Max-Planck-Institut für demografische Forschung
Max Planck Institute for Demographic Research
Konrad-Zuse-Strasse 1 · D-18057 Rostock · GERMANY
Tel +49 (0) 3 81 20 81 - 0; Fax +49 (0) 3 81 20 81 - 202;
http://www.demogr.mpg.de

MPIDR WORKING PAPER WP 2013-003
MARCH 2013

Social Norms, Family Policies, and Fertility Trends: Insights from a Comparative Study on the German-Speaking Region in Belgium

Sebastian Klüsener (kluesener@demogr.mpg.de)
Karel Neels
Michaela Kreyenfeld (kreyenfeld@demogr.mpg.de)

Social Norms, Family Policies, and Fertility Trends:

Insights from a Comparative Study on the German-Speaking Region in Belgium

Sebastian Klüsener[‡], Karel Neels[‡‡], Michaela Kreyenfeld[‡]

[‡] Max Planck Institute for Demographic Research

[‡‡] University of Antwerp

Abstract

Several countries in Northern and Western Europe report cohort fertility rates of close to two children per woman, including Belgium, France, and Denmark. By contrast, most Central and Southern European countries have cohort fertility levels of only around 1.5-1.6 children. Germany is part of this second group. In order to explain these country differences in fertility levels, some scholars have stressed the role of the social policy context, while others have pointed to differences in social fertility norms. However, due to the interdependence of these two factors, it is cumbersome to isolate their impact on fertility trends. In our study we attempt to disentangle these influences by drawing on a quasi-natural experiment. In the aftermath of World War I, Germany was forced to cede the territory of Eupen-Malmedy to Belgium. The population in this area retained its German linguistic identity, but has been subject to Belgian social policies since the early 1920s. Our main research question is whether the fertility trends in this German-speaking region of Belgium follow the Belgian or the German pattern more closely. To answer this question, we use (micro)-census data to compare the fertility behavior in the German-speaking region in Belgium with data for western Germany and the Belgian Flemish- and French-speaking regions, controlling for individual-level characteristics. Our findings indicate that the overall fertility outcomes of the German-speaking region in Belgium resemble the Belgian pattern more than the German one. This provides support for the view that institutional factors play an important role for understanding the current fertility differences in Western Europe.

Acknowledgements

The authors would like to thank Joshua R. Goldstein and Sandra Krapf for their input and feedback on earlier versions of this paper.

The Fertility Divide in Western Europe[1]

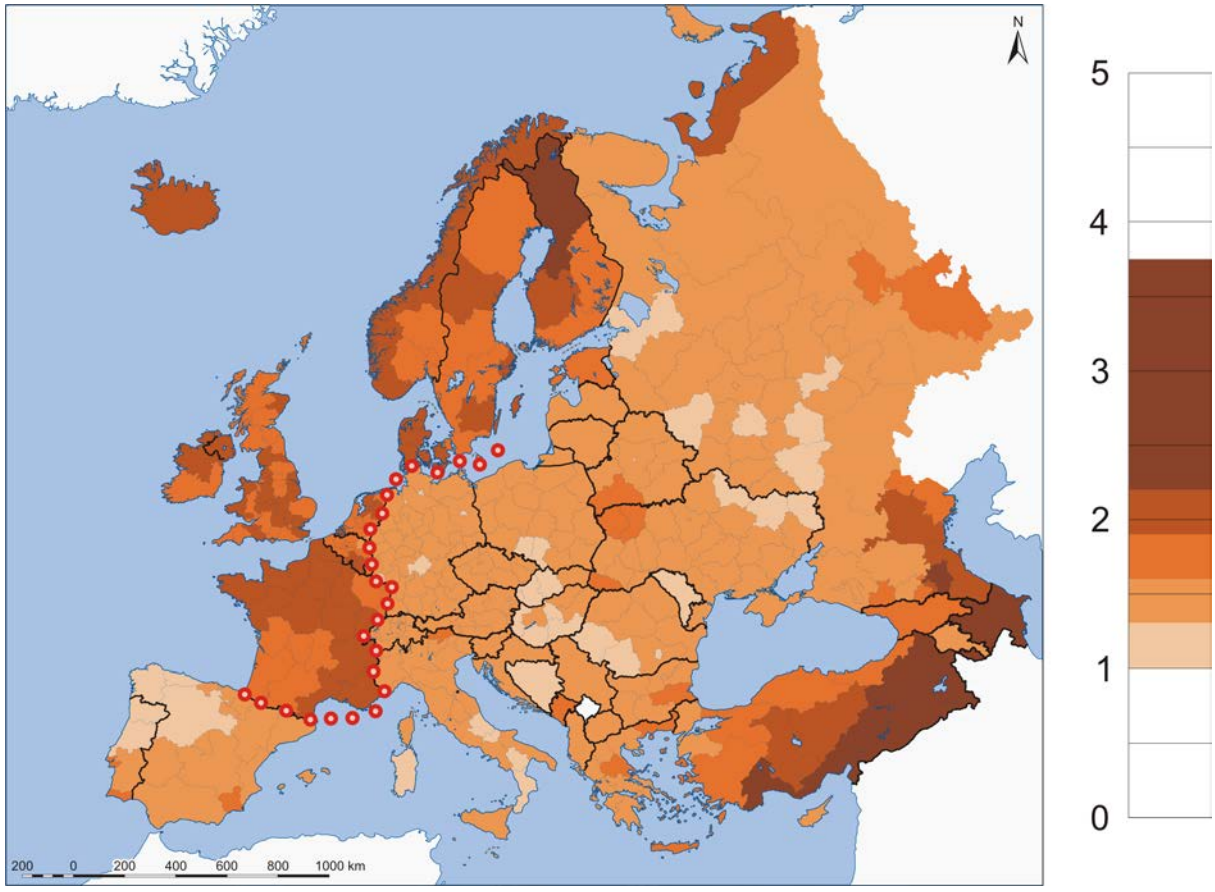
In recent decades, a distinct fertility divide has emerged in Western Europe. Countries in Central and Southern Europe are reporting cohort fertility rates far below replacement level. Among these are the German-speaking countries, where fertility has long been at sub-replacement levels (Frejka and Prskawetz 2011; Sobotka 2011). In Germany, the cohort fertility rates for women born in 1960 are at a level of around 1.6. This is well below the figures for neighboring countries to the west and north: Belgium (1.9), France (2.1), and Denmark (1.9) register values close to replacement level (GGP 2012). Interestingly, these fertility differences are not just discrepancies in national averages, as can be seen in the map of Figure 1, which displays fertility levels for Europe at the regional level. A clear dividing line seems to run through Western Europe which largely follows national borders. Overall, the map gives the impression that a person who was crossing the western or northern state border of Germany would also be crossing a boundary between two distinct fertility regimes.

Which factors contributed to the emergence of this spatial fertility divide in Western Europe has been a matter of dispute among demographers. Some scholars have argued that differences in family policies play an important role in shaping Europe's fertility landscape (e.g., Gauthier 1996; Chesnais 1998; Kaufmann et al. 2002; McDonald 2008). High fertility levels are thus explained by the work- and family-friendly policies of the Nordic countries, France, and Belgium; while the low fertility levels reported for the German-speaking countries are attributed to the fact that family policies in these areas of Europe have remained traditional and supportive of the male-breadwinner model (Esping-Andersen 1999; 2009). Other scholars have pointed out that the decline in cohort fertility in the German-speaking countries has been accompanied by the emergence of low family size ideals (Goldstein et al. 2003) and a high prevalence of "child-free lifestyles" (Sobotka and Testa 2008). It is, however, difficult to disentangle the roles of social norms and policies in influencing fertility trends, as they are interrelated (Hantrais 2004; Neyer and Andersson 2008; Mätzke and Ostner 2010). Because politicians in democracies are likely to shape their policies in response to the dominant views of their constituents, conservative family policies may partially mirror conservative images that prevail in society (for general considerations, see Streeck and Thelen 2005, pp. 13 ff.).

[1] The maps used in this publication are partly based on the following source: © EuroGeographics for the administrative boundaries.

These policies may in turn reinforce existing social norms, as the policy context is likely to create economic incentives that reward norm-compliant behavior.

Fig. 1: Regional Period TFR-Variation[2] across Europe 2008 – The Fertility Divide in Western Europe



Source: Statistical Offices, Eurostat
Basemap: MPIDR and CGG 2012, partly based on © EuroGeographics for the administrative boundaries

This study draws on an aspect of Europe's political geography that could enable us to disentangle the role of the institutional context and social norms in understanding fertility trends. We focus on the German-speaking region in eastern Belgium, which is situated in the direct vicinity of the fertility divide line displayed in Figure 1. In the aftermath of World War I, Germany had to cede the territory of Eupen-Malmedy to Belgium as a compensation for its attack on the neutral Belgian state. The predominantly German-speaking municipalities of this

[2] The map displays period TFR values. As the period TFR is distorted by tempo effects (Sobotka and Lutz 2010), cohort fertility rates are preferable for depicting fertility levels. But as we wanted to display sub-national differences, we were faced with the limitation that sub-national cohort fertility rates are not available for many countries. However, we can rule out the possibility that the fertility divide line in Western Europe is completely an artifact of tempo effects, as the divide is also clearly visible in a national-level cohort fertility map.

territory form today the so-called German-speaking Community in Belgium (*Deutschsprachige Gemeinschaft in Belgien*). This community enjoys the same constitutional rights as the language communities of the two dominant language groups of the country, the Flemish and the French.[3] In the German-speaking Community, German is the official language of communication in the administration and all public education institutions. There is frequent contact with Germany in the form of commuter relations or through the consumption of German mass media. But the German-speaking area of Belgium has been subject to the institutional context of the Belgian state, including its family and labor market policies, for the better part of the last century.[4] These policies differ considerably from the policies implemented in western Germany, as Belgium has long had a strong emphasis on providing a high level of child care coverage, which supported parents in combining work and family.

