Work-Family Trajectories in Germany and the United States

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Abstract

Across advanced societies women's labor force participation has increased while fertility has declined across the past decades, albeit to varying degrees. To scrutinize the impact of macro-structural contexts on how men and women combine work and family from career entry until midlife, this study compares Germany and the United States as two countries that represent ideal-typical welfare state and political economy contexts. Results using longitudinal data and sequence analysis show that the conservative male breadwinner welfare state in Germany reinforces gender differences in work-family trajectories, whereas the liberal market and residual welfare state in the United States exacerbates differences by social class. Further, the American context provides a more gender-equal playing field for men and women in the most prestigious professional occupations, whereas work-family trajectories are most gendered at the bottom of the social structure. In contrast, in Germany, gendering of work-family trajectories is strong across the entire range of the social structure.

I. INTRODUCTION

Across many Western countries the gender wage and employment gap has narrowed to a similar degree over the past five decades (e.g. Budig & Hodges, 2010). Nonetheless, career outcomes, especially at the top, are vastly different. Particularly in the United States compared to other Western countries, women's progress in moving beyond female-typed low-paid, low-power employment has been remarkable (Mandel & Semyonov, 2006; Mandel & Shalev, 2009; O'Connor, Orloff, & Shaver, 1999; Wright, Baxter, & Birkelund, 1995). This research on gender and careers is mostly limited to analyzing single indicators such as the wage gap, employment participation, or specific employment transitions. In addition, studies usually focus on specific policies that might affect gendered employment outcomes. This focus on isolated indicators and outcomes possibly overlooks how work and family trajectories are interrelated across the life course and how gender and other stratifying forces, such as race and education, might pattern these interrelations. This is the starting point of our research. We examine how work-family trajectories are embedded in the early life course until midlife, and how they are structured by different micro-level factors and macro-structural contexts.

Some recent research suggests that the gender and class stratification of employment careers differs across political regimes (Mandel & Shalev, 2009; Prince Cooke, 2011). Others counter that the gender and class stratification of work careers is resistant to different family policies (M. Evertsson et al., 2009; Marie Evertsson, England, Hermsen, & Cotter, 2007). Both literatures concur that class and gender should not be treated as two autonomous isolated domains of inequality. Instead, gender policies need to be evaluated from a broader perspective, providing a context for gendered class

effects that shape careers (M. Evertsson et al., 2009; Folbre, 2009; Mandel & Shalev, 2009; Orloff, 2009; Prince Cooke, 2011).

This paper seeks to contribute to this literature by showing how country context and individual characteristics structure the interplay of family formation and work careers across the life course. More specifically, we analyze joint work-family trajectories in different structural locations, mainly gender and social class, in different welfare state contexts: (West-) Germany and the United States between 1978-2009.

Based on structural and institutional differences in Germany and the United States[1], we show that the conservative male breadwinner welfare state in Germany reinforces gender differences in work-family trajectories, whereas the liberal market and residual welfare state in the United States exacerbates differences by social class. Further, the American context provides a more gender-equal playing field for men and women in the most prestigious professional occupations, whereas work-family trajectories are most gendered at the bottom of the social structure. In contrast, in Germany gendering of work-family trajectories is strong across the full range of the social structure.

We adopt a unique holistic approach for analyzing the interplay of gender and class in work-family trajectories over the life course, conducting what Abbott (1992) refers to as "thick description." This approach in the field of narrative positivism uses sequence analysis to identify and compare typical patterns in longitudinal processes—for example, in work careers, or national policy developments. In this paper we compare "thick descriptions" of work-family trajectories in two different policy contexts, thereby

[1] When referring to Germany and the US in the remainder of the article we refer to West-Germany and the United States between 1978 and 2009.

providing a direct means to examine the effect of macro-structural contexts across the early and mid adult life course.

1.1 Gender and Class in Context

The presence or absence of policies directly or indirectly shapes (mitigates or increases) the constraints and opportunities that individuals encounter when negotiating work-family conflict. Family policies that supposedly help mothers to stay attached to the labor market have become more and more suspected of doing the opposite (Mandel and Shalev 2009, Cooke 2011, Folbre 2009). As Cooke concludes, "policy innovation resulted in a new gender-class equilibrium within each institutional frame, but gender-class inequality persisted" (Cooke 2011, p.13).

The United States, with its absence of social provisions for families, has been criticized as being unsupportive of women for a long time (Gornick & Meyers, 2003). Compared to this view, which focuses on the lack of gender policies, the United States can be understood as a "distinctive alternative gender regime" (Orloff 2009). Orloff points to the United States as a "leader not a laggard, in removing discriminatory occupational barriers" (p.145). In that sense, the United States provide fewer social provisions, but more regulations to ensure gender neutrality (Zippel, 2009).

Recently there is growing support that this alternative gender regime, with fewer and different gender policies, is more supportive of gender equality in the household and on the labor market. This holds especially true for high-income classes (Mandel und Shalev 2009a). The same interventions that are helping lower class women to keep their careers going, such as extended family leave, hinder upper class women from competing

with their male counterparts (Mandel und Shalev 2009a). We also know from previous research that the gender wage gap increases over the life course (Goldin), but it remains an open questions how the interaction of family transitions (union formation or fertility) and work-careers is gendered across the life course and how this gendering is stratified by social class.

In this paper we address two research questions. First, w*hich joint work-family trajectory patterns occur in Germany and the United States?* And second, *how does the interaction of work and family trajectories differ by gender and social class in Germany and the United States?*

We do not claim to offer a causal explanation of the gender- and class stratification of work-family trajectories. Instead, we provide a thick description of the gendered and class-stratified *interaction of work careers and family formation* over the life course in different macro-structural contexts. The analysis proceeds in two steps. First we use sequence analysis to identify and describe salient work-family patterns in Germany and the United States. Second, we estimate the impact of gender and social class on individuals' probability to sort into a specific work-family pattern. Before presenting our results, we elaborate our comparative case and ensuing expectations for cross-country differences in the gender- and class-stratification of joint work family trajectories.

2. GENDERED POLICIES AND INSTITUTIONS IN GERMANY AND THE UNITED STATES

As pointed out by Goodin et al., country selections for comparative research should seek to identify countries that are maximally different on the dimensions that matter and maximally similar on all other dimensions (Goodin et al p.14, nach Mill…). The two selected countries for our case study are most different in family-related and labor market policies and most similar on other dimensions that are relevant for work-family conflict, such as being a western established democracy. We choose a *dual earner model* context, the United States, which is, directly or indirectly, challenging traditional gender roles and a *male breadwinner* context, Germany, which "implemented the most comprehensive male breadwinner model" (p.33, Cooke 2011). The distinct gender regimes in the United States and Germany, also come with distinctly different class regimes: Policies in (West-) Germany "minimized class differences across households" (Prince Cooke 2011, p.35), whereas "American society is distinctive among developed countries for its heterogeneity and its high levels of inequality" (Orloff 2009, p.147). Nancy Folbre summarizes the broader picture of the gender and class intersection as follows: "In general, more extreme class inequality seemed to mute gender inequality, because it intensifies differences among women. In more class egalitarian societies, women perform more sex-stereotypical work, but are more generously paid for it." (2009, p. 208).

In selecting (West-) Germany and the United States we aim at a case comparison with maximum difference in the effects of macro-structural contexts on individual life courses during the "prime fertility" and "career building" age. This age window can be

pin pointed between age 20 and 40. Mother's mean age at first birth is 25 in the United States and 28 in Germany, and occupational maturity is reached on average in the mid-thirties in both countries (Aisenbrey & Brückner, 2008).

Existing welfare regime and earner-carer typologies have classified the macro-structural contexts in Germany and the United States in the past decades along a number of institutional and cultural dimensions (e.g., Esping-Andersen 1990; Korpi 2000; Misra, Budig and Moller 2007). While different typologies exist, all of them agree that the countries differ quite fundamentally with respect to policies directed towards the labor market, the family, and paid and unpaid work. Following the concept proposed by Sainsbury (1999), the United States applies a "universal breadwinner strategy" with gender equity legislation in the labor market and state policies encouraging women's employment, but providing little support for childcare. Germany promotes a "caregiver-parity strategy" by emphasizing mothers' role as caregivers and providing incentives for married women to reduce work hours. For several decades the dominant West German strategy to facilitate for families with children has been to support a stay-at-home parent (O'Hara 2004). Consequently, many policies of the German welfare state favor the one breadwinner-model.

