Germany as a case of high development and low fertility – bringing women's choice back into demography

The Thesis of a high Human Development Index and higher Fertility

Due to fundamental structural changes during the 20th century, birth rates dropped in all developed countries. Following Myrskylä et al. (2009) this trend is now reversing: Based on an analysis of the Total Fertility Rate (TFR) and the Human Development Index (HDI) Myrskylä et al. (2009) hypothesize that „at advanced HDI levels, further development can reverse the declining trend in fertility" (Myrskylä et al. 2009:741). By comparing the level of fertility and development for 24 countries for the years 1975 and 2005, Mrykykä et al. show that the TFR in 2005 is now positively associated with fertility if the HDI-Index exceeds 0.86. We challenge this hypothesis below with regard to Germany by applying both a methodological and a conceptual critique to the authors' approach.

First critique – No rising Cohort Fertility

Methodologically, it is problematic that Myrskylä et al (2009) base their 'reversal thesis' on changes in the TFR, as the TFR is a cross-sectional measure that doesn't allow for the identification of real behavioral changes. If we compare the Total Fertility Rate (TFR) with the Cohort Fertility Rate (CFR), it is notable that the latter doesn't increase in Germany - nor are there signs of a rise in France, Sweden and the United States. The TFR does indeed increase, but this simply reflects tempo effects in that the trend towards higher birthing ages has diminished compared to former years. However, the TFR will not rise higher than the CFR. The TFR could climb up to two children per woman in Sweden, France and the USA, as Cohort Fertility has been constant at two children per woman for many cohorts. But in Germany even the CFR has been lower for decades, so that the TFR is unlikely to increase beyond 1.6 children per woman. Consequently, given that the CFR is not rising, Myrskylä's thesis that birth rates in highly developed countries are rising in general must be questioned (Appendix A).

Through an in-depth analysis of age-specific fertility rates, the authors will show that there is a rising rate of fertility in women over 30 years of age and a constant rate in women under 30

in France, Sweden and the USA. But in Germany the birth rates for women under 30 are still declining, even though they are already the lowest. By the age of 30, the average German woman has 0.7 children, whereas the average French woman already has one child and the average American woman 1.4 children. Therefore, German birth rates are among the world's lowest, as they have been for many decades, and German mothers are older than others (Appendix B).

Second critique – the HDI can't explain differences between high-developed countries

Following Myrskylä et al. Germany must theoretically have increasing birth rates because of its high social and economic development. Myrskylä et al. (2009) use the Human Development Index (HDI) as a primary indicator. The HDI includes three dimensions:

1. State of health, measured by living expectancy at birth.
2. Human capital, measured by the literacy rate (with a weight of two thirds) and quotas for first, secondary and tertiary education.

3. Standard of living, measured as gross national income at purchasing power parity per capita (PPP).

Birg (2010) raises the meaningful question of whether the HDI is useful for explaining differences in fertility between highly developed countries. State of health was an important factor when mortality rates shortened the time available for childbearing, but in today's Germany 97 out of 100 women live until the end of their reproductive years. An ongoing decline in mortality will thus not substantially expand the group of potential mothers and will therefore not have positive effects on fertility. Human capital doesn't appear plausible as an indicator either, at least at first glance, since in Germany women who have attained higher levels of education have relatively lower numbers of children. Finally, the reduction of standard of living to one variable, gross national income, appears incomplete because well-being involves multiple dimensions and can be neither grasped nor measured by a one-dimensional economic approach (Sen 2005).

Myrskylä's method of using the HDI for analyzing differences in the TFR between highly developed countries is thus insufficient and must be complemented by other dimensions. When looking at such countries internally it may be useful to follow the Human Freedom Index and expand it through considerations of mothers' rights.

A view on mother's choices

We follow Esping-Andersen in his claim that the organization of the welfare state affects families' living conditions to a high degree (1990). According to him, state-level policy frameworks fundamentally shape women's decisions (Esping-Andersen 2009). Faced with the paradox that women's roles have fundamentally changed over the last 40 years while the welfare state has gone structurally unmodified, Esping-Andersen argues that women have consequently become unfree: The female revolution is incomplete as long as women cannot freely choose between work and family. To alter this situation, he suggests, welfare conditions must be adapted to women's new roles.

Germany appears as an extraordinarily fascinating empirical test case for Esping-Andersen's theory of welfare regimes, as its unique political history affects its ongoing political organization. While the western Bundesländer (the former BRD) can be classified as a conservative welfare state, the eastern part of Germany (the former GDR) provides an example of a post-socialist country which, despite being now included in a conservative welfare state, retains some socialist elements - like relatively more local childcare institutions.

