine how supports for child rearing are related to mothers' intentions to have a second or higher order child in a set of European societies that is heterogeneous in terms of supports and fertility levels. Our paper tests the general hypothesis that greater support for child rearing from partners, extended families, and governmental and labor market sources is positively associated with fertility intentions. Using data from the second wave of the European Social Survey, collected in 2004-05, we examine how support for parenting at the country-, regional-, and individual levels is associated with the intention to progress to higher parities using a series of multilevel statistical models. We find evidence that macro-level environments that are relatively more supportive of mothers are associated with positive fertility intentions. Among the domains we analyze, institutional supports seem to be particularly strong correlates of fertility intentions.

Understanding the heterogeneity of fertility levels in advanced societies has become a pressing policy and research concern during the last two decades. While some societies, from the U.S. to France, have reached levels that oscillate not far from replacement levels, other societies in Southern, Central, and Eastern Europe (as well as, more recently, in South-Eastern Asia) have reached "lowest-low" fertility levels, with total fertility rates below 1.3 children per woman (Kohler et al. 2002; Morgan and Taylor, 2006).

Even if the distribution of family size has been dramatically changing during the last two decades, the emergence of lowest-low fertility has been connected largely to an increase in one-child families and a decrease in families with more than one child rather than from an increase in childlessness. It is therefore crucial to examine the determinants of higher order fertility. In this paper, we endeavor to examine how supports for child rearing from partners, parents, and policies are related to mothers' intentions to have a second or higher order child in a set of European societies that is heterogeneous in terms of supports and fertility levels. Our paper tests the general hypothesis that greater support for child rearing from partners, extended families, and governmental and labor market sources is positively associated with fertility intentions. Most prior research has tended to focus on either governmental/institutional supports for children or gender equity in the division of household labor. The novelty of our approach is to combine these two domains in a multi-level international setting while also adding a third domain: extended-family supports for children. We underline the complementarities and substitution effects of supports, which define a "support environment" that has to be, at the contextual level, consistent—the inconsistency of support environment being

conducive to lower fertility as for instance when packages of family policies are inconsistent (Esping-Andersen 2006; Neyer and Andersson 2008)

Using data from the second wave of the European Social Survey, collected in 2004-05, we examine how support for parenting at the country-, regional-, and individual levels is associated with the intention to progress to higher parities using a series of multilevel statistical models. We find evidence that macro-level environments that are relatively more supportive of mothers are associated with positive fertility intentions. Among the domains we analyze, institutional supports seem to be particularly strong correlates of fertility intentions.

Prior research

Fertility research has often invoked women's opportunity cost to explain fertility trends across individuals, over time, and cross-nationally (DiPrete et al. 2003). When the opportunity cost of childbearing rises, we can expect fertility rates, and the antecedent fertility intentions, to fall. The rise in women's labor force participation has increased the opportunity cost of childbearing, but this fertility-depressing effect can, theoretically, be mitigated in environments with extensive supports for mothers and children. These supports can come from a variety of sources, and we focus on the ones we expect to be most important: male partners, governmental and labor market institutions, and extended families.

Partners. The division of labor within households, including households with children, varies significantly across contexts. At the cross-national level, the relative

contribution of spouses has been shown to be influenced by factors such as female empowerment and economic development (Knudsen and Wærness 2008). Scholars interested in fertility have been interested in studying the effect of contextual differences and household-level relative contribution on fertility. McDonald has argued that a lack of gender equity in households, coupled with opportunities for women in the labor market, has a dampening effect on fertility (McDonald 2000). Hochschild (1989) coined the term "second shift" to describe the double burden faced by mothers who work in the labor market and remain responsible for most of the child rearing and other domestic work. Particularly relevant for our paper is an article by Torr and Short (2004), in which these authors find that mothers who are burdened by the second shift are less likely to have a second child.