2.1 Family-related policies in Germany and the United States

As Aisenbrey, Evertsson and Grunow (2009) summarize in a comparison of institutional frameworks with respect to women's careers in the United States, Sweden and Germany; Germany and the United States are distinctively different with regard to

multiple indicators measuring gendered policies and institutions.[2] We subsequently detail country differences on three specific dimensions: (1) tax benefits, (2) child care provision, and (3) family leave policies [OVERVIEW TABLE TO BE INCLUDED].

(1) Tax benefits: Both Germany and the United States tax spouses jointly. Joint taxation comes with a marriage premium for spouses with unequal earnings, while no such financial premium exists for couples with similar earnings. Depending on the size of the tax premium, the logic of tax splitting creates an incentive structure that encourages the spouse with lower earnings to reduce work hours. In high-premium countries, when couples have children, women often leave the labor force or reduce work hours as wives' wages are usually lower than their husbands'. Germany is a high-taxation country where a family provider only pays 53 percent of the taxes that a single person would. So for German mothers the incentive to reduce work hours or quit work altogether, is high. Even though joint taxation also exists, because the United States is a low-tax country with a family tax benefit ratio of only 70 percent, tax-based disincentives for working women are much lower.

(2) Childcare provision is another key factor influencing women's labor supply. In the United States, where state solutions to work-family conflict are rare, childcare for children under the age of three available, but it is exclusive because it is expensive and not public. Apart from tax subsidies that relieve parents from the full cost of childcare, only the poorest receive publicly funded childcare. In Germany, childcare for children under the age of three is mainly private and in short supply, but the cost for private

[2] A number of changes have recently been introduced in family policy and parental leave arrangements in Germany that might alter its classification towards a dual-earner-dual carer model. However, there has already been a backlash to supporting a male breadwinner model with the controversial *Betreuungsgeld* enacted in 2013. In any case, for the historical period covered by our analysis (1978-2009), West Germany clearly classifies as a relatively pure male breadwinner model.

daycare is comparatively lower. Public childcare for children over the age of three is highly subsidized and commonly used, whereas private care is rare. Public kindergartens normally close at noon and are primarily designed for children aged 3-6, thereby considerably limiting mothers' ability to be employed during the fist years after childbirth. Full-time daycare and daycare for babies is still rare in most regions, although attempts have been made in recent years to increase both the number of childcare places and daily hours covered by schools and kindergartens. In effect, only nine percent of children under the age of three in Germany were in childcare, compared to 40 percent in the United States in the YEAR (REF).

(3) Family leave policies in the two countries differ distinctly. Comparing parental leave policies in 21 high income economies Ray et al (2009) found the United States to be the only country that does not provide any financial support for parental leave (Ray et al. 2009). With the Family/Medical Leave Act (FMLA) the United States introduced the first nation wide option for parental leave in 1993. Men and women are thereby equally entitled to a three-month leave for caring for family members, including newborn children. FMLA requires that employers with 50 or more employees provide 12 weeks of unpaid leave to employees who have worked at least 1,250 hours in the previous 12 months. As a result of these restrictions only 45 percent of employees have access to a family leave that is supported by the FMLA (Waldfogel, 2001). In addition – and in contrast to parental leave policies in most other countries – eligibility for FMLA leave is extremely class-based. Parents in higher income levels have more access to FMLA benefits than parents in lower income categories (Ray et al. 2009). In addition to these statutory provisions there is a great deal of variation in firm-specific parental leave

benefits. Many companies provide no more than six weeks paid leave and, overall, only a quarter of all companies in the United States offer paid parental leave (REF). There are hardly any studies about who has access to these different benefits. The few published studies that exist show that access to firm-specific parental leave benefits, even more so than is the case with statutory benefits, are class-dependent (Boushey, 2005). Highly educated women have more access to paid parental leave (47%) than women with lower levels of educational attainment (33%). Further evidence for class-based access to benefits is provided by an analysis of parental leave policies in American high schools, which concluded that "[p]aid parental leave policies are rare and concentrated among elite, private schools" (Yoest 2004).

In Germany, leave for mothers has a long tradition. Maternity leave was first introduced in 1952 and assures women a leave of six weeks before and eight weeks after childbirth with sick pay. In 1979, an additional four months of leave for working mothers was introduced, resulting in a maximum leave period of six months. A ten-month parental leave was introduced in 1986. This duration was extended several times to a maximum of three years per child since 1992. In the mid 1980s, Germany had 14 weeks of job-protected paid maternity leave, compensated at a 100% wage replacement level (Gornick, Meyers and Ross 1997). During the same time in the United States pregnant women were covered by the Pregnancy Disability Act in only five states where they were protected against income loss for six weeks at a 60 percent wage replacement level (Ibid.).

Previous research shows that family leave policies and child care availability substantially affect the timing of mothers' reentry into the labor market. In the United

States 75 percent of all women return to work only six months after the birth of a first child. In Germany *less* than 75 percent are back even after eight years (Aisenbrey, Evertson, Grunow, 2009). These employment gaps have significant effects on mothers' careers. Research has found that long family leave periods destabilize mothers' careers in Germany. The greater of being occupationally mobile later in the career increases with the length of parental leave. In the United States even short leaves hurt mothers' career prospects.

2.2 Labor Markets in Germany and the United States

Table 1 illustrates important labor market-related similarities and differences between the United States and Germany, according to the OECD gender data browser and employment data base. We refer to values of the year 2000 because this year is included in our window of observation for the samples analyzed in this paper. The female to male labor force participation rate indicates a smaller gender employment gap in the United States (29 percent) compared to Germany (37 percent). In recent years this gap has narrowed in Germany reaching levels similar to the United States (OECD 2011). However, most of the increase in German women's labor force participation has been in part-time employment (BMFSFJ 2005). The gender part time employment ratio is larger in Germany than in the United States. American women are about twice likely to be part-time employed than American men. In Germany, women are about seven times as likely to work part time as men. While part time work is a female type of employment on both sides of the Atlantic, it is overall rather rare in the United States whereas it is very common in Germany. This gender difference in employment hours is not the driver of

reported gender wage gaps though.

Table 1: Gendered labor markets in 2000 (OECD 2011)

In the year 2000 the gender wage gap was similar in the two countries with 23 percent in the United States and 24 percent in. In Germany only about half of this gap can be explained by gender differences in occupations, education and labor force experience (Anger and Schmidt 2010). In addition family formation contributes to the wage gap (Gangl & Ziefle 2009). Since 2000 the wage gap has been narrowing at a slightly faster pace in the United States (19.8% in 2009) than in Germany (21.6% in 2009) (OECD 2011). Table 1 further shows that women are much less likely than men to enter top positions on the labor market. The percentage of female boardroom members is an indicator of women's ability to reach powerful positions in companies. The figure gives the average proportion of board seats held by women in listed companies. In the United States 12 percent of board seats were occupied by women in 2009. In Germany this number is much lower, at 3.5 percent. Finally, the Gini coefficient; a standard measure of income inequality ranging between zero (maximum equality) to one (maximum inequality) shows higher income inequality in the United States (0.41) than in Germany (0.28). Taking Germany as the reference point, this corresponds to a 46 percent higher Gini in the United States than in Germany.

Having set up our research questions and detailed our comparative country case study, we now briefly review past empirical research addressing the triangle of class, gender and work in different welfare state contexts.

