



Policy Receptiveness as Determinant of Policy Effectiveness

German childcare and women's transition
to first birth

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Abstract: During the past decade, German family policies have shifted from supporting the male breadwinner – female carer family to providing infrastructure for mothers' employment and children's daycare. Institutional theorists assume that increased availability of childcare will increase fertility, while family transition theorists argue that such increase depends on a change of norms. We examine these propositions for women's transition to first birth. We apply event-history methods to German Pairfam panel data and consider the importance that women attribute to public childcare, the *applicability* of childcare to their work and family preferences, and the *acceptability* of childcare to their motherly care-employment norms. First birth risks are significantly elevated for women who regard childcare as a precondition to have a child, who want to combine work and family (applicability) and who do not oppose maternal employment (acceptability). In contrast, we find no such association between childcare necessity and first birth for women who want to focus on family (no applicability), and for those who are averse to or uncertain about maternal employment (no acceptability). Our results underline the importance to consider attitudes when evaluating the impact of policies on childbearing behavior. They also indicate that macro-level effects of policies on fertility may only become visible when policy offers and attitudes converge.

Keywords: child care, fertility, Germany, attitudes



1. Introduction

Germany's child care infrastructure has seen substantial improvements in the past decade. Policy makers had hoped to stimulate upswings in fertility by providing mothers with resources to reconcile career and motherhood (Allmendinger 2009). However, until very recently, German fertility trends remained unaltered at very low levels, which raised doubts as to the impact of child care on fertility. Previous micro-level studies on childcare and fertility have reinforced these doubts (Hank and Kreyenfeld 2003; Hank et al. 2004). This raises the question of "how [to] explain the gap between the apparent conceptual significance of public day care and the empirical insignificance of its availability for the decision to have children" (Hank and Kreyenfeld 2003).

Some scholars have suggested broadening the research approach towards people's attitudes to policy. Neyer and Andersson (2008) argue that the effect of a family policy "may be weak or insignificant [...] if the family policy contradicts the norms that guide most people's lives" (Neyer and Andersson 2008). Family policies are implicitly associated with specific gender norms, in particular with cultural expectations of who should care for a child to the best of its well-being. German family policies have been rooted in male-breadwinner/female-carer ideas and until recently supported family forms with a strictly gendered division of labor. The male breadwinner/female carer norm was altered in the German Democratic Republic (GDR), which promoted women's labor-force participation; but it was re-established politically in Eastern Germany with the German re-unification. In 2007 Germany radically changed its parental-leave and childcare policy to support mothers' entry into the labor market and facilitate a more gender equal division of care. Despite these changes, attitudes towards mothers' employment and care of children have only partly become less gendered and female-care focused (Zoch and Schober 2018). To a large extent, many women and men are still attached to historical gender roles. Many of them may therefore be hesitant to utilize a policy such as childcare that contradicts their idea of best care for the child. This may in turn diminish the impact that childcare may have on fertility. Previous micro-level studies have linked fertility decisions to the availability of childcare. To our knowledge there is no study that investigates the relevance of childcare for women's decision to have a child while taking women's attitudes towards care and work into account. We therefore analyze women's transition to become a mother considering the importance that they attribute to public childcare, to work and family, and to motherly care-employment norms. With this approach, we hope to explain the gap between the common empirical insignificance in fertility studies and the simultaneous conceptual significance of child care in childbearing decisions. We furthermore hope to illustrate the crucial importance of normative positions when evaluating or anticipating the impact of a policy.

The decision to have a (first) child touches on many aspects of a prospective parent's life. In the German context, where mother-centered care norms prevail and childcare for children below age three have not been widespread until very recently, these concern women in particular. They involve issues such as whether to focus on employment or family, whether a child will suffer if the mother works, or whether the availability of childcare is essential for having a child. While the last issue is determined by social policy, the first two relate to two dimensions of attitudes. We argue that both these dimensions are essential to understand how childcare and fertility are linked to each other. We hypothesize that women's different degrees of preferences for career or motherhood reflects the *applicability* of child care and that women's attitude towards motherly employment reflects the *acceptability* of child care. We therefore analyze women's transition to motherhood, looking at the relevance of childcare for their fertility decision and distinguishing between how *applicable* and how *acceptable* child care may be to them.

We use data from the longitudinal German Pairfam Panel Survey. Germany is a particularly well suited country to study the link between childcare and fertility and consider the applicability and acceptability of childcare. The almost half a century division of Germany into West and East Germany with different family policies and different ideologies regarding women's employment assures that there is sufficient variation in attitudes for such a study. We outline East and West German family policy to illustrate the current and historical context of fertility decisions. We describe recent reform of Germany's family and childcare policy, the development of childcare infrastructure and usage, and recent trends of motherhood and employment. This is followed by a summary of individual-level research findings of the association between childcare and fertility. Drawing on Billari and Esping-Andersen's (2015) theory of family transition, Hakim's (2000) preference theory, Barber's (2001) attitudinal approach and Becker's (1965) theory of allocation of time we develop a theoretical framework and graphically illustrate the links between attitudes, childcare, and fertility. We apply event-history models to seven waves of Pairfam during 2008-2015 to test our hypotheses of first-birth transitions among German women. We conclude with an outlook on policy and research implications based on the results of our study.

2. The policy context of Germany

The division of Germany into West and East after World War II led to contrasting family policies and family models in the two countries. The German Federal Republic (West Germany) promoted marriage and the male-breadwinner / female-homemaker family type. A comprehensive system of legal regulation and social provisions supported the gendered division of employment and family work. Some of them extended well into the 2000s or are still in force, such as the constitutional protection of marriage, a tax system benefitting primarily married/cohabiting couples with one main earner (joint taxation with “income-splitting”), child allowances, tax deductions for children, and – until 2007 – a care leave with means-tested benefits extended up to 36 months (Lutz et al. 2013). Childcare for children under age three was rare and for children aged three and above it was mainly offered on a part-time basis (Rosenfeld et al. 2004). The conservative and gendering orientation of West German policies reinforced familistic attitudes towards mothers’ employment (Gangl and Ziefle 2015). Women felt committed to give up their employment upon childbirth and devote themselves to childrearing at least until the child entered school (Gangl and Ziefle 2015). Mothers who gave priority to employment were termed “raven mothers”, that is mothers who abandon their children. In 1990 the vast majority of Germans – 84% of men and 80% of women – thought that a child is likely to suffer if her/his mother works (Schwander 2019). Ten years later, in 2002, this attitude was still shared by almost 60% of West Germans (Bertram and Deuflhard 2015, p. 155). Almost half of the population thought that a mother with a child below school age should not work (for pay) at all; and every seventh West German held the attitude that mothers should not work as long as their youngest child still goes to school (OECD 2017, p. 60).

