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Research Article

Family inequality: On the changing educational gradient of family patterns in Western Germany

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Family inequality: On the changing educational gradient of family patterns in Western Germany

Ansgar Hudde¹

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Abstract

OBJECTIVE

A comprehensive and thorough investigation of the key trends in family patterns in Western Germany.

METHODS

Descriptive analyses of educational differences in marital status, cohabitation, partnerlessness, and children in the household in Western Germany from 1976 to 2019. We analyze unique data from the German Microcensus with information from more than 1.7 million individuals.

RESULTS

In the 1970s, men with higher education were moderately more likely to live with a partner and be married, and less likely to be divorced. The reverse was mainly the case for women. Over time, higher education levels for men and women became increasingly associated with living with a partner, being married, and living with children; lower levels of education became increasingly associated with divorce, partnerlessness, and single parenthood. Today, men with lower levels of education are least likely to live with a partner, be married, or have children in the household. Women with lower education levels are most likely to be single parents.

CONCLUSIONS

Education is turning more and more into a generalized life resource: those with higher education are not only the winners in the labor market but are also increasingly more likely to achieve those partnership and family outcomes to which the majority of young people aspire – a stable partnership and children.

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CONTRIBUTION

This 'big picture' analysis deepens our understanding of changes in family-related social inequalities in Germany. Analyses based on high-quality data have not been available for Germany and can serve as bases for future research at the granular level.

1. Introduction

Is higher education increasingly associated with higher rates of marriage and fertility and lower rates of divorce and partnerlessness? This idea has been raised by several recent theoretical contributions and empirical analyses examining different populations and specific aspects of family life (Cherlin 2016; Esping-Andersen 2016; Härkönen and Dronkers 2006; Kalmijn 2013; Kravdal and Rindfuss 2008; Trimarchi and Van Bavel 2017). These new social inequalities in family and partnership outcomes have been reported particularly in the most egalitarian societies, such as the Nordic countries (Cherlin 2016; Esping-Andersen 2016).

Rather than explaining the causes or consequences of one specific aspect of family life at one specific moment in time, the contribution of this paper is to zoom out and show the bigger picture. Using unique, representative information from more than 1.7 million individuals from the German Microcensus (1976–2019), we trace how education levels over a period of nearly four decades are related to marital and partnership status and the presence of children in the household. In doing so, we employ both period and an age–period perspective. The Microcensus was not conducted in East Germany before reunification; therefore, such a long-term analysis is only possible for Western Germany, and this paper restricts itself to the western region of the country. We explicitly focus on a comprehensive and thorough descriptive investigation of the key trends in family patterns, which only a few recent studies have done; e.g., Lundberg, Pollak, and Stearns (2016) for the United States and Jalovaara et al. (2018) for the Nordic countries (Besbris and Khan 2017). Such analyses have not previously been available for Germany, Europe's most populous country. This is a relevant gap because in recent decades Germany has undergone major changes to its economic structure, family policy, and gender relations, as well as to its educational system. Previous research suggests these shifts should lead to changes in educational gradients in various family and partnership outcomes (Cherlin 2016; Esping-Andersen 2016; Zentner and Eagly 2015). Therefore, we believe that a comprehensive investigation of family patterns and their association with education is overdue and that it can serve as a basis for future analyses of changes and causalities concerning family outcomes.

With a certain delay, Germany is now following the Nordic countries regarding gender relations and family policy (Fleckenstein 2010; Fleckenstein and Lee 2014), and it might also follow with respect to changes in educational gradients in family outcomes. In the Nordic countries, women's previously negative association of education with marriage and fertility is diminishing over time. For men, there is an increasingly positive association (Jalovaara et al. 2018; Kravdal and Rindfuss 2008; Nisén et al. 2021; Skirbekk 2008). International comparative studies find that the more egalitarian a society is the more partnerlessness and divorce are associated with lower education levels (Bellani, Esping-Andersen, and Nedoluzhko 2017; Kalmijn 2013; Matysiak, Styr, and Vignoli 2014; Sandström and Karlsson 2019). A consistent educational difference is the postponement of all family transitions and processes among the highly educated. This is mainly explained by the longer time spent within the educational system and the low transition rates during that time (Ní Bhrolcháin and Beaujouan 2012; Blossfeld and Huinink 1991).

Social inequalities in family outcomes matter because they affect quality of life. Being married or living with a partner is associated with higher life expectancy and better physical and mental health, compared to being divorced or having never married at all (Berkman et al. 2000; Dupre, Beck, and Meadows 2009; Hank and Wagner 2013; Kalmijn 2013; Lillard and Waite 1995). Most young people express the desire to be in a stable relationship (Cohn 2013; Kefalas et al. 2011; Mahay and Lewin 2007). Since a romantic partner is usually the most important emotional and practical support for many adults, those married or in cohabitation on average display lower levels of loneliness and higher levels of well-being (Dykstra and de Jong Gierveld 2004; Kalmijn 2013; Soons, Liefbroer, and Kalmijn 2009; Watkins and Beckmeyer 2020). In most European countries, the actual levels of parenthood and number of children are substantially below the ideal desires across educational groups (Beaujouan and Berghammer 2019; Buhr and Huinink 2017; Kuhnt, Kreyenfeld, and Trappe 2017; Philipov 2009: 2; Sobotka and Beaujouan 2014). If chances of realizing partnership and fertility desires differ between social groups, this constitutes an aspect of social inequality (Esping-Andersen 2014). If higher education is increasingly associated with higher rates of marriage and fertility, and lower rates of divorce and partnerlessness, this could suggest an accumulation of advantage and disadvantage in the economic and family spheres. Indeed, those who achieve higher education levels not only enjoy higher incomes and better labor market positions but are also more able to achieve their desired family and partnership outcomes.

2. Background and hypotheses

We analyze several interrelated outcomes concerning marital and partnership status, as well as the presence of children in the household. As heuristics for various interrelated outcomes in the partnership and family domain, Esping-Andersen (2016; see also Esping-Andersen and Billari 2015) introduces the umbrella terms of “more family” and “less family”, which have since been adopted by several authors (e.g., Brzozowska 2021; Hook and Paek 2020; Jónsson 2021). These terms are more often used for groups (e.g., countries, cohorts, or educational groups) than for individuals. If members of a group more often live with a partner, are married, and are (active) parents, they are described as having ‘more family’. If they more often live without a partner, are divorced, and are not living with children, they are described as having ‘less family’. We adopt these terms for our analyses of rates of marital and partnership status, as well as the presence of children in the household.

In the partner market, people try to select partners who have the potential to improve their lives (Zentner and Eagly 2015; see also Boudon 2003; Hill and Kopp 2015; Huinink et al. 2011). What these characteristics are and whether they are similar or dissimilar among women and men depends on the context and societal gender roles (Zentner and Eagly 2015). Specifically, in societies where roles for women and men are very dissimilar, known as “separate spheres” (Davis and Greenstein 2004, 2009), search criteria for mates will also be dissimilar; in societies where gender roles are more similar – “joint spheres” – women’s and men’s preferences will also be more similar (Zentner and Eagly 2015; Zentner and Mitura 2012).

The West Germany of the 1970s was a male-breadwinner society (Goldscheider, Bernhardt, and Lappegård 2015) with very dissimilar roles for women and men. After childbirth, mothers typically stopped working for pay and the family’s living standard depended on the man’s income (Davis and Greenstein 2009; Trappe, Pollmann-Schult, and Schmitt 2015). Men with higher education can, on average, provide a higher living standard for their family, which makes them more sought after in the partner market (Becker 1993; Blossfeld 2009; Greitemeyer 2007; Oppenheimer 1988; Potarca 2021; Zentner and Eagly 2015). If it is attractive to start a relationship and marry a man with higher education, it is also more painful to divorce him. Further, men do not face high opportunity costs of having children (whether biological children or stepchildren) since their roles differ less depending on the presence of children. This leads to our first hypothesis:

Hypothesis 1: In the male breadwinner society of 1970s West Germany, men’s higher (vs. lower) education is associated with ‘more family.’

The picture is different for women. The male-breadwinner society discouraged maternal employment, implying higher opportunity costs of having children for highly educated women (Becker 1993). Given that partnering and fertility decisions are interrelated, if parenthood is less attractive, this may also make other elements of the family-building strategy (Baizán, Aassve, and Billari 2004), such as marriage, less attractive. Further, women's higher education is not necessarily an asset in the partner market (Greitemeyer 2007; Zentner and Eagly 2015). Men might prefer women with similar education, for instance, to achieve lifestyle homogamy (Arránz Becker and Lois 2010; Kalmijn and Bernasco 2001; Otte and Rössel 2011). However, if mothers are not working for pay, those with higher education are not contributing more to family income than those with lower education levels and men have little financial reason to favor women with higher education. Further, women with higher education might be less willing to perform traditional gender roles (Bolzendahl and Myers 2004; Brooks and Bolzendahl 2004; Davis and Greenstein 2009; Goldscheider, Bernhardt, and Lappegård 2015). Finally, women with higher education have lower barriers to divorce because of their higher earning potential (Van Damme, Kalmijn, and Uunk 2009). These considerations lead to our second hypothesis:

Hypothesis 2: In the male-breadwinner society of 1970s West Germany, women's higher (vs. lower) education is associated with 'less family.'

Since the 1970s, Germany has seen changes in three social areas relevant to educational differences in family outcomes: gender relations, economic structure, and the gender-specific educational composition of the population.

Maternal employment has increased substantially, especially part-time employment among mothers with medium to high education levels (Konietzka and Kreyenfeld 2010; BMFSFJ 2020). Further, gender role attitudes or the sharing of housework and childcare has become more egalitarian (Ebner, Kühhirt, and Lersch 2020; Esping-Andersen and Billari 2015; Leopold, Skopek, and Schulz 2018; Goldscheider, Bernhardt, and Lappegård 2015). In consequence, it has become easier for women to combine work and family, decreasing the opportunity costs of parenthood, especially for highly educated women who used to be under greater pressure to choose between family and career (McDonald 2000a; 2000b).

With more similar gender roles for women and men, their mate preferences are also expected to become more similar (Zentner and Eagly 2015). If mothers are increasingly working for pay, their education and earnings matter for the family income. Changes in the economic structure have further increased the returns to education (Oreopoulos and Petronijevic 2013). Therefore, men's reasons for favoring highly educated women have increased (Esteve et al. 2016; Oppenheimer 1988; 1994; Van Bavel, Schwartz, and Esteve

2018; Zentner and Mitura 2012). However, due to the gendered educational expansion, highly educated women might face a shortage of men that they consider suitable; i.e., highly educated men (Van Bavel, Schwartz, and Esteve 2018; Skopek, Schulz, and Blossfeld 2011).