It therefore appears that the German minority[5] in eastern Belgium has been exposed to two potentially conflicting influences on their fertility decisions: the German minority has been influenced by the incentive structure created by Belgian families policies, as well as by the social norms prevalent among the German society as the result of frequent cross-border contacts and exposure to societal debates on "German" fertility and family images. It is surely simplistic to assume that the mass media have the power to shape fertility behavior. However, it is undisputed that there are normative constraints that shape our actions, and these forces may be just as influential as the institutional contexts we are exposed to. In the realm of family life, the family images and the attitudes regarding maternal employment and child care are frequently cited as prime determinants of Germany's low maternal employment rates and fertility rates (Kremer 2007). How such attitudes evolve, whether they are passed on through generations, and why they are so resistant to change are key questions in the debate on family change. The "Belgian case" may shed some light on these very basic issues. We know that the German minority, like the Flemish- and the French-speaking inhabitants of Belgium, has been exposed to policies that promote work-family balance. But the degree to which these policies affect attitudes about fertility and maternal employment might depend on the family images

[3] For background information on the federal system of the Belgian state, see Swenden and Jans (2006).

[4] With the exception of a short period during World War II, in which Belgium was occupied by Germany (1940-1944).

[5] When we refer in this paper to the *German minority*, we mean the population residing in the territory of the German-speaking Community.

conveyed in the "German" debate. In this sense, the German-speaking Community in Belgium may allow us to disentangle the influence of the institutional context and social norms on fertility trends.

In this paper, we compare the fertility patterns among the German-speaking Community in Belgium with the fertility patterns observed among women in western Germany[6] and in the Flemish and French-speaking regions of Belgium. This is done by analyzing individual-level (micro-)census data. Our main hypothesis can be summarized as follows: *If national family policies are the most important factor behind the differences in the fertility levels of Belgium and western Germany, we would expect to find that the fertility of the German minority in Belgium resembles that of the populations in the other parts of Belgium. If, however, social norms are predominantly responsible for the divide in fertility outcomes, the fertility outcomes of the German minority should follow the pattern observed in western Germany.*

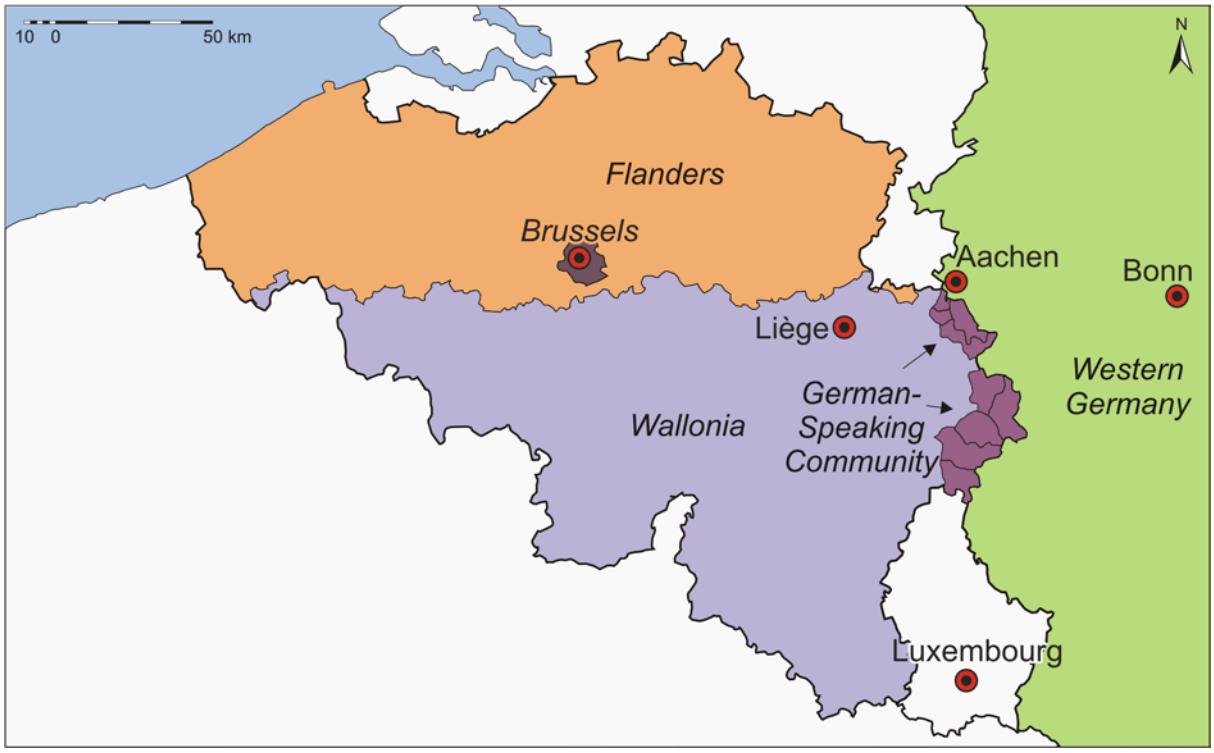
Our paper is structured as follows. We first provide additional background information on the Belgian German-speaking Community and our reasons for focusing on this European minority in our comparative study. We then discuss some theoretical considerations regarding the role of the institutional context and of social norms in fertility decision-making processes. In the section that follows, we provide an overview of the differences between Belgium and (West) Germany, both with respect to the development of the institutional context as well as prevailing social fertility norms. We then turn to our comparative micro-level analyses of census and micro-census data of the Belgian and western German cohorts born between 1935 and 1959. In this section, we first give an overview of the data and methods used, and then present the results of our analysis. The final section contains the concluding remarks.

The German-Speaking Region in Eastern Belgium

The German-speaking Community is situated in the Belgian region of Wallonia at the border to Germany. It consists of two towns and seven rural municipalities with an area of 845 km² (see Fig. 2). The community's 75,716 inhabitants (as of Jan. 1, 2011) represent approximately 0.75% of the total Belgian population.

[6] We focus on western Germany, as the demographic behavior of the eastern German population is still very distinct as a result of the GDR legacy (Goldstein and Kreyenfeld 2011).

Fig. 2: The Research Area



Basemap: GADM; MPIDR and CGG 2012, partly based on © Eurogeographics for the administrative boundaries

Despite having been a part of the Belgian state for more than 90 years, the German-speaking Community has retained its linguistic identity. The population benefited from being integrated into the Belgian state, as German had, e.g. in censuses, been considered one of the three national languages of Belgium even before World War I.[7] In addition, the German minorities profited from the Belgian political system, in which compromises were constantly being arranged between the interests of the predominantly Flemish-speaking northern part and the predominantly French-speaking southern part of the country. Flemish politicians in particular were highly supportive of protecting the rights of the German minority, as the Flemish and German languages are closely linked. As a result, the German minority in Belgium has enjoyed strong minority rights since the 1920s (Markusse 1999, pp. 62 f.).[8]

[7] There were already small German minorities living in the eastern and southern parts of Belgium prior to the annexation of the Eupen-Malmedy territory after World War I. Today these minorities are to a large degree assimilated (Nelde 1984). In addition, the Belgian monarchs, who were installed after independence was achieved in 1831, were from the Belgian line of the German House of Saxe-Coburg-Gotha.

[8] The only period in which minority rights were very limited was a short period directly following World War II, in which the German minority was accused of collaboration with the German enemy. However, by 1960 the old institutional position of the German language had been more or less restored (Markusse 1999, p. 62 f.), and fur-

Since 1963, German has been, in addition to Flemish and French, one of the official languages of Belgium. The German-speaking Community has had its own parliamentary council since 1973. In 1984, the Community was granted its own executive government, headed by a prime minister, that is mostly responsible for education and social issues. In the German-speaking Community, German is the official language of communication in the administration and in all public education institutions, although support for French speakers has to be provided. Belgium has not collected any official statistics on the mother tongues of the country's inhabitants in the most recent censuses, but a social science survey carried out in 2011 showed that approximately 90% of the population in the German-speaking Community speak German as their mother tongue (Polis+Sinus 2011, p. 13). There is no evidence that German is losing importance among the younger cohorts (ibid, p. 13).

There are many social links and communication pathways between the German minority in Belgium and western Germany. Almost 20% of the economically active population living in the German-speaking Community commute to Germany for work (Polis+Sinus 2011, p. 33). The region has also received substantial in-migration from Germany in recent decades (DGstat 2010, pp. 3.1-14 ff.; Capron et al. 2002). In addition, as the German-language mass media in the Belgian German-speaking Community are, due to the small population size, very local in character, the German minority regularly turn to German mass media for information (Die Zeit 24.09.1965; Pfeil 2006; Combuchen 2008). Thus, it is very likely that the German minority in Belgium is influenced by German-language discussions on family images, lifestyles, and social norms related to fertility decisions featured in the German media.

Apart from the German-speaking Community in Belgium, there are other ethnic minorities in Western Europe who might also have been of interest to us in answering our research question. These include the German and Danish minorities in the Danish-German border region and the populations of Luxembourg and Alsace-Lorraine, among whom German dialects are or were widespread, as these territories belonged to Germany for periods of time during the 19th or 20th centuries. Another interesting case might be the Basque population on both sides of the border between France and Spain. But we believe the German-speaking region in Belgium is the most suitable for disentangling the influences of social norms and poli-

---

ther increased in subsequent decades. A study comparing minority rights in 36 European states concluded that, apart from Finland, Belgium is the country that provides the most far-reaching rights to its national minorities (Pan 2006, p. 645).

cies on fertility choices for several reasons. First, the German-speaking Community in Belgium enjoys exceptional minority rights, which have enabled the population to maintain its German linguistic identity (Pan 2006). Second, in contrast to, for example, the minorities in the Danish-German border region, the German minority in eastern Belgium lives, to a large degree, spatially segregated from the Flemish- and French-speaking Belgians within their own municipalities, where they constitute the vast majority. Third, the population of the German-speaking Community is large enough to generate statistically meaningful results, but—in contrast to, for example, the Luxembourgers[9]—it probably is not numerous enough to have developed its own unique regional identity, which would set it strongly apart from the population of (western) Germany in terms of linguistic and cultural dimensions and mass media discussions.

