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'Collateral damage? How World War One changed the way women work'

A growing literature investigates how demographic shocks resulting from wars changed the way women work (e.g., [Goldin 1991](#), [Goldin and Olivetti 2013](#), [Rose 2018](#), [Boehnke and Gay 2020](#)). But the specific mechanisms through which these shocks affected women's work are still debated, partly due to the challenges of measuring female labor and military fatalities historical, and partly due to the aggregate equilibrium responses generated by these shocks. Given the magnitude of its demographic implications, the context of World War I France is especially relevant in this perspective. Using a region-level approach to investigate this case, [Boehnke and Gay \(2020\)](#) show that while increases in female wartime employment were temporary, regions that had experienced relatively more military fatalities saw a permanent increase in the presence of women in their labor force after the war. Due to a lack of individual-level data for this time period, however, they are unable to precisely identify the specific mechanisms that account for this result.

In this paper, we re-investigate this question by drawing on individual-level data from the 1911 and 1921 census nominative lists and on census-linking techniques. More precisely, we construct a full-count census database for a circumscribed region in center France: the département of Haute-Vienne, comprising 350,000 inhabitants in 1911. We then proceed to two types of matching. First, we match men in the census of 1911 to the military records the 15,000 French soldiers originating from this area who died during the war. This enables us both to measure military death rates at the municipality level and to identify directly who became a war widow. Second, we link women across the censuses of 1911 and 1921 using both individual characteristics—first and last name, year and municipality of birth—and household information—relationships within the household at both points in time. To our knowledge, this is the first instance of census linking with French data—though the TRA study has linked birth, marriage, and death certificates across the nineteenth century ([Bourdieu, Kesztenbaum, and Postel-Vinay, 2014](#)).

We investigate three channels through which WWI military fatalities might have altered the way women worked. First, a “war-widow” channel: married women losing a husband during the war should be more likely to enter the labor force due to the limited amount of pensions in the 1920s—a negative household income shock. Second, a “household-bargaining” channel: married women in high military death rate areas should be more likely to enter the labor force due to a decline in the implicit market price of their work within the household—a negative implicit income shock. Third, a “marriage-market” channel: single women in high military death rate areas should be more likely to enter the labor force due, again, to the deterioration of their marriage market prospects ([Abramitzky, Delavande and Vasconcelos 2011](#))—a negative expected income shock. Our linked sample will enable us to explore these channels with unprecedented precision and credibility. Preliminary analyses indicate comparable results as the region-level analysis in [Boehnke and Gay \(2020\)](#).