These changes also impact the prospects of divorce. The more women can earn, the more they can afford to separate and live on their own. However, this effect seems to be overcompensated by other factors, such as higher bargaining power in the relationship and changing societal norms that help highly educated women have satisfactory marriages. Highly educated women now have lower rates of separation and divorce (Van Bavel, Schwartz, and Esteve 2018; Goldscheider, Bernhardt, and Lappegård 2015).

Hypothesis 3: Over the period of observation (1970s to 2010s), women's higher education is increasingly associated with 'more family.'

The gendered educational expansion works differently for men. Highly educated men are relatively scarce and sought after in the partner market, but men with lower education levels face growing difficulties. There are fewer women with lower education levels, and highly educated women are often reluctant to choose men with lower education (Greitemeyer 2007; Skopek, Schulz, and Blossfeld 2011). Men with lower education levels increasingly face insecurity in the labor market, further lowering their attractiveness as potential partners (Oreopoulos and Petronijevic 2013; Oppenheimer 2000). As women's earnings increase, the relative importance of men's income for living standards decreases. This might improve the relative importance of men's other characteristics, such as gender egalitarianism or parenting skills. However, these characteristics might also be associated with higher education levels (Esping-Andersen 2016; Goldscheider, Bernhardt, and Lappegård 2015; Hudde 2020; Kravdal and Rindfuss 2008; Trimarchi and Van Bavel 2017). In sum, with increasing financial returns to education, along with gendered educational expansion, men's education will become more important for their family outcomes.

Hypothesis 4: Over the period of observation (1970s to 2010s), men's higher education is increasingly associated with 'more family.'

3. Data and variables

We used data covering a period of almost 40 years from the scientific use files of the German Microcensus. The Microcensus is part of the official statistics in Germany and covers a broad range of topics including demographic characteristics and education

(Schwarz 2001). The German Federal Statistical Office surveys 1% of all private households. The Microcensus is designed as a rotating panel. Each selected household is interviewed four years in succession and is then replaced by a new household. Participation in this rotating panel survey is mandatory for all household members, with few questions voluntary. The scientific-use files cover a sub-sample of 70% of the German Microcensus, available for most years from 1973 until 2019. We analyzed nine Microcensus waves from the years 1976, 1980, 1985, 1991, 1995, 2000, 2005, 2010, 2015, and 2019. We took 5-year intervals, which ensures that each household was included only once in the cumulated trend file (with the rotating-panel design, a household will be surveyed four years in a row, but will be replaced with a new household in the fifth year). There were three exceptions: 1976, which was the first year to include education levels; 1991, because the 1990 version is not available as a scientific-use file; and 2019, because the data from 2020 are not available yet. The setup of the trend file is based on the work of Lengerer (2007) and Lengerer et al. (2020), with some deviations explained below.

Only individuals with German citizenship were studied. The foreign population is quite heterogeneous and its composition is constantly changing, so comparison over time is not feasible (Lengerer and Klein 2007: 440).

Without filtering, the cumulated data cover information on about 3.9 million people. After restricting to German nationals aged 18 to 59 and living in private households, information on 1,718,590 people remained for the analytical sample.

Education. The central variable in our analysis is the highest general educational degree at the time of the survey. General education is classified according to ISCED-97 (Schroedter, Lechert, and Lüttinger 2006): low (primary and lower secondary; ISCED 0–2), medium (upper secondary and post-secondary; ISCED 3–4), and high (first stage of tertiary education and second stage of tertiary education, leading directly to an advanced research qualification; ISCED 5–6). Persons in vocational training were coded according to their highest educational degree at the time of interview.

Marital status. Marital status was recorded in the selected waves using the categories ‘never married,’ ‘married,’ ‘widowed,’ and ‘divorced.’ Within the age brackets that we analyzed, widowhood was very rare, so we do not discuss it in the main text but detail it in Figure A-13 in the Appendix. In 2006, the existence of a registered, same-sex civil partnership was surveyed for the first time. The term ‘registered civil union’ (in German ‘eingetragene Lebenspartnerschaft’) refers to a legal arrangement for same-sex partners that existed between 2001 and 2017 and was equivalent to marriage in most, but not all, legal regards. With the introduction of ‘real’ same-sex marriage in 2017, the construct of registered civil unions was rendered obsolete. In the years 2010 and 2015, 0.2% of sampled individuals lived in such a registered partnership. For comparability with previous waves, we assigned this category to never-married persons.

Partnership situation. The actual partnership status in which respondents lived at the time of data collection can be grouped into three categories: (1) married and living together with a spouse, (2) unmarried and cohabitating, and (3) not living with a partner. Nonmarital cohabitations have only been recorded in the Microcensus since 1996 with a direct question, the answer to which is voluntary. For the period before 1996 and in the case of item nonresponse, we follow the procedure proposed by the Federal Statistical Office for estimating them (Lengerer 2007). Accordingly, a non-marital, different- or same-sex partnership is assumed to exist if two persons at least 16 years old live in the same household, are neither married to each other nor directly related or related by marriage, and have an age difference of less than 18 years. If there are more than two persons in the household who have the above characteristics, no cohabitation is assumed because it is not possible to clearly classify partners. People who neither live with their spouse nor with an unmarried partner are coded as partnerless. Based on the available data on marital status and household composition, we were not able to identify living apart together (LAT) couples. We display results for the groups (2) unmarried and cohabitating, and (3) not living with a partner. Results for group (1) married and living together with spouse are not shown because they are almost identical to the married group according to the marital status definition.³

Family form/household composition. We analyze family form as determined by household composition. Except for the 2008 and 2012 surveys, in which women were asked about the number of their biological children, the Microcensus program contains no questions about the number of (biological) children. Thus, the recording of fertility in the utilized waves of the Microcensus is problematic from a demographic point of view. We can measure active parenthood, understood as the presence of children under the age of 18 living in the household (other available measures, e.g., number of children within the family form, are not comparable over the whole period of observation). This means that we cannot distinguish between physical and social (i.e., step, foster, or adoptive) parenthood (Lengerer, Janßen, and Bohr 2007). Further, if the children have already moved out of the parental household or live with the former (married) partner or elsewhere, their existence remains unknown. We first analyzed the share of people who live with children in the household, regardless of their marital and partnership situation. We then proceeded to show the three subgroups of people with children in the household: those with a spouse in the household, those with a partner in the household to whom they are not married, and those who do not have a partner living in their household.

³ Around 2.1% of people who are legally married are coded as partnerless. Some of these will be spouses living apart together (LAT), but it is likely that this group largely consists of people who have already separated but are not yet legally divorced. According to German law, people can generally only file for divorce after they have been separated and living in separate households for at least one year (§1565(2) BGB). Another 0.3% of people who are legally married are coded as nonmarital cohabitation. These are most likely people who have separated from their spouse and now live with a new partner.

Weighting and confidence intervals. In order to transfer the results based on the Microcensus scientific use files to the total population, the units of analysis were weighted following Lengerer et al. (2020). These weights account for unit nonresponse and adjust the sample to population values from the continuous population projection and the central register of foreigners concerning age groups, nationality groups, and gender (even though participation is compulsory, there is still some unit nonresponse of around 3% of households; Lengerer et al. 2020).

4. Results

4.1 Changes in education

Figure 1 shows the distribution of education using three categories by gender, 5-year age groups, and year. Overall, there is visible educational expansion, which is more pronounced among women than among men. For all age groups combined, 19.0% of men had a university degree in 1976; by 2019 that number had risen to 36.2%. Among women, the increase is even greater: The share of tertiary education increased more than fivefold, from just 5.6% to 31.2%. The medium educational category (upper secondary and post-secondary education) declined slightly among men but increased among women. In the age group 30–34, when most people have left the educational system, the share of those with tertiary education is the same among women and among men (41.7% for women and 41.5% for men).

4.2 Changes in marital status

Figure 2 shows the gaps in marital status by educational level. The top left panels show that men with low education were less likely to have been married than men with high education.

Figure 1: Educational distribution of men and women by age and year, Western Germany