The Role of Policies and Social Norms in Influencing Fertility Decisions

In our study, we are comparing two highly developed countries which differ very little in terms of their economic performance, but which differ greatly in terms of their family policy development. Comparative welfare state research tells us that family policies shape gender roles as well as employment and fertility decisions (Esping-Andersen 1999; Gauthier 2007). Welfare states can help to decrease the direct costs of raising children through benefits and transfers. In addition, parental leave schemes and public assistance with child care can lessen opportunity costs, which occur when one or both parents reduce their labor market participation in order to fulfill their childrearing obligations.[10] However, the empirical evidence on the impact of family policies on fertility is rather ambiguous. This is partly attributable to the complex nature of the reproductive decision-making processes, which makes it very difficult to separate out the institutional context from other potential influences (Neyer and Andersson 2008). In a review of the existing literature on the impact of family policies on fertility,

[9] In the 19th century, Luxembourg had close cultural, political, and economic ties to Germany. But the Luxembourgian population was able to develop and maintain a unique identity by, for example, turning its Mosel-Franconian dialect in a standardized language (Luxembourgish), and making French the lingua franca in the work sphere (see Weber 1994).

[10] In addition to these core family policies, other types of policies—such as labor market regulations, social support schemes, and housing policies—can also have an impact on people's fertility decisions, as they might affect the general conditions for families and the career opportunities of individuals with young children.

Gauthier concluded that there is some evidence for positive effects. “However, the impact tends to be small and also to vary highly depending on the type of data used and on the type of policies” (Gauthier 2007, p. 342). Moreover, she added, the results are often contradictory, “especially when it comes to the magnitude of the impact of policies and on the differential impact by birth order” (ibid, p. 342).

The association between social norms and fertility choices (see, e.g., Ajzen 1985, Lesthaeghe 1980; Astone 1999) is potentially even more difficult to disentangle from other influencing factors. In relation to life course decisions, Liefbroer and Billari (2010, p. 290) distinguished three categories of social norms: age, quantum, and sequencing norms. For our research, the latter two are likely to be particularly relevant. Quantum norms include views on the ideal number of children and on the acceptability of childlessness, which vary substantially across Europe (Goldstein et al. 2003; Sobotka and Testa 2008). Sequencing norms are perceptions regarding the proper order of life course events, which might pertain to a combination of events in different life domains, such as family and work. One important norm to which we will devote considerable attention in our study is related to when a mother should return to work after the birth of a child. In some societies, there is a widespread perception that it is harmful for the development of the child if the mother goes back to work early. In these societies women face substantial challenges in reconciling their family and career goals, which can affect fertility decisions. Highly educated women in particular are more likely to remain childless in such contexts, thereby contributing to a “polarized” fertility pattern (Huinink 2002). In addition to these life course norms, other social norms also influence demographic decision processes. These include, for example, gender role attitudes and attitudes regarding the use of public day care, which are also known to vary widely between countries (Kremer 2007). As perceptions of public day care might again depend on the degree to which the institutional context provides good access to high-quality public child care, the interdependence of social norms and family policies is apparent here as well.

Family Policy Developments in Belgium and Germany

From a pan-European comparative perspective, the welfare state arrangements of Belgium and Germany are similar in many ways. Both countries are regarded as corporatist Bismarckian-type welfare states in which social insurance plays an important role, and in which the state is actively engaged in regulating the labor market (Morel 2007). Like in (western) Ger-

many, welfare policies in Belgium largely had a male-breadwinner orientation in the 20th century (Hummelsheim and Hirschle 2010). The development of family allowances and parental leave schemes unfolded similarly in the two countries. In Germany, tax benefits were introduced in the early 1920s and child benefits first began in the mid-1930s, while in Belgium family allowances have been provided since the late 1920s (Watson 1954, pp. 163 ff.; Population Europe/MPIDR 2012).

Leave schemes were also established at a very similar time. Belgium introduced a voluntary career break in 1985, while Germany first implemented a parental leave scheme in 1986.[11] The Belgian scheme was not limited to parents, but was open to anybody who wanted to take leave from work for a limited period. The employer had to replace the employee during the leave with an unemployed person. The amount of financial support provided was very small, as it was paid at the lowest unemployment insurance rate available. This made taking the leave a less attractive option for individuals with high salaries, and contributed to a gender bias among those who took advantage of it (Morel 2007, pp. 628 f.). In 1998 Belgium introduced in addition to the voluntary career break a leave scheme solely for parents. However, it only covers a short period of three months (full-time) or six months (half-time) (GGP 2012). Germany offers longer parental leave schemes (since 1992, up to 36 months), but until recently the level of financial support provided was very low. Substantial reforms to these schemes occurred in Belgium in 2001 and in Germany in 2007. The 2007 reform in Germany is widely regarded as a move away from the male-breadwinner model, as it was intended to foster gender equality and support work-family balance (Ostner 2006; Henninger et al. 2008). However, this very recent reform is not addressed in our comparison of fertility trends.

Large differences between the two countries exist in the development of pre-school and child care coverage. Belgium followed the French example, offering broad preschool coverage at a relatively early date. According to Morel (2007), this policy decision was based on a desire to provide all children with a good start in life, rather than on pro-natalist considerations. However, at least in the French-speaking region of Belgium, which experienced a decline in fertility much earlier than the Flemish-speaking region, concerns about the low fertility rates also played a role in family policy debates (see, e.g., Watson 1954, pp. 157 f.). Today, Belgium's preschool education system is almost universal and free of charge for three-

[11] A maternal leave system had been in place since 1979.

to six-year-olds, as it is funded by the state (Van Lancker and Ghysels 2012, p. 130). Most of the preschools offer additional child care before and after school hours.

Throughout the last 60 years, Belgium has always been among the top-ranked countries worldwide in the level of child care provided (O´Connor 1988, p. 26). As early as in 1956, 74% of the three-to-four-year-olds were in a preschool institution (see Tab. 1). For western Germany, the first statistics available are for 1970-71. The data show that western Germany was lagging far behind the developments in Belgium at that time. It is also important to point out that, in western Germany, most of the available institutional child care was (and still is) part-time, which limits the ability of parents to actively participate in the labor market. Despite recent improvements in Germany, the availability of institutional child care for children under age three, as well as full-time child care for three- to six-year-olds, is still relatively low compared to other European countries (Morel 2007, p. 630). In 2008, 43% of all zero- to three-year-olds were in formal child care in Belgium, compared to 10% in western Germany (Tab. 1).

*Tab. 1: Pre-school and Child Care Coverage by Age**

		Western Germany	Belgium
1956-57:	3-4 years	Not available	74%
1964-65:	3-4 years	Not available	86%
1970-71:	2 years	1%	15%
	3 years	10%	90%
	4 years	35%	95%
	5 years	70%	99%
	6 years	99%	99%
1985:	below 3 years	3%**	20-25%
1994:	below 3 years	2%	30%
2008:	below 3 years	10%***	43%

* 1956-57, 1964-65, 1970 and 2008: Child care usage ratio
1985, 1994: Child care provision ratio

** Including day care

*** Numbers 2008: Western Germany without West Berlin

Source: Coulon 1967; Austin 1970; Deutsches Jugendinstitut 1998; Statistisches Bundesamt 2009; GGP 2012

However, the numbers for Belgium are national level averages. For our research design, it is important to know whether these numbers differ for the German-speaking Community. Unfortunately, data on the development of preschool education and child care in the German-speaking Community are available only from the 1980s onwards. But we benefit from the fact that the Belgian education system was highly centralized until the 1980s, and

was under the responsibility of the national government (Schifflers 2009). This system also includes the preschools. The German-speaking Community did not have full control over the development of its education system until the late 1980s. Thus, it very unlikely that, at least before the 1990s, trends in the German-speaking region differed substantially from other regions of Belgium. In the area of child care for children under age three, the German-speaking Community has supported a child minder service since 1984. This is in line with developments elsewhere in Belgium, as the country moved in the 1980s toward a more market-oriented approach in order to limit the high costs of public institutional child care. Evidence that the level of institutional support for families is quite high was also provided by a German consultancy study from 2006, which presented the German-speaking Community in Belgium as a best-practice example for supporting families with services (Robert Bosch Stiftung 2006, pp. 54 ff.).

Tab. 2: Maternal Employment Patterns of Women, Youngest Child 0-2 Years, Column Percent (2001) [12]

	Western Germany	**Belgium, German Language Community**	**Belgium, Wallonia* (French Speaking)**	**Belgium, Flanders (Dutch Speaking)**
Employment Status of Mothers				
Full-time	10.4%	22.6%	33.1%	46.8%
Part-time	19.7%	37.9%	23.6%	25.7%
Parental Leave	19.3%	7.9%	2.2%	4.3%
Unemployed	1.5%	13.2%	25.9%	10.8%
Not in Labor Force	49.0%	18.4%	15.1%	12.4%

* without German-speaking Community

Source: Statistics Belgium, 2001 Census; SUF German Microcensus 2001 (own estimates)

Our overview of family policy developments indicates that substantial differences exist between Belgium and (western) Germany in the areas of preschool education and institutional support for child care. These differences obviously influence the relative opportunities of mothers with young children to participate in the labor market. In Table 2 we show the employment status of mothers with children aged zero to two in 2001, using data derived from our (micro-)censuses. The share of these mothers in full- or part-time employment was

[12] For Germany, the analysis only includes mothers who have children co-residing with them in the same household. The Belgian region of Brussels is excluded from this representation.

only 30% in western Germany, while the shares for the Belgian regions range from 56% to 72%. The rather short parental leave period in Belgium probably contributes to this high labor participation rate. The share of part-time employment seems to have been larger in the German-speaking Community than in Flanders and French-speaking Wallonia. Overall, however, the similarities between the Belgian German-speaking area and the other Belgian regions are very high, while the patterns observed in Belgium are very different from those found in western Germany. This outcome suggests that differences in the national institutional contexts play an important role in shaping maternal employment patterns. This view is also supported by the findings of Hummelsheim and Hirschle (2010), who compared the maternal employment patterns in Germany and Belgium in a longitudinal analysis of panel survey data. The study showed that, for mothers with children under age three, the likelihood of being employed was much higher in Belgium than in Germany. Hummelsheim and Hirschle (2010) linked these results to differences in the institutional family policy contexts.