The German Democratic Republic (East Germany), in contrast, supported women’s employment and childbearing (Trappe 1996; Rosenfeld et al. 2004). Its family policies aimed at securing high female labor-force participation and relatively high fertility. Investment in women’s education, expansion of all-day care for pre-school and school-age children to universal levels, a short parental leave (up to 10 months), job guarantee and continued salary payments during child-related employment breaks led women in East Germany to combine employment and childrearing rather than to sequence it as women do in West Germany (Trappe 1996; Bernardi et al. 2008). However, the gender-equal labor-force participation in East Germany did not spread to the household. As in West Germany, family and household work was primarily a woman’s task. Nevertheless, as a consequence of the employment and fertility centered women’s politics in East Germany, attitudes towards working mothers differed significantly between East and West. Almost 15 years after the unification of Germany only 6% of East

German women aged 20 – 45, but 40% of West-German women opposed the employment of mothers with children under age three (Hummelsheim 2009).

2.1 Reorientation of family policy

With the reunification of East and West Germany the former GDR was integrated into the West German political system. West German tax, labor-market, social and family policies replaced the former GDR regulations. The East German child care infrastructure was substantially reduced (Engstler and Menning 2003). However, not least due to an unprecedented fall of fertility, childcare facilities in the Eastern states of Germany continued to be more widely available than in the Western states (Hummelsheim 2009). The persistence of extremely low fertility rates and rising levels of childlessness began to challenge the conservative and gendered orientation of German family policy and prompted a paradigmatic change in family policies (Henninger et al. 2008). As of 2007, parental leave was shortened to twelve months plus two extra months for the least contributing parent, usually the father. The means-tested and flat-rate benefit was converted into an income dependent parental leave benefit that replaced a large share of the mother's or father's previous income (for details see Henninger et al. 2008). The new regulations were to facilitate mothers' return to the labor market and to encourage a more gender-equal reconciliation of work and care (Henninger et al. 2008). To promote the expansion of public childcare the government provided funding to states and municipalities that increased the childcare infrastructure to provide places to a third of all children below age three by 2013. The fund was subsequently extended to provide further places by 2020. Since 2013 children have a legal right to a childcare place. For children below age three, this is tied to the parents being employed or in education. Due to pressures from conservative sides the government also introduced a care benefit. It could be granted to parents of children aged two and three who did not want to or could not place their child in a childcare facility. However, in 2015 the supreme court ruled the care benefit unconstitutional.

2.2 Factual development of child care

Since 2007 public childcare in Germany has increased substantially, especially for children below age three. In 2006, the year before the childcare expansion package was passed, merely 13.6% of all children below age 3 were in public childcare. The care rates differed markedly between West and East German states. In West Germany children aged less than three were almost universally cared for by their mothers. Only 7.9% were enrolled in public childcare; in the East they were 36.9%. By 2016 the share of less than three year olds in public childcare had risen to 32.7%. In the West, 28.1% of

those children used public childcare; enrollment in the East was 51.8% (Bundesministerium für Familie, Senioren, Frauen und Jugend 2017).

The coverage deficit and East-West gap were less severe for children aged 3 to 6. In 2006 85.7% of West German children and 92.1% of East German children in this age group attended public childcare. By 2016 the coverage in this age group was almost universal in both the East and the West.

Further, substantial differences between West and East Germany exist in patterns in daily hours of usage. Child care in the West was traditionally organized to complement maternal care. In the East it was to enable women to pursue full-time employment (Büchel and Spieß 2002). In 2007, merely 3% of West German children below age 3, but 27% of East German children were in full-time care (i.e. more than 7 hours a day or 35 hours a week). By 2014, the share had risen to 12% in the West and 40% in the East. The East-West gap is equally pronounced for children aged three to six. In 2007 26% of the three to six year olds in West Germany and 60% of those in East Germany were in full-time care; the respective figures for 2014 were 34% (West) and 73% (East) (WSI 2018).

Differences in enrollment patterns do not necessarily stem from gaps in factual provision. West Germans appear to desire greater availability but not necessarily intensity of care. In 2017 the gap between desired and actual utilization of care for children under age 3 among West German parents was 13 percentage points, among East German parents 7 percentage points. At the same time, 46% of West German parents and 58% of East German parents with children below age 3 would want to have extended opening hours of care centers. Among West German parents with children aged 3 to 6, 37% would wish longer opening hours, as compared to 52% among East German parents (Bundesministerium für Familie, Senioren, Frauen und Jugend 2017).

2.3 Recent trends in motherhood and employment

Despite substantial improvements in care infrastructure, motherhood continues to significantly disrupt women's employment, especially in the West (Goldstein and Kreyenfeld 2011). In 2014, the labor force participation rate of mothers with children below age 15 was only 69% and their full-time employment rate is one of the lowest in the EU (30%; OECD 2014). West German women commonly interrupt or reduce their employment if they become mothers. In 2008 only 19% of all West German mothers (aged 18-45) with a child under 18 were full-time employed compared to 50% of East German mothers (Goldstein and Kreyenfeld 2011). Viewed from a European perspective, German mothers more often work part-time rather than full-time. Non-mothers in Germany have a 20 percentage-point

higher employment rate than German mothers with differences being the largest at younger ages. These figures rank among the highest in Europe (Governatori et al. 2010).

2.4 Empirical link of fertility and child care

Until very recently, Germany's Total Fertility Rate had been hovering below 1.5 births per woman for more than three decades (Statistisches Bundesamt 2019). At the same time, motherhood was often associated with women's long-term detachment from full-time employment. It is commonly argued that such trends foot in lacking policy support for working mothers - child care in particular (Brewster and Rindfuss 2000; Neyer 2003). Conceptually, child care supports the reconciliation of employment and childrearing. Scholars have emphasized that its impact may depend on its availability, quality, affordability and acceptability (Andersson et al. 2004; Hank and Kreyenfeld 2003; Kravdal 1996; Rindfuss et al. 2007). Empirically, scholars have primarily examined the link between the availability of child care and fertility. The methodologically most rigorous study is provided by Rindfuss et al. (2007) who establish a strong positive effect of child care provision on Norwegian women's first-birth transition. They attribute it to the impact of Norwegian child care provision along with other bearing dimensions of Norway's social policy setup. Andersson et al. (2004) analyze the impact of Swedish child care on couple's transitions to second and third birth. They find no effect of regional variation of child care characteristics on continued childbearing. They argue that in Sweden such variations are too small in relation to nationally high levels of availability to entail any distinct differences. Furthermore, Sweden's flexible and egalitarian parental leave system is likely to compensate for possible infrastructural insufficiencies. Child care may therefore be associated with higher fertility at the aggregate level, but does not necessarily produce much variation at the individual level. Hank and Kreyenfeld (2003) find that the availability of formal care had no effect on first-and second birth transitions of West German women, while informal care as measured by a child's grandparents living in the same municipality appeared significant (see also Hank et al. 2004). For East German women, child care and after-school care availability did accelerate the transition to motherhood. Hank and Kreyenfeld (2003) argue that West German child care appears insufficient along the outlined pivotal dimensions. Low availability, lack of quality (e.g. only half-day care) and affordability undermine the credibility and visibility of child care, and women may be hesitant to trust or consider child care to meet their preferences.