The authors will demonstrate on the basis of a massive quantitative data set that women's choice between work and family is strongly limited due to structural constraints. We will use data from Germany's most representative survey, the microcensus that includes 0.7 percent of the German population (Scientific Use File), in considering different relevant demographic waves between 1973 and 2008.

The connection between the welfare state and women's roles

The authors will show that the German conservative welfare regime generally translates into limited freedom of choice for women at the individual level, and that the different regimes in

West and East Germany correspond with different fertility patterns. In West Germany the age at birth is higher, and there is a higher proportion of childless women and an extremely low fertility rate for the most educated women. In East Germany, the polarization of women is less pronounced: there are fewer without any children but also fewer with three or more children. Differences between the most educated women and others are much less sharp.

Second, the authors will disaggregate women's participation in the work force by age of the youngest child. We will show that women with the highest levels of education have falling labor participation rates over time. Indeed, more women work part-time when their children become older, and the number of highly educated women has grown. But within the last 30 years the compatibility of work and family has not changed for the better. For western Germany, the one-and-a-half-earner model is still common. In eastern Germany working full-time is considered ideal, although high unemployment prohibits many parents from living this ideal.

Third, the massiveness of the survey enables us to disaggregate birth rates by occupation. The high age of childbearing in Germany is caused by the postponement of childbearing to the end of the education phase. Thus, conditions of employment have as high an impact on fertility as does the level of education. The authors will demonstrate that fertility within all comparable occupations is lower in the old "Bundesländer" than in Sweden. Within the new "Bundesländer," on the other hand, there is approximately no variance of fertility by occupation. These insights radically question the thesis that highly educated women have a lower number of children due to personal preferences. In contrast, it seems highly justified to consider the relevant policy framework as an essential determinant of a woman's choice for or against having children (Appendix C).

Fertility is low when motherhood and employment are not compatible

Germany's low fertility rate owes to a very low fertility among working women. The HDI might be a good measure for exploring fertility rates between various countries, but within highly developed countries it is essential to consider the factor of choice and the limitations imposed upon women in this regard according to how they are defined through broad political

and social patterns of organization. Where society doesn't allow for the compatibility of work and family, well educated, progressive women tend to choose careers over children. Therefore, women's choices between work and family have to be considered a basic element of any understanding of birth rates in such countries.

References:

Birg, H. (2010), 'Do "Babies make a Comeback?", *Bevölkerungsforschung Aktuell* 31 (2), 12-17.

Esping-Andersen, G. (1990), 'The Three Worlds of Welfare Capitalism', Princeton: Princeton University Press.