Differences in Social Norms between Belgium and Germany

Within Western Europe, western Germany is usually characterized as a society in which traditional family values and gender role attitudes have persisted to a higher degree than in countries such as the Netherlands or Sweden (Treas and Widmer 2000). The picture is more ambiguous for Belgium. Some authors have emphasized the strong Catholic roots of the country, which had a long-lasting impact on the education system, and were also long visible in the participation rates in religious services, especially in Flanders (Dobbelaere and Voyé 1990; Hummelsheim and Hirschle 2010). Like in France, there was no strong women's movement in Belgium in late 19th and early 20th centuries. Universal suffrage for women was not introduced until 1948 (Wilcox 1991). Other authors have emphasized the early secularization trends in the French-speaking region of Belgium, where a long tradition of strong support for liberal and secular parties can also be found (Lesthaeghe 2010).

Table 3 provides some evidence regarding the differences in attitudes and values between western Germany and Belgium. It shows that the share of people who disagree with non-marital childbearing is still quite high in western Germany, while the percentage who think marriage is an outdated institution is rather small. Belgians, by contrast, seem to be much more open to alternative family forms. The table also shows differences in the attitudes of Belgians and western Germans regarding maternal employment. Until recently, Germans

expressed very strong reservations about working mothers. There was even a disparaging colloquial term for mothers who worked: raven mother (*Rabenmutter*) (Ruckdeschel 2009). Regarding family size ideals, the results are ambiguous. The Eurobarometer 2001 data show a substantial gap between western Germany and Belgium. However, in 2006 and 2011, the Eurobarometer values for western Germany were substantially higher, and almost no differences were found between the two countries. According to Testa (2012, p. 23), the consistent findings for western Germany in 2006 and 2011 raise doubts about the reliability of the 2001 data for the country.

Tab. 3: Attitudinal Differences between Western Germany, Wallonia, and Flanders

	Western Germany	**Belgium, Wallonia incl. German-speaking Community**	**Belgium, Flanders**
Marriage and cohabitation			
Share who approve of non-marital childbirth (2006)	21.8%	47.8%*	75.5%
Share who believe that marriage is an outdated institution (Germany: 2005; Belgium: 2009)	12.9%	28.8%	25.0%
Work and care arrangements			
Share who disapprove if the mother has a full-time job while having children under three (2006)	29.3%	19.3%*	11.8%
Share who agree that a preschool child is likely to suffer if the mother works (2006)	52.7%	47.6%*	35.1%
Ideal family size			
Personal ideal number of children of			
- women aged 20-34 (2001)	1.7	2.2	
- women aged 25-39 (2006)	2.1	2.2	
- women aged 25-39 (2011)	2.0	2.1	

* In Wallonia small number of respondents in ESS wave 3 (only around 570)

Sources: Generations and Gender Survey; European Social Survey; Eurobarometer

Unfortunately, none of the cross-country comparative social surveys we are aware of provides a representative sample of the Belgian German-speaking Community. Therefore, we are not able to measure directly whether the family norms prevalent among the German minority are more comparable to those of the western Germans or to those of the Belgian

French- and Flemish-speaking Communities, and how these norms changed over time. Nevertheless, the data presented above on the employment arrangements of mothers with children under age three show that the pattern for the German-speaking Community generally follows the Belgian pattern. This might be interpreted as evidence that the disapproval of such behavior is less prevalent among the population of the Belgian German-speaking area than among western Germans.

As we have no survey data on the attitudes of the German minority, we refer to election outcomes. Before World War I, the most important party in Eupen and Malmedy was the Catholic *Zentrum* party, which received between 75% and more than 90% of the votes in Reichstag elections (Galloway et al. 1994[13]). This is of relevance for our research, as the *Zentrum* party is the most important predecessor of the Christian Democratic Union (CDU), which played a dominant role in shaping (western) German family policies after 1945. After World War I, the German minority continued to show a high level of support for Christian parties in elections.[14] The bordering French-speaking region of Wallonia, on the other hand, has a long tradition of strong support for secular parties. As early as in the 1919 election, more than 50% of Walloons voted for liberal, socialist, or communist parties (Lesthaeghe 2010, p. 9). The strong support for Christian parties in the German-speaking Community continues until today (DG Parlament 2012), with German-speaking Belgians tending to follow the election patterns of the bordering German districts rather than those of the adjacent French-speaking area of Wallonia.

In sum, there are substantial differences between the policy developments and social fertility norms of western Germany and Belgium. We also find empirical evidence that the Belgian German-speaking Community makes use of the better child care availability in Belgium, as the employment statistics of mothers with young children in this region largely follow the Belgian pattern. In addition, the voting data provide support for our assumption that, in terms of social norms, there are still substantial similarities between the Belgian German-speaking Community and western Germany.

---

[13] Prussia Dataset by Patrick Galloway.

[14] Although there has also been substantial support for nationalist pro-Germany parties, especially in the 1930s (Markusse 1999, p. 62).

Empirical Research Strategy

We will now turn to our comparative analysis of fertility trends in the Belgian German-speaking Community, western Germany, and Belgium. Our study setting may be considered as a quasi-natural experiment that could help us to disentangle the role of social norms and institutional constraints for fertility choices. In a natural experiment (see Dunning 2008) or spatial critical juncture setting (see Neyer and Andersson 2008), two populations receive drastically different policy treatments with strong effects on the contextual conditions for fertility decisions. A natural experiment approach can be seen as a special form of a randomized controlled experiment, with the latter having three hallmarks (Dunning 2008, pp. 282 f.). The first is that there are experimental subjects who receive a "treatment" (in our case, a policy intervention with relevance to family formation behavior) and whose responses can be compared to those of a control group who do not receive the treatment. The second criterion is that subjects are randomly assigned to treatment and control groups, while the third is that the experiment is under the control of the researcher.

The quasi-natural experiment setting differs from the randomized controlled experiment in that the data are drawn from naturally occurring phenomena. As these are usually not under the control of the researcher, the third condition of a randomized controlled experiment is violated (Dunning 2008), which is also true in our case. Our research design does, however, fulfill the first criterion, if we view the family policies that the Belgian German-speaking Community has been exposed to—in contrast to those to which the western German population has been exposed—as a "treatment." With regard to the second criterion—i.e., that subjects can be considered as if they were randomly assigned to treatment and control groups—we investigated whether the "treatment group" (the population of Eupen-Malmedy) differed in their fertility behavior from the "control group" (the population of western Germany) even before the start of the "experiment" after World War I. Detailed results of this analysis are presented in Appendix 1. They indicate that, before 1918, the fertility trends in the districts of Eupen and Malmedy were very similar to those in Germany and the German border region of Aachen, to which these two districts belonged. This provides support for the argument that the second criterion is fulfilled.

Data and Methods

For our analysis, we use data from the Belgian census of 2001 and from the Scientific Use File of the German Microcensus of 2008 (FDZ 2010a).[15] Our key dependent variable is the total number of children. In addition, we study the proportion of women who have remained childless, as a high share of childless women is an important characteristic of the low fertility levels in Germany (Sobotka and Testa 2008). The study population includes women of the birth cohorts 1935-59. These cohorts are the most relevant for our analysis, as the second half of the 20th century was the period in which we could see the strongest divergence in family policies between Belgium and Germany. As was mentioned above, we restrict the sample for Germany to the western part of the country[16]. For Belgium, we omit women living in the capital region of Brussels at the time of the census because, while the majority of the city's residents are French speakers, a substantial number of residents are primarily Flemish speakers, but cannot be identified as such in the census dataset. Our analytical strategy is to provide in a first step descriptive results on the fertility patterns. We then estimate in a second step logit models on childlessness and ordered probit models on the total number of children per women, in which we control for a number of demographic and socioeconomic characteristics.

Using German data from 2008 and Belgian data from 2001 has some implications for the fertility outcomes of the youngest cohort born in 1955-1959. In the Belgian data, women of this cohort were between the ages of 42 and 46 at the time of the census, which implies that not all members of this cohort had reached the end of their reproductive period in 2001. Unfortunately, the German data do not contain information on the birth histories, which would have allowed us to exclude all children born after 2001. Therefore, the numbers we provide for Belgium slightly understate the completed fertility of the youngest cohort.

A critical issue for our investigation is to find a valid operational definition of an ethnic German in Belgium. Obviously, citizenship is a poor indicator, as the vast majority of the German minority holds the Belgian citizenship. Our data do not include information about

[15] The Belgian file is a 100% individual-level sample of the female population aged 14 and older living in Belgium in 2001 (For details see Deboosere and Willaert, 2004). For Germany, the Scientific Use File of the Microcensus of 2008 is a 0.7% sample of the population living in Germany. The Microcensus of 2008 was the first to collect data on the number of children ever born. The employment patterns of mothers are derived from the Microcensus of 2001 (FDZ 2010b). Unfortunately, data usage restrictions do not permit us to combine the German and the Belgian data for modeling purposes.