Recent changes of German family policy have led to significant improvements in the scale, quality and affordability of public child care. Judging from policy standards, German child care should therefore have the potential to contribute to increases in fertility. Despite these policy changes, macro-level fertility rates have only recently started to climb above levels as low as a TFR of just 1.5 children per

woman (2014 in East Germany, 2015 in West Germany: Statistisches Bundesamt 2019). Previous research on mothers' employment in East and West Germany suggests that cultural views of proper motherhood may shape and delay women's re-entry into the labor market well into a child's teenage years (Hummelsheim 2009; Hummelsheim and Hirschle 2010). The expansion of public childcare has the potential to modify the dominant gender ideologies in Germany, but the normative change has not been uniform across East and West, socio-economic groups, and gender (Zoch and Schober 2019). Moreover, the historical context of policy-supported male-breadwinner / female-carer norms still overshadows the utilization of public childcare and the reconciliation of motherhood and employment (Trappe et al. 2015). In our study, we therefore analyze the transition to first births taking into account attitudes towards the use of childcare, mothers' employment and early childhood care. Since this is the first study to do this, it should provide additional insight into the link between childcare provision and fertility.

3. A framework of policies, attitudinal change and fertility decisions

The family transition theory (Esping-Andersen and Billari 2015) maintains that changes in fertility trends are associated with changes in prevalent norms. Esping-Andersen and Billari (2015) focus mainly on moves from gender-segregated to gender-egalitarian norms within the family and on shifts in women's roles from family carers to working mothers. Yet, they also point out that such changes – especially those towards the acceptance of mothers' employment – must be accompanied by a growing trust in non-familial childcare. At first, the expansion of public childcare provisions benefits mainly women who intend to reconcile career and motherhood. In the long run, a better childcare infrastructure may facilitate the development of general trust in such institutions. Gradually, public childcare may thus become acceptable to women who were previously hesitant to use it. Esping-Andersen and Billari (2015) emphasize that during such a transition process, when traditional norms erode and new ones are not yet generally established, aggregate fertility levels will fall and/or remain low. This is because normative uncertainty as to proper maternal behavior increases the heterogeneity in women's attitudes towards motherhood, employment, and care. In Hakim's (2000) terms, some women may remain home-centered, others be career-oriented, and yet others adaptive to new roles.

How these considerations apply to the German context and to individual childbearing behavior is still an open question. Given the expansion of childcare and its usage over the past decade we may assume that the availability of childcare has become a precondition for women to have a(nother) child. The effect of childcare on fertility may be modified by women's attitudes. Attitudes may concern different dimensions of a person's life, such as attitudes to one's own work-family life course or to maternal employment in general. We therefore distinguish between two sets of attitudes that reflect women's

attachments to different family models – women’s preferences for a work-centered or family-centered life course and women’s attitudes towards motherly employment. Women’s life course preferences reflect cost-benefit relations of motherhood. As such they indicate the *applicability* of child care to women’s life course. Women’s attitudes to motherly employment reflect women’s willingness to utilize child care without fearing that their child suffers. They therefore indicate the *acceptability* of child care. It is unlikely that child care policy can bring about the targeted effects on fertility if 1) the life course associated with the policy is undesired (*applicability*) or 2) the benefits that the policy offers are not considered relevant (*acceptability*). To explain and formalize such mechanisms, we proceed to present a framework of fertility decisions in relation to cost-benefit assessments of motherhood.

3.1 Fertility decisions and childcare

Fertility decisions as cost-benefit assessments

Raising a child implies that one needs to devote time and money to her or him over a considerable number of years. Economic theories maintain that women decide in favor of having a child if they believe that the associated benefits outweigh the associated costs (Becker 1965). In industrialized countries, emotional satisfaction is commonly considered the main benefit of parenthood. Costs of parenthood have a practical and normative dimension. Practical costs of parenthood are the opportunity costs of pursuing alternative activities. Time is constrained and raising a child reduces time available for alternative activities. Foregone benefits from pursuing alternative activities such as paid employment (e.g. salary, career desires) are the opportunity costs of parenthood. Normative costs may arise from pursuing a lifestyle that deviates from the prevalent norm in society. Normative costs may also arise from ambiguous policies that cause confusion in regard to expected behavior (Esping-Andersen and Billari 2015).

Anticipatory nature of fertility decisions

The decision-making process of having a child takes place prior to childbirth. The outlined cost-benefit considerations are thus merely anticipatory. Actual incurred costs and benefits only set in after childbirth. How do parents anticipate such cost-benefit relations in their pre-birth decisions? Barber (2001) proposes that attitudes towards parenthood and competing alternative activities are central in the fertility decision process. Resources such as time, money, effort and psychological well-being are needed for parenthood as well as for alternative activities, but the “behavioral choices are limited by the finite nature of our time and resources. Thus, attitudes toward alternative behaviors are important influences on our ultimate choices” (Barber 2001, p. 103). In countries in which policies do not

facilitate the reconciliation of employment and parenthood, women anticipate a conflict between career and parenthood. Hank and Kreyenfeld (2003) emphasize that the employment-fertility discrepancy is the central force in fertility trends in Germany. The conflict between career aspirations and parenthood becomes particularly tangible to women when motherhood as their predestined life course erodes and pursuing a profession promises economic, social and emotional rewards (Neyer 2006; see also McDonald 2007).

3.2 Conditioned impact of child care on cost-benefit relations

Conceptual impact of child care

Childcare infrastructures allow women to outsource caring responsibilities. It relaxes time constraints and creates spare time for competing alternatives. Conceptually, child care is thus assumed to reduce the practical and normative cost of parenthood, mitigate the conflict between career and motherhood and increase women's chance of deciding in favor of having a child.

i) Applicability of childcare – the life that women want to lead

The degree of conflict between career and motherhood may vary with women's life-course preferences regarding career and family (Hakim 2000). Associated cost-benefit considerations may determine the need for childcare and condition the potential impact of child care on fertility decisions. For home-centered women, who strongly prefer motherhood and family over employment, motherhood is associated with high benefits and low costs. Their childbearing decisions are likely to be unaffected by the availability of childcare. Career-centered women exhibit reverse cost-benefit relations prioritizing career and education over children. For them, motherhood is associated with high costs and low benefits, so that even additional childcare provides no incentive to become a mother. Adaptive women have strong preferences for motherhood as well as for career and education. For them, high costs of motherhood conflict with high benefits. Child care provisions are most likely to have a stimulating effect on their fertility decisions. Adaptive women anticipate respective cost reductions of child care so that the anticipated benefits of motherhood now exceed initially outweighing costs. The impact of formal child care provision on women's transition to first birth may thus differ by women's life course preferences – i.e. the *applicability* of child care to facilitate the pursuit of their intended life course.

ii) Acceptability of child care – norms that guide women's lives

Child care presupposes a certain openness of parents towards the provided resources. Women exhibiting concerns of pursuing employment during motherhood may be averse to the idea of utilizing formal caring options. This may hold even if their retreat from employment incurs a financial loss for the family (Roissier et al. 2011). Concerns of violating motherhood norms would thus hamper the outlined stimulating effects of child care on fertility. As Bernardi et al. (2015, p. 135) point out “...individuals’ fertility decisions are based as much on socially-inspired visions of what is right or wrong as on cost-benefit calculations of what is efficient at a given point in time”. Women who do not have such concerns would be more likely to use formal childcare. The impact of formal child care on the first-birth transition may therefore be influenced by women’s attitudes towards motherly employment and thus their *acceptability* of child care as a means to care for their child.