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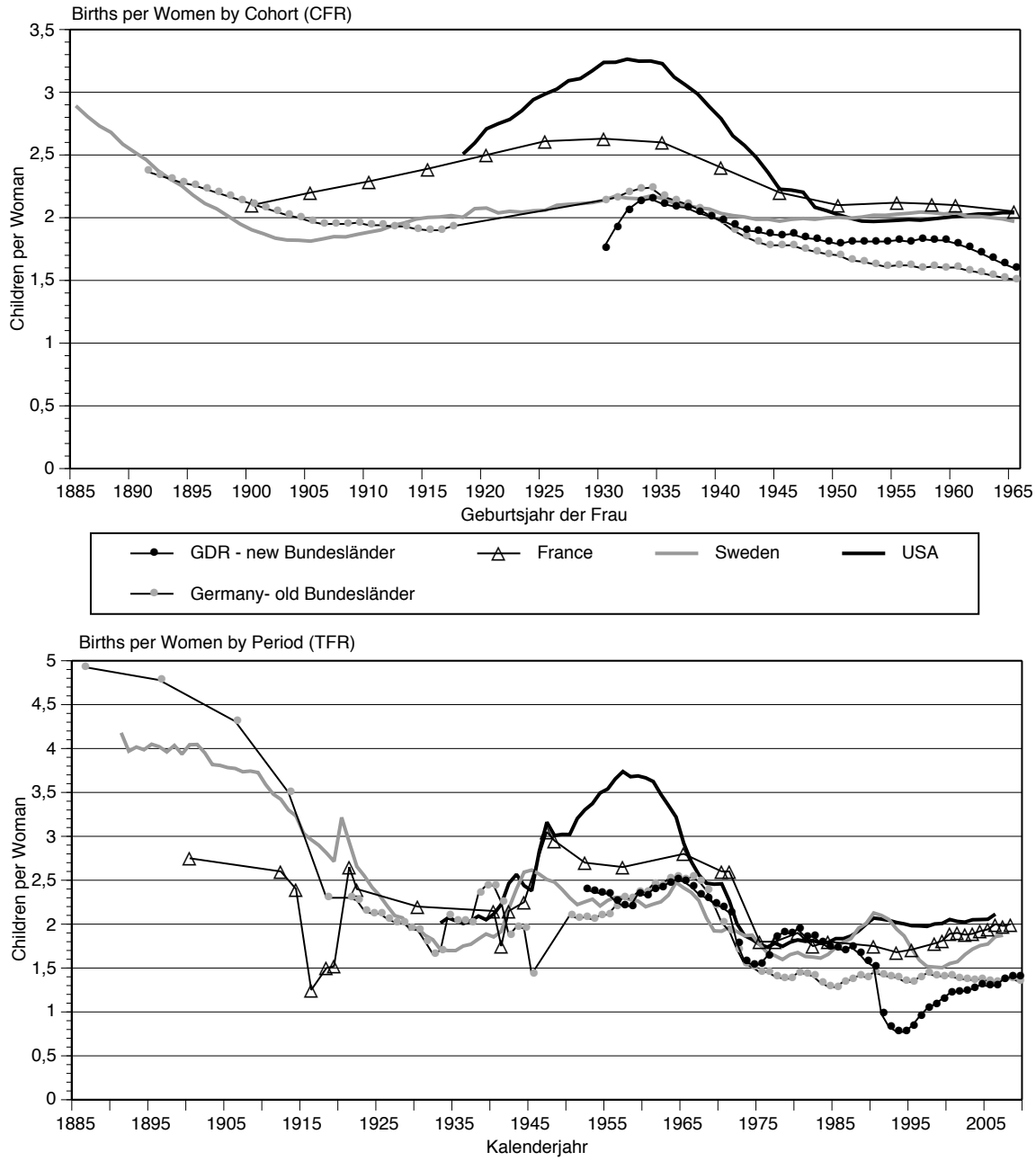
Hoem, J. M./ Neyer, G./ Andersson, G. (2006), 'Education and childlessness. The relationship between educational field, educational life, and childlessness among Swedish women born in 1955-59', *Demographic Research* 14 (15), 331-80.

Myrskylä, M./ Kohler, H.-P./ Billari, F. C. (2009), 'Advances in development reverse fertility declines', *Nature* 460, 741-43.

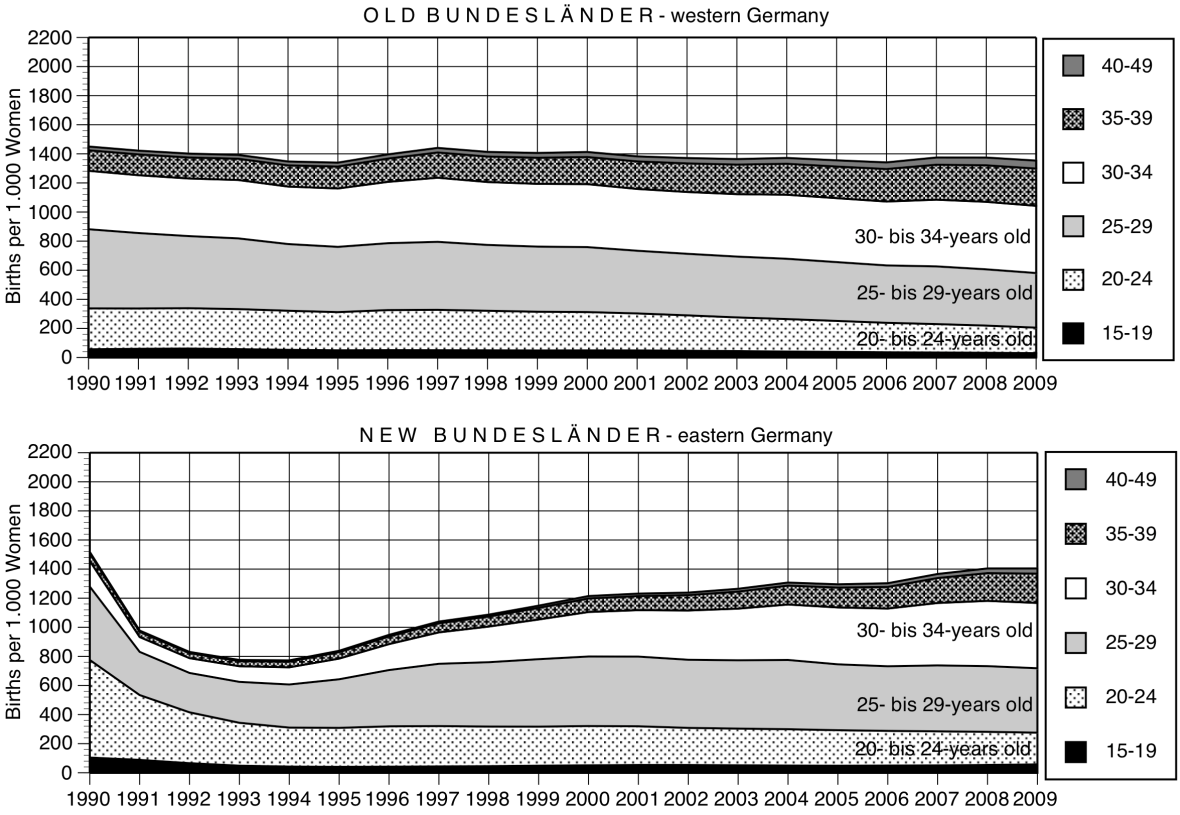
Sen, A. (2005), 'Human Rights and Capabilities', *Journal of Human Development* 6 (2), 151-66.