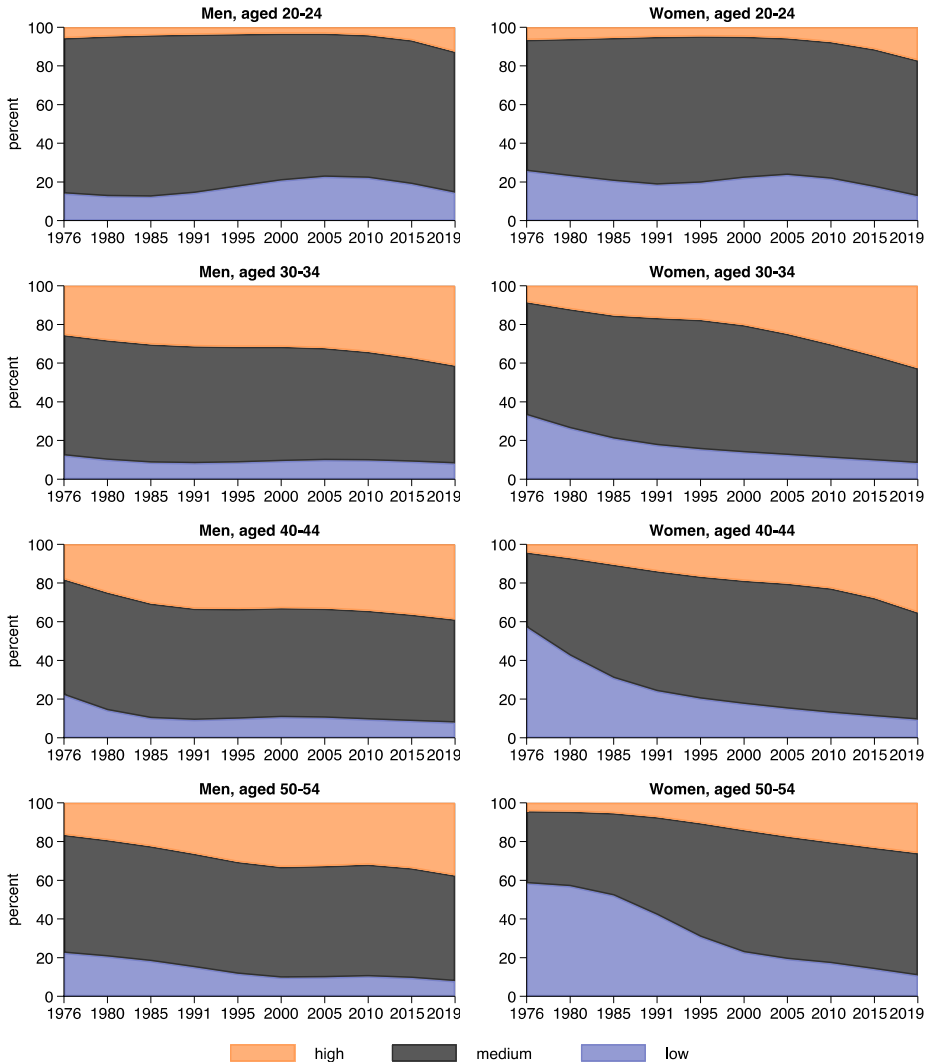
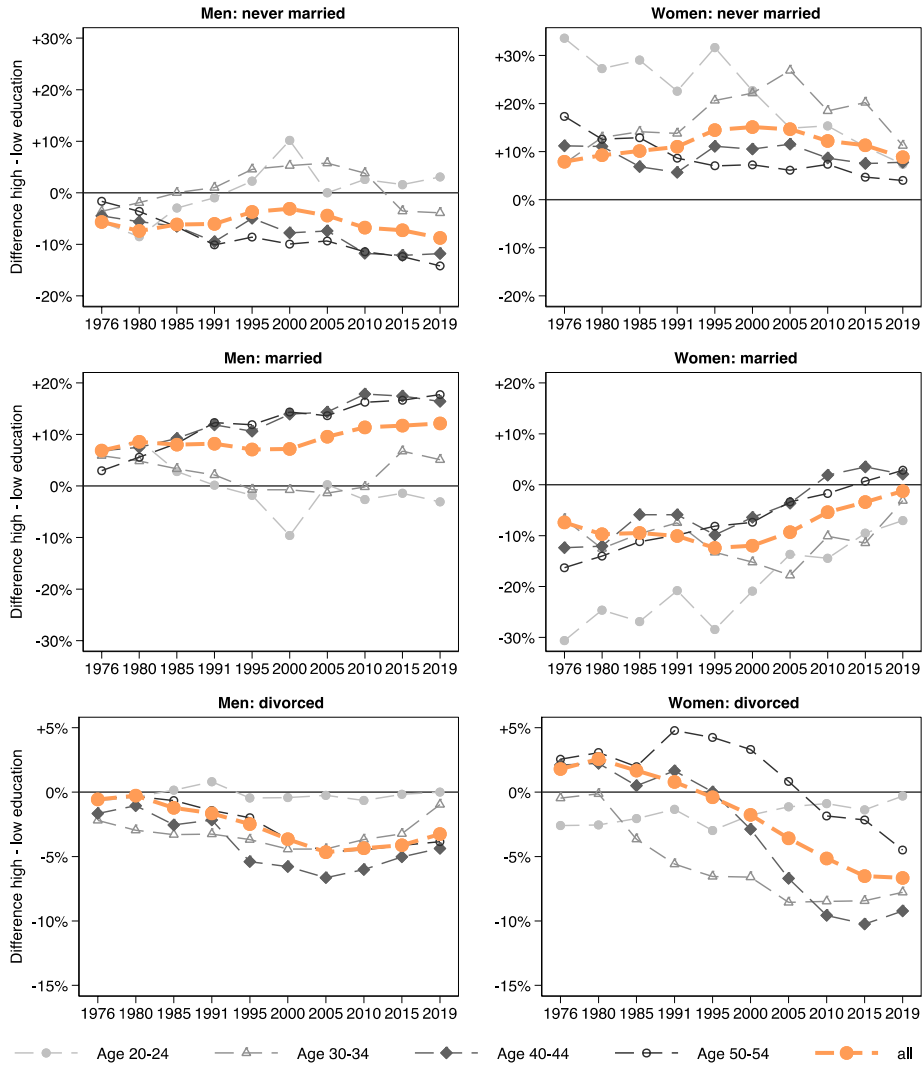


Figure 2: Educational gradients of women’s and men’s family status, Western Germany. People with high education are compared to people with low education



Throughout the entire observation period and for all age groups combined, men with higher education are less likely to fall into the ‘never married’ category. This difference is stronger among older men, where it is also increasing. The patterns differ for women: at all times and for all age groups, those with higher education are more likely to fall into the ‘never married’ category, without major changes over time.

Men with high education are more often married than men with low education. This gap is mainly driven by men aged 40+, where the educational gap has increased substantially. Among those aged 50–54, the educational gap increased from 3.0 percentage points in 1976 to 17.6 percentage points in 2019. Among men aged 20–24 and 30–34 there are no major educational gaps and no clear trends therein.

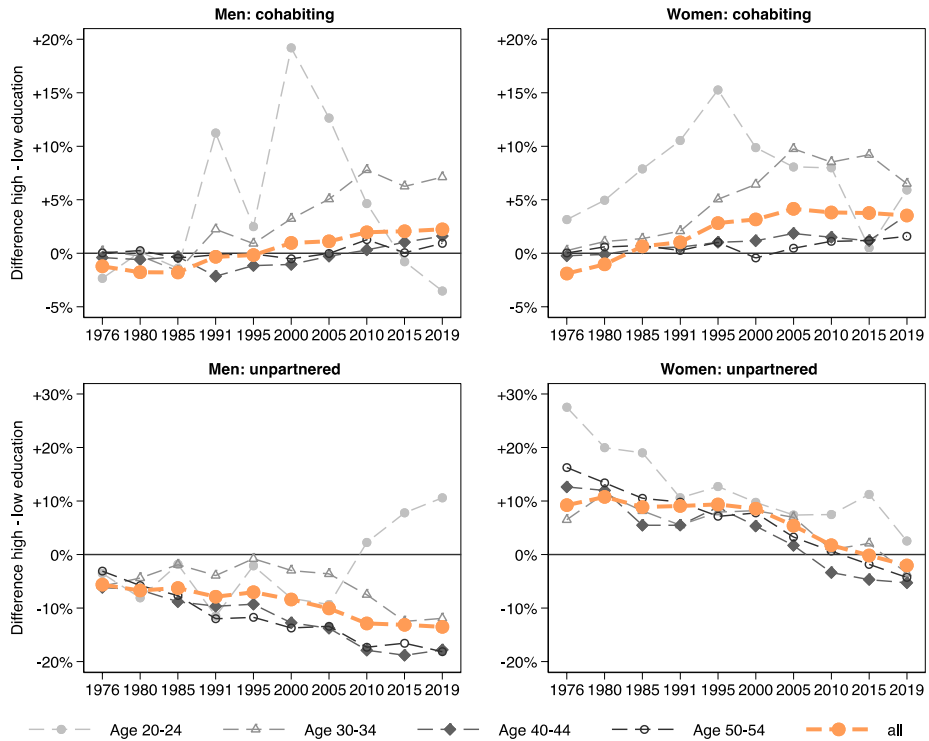
Among women, the picture shows both relevant differences and similarities. The difference is the level of educational differences, and the similarity is the change over time. In earlier periods, highly educated women had a substantially lower marriage rate than those with either medium or low education. Among women aged 40+, this gap has disappeared over time and even slightly reversed. For instance, among those aged 50–54, the educational gap has increased from minus 16.0 percentage points to plus 2.7 percentage points.

Until 1980, men with higher education were divorced as often as those with lower education. Over time the educational gradient changed and men with lower education are now more likely to be divorced. This pattern shows in all age groups 30+. For women’s educational gradient of divorce there are more differences between the age groups and more changes over time. For all age groups combined the educational difference changed from moderately positive to strongly negative. The pattern that those with higher education are less often divorced first showed in the younger age groups but is apparent in all age groups displayed since 2010.

4.3 Changes in partnership

Focusing on the trends in the formation and dissolution of marriages, as done so far, ignores the important distinction between two groups – those that cohabit and those that live without a partner. Figure 3 presents the shares for non-marital cohabitation and for living without a partner in the household (i.e., neither cohabitating nor marrying). Since the question for cohabitation and living alone was not asked until 2000, we estimated the share based on the household composition, following Lengerer, Janßen, and Bohr (2007).

Figure 3: Educational gradients of partnership situation, Western Germany. People with high education are compared to people with low education



In 1976, unmarried cohabitation was overall very rare, but has increased since almost linearly across all groups (see the Appendix, Figure A-6). Among the younger groups of women and men, those with higher education are somewhat more likely to cohabit, but educational differences are almost constantly close to zero for those aged 40+.

The proportion of partnerless men rose from 10.6% to 31.6% between 1976 and 2019, and that of partnerless women from 16.4% to 28.7% (Figure A-5 in the Appendix). Already in the mid-1970s there was a clear educational gradient among men: those with a low level of education were more likely to be without a partner than those with high education. Among women the pattern was the opposite: those with higher education were more likely to live without a partner. The trend is, however, the same among women and

men: the educational gradient has decreased, especially among the older groups. In 1976, men aged 50–54 with high education were 3.1 percentage points less likely to be unpartnered than those with low education, and in 2019, 17.9 percentage points less likely. The magnitude and direction of change are similar for women, but they started from a very different position. In 1976, women aged 50–54 with high education were 16.0 percentage points more likely to be unpartnered than those with low education, and in 2019, 3.8 percentage points less likely.