We expect that a more equitable division of housework and childcare will be associated with higher fertility intentions and behavior. In a multilevel cross-national study of voluntary low fertility in European countries, De Rose and Racioppi (2001) find that gender equality at the national level influences in a negative way fertility expectations. Mills et. al. (2008), in an analysis of Italian and Dutch women's childbearing, do not find clear support that an unequal division of domestic labor significantly reduces women's fertility intentions. They do suggest that an unequal division of labor reduces fertility intentions for *employed* women, suggesting that role strain/conflict is important. In an analysis of Swedish data, Andersson and Duvander (2006) find that when fathers take a moderately long optional parental leave, the propensity to have a second or third birth increases.

Institutions. General studies on the effect of institutions, usually seen as bearer of broadly conceived policies that affect family choices, tend to show effects that are not always consistent (Neyer and Andersson 2008). Most specific work on the effect of institutional support on fertility examines labor market settings and the availability of childcare—two issues that are hardly separable (Del Boca and Wetzels 2007). Castles (2003) argues that seemingly anomalous linkages with cultural traditions and employment structure are consequences of women's changing work and family preferences and of cross-national differences in the adoption of family-friendly public policy.

Engelhardt, Kogel, and Prskawetz (2004), in a cross-national comparison of macro-level time-series data from 1960 to 2000 for six OECD countries, find a bi-directional relationship between fertility and women's employment. Until the mid-1970s, the correlation was significant and negative; in more recent decades, the correlation is insignificant or weakly negative. Billari and Kohler (2004) find similar results. Changes in childcare availability and attitudes towards working mothers might have reduced the incompatibility between child-rearing and the employment of women. Rindfuss et al. (2007) find strong positive effects of day care availability on the transition to motherhood in Norway.

However, the evidence is not conclusive. Gauthier (2007) summarizes existing empirical evidence linking policies and fertility in industrialized countries. She concludes that studies show varying effects of policies on fertility, from a small positive effect to no statistically significant effect at all. Moreover, some studies suggest that the effect of policies tends to be on the timing of births rather than on completed fertility.

Extended Families. While the associations between institutions, partners, support and fertility has been well established in demographic and sociological literature, the effect of support from extended families on childbearing decisions remains less clear.

Testa and Grilli (2006) find that families establish norms about ideal number of children. The authors find that the fertility of the older generations influences the preferences of the younger cohorts: in regions where the past actual childbearing is, on average, lower, they find that the individual probability of preferring smaller families of people in reproductive ages is higher. Presumably the intergenerational transmission of family size preferences will be strongest in contexts where grandparents are more closely involved with parents and grandchildren.

Murphy (2008) uses data from the ISSP to document large cross-national differences in kinship networks. He analyzes the frequency of contact with kin and fictive kin across countries and finds large differences between northern and southern European countries and by religion. The patterns, however, are not entirely clear. His bottom line is that strong kinship networks continue to exist and the amount of contact with these networks varies greatly across countries.

Hypotheses

In line with the previous literature, we hypothesize that fertility levels are positively associated with the presence of support in a given societal context. However, we emphasize that support might come from different sources to build what can be defined a "support environment", in which complementarities and substitution effects exist

between three types of support, i.e. partner, extended family (grandparents in our specification) and institutional support.

More specifically, our hypotheses are the following.

H1) Fertility intentions vary across countries and regions. This variation can be explained by the *support environments* that prevail in these different countries and regions.

Although most analyses have emphasized cross-national differences, in most cases it is fair to assume that regional factors matter. This can be due to the federal structure of some countries, as well to long-standing cultural differences that persist within a country. Indeed, analyses of countries such as Germany, Italy and Norway have documented the relevance of regional-level factors (e.g., Hank 2002; Hank and Kreyenfeld 2003; Rindfuss et al. 2007; Del Boca and Vuri 2007).

H2) Support for child rearing from male partners, grandparents, and institutions, measured at the regional or country contextual level, will each be positively associated with intentions for transitioning to higher parities among mothers of 1 or more children.

> H2a) We expect that partner, grandparental, and institutional support are partial substitutes for one another. The need for a particular type of support will be lower in environments in which the other types of support are extensive.

Therefore, we expect that the magnitude of the relationship between particular support domains and fertility intentions will be diminished in models that combine all three types of support.