3. PREVIOUS RESEARCH ON THE INTERSECTION OF CLASS GENDER AND WORK IN THE WELFARE STATE

Most studies to date examine specific indicators for the gender gap (wage, employment, prestige) at a specific career point (after degree completion, birth of a child, occupational maturity), providing us with a snapshot of gender differences or a snapshot of differences between parents and non-parents in different welfare state contexts. To connect this research with class background researchers use different indicators for class, such as education, income or prestige. Overall there is no common ground across studies that work on the matter, some emphasize that the class-gender interaction varies across nations (Mandel and Semyonov 2005; Cooke 2011). Others find little support of this view. For example in a comparative analysis of the United States, Sweden and the Netherlands, Evertsson at al (2009) show that gendered labor market inequalities becomes less pronounced with increasing levels of education in all three countries. Based on the analysis of several outcomes, i.e. labor force participation rates, work hours, occupational segregation, and housework they conclude that "welfare regimes, in the main, do not override these patterns." (Evertsson et al. 2009: 235). A noteworthy exception occurs when using the gender wage gap as an indicator. Gender wage gaps are smaller at higher education levels in the United States, whereas Sweden and the Netherlands have the largest gender wage gap among the highly educated (Evertsson et al. 2009). This finding is in line with Cooke (2011) who reports a widening gender wage gap across the upper half of the earnings distribution in continental Europe and a lower gap in the bottom of the wage distribution in English-speaking countries (see also Goos and Manning 2007).

Overall, welfare state policies appear to have a contradictory effect on the intersection of class and gender. On the one hand interventionist policies come with lower levels of wage inequality and higher levels of job protection. On the other hand women and other marginalized groups on the labor market are at a higher risk of becoming outsiders and this is also reflected in gender wage gaps (Mandel and Semyonov 2005; Kahn 2011). In this vain Mandel and Shalev (2009) found that extensive work-family reconciliation policies and large public sectors pull women into the labor market while inadvertently reducing their chances to reach top earnings positions. For liberal regimes, such as the United States they found the opposite, reduced gender inequality for women in top positions and more inequality at the bottom (Mandel and Shalev 2009; see also Orloff in Gender Equality, 145). Conservative regimes, such as West Germany, seem to minimize both gender wage gaps and class effects; partly by keeping women out of the labor force, such that they do not figure in the calculation of gender wage gaps (Mandel and Shalev 2009).

Most of the variation in these findings might be explained by considering the different indicators used. Therefore, as suggested by Pettit and Hook (2009), different employment outcomes (employment rates, hours worked, and wages) need to be considered to understand the gendered trade-offs between different welfare policies. Research by Cooke, resting on a historical in-depth study of six countries, suggests that "[w]hat matters is how gender-class material relations were structured within each country's institutional equality frame" (cp. Cooke 2011: 197). In this paper we go one step further by arguing that in order to understand the role of social policies we need to study the material relations and labor market outcomes in terms of life course processes

and not only as snapshots of careers. In particular we need to consider how gendered career processes interact with family formation over the early life course.

The idea that family formation plays a vital role when it comes to context variation in gender class intersections has received increasing attention lately (e.g. Carlson & England, 2011). Grunow Aisenbrey and Evertsson (2011) compared effects of family leave policies for high and low educated mothers in Germany, the United States and Sweden. They found that in the United States, almost half of the mothers with some college background, compared to only a quarter of high-school dropouts remained continuously employed after childbirth. In Germany, a quarter of mothers with university entrance qualification do not claim any parental leave while in Sweden virtually all mothers take at least six months of family leave. In Germany and Sweden consequences of leave extensions, measured in terms of occupational mobility, operate independent of mothers' educational levels. In the United States medium and highly educated mothers return to work more slowly after the enactment of the FMLA. At the same time these groups face less negative career consequences of an employment interruption than their low educated peers. These findings for the United States, based on occupational upward and downward mobility are in line with recent studies on the motherhood wage penalty. Budig and Hodges(2010), use data from the NLSY and quantile regression to show that the motherhood penalty is proportionately larger for those at low wage levels. A recent comparative study by Gangl and Ziefle (2009) points to the distinct role national labor market policies play for the motherhood wage penalty. For British and American mothers, wage losses are a consequence of time out and subsequent mobility into "mother-friendly jobs" (2009: 341). For German mothers the authors find smaller

penalties, but these penalties remain largely unexplained by individual labor market behavior. This study, however, neglects the role of within-country class effects.

We contribute to this literature by jointly examining work-family trajectories, thus fully including the family dimension in our assessment of work careers, and examining these parallel processes across the full early life course into midlife, beyond aggregate indicators and snapshots of careers.

Expectations

This study has a fundamentally exploratory component, given that it is the first to examine holistic work-family trajectories across the full range of the population in two countries for a long age window of the life course. Nonetheless, based on the considerations above, we formulate two expectations about the gender and class intersection in joint work-family patterns in Germany and the United States.

While we expect both class and gender to matter in each of the two welfare state contexts, we expect that gender will be the dominant stratifying force of work-family patterns in the overall less class-stratified and more gendered German welfare state. This will be visible in more gender-specific work family patterns and a high importance of gender for who sorts into which work-family pattern across the full range of the social structure. In contrast, we expect that in the more gender egalitarian welfare state and overall more unequal liberal market in the United States joint work-family trajectories will be primarily class stratified. In addition, the importance of gender will vary across the social structure, such that joint work family trajectories are more gendered at the bottom and less gendered at the top.

4. DATA AND METHODS

For the United States, we use the National Longitudinal Survey of Youth 1979 (NLSY) (for a detailed description of the NLSY and the NLS data, see Bureau of Labor Statistics 2004). The NLSY is a nationally representative sample of 12,686 young men and women born between 1957 and 1964. They were first interviewed in 1979 when they were 14-22 years old. The respondents were re-interviewed every year until 1994 and every two years subsequently. We use data from wave 1979 until 2008 when all respondents had reached age 44. The data are weighted using a combined sampling design and longitudinal weight provided by the NLSY that multiplies each case to represent the US population.

For West Germany, we use the newly released National Education Panel, starting cohort 6 (NEPS) (Leopold, Skopek, & Raab, 2011). The NEPS contains retrospective life course information for 11,649 individuals born between 1944 and 1986 who were surveyed in 2009/2010. The survey instruments contain detailed questions about education, work and work interruptions, as well as family formation, including the formation and dissolution of marital and cohabiting unions. The data are weighted using a calibrated design weight provided in the NEPS. This weight includes a sampling design weight and a calibration factor (multiplier) to adjust the sample to the means of the German Microcensus 2009 (Aßmann & Zinn, 2011). This is similar to the NLSY weight, except, since the NEPS is a retrospective survey, there is no longitudinal weight as in the NLSY to correct for sample attrition.

To use the most comparable data across countries and maximize case numbers we

include the cohorts born between 1957 and 1964 in the United States and the cohorts born between 1956 and 1965 in West Germany. For the selected cohorts 3,065 persons born in West Germany originally participated in the NEPS. We can reconstruct 2,965 complete parallel work-family trajectories from age 22 until age 44 for West Germany and 5,665 work-family trajectories for the United States. They are located in the time window between 1978 and 2009 and are measured in monthly intervals.

4.1 Methods

We first use multichannel sequence analysis (Gauthier, Widmer, Bucher, & Notredame, 2010; Pollock, 2007) and cluster analysis to identify main patterns of work-family trajectories in the two welfare state contexts. We present descriptive information on the joint work-family patterns expressed by these clusters and the distribution of socio-demographic characteristics, as well as upward and downward mobility across work-family clusters. We continue to present the estimated odds for different population groups to sort into a specific work-family pattern represented by the clusters. We calculate logistic regression models, using cluster membership as the dependent variable and gender, class, race and ethnicity as independent variables.

Sequence Analysis

Optimal Matching, the first method for sequence comparison used in the social sciences (Abbott, 1995), calculates the distance between two sequences as the 'cost' of turning one sequence into another (MacIndoe & Abbott, 2004). This alignment is performed with three transformation operations: substitution of one state with another,

and insertion or deletion of states along the sequence. Substitution, insertion and deletion are each assigned a cost by the researcher. Distance between a pair of sequences is calculated as the minimum possible cost of turning one sequence into the other.