4. Research questions and hypotheses

The following model of fertility decision-making formalizes the outlined distinction of the impact of childcare on fertility. To a large extent, it leans on Becker’s theory of the allocation of time (Becker 1965). Women are assumed to be the key decision-making agents who make fertility decisions such that their expected utility is maximized under a constrained time budget. Utility is derived from pursuing (i.e. consuming) either career or care activities through respective time allocations. One unit of care and one unit of career may generate different utilities depending on individual attitudes. Each activity requires different time allocations per unit of consumption, but all agents face identical required allocations. Both activities are assumed to incur diminishing marginal utility. Due to the anticipatory nature of fertility decisions, our framework relates to *expected* utility.

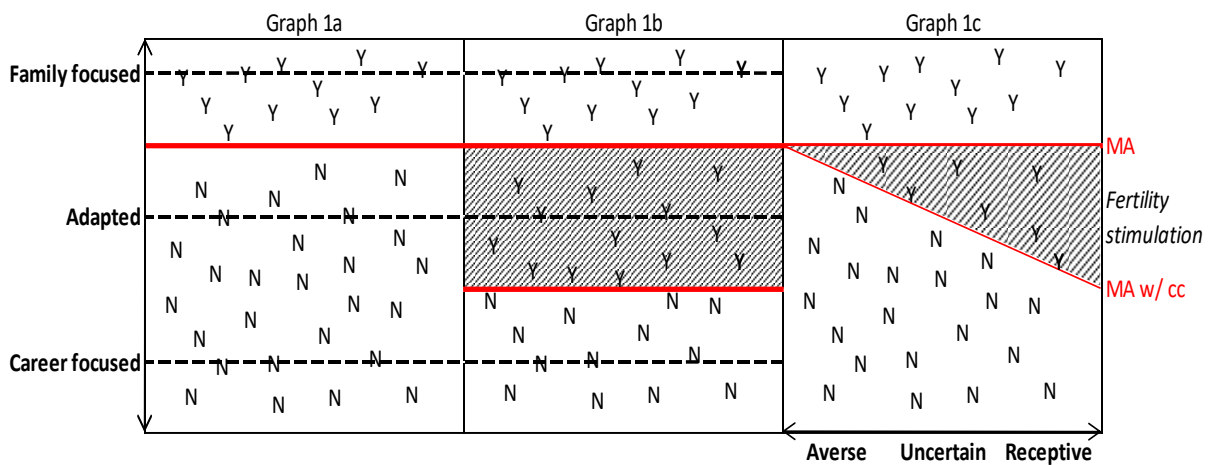
4.1 A basic framework of fertility decisions

Fertility decisions – pivotal point and minimum allocation

A woman can allocate any amount of time within the budget to career, that is, she can work full-time, part-time or any other desired amount. Utility of work refers to employment benefits and is simplified to cover utility of consumption that is generated through employment. Motherhood requires a minimum time investment greater than zero which we refer to as minimum allocation (MA). The MA imposes a time constraint on the time budget such that women face two decision options. First, against motherhood, that is the whole time budget is allocated to career consumption (“career bundle”). Second, in favor of motherhood, that is, time greater or equal to the MA is allocated to motherhood and the remaining budget is allocated to career consumption (“motherhood bundle”). Depending on individual preferences, women decide in favor of motherhood if the motherhood bundle yields higher expected utility than the career bundle.

We introduce the concept of pivotal points to illustrate the relation between motherhood and the varying optimality of decisions. This specifies the upper limit of time allocated to motherhood at which the motherhood bundle has the same utility as the career bundle. If women choose motherhood consumption above this point, they incur lower utility from the motherhood bundle than from the career bundle. Whether the pivotal point lies above or below the MA therefore distinguishes motherhood decisions.

Motherhood is not chosen if the MA exceeds the pivotal point. Realizing a motherhood bundle greater than the pivotal point generates lower utility than that in the career bundle (Graph 1a - “N”). If the motherhood allocation specified by the pivotal point lies above the MA, the mixed bundle is more optimal than the career bundle (Graph 1a - “Y”), and motherhood is the optimal outcome.



Fertility stimulation of child care

Since childcare provides practical support in caring,¹ it induces an *expected* time subsidy on the *expected* caring obligations, i.e. on the MA. The extent of *expectation* will be accounted for by a probability of realizing this time subsidy. This probability is determined by women’s attitudes towards motherly employment. For now, we assume a uniform probability equal 1 such that the *actual* time subsidy equals the *expected* one. The anticipation of this *expected* time subsidy of child care reduces the MA. Child care is considered fertility stimulating if its provision shifts the MA from above the pivotal point to below it. It is thereby causal in altering fertility decisions from N to Y (shaded area Graph 1b, with N=no to child; Y=yes to child). Women shift from the career to the motherhood bundle. The expected utility in the motherhood bundle is now greater or equal to the expected utility from the career bundle.

¹ For illustrative purposes, we disregard the normative support, which does not change the logics of the reasoning.

Distribution of pivotal points: applicability (assumption i)

Hakim's (2000) concept of lifestyle preferences suggests that the optimal time allocation towards motherhood differs among women. With increasing orientation towards motherhood, utility of motherhood increases relative to that of career. For illustrative purposes we use Hakim's (2000) classification of women's preferences into those that are family-focused, career-focused and adaptive. These three distinct preference categories incur distinct average pivotal points (see Graph 1). Yet, even within each category, women's preferences may vary, e.g., some career-oriented women may strive for a CEO position, others may prefer other career paths to gain most utility. We therefore assume that not all individuals within one preference category incur the same pivotal point. Instead they gravitate around their respective average pivotal point. The distinct average is yielded through aggregating the individual pivotal points within that group.² The average pivotal point declines as the marginal utility of career increases relative to motherhood.

Probability of realizing the time subsidy: acceptability (assumption ii)

Given the orientation and development of family policies in Germany, we may assume that women's attitudes towards child care are not uniform. We distinguish between three groups of women with different attitudinal positions towards childcare: receptive, averse, and uncertain. The provision of child care creates an actual time subsidy to the MA of motherhood. The extent to which women translate the actual into an expected subsidy decreases as their attitude towards motherly employment becomes more averse. Women averse to employment during their child's upbringing are less likely to consider the utilization of formal caring options. The provided actual subsidy entails the greatest reduction of the expected time investment, i.e. of the MA, for receptive women (Graph 1c). It entails no reduction (lower reduction) for averse (uncertain) women.

4.2 Hypotheses

Hypothesis 1

H1: Given a uniform MA and disregarding policy impact, the pivotal point increases with increasing prioritization of motherhood over career. Therefore family-focused women have a higher hazard rate of first birth than adaptive and career-focused women (Graph 1a).

² The basic argument does not change assuming three distinct pivotal points. This approach simply serves to reflect preferences more realistically.

Hypothesis 2

The pivotal point of family-focused women is likely to exceed the MA by a significant margin. The reverse holds for career-focused women. Child care induces a reduction of the MA. This reduction does not alter family-focused women's initial positive motherhood decision (Y). Family-focused women opt for motherhood irrespectively. The contrary logic applies to career-focused women. The time subsidy is likely insufficient to reduce the MA to levels below the pivotal point (N). The pivotal point of adaptive women lies mostly below but in reach of the MA. The time subsidy of child care reduces the MA to levels below the pivotal point (N to Y).