Data and Methods

Data source and sample. We use data from Wave 2 of the European Social Survey (ESS-2) which was administered in 25 countries in Europe in 2004-2005. The ESS is a biennial social survey that aims at measuring attitudes, values and behaviors of Europeans in a comparative perspective. The questionnaire for each round consists of a core module and rotating modules. The core module provides general background information, while rotating modules are designed to investigate specific topics. In the ESS-2, the rotating module contained information on family, work and well-being, including a question on fertility intentions and a series of questions on support for child rearing from partners, families, and institutions. We therefore use Wave 2 as opposed to the more recent wave 3. Each country is divided in administrative regions, between 1 and 15 for each country, totaling 180 regions across the 25 countries in the analysis.[1] These countries and regions represent particularly heterogeneous levels of fertility and support.

We restrict the analysis to mothers between 18 and 40 years of age who are living with a male partner and have 1 or more children (n=4135). We restrict our sample in these ways for several reasons. First, some measures of support are only defined for mothers with partners. Second, mothers have better information about support environments than childless women. Third, the age range of these mothers is restricted to

[1] To address small cell sizes for some regions, we combine some regions in our analysis.

the primary childbearing years. Fourth, mothers with partners are far more likely to intend to have a child than mothers outside of a partnership and we are interested in the focusing on this group with the greatest exposure to risk of childbearing. Fifth, our separate analyses suggest that country and regional level variation in fertility intentions is not explained by partnership status. Sixth, prior research suggests that the growth in one-child families is an important element in lowest-low fertility.

After excluding 240 respondents who are missing on the dependent variable and an additional 268 respondents who are missing on one of the individual-level predictor variables, our analytic sample size is 3627 mothers.

Fertility intentions. We measure fertility intentions at the individual-level. (Vitali et al. (2009) study the effect of preferences on fertility using ESS-2 fertility intention questions). The dependent variable is a dichotomous variable indicating whether mothers plan to have a child within the next three years, where responses of probably yes and definitely yes are coded 1 and responses of definitely not or probably not are coded 0. Respondents who were pregnant at the time of the interview are coded 1. The 240 "don't know," "refused," or otherwise missing responses were excluded from the analysis. Table 1 shows that 26 percent of the mothers in our sample plan to have a child in the next 3 years.

Independent Variables. We measure support for child rearing from three types of sources: partners, extended families, and institutions. Support in each of these domains is measured at the individual, regional, or country level to capture the influence of the

prevailing support environments. Table 1 shows descriptive statistics for variables at all levels of the analysis. Table 2 describes the correlation between the macro-level variables at the regional and country level.

We use macro-level variables and factors also in order to address the endogeneity problem that would arise if we relied solely on individual-level predictors. A problem with relying solely on individual-level measures of social support is that these variables may not only affect a woman's fertility intentions, but may also be affected by her fertility intentions. Macro-level measures of social support address this problem because the regional-level measure of extended family support and obligations, for example, cannot be affected by one woman's fertility intentions because it is the average of all women in the region.

Regional and country-level factors were computed in two steps. First, we aggregated individual-level responses to questions asked in the ESS to either the regional or country-level. Second, several aggregated variables were combined through factor analysis. We also take into account individual-level circumstances that might influence fertility intentions. See the Appendix Table 1 for a description of the macro-level factors used in the analysis, including their components and Cronbach's alpha levels.

Support from Partners. Support from partners is measured at both the individual and country levels. At the individual level, we control for two separate variables. First, the male partner's share of housework represents his relative contribution to the total housework performed by the couple on weekends and weekdays. The variable ranges from one to six, where one indicates that the husband does no housework, four that the

husband does between half and less than three-quarters of the housework, and six that the husband does all of the housework. Table 1 shows that men's average contribution to housework across all respondents is 2.1, suggesting that most male partners do substantially less than half of the housework. Second, disagreements about the household division of labor indicates the frequency of disagreements reported by mothers and ranges from 1 to 7, where higher values indicate more frequent disagreements. On average, couples report a level of 2.5, suggesting that most couples have low levels of conflict about housework, but the standard deviation suggests a large amount of variability across individuals in the sample on this measure.