Multidimensional sequences, such as simultaneous work-family trajectories have been a challenge for traditional optimal matching analysis (Gauthier et al., 2010; Han & Moen, 1999; Pollock, 2007; Stovel & Savage, 2006). Arguably, the most advanced solution is Pollock's "multiple sequence analysis" (2007) that creates combined sequence states from multiple dimensions, such as ["unemployed" & "single, no child"] for work-family trajectories. His approach was later systematized by Gauthier and co-authors (2010) under the label of "multichannel sequence analysis". In contrast to other methods for dealing with multidimensional sequences, substitution costs are specified separately for each dimension, but the two dimensions are aligned jointly. In our application this corresponds to separate transformation costs for the work and the family dimension but a joint alignment of the two. Multichannel sequence analysis has been shown to yield the most parsimonious and distinct cluster grouping and is most robust to noise in the sequence data (Gauthier et al., 2010). Essentially, multiple and multichannel sequence analyses classify holistic longitudinal experiences in terms of interactions between the dimensions considered (Pollock, 2007: 176).

The work-family sequences are aligned using Optimal Matching with substitution costs derived from transition rates between two states (Rohwer and Trappe, 1995; Gabadinho et al., 2011). The cost specification is thus not subject to arbitrary decisions by the researcher but derived from the data itself. The underlying rationale is that substituting states between which people transition frequently should be "cheaper" and

thus produce less distance, than substituting states between which transitions occur very rarely. The transition rate between two states is the probability to transition from one state to another. Based on transition rates, substitution costs *SC* between state *i* and state *j* are calculated as:

$$SC_{ij} = 2 - p_{ij} - p_{ji}$$

where p_{ij} denotes the transition rate from state *i* to state *j*, and p_{ji} denotes the transition rate from state *j* to state *i*. Substitution costs based on transition rates are bound by zero and two. Zero is the lowest possible substitution cost when the probability of transition between two states is 100 percent. Two is the highest possible substitution cost when the probability to transition between two states is zero. Note that we have four different substitution cost matrices: an employment dimension cost matrix for Germany and the United States, as well as a family dimension cost matrix for Germany and the United States. We set indel costs of one, which corresponds to half of the maximum substitution cost of two (see MacIndoe & Abbott, 2004).

The family-career sequences are aligned as follows: the family and work state of one person are jointly aligned with the family and work state of another person using the added substitution costs for the two dimensions at each time point in the process. Indel operations are used to the extent that they minimize overall costs. This alignment yields a pairwise distance matrix between each pair of sequences.

To explore the robustness of the findings, we tried several cost specifications and chose the above cost specification because it generated the most distinct cluster specification indicated by several cluster-cut off criteria. The three other cost

specifications we tested were: (1) Optimal Matching with substitution costs=2 and indel costs=1, (2) the dynamic Hamming distance (Lesnard, 2010), and (3) Optimal Matching with user defined substitution cost matrices based on substantive considerations varying between 0 and 20 with indel=10. The substantive results with the fist two alternative cost specifications where very similar to our final cost specification, whereas they deviated more strongly from the user defined substitution costs. These seemed to strongly generate specific patterns depending on exactly which user-defined costs were chosen. We conclude that our results are reasonably robust to different cost specifications.

To identify main patterns of work-family trajectories over time, we use ward cluster analysis to further analyze this pairwise distance matrix from multiple sequence analysis. Several cluster cut-off criteria, including Point Biserial Correlation (PBC) and the Average Silhouette Width (ASW), support seven or eight clusters for the United States and seven clusters for Germany as the best grouping (figure A1, appendix) (Hennig & Liao, 2010; Kaufman & Rousseeuw, 2008; Milligan & Cooper, 1985). All sequence and cluster analyses were conducted using the *TraMineR* and the *WeightedCluster* packages in R (Gabadinho, Ritschard, & Studer, 2011; Studer, 2013).

Logistic Regression

In a second step we directly estimate the odds to sort into a specific work-family cluster using logistic regression. Separate logistic regression models are estimated for each cluster. Therefore the odds have to be interpreted as the likelihood to be in this respective group compared to the likelihood to be in any other group within a country. Results from multinomial logit models supported the same conclusions as the separate

logistic regression but offered a much less intuitive interpretation and obscured the cross-country comparison. In multinomial logistic regression all effects are calculated with reference to a baseline cluster in country-specific models. Since, the clusters are different in the two countries, there are no good comparable baseline clusters across the two countries. By calculating separate logistic regression models for each cluster, we circumvent this problem and offer a simple interpretation of the effects: the odds to be in this specific work-family pattern compared to being in any other work-family cluster in the respective country. We only include independent variables that are temporally located prior to the beginning of the work-family sequences (age 22) to avoid confounding of predictors with elements of the outcome, in this case joint work-family trajectories.

Operationalization

The *work sequences* are coded in twelve state: "unemployed", "out of the labor force", "education", "military", "childcare/family care" and seven categories of "employment" based on the Treiman occupational prestige scale (SIOPS) from "16-19" until "70-79" (Treinan, 1977). For example, the Treiman values of 16-19 include lower level agrarian workers, whereas the category "70-79" includes medical doctors, and lawyers. To calculate average occupational prestige in each work-family cluster we calculated the mean average prestige across the entire trajectory. For time periods spent out of the labor force when no occupational prestige was reported we backward and forward filled the next available occupational prestige value. Individuals who where continuously out of the labor force between age 22 and 44 and never reported an occupational prestige value are disregarded in the calculation of average occupational

prestige for each work-family cluster. Since this occurs for a very low percentage of the sample (1.2 percent in the United States and 2.26 percent in Germany), it is not likely to affect the results.

The *family sequences* are specified with six states of "single, no child", "single, 1+ child", "partner, no child", "partner, 1 child", "partner, 2 children", and "partner, 3+ children". Being partnered refers to married as well as unmarried cohabiting relationships. The two are collapsed, because we assume that for the couples' household division of labor and the living situation of children it is more decisive whether parents cohabit than whether they are married. Cohabitation has replaced marriage as the choice of first union across most western societies (Sobotka & Toulemon, 2008) and is increasingly common as not only a prelude, but an alternative to marriage (Heuveline & Timberlake, 2004; Smock, 2000). The category single also includes non-cohabiting relationships of couples who living-apart-together (LAT), because we cannot reliably identify these relationships in the data. Below, we discuss how the neglect of LAT relationships might affect our comparative results. Being single is defined as not being in a cohabiting relationship and thus includes persons who where never married as well as divorcees. Only biological children are included because they can unambiguously be identified in both data sets and (gender-specific) reporting error is likely lower for biological children than for adopted and foster children.

For the *logistic regression* to estimate cluster membership, we operationalize gender, class and race (for the United States) as central independent variables.

Class. Operationalizing the class concept for estimating its effect on the specific

work family trajectory pattern is constrained by the *terminus ante quem.* We need to measure the respective class that was established before the onset of the life course sequences summarized in the work-family clusters. Following well recognized literature on operationalizing class we include parental education and own education as class indicators (LIT ON STATUS ATTAINMENT).[3] We are aware of the limitations of this approach to measure class, but use it in lack of better alternatives. Parental education is included with a continuous variable for mothers' years of education and one for fathers' years of education. Respondents' education is included before the age of 22. Educational levels are measured by using established comparative educational indicators (Aisenbrey 2010). For the United States, the education levels capture "no high school degree," "only high school degree," and "more than high school degree." For Germany, we distinguish between those with low (Hauptschule) medium (Realschule) and high (Abitur) levels of general schooling.

Gender. In both country contexts gender is operationalized by a dichotomous variable indicating female gender.

Race. For the United States we use race, measured in three categories: white, black and other. The "other" category is somewhat difficult to interpret since it includes populations that are not equally privileged or marginalized in the United States such as Hispanics, Asians, Middle Eastern or Native Americans. These respondents are likely to

[3] How to measure Social Class is a longstanding controversy in sociological literature (LIT). Most scholars agree that Class can be derived from a combination of the following indicators: Education, Occupation, Income, Social and Cultural Capital. Most scholars would also agree that Education, especially in the combination with parental education is the single most predictive indicator for the other indicators and for Social Class itself. Restrictions to education as the single indicator for class are the differences in the quality of degrees, especially in the US, but also the inequality in access to education.
///
Social class is defined by many contradicting theories, it is still fair to say that educational attainment emerges as one of the main indicators of class affiliation.

differ from whites and blacks as well as among one another, with respect to work and family patterns (Ghazal Read 2004). The NLSY includes an oversampling of the black population but not of any other minority group and therefore prohibits separating Hispanics or Asians as an own category, due to case number restrictions. Historically race does not figure as a stratifying force in any comparable way in Germany and is thus not included in the analyses for Germany.

