The Labor Market Impacts of Widowhood

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December 2025

Abstract

This paper studies the impact of widowhood on the labor market outcomes of women and their families in the historical United States. Using linked mortality and population censuses from the late 19$^{\text{th}}$ century, I construct a sample of widows who experienced a spousal death in the past year. Controlling for a rich set of covariates, women who became widows within the past year are 15 percentage points more likely to participate in market work. Furthermore, they are more likely to have a young child working. In follow-on work, I plan to study how the outcomes of widows and their children interact with compulsory schooling and child labor laws. I also hope to extend this analysis to study long-run effects of widowhood using linked longitudinal samples of women and their children.

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1 Introduction

The U.S. has approximately 14 million widows and widowers (U.S. Census Bureau 2024). While the vast majority become widowed late in life, a non-trivial fraction become widowed before retirement. The loss of a spouse has significant consequences for household income, structure, and health (Elwert and Christakis 2008; Braun and Stuhler 2024; Arteaga et al. 2025).

In this paper, I examine the labor market consequences of widowhood in the historical United States. Death of the primary breadwinner was likely the result of infectious disease, war, or occupational hazards, all of which were more common in the 19th and early 20th centuries. A substantial fraction of female-headed households during this period were a consequence of widowhood (Goldin 1986). Most of the literature on widowhood and employment outcomes relies on war and pension records (Salisbury 2017; Braun and Stuhler 2024). We know comparatively little about the consequences of widowhood outside the context of wartime.

To explore the effects of widowhood, I use mortality censuses enumerated in 1870 and 1880, which were subsequently linked to the population censuses. The impact of recent widowhood (within the year prior to the census) can be directly estimated. The information on household structure in the population census is highly valuable, since it allows me to examine not only how widowhood affected the lives of widows, but also their children.

2 Data Sources and Sample Construction

2.1 Censuses of mortality

From 1850 to 1880, the Census Bureau conducted a census of mortality alongside each population census. Families were asked by census enumerators if there were any deaths in the year prior. If so, the census enumerator separately recorded details such as cause of death, month of death, age, and family characteristics. The 1870 and 1880 mortality censuses have been digitized and linked back to the population censuses (Hacker et al. 2025). Links are based on state, county, enumeration district, family number, and surname similarity. The linkage rate is 50% in 1870 and 34% in 1880.

Prior work has demonstrated the difficulties of using the mortality censuses to estimate population mortality rates (Condran and Crimmins 1979; Ferrie 1996; Hacker et al. 2025). In

general, these records are not representative of all deaths in all localities. For example, single individuals with no other household members will have no one to report their death at the time of the census. Furthermore, families with deaths linked in the population census are unrepresentative of all families experiencing a death.

Despite these challenges, the linked mortality census is useful for unpacking the labor market impacts of widowhood. The population census asks about family relationships and marital status, but does not contain information on when a woman was widowed. The linked mortality records overcome this limitation by identifying women who experienced a spousal death within the past year. Information in the population census can then be used to estimate the impact of (recent) widowhood on outcomes like employment and family structure.

2.2 Sample construction

I construct a sample of widows in the population census as follows. First, I identify all households in the population census linked to a death in the mortality census in either 1870 or 1880. I limit this sample to deaths of men who were at least 18 years of age and married at the time of death. Second, I identify the widow in the household. In 1880, the widow is defined as a woman at least 18 years of age whose marital status is listed as "widowed" with no spouse present. If more than one woman fits this description, I use the woman closest in age to the deceased. In 1870, the census did not ask about general marital status and instead asked about marriage within the past year. I identify the widow as a woman at least 18 years of age with no spouse present. If more than one woman fits this description, I use the woman closest in age to the deceased.

Descriptive statistics for the deceased spouses of widows are reported in Table 1. On average, the deceased spouse was more likely to be native-born than foreign-born. The average death age was 53 in 1870 and 55 in 1880. In the late 19^{th} century, the Census Bureau did not have a cause of death classification system like the ones seen in the modern day (e.g., ICD codes). Common causes of death (such as tuberculosis and pneumonia) can be separated out, but many deaths fall into the "miscellaneous or unclassified" category. Descriptive statistics for widowed and married women are reported in Table 2. As expected, widows are substantially older than currently married women. Widows are also more likely to be native-born white.

3 Effects of Widowhood on Labor Market Outcomes

I estimate the following model:

$$y_i = \beta_0 + \beta_1 widow_i + \Gamma \mathbf{X}_i + \alpha_c + \varepsilon_i, \tag{1}$$

where y_i is the outcome in the decennial census for woman i, $widow_i$ is a binary variable indicators whether a woman lost her spouse in the prior year, $\mathbf{X}_i$ is a vector of controls (indicators for age, spouse's age, number of children, farm status, and census year), and α_c is a set of county fixed effects. I estimate equation (1) using OLS with standard errors clustered at the state level.