4.4 Changes in family form and household composition

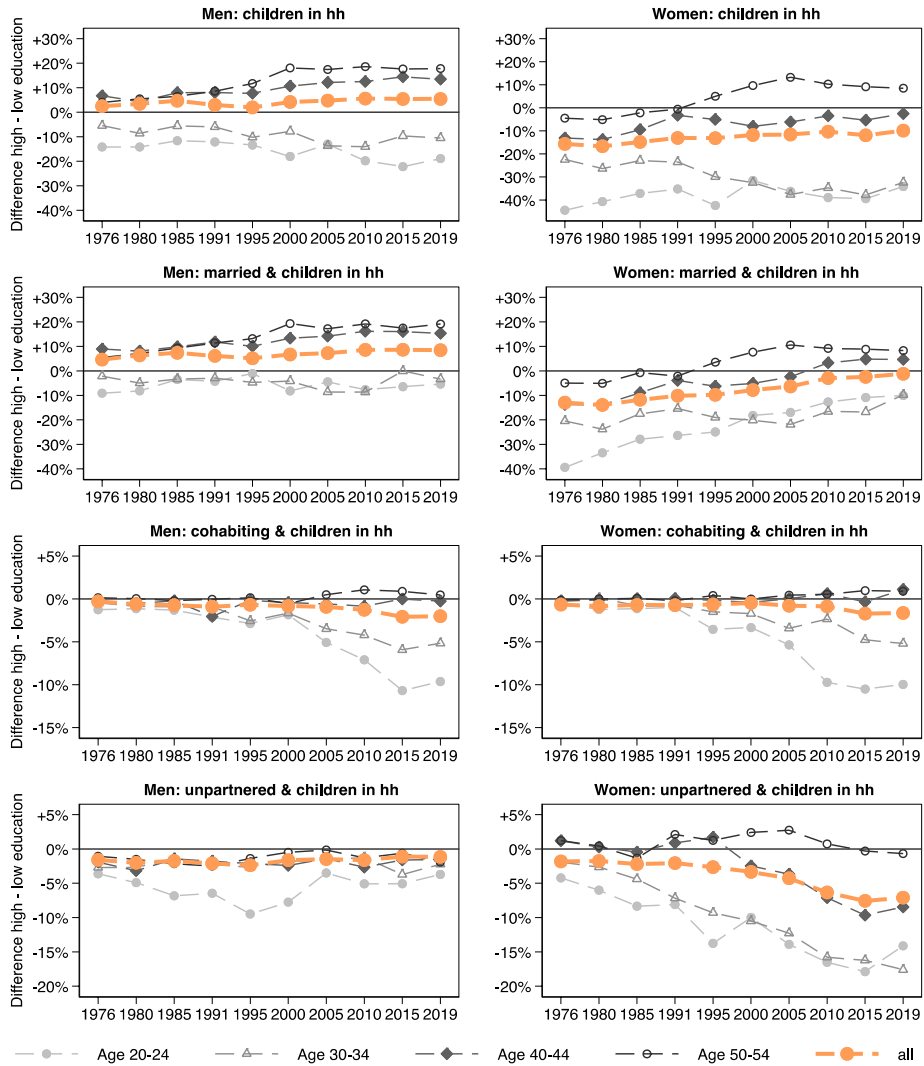
Life circumstances differ strongly depending on the presence of children in the household – which can occur in all types of legal marital statuses and partnership forms (Figure 4).

What is apparent across genders and periods are the large age differences: the older the individuals, the more higher education is associated with having children in the household, i.e., with active parenthood. For all age groups combined, women with higher education are considerably less likely and men slightly more likely to have children in the household. Over time, there is a trend towards a more positive educational gradient among women and men, which is mainly driven by those aged 40+.

Living in a household with a spouse and children constitutes the traditional family, and it is becoming less common (Figure A-10 in the Appendix). For men and all ages combined, those with higher education are more likely to live in a household with a spouse and children. For the two younger age groups the educational gap is negative and roughly constant; for the two older age groups it is positive and increasing. In 1976, men aged 40–44 with high education were 8.9 percentage points more likely to live in a household with a spouse and children, and in 2019, 15.2 percentage points more likely. Among women in 1976 there was a negative educational gap in all age groups. Over time the educational gradient has increased in all age groups. For the age group 40–44, those with higher education were 14.0 percentage points less likely to live in that household constellation in 1976 and 3.6 percentage points more likely to do so in 2019.

The group of those cohabitating with children in the household includes families that live in a modified version of the traditional family, as well as different types of patchwork families. Despite an increase over time, this group is still relatively small (below 5% across genders and age groups, Figure A-9 in the Appendix). For this household form, educational differences only show in recent years among younger women and men, where it is more common among those with lower education.

Figure 4: Educational gradients of women’s and men’s family form/household composition, Western Germany. People with high education are compared to people with low education



Single parenthood is much more common among women than men (see Figure A-12 in the Appendix). Single motherhood is substantially and increasingly prevalent among women with lower education. For example, in the age group 30–34 in 2019, about 1 in 5 women with low education were single mothers, compared to only 1 in 30 women with high education (see Figure A-12 in the Appendix). Among men, single fatherhood is also more prevalent among those with lower education, but there are no clear changes over time.

5. Summary and discussion

5.1 Main findings: Expected and observed empirical patterns

Table 1 offers a brief summary of the extensive analyses. There are some instances where a certain table cell entry might be ambiguous, e.g., when associations are not equal in all age groups or when the medium-education group does not lie between the high- and low-education groups. This endeavor is undeniably interpretative, and it might be that another researcher would consider a different coding to be more appropriate for certain cell entries.

How do the main results contrast with our theoretical elaborations and hypotheses? For men, we expected that at the beginning of the observation period, when Western Germany was a male-breadwinner society, higher education would be associated with higher marriage rates, having children in the household, and lower rates of being divorced and not being partnered (Hypothesis 1). The results are mainly in line with this. Men with higher education were more likely to be married, less likely to be divorced, and less likely to be partnerless, though some of these associations are relatively small, and there is no clear association between education and having children in the household. For women, we expected the reverse association (Hypothesis 2): Women with higher education were less likely to be married, more likely to be partnerless, and more likely to live without children.

Over the period of observation, as Western Germany moved away from the male-breadwinner model, we expected that women's and men's higher education would become increasingly associated with higher marriage rates, having children in the household, lower divorce rates, and higher rates of being partnered. For women, this was expected to lead to a convergence – and possibly reversals – in the educational gradient (Hypothesis 3), and for men to a divergence of family outcomes by education (Hypothesis 4). Among women, there was convergence by education when it came to being married and living with a partner, and divorce increasingly became associated with lower education levels. However, there was no clear change in the educational gradient

of living with children. Women with lower education continued to have children in the household more often. In the group of women living with children, the educational gradient moved toward positive in the children-and-married group and became substantially more negative in the single-mothers group. Single motherhood grew dramatically among young women with low education. In conclusion, women's higher education is increasingly associated with stable forms of partnership but not with rates of children in the household.

Table 1: Synthesis of observations (period and, in particular, age-period analyses), Western Germany

	Educational gradient in 1976		Change in educational gradient over time	
	Males	Females	Males	Females
Marital status				
Never married	-	++	↘	→
Married	+	--	↗↗	↗↗
Divorced	-	+	↘↘	↘↘↘
Partnership situation				
Cohabiting	0	0	↗	↗
Partnerless	-	++	↘↘↘	↘↘↘
Family form / household composition				
Children in HH	0	--	↗	→
Children and spouse in HH	+	--	→	↗↗
Children and unmarried partner in HH	0	0	↘	↘
Children and no partner in HH	-	-	→	↘↘

Notes: + / ++ / +++ [- / - / - -]: weak / moderate / strong positive [negative] educational gradient. People with higher education are more [less] likely to experience this outcome than people with lower education.

0: No substantial educational gradient.

↗ / ↗↗ / ↗↗↗ [↘ / ↘ / ↘↘ / ↘↘↘]: weak / moderate / strong change in the educational gradient, in the direction towards a positive [negative] educational gradient.

→: No substantial change in the educational gradient.

Among men in Western Germany, we observe the expected divergence in family outcomes by level of education. Those with low education were increasingly more likely to remain partnerless and unmarried. These findings support the thesis of the marriageable man, which states that men with lower education levels and poor long-term economic prospects are increasingly seen as unattractive partners (Konietzka and Kreyenfeld 2017; Oppenheimer 1994). Divorce is also increasingly associated with low education among men. Further, there is an emerging pattern that men with higher education become more likely than their lower-educated counterparts to live in a household with children. In sum, results clearly support our fourth hypothesis: men's partnership and family situations strongly diverge based on educational level.

5.2 Limitations

The German Microcensus is an excellent resource because it spans almost four decades, has a very large sample size, and is representative because participation is mandatory. However, the data – and subsequently our analysis – also have limitations.

Our analysis focuses on individuals, not couples, and only includes data on legal marital status and on household composition. This means that the growing number of partnerships without a common household cannot be identified. Such living apart together (LAT) is especially widespread among young people, where it is often transitional, but is also common among other groups such as divorcees (Ermisch and Siedler 2009). In consequence, even those in long-lasting, close, and binding relationships – but not co-residential partnerships – are coded as partnerless (Lengerer 2007).

With the exception of women in 2008 and 2012, we were unable to study the number of children that a person has given birth to or fathered; we only have information on the presence of children in the household. The number of own children might be higher or lower than the number of children in the household. Own children might have moved out of the household or live with a previous partner/spouse, and children in the household might not be own children but, for example, the children of the partner. On average, this underestimates the number of children in the Microcensus. This may further distort educational differences, particularly because women and men with high education often have children later in life (Lengerer, Janßen, and Bohr 2007).

Finally, this study excludes non-Germans living in Germany and does not distinguish between Germans with or without a migration background. On average, foreigners and Germans with a migration background have lower rates of education, higher rates of marriage, and are more likely to live in homes with children than Germans without a migration background (Destatis 2018). However, that group is highly diverse in terms of cultural background, age-structure, education, and family behavior (Cygan-Rehm 2014; Destatis 2018; Haug 2003; Naderi 2015). Future research could provide a systematic overview of the educational gradient of family behavior in different migration groups and how they changed over time.

5.3 Conclusions

This paper, using data from the German Microcensus on more than 1.5 million individuals, provides a comprehensive and thorough overview of four decades of family change in Germany. Following Esping-Andersen (2016), we used the umbrella terms of ‘more family’ and ‘less family’ as heuristics for various interrelated outcomes in the

partnership and family domain that we studied. We employed both a period and an age-period perspective. Germany is Europe's most populous country and in recent decades has undergone major changes in gender relations, family patterns, family policy, and educational system. We believe that this birds-eye analysis of family changes, which was not available before, can serve as a basis for future studies focusing on testing the mechanisms behind these associations.

For the male-breadwinner society of 1970s West Germany, we expected men's higher education to be associated with 'more family' and women's higher education to be associated with 'less family.' These expectations were based on the idea that in male-breadwinner societies, where women and men have dissimilar roles, education might correlate dissimilarly with the family-related outcomes of women and men. Among others, this was based on the idea that women's and men's search criteria in the partner market differ in societies where women's and men's gender roles are generally very dissimilar (Zentner and Eagly 2015; Zentner and Mitura 2012). The observed patterns are in line with these predictions. As shown in the synthesis in Table 1, the educational gradient for several family and partnership outcomes was the opposite for women and men.

Over the decades, the relevant social and economic context has changed. Women have leveled up in terms of education and increased their labor force participation, returns to education have increased, and gender roles in the household have become more egalitarian. With these changes and based on previous research and contemporary theories, we hypothesized that women's and men's search criteria in the partner market would become more similar and that education would become an increasingly valuable asset in the partner market. Hence, we expected women's and men's higher education to be increasingly linked with 'more family.'