5. RESULTS

Subsequently, we present the work-family clusters derived with multichannel sequence analysis and cluster analysis to address the first research question, *which joint work-family trajectory occur in Germany and the United States*. While presenting each respective clusters we also discuss the results of the logistic regression to address the second research question, *how joint work-family trajectories differ by gender and social class in Germany and the United States.*

Figure 1: Sequence index plots of seven work-family clusters in the United States derived with multichannel sequences analysis (view in color).

Figure 2: Sequence index plots of nine work-family clusters in West Germany derived with multichannel sequences analysis (view in color).

Figures 1 and 2 present sequence index plots (Scherer, 2001) of the seven work-family clusters identified for the United Statues and Germany. They plot each work and

family sequence across time (age) using a range of colors to indicate different work and family states. Each horizontal line represents one individual sequence. The family trajectories are shown on the left hand side of figure 1 and 2, and the respective employment trajectories of the same persons are presented on the right hand side. Within each cluster, the employment and family formation sequences are both sorted according to the same criterion, the age of first childbirth. Therefore the work sequence and family sequence next to one another always refer to the same person, e.g in cluster one the first line in the family trajectory is the same individual as the first line in the work trajectory plot.

The size of the clusters represents their relative proportion in the respective national population. The clusters are arranged from lowest average occupational prestige (bottom), to highest average prestige (top). Descriptive statistics for the clusters displayed in figure 1 and 2 are shown in table 2 and 3, respectively. Table 4 shows the logistic regressions on the odds of sorting into each group. Subsequently we discuss the results comparatively. We first contrast the top and the bottom of the social structure starting with the top prestige work-family patterns followed by the lowest prestige work-family patterns in Germany and the United States. Subsequently, we present salient work family patterns in the middle range of the social structure.

Table 2: Descriptive statistics for seven work-family clusters United States, weighted using NLSY weight, clusters sorted from lowest average prestige (1) to highest average prestige (7) (see figure 1).

Table 3: Descriptive statistics for seven work-family clusters Germany, weighted using NEPS weight, clusters sorted from lowest average prestige (1) to highest average prestige (7) (see figure 2).

*Table 4: Logistic regressions for each cluster, odds ratios, for the United States with (right) and without (left) gender*race interaction*

The lucky few: ***Couple, children, top prestige****. Work-family trajectories at the top of the occupational prestige distribution*

The highest prestige clusters[4] (7) in both countries follow a pattern we call "*Couple, children, top prestige*" (top of figures 1 and 2). In both countries, this group enters a stable residential union in their mid twenties and has two or more children by age 44 combined with stable top prestige careers. The prestige gap between them and everyone else in the respective country is striking, particularly in the United States. The average prestige at age 22 (55.2 in the United States and 49.3 in Germany) is already much higher than the next highest prestige groups' occupational prestige at age 44 (45.4 in the United States and 46.8 in Germany). Consistent with the Matthew effect (Dannefer, 2003; DiPrete & Eirich, 2006), this top group not only starts out with the highest occupational prestige but also achieves the steepest upward mobility (prestige US: +9.7, Germany: +9.3).

In both countries this group has on average about 15.5 years of education. Their parents' education is also highest in the respective country comparison. Again, the

[4] Note that these top prestige clusters are not to be equated with the top one percent of income, which is highly male dominated in both countries.

educational gap between this top group and the next highest group is more pronounced in the United States (see Tables 2 and 3) supporting even stronger parental background effects and less intergenerational mobility into this segment of the population than in Germany. This is further substantiated by the logistic regression. Both maternal and paternal education significantly increase the odds of sorting into the top prestige cluster in the United States, but have no significant effect for this group in Germany (Table 3). In both countries we find highly significant effects for respondents own education, establishing much higher odds for individuals with a high class background to belong to this top prestige work-family pattern. The similarities at the "top" in the two country contexts are surprising: similar family formation timing, similar upward mobility tracks and strong class effects, albeit stronger parental background effects in the United States.

Yet, there are also striking cross-national differences at the top. In the United States this group comprises twelve percent of the population, in Germany only six percent (Tables 2 and 3). This might simply be due to the gendered nature of this pattern in Germany. The top prestige group has the lowest percentage of women in Germany (4 percent of all German women compared to 7 percent of all German men are in the top cluster) whereas the gender distribution is practically equal in the United States (12 percent of all men compared to 11 percent of all women). The multivariate analyses confirm this finding of "gender equality at the top". Gender is not significant in the top prestige cluster in the United States, whereas in Germany men have twice the odds of women to sort into the top prestige cluster (Table 4, Germany, odds for men: 1/0.53). While this top prestige group is accessible to women in the United States, blacks are largely excluded as can bee seen from the lowest proportion of black people in the top

prestige group and the logistic regression. Everything equal, a white person has about twice the odds of a black person to sort into this top prestige cluster. This white privilege overrides the gender-equality in this cluster. Interaction effects between race and gender show that only white women "enjoy" these gender-neutral chances to rise to the top. Black women have significantly lower chances (odds=0.29) than black men (odds=0.58) to end up in this top prestige cluster (Table 4).

In summary, for this top prestige cluster we find gender equality for whites but not for blacks in the United States, gender inequality in Germany, and even stronger class determination in the United States than in Germany. Note that the respective Pseudo R^2 is highest for this model within each country (Germany r^2=0.12; United States r^2=0.18), suggesting that the simple class and gender indicators have the most explanatory power to predict who ends up in the top prestige work-family pattern. In other words, predetermination of sorting into this privileged group is highest.

At the margins: Work-family trajectories at the bottom of the occupational prestige distribution

Contrary to the notable similarity in the top prestige cluster, cross-country differences in work-family patterns are most striking at the bottom of the occupational prestige distribution. In the United States group (1) labeled "*single children, disrupted low prestige*" shows an accumulation of life course risks with early family disruption and precarious disrupted employment careers (see bottom of Figure 1). This marginalized group corresponds to 16 percent of the American population and comprises the highest proportion of blacks (41 percent of all blacks are in this group), and women (20 percent

of all women are in this group), and the lowest occupational prestige at both the beginning and the end of the employment sequence (average prestige 38.7) (Table 2). They experience the least upward mobility but the highest sequence complexity in employment careers – an indicator for high career instability and disruption (Table 2).

The logistic regression estimates corroborate these findings with a highly significant gender*race interaction: compared to white men, the odds of sorting into this underprivileged group are 1.6 for white women, 5.4 for black men and striking 8.22 for black women (Table 4). This group corresponds closely to the notion of an American underclass that is cumulatively exposed to a variety of life course risks with little chance of escaping social disadvantage (Carlson & England, 2011; Massey & Denton, 1993; McLanahan & Percheski, 2008). The absence of any notable upward mobility by the age of 44 and the lowest parental education in this group further underline the encapsulation of disadvantage at the bottom of the American social structure (Table 2).

Quite the contrary, in Germany the lowest occupational prestige group (1) represents a pattern labeled "*Couple, two children, stable low prestige*" that accounts for 14 percent of the population. It is essentially another version of the two-child couple also visible for the middle class in Germany but accompanied by highly stable very low prestige careers. Across countries, beyond having the lowest prestige, these groups resemble one another in showing the lowest education (12.3 and 12.4 years on average) and lowest parental education. Apart from that, they are opposites on a number of characteristics: in the United States women are more likely to sort into this group, and sequence complexity in employment careers is highest (18.2). In Germany, men are more likely to sort into this group and sequence complexity in employment careers is lowest

(7.2) and less than half than for their counterpart in the United States (Tables 2 and 3). On the one hand this indicates employment security in low prestige jobs in the protective conservative German welfare state. On the other hand, we see that there is no upward mobility, in fact on average people even lose about one Treiman prestige point between age 22 and 44. The safety net of the German social security system prevents the highly unstable disrupted employment careers at the bottom of the social structure visible in the United States. But people who start out in very low prestige jobs apparently have no chance of upward mobility in the rigid certification based labor market in Germany. Note that next to the top prestige group the R^2 in the lowest prestige groups are highest in the respective country comparison. This substantiates that the simple socio-demographic variables included in our models are most powerful in predicting who sorts into the work-family patterns at the very bottom and very top of the occupational prestige distribution.