The analysis also includes country-level measures of male partner's share of housework and disagreements about housework. These measures are derived by aggregating the individual-level responses from mothers with partners up to the country level. The country-level measures of these variables have approximately the same averages as the individual-level measures: the average contribution to housework across the 25 countries is 2.1, and the average level of disagreements is 2.2.

Table 3 shows the ranking of all 25 countries by both macro-level measures of partner support. Swedish husbands contribute the most to housework, and Turkish husbands contribute the least. The fewest disagreements over housework occur in Slovakia, and the most in Turkey.

Support from Families. Grandparent support for adult children is a regional-level factor composed of three aggregated individual-level variables which measure financial support, housework/care support, and the provision of childcare. The first two variables

were aggregated to the regional-level on the entire sample of ESS respondents; childcare was aggregated based on mothers between ages 18 and 40. The Cronbach's alpha statistic for the factor is 0.64. All the components have positive factor loadings; therefore, higher values on the factor indicate greater availability of support from grandparents. See Appendix Table 1 for more details on this and other factors.

Although downward transfers to adults of childbearing ages may encourage fertility, upward transfers to aging parents may discourage fertility intentions. Adult children's support obligations to grandparents is a regional-level factor based on two variables, which were aggregated on the entire ESS sample – financial and housework support received by parents and provided by their adult children. The Cronbach's alpha is 0.87. The factor loadings are positive for each component, and higher values on the factor can be interpreted as greater support obligations to grandparents.

Institutional Support. We measure three aspects of institutional support for fertility. The first asks respondents if they expect they could get a similar or better job with another employer (aggregated on a sample of employed 25 to 65 year olds), where higher values indicate a more flexible labor market. The second indicates whether paid or free childcare is provided by institutions (aggregated on mothers age 18 to 40). Third, we include a social services factor based on two variables that ask respondent to rank the state of education and health services in his/her country on a scale from 1 to 10, with 10 being most satisfied. The aggregate variable is based on responses from the entire ESS sample. Cronbach's alpha is 0.75, and the factor loading for each component is positive.

Table 4 ranks countries by all three macro-level institutional support measures. Scandinavians have the most flexible labor markets, obtain the most childcare from institutions, and report the greatest satisfaction with social services.

Control variables.

We include 5 control variables in all of our models We control for whether a mother has two or more children, mother's age and age-squared, the age of the mother's youngest child, and whether the respondent's mother (we call grandmother) has received a tertiary-level education. Table 1 shows that one-third of our sample of mothers has 1 child and two-thirds has 2 or more children. The average age of mothers in the sample is 33. Just 8 percent of mothers' mothers have a tertiary education. The age of the youngest child is between 5 and 6, on average.

In addition to these individual-level control variables, our final model includes two control variables that may be endogenous with respect to support environments: mothers' labor force participation and religiosity. Table 1 shows that just over half of mothers were employed at the time of the survey. Religiosity is measured on a scale that ranges from zero to ten, where zero means not at all religious and ten means very religious. The average mother falls in the middle of the scale, but there is a great deal of variation on this measure across the sample.

Methods

We use three-level regression models, because the individual respondents are nested within regions, which are in turn nested within broader countries. These models

control for the fact that individuals within a region or country are likely to have more highly correlated responses than individuals between regions and countries. Our approach adopts the more general three-level perspective with respect to studies that have focused on two levels, either cross-nationally across Europe (De Rose and Racioppi 2001) or cross-regionally within single countries (Hank 2002; Hank and Kreyenfeld 2003). As the outcome is binary, we use multi-level logistic regression.

Model 1 is the null model, which includes only the dependent variable, the binary variable for fertility intentions.

Model 2 includes individual-level background variables – dichotomous variables for whether respondent has two or more kids, age and age-squared, grandmother's tertiary education, and age of youngest child. These variables are included in all subsequent models. In Model 3, we add in male partner housework support and disagreements over housework, both measured at the country-level. Model 4 includes both extended family support factors measured at the regional-level – grandparent support for mothers and mothers' obligation to grandparents. Model 5 includes the three country-level variables for institutional support, including ability to get a better job, provision of childcare by the state, and a factor indicating satisfaction with social services. In Model 6, we combine all of the aforementioned variables and factors, and Model 7 extends Model 6 by adding the endogenous individual-level characteristics – religiosity, mother's labor force participation, male partner's share of housework and disagreements about housework.