In line with this prediction, we find that higher education of women and men is increasingly associated with higher rates of living with a partner, being married, and living with a partner and children, and lower rates of being divorced, partnerless, or a single parent. For men, most of these associations existed in the 1970s, but in the main they have become more pronounced since. Until the 1990s, women with high education were less likely to be married and more likely to live without a partner. It seems that women had to choose between education and career on the one hand and partnership and marriage on the other. This appears to be no longer the case. The educational gaps in partnership and marriage have closed, and divorce is now consistently more common among women with lower education. If the observed trends continue, in the near future women with lower education will remain partnerless more often. Women with higher education are still considerably more likely to remain childless and have fewer children on average. However, there are relevant changes within the group of mothers. In the past, those with medium or low education were overrepresented among married mothers, but

this is no longer the case. Today, those with medium or low education are only overrepresented among single mothers – a family form that is associated with greater financial strain and lower well-being (Brady and Burroway 2012; Meier et al. 2016; Stanca 2012).

These findings on multiple outcomes from large-scale and high-quality data generally confirm previous research and theorizing on social inequalities and family life (e.g., Cherlin 2016; Esping-Andersen 2016; Härkönen and Dronkers 2006; Kalmijn 2013; Kravdal and Rindfuss 2008; Trimarchi and Van Bavel 2017). The changes observed here point toward a future in which advantage and disadvantage in education, the labor market, and the family increasingly accumulate, creating growing inequalities that typical economic measures do not capture. Education is increasingly becoming a generalized life resource (Konietzka and Kreyenfeld 2017). Those with higher education are not only winners in the labor market but are also increasingly more likely to achieve those partnership and family outcomes to which the majority of young people aspire.

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Appendix

Figure A-1: Percentages of men and women aged 18–59 by marital status, education, and year, Western Germany; 99% confidence intervals

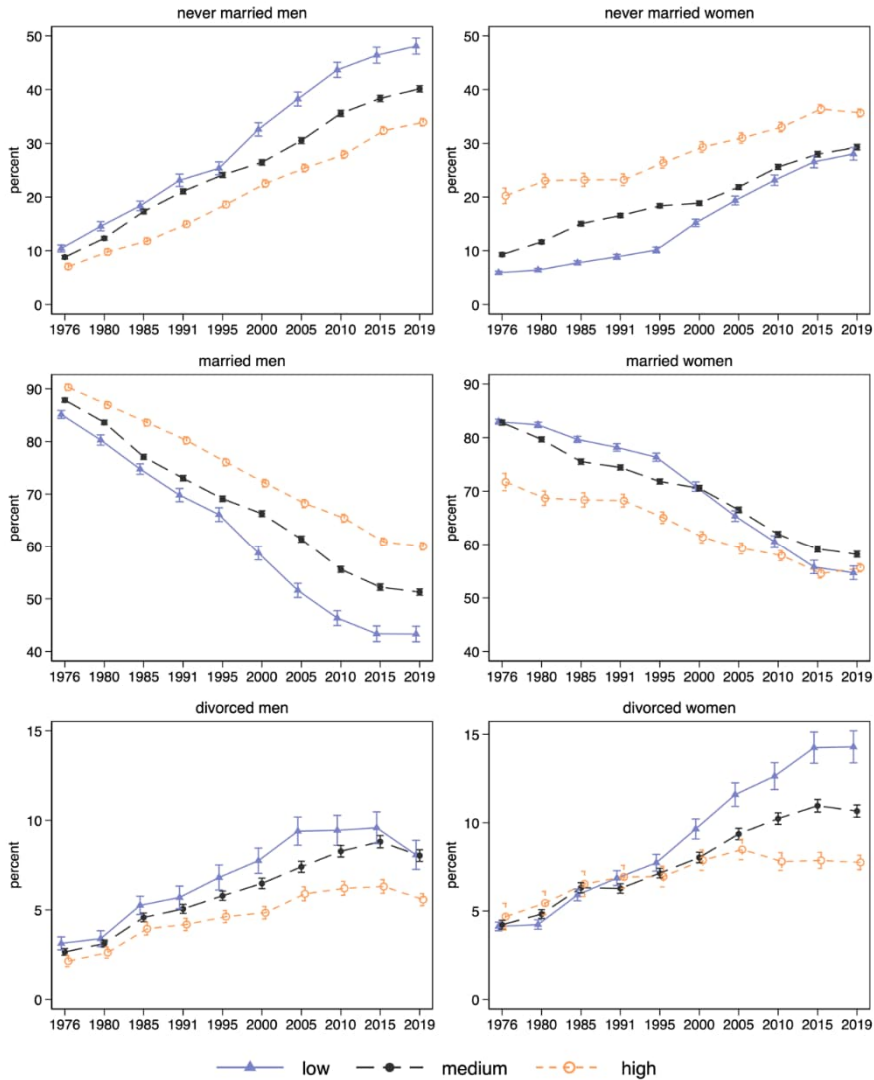


Figure A-2: Percentages of never married men and women, by age, education, and year, Western Germany; 99% confidence intervals

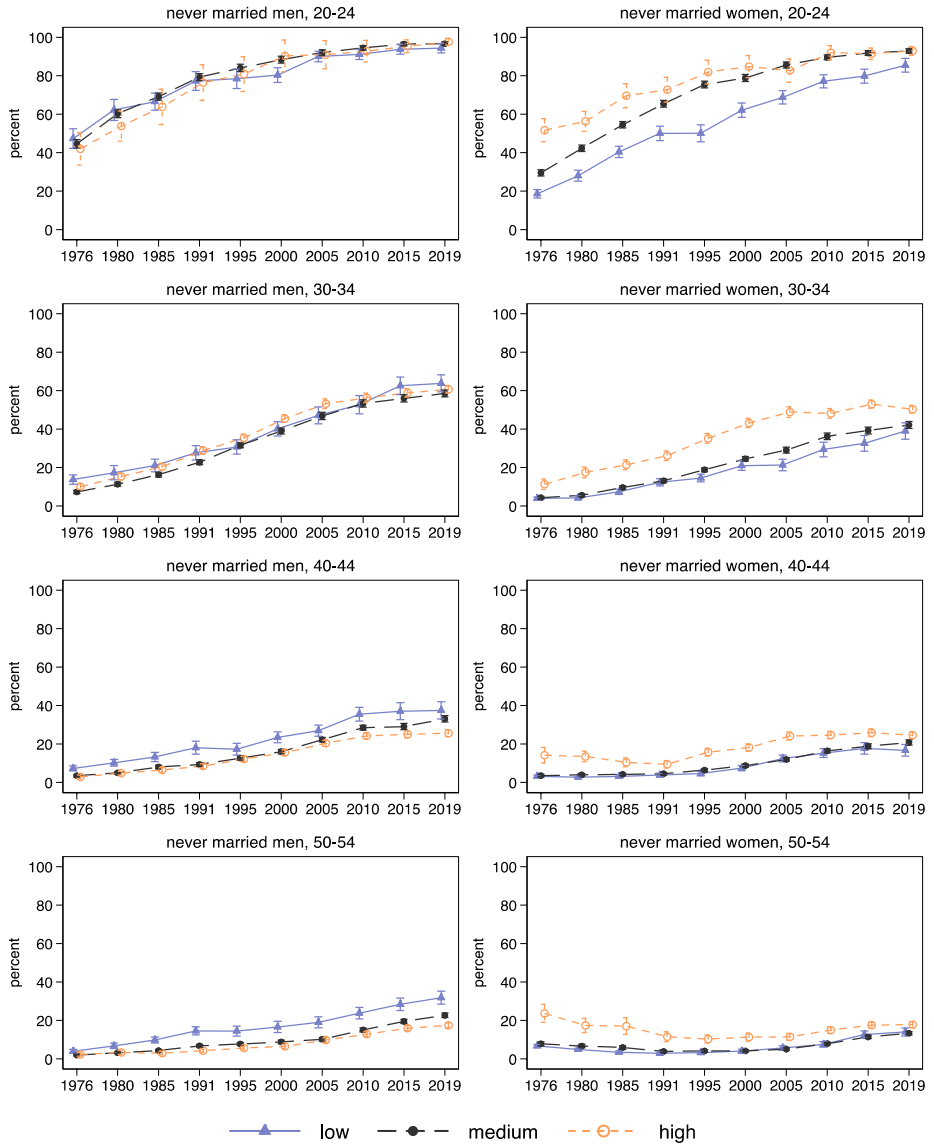


Figure A-3: Percentages of married men and women by age, education, and year, Western Germany; 99% confidence intervals

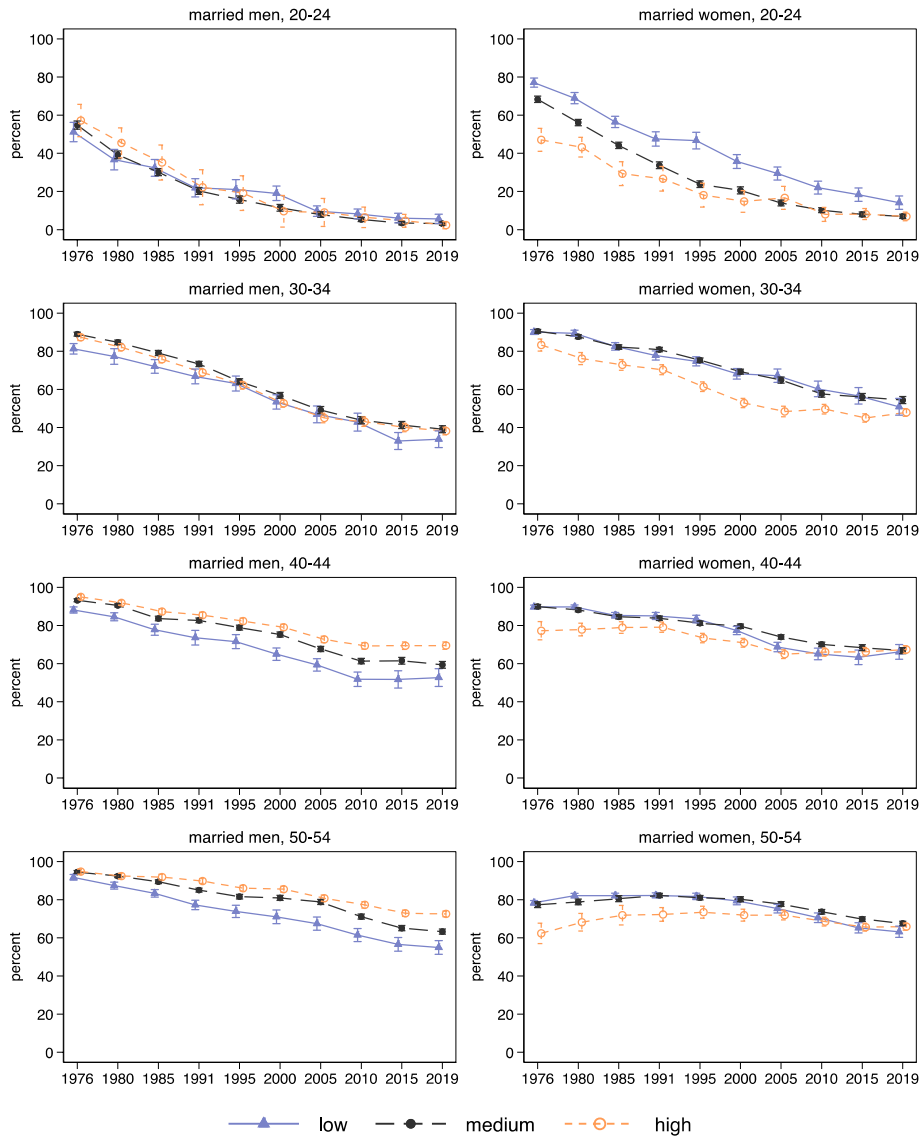


Figure A-4: Percentages of divorced men and women, by age, education, and year, Western Germany; 99% confidence intervals