The price of upward mobility? Childless work-family trajectories

We now return to the upper end of the occupational prestige distribution. The next highest prestige groups after the top groups, groups (5) and (6) in the United States and group (6) in Germany are characterized by childlessness (figures 1 and 2). Their average prestige is in the upper middle range between 44 and 45. In Germany, this group is labeled "*Couple, childless, upward mobility",* accounts for ten percent of the population and consists of people who spend most of their twenties, thirties and early forties living in a childless residential union. Next to the top prestige cluster, this group has the highest upward mobility with a gain of 3.8 Treiman prestige points starting from medium prestige (43.0) at age 22. The logistic regression supports significantly higher odds for

men and highly educated persons to sort into a work-family pattern of childlessness and upward mobility in Germany (Table 4).

In the United States, we find two relatively small childless groups. Group (6) "*Couple, childless, stable medium prestige*" accounts for seven percent of the population with a pattern of childless residential unions combined with stable medium prestige careers. Their family pattern is similar to the German childlessness group but their work trajectories differ with high career stability, below average career complexity (14.0) and no notable upward mobility (table 2). In contrast, group (5) labeled "*Single, childless, upward mobility*" remains single and childless until age 44.[5] Their work trajectory resembles the German childlessness group with the next highest upward mobility (+ 6.3 Treiman prestige points) starting from relatively low prestige (39.5). Again we find both considerable cross-country similarities and differences. In both countries, the highly educated and men have significantly higher odds of sorting into the clusters of childlessness coupled with upward mobility (Table 4). In contrast, the cluster of childlessness coupled with career stability in the United States shows no gender differences and does not exist in Germany.

Work-family patterns in the "middle"

In both countries we find several groups one might associate with the middle class. In the United States average occupational prestige ranges between 40.1 and 43.3 for groups (2), (3), and (4). For Germany, average occupational prestige varies between 40.5 and 43.8 for groups (2), (3), (4), and (5). Given this similarity, prestige differences

[5] A considerable proportion of those reporting no cohabiting relationship could be, and likely are, in LAT relationships that we cannot identify in the data.

and relative rankings by occupational prestige should not be over-interpreted across these groups. In both countries, these clusters represent combinations of varying stability in work trajectories with having one, two or more children in largely stable residential unions.

In the United States, group (4), called "*Couple, two children, medium prestige*" is in line with the normative model of a traditional nuclear family coined in the 1950s and 1960s with relatively early birth of two children secured in stable cohabiting relationships (Cherlin, 1992; Modell, Furstenberg, & Strong, 1976). This is the largest group accounting for almost a fourth of the US population (25 percent). There is little upward mobility (4.1) but overall relatively high career stability (14.9). Education is slightly below the national average, the gender division largely equal and blacks have significantly lower odds of sorting into this group. Cluster (3) "*Couple, many children, medium prestige*" is quite similar except that they have 3.4 children at age 44 on average compared to 2.0 children in the previous group. This high fertility cluster accounts for 17 percent of the American population. Finally group (2) in the United States, labeled "*Couple, one child, medium prestige*" shows a pattern of relatively late fertility and one child combined with stable lower medium prestige work trajectories. Men have significantly higher odds of sorting into this group, whereas the two other middle class work family patterns (3) and (4) in the United States show a practically equal gender distribution.

In Germany, we also find a group of medium prestige combined with one child (cluster (4)) and medium prestige group combined with three and more children (cluster (2)) similar to the United States. The pattern of two children secured in stable cohabiting

relationships is divided into a male and female version in Germany. Men have higher odds of sorting into cluster (5) labeled "*Couple, two children, medium prestige*" that is characterized by later onset of family formation and highly stable medium prestige careers of essentially no mobility (+0.96 Treiman prestige points) and below average sequence complexity in the employment career (7.9). Cluster (3) "*Couple, two children, disrupted medium prestige*" shows the female version of this pattern.

Overall the four middle class work-family trajectories in Germany are more gendered than in the United States. Notably in Germany, women have significantly higher odds of sorting into all work-family clusters characterized by disrupted medium prestige careers and high career complexity (Table 3). This is visible in the long purple and black streaks representing family care and periods "out of the labor force" in the sequence index plots in Figure 2.

6. DISCUSSION

This paper set out to scrutinize the gender- and class stratification of joint work family trajectories across early adulthood into mid life in Germany and the United States as two ideal typical welfare state contexts. We contribute to the literature by focusing the holistic interaction of work and family trajectories over a considerable portion of the life courses across the social structure, instead of analyzing single indicators at snapshots of work careers. Based on the gender welfare state literature (Budig & Hodges, 2010; Folbre, 2009; Mandel & Semyonov, 2005) and the literature on social stratification of family formation (Carlson & England, 2011; McLanahan & Percheski, 2008), we derived several expectations about cross-country differences in the gender- and class-

stratification of joint work-family trajectories.

Using thick description of life course patterns in the spirit of narrative positivism (Abbott, 1992), the analyses support that work-family trajectories are shaped at the intersection of class and gender in both welfare states. In line with our expectations and previous findings (Carlson & England, 2011; McLanahan & Percheski, 2008; Western, Bloome, & Percheski, 2008), the liberal market and lack of welfare state intervention in the United States reinforces differences by social class in work-family trajectories compared to Germany. In contrast, the gendered welfare state in Germany aggravates gender differences to a greater extent than in the United States. Moreover, work-family patterns are equally gendered across the social structure in Germany, whereas in the United States gendering is strongest at the bottom of the social structure and much weaker at the top. These findings lend further support to a growing literature arguing that the interaction of gender and social class as stratifying forces of work-family trajectories differs across welfare states (Mandel and Shalev 2009, Cooke 2011).

Beyond these fundamental differences our comprehensive analysis of holistic trajectories revealed similarities in work-family patterns across national contexts that are often over-looked. Among those are relatively stable residential unions and two or more children among the top prestige group, the combination of upward mobility starting from medium prestige with childlessness by the age of 44, and a broad middle range of medium prestige careers combined with one or more children. These similarities are often neglected in analyses that focus on single indicators such as the gender wage gap or compare only selected segments of the population, e.g. single parents or either high or low income workers.

In the context of these similarities, the pronounced cross-country differences at the bottom 15 percent of the occupational prestige distribution appear in particularly start contrast. In both countries, this is the population most vulnerable to market forces and most exposed to (a lack) of welfare state transfers. In Germany this is a secured group with stable low prestige careers and a traditional two-child family pattern. In the United States, we see a "forgotten" underclass that is exposed to an accumulation of life course risks in terms of family disruption, single parenthood and precarious highly instable employment careers. In both countries however, there seems to be close to no inter- or intra-generational mobility out of this segment of the population, with no occupational upward mobility between the age of 22 and 44 and already very low parental education. Even though the clusters are based solely on similarity in the work-family sequences and no other social background characteristics, the joint work-family patterns clearly reflect the gendered reproduction of social inequality across generations in both Germany and the United States.

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FIGURES

Figure 1: Sequence index plots of seven work-family clusters in the United States derived with multichannel sequences analysis (view in color).