H2: Child care reduces the MA. Given the ordering of pivotal points this time subsidy is most likely to stimulate fertility decisions for women with adaptive lifestyle preferences (Graph 1b).

Hypothesis 3

Mothers' concerns that employment may negatively affect their child's well-being reduce their probability of using public child care. The *actual* time subsidy translates into a lower *expected* time subsidy as negative concerns are higher - the likelihood of reductions of the MA to levels below the pivotal point decreases:³

H3: Rising concerns about the consequences of mothers' employment for the child's well-being imply lower chances that formal child care stimulates positive fertility decisions (Graph 1c). Hence, child care is most stimulating of fertility decisions among women receptive to formal care and least among women averse to it.

5. Data

5.1 Sample

The individual-level data come from the German "Panel Analysis of Intimate Relationships and Family Dynamics" (Pairfam). The first survey interviews were conducted in 2008 (West) and 2009 (East) with participants who were randomly selected across 343 German municipalities. We merged the seven interview waves up to 2014/15 to track the life course of anchor respondents. These are female, heterosexual, fertile and childless respondents who are in a relationship with a childless partner and born in 1981-83. Respondents are aged 24-28 at the first and 30-34 at the last interview wave. "Childless" in this context is defined as having no biological, foster-, step-, adopted or deceased

³ This presumes a uniform distribution of lifestyle preferences across attitudes such that the pivotal point is unrelated to the size of the *expected* time subsidy.

children or any other children living in the household. Flag variables hinting at possible data inconsistencies are applied if such inconsistencies could not be resolved otherwise. The event under analysis is the first birth within a relationship with the current partner. The process time is the relationship duration until the event of motherhood such that respondents enter the risk set as soon as they form a relationship. A woman exits the risk set through the event of motherhood, separation, death, change in sexual orientation or infertility. We only consider relationships longer than one year to assure a stable fertility context. Under consideration of the outlined criteria the sample comprises 745 partnerships across 2,217 panel data points.

5.2 Explanatory variables

Child care

To assess the impact of child care on fertility, we use the respondent's answer to the question which preconditions must be fulfilled to have a(nother) child. If the respondent answered "yes" to "I must have access to flexible child care options to have a(nother) child", we assumed that if flexible child care is available, the respondent considers it qualitatively and quantitatively sufficient. The question was posed at every wave for the first three waves and every second wave thereafter. We imputed missing values of waves in-between from the most recent prior valid survey responses (i.e. all data points other than "not applicable" or "not sure"). The phrasing of the survey question is somewhat ambiguous so that the answer is not entirely conclusive. The Pairfam conductors do not specifically define *flexible child care options*⁴ so that respondents could be referring to either formal or informal child care. However, the connotation of the German term "flexible Betreuungsmöglichkeiten" (flexible child care options) suggests reference to formal care.

Attitude to motherly employment

Attitudes to motherly employment were deduced from respondents' agreement with the statement "A child below age six will suffer if its mother works" as indicated on a 1-5 Likert scale (1 – *strong disagreement*, 5 – *strong agreement*). We regrouped the responses as follows: 1-2 (*receptive to child care/disagreement with statement*); 3 (*uncertain/uncertain*); 4-5 (*averse to child care/strong agreement with statement*). The question was posed at every second wave and missing values in-between were imputed from the most recent prior response. The conclusiveness of the variable may be limited as it does not reveal respondents' specific aversion to formal child care. Instead it indicates women's perception of the effect of motherly employment on the wellbeing of their child (Rindfuss

⁴ From correspondence with Pairfam conductors: "Interviewers were instructed to pose the question and not specify what kind of child care *flexible* refers to." (N. Schumann, Pairfam User Service)

and Brewster 1996). Such concerns may turn secondary once tangible post-birth aspects set in. Fertility decisions are, however, likely driven by people's vision on what is right or wrong as much as by rational cost-benefit assessments (Bernardi et al. 2015). Such seemingly subtle aversions to exterior care may be especially tangible in the anticipatory process of pre-motherhood fertility decisions.

Life course preferences

Respondents ranked the current importance of different life domains in their lives. They assigned a number of points (maximally 15 points in total) to domains relating to hobbies, friendship, partnership, career & education, and having a(nother) child. Two of these domains are specifically applicable to our questions:

- "Present: Importance of pursuing my education or career interests."
- "Present: Importance of having a(nother) child."

Based on the difference between the assigned family and career score we created three categories of life course preferences: *family-focused* ($\text{family points} - \text{career points} > 2$); *adaptive* ($\text{family points} - \text{career points} \leq 2$ & > -2); *career-focused* ($\text{family points} - \text{career points} \leq -2$). The respective survey question was posed at every interview wave. Hakim's concept of lifestyle preferences has received wide criticism with regards to the assumed nature of preferences (Doughney and Leahy 2006; Procter and Padfield 1999). We consider such criticism less relevant to the outlined question. The constructed variable simply aims to capture the respondents' most likely future career-family path, based on the assessment of how important a specific aspect of their life *currently* is to them. In contrast to Hakim's assumption, Pairfam acknowledges that preferences may change over the life course. The rating thus can change from wave to wave.

5.3 Control variables

Educational attainment is classified according to the ISCED—classification scheme: *tertiary* (*university education*), *upper secondary or post-secondary* (*high school or vocational training*), and *no degree or lower secondary* (*primary school and basic education*). Respondents currently enrolled in education were classified according to their current enrollment. Labor force status is grouped into three categories: *full-time employment* including part-time employment, vocational training or self-employment if the respondent works more than 30 hours per week; *part-time employment* including either of the aforementioned categories if the respondent works less than 30 hours per week; *in education* for all individuals enrolled in school or vocational education; *not in the labor force* referring

to the respondent being on pregnancy/maternity/parental leave, unemployed, retired or voluntary homestayer.

Relationship status is categorized as *living apart together* (including married couples living separately), *cohabiting*, and *married*. Prior partnership history was disregarded. Respondent's place of residence is classified as: residing in the center of a city with a population of 100.000+ (*city center* ≥ 100.000); residing in the outskirts of a city with a population of 100.000+ (*periphery* ≥ 100.000); residing in either a city of less than 100.000 people or in the countryside (*rural area* < 100.000). Income is classified by household income available per square root-person in Euros and per month: 0 (< 500); 1 ($500 \leq Inc \leq 1000$); 2 ($1000 \leq Inc \leq 2000$); 3 ($2000 \leq Inc \leq 4000$); 4 ($4000 \leq Inc$) following the methodology of the German Council of Economic Experts (GCEE). Cultural factors related to own upbringing are assessed by place of residence and place of birth: *country of birth* (Western Germany/Eastern Germany/foreign-born) and *Living in East Germany* (Y/N).