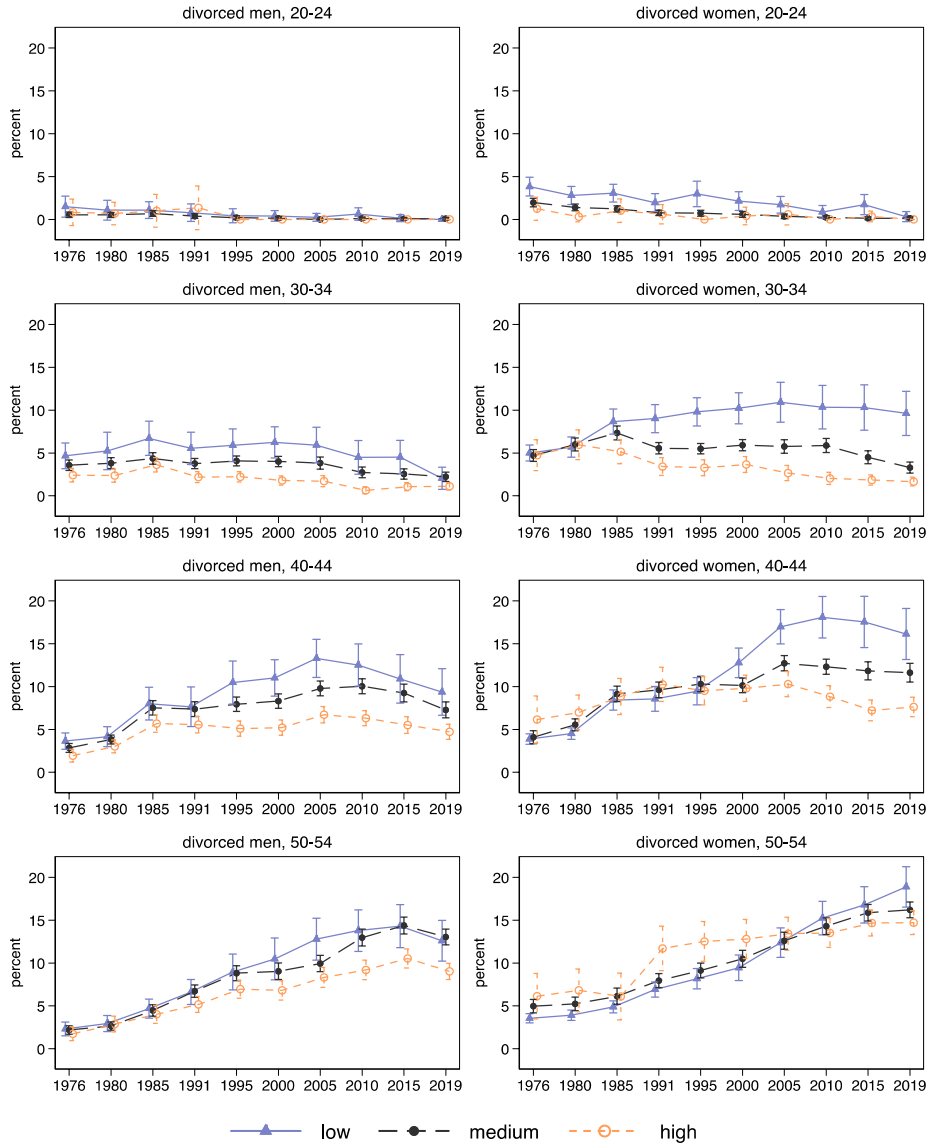


Figure A-5: Share of cohabiting and partnerless men and women aged 18–59 by education and year, Western Germany; 99% confidence intervals

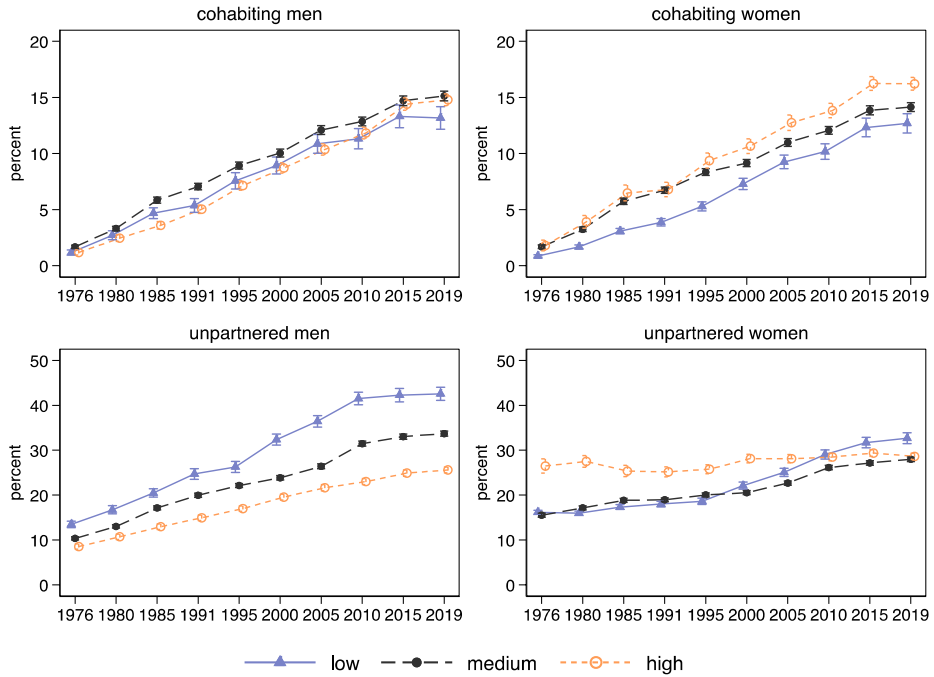


Figure A-6: Share of cohabiting men and women by age, education, and year, Western Germany; 99% confidence intervals

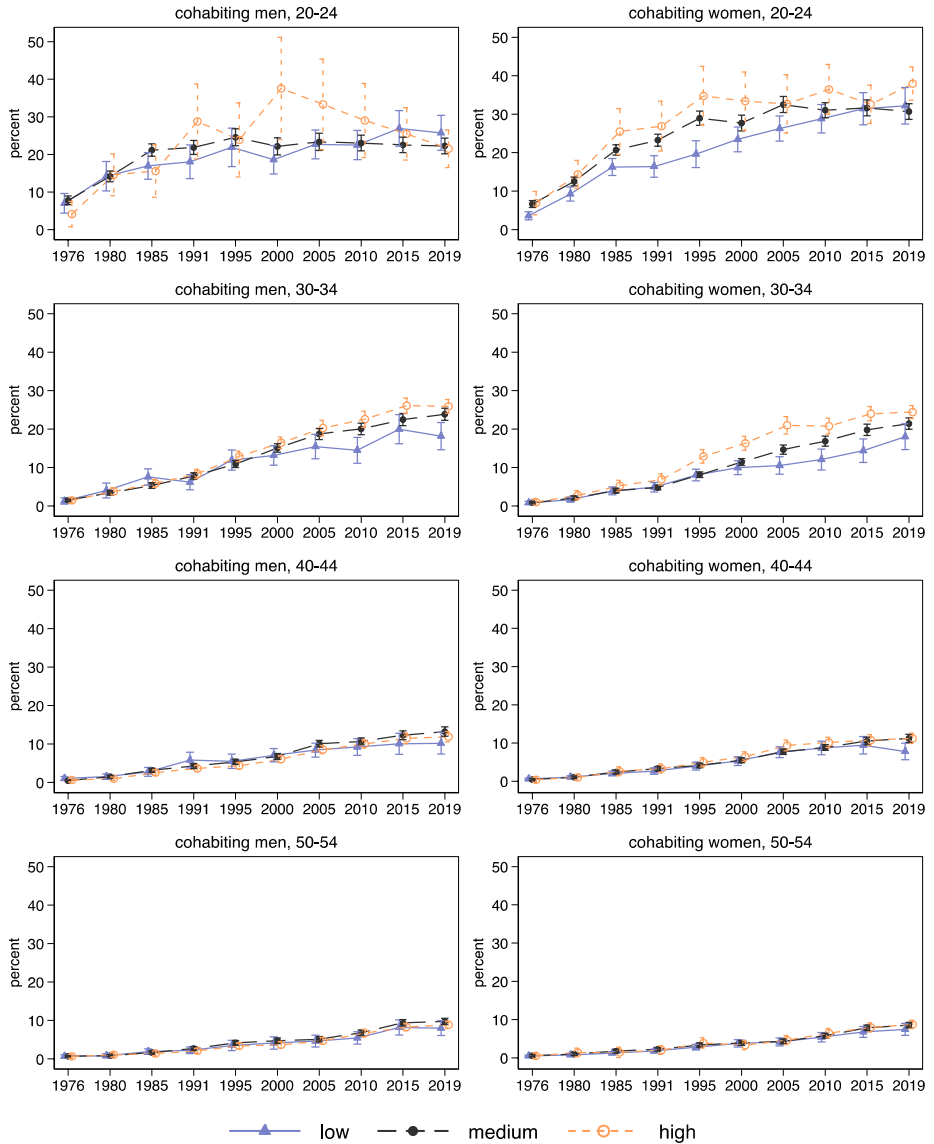


Figure A-7: Share of men and women without partner in the household, by age, education, and year, Western Germany; 99% confidence intervals