The identifying assumption is that, conditional on covariates, the loss of a spouse is uncorrelated with other unobserved determinants of labor force outcomes. As shown in Table 1, many of the deaths recorded in the mortality census were from infectious disease. The pervasiveness of disease and the lack of effective medical care meant that spousal illness was an unanticipated shock that affected all households. Conditional on illness, it is unlikely that death was correlated with household income.

Results are presented in Table 3. Women who became a widow in the year prior to the census had labor force participation rates 15 to 16 percentage points higher than comparable non-widowed women (columns 1 and 2). This result is similar in magnitude across census years. Note also the low labor force participation rate of non-widowed women, consistent with the specialization of married women in non-market (household) labor. Results are similar with and without covariates.

The death of a spouse likely had effects on the broader family, including the lives of children whose father passed away. I explore whether young children are more likely to participate in market work in columns 3 and 4. Widowhood resulted in higher likelihood of children working at age 15 or younger (approximately a 2-4 percentage point increase). An inspection of the data reveals that many of these children worked in agriculture (the family farm or a nearby farm).

4 Future Work

In follow-on work, I plan to study how the outcomes of widows and their children interact with compulsory schooling and child labor laws. As states began implementing and enforcing child labor

regulation at the turn of the 20$^{\text{th}}$ century, it is possible that the response to widowhood in the family is dampened. I also hope to extend this analysis to study long-run effects of widowhood using linked longitudinal samples of women. For instance, the 1880 census has been linked forward to the 1900 census, allowing for the study of long-run outcomes of widows and their families.

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5 Tables

Table 1: Descriptive statistics for the deceased spouses of widows, 1870 and 1880

	(1)	(2)
	1870	1880
Characteristics of deceased spouse		
Native-born	0.530	0.629
Age at death	52.620	55.236
Cause of death of deceased spouse		
Tuberculosis	0.158	0.133
Pneumonia	0.063	0.099
Typhoid	0.046	0.048
Other infectious disease	0.043	0.047
Accidental	0.046	0.047
Miscellaneous/unclassified	0.643	0.625
Observations	28,853	32,395

Notes: Table reports statistics in the sample of widows described in section 2.2. Characteristics and cause of death for the deceased spouse are sourced from the 1870 and 1880 mortality censuses.

Table 2: Descriptive statistics for widowed and married women, 1870 and 1880

	(1)	(2)	(3)	(4)
	1870 census		1880 census	
	Widow	Married	Widow	Married
Individual demographics				
Aged 18-29	0.133	0.352	0.098	0.379
Aged 30-39	0.193	0.354	0.172	0.327
Aged 40-49	0.209	0.189	0.206	0.180
Aged 50+	0.465	0.105	0.524	0.113
White	0.909	0.882	0.893	0.849
Black	0.091	0.117	0.107	0.151
Native-born	0.751	0.726	0.790	0.831
Native-born white	0.661	0.609	0.683	0.680
Household demographics				
Head of household	0.653	0.000	0.732	0.002
Number of children	2.177	2.756	2.445	2.900
Farm	0.224	0.358	0.298	0.504
Has a listed occupation	0.152	0.037	0.169	0.061
Observations	28,853	132,220	32,395	166,693

Notes: Table reports statistics for widowed and currently married women in the 1870 and 1880 censuses. The "Widow" sample is described in section 2.2. The "Married" sample is constructed as the set of currently married women aged 18 or older with spouse present.

Table 3: Effects of widowhood on labor force participation

	(1)	(2)	(3)	(4)
	In labor force		Child at work	
1870 Census				
Widowed in the past year	0.156***	0.158***	0.036***	0.020***
	(0.012)	(0.012)	(0.004)	(0.005)
Controls	N	Y	N	Y
Mean outcome (widow = 0)	0.037	0.037	0.098	0.098
Observations	144,687	144,654	123,456	123,411
1880 Census				
Widowed in the past year	0.156***	0.161***	0.037***	0.024***
	(0.011)	(0.011)	(0.004)	(0.004)
Controls	N	Y	N	Y
Mean outcome (widow = 0)	0.062	0.061	0.146	0.148
Observations	176,826	171,939	152,374	149,635

Notes: Table reports results from equation (1). Outcomes are "in labor force", an indicator for whether a woman has a reported occupation, and "child at work", an indicator for whether a woman has a child aged 15 or less with a reported occupation. Controls include dummies for age, spouse's age, number of children, farm status, as well as county fixed effects. Standard errors are clustered at the state level. *$p < 0.10$; **$p < 0.05$; ***$p < 0.01$.