[16] We had to exclude West Berlin as well as the dataset does not differentiate between East and West Berlin.

ethnic origin or German language fluency. Due to the lack of better indicators, we rely on the *region of residence* at the time of the survey to identify ethnic Germans. A person who is living in the nine municipalities of the Belgian German-speaking Community in 2001, when the census was conducted, is assumed to be a member of the German minority.[17] We define membership in the Flemish- and French-speaking Communities in Belgium[18], which are used for comparisons, in the same way (see Fig. 2). This decision follows the territorial principle, which the Belgian state also applies in distinguishing the different language communities. It is also supported by the statistics shown above, which demonstrate that more than 90% of the population in the German-speaking Community speak German as their mother tongue (Polis+Sinus 2011, p. 13).

Altogether, we estimate for both the logit model on childlessness and the ordered probit model on the total number of children three separate models: one for western Germany, a second for Belgium[19], and a third for the German-speaking Community in Belgium. In our models, we include the following covariates: *cohort, educational attainment*[20], *settlement size*, and *migration background*. For the model on Belgium, we also include a variable that accounts for *region of residence in 2001* in order to differentiate between the predominantly Flemish-, French-, and German-speaking regions of Belgium. *Settlement size* is an important control variable, as some parts of the German-speaking area are situated in a non-metropolitan context, which might have a favorable influence on fertility levels. With the *migration background* variable, we distinguish in the models on the Belgian regions between (1) individuals who are both Belgian citizens and were born in Belgium, (2) individuals who are German citizens and/or were born in Germany, and (3) all other individuals. Unfortunately, the German micro-census does not allow us to identify individuals with Belgian citizenship, which is

[17] This also includes women who were born in Germany (approximately 18.6% of the population in this area) and/or who are German citizens (15.8%). In the analyses, we test the sensitivity of our findings by using alternative definitions of the German minority in which German nationals and persons who are born in Germany are excluded.

[18] We define members of the Flemish-speaking Community as persons living in Flanders at the time of the census, and members of the French-speaking Community as individuals living in Wallonia with the exception of the nine Walloon municipalities which form the German-speaking Community.

[19] Excluding Brussels.

[20] Educational attainment is defined as follows: low (ISCED 0-2), middle (ISCED 3-4), and high (ISCED 5-6).

why in the model on western Germany we only differentiate between two groups: (1) individuals who are German citizens and were born in Germany, and (2) all others persons.

Cross-country comparative studies often face limitations in terms of the comparativeness and/or richness of the available data. Our study is no exception. Despite being able to control for a number of relevant socioeconomic variables, there are confounding factors we cannot adequately control for. We have neither information on the mother tongue of the women, nor detailed data on their migration and employment histories.[21] We do have information on educational attainment, but only at the time of the census. We are also unable to identify Belgian respondents who are married to German nationals, as men are not included in the Belgian census dataset we have available for our research.

The missing migration histories might be particularly problematic, as we derive the cohort fertility rates retrospectively based on the region of residence in 2001. As the territory of the German-speaking Community is quite small, the in- and out-migration numbers are not completely negligible.[22] The in- and out-migration trends would be of concern for our analyses if they occurred in a selective manner which we could not control for. There are indications that out-migration is to some degree selective by educational attainment, as within the German-speaking Community there are only a limited number of tertiary education institutions. Thus, members of the German-speaking Community might choose to migrate out of the area at least temporarily to attend higher education institutions (e.g., in Germany). These concerns are supported by census statistics on educational attainment, which show that highly educated women are underrepresented in the Belgian German-speaking area. We are able to control for this potential distortion in our models, but it is likely to affect our descriptive re-

[21] For the Belgian census information on socioeconomic status is only available for the cross-section in 2001. Similarly, the German micro-census only has this information available for the cross-section of 2008. Therefore, we limit ourselves to controlling for educational attainment, which allows us to also capture, at least in part, the confounding role of socioeconomic status on fertility. Another potential confounding factor is that a substantial share of the German minority in Belgium commutes to Germany for work (approximately 20% of all economically active persons in 2011). These commuters are embedded not only in the Belgian institutional context, but also to some degree in the German context, as they are affected by German labor market regulations. In addition, they can also benefit from German family policy measures which are linked to participation in the labor market. Unfortunately, the available census data do not allow us to identify such persons/couples.

[22] In 2001, 10,763 women born between 1935 and 1959 resided in the German-speaking Community. Of these, 61.3% were also born in the German-speaking region, 12.5% had moved here from other parts of Belgium (mostly from nearby municipalities), 18.6% were born in Germany, and 7.6% were born in other countries.

sults. Another problematic migration pattern could occur if Germans with strong childbearing intentions were to move into the Belgian German-speaking Community because of its more favorable family policies. However, we are able to control for this possibility in our models, as we can identify individuals who moved from Germany to Belgium. The available data also do not suggest that such strategies were widespread among the cohorts studied, as our model results show that the Germans who migrated into Belgium generally have very low fertility outcomes.[23] Overall, we do not see any indications that our retrospective analysis of fertility outcomes is severely distorted by selective migration patterns which we would be unable to control for in our models.

Descriptive Findings

We will first present the descriptive results for the cohorts born between 1935 and 1959, as we derived them from our census data. In Figure 3 we display the trend developments in the average number of children in western Germany, Belgium, and the German-speaking Community. For the latter we plot two lines: the first shows the numbers for the whole population, and the second excludes individuals who were born in Germany or who are German citizens. We chose this procedure because a substantial share of the excluded group moved to Belgium as adults, which implies that they lived outside of the country for a portion of their reproductive lifespan. As their overall share was rising from the oldest to the youngest cohort (from 16% to 23%), it seemed reasonable to exclude this group to prevent the descriptive trend data from being affected by this compositional change.

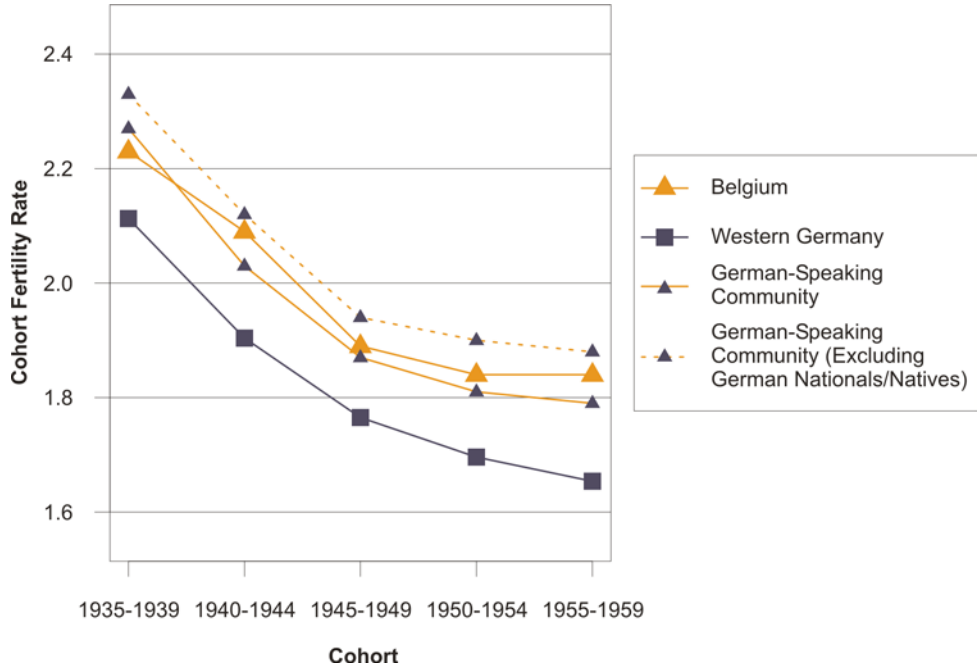
The cohort fertility trends for western Germany and Belgium[24] show that cross-country differences in fertility levels already existed among the cohorts born between 1935 and 1939. The numbers of this oldest cohort might already be influenced by disparities in the

[23] According to Capron et al. (2002, p. 89), the main motivations for Germans to move into Belgium are the low prices for land located close to the city of Aachen, and the tax benefits people who reside in Belgium and work in Germany enjoy. Thus, these immigrants might be a select group with a strong employment orientation, and many might still be integrated in the German labor market. Numbers presented by Capron et al. (2002, p. 95) showed that most of these in-migrants from Germany move to Belgium at higher ages. Between 1993-1998, only 14.1% of all households that migrated into Belgium had a head who was younger than age 30. This suggests that most of the in-migrants have spent a substantial part of their reproductive lifespan in Germany.

[24] We do not plot the trend lines for Wallonia and Flanders to ease the readability of the figure.

institutional contexts, as there were substantial differences in the levels of child care coverage between Belgium and western Germany at least since the 1950s. The fertility differences seem to have increased starting with the cohorts born after 1950. Most remarkable in this context is the finding that there has been an upturn in the cohort fertility trends in Belgium among the youngest cohort, while the cohort fertility trends in western Germany have declined consecutively. The cohort fertility of the Belgian German-speaking Community (without German nationals or German natives) is even above the Belgian level. This may be related to the non-metropolitan characteristics of parts of the German-speaking area. When we include the German nationals/natives, the fertility level is still much closer to the Belgian than to the western German level.

Fig. 3: Cohort Fertility Trends



Source: Statistics Belgium, 2001 Census; SUF German Microcensus 2008, calculations by the authors

Model Results

In presenting the results of our multivariate models, we will first discuss the outcomes on the determinants of childlessness. The estimates of the logit model are displayed in Appendix 2, with the first column presenting the outcomes for western Germany, the second column displaying the findings for Belgium (excluding Brussels), and the third column showing the outcomes for the model focused on the Belgian German-speaking Community. It is important to

note that, in the calculations, childless persons are coded with zero and persons with at least one child with one. Looking at the results by cohort, we can see that childlessness increased for the younger cohorts in western Germany. For the cohorts born in 1955-1959, the odds of having at least one child are reduced by 36% relative to those of the reference cohorts born in 1935-1939. This pattern is typical of western German fertility trends (Gonzàlez and Jurado-Guerrero 2006, p. 326; Sobotka and Testa 2008).