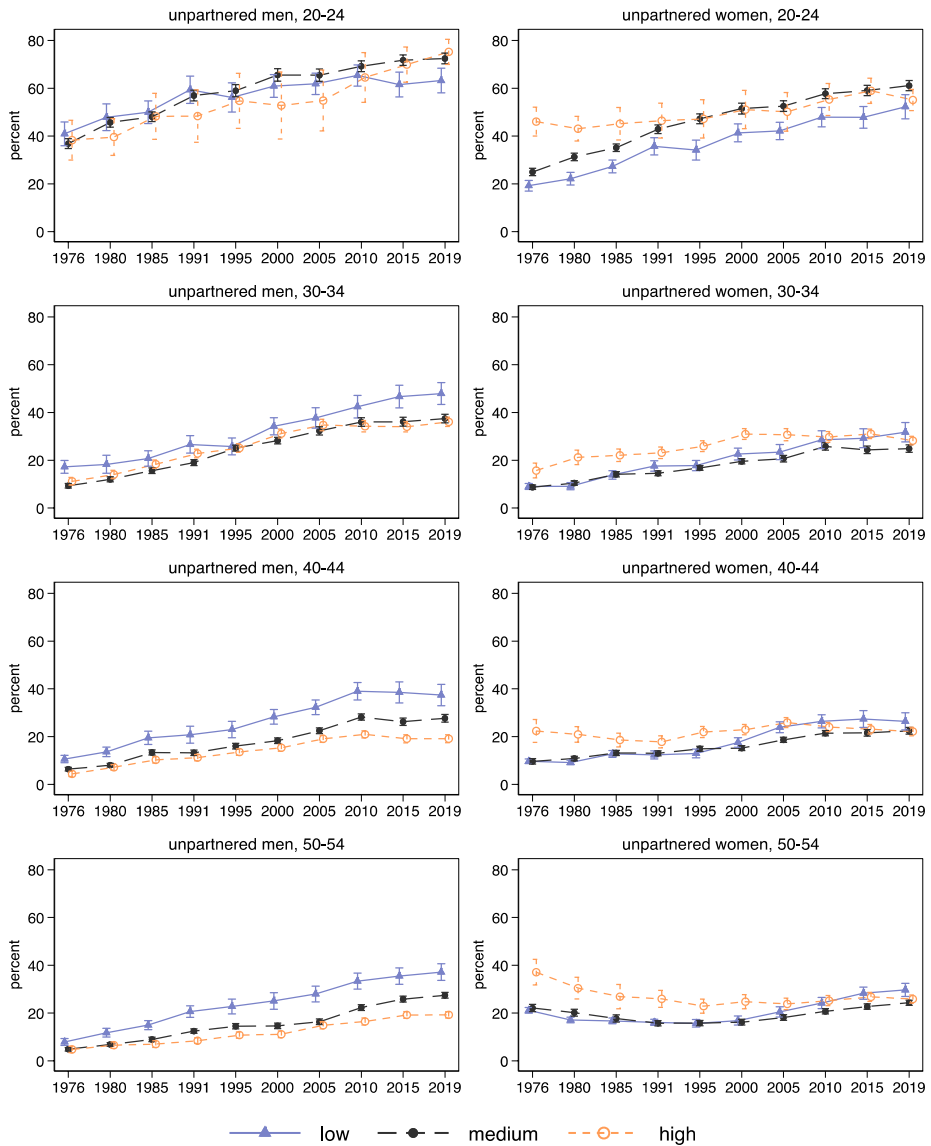


Figure A-8: Share of men and women with children by age, education, and year; 99% confidence intervals

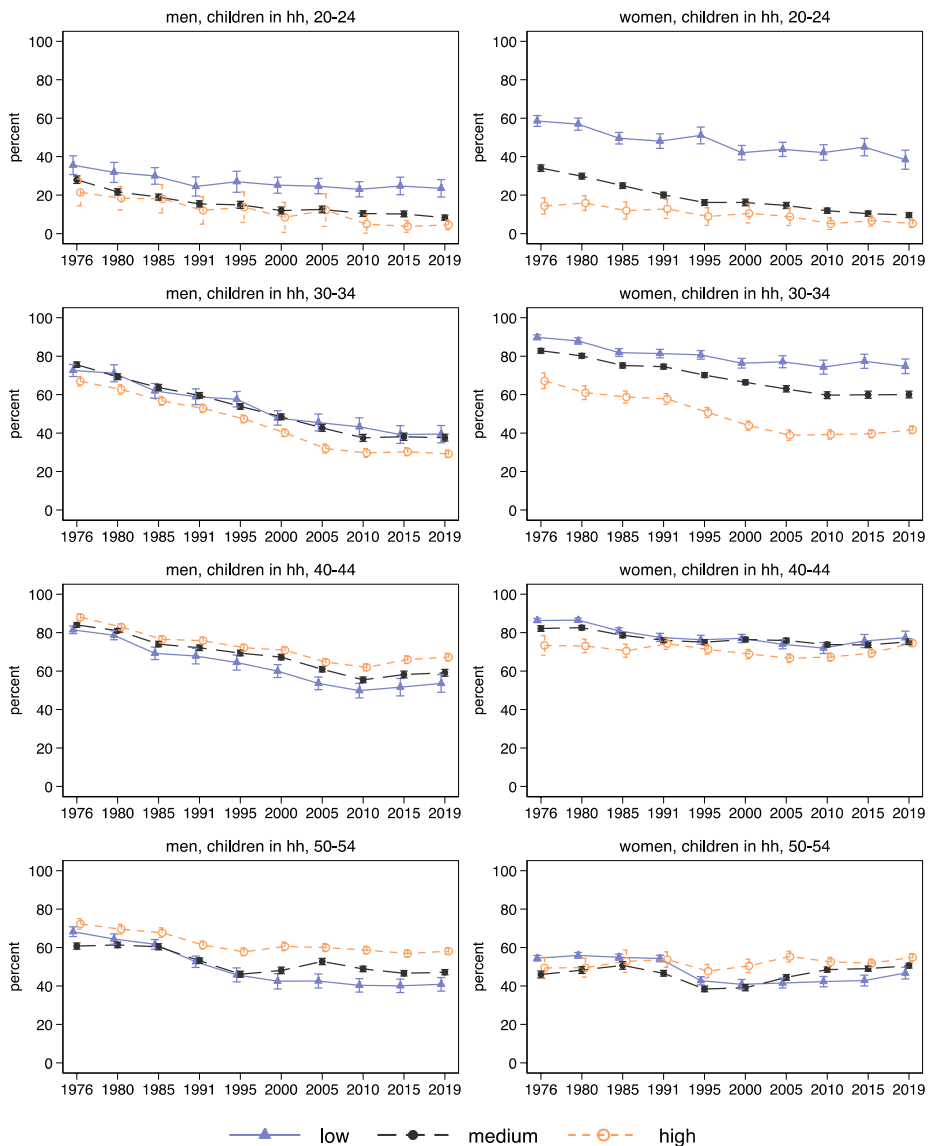


Figure A-9: Share of married, cohabiting, and partnerless men and women aged 18–59 with children in the household by education and year, Western Germany; 99% confidence intervals

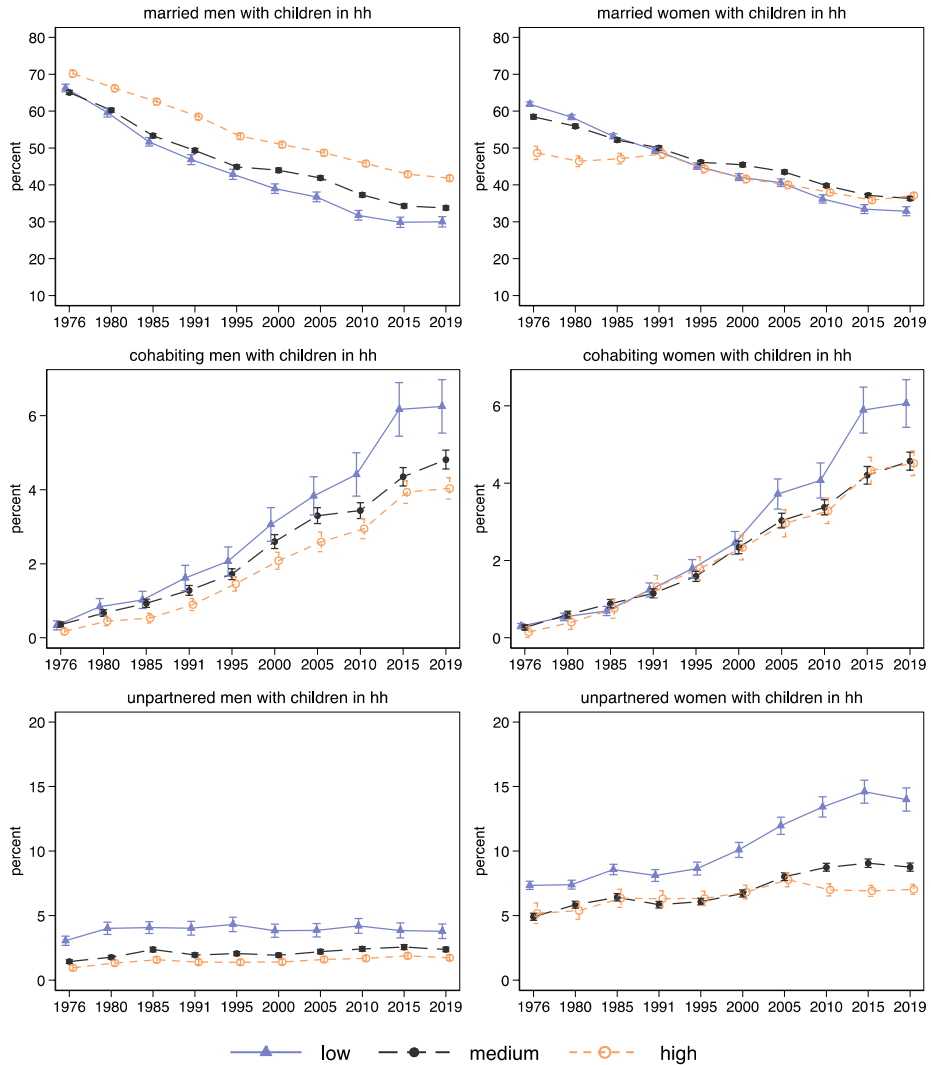


Figure A-10: Share of married men and women with children in the household by age, education, and year, Western Germany; 99% confidence intervals