Results

Table 3 begins with the null model (Model 1), which estimates the extent of variation in fertility intentions across countries and regions. This model shows that, as expected, fertility intentions vary significantly across countries and regions. Model 2 suggests that the smaller amount of regional variation compared to country-level variation in fertility intentions seems to be explained by individual-level background variables, but that the country-level unexplained variability persists after taking into account control variables. In Model 2, the relationships between control variables and fertility intentions are in the expected directions. Having one child (as opposed to two or more) and having young children are associated with higher fertility intentions. Intentions are positively related to mothers' age but the squared term implies that this positive relationship declines at older ages. Grandmothers' tertiary education is positively but not significantly related to fertility intentions.

Model 3 adds two measures of partner support defined at the country–level – male partner's contribution to housework and disagreements over housework. Both of these measures are related to fertility intentions in the expected direction but neither one is statistically significant. Greater shares of housework done by male partners in a country is positively related to fertility intentions and disagreements about the household division of labor are negatively related to fertility intentions. Adding these supports in Model 3 has little influence on the country-level variation in fertility intentions.

Model 4 includes individual-level control variables and two measures of support to and from grandparents measured at the regional level. Grandparent support for mothers is not related to fertility intentions. This suggests that a regional culture of extended family (grandparental) support for child rearing does not make it more likely that an

individual mother intends to have additional children. However, mothers are less likely to intend to have another child in regions where mothers provide more extensive support to grandparents. This suggests that caregiving responsibilities to elderly parents may inhibit fertility. In other words, population aging may be both cause and consequence of low fertility. Support from parents to grandparents explains about 1/5 of the country level variance in fertility intentions.

Model 5 shows that institutional support for child rearing is positively associated with fertility intentions. Mothers are significantly more likely to intend an additional child in the next 3 years in countries with flexible labor markets and in countries with wider spread satisfaction with social services. Institutional provision of child care is positively related to fertility intentions but does not achieve statistical significance. Including these measures of institutional supports in Model 5 explains almost half of the cross-country variance in fertility intentions.

In Model 6, we include all seven macro-level measures of support for mothers. In this model, institutional support remains positively related to fertility intentions: Both the ability to get a better job and satisfaction with social services are positively related to fertility intentions. In the domain of extended family support and obligations, support from grandparents remains insignificant, and the negative relationship between obligations to grandparents and fertility intentions is no longer statistically significant. This implies that institutional support and male partner support may substitute for the burdens placed by aging parents. In the domain of partner support, disagreements about the division of labor in the household at the country-level is negatively related to fertility intentions in Model 6. The more couples disagree over housework within a country, the

less likely individual mothers in those countries are to intend another birth. Male partners' share of the housework remains positively related to fertility intentions but insignificant.

In Model 7 we add endogenous individual-level predictors to the full model. Religiosity and male partner's contribution to housework are positively related to fertility intentions. Mother's labor force participation, on the other hand, decreases the odds that she intends to have an additional child by almost 20 percent. Disagreeing about housework at the individual-level does not significantly affect fertility intentions. Although 3 of the 4 endogenous individual-level variables affect fertility intentions, they do not alter the macro-level relationships with intentions.

Discussion

We have documented that the most supportive environments are conducive to the intention to progress to higher parities in a set of heterogeneous European regions and countries. Institutional support, however, seems to play the most important role. High levels of social support are not always positively associated with fertility, as is the case of parents supporting grandparents.

We have relied on a cross-sectional, cross-regional and cross-national study with fertility intentions as our main dependent factors. Some limitations come with the choice of data, as no cross-regional and cross-national longitudinal study on fertility intentions and behavior is currently available. Although intentions are clearly primary proximate determinants of fertility behavior in societies with relatively high to very high control of fertility, we cannot document the extent to which supports intervene between fertility

intentions and actual fertility behavior. Supports (or the lack of supports) might actually help realizing (or hamper the realization of) the intention to progress to higher parities, and they might trigger changes in intentions that can only be documented using longitudinal data.