In the model for Belgium, only the youngest cohort exhibits a significantly higher level of childlessness, but the odds of having at least one child are only 6% lower relative to those of the cohort born between 1935 and 1939. Most notable are the results for the region of residence in 2001. Here we find significant differences between all three regions, but the most remarkable is the outcome for the German-speaking Community. This population has substantially higher levels of childlessness than the Flemish- and French-speaking Communities. The odds of having at least one child are 20% lower in this region than in the reference region of Flanders. This suggests that, in terms of the decision to remain childless, members of the German-speaking Community have to some degree been following the western German pattern. These model results could be interpreted as showing that "German" social norms regarding the decision to have a first child have been influencing the fertility outcomes of the German-speaking Belgians. As we are not able to pool the German and the Belgian data, we cannot explore how closely these patterns resemble those of western Germans using our models.[25] However, if we look at the third model, which just focuses on the German-speaking Community, it is interesting to see that there was no increase in the level of childlessness across cohorts. In this aspect, the German minority appears to have followed the Belgian pattern.

We will now turn to the probit models on the total number of children, which are presented in Appendix 2. In contrast to the models on childlessness, all three models exhibit a similar trend across cohorts. Compared to the oldest cohorts (1935-1939), fertility is lower for the subsequent cohorts. This is compatible with the finding that the decline in third and higher order births mainly took off with these cohorts (Neels 2006). Western Germany experienced a

[25] The descriptive numbers show that among the members of the German-speaking Community 18.7% of the youngest cohort born 1955-1959 remained childless. If we excluded all German nationals and German natives from this group, the level would still be 16.6%. The respective numbers for western Germany, French-speaking Wallonia, and Flanders are 18.8%, 14.0%, and 14.9%.

decline in third and higher birth at a similar time as Belgium. However, in contrast to Belgium, western Germany's cohort fertility continued to decline as also childlessness increased for the cohorts born in 1950 or later. When we look at the results by region of residence in the model on Belgium, we find that the multivariate models confirm our descriptive results that, in terms of the total number of children born, the Belgian German-speaking Community has followed the Belgian pattern very closely. Even after controlling for educational attainment and size of community, we do not find significant differences between the levels observed in the German-speaking Community and our reference region of Flanders. The higher level found in Wallonia differs significantly, but the effect size is very small. Thus, although the German-speaking Community has significantly higher levels of childlessness, it does not differ in terms of overall fertility outcomes. This might be an outcome of the differences in the institutional contexts for families between Germany and Belgium.

The results by educational attainment also appear to support the view that the institutional contexts have an important influence. Research has shown that access to child care is particularly relevant for the fertility decisions of the highly educated (Kravdal 1996). Our model outcomes fit this picture. While western Germany exhibits a strong negative educational gradient in fertility outcomes, the disparities are much less pronounced in Belgium. In the second model on Belgium, no difference is found in the fertility outcomes of the low educated and the highly educated; only the medium educated have significantly lower fertility levels.[26]

Discussion and Conclusion

A recent paper by Sobotka (2011) reached the conclusion that the (predominantly) German-speaking countries of (western) Germany, Austria, and Switzerland display many similarities in their fertility patterns, which include very low cohort fertility rates. These common features are, for the most part, not found in the German-speaking region in Belgium. Despite the cultural identity of the German-speaking Community (e.g., language and voting patterns), the

[26] Research by Van Lancker and Ghysels (2012) on Flanders suggests that this finding might be linked to how the child care system is subsidized by the government. While kindergartens for the three-six-year-olds are state subsidized and free of charge, government support for child care services for the zero- to three-year-olds is to a substantial degree channeled through tax concessions. Higher income groups benefit much more than lower income groups from these tax concessions. According to Van Lancker and Ghysels (2012), this contributes to a strong income gradient in the usage of child care for children under age three.

results of our analysis suggest that their overall fertility outcomes resemble the Belgian pattern. The same is true for the employment pattern of mothers with young children. In our view, this tends to confirm the hypothesis that the institutional context plays an important role in understanding the fertility differences between Belgium and Germany.

However, the German-speaking Community in Belgium deviates from the Belgian pattern in one respect: namely, in terms of the level of childlessness, which is significantly higher among the German-speaking than the French- and Flemish-speaking Belgians. This is an interesting finding in light of the discussion about the reasons for the exceptionally high level of childlessness observed in western Germany (see, e.g., Sobotka and Testa 2008). Some authors have linked this phenomenon to institutional constraints, which tend to support the traditional male-breadwinner model, and are not supportive of combining work and family (Federkeil 1997; Kreyenfeld 2004). Others have argued that, independent of institutional constraints, there seems to be evidence for the emergence of a "culture of childlessness" in Germany, where "child-free lifestyles" are enjoying popularity (Sobotka and Testa 2008). The finding that childlessness is elevated among the members of the German-speaking Community in Belgium, who are situated in an institutional context that provides high levels of support for families, appears to suggest that a German "culture of childlessness" indeed exists. However, unlike in western Germany, in the German-speaking Community childlessness is not increasing among the younger cohorts, and the overall fertility outcomes do not differ from those of the other Belgian regions. Thus, this parity-specific deviation does not challenge our main conclusion that institutional factors are more relevant for understanding overall fertility variation between Belgium and Germany.

The descriptive analyses show that the fertility trends in Belgium and western Germany started to diverge among the female cohorts born after 1945/1950. This view is also supported by our model on childlessness, which shows that, in western Germany, childlessness increased substantially in the three younger cohorts (1945-1959). For these and subsequent cohorts, women's education and labor market orientation increased consecutively (see, e.g., Balleer et al. 2009). Child care availability gradually became an important resource that allowed women to combine work and family. While (western) Germany continued to favor traditional family models, Belgium substantially expanded day care. Thus, the Belgian institutional context appears to have been more compatible with the increasing labor market orientation of women, allowing them to better reconcile their family and career roles. This may have

contributed to the fact that Belgium has been able to sustain relatively high fertility levels, even among the highly educated.

There are some clear limitations to our findings. We have discussed the confounding factors resulting from data constraints in the data section. Because of these constraints, we are unable to establish causality. In addition, there could be alternative explanations for our observations that are not linked to the institutional context. One counter-argument might be that belonging to a minority group could have affected the fertility decisions of the German-speaking population. Minorities might differ in their fertility behavior, especially if their minority status puts constraints on the available livelihood opportunities (see Coleman 1983, pp. 78 f. for details). It is not possible for us to rule out this argument completely, but considering the high status that the German minority has enjoyed for almost the whole period since their inclusion in the Belgian state, we consider such effects to be rather unlikely. Moreover, the data on the employment arrangements of mothers with young children—which show that the patterns of the German minority are very similar to those of the Flemish population and the French-speaking Walloons, but are very different from those of western Germans—tend to confirm the view that the differences in the institutional contexts play a very important role for understanding the relatively high fertility of the German minority in Belgium.

We started our paper by looking at the current fertility divide in Western Europe. While this divide is hundreds of kilometers long, our study focused on only a small part of the line. But we nonetheless believe that our results can help us to better understand why this divide emerged during the 20th century, as they suggest that the role of the institutional context was not insubstantial. The findings appear to support the expectation that reforms such as the German government's recent shift in policy toward supporting parents in their efforts to combine work and family life could, over the medium- to long-term, contribute to closing the divide (see McDonald 2008). Our results also suggest that improving access to child care can play an especially important role in this context.

Literature

Ajzen, Icek. 1985. "From intentions to action: A theory of planned behavior," in Julius Kuhl and Jürgen Beckmann (eds.), *Action-Control: From Cognition to Behavior*. New York: Springer.

Astone, Nan Marie, Constance A. Nathanson, Robert Schoen and Young J. Kim. 1999. "Family Demography, Social Theory and Investment in Social Capital," *Population and Development Review* 25(1): 1-35.

Austin, Gilbert R. 1970. "A review of early education in eight countries," *International Journal of Early Childhood* 5(2): 167-172.

Balleer, Almut, Ramón Gómez-Salvador and Jarkko Turunen. 2009. "Labour Force Participation in the Euro Area: A Cohort Based Analysis". European Central Bank Working Paper Series 1049. Frankfurt am Main: European Central Bank.

Capron, Catherine, Thierry Eggerickx and Jean-Pierre Hermia. 2002. "Les nouvelles dynamiques de peuplement dans les zones frontalières en Wallonie," *Espace Populations, Societies* 2002-1-2: 83-98.

Chesnais, Jean-Claude. 1998. "Below replacement fertility in the European Union (EU-15): facts and policies, 1960-1997," *Review of Population and Social Policy* 7: 83-101.

Coale, Ansley J. and Susan C. Watkins (eds.). 1986. *The Decline of Fertility in Europe*. Princeton: Princeton University Press.

Coleman, David. 1983: "The demography of ethnic minorities," *Journal for Biosocial Science*. Supplement 8: 43-87.

Combuchen, Jo. 2008. "Deutsch in Belgien," *Lebende Sprachen* 2/2008: 53-59.

Coulon, Marion. 1967. "Tendances et developpements recents dans l'education primaire et secondaire en Belgique," *International Review of Education*: 285-298.

Deboosere, Patrick and Didier Willaert. 2004. *Codeboek Algemene Socio-economische Enquête 2001*. Vrije Universiteit Brussel: Brussel. Steunpunt Demografie WP2004-1.

Deutsches Jugendinstitut. 1998. *Tagungseinrichtungen für Kinder: Pluralisierung von Angeboten – Zahlenspiegel*. Deutsches Jugendinstitut. München.

DG Parlament. 2012. "Wahlresultate seit 1974," DG Parlament: Eupen. «http://www.dgparlament.be/desktopdefault.aspx/tabid-676/978_read-18662/». Accessed 31 March 2012.

DGstat. 2010. "Bevölkerung 2010 – Daten der Sammelmappe," DGstat: Eupen.