6. Empirical analysis

6.1 Descriptive statistics

The majority of the sample population in the first wave resides in Western Germany (72%) while 58% are born in the West, 11% abroad and 31% in the East. 57% of the sample consider access to child care a necessary condition for having a child. More than 50% of the sample strongly disagree with the statement "A child under six suffers if its mother works" while 21% strongly agree and 29% are uncertain. This reflects a lower attitudinal aversion towards child care than found by Lutz et al. (2013). The distribution of life course preferences roughly matches Vitali et al. (2009) - 53% of the sample are adaptive, 7% exhibit a family focus and 40% a career focus. The strong career focus seems logical given the age of 24-28 at first interview coupled with high educational levels (46% of respondents attained tertiary education) and labor market participation (65% are fully employed). Accordingly, income levels are relatively high with two-third of the sample earning 1000 € or more per square-root person.

DESC1: Socio-economic and attitudinal characteristics of Pairfam respondents in the analysis of first birth

Attitude towards formal child care	
Receptive	50%
Uncertain	29%
Averse	21%
Lifestyle preference	
Family focus	7%
Adaptive	53%
Career/educ focus	40%
Flexible child care must be available	
No	43%
Yes	57%
Education	
Tertiary education	45%
Post-secondary & upper secondary	51%
No degree & lower secondary	4%
Work status	
Full-time	65%
Part-time	11%
Enrolled in education	18%
Stay-home	2%
Unemployed/retired	4%
Relationship status	
Cohabiting	46%
LAT (unmarried or married)	33%
Married	21%
Place of residence	
City center >= 100.000	37%
Periphery >= 100.000	27%
Rural area < 100.000	36%
GGCE income class (in € per month)	
<500	20%
500<= Inc <1000	13%
1000<= Inc <2000	41%
2000<= Inc <4000	21%
4000<= Inc	5%
Living in East Germany	
No	72%
Yes	28%
Country of birth	
Western Germany	58%
Eastern Germany	31%
Foreign-born	11%
No. of subjects	745

Source: Pairfam 2008-2015, Author's computation using Stata 13

6.2 Regression results

We apply a Cox regression model (Cox 1972) to the sample of 745 women in heterosexual relationships⁵. 254 out of those women transitioned to motherhood within the observation window. 66% of women were childless at the time of last interview despite being aged 30-34. The average follow-up time before censoring is 2 years and 11 months and the average relationship time at censoring amounts to 6 ½ years.

⁵ Identification numbers were assigned to relationships rather than subjects such that regression analysis was based on each relationship individually. Figures are therefore based on the number of relationships.

Table 1: Correlates of attitudes towards career, family and child care on the transition to first birth of women in Germany

	a	b
Attitude towards formal child care		
receptive	-	1.00
uncertain	-	1.15
averse	-	1.03
Lifestyle preference		
family focus	-	1.00
adaptive	-	0.39***
career/educ focus	-	0.08***
Flexible child care must be available		
no	-	1.00
yes	-	1.37**
Education		
tertiary education	1.00	1.00
post-secondary & upper secondary	1.36**	1.26
no degree & lower secondary	0.44	0.43
Work status		
full-time	1.00	1.00
part-time	0.66*	0.82
enrolled in education	0.45**	0.59
stay-home	10.73***	8.35***
unemployed/retired	1.37	1.85
Relationship status		
cohabiting	1.00	1.00
LAT (unmarried or married)	0.61*	0.61*
married	3.06***	2.39***
Place of residence		
city center >= 100.000	1.00	1.00
periphery >= 100.000	1.12	1.04
rural area < 100.000	1.08	1.04
GGCE income class (in € per month)		
<500	1.00	1.00
500<= Inc <1000	0.88	0.66
1000<= Inc <2000	0.73	0.59**
2000<= Inc <4000	1.18	0.88
4000<= Inc	1.17	1.04
Living in East Germany		
no	1.00	1.00
yes	1.33	1.32
Country of birth		
Western Germany	1.00	1.00
Eastern Germany	1.49*	1.65**
foreign-born	0.79	0.94
Duration of cohabitation	1.01	1.01
Duration of cohabitation squared	0.99	0.99
Age	0.98	0.94
Age squared	0.99	1.00
No. of observations	2.217	2.217
No. of subjects	745	745
n with birth (% with birth)	254 (34%)	254 (34%)

* p< 0,1, ** p<0,05, ***p<0,01. Source: Pairfam 2008-2015, Author computation using Stata 13

Basic Model - Table 1, column a

Work and relationship status as well as education and country of birth exert dominant and significant effects on the hazard of first birth. Voluntary home stayers exhibit 10.7 times higher hazard rates than women in full employment. Married women incur three times higher hazard rates than cohabiting

women, underlining a strong association of childbearing and marriage; some women may marry in anticipation of childbearing. Respondents born in the East have 50% higher risks of first birth than respondents born in the West but residing in the East has no statistically significant effect. The contrary may be expected given the more extensive reconciliation infrastructure in the East. However, Eastern Germans generally exhibit lower rates of childlessness which seem to be the case regardless of their place of residence. Eastern Germans at first birth are about two years younger than Western Germans with comparable level of education. Differences in hazard rates thus partly reflect West German women's later childbearing (Mischke and Wingerter 2012). Women with post-secondary and upper-secondary education exhibit higher risks of first birth than women with tertiary education. Women with tertiary education complete their education at higher ages. They may therefore have been less long in the labor market than less educated women; they are also likely to have better upward career opportunities and therefore be inclined to postpone motherhood to higher ages – or forgo childbearing altogether.

H1: Life course preferences and first birth - Table 1, column b

Current life course preferences seem predictive for women's life choices. Women indicating a stronger family focus are significantly more likely to transition to first birth than less family-oriented women – respondents with a career focus have only 8% and adaptive women 39% of the first-birth risks of family-focused women. Clearly, family-focused women incur the highest marginal utility from motherhood. Attitudes towards formal child care do not distinguish women's first-birth transition – significant effects on first birth fertility are only expected after further differentiation of child care attitudes by care availability. Contrary to prior findings in the German context (Hank and Kreyenfeld 2003, Hank et al. 2004), childcare seems to have become more important in childbearing decisions. To have flexible child care possibilities exerts a significant effect on becoming a mother: Women for whom access to flexible child care is a precondition for having a child exhibit 37% higher risks of transitioning to motherhood than women for whom child care options are not important for their decision. The empirical difference may partially be explained by the construction of the variable based on importance and flexibility rather than factual availability.

H2: Child care provision and applicability - Table 2

Next, we compare the importance of access to child care within groups with identical life course preferences. This serves to test our H2 and study if there are any group-specific differentials in the impact of child care on first-birth fertility. Women with adaptive life course preferences seem to rely strongly on child care. They incur 61% higher risks of childbirth than for comparable women for whom access to childcare is not important for having a child. Career-focused women exhibit an even higher reliance on child care, however, at non-significant levels. We find no significant effects of access to child care for family-focused women. Women's career-motherhood orientation clearly distinguishes the *applicability* and thereby the importance of childcare in fertility decisions. Child care seems to be inapplicable to the prospective life course of family-focused women.

Table 2: Effects of the interaction of life course preferences and child care availability on the transition to first birth of women in Germany

	<i>Flexible child care availability matters</i>	
	No	Yes
Lifestyle preference		
<i>Baselines</i>		
Family focus	1.00	0.79
Adaptive	1.00	1.61**
Career/educ focus	1.00	1.84
No. of observations	2.217	
No. of subjects	745	
n with birth (% with birth)	254 (34%)	

Controlled for respondents' child care attitudes, education, work status, relationship status, place of residence, GGCE income class, living in East Germany, country of birth, cohabitation duration and age (with squared specifications).