Moreover, we did not discuss the origin of supports, i.e. we did not enter the 'structure vs. culture' debate on whether institutions shape supports or cultural factors shape supports. We believe support environments are consistent sets of legal and social norms, practices and attitudes that influence fertility choices. The origin of such support environments is definitely interesting but might not be a crucial factor when they become path dependent and slowly changing.

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Table 1. Descriptives

	Mean	Std Dev	Min	Max
Individual-level (N=3627)				
Plans to have a child within 3 years	0.26	0.44	0	1
Has one child	0.33	0.47	0	1
Has two or more kids	0.67	0.47	0	1
Age	33.38	4.86	18	40
Age-squared	1137.64	311.88	324	1600
Grandmother has tertiary education	0.08	0.27	0	1
Age of youngest child	5.55	4.56	0	23
Religiosity scale (higher values = more religious)	5.22	2.87	0	10
Maternal employment	0.52	0.50	0	1
Male partner share of housework	2.06	0.95	1	6
Disagreements over division of housework (1-7, 1=never, 7=daily)	2.49	1.72	1	7
Regional-level (N=180)				
Grandparent support for mothers	0.00	0.83	-1.86	2.40
Mothers obligations to grandparents	0.00	0.88	-1.28	3.08
Country-level (N=25)				
Ability to get a better job (higher values = easier)	4.23	0.95	2.93	5.97
Child care provided by institutions	0.22	0.14	0.02	0.58
Satisfaction with social services	0.00	0.78	-1.60	1.56
Male partner share of housework	2.10	0.33	1.31	2.53
Disagreements over division of housework (1-7, 1=never, 7=daily)	2.22	0.32	5.16	6.48

Table 2. Correlation matrix of macro-level variables

Regional-level (n=180)	Mother obligation to grandparents
Grandparent support for mothers	0.5757***

Country-level (n=25)	Ability to get a better job	Child care provided by institutions	Satisfaction with social services	Male partner contribution to domestic work	Disagreements over household division of labor
Ability to get a better job	1				
Child care provided by institutions	0.5912**	1			
Satisfaction with social services	.6166***	0.3124	1		
Male partner contribution to domestic work	0.2959	.4295*	0.2197	1	
Disagreements over division of housework	0.0931	0.1469	-.3551+	-.6805***	1

Notes: ***=p<.001, **=p<.01, *=p<.05, +=p<.10

Table 3. Countries ranked by Male Partner Contribution to Household
Labor and Disagreements about Household Division of Labor
(1=Males do largest share of housework and mothers report least disagreement with partners over division of labor)

Rank	Male Partner Share of Housework	Partner Agreement about Division of Labor
1	Sweden	Slovakia
2	Ukraine	Finland
3	Finland	Poland
4	Estonia	Austria
5	Slovakia	Norway
6	Denmark	Luxembourg
7	Norway	Czech Republic
8	Iceland	Germany
9	Czech Republic	Slovenia
10	Slovenia	Spain
11	Netherlands	Belgium
12	Belgium	Denmark
13	Great Britain	Iceland
14	Germany	Estonia
15	Poland	Netherlands
16	France	France
17	Hungary	Ukraine
18	Switzerland	Sweden
19	Austria	Switzerland
20	Ireland	Great Britain
21	Luxembourg	Hungary
22	Spain	Ireland
23	Portugal	Portugal
24	Greece	Greece
25	Turkey	Turkey

Table 4. Countries ranked by level of institutional support
(1 = easier to get a better job, more likely to have childcare provided by institutions, and more satisfied with social services)