Die Zeit 24.09.1965. "Viel Lärm um Nicht: Zeitungskrieg an der deutsch-belgischen Grenze," «http://www.zeit.de/1965/39/viel-laerm-um-nichts». Accessed 1 March 2013.

Dobbelaere, Karel and Liliane Voyé. 1990. "From Pillar to Postmodernity: The changing situation of religion in Belgium," *Sociological Analysis* 51: S1-S13.

Dunning, Thad. 2008. “Improving causal inference: strengths and limitations of natural experiments,” *Political Research Quarterly* 61(2): 282-292.

Esping-Andersen, Gøsta. 1999. *Social Foundations of Postindustrial Economies*. Oxford: Oxford University Press.

Esping-Andersen, Gøsta. 2009. *The Incomplete Revolution: Adapting To Women's New Roles*. Cambridge: Polity Press.

Frejka, Tomas and Alexia Prskawetz. 2011. Editorial to the special issue “Fertility dynamics in Austria, Germany and Switzerland”, *Comparative Population Studies* 36(2-3): 251-256.

Federkeil, Gero. 1997. “The Federal Republic of Germany: Polarization of family structure,” in Franz-Xaver Kaufmann, Anton Kuijsten, Hans-Joachim Schulze, and Klaus Peter Strohmeier (eds.), *Family Life and Family Policies in Europe, Volume I: Structures and Trends in the 1980s*. Oxford: Clarendon Press.

FDZ [Forschungsdatenzentrum der Statistischen Ämter des Bundes und der Länder] (2010a): Mikrocensus 2008 (Scientific Use File), own calculations.

FDZ [Forschungsdatenzentrum der Statistischen Ämter des Bundes und der Länder] (2010b): Mikrocensus 2001 (Scientific Use File), own calculations.

GADM. 2012. GADM database of Global Administrative Areas. «http://www.gadm.org». Data downloaded 31 March 2012.

Galloway, Patrick R., Eugene A. Hammel and Ronald D. Lee. 1998. “Fertility Decline in Prussia, 1875-1910: A Pooled Cross-section Time-Series,” *Population Studies* 48(1): 135-158.

Gauthier, Anne H. 1996. *The State and the Family: A Comparative Analysis of Family Policies in Industrialized Countries*. Oxford: Clarendon Press.

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

Generations and Gender Programme (GGP). 2012. Generations and Gender Contextual Database. «www.ggp-i.org/contextual-database.html». Accessed 31 March 2012.

Goldstein, Joshua R. and Michaela Kreyenfeld. 2011. “Has East Germany overtaken West Germany? Recent trends in order-specific fertility,” *Population and Development Review* 37(3): 453-472.

Goldstein, Joshua R., Wolfgang Lutz and Maria Rita Testa. 2003. "The emergence of sub-replacement family size ideals in Europe," *Population Research and Policy Review* 22(5-6): 479-496.

González, María José and Teresa Jurado-Guerrero. 2006. "Remaining childless in affluent economies: a comparison of France, West Germany, Italy and Spain, 1994-2001," *European Journal of Population* 22(4): 317-352.

Hantrais, Linda. 2004. *Family policy matter: Responding to family change in Europe*. Bristol: The Policy Press.

Henninger, Annette, Christine Wimbauer and Rosine Dombrowski. 2008. "Demography as a push toward gender equality? Current reforms of German family policy," *Social Politics* 15(3): 287-314.

Huinink, Johannes. 2002. Polarisierung der Familienentwicklung in europäischen Ländern im Vergleich, *Zeitschrift für Familienforschung* Special Issue 2: 49-73.

Hummelsheim, Dina and Jochen Hirschle. 2010. "Mother's employment: Cultural imprint or institutional governance? Belgium, West and East Germany in comparison," *European Societies* 12(3): 339-366.

Kaufmann, Franz-Xaver, Anton Kuijsten, Hans-Joachim Schulze, and Klaus Peter Strohmeier (eds.). 2002. *Family Life and Family Policies in Europe, Volume II: Problems and Issues in Comparative Perspective.* Oxford: University Press.

Kravdal, Ø. 1996. How the local supply of day-care centers influences fertility in Norway: A parity-specific approach. *Population Research and Policy Review* 15: 201-218.

Kremer, Monique. 2007. *How welfare states care: culture, gender and parenting in Europe.* Amsterdam: Amsterdam University Press.

Kreyenfeld, Michaela. 2004. "Fertility decisions in the FRG and GDR: An analysis with data from the German Fertility and Family Survey," *Demographic Research* Special Collection 3 Article 11: 276-318.

Lesthaeghe, Ron. 1980. "On the social control of human reproduction," *Population and Development Review* 6(4): 527-548.

Lesthaeghe, Ron. 2010. "Long-term spatial continuities in demographic innovations: insights from the Belgian example, 1846-2000," PSC Research Report No. 10-695.

Liefbroer, Aart C. and Francesco C. Billari. 2010. "Bringing norms back in: A theoretical and empirical discussion on their importance for understanding demographic behavior," *Population, Space and Place* 16(4): 287-305.

Markusse, Jan D. 1999. “German-speaking in Belgium and Italy: two different autonomy arrangements,” *Acta Universitatis Carolinae. Geographica* 34(1): 59-73.

Mätzke, Margitta and Ilona Ostner. 2010. “Introduction: change and continuity in recent family policies,” *Journal of European Social Policy* 20(5): 387-398.

McDonald, Peter. 2008. “Very low fertility: consequences, causes and policy approaches,” *The Japanese Journal of Population* 6(1): 19-23.

Morel, Nathalie. 2007. “From subsidiarity to ‘free choice’: child- and elder-care policy reforms in France, Belgium, Germany and the Netherlands,” *Social Policy & Administration* 41: 618-647.

MPIDR (Max Planck Institute for Demographic Research) and CGG (Chair for Geodesy and Geoinformatics, University of Rostock) (2012). MPIDR Population History GIS Collection. Rostock.

Neels, Karel 2006. *Reproductive strategies in Belgian fertility*, Kluwer Academic Publishers: Dordrecht.

Nelde, Peter H. 1984. “Sprachökologische Überlegungen am Beispiel Altbelgiens, ” in Els Oksaar (eds.), *Spracherwerb – Sprachkontakt – Sprachkonflikt*. Berlin: Walter de Gruyter: 167-179.

Neyer, Gerda and Gunnar Andersson. 2008. “Consequences of family policies on childbearing behavior: effects or artifacts?” *Population and Development Review* 34(4): 699-724.

O’Connor, Sorca M. 1988. “Women’s labour force participation and preschool enrollment: A Cross-National Perspective, 1965-1980,” *Sociology of Education* 61(1): 15-28.

Ostner, Ilona. 2006. “Paradigmenwechsel in der (west) deutschen Familienpolitik,” in Peter A. Berger and Heike Kahlert (eds.), *Der demographische Wandel: Chancen für die Neuordnung der Geschlechterverhältnisse*. Frankfurt am Main: Campus Verlag.

Pan, Christoph 2006. “Zusammenfassung,” in Christoph Pan and Beate Sibylle Pfeil (eds.), *Minderheitenrechte in Europa: Handbuch der europäischen Volksgruppen* Band 2. Wien: Springer.

Pfeil, Beate Sibylle. 2006. “Minderheitenrechte in Belgien,” in Christoph Pan and Beate Sibylle Pfeil (eds.), *Minderheitenrechte in Europa: Handbuch der europäischen Volksgruppen* Band 2. Wien: Springer.

Polis+Sinus. 2011. *Regionales Entwicklungskonzept: Ergebnisse einer demoskopischen Befragung für die Deutschsprachige Gemeinschaft Belgiens*. Polis+Sinus: Deidesheim.

Population Europe/ Max Planck Institute for Demographic Research (MPIDR). 2012. Population and Policy Database. Berlin.

Robert Bosch Stiftung. 2006. "Unternehmen Familie," Study prepared by Roland Berger Strategy Consultants. Stuttgart: Robert Bosch Stiftung.

Ruckdeschel, Kestin. 2009. "Rabenmutter contra Mère Poule: Kinderwunsch und Mutterbild im deutsch-französischen Vergleich," *Zeitschrift für Bevölkerungswissenschaft* 34(1-2): 105-134.

Sardon, Jean-Paul. 1996. "Coale's indices, comparative indices, mean Generation, total fertility rate and components," *Population: An English Selection* 8: 252-257.

Schifflers, Leonhard. 2009. "Structures of Education and Training Systems in Europe", Belgium - German-Speaking Community 2009/10. Brussels.

Sobotka, Tomas and Wolfgang Lutz. 2010. "Misleading policy messages derived from the period TFR. Should we stop using it?" *Comparative Population Studies* 35(3): 637-664.

Sobotka, Tomas and Maria Rita Testa. 2008. "Attitudes and intentions towards childlessness in Europe," in Charlotte Höhn, Dragana Avramov and Irena Kotowska (eds.), *People, Population Change and Policies: Lessons from the Population Policy Acceptance Study – Volume 1*. Berlin: Springer: 177-211.

Sobotka, Tomas. 2011. "Fertility in Austria, Germany and Switzerland. Is there a Common Pattern?" *Comparative Population Studies* 36(2-3): 263-304.

Statistisches Bundesamt. 2009. „Kinderbetreuung regional 2008," Wiesbaden: Statistisches Bundesamt.

Streeck, Wolfgang and Kathleen Thelen. 2005. "Introduction: Institutional Change in Advanced Political Economies," in Wolfgang Streeck and Kathleen Thelen (eds.), *Beyond Continuity: Institutional Change in Advanced Political Economies.* Oxford: Oxford University Press.

Swenden, Wilfried and Maarten Theo Jans. 2006. "Will it stay or will it go? Federalism and the Sustainability of Belgium," *West European Politics* 29(5): 877-894.

