



WHAT FACTORS EXPLAIN THE DECLINE IN WIDOWS' POVERTY?

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Abstract

One of Social Security's objectives is to ensure that vulnerable groups have adequate income in retirement. Historically, widows have been of particular concern for policymakers due to their high rates of poverty. However, over the past several decades, their poverty rate has fallen considerably. If it falls farther, widowhood may warrant lower placement on policymakers' priority list. To understand why this decline has occurred and what this means for the future, this project uses the *Health and Retirement Study* linked to administrative earnings and benefit records. Specifically, the project focuses on three factors that could explain the decline in widows' poverty: 1) women's rising levels of education; 2) their increased attachment to the labor force; and 3) increasing marital "selection" – i.e., the notion that while marriage used to be equally distributed, it is becoming less common among those with lower socioeconomic status. The project explores what share of the decline in poverty can be explained by these factors and also projects the role of these factors in the future.

The paper found that:

- The rise in education and labor force participation explain most of the decline in widows' average poverty rate from 20 percent in 1994 to 13 percent in 2014.
- So far, marital selection has not been a driving force in the decline in widows' poverty.
- The projections suggest that widows' poverty will continue to fall over the next 15 years.
- In the future, up to half of this reduction could be explained by the increasing selection of women into marriage.

The policy implications of the findings are:

- While the projected decline in widows' poverty may allow policymakers to shift some of their focus to more vulnerable groups, widows will remain poorer than married women.
- Considering the effect on widows of any change that would bring fiscal balance to the Social Security program will continue to be important.

Introduction

Several Social Security reform proposals have focused on improving the well-being of widows.¹ For example, one reform recently evaluated by the actuaries proposes to increase survivor benefits by up to 50 percent.² The reason for this focus is clear: according to the *Health and Retirement Study* (HRS), widows are much more likely to live in poverty than married women. However, widows' poverty has fallen over the past two decades, narrowing the poverty gap between widows and married women by 5 percentage points. In light of policymakers' continued concern for widows, two important policy questions are: 1) why their poverty rate has declined; and 2) whether this trend is likely to continue.

This paper focuses on three factors that could have contributed to the decline in widows' poverty observed to date and that could have implications for the future. The first is the general trend among women obtaining more education. The second is a similar trend toward greater participation in the labor force. The final factor is shifting patterns of marriage and divorce that have changed marriage from something equally distributed across the socioeconomic spectrum to something more common among those with higher socioeconomic status.³ This "selection" into marriage could result in a group of widows who are even more educated and attached to the labor force than they would have been had marriage patterns remained unchanged. The aims of this paper are to examine the relative contributions of these factors to widows' current and future poverty rates and to shed light on whether widows will continue to become less vulnerable in the future.

To accomplish these aims, this project uses data from the *Health and Retirement Study* (HRS) linked to U.S. Social Security Administration (SSA) earnings and benefits records to examine the three factors that are likely responsible for the decrease in widows' poverty. It will decompose the change in poverty rates among widows into the portions explained by secular increases in education and labor force participation, and the portion explained by the changing

¹ Smeeding, Estes, and Glasse (1999); Bipartisan Policy Center (2016). The SSA actuaries have also evaluated a 2014 proposal with these features from Sens. Begich and Murray and a 2017 proposal from Rep. Lawson.

² The proposal would make the surviving spouse eligible for the higher of the survivorship benefits under current law, and of 75 percent of the sum of the survivor's worker benefits plus the benefit the deceased spouse would have been eligible for. The benefit is limited to the PIA of a theoretical retired worker at age 62 in the year that the deceased worker first became entitled.

³ See Stevenson and Wolfers (2007) and Aughinbaugh, Robles, and Sun (2013).

probability of being married at retirement. Finally, it will project what continued changes in these factors mean for widows' poverty in the future.

The results indicate that the large decline in widows' average poverty over the past two decades is mostly explained by secular changes in education and labor force participation; marital selection did not play a role. However, the results also predict that widows' poverty will continue to decline over the next 15 years, from 13 percent in 2014 to 8 percent in 2029 and that half of this predicted decline will be driven by marital selection.

