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# Relative education, parenthood, and couples' division of paid work<sup>1</sup>

## Evidence from German census data

### Relative Bildung, Elternschaft und Aufteilung der Erwerbsarbeit – Belege aus dem deutschen Mikrozensus

#### Abstract:

Educational expansion, the massive increase of women's labor force participation, and assortative mating have reduced asymmetries in educational achievements and in career resources between women and men in virtually every Western society. This paper provides an analysis of the association between partners' education, parenthood, and spouses' relative labor supply in East and West Germany. Education is considered from two angles: as an indicator for resources on the labor market or as an indicator for gender attitudes. We apply cross-sectional data from the 2011 German Microcensus, comprising 57,366 couple households. For our estimations, we use General Linear Models. Because of high case numbers, we are able to estimate several interaction effects in statistical powerful detail. We find that (1) a woman's share of paid work is higher, the higher she is educated; (2) women with higher education than their male partners realize higher shares of relative employment (in comparison to other women); (3) women rarely realize a share of 50% or

#### Zusammenfassung:

Entwicklungen wie die Bildungsexpansion, die zunehmende Arbeitsmarktteilnahme von Frauen sowie die Homophilie in der Partnerwahl haben bestehende Bildungsasymmetrien zwischen Männern und Frauen in westlichen Gesellschaften deutlich reduziert. Der vorliegende Beitrag liefert für Ost- und West-Deutschland eine Analyse des Zusammenhangs zwischen der Bildung der Partner, deren Elternschaft sowie deren Erwerbsanteilen im Paar. Relative Bildung kann hierbei sowohl als Indikator für Arbeitsmarktressourcen als auch für Geschlechterrolleneinstellungen interpretiert werden. Die Analysen basieren auf den Daten des deutschen Mikrozensus 2011 mit insgesamt 57.366 Paarhaushalten. Für die Schätzung der weiblichen Erwerbsanteile werden Allgemeine Lineare Modelle herangezogen. Aufgrund der hohen Fallzahl ist die Berücksichtigung von Interaktionseffekten möglich. Die Befunde zeigen, dass (1) der Erwerbsanteil von Frauen umso höher ist, je höher ihr eigenes Bildungsniveau ist; (2) Frauen, die einen höheren Bildungsabschluss als ihr Mann aufwei-

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1 This study was funded by the Bavarian State Ministry of Labor and Social Affairs, Family and Integration within the yearly working program of the State Institute for Family Research (ifb) at the University of Bamberg (Project "ifb-Familienreport 2015"). The content of this article does not reflect the official opinion of the Bavarian State Ministry of Labor and Social Affairs, Family and Integration. Responsibility for the information and views expressed herein lies entirely with the authors. Earlier versions of this paper were presented at the European Population Conference of September 2, 2016, in Mainz, Germany (Session 73, Families and gender) and at the Congress of the European Society on Family Relations on September 2, 2016, in Dortmund, Germany (Session WS26, Work and family life IV).

higher on average in any educational composition; (4) especially young children have a huge impact on women's labor supply; and (5) women's comparative educational advantages are more important for their share of paid work in West than in East Germany. Neither interpretation of relative education can explain the overall picture of couples' division of paid work alone. Depending on parenthood, the age of the youngest child in the household, and the regional context, either normative, or economic exchanges between partners seem to drive the association between relative education, and relative labor supply of women. We demonstrate the usefulness of two theoretical approaches of framing education as an explanatory concept.

**Key words:** relative education, division of paid work, relative labor supply, parenthood, labor market resources, normative context, East Germany, West Germany

sen, zeigen im Vergleich zu anderen Frauen die höchsten Erwerbsanteile; (3) Unabhängig von der relativen Bildung im Paar erreichen Frauen im Durchschnitt in aller Regel keinen Erwerbsanteil von 50%; (4) Vor allem junge Kinder zeigen einen großen Einfluss auf den Zusammenhang zwischen relativer Bildung und relativer Erwerbsbeteiligung; (5) Bildungsvorsprünge von Frauen gegenüber ihren Partnern sind für ihre Erwerbsanteile in West-Deutschland von höherer Bedeutung als in Ost-Deutschland. Keine der beiden Interpretationen von Bildung erklärt allein die Aufteilung der Erwerbsarbeit im Paar. Je nach Präsenz und Alter des jüngsten Kindes sowie dem regionalen Kontext trägt die ökonomische oder wertorientierte Perspektive mehr oder weniger stark zur Erklärung des Arbeitsarrangements bei. Dabei konnten wir auf die Nützlichkeit der zwei theoretischen Rahmungen von Bildung als erklärendes Modell hinweisen.