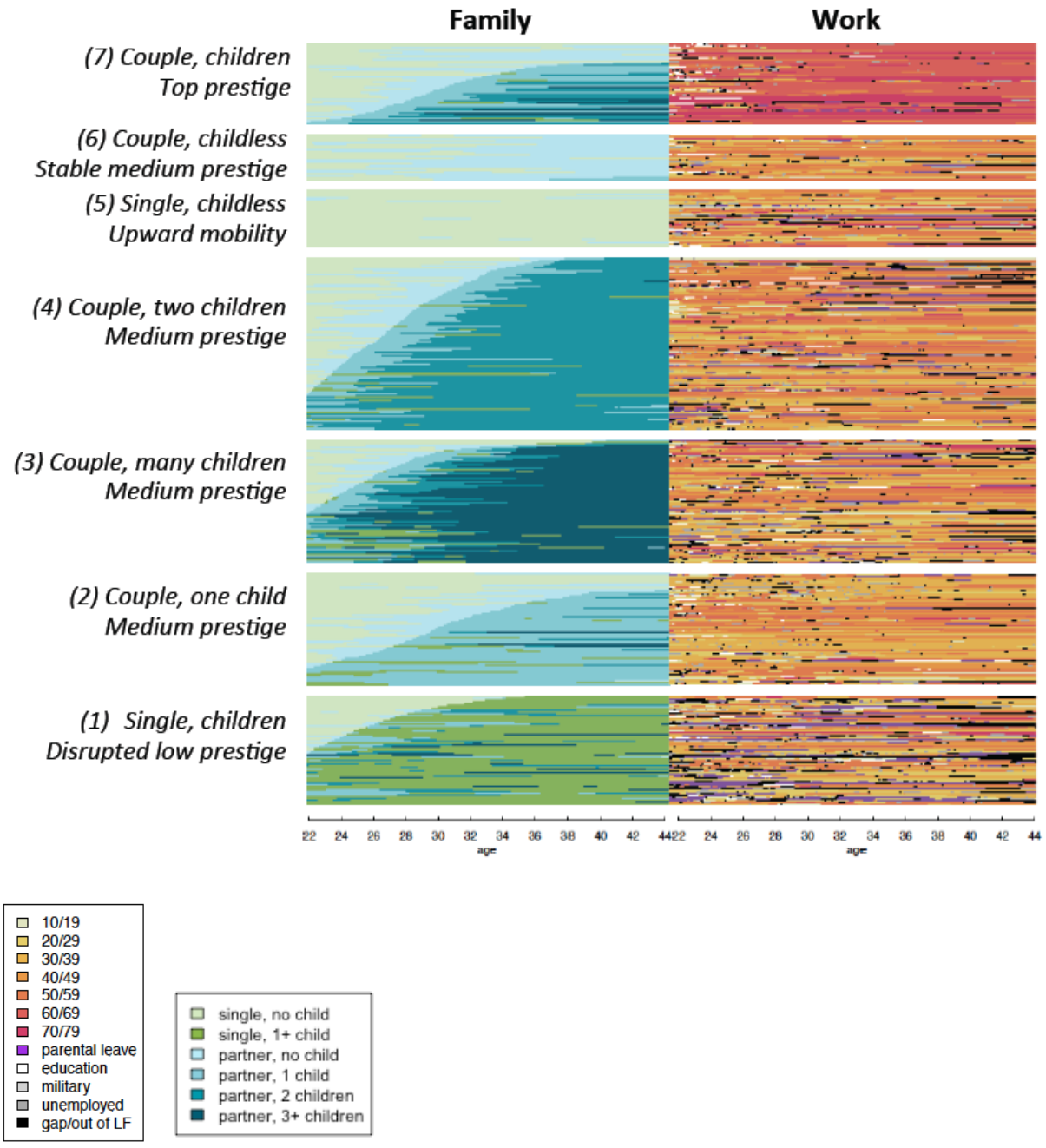
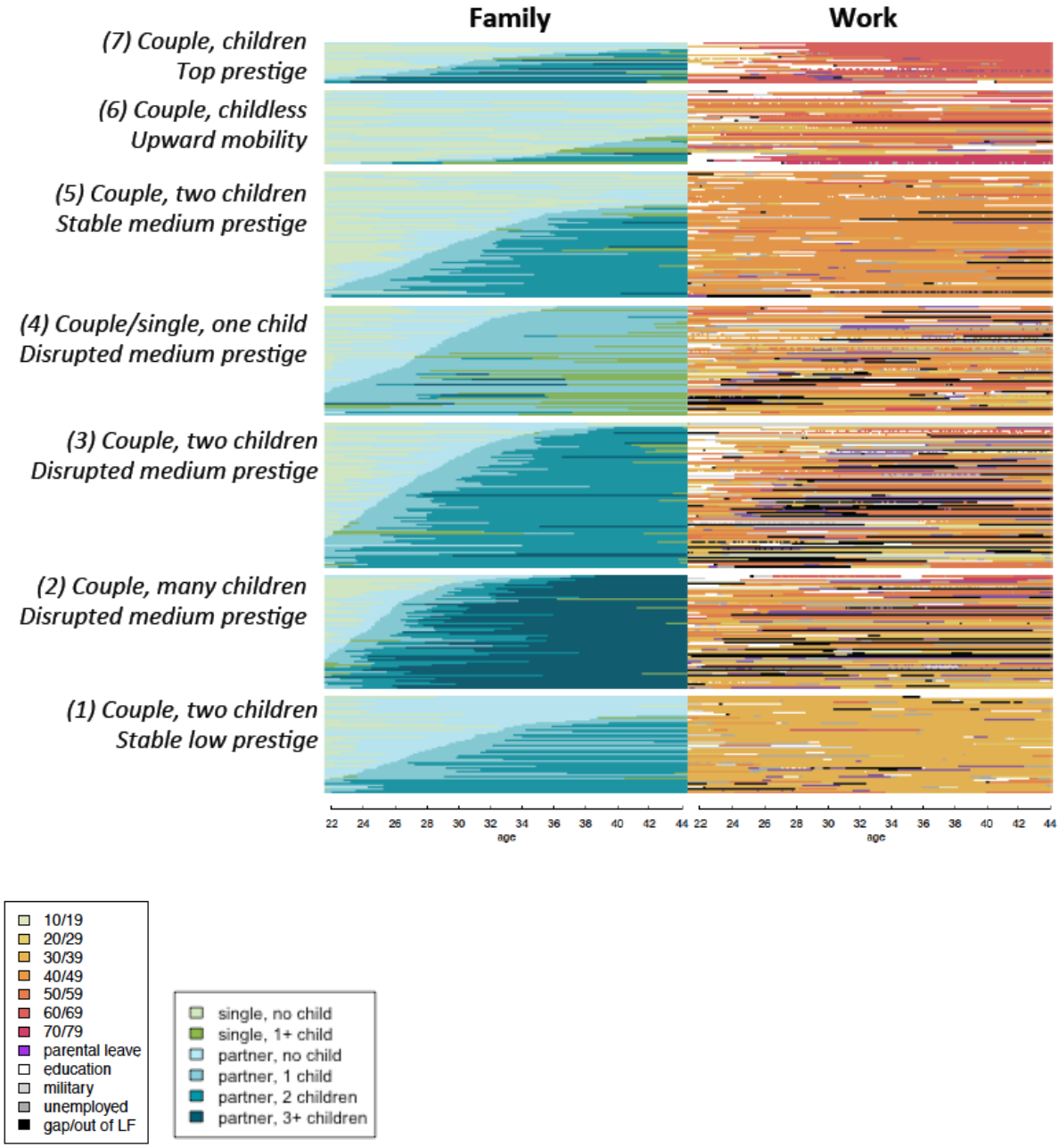


Figure 2: Sequence index plots of nine work-family clusters in West Germany derived with multichannel sequences analysis (view in color).



TABLES

Table 1: Gendered labor markets in 2000 (OECD 2011)

	UNITED STATES	GERMANY
Labor force participation, ratio women/men, age 15-64	0.71	0.63
Part time employment ratio women/men	2.3	7.1
Gender Wage gap (Unadjusted gender gap in median earnings for full-time employees)	23.1	24.1
Boardroom members % female (2009)	12%	3.5%
Gini	.41	.28

Table 2: Descriptive statistics for seven work-family clusters United States, weighted using NLSY weight, clusters sorted from lowest average prestige (1) to highest average prestige (7) (see figure 1).