* p< 0,1, ** p<0,05, ***p<0,01.

Source: Pairfam 2008-2015, Author'computation using Stata 13

H3: Child care provision and acceptability – Table 3

The procedure for testing H3 is analogous to the testing of H2. Table 3 shows that women who do not believe that a child will suffer if its mother works (receptive women) and who consider childcare a precondition for having a child exhibit 84% higher risks of first birth than like-minded women who considered child care provision irrelevant for their childbearing decisions. By contrast, access to child care has no stimulating effect for fertility decisions of women with uncertain or averse attitudes to childcare. Women's attitude towards motherly employment clearly distinguishes the *acceptability* and thereby the impact of childcare on fertility decisions.

Table 3: Effect of the interaction of child care norms and child care availability on transition to first birth of women in Germany

	<i>Flexible child care available matters</i>	
	No	Yes
Attitude towards formal child care		
Baselines		
Receptive	1.00	1.84***
Uncertain	1.00	1.02
Averse	1.00	0.83
No. of observations	2.217	
No. of subjects	745	
n with birth (% with birth)	254 (34%)	

Controlled for respondents' lifestyle preference, education, work status, relationship status, place of residence, GGCE income class, living in East Germany, country of birth, cohabitation duration and age (with squared specifications).

* p< 0,1, ** p<0,05, ***p<0,01. Source: Pairfam 2008-2015, Author's computation using Stata 13

Robustness test

The categorization of child care availability is based on women's personal assessment of the condition that must be fulfilled to have a child. In anticipation of pregnancy or childbirth women may exhibit a heightened need for the availability of caring options so that a heightened assessment of availability may spuriously correlate with the relative risks of first birth. We therefore re-tested our hypotheses based on lagged⁶ data on child care availability. This method captures the essence of childcare for having a child while controlling for possible anticipatory bias. Results are displayed in Tables 2R & 3R below and resemble the patterns from our previous regression models.

Table 2R: Effects of the interaction of life course preferences and child care availability on the transition to first birth of German women

	<i>Flexible childcare available matters</i>	
	No	Yes
Lifestyle preference		
<i>Baselines</i>		
Family focus	1.00	1.09
Adaptive	1.00	1.75***
Career/educ focus	1.00	1.70
No. of observations	2.133	
No. of subjects	711	
n with birth (% with birth)	240 (34%)	

Controlled for respondents' child care attitudes, education, work status, relationship status, place of residence, GGCE income class, living in East Germany, country of birth, cohabitation duration and age (with squared specifications).

* p< 0,1, ** p<0,05, ***p<0,01. Source: Pairfam 2008-2015, Author's computation using Stata 13

⁶ Lagged refers to the nearest data point meaning either the prior wave or in case of missing data the next earlier wave with information. For the first interview the first data point was used in order to sustain the sample size.

Table 3R: Effect of the interaction of child care norms and child care availability on the transition to first birth of German women

	<i>Flexible childcare available matters</i>	
	No	Yes
Attitude towards formal child care		
Baselines		
Receptive	1.00	1.98***
Uncertain	1.00	1.36
Averse	1.00	0.93
No. of observations	2.133	
No. of subjects	711	
n with birth (% with birth)	240 (34%)	

Controlled for respondents' lifestyle preference, education, work status, relationship status, place of residence, GGCE income class, living in East Germany, country of birth, cohabitation duration and age (with squared specifications).

* p< 0,1, ** p<0,05, ***p<0,01. Source: Pairfam 2008-2015, Author'computation using Stata 13

7. Discussion

Previous studies of the impact of the German childcare context on women's childbearing intensities have struggled to explain the gap between conceptual significance and empirical insignificance of childcare for fertility decisions. These studies focused on the association between the availability of childcare and fertility. Our study is the first to empirically investigate the link between the relevance that women may attribute to childcare (availability of childcare) and first-birth fertility taking into account women's attitudes towards mother's employment (acceptability of childcare) and their career-family preferences (applicability of childcare).

The 2007 amendment of family and childcare policies in Germany marked a clear departure from Germany's historical family policy orientation – from promoting mothers' exit from the labor market to care for their child to supporting mothers' employment and children's day care attendance. This is likely to have created a conflict between prevalent norms of caring and mothering, and the policy ambitions to support the reconciliation of motherhood and employment. The family transition theory regards such conflicts as having the potential to inhibit childbearing (Esping-Andersen and Billari 2015), while institutional theories regard an ample availability of childcare as promoting childbearing (Neyer 2003; Hank and Kreyenfeld 2003). Our results indicate that women incorporate childcare factors into their fertility decisions depending on 1) their career-motherhood orientation and 2) their attitudes towards motherly employment. This affects the extent to which childcare may stimulate fertility.

We found that women who desire to reconcile career and motherhood exhibit significantly higher risks of first-birth fertility if they regard childcare a precondition for having a child. To these women the expansion of childcare constitutes an *applicable* policy measure. Otherwise, their preferences for career and motherhood might be difficult to reconcile and force them to make exclusive choices between being a housewife or remaining childless. Women with strong preferences for motherhood show different patterns: The first-birth risks of those who consider flexible childcare necessary for having a child are insignificant. The extension of childcare seems to be *inapplicable* to their life course.

Childbearing propensities also vary by the *acceptability* of childcare, that is, by women's attitude towards motherly employment. Women fearing a negative impact of mothers' employment on their child's well-being are likely to consider institutional care *inacceptable* or may be uncertain about it. Their own perception of the need for flexible child care to have a child has no significant impact on their decision to become a mother. The reverse holds for receptive women. They exhibit substantially higher risks of first-birth fertility if childcare is a precondition for them to have a child.

The design of the Pairfam survey comes with a number of benefits as well as shortcomings. We regard it as advantageous that the measure of childcare availability is based on whether women consider childcare a precondition for having a child or not. Childless women in particular may not be aware of the factual availability of childcare (until they consider having or already had a child and actively look for care options). By asking about the relevance of childcare for having a child, Pairfam avoids that insignificant results of the relationship between childcare and childbearing are interpreted as a lack of importance of childcare for fertility when in fact the results may stem from a lack of awareness of available childcare. Further, it is an advantage that the survey is carried out exactly at the time when German childcare policies were in the process of being restructured, offering the possibility to study behavior during a period of social change. To the shortcomings are that we can only study women aged 32 or less, who often still have a long way to go before their reproductive careers are completed. Furthermore, we did not account for other factors that also help frame the fertility context. Scholars have argued (Trappe et al. 2015) that the ambiguity of German social and family policies regarding mothers' employment and childcare increases women's normative and practical costs of having children. The 2007 reforms of family and childcare policies that support women's attachment to the labor market recognize their need for childcare as well as for a more gender equal division of care. Yet, these policies are still paralleled by tax policies and financial incentives for stay-at-home mothers. Further research is needed to explore how such policy inconsistencies affect women's attitudes, the significance and use of childcare, and fertility decisions.