**Schlagwörter:** relative Bildung, Aufteilung der Erwerbsarbeit, relatives Arbeitsangebot, Elternschaft, Arbeitsmarktressourcen, normativer Kontext, Ost-Deutschland, West-Deutschland

## 1. Introduction

Educational expansion, the massive increase of women's labor force participation, and assortative mating are three of the last decades' most important socio-demographic trends. Developments such as these have reduced asymmetries in education and thus in career resources between women and men in virtually every Western society (Blossfeld/Drobnič 2001). Further, gender role attitudes have become much more liberal in these countries in recent decades (Brooks/Bolzendahl 2004; Lee et al. 2007; Scheuer/Dittmann 2007). At the same time, research has shown persisting inequalities regarding the division of labor within heterosexual couples (Blossfeld/Drobnič 2001; Kühhirt 2012; Hipp/Leuze 2015; Steiber et al. 2016). This has been particularly true for Germany with its still pervasive – albeit regionally varying between West and East Germany – societal notion of a traditional family model (Pfau-Effinger 2004; Budig et al. 2012; Eicher et al. 2016). We draw on the supposed 'dissonance' between reduced asymmetries in resources and persisting gender gaps in labor market participation, and provide an analysis of the association between partners' relative education, parenthood, and spouses' relative labor supply in West and East Germany.

There is certain agreement in the literature that labor market outcomes depend on both partners' resources, especially on education which has been shown to be strongly predictive for men's and women's labor market participation (Blossfeld/Drobnič 2001; Konietzka/Kreyenfeld 2010). Most research on labor market participation has focused on

the association between individual educational achievement of one or both partners, and the labor supply – i.e., weekly hours in paid labor – of one or both partners (Steiber/Haas 2009; Konietzka/ Kreyenfeld 2010; van der Lippe et al. 2011; England et al. 2012). Other studies have explicitly considered the impact of relative education on individual working hours (Sanchez/Thomson 1997), or the association between the woman's educational level, and her relative labor supply (Hipp/Leuze 2015). Apart from the studies of Eeckhaut et al. (2014), Steiber et al. (2016), Berghammer (2014) and Brynin/Schupp (2000), there is a clear lack of knowledge about the association between relative education and relative labor supply in couples. Further, research has documented the pervasive relevance of parenthood (Drobnič et al. 1999; Fouarge et al. 2010; Kühhirt 2012) and regional context (Budig et al. 2012; Kelle et al. 2017) for couples' working arrangements. However, an integrated analysis is not yet available.

Our study seeks to fill this gap, by contributing to the literature on couple inequality in four ways. First, we use recent German census data to estimate the relevance of women's and men's education for women's and men's working hours as well as couples' relative education on women's relative working hours. We use large-scale cross-sectional data from the 2011 German Microcensus, comprising 57,366 couple households. This representative data for the German population is ideally suited to disentangle, separately for West and East Germany, the relevance of educational levels and relative education on couples' shared working hours, with and without the presence of children in the households. Census data in particular, offers statistical powerful case numbers to estimate interaction effects of educational constellations with parental status and regional context.

Second, we offer a deeper insight into the association between relative education and the division of paid work by manipulating the context by the age of the youngest child in the couple households. The moderating influence of children on the association between relative education and couples working arrangements is clearly under-researched thus far (for an exception see Steiber et al. 2016). We argue that relative education has a different impact on the division of paid work depending on whether couples have no children, very young children, or older children in the households. In line with Steiber et al. (2016), we consent that it is indispensable to investigate educational effects on work arrangements by controlling for the presence or the age of the youngest child.

Third, we use data from East and West Germany to examine the moderating effect of Germany's two regional contexts on the association between relative education and relative working hours among couples. More than 25 years after German reunification, there are still crucial differences between West and East Germany in terms of institutional and normative conditions for the division of labor.

Fourth, in theoretical terms, we complement standard exchange models by offering an additional theoretical argument regarding the relevance of relative education for the division of paid work. We assume that education can be seen as a proxy for attitudes and values regarding the division of labor (van Berkel/de Graaf 1999; Bonke/Esping-Andersen 2011; Steiber et al. 2016). In doing so, we offer an alternative explanation of the relevance of educational homogamy and heterogamy for couples' working arrangements.