Testa, Maria Rita. 2012. "Family Sizes in Europe: Evidence from the 2011 Eurobarometer Survey," Vienna: Vienna Institute of Demography: Austrian Academy of Science.

Treas, Judith and Eric D. Widmer. 2000. "Married Women's Employment over the Life Course: Attitudes in Cross-National Perspective," *Social Forces* 78: 1409-1436.

Van Lancker, Wim and Joris Ghysels. 2012. “Who benefits? The social distribution of subsidized childcare in Sweden and Flanders,” *Acta Sociologica* 55: 55-125.

Watson, Ciceley. 1954. “A survey of recent Belgian population policy,” *Population Studies* 8(2): 152-187.

Weber, Nico. 1994. “Sprachen und ihre Funktionen in Luxemburg,” *Zeitschrift für Dialektologie und Linguistik* 61(2): 129-169.

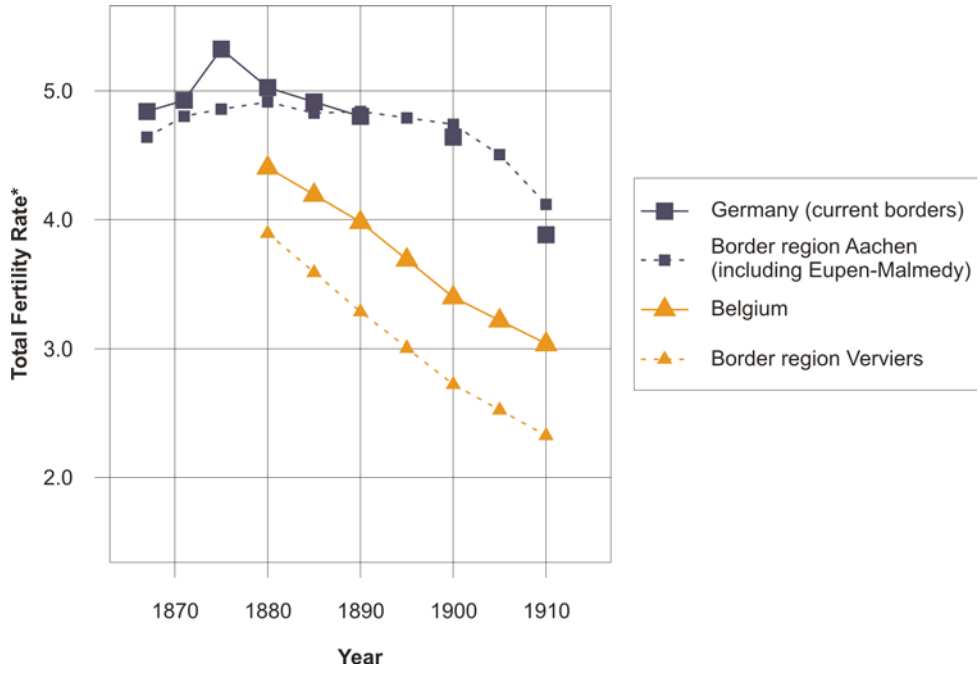
Wilcox, Clyde. 1991. “Support for gender equality in West Europe: A longitudinal analysis,” *European Journal of Political Research* 20: 127-147.

Appendix 1: Initial Conditions of the Experiment

The aim of the analysis presented in this section is to determine to what extent our study design fulfills the criteria of a quasi-natural experiment setting, that "treatment" and "control" groups can be considered as if they were randomly assigned. We are therefore interested in whether we can find any indications that the "treatment group" (the population of Eupen-Malmedy) deviated prior to its inclusion in the Belgian state in its fertility behavior from the "control group" (the population of western Germany/adjacent areas which remained with Germany). We look into the initial conditions of the experiment by studying data on the fertility decline during the demographic transition. As we have no micro-data available for this period, we use regional aggregate fertility data. From the Princeton European Fertility Project data (Coale and Watkins 1986), we obtained information for Germany, Belgium, and the subnational regions at the German-Belgian border (Belgian district Verviers and German region of Aachen). However, a limitation of the Princeton data is that they do not allow us to separate out the Prussian districts of Eupen and Malmedy from the region of Aachen, to which these districts belonged. To make this distinction, we use the Prussian district dataset created by Galloway et al. (1994).

We transformed the Princeton indicator on general fertility (If) into TFR values based on an estimation procedure suggested by Sardon (1996). In Figure A1 we provide trend data for Belgium, Germany, and the regions in the German-Belgian border area. Overall, the Princeton trend data on the fertility decline during the demographic transition provide no evidence that the German-Belgian border area could be characterized as a gradual transitional zone with regard to the onset and pace of the decline. Belgium experienced the fertility decline decades earlier than Germany. This was especially true for the French-speaking part of Belgium (Lesthaeghe 2010), to which the district of Verviers also belonged. But there are no indications that this early decline trend spread across the Belgian-German border into the region of Aachen. Thus, around 1900 a sharp fertility divide was visible in this border region, with the region of Aachen reporting a TFR of close to five, while in Verviers the TFR had already fallen below three. Fertility did not start to decrease in Aachen until the fertility decline gained momentum across the whole German Empire.

Fig. A1: Fertility Trends in the Belgian-German Border Region in Comparison to National Trends (1860-1910)



Source: Coale and Watkins 1986, transformed to TFR-values by the authors based on Sardon 1996

However, as the data for the Aachen region might hide internal variation between the Eupen-Malmedy territory and the other districts of this region, we also look at the geographically more detailed data in Table A1. Unfortunately, data constraints force us to use another fertility indicator for this analysis, the General Marital Fertility Rate. This fertility trend data provide no indication that the fertility figures in Eupen and Malmedy differed substantially from the values registered for the whole region of Aachen (see Tab. A1).

Tab. A1: Fertility Trends in Aachen region and the two districts Eupen and Malmedy (1880-1910)

	Aachen region (including Eupen and Malmedy)	**Eupen**	**Malmedy**
Population 1910	690,777	26,156	34,768
General Marital Fertility Rate			
1880	331.09	341.99	316.39
1895	318.03	313.35	304.75
1910	268.51	258.46	292.82

Source: Prussian Statistics compiled by Galloway et al. (1994)

Overall, our analysis of the initial conditions of the natural experiment provides no evidence to support the view that, in terms of fertility and family formation behavior, the German-Belgian border region represented a gradual transition zone before World War I. Our findings instead suggest that a clear divide existed in this area, with the patterns in the German districts of Eupen and Malmedy (or, in this context, our "treatment group") exhibiting strong similarities with the trend patterns in Germany and the German border region of Aachen. This provides support for the view that the "treatment group" did not systematically differ from the "control group" at the beginning of the experiment.

Appendix 2: Logit Model of Childlessness, Odds Ratios

Dependent Variable: Childless (0) versus not Childless (1)

	Western Germany		Belgium (excluding Brussels)		Belgian German-speaking Community	
Cohort						
1935-39	1.00	-	1.00	-	1.00	-
1940-44	0.96		1.11	***	0.94	
1945-49	0.87	***	1.09	***	1.04	
1950-54	0.75	***	0.99		0.95	
1955-59	0.65	***	0.94	***	0.93	
Educational Attainment						
Low	1.00	-	1.00	-	1.00	-
Medium	0.76	***	0.85	***	0.76	***
High	0.51	***	0.70	***	0.69	***
Size of Community						
under 5,000	1.00	-	1.00	-	1.00	-
5,000-20,000	1.04		1.09	***	0.66	*
20,000-100,000	0.95		0.98		-	
100,000–500,000	0.84	***	0.64	***	-	
500,000 +	0.72	***	-		-	
Region of Residence in 2001						
Flanders	-		1.00	-	-	
Wallonia (excl. German-speaking Community)	-		1.04	***	-	
German-speaking Community	-		0.80	***	-	
Migration Background						
Models on Belgium						
Belgium citizenship & born in Belgium	-		1.00	-	1.00	-
German citizenship or born in Germany	-		0.39	***	0.50	***
Other	-		0.96	***	0.86	
Models on Germany						
German citizenship & born in Germany	1.00	-	-		-	
Other	1.32	***	-		-	

Significance Levels: * p<0.05; ** p<0.01; *** p<0.001

Source: Statistics Belgium, 2001 Census; SUF German Microcensus 2008; calculations by the authors

Appendix 3: Ordered Probit Model of Number of Children

	Western Germany		Belgium (excluding Brussels)		Belgian German-speaking Community	
Cohort						
1935-39	0.00	-	0.00	-	0.00	-
1940-44	-0.10	***	-0.09	***	-0.15	***
1945-49	-0.20	***	-0.22	***	-0.25	***
1950-54	-0.23	***	-0.27	***	-0.27	***
1955-59	-0.24	***	-0.26	***	-0.27	***
Educational Attainment						
Low	0.00	-	0.00	-	0.00	-
Medium	-0.33	***	-0.10	***	-0.14	***
High	-0.46	***	0.00		-0.13	***
Size of Community						
below 5,000	0.00	-	0.00	-	0.00	-
5,000-20,000	0.01		-0.07	***	-0.35	***
20,000-100,000	-0.01	***	-0.13	***	-	
100,000–500,000	-0.05	***	-0.25	***	-	
500,000 +	-0.12	***	-		-	
Region of Residence in 2001						
Flanders	-		0.00	-	-	
Wallonia (excl. German-speaking Community)	-		0.01	***	-	
German-speaking Community	-		0.00		-	
Migration Background						
Models on Belgium						
Belgium citizenship & born in Belgium	-		0.00	-	0.00	-
German citizenship or born in Germany	-		-0.39	***	-0.07	
Other	-		0.24	***	-0.38	***
Models on Germany						
German citizenship & born in Germany	0.00	-	-		-	
Other	0.28	***	-		-	

Significance Levels: * p<0.05; ** p<0.01; *** p<0.001

Source: Statistics Belgium, 2001 Census; SUF German Microcensus 2008; calculations by the authors