

The Effect of Mother's Job Loss on Children's Educational Attainment
in the United States and Germany

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Extended Abstract

Research has shown that parental job loss affects children educationally (Kalil & Ziol-Guest 2008; Kalil & Wightman 2011; Oreopoulos, Page & Stevens 2005; Rege, Telle & Votruba 2011; Stevens & Schaller 2011), psychologically (McLoyd 1989), and physically (Lindo 2011). The specific role of mother's job loss in this connection is not as well documented, though there is evidence that an unmarried mother's job loss affects children's education and psychological wellbeing in primarily negative ways (Brand & Simon Thomas 2014). Since education and social mobility are closely connected (e.g., Pollak, Otte, Scherer & Gangl 2007), educational effects have consequences for intergenerational mobility. It is plausible that social policies mediate the connection between parental job loss and children's education, and these policies vary nationally. To address this potential connection and variation, this project will examine the effect of mother's job loss on children's educational attainment, comparing outcomes for the United States and Germany. As social fluidity is affected by the availability of social welfare systems (Breen & Luijck 2007), the two-country comparison will let me view effects in different contexts.¹

¹ Though examining results for two countries will not allow me to draw specific conclusions about the detailed policies within social welfare regimes, it will allow to me to think about disruptions within two different policy contexts, which I believe will provide valuable insights.

DiPrete and McManus (2000) identify several events that trigger income change in a family and look at their impact on household income. Though my outcome variable is not income but rather children's educational outcomes, I use a similar theoretical framework in that I treat a mother's job loss as such a trigger event. DiPrete and McManus (2000) use "work to no work" as the definition of job loss (348), and I follow this definition. This is a broad definition of job loss, including quitting, being fired, and choosing to leave the workforce; I will conduct sensitivity analyses using more detailed questions in order to ensure that results are not driven by this definition, though I will not be able to distinguish between quitting and being fired due to data limitations (see discussion in Data section). I will examine effects on educational attainment for children, including high school completion by age 19, college attendance by age 21, and college completion by age 25.

I am particularly interested in mothers' job loss as the increase in women's labor market participation is a relatively recent phenomenon, starting about a century ago but with large increases in rates occurring within the last fifty years in the U.S. (Bianchi, Robinson & Milkie 2006; Mosisa & Hipple 2006) and in Germany (Olivetti 2013). The increase in women as the main earner in a household is even more recent (Winkler, McBride & Andrews 2005), partially driven by the increase in single motherhood (McLanahan 2004). The effect of mother's employment on a variety of children's outcomes is a widely studied topic (e.g., Bianchi 2000; Burger, Hill & Waldfogel 2005; Waldfogel, Han & Brooks-Gunn 2002); however, the effect of this employment ending on similar child outcomes is less well observed.

There is ample reason to believe that unmarried mothers' children will fare differently after a job loss compared to the children of mothers who remain (or were all along) married. Much research shows that single mothers' children, as compared to children with married

mothers, face differential struggles toward their education (e.g., Biblarz & Gottainer 2004), among other factors (McLanahan 2004). To address this concern, I will run analyses for all mothers (controlling for marital status), for single mothers (i.e., mothers who report being unmarried at the time of their job loss) only, and for married mothers (i.e., mothers who report being married at the time of their job loss) only. Indeed, the presence of a father/husband in the household means that the economic (and possibly psychological) burden of a job loss is likely to be shared.

Countries differ in policies that affect families. In order to gain insight into the role that social welfare systems can play when employment losses occur, I will run analyses using both U.S. and German data. Social welfare systems primarily protect earnings when a job is lost. Couch (2001) finds that a plant closure leading to job displacements caused earnings losses for German workers, but income was less affected in later years compared to the same experience in the United States. However, in a working paper, Schmieder, von Wachter, and Bender (2010) find that the income of German workers laid off during the 1982 recession was affected for many years following the displacement. Though DiPrete (2002) finds similar risks of layoffs for German and U.S. workers, he also finds that displaced German workers are less likely to fall into poverty than their U.S. counterparts. It is unclear what the results of these differences might be for the children of these workers, though a significant decrease in income is likely to affect children and their educational choices. However, the cost of college education in Germany is significantly less as compared to the same costs in the United States, with public universities being free, and there is federal student financial aid available to offset living costs as well (Steiner & Wrohlich 2011). If children's educational attainment is indeed decreased, those

children are at higher risk of being unemployed when entering the labor market themselves (Kogan, Unt & Saar 2007).

Data

For data from the United States, I will use the Panel Study of Income Dynamics (PSID) for this project. The PSID began in 1968 with over 18,000 individuals within 5,000 families, at first adding data annually, and since 1997 continuing to add data biennially. The PSID contains detailed information about job changes, and it connects mothers to their children with educational information available for both mothers and children.

For data from Germany, I plan to use the German Socio-Economic Panel (SOEP; Wagner, Frick & Schupp 2007). The SOEP began in 1984 and continues to add data every year, with 2011 as the most recent year available. Approximately 12,000 households are involved with the study at present. The SOEP collects data that are very similar to the PSID, and the Cross-National Equivalent File (CNEF; Frick et al. 2007) can be used in case equivalently defined variables are essential to the study.

For job loss, I create a dichotomous variable for each year, which is 1 if the employment situation is different in that year compared to the previous year, and 0 if the situation is the same. If data is missing for either of the two years, the dichotomous variable reports as missing. For example, for job loss in 1990, this is 1 if the respondent reported being employed in 1989 but not in 1990. The PSID does not distinguish between being laid off and being fired, so this difference cannot be noted in the analysis. Though this is a limitation, the ability to compare PSID data cross-nationally with SOEP data and potentially use the CNEF for more direct comparison,

combined with the temporal length of the surveys, make these data sets a good choice for this project.

Methods

A combination of regression and propensity score matching techniques will be used to estimate outcomes. In propensity score matching, the event (in this case, job loss) is used as a treatment condition, and a probability value of being selected into the treatment is calculated using a variety of individual characteristics (Rosenbaum & Rubin 1983). Children are then matched according to the score, where one child has a parent experiencing a trigger event and the other does not. Then, the educational outcomes for each of the matched pairs can be compared to calculate an estimate of the effect of the event.

Hypotheses

In prior work, I show that job loss occurs to nearly 15% of mothers with children under 17 years old in the PSID data set (Simon Thomas 2015). Using logistic regression models, I also show that mother's job loss results in lower probabilities of high school completion, college attendance, and college completion for children. I hypothesize that propensity score matching estimates will uphold these findings. Moreover, I hypothesize that outcomes will be significantly worse for children of mothers who were single at the time of their job loss as compared to children of mothers who were married at the time of their job loss. Allowing for the analysis to address both options will give a better idea of how children might be affected financially, since single mothers presumably face much more financial instability after a job loss.

Finally, I hypothesize that effects on children's education will be less in Germany as compared to the United States. Besides having a more expansive unemployment insurance system, meaning children have less incentive to drop out of high school to work, for example, the costs of college education are significantly different in Germany as compared to the United States. This means that if a parent loses a job, children do not necessarily lose the finances to attend college, whereas in the United States, this is a likely possibility. This should be particularly salient for single mothers.

Though this analysis will not allow the opportunity to disentangle precisely why there are cross-national differences, it will show whether or not these differences exist. Looking at mothers specifically will provide necessary insights into the effects of disruptions in female labor force participation. Analyzing single and married mothers separately should illuminate potential differences in the experience of disruption between those groups.

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