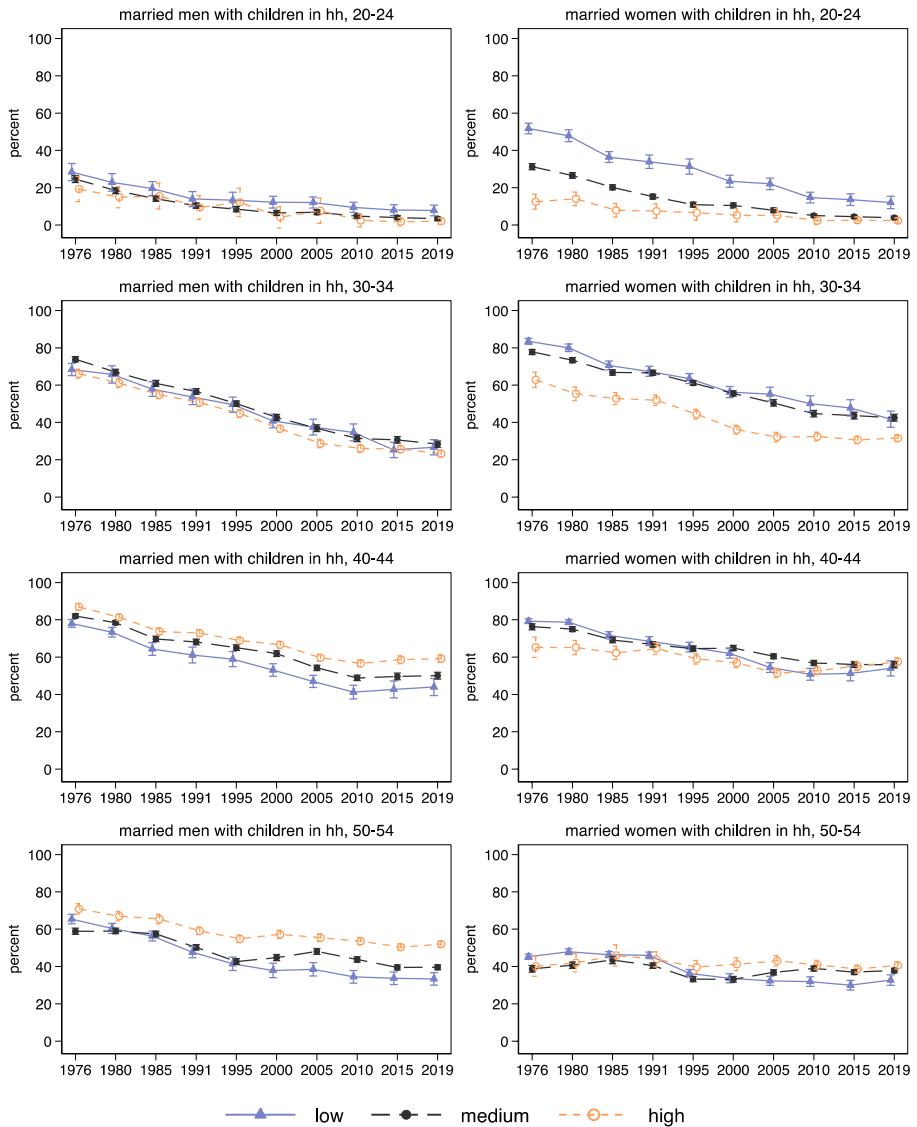


Figure A-11: Share of cohabiting men and women with children in the household by age, education, and year, Western Germany; 99% confidence intervals

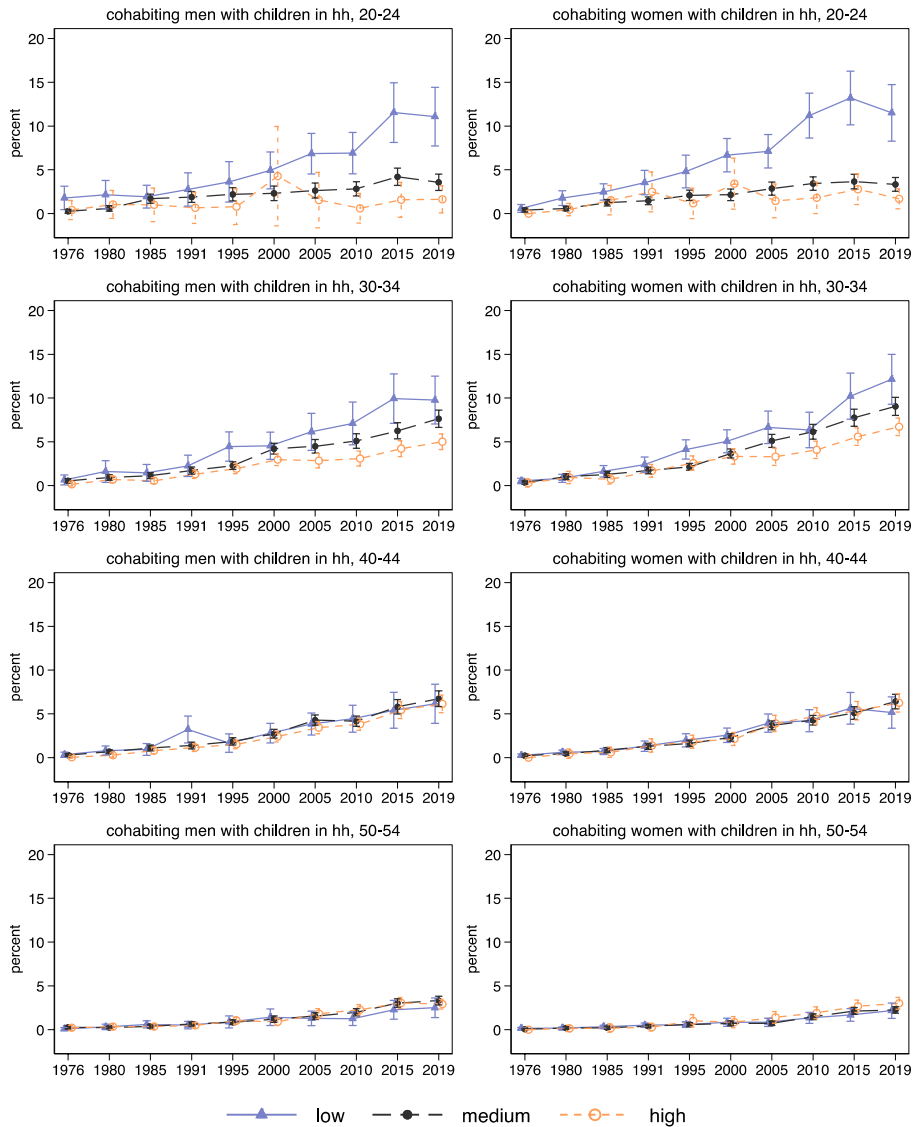


Figure A-12: Share of partnerless males and females with children in the household by age, education, and year, Western Germany; 99% confidence intervals

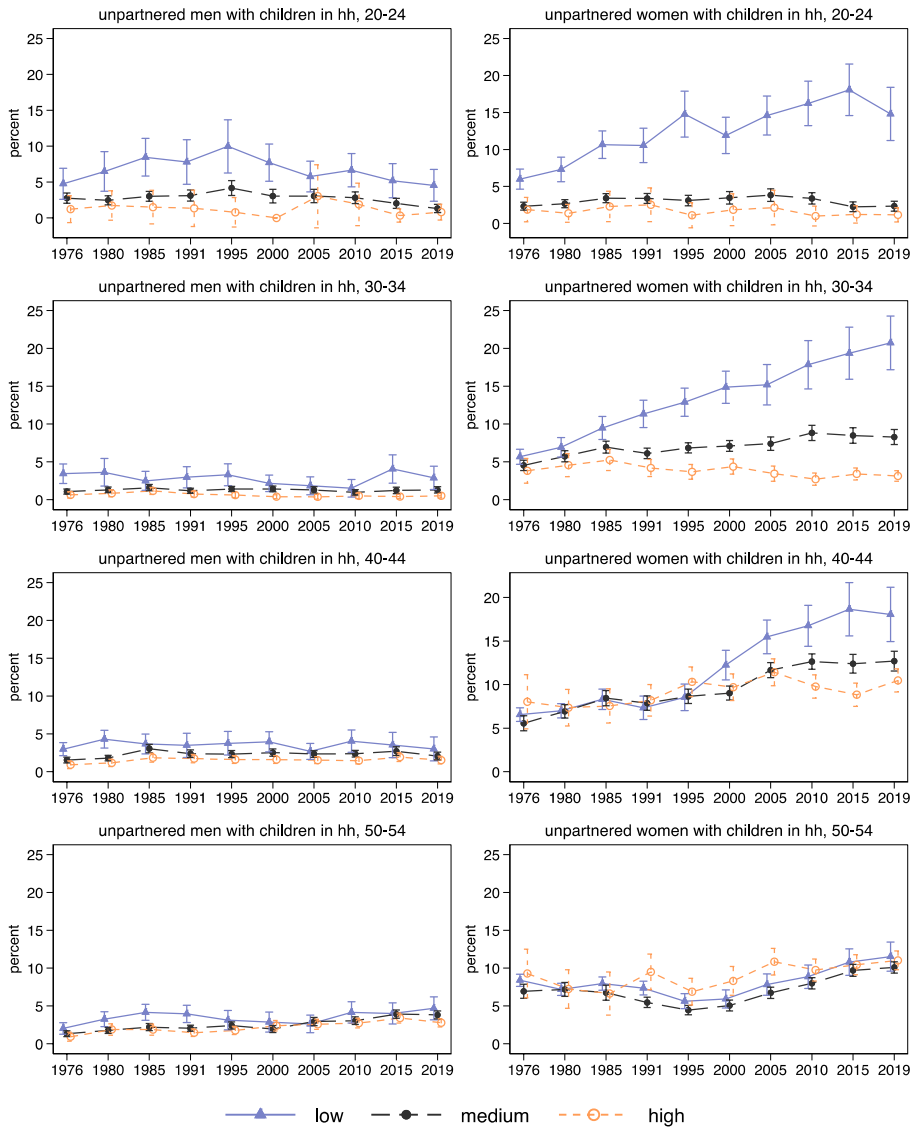


Figure A-13: Percentages of widowed men and women, by age, education, and year, Western Germany; 99% confidence intervals

