Data Visualization

The Long Road to Economic Independence of German Women, 1973 to 2011

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Abstract
Over the past few decades, women’s educational attainment and subsequent labor market participation have increased substantially in Germany. In comparison with these well-studied trends, little is known about changes in women’s contributions to couples’ joint income that may be associated with them. To address this question, the author provides a visualization of changes in the distribution of women’s income contributions in Germany from 1973 to 2011.

Keywords
economic inequality, couples, data visualization

Even though gender inequality with regard to earnings is one of the workhorses of sociology, income differences within couples are a less studied phenomenon (Raley, Mattingly, and Bianchi 2006; Vitali and Arpino 2016). Which partner contributes how much income can play a very important part in power relations and gender roles (Ponthieux and Meurs 2015). It is thus important to track how contributions within couples change over time.

Germany can serve as an interesting case in this regard. Typically, West German women had very traditional family roles and low labor market participation. In the past few decades, they have increased their labor market participation by taking up part-time jobs. In contrast, East German women typically worked full-time and still do so to a much higher extent compared with West German women.

Figure 1 shows the distributions of women’s contributions to couples’ income in Germany using data from the German Microcensus. The sample includes only those women cohabiting with men in partnerships. Samples after 1989 include East German women as well.

In 1973, most West German women contributed no income at all. A woman bringing home 28 percent of a couple’s income defined the threshold to the upper 25 percent of the distribution. Only about 6 percent of all women contributed at least 50 percent to couples’ income, painting a picture of a society with many economically dependent women.

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In the later 1970s and the 1980s, West German couples trended toward a more equal distribution, mostly because more women took jobs outside the home. The distributions became less skewed, and the median contribution increased to about 15 percent. Changes in the lower and upper parts of the distribution were decoupled; the 75th percentile stayed roughly the same during this period, but the upper 25 percent of the distribution became more heterogeneous, resulting in an increased share of women contributing at least as much as their partners.

German reunification changed the distribution of women’s contributions considerably. Because many East German women had as much income as their partners, the distributions from 1991 onward have a second mass point at about 50 percent. The share of women contributing half or more of couples’ income increased from 10.5 percent to 18.2 percent. The median and 75th percentile shifted upward considerably as well.

After reunification, Germany’s overall trend toward higher women’s contributions continued without further disruptive events. The most pronounced change was a gradual reduction in the share of women contributing no income, which resulted in a more heterogeneous lower part of the distribution. Since 1991, the interval between zero and equal contributors has become more evenly filled, indicating a shift from a “single breadwinner” model toward a “top-up earner” model, with very dispersed women’s income contributions.

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The distributions have also developed a heavier upper tail, resulting from an increased portion of women contributing at least half of couples’ total income. In 2011, this portion reached 23 percent.

In summary, there is a clear pattern toward higher women’s income contributions and thus a clear increase in women’s economic independence. However, many women still contribute less than 25 percent of couples’ income, and women are overrepresented in the low-wage sector and still do most unpaid care work. There is thus still a long way to go.

Apart from its inherent interest to inequality scholars, the data underlying Figure 1 might also be used for teaching how to model skewed and multimodal distributions, for example, using betamix-models (Gray and Hernandez Alava 2018). The code and information on the data are available at the author’s GitHub repository at https://github.com/HauptSoc/EconIndep.

Acknowledgments
I am thankful for the help of Barbara Binder, Florian Hertel, Phillip Lersch, Mara Boehle, Susanne Strauss, and William Uber.
**Funding**

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: I acknowledge support by Deutsche Forschungsgemeinschaft and Open Access Publishing Fund of Karlsruhe Institute of Technology. This research was funded by a grant of the Baden-Wuerttemberg-Fundation.

**Supplemental Material**

Supplemental material for this article is available online.

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**Author Biography**

Andreas Haupt is an assistant professor for sociology (Akademischer Rat) at the Karlsruhe Institute of Technology, where he has a research group on economic inequality and labor markets. He studies wage and income inequality in general and the gender wage gap, poverty, income richness, and the contribution of occupations to inequality in particular.