Appendix A: The Cohort Fertility (CFR) and Period Fertility (TFR) in Germany, France, Sweden and the USA

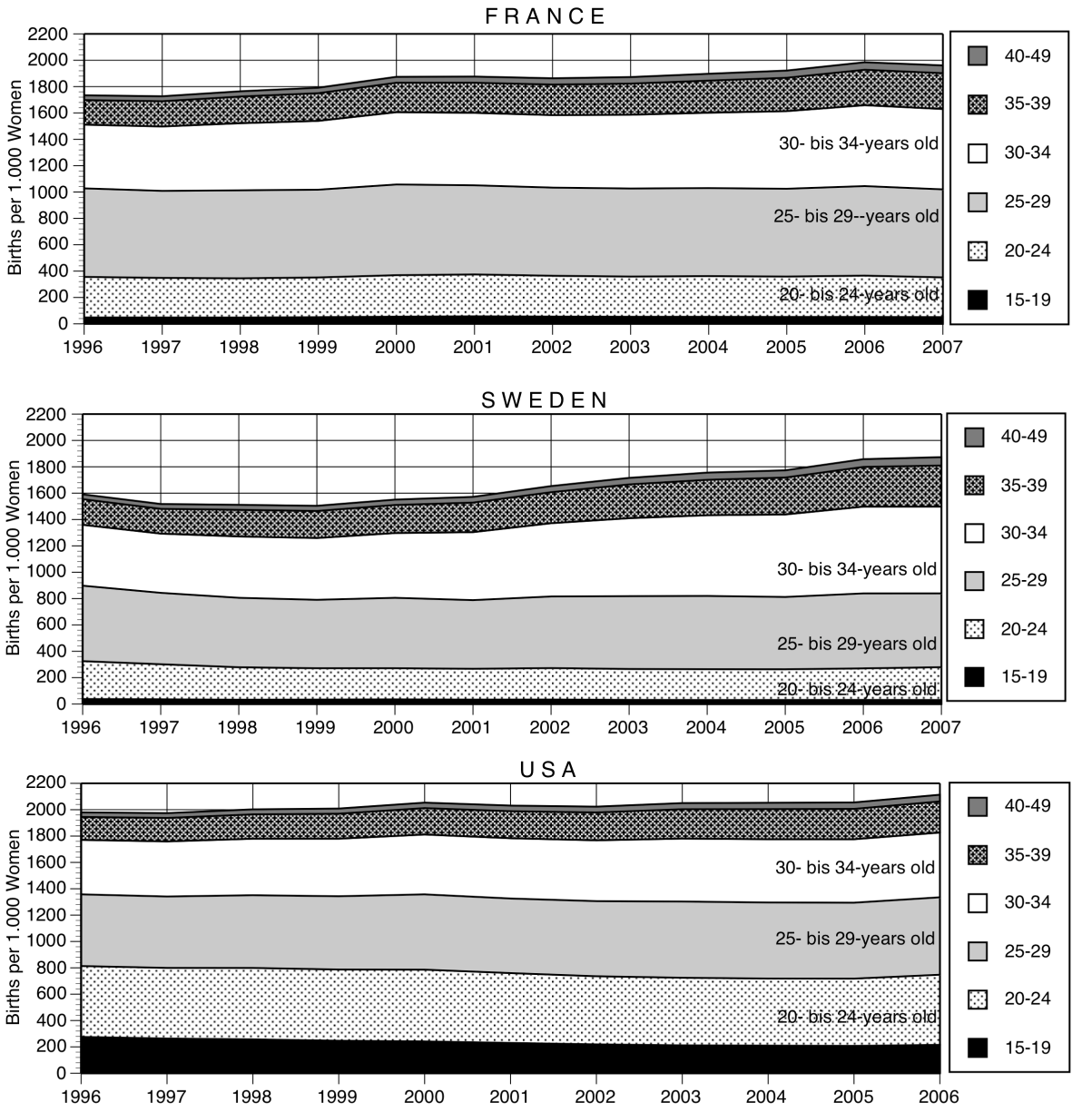


Sources: Germany: Data 1880, 1910 und 1921 to 1945 in: Marschalck, Peter 1984: Bevölkerungsgeschichte Deutschlands im 19. und 20. Jahrhundert, p. 157, 159; 1911 until 1920 in: Ehmer, Josef 2004: Bevölkerungsgeschichte und historische Demographie 1800-2000, S. 46, since 1946 in: Statistisches Bundesamt 2008;
USA and Sweden: The MPI Rostock, The Human Fertility Datebase; France in: Pison G. (2009): France 2008: why are birth numbers still rising? in: Population and Societies, 454, März, p. 2; own illustrations.

Appendix B: Aggregated age specific fertility rates by Period. A comparison of the German eastern and western Bundesländer with Sweden, France and the USA



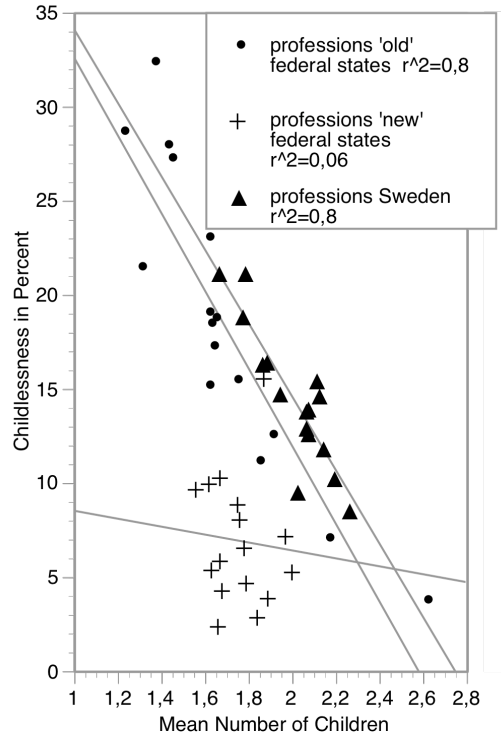
Source: Age specific fertility rates, Statistisches Bundesamt Wiesbaden 2010, own calculations and illustrations.



Quelle: MPI Rostock, The Human Fertility Database, own calculations and illustrations.