	UNITED STATES							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Total
Cluster size%	16	16	17	25	9	7	12	100
Female in cluster %								48
Male %	12	19	16	23	10	7	12	100
Female %	20	13	17	26	08	6	11	100
White	11	17	17	27	8	7	13	100
African American	41	11	15	13	11	3	5	100
Other	26	15	18	17	9	4	12	100
Mean (standard deviation)								
Education (years)	12.4	13.0	12.9	13.2	13.7	13.8	15.4	13.3
	(1.8)	(1.9)	(2.0)	(1.9)	(2.1)	(1.9)	(1.3)	(2.1)
Mother education	10.8	11.5	11.4	11.8	12.1	12.0	13.1	11.7
	(2.7)	(2.4)	(2.7)	(2.4)	(2.9)	(2.3)	(2.5)	(2.6)
Father education	10.7	11.7	11.7	12.1	12.6	12.2	13.8	12.0
	(3.2)	(3.2)	(3.4)	(3.3)	(3.5)	(3.0)	(3.5)	(3.4)
Treiman start	36.9	37.2	37.8	40.6	39.5	41.8	55.2	40.7
	(12.8)	(11.2)	(12.2)	(12.8)	(13.9)	(13.4)	(17.1)	(14.3)
Treiman end	40.3	42.3	42.7	44.7	45.8	45.4	64.9	45.8
	(14.3)	(12.2)	(13.0)	(13.0)	(16.3)	(11.3)	(9.5)	(14.8)
Treiman max	49.5	51.6	51.8	54.1	57.4	55.5	70.7	54.9
	(14.2)	(13.0)	(13.4)	(13.7)	(14.8)	(11.7)	(4.6)	(14.2)
Treiman difference	3.4	5.1	4.9	4.1	6.3	3.6	9.7	5.1
	(13.8)	(12.3)	(13.8)	(14.0)	(16.3)	(12.4)	(18.5)	(14.5)
Treiman average	38.7	40.1	41.0	43.3	44.2	44.4	64.8	44.4
	(11.0)	(8.9)	(10.2)	(10.2)	(12.6)	(9.5)	(6.1)	(12.6)
Child start	.68	.14	.57	.26	0	0	.06	.30
Child end	2.1	1.1	3.4	2.0	.13	.11	1.7	1.8
Complexity fam	6.2	5.7	6.9	6.1	2.8	5.1	6.7	5.9
Complexity emp	18.2	14.4	15.5	14.9	17.2	14.0	12.7	15.2

Table 3: Descriptive statistics for seven work-family clusters Germany, weighted using NEPS weight, clusters sorted from lowest average prestige (1) to highest average prestige (7) (see figure 2).

	WEST GERMANY							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Total
Cluster size %	14	16	21	16	18	10	6	100
Female in cluster %	46	62	66	64	40	43	39	53
Male %	16	13	15	12	23	13	7	100
Female %	12	19	25	19	13	8	4	100
Mean (standard deviation)								
Education (years)	12.3	12.5	12.8	12.5	12.7	13.8	15.7	12.9
	(1.7)	(2.3)	(2.5)	(2.1)	(1.8)	(3.2)	(2.4)	(2.4)
Mothers education	10.8	10.4	10.9	11.0	10.8	11.5	11.7	10.9
	(1.9)	(2.0)	(2.1)	(2.0)	(1.8)	(2.2)	(2.5)	(2.1)
Fathers education	11.8	11.6	12.0	12.5	12.0	12.9	13.0	12.1
	(1.6)	(2.3)	(2.2)	(2.0)	(2.1)	(2.4)	(2.7)	(2.2)
Treiman start	35.3	39.6	40.8	39.2	42.8	43.0	49.3	40.7
	(6.8)	(12.7)	(12.8)	(12.0)	(6.8)	(15.2)	(15.1)	(12.0)
Treiman end	34.4	41.3	42.2	42.2	43.8	46.8	58.6	42.7
	(5.6)	(12.9)	(14.6)	(12.8)	(7.0)	(16.3)	(10.1)	(12.9)
Treiman max	38.3	45.2	46.1	46.8	46.7	50.7	62.7	46.5
	(7.6)	(11.2)	(12.7)	(11.7)	(5.9)	(15.0)	(3.7)	(12.0)
Treiman difference	-.87	1.7	1.5	3.0	.96	3.8	9.3	2.0
	(7.7)	(12.5)	(13.7)	(11.7)	(9.3)	(13.5)	(18.9)	(12.3)
Treiman average	34.9	40.5	41.1	41.4	43.8	44.8	56.8	41.9
	(3.8)	(11.3)	(12.8)	(10.5)	(3.7)	(14.8)	(6.6)	(11.0)
Child start	.13	.31	.21	.23	.04	.00	.06	.16
Child end	1.4	3.5	2.0	1.3	1.5	.58	1.8	1.8
Complexity fam	5.1	6.4	5.6	5.3	5.7	5.2	6.1	5.6
Complexity emp	7.2	10.0	9.8	10.0	7.9	9.4	10.0	9.1

*Table 4: Logistic regressions for each cluster, odds ratios, for the United States with (right) and without (left) gender*race interaction*

Variable	UNITED STATES													
	(1) *Single, children Disrupted low prestige*		(2) *Couple, one child Medium prestige*		(3) *Couple, many children Medium prestige*		(4) *Couple, two children Medium Prestige*		(5) *Single, childless Upward mobility*		(6) *Couple, childless Medium prestige*		(7) *Couple, children Top prestige*	
Female[1]	1.58***		0.64***		1.06		1.20*		0.76**		0.87		0.84	
African American[2]	5.19***		0.63***		0.68***		0.38***		1.49***		0.60**		0.43***	
Other[2]	1.70***		0.64*		1.19		0.70*		1.30		0.74		0.86	
Female white[3]		1.65***		0.63***		1.10		1.24**		0.69**		0.83		0.94
Male black[3]		5.44***		0.65**		0.74**		0.41***		1.25		0.54**		0.58**
Female black[3]		8.22***		0.38***		0.70**		0.44***		1.24		0.54**		0.29***
Male other[3]		1.72*		0.51**		1.27		0.75		1.43		0.60		1.24
Female other[3]		2.74***		0.51**		1.24		0.82		0.80		0.74		0.49
No High School[4]	2.86***	2.85***	1.13	1.13	1.41**	1.41**	0.74**	0.73**	0.77	0.78	0.54**	0.54**	0.02***	0.02***
Only HS degree[4]	1.89***	1.89***	1.40***	1.40***	1.14	1.13	1.30**	1.29**	0.63***	0.64***	0.82	0.82	0.12***	0.11**
Mother education	0.95**	0.95**	1.02	1.02	0.98	0.98	1.00	1.00	1.03	1.03	1.02	1.02	1.07**	1.07**
Father education	0.98	0.98	0.98	0.98	0.97**	0.97**	1.00	1.00	1.03	1.03	0.99	0.99	1.06**	1.06**
Pseudo R2	0.14	0.14	0.02	0.02	0.01	0.01	0.03	0.03	0.02	0.02	0.01	0.01	0.17	0.18

	GERMANY						
	(1) *Couple, 2 children Stable low prestige*	(2) *Couple, many children Disrupted prestige*	(3) *Couple, two children Disrupted prestige*	(4) *Couple/single one child Disrupted prestige*	(5) *Couple, two children Medium prestige*	(6) *Couple, childless Upward mobility*	(7) *Couple, children Top prestige*
Female[1]	0.67**	1.50***	2.01***	1.58***	0.58***	0.62***	0.53***
Hauptschule[5]	3.29***	1.20	0.90	1.76***	1.64***	0.35***	0.08***
Realschule[5]	3.12***	1.04	0.70***	1.69***	1.98***	0.46***	0.20***
Mother education	1.04	0.94*	1.04	1.00	0.95	1.05	0.98
Father education	0.93*	0.94***	0.97	1.07*	1.01	1.05	1.03
Pseudo R2	0.05	0.02	0.02	0.02	0.02	0.05	0.12

Notes: *Sig.: *** p<0.001, ** p<0.01, * p<0.05; Reference categories: 1=Male, 2=White, 3=White male, 4=At least some college, 5=Abitur.*

APPENDIX

Figure A1: cluster cut-off criteria for clusters derived with multichannel sequence analysis using dynamic Hamming distance.