Our study underlines a common theme in social policy research, namely that the impact of a policy depends on the willingness of the targeted population to utilize it (see Neyer and Andersson 2008). With respect to childcare this holds irrespective of any sufficiently provided infrastructure in terms of scale, quality and affordability. Certain attitudes in the population may create hesitance to make use of policy provisions if its premises deviate from “the social life people want to lead” or “the norms that guide people’s lives” (Neyer and Andersson 2008). Our study also supports views that policies may bring about changes in childbearing behavior (see, e.g., McDonald 2002; 2006) – especially among those whose norms and attitudes are open (“receptive”) to the options that the policy offers. Our findings thus suggest to take a cautionary approach, both in policy-making as well as in research. Policy-makers who aim to increase fertility may consider the normative policy context when anticipating the impact of a prospective policy. Success may not be immediate if norms and attitudes are not (yet) receptive to the policy on offer. At the same time researchers should consider this normative dimension when evaluating the current or past impact of policy reforms on the targeted issue. A policy that may appear ineffective or insufficient may simply be constrained by its normative context.

Despite such insights into the dynamics of childcare and individual fertility decisions, aggregated fertility remains the most referenced and observed fertility metric. The prior conclusions therefore prompt a discussion on the potential and limitations of the German childcare policy to stimulate upswings in aggregated fertility. Two factors emerge as central to the impact of German childcare infrastructure: the so far lacking scale of policy provisions and the lacking alignment of crucial attitudes in large segments of the population. In our sample, 43% of women stated that the availability of flexible childcare options was not a precondition for them to have a(nother) child⁷. Slightly more than half of these women perceive childcare as *acceptable* and slightly less than half it being *applicable*. At the same time, almost half of all women in the sample were averse or uncertain to formal childcare options thinking that a child will suffer if its mother works. This is an exceptionally high figure for the considered generation. Such factors bear potential as well as limitation of any policy impacts. We conclude that our results imply that there is a need for a continued, determined expansion of the current childcare infrastructure in Germany. Continued reforms would not only provide support to those 20% of women with receptive/adaptive attitudes. Abolishing anachronistic male-breadwinner policies while expanding dual-earner oriented childcare infrastructures would furthermore accelerate the due transition to a new German motherhood image (see also Gangl and Ziefle 2015; Trappe et al. 2015). Childcare “embodies a particular image of motherhood” and “signals

⁷ Table 5 Appendix

which kind of behavior is expected” (Neyer and Andersson 2008). A further expansion of current infrastructures would therefore also convey normative and practical support to the 20-30% of the population who are willing but hesitant to identify with progressive motherhood roles while modernizing the attitudes of those 49% still averse to any third-party care.

Acknowledgements

The authors acknowledge financial support from the Swedish Research Council (Vetenskapsrådet) via the Linnaeus Center for Social Policy and Family Dynamics in Europe (SPaDE), grant registration number 349-2007-8701.

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Appendix I

Table 5: Sample distribution of child care availability by lifestyle preferences and child care norms

	<i>Flexible child care available</i>	
	No	Yes
Attitude towards formal child care		
Receptive	23%	28%
Uncertain	12%	16%
Averse	8%	13%
Lifestyle preferences		
Family focus	2%	5%
Adaptive	19%	34%
Career/educ focus	22%	18%
Total	43%	57%
No. of observations	2.217	
No. of subjects	745	
n with birth (% with birth)	254 (34%)	

Source: Pairfam 2008-2015, Author's computation using Stata 13

Appendix II

H2 & H3: Full regression model

Table 6: Effect of the interaction of child care norms with child care availability and lifestyle preferences on the transition to first birth of German women

	H2		H3	
	Flexible child care available		Flexible child care available	
	No	Yes	No	Yes
Lifestyle preference				
Baselines				
Family focus	1.00	0.79	1.00	
Adaptive	1.00	1.61**	0.39***	
Career/educ focus	1.00	1.84	0.08***	
Attitude towards formal child care				
Baselines				
Receptive	1.00		1.00	1.84***
Uncertain	1.14		1.00	1.02
Averse	1.02		1.00	0.83
Education				
Tertiary education				
Post-secondary & upper secondary	1.00		1.00	
No degree & lower secondary	1.29*		1.28*	
Work status				
Full-time	0.44		0.43	
Part-time				
Enrolled in education	1.00		1.00	
Stay-home	0.84		0.82	
unemployed/retired	0.60		0.59	
	8.93***		8.89***	
Relationship status				
Cohabiting	1.83*		1.90*	
LAT (unmarried or married)				
Married	1.00		1.00	
	0.63		0.62*	
Place of residence				
City center >= 100.000	2.39***		2.44***	
Periphery >= 100.000				
Rural area < 100.000	1.00		1.00	
	1.05		1.01	
GGCE income class (in € per month)				
<500	1.04		1.03	
500<= Inc <1000	1.00		1.00	
1000<= Inc <2000	0.68		0.66	
2000<= Inc <4000	0.60**		0.58**	
4000<= Inc	0.93		0.87	
	1.07		1.03	
Living in East Germany				
No	1.00		1.00	
Yes	1.30		1.27	
Country of birth				
Western Germany	1.00		1.00	
Eastern Germany	1.68**		1.68**	
Foreign-born	0.96		0.94	
Duration of cohabitation				
Duration of cohabitation squared	1.01		1.01	
Age	0.99		0.99	
Age squared	0.96		0.98	
	1.00		0.99	
No. of observations				
No. of observations	2.217		2.217	
No. of subjects				
No. of subjects	745		745	
n with birth (% with birth)				
n with birth (% with birth)	254 (34%)		254 (34%)	

* p< 0,1, ** p<0,05, ***p<0,01. Source: Pairfam 2008-2015, Author's computation using Stata 13

Appendix III

H2: Robustness test

Table 2R: Effects of the interaction of lifestyle preferences and child care availability on the transition to first birth of German women

	<i>Flexible child care available</i>	
	No	Yes
Lifestyle preference		
<i>Baselines</i>		
Family focus	1.00	1.09
Adaptive	1.00	1.75***
Career/educ focus	1.00	1.70
No. of observations	2.133	
No. of subjects	711	
n with birth (% with birth)	240 (34%)	

Controlled for respondents' child care attitudes, education, work status, relationship status, place of residence, GGCE income class, living in East Germany, country of birth, cohabitation duration and age (with squared specifications).

* p<0,1, ** p<0,05, ***p<0,01. Source: Pairfam 2008-2015, Author's computation using Stata 13

H3: Robustness test

Table 3R: Effect of the interaction of child care norms and child care availability on the transition to first birth of German women

	<i>Flexible child care available</i>	
	No	Yes
Attitude towards formal child care		
<i>Baselines</i>		
Receptive	1.00	1.98***
Uncertain	1.00	1.36
Averse	1.00	0.93
No. of observations	2.133	
No. of subjects	711	
n with birth (% with birth)	240 (34%)	

Controlled for respondents' lifestyle preference, education, work status, relationship status, place of residence, GGCE income class, living in East Germany, country of birth, cohabitation duration and age (with squared specifications).

* p<0,1, ** p<0,05, ***p<0,01. Source: Pairfam 2008-2015, Author's computation using Stata 13

Stockholm Research Reports in Demography

Stockholm University, 106 91 Stockholm,
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2002-617X



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