Appendix C: The (In-) Compatibility of work and family in Sweden and the old and new federal states of Germany

Childlessness and average number of children for selected professions; Germany's 'old' and 'new' federal states and Sweden



	Childlessness in %			Mean number of childrenl		
	old BL	new	SW	old BL	new	SW
Medical	15	5	16	1,6	1,6	1,9
Doctors/ Medical	27	9	19	1,4	1,8	1,8
Nursery nurses	17	3	9	1,6	1,8	2,3
Hairdressers	22	2	10	1,3	1,7	2,0
School teacher	23	4	10	1,6	1,7	2,2
Chefs	13	4	14	1,9	1,9	2,1
Nurses	19	8	13	1,6	1,8	2,1
Farmers	4	5	16	2,6	2,0	2,1
Postal Workers	11	6	13	1,8	1,7	2,1
Cleaners	7	7	12	2,2	2,0	2,1
Tailors	19	5	14	1,6	1,8	2,1
Social Workers/	32	10	17	1,4	1,7	1,9
Administrators	29	10	21	1,2	1,6	1,7
Secondary	16	16	15	1,7	1,9	2,1
Intermediate	19	7	15	1,6	1,8	1,9
High School	28	10	21	1,4	1,6	1,8

Source: Sweden: Women born 1955 to 1959, extracted from Hoem et al. 2006. Germany: Women born 1955 to 1965, Scientific Use File of the 'Mikrozensus 2008' (German Census Data); own calculations and illustrations.

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