Rank	Ease of getting better job	Institutions provide childcare	Satisfaction with social services
1	Iceland	Sweden	Finland
2	Great Britain	Denmark	Denmark
3	Ireland	Norway	Belgium
4	Denmark	France	Iceland
5	Norway	Portugal	Switzerland
6	Sweden	Finland	Luxembourg
7	Finland	Iceland	Norway
8	Spain	Germany	Austria
9	Netherlands	Netherlands	Czech Republic
10	Belgium	Estonia	Netherlands
11	France	Belgium	Ireland
12	Portugal	Ireland	Spain
13	Switzerland	Great Britain	Great Britain
14	Slovenia	Luxembourg	Sweden
15	Estonia	Slovenia	Turkey
16	Austria	Spain	Slovakia
17	Slovakia	Switzerland	France
18	Luxembourg	Austria	Estonia
19	Turkey	Czech Republic	Slovenia
20	Czech Republic	Ukraine	Greece
21	Poland	Slovakia	Germany
22	Ukraine	Poland	Poland
23	Hungary	Greece	Hungary
24	Germany	Hungary	Portugal
25	Greece	Turkey	Ukraine

Table 5. Relative Odds of Planning a Child

	Model 1	Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
	Null model	Controls		Partners		Extended families		Insti-tutions		All supports		All + endogenous variables	
Controls													
Has two or more children (reference = 1 child)		0.11	***	0.11	***	0.11	***	0.11	***	0.11	***	0.11	***
Age		2.39	***	2.38	***	2.36	***	2.38	***	2.35	***	2.43	***
Age-squared		0.98	***	0.98	***	0.98	***	0.98	***	0.99	***	0.98	***
Grandmother's tertiary education		1.28		1.27		1.27		1.23		1.21		1.17	
Age of youngest child		0.89	***	0.89	***	0.89	***	0.89	***	0.89	***	0.90	***
Male partner support (country-level)													
Male partner contribution to domestic work				1.62						1.30		1.21	
Disagreements about household labor				0.65						0.48	*	0.48	*
Extended family support and obligations (regional-level)													
Grandparent support for mothers						1.05				1.13		1.14	
Mother obligation to grandparents						0.73	*			0.88		0.89	
Instituional support (country-level)													
Ability to get a better job								1.36	*	1.28	*	1.28	**
Child care provided by institutions								1.24		1.22		1.59	
Satisfaction with social services								1.27	*	1.38	**	1.37	**
Individual-level endogenous predictors													
Religiosity												1.04	*
Mother is employed												0.81	*
Male partner's share of housework												1.20	***
Disagreements about household labor												1.00	
Variance Component (sd)													
Country	0.34	0.51		0.49		0.41		0.27		0.21		0.20	
	(0.07)	(0.09)		(0.09)		(0.09)		(0.07)		(0.08)		(0.08)	
Regional	0.15	0.00		0.00		0.15		0.08		0.12		0.10	
	(0.11)	(1.32)		(2.21)		(0.17)		(0.28)		(0.20)		(0.23)	
N=3627													

Notes: ***=p<.001, **=p<.01, *=p<.05

Standard errors in parentheses for variance components

Appendix Table. Factor Definitions

Level	Components	Values	Sample	Alpha for factor
Regional-level factors				
	Grandparent support for adult children			
	Your financial support to children not living in household	1: a lot, 2: some, 3: no support	all respondents (before sample limitations)	
	Your everyday housework/care support to grown children not in household	1: a lot, 2: some, 3: no support, 4: children living apart not grown up – missing	all respondents (before sample limitations)	0.64
	Care of youngest child provided by family members	1: if child´s grandparent(s), ex-husband/ex-wife/ex-partner, other family member; otherwise coded 0	18-40 year old mothers with child 12 or under who lives with her	
	Adult children's support obligations to grandparents			
	Financial support you receive from grown up children not in household	1: a lot, 2: some, 3: no support	all respondents (before sample limitations)	0.87
	Everyday housework/care you recieve from grown children not in household	1: a lot, 2: some, 3: no support	all respondents (before sample limitations)	
Country-level factors				
	Strength of social services			
	State of education in country	0 (extremely bad) to 10 (extremely good)	all respondents (before sample limitations)	
	State of health services in country	0 (extremely bad) to 10 (extremely good)	all respondents (before sample limitations)	0.75