The paper proceeds as follows. The next section reviews the literature on widows' poverty and how it relates to increases in educational attainment, labor force participation, and shifting marital patterns. The third section describes the HRS data, SSA's administrative earnings and benefits records, and the econometric strategy used in this study. The fourth section provides the results. The final section concludes that while widows' average poverty is likely to continue its decline, widows will still have higher rates of poverty than married women. Therefore, while policymakers may be able to turn some of their attention to more vulnerable groups, widows will likely need to be kept on the radar as changes to the Social Security program to bring it into fiscal balance are considered.

Background

Widows have historically had poverty rates two to three times higher than those of married women. It is not surprising that a large literature has studied the economic well-being of this vulnerable group. Researchers have documented that many married women fall into poverty after the death of a spouse (e.g. Morgan 1981; Holden, Burkhauser and Feaster 1988; Hurd and Wise 1989; Burkhauser, Butler and Holden 1991; McGarry and Schoeni 2005; Sevak, Weir and Willis 2003/2004; Karamcheva and Munnell 2007; Gillen and Kim 2009; Diebold, Molton, and Scott 2017).⁴

Among earlier generations, women tended to be homemakers while their husbands' were the breadwinners, making wives financially dependent on their husband's income. Upon a husband's death, the widows saw their Social Security benefits decline and their pension reduced

⁴ The literature has also documented significant losses of wealth upon husbands' death due to medical and funeral expenses (Hurd and Wise 1989; McGarry and Schoeni 2005), and that a substantial number of poor widows were already poor prior to the death of their spouse (Sevak, Weir, and Willis 2003/2004, McGarry and Schoeni 2005)

or lost completely. But over the past century, female educational attainment and labor force participation have increased tremendously (e.g., Goldin 2006; Blau and Kahn 2007; Ryan and Bauman 2016). While fewer than 10 percent of women born before the 1930s held a college degree, this share went up to 25 percent for women born in 1950 and has continued to rise since (Goldin, Katz, and Kuziemko 2006; Goldin and Katz 2018). Simultaneously, each younger birth cohort of women has shown higher labor force participation at any given age (Goldin and Mitchell 2017). Now that women work more, they are less reliant on their husband's income in retirement. Similarly, better-educated women have higher pay and more access to jobs that offer retirement plans than women with less education (Munnell et al 2016; Tamborini and Kim 2017; Goldin and Katz 2018). Overall, these changes would suggest that more recent cohorts of women are probably less likely to fall into poverty in later life than previous cohorts were.

While all women have increased their educational attainment and their labor force participation, the composition of the population of married women has also shifted. Although divorce rates increased across the board (before a recent decline), the increase was larger for less-educated women than for the better-educated women (Stevenson and Wolfers 2007; Aughinbaugh, Robles, and Sun 2013). Furthermore, recent decades have seen a growth in the marriage gap between the lower and higher educated, with less-educated women marrying less (Reeves, Sawhill, and Krause 2016). Because divorced and never-married women cannot become widows, the pool of women who eventually become widows has become better-educated, which likely reduces their risk of falling into poverty.⁵

All three factors – increased educational attainment, higher labor force participation, and the changing composition of the widow population – could have decreased widows' poverty. Because these trends are likely to continue beyond the generation of women reaching retirement today, widows' poverty may be less of a problem in the future.⁶ Understanding the extent to which each of these factors explains the decline in widows' poverty is important for projecting widows' poverty going forward. The next section lays out the data and methodology used in determining the relative contributions of these three factors to widows' poverty, and what they predict for the future.

⁵ Ex-spouses are eligible for survivor benefits if the marriage lasted for 10 years or more.

⁶ Goldin and Mitchell (2017) identify the increase in women's labor force participation early in the life cycle and the prolonged phase-out at the end of the life cycle, leading to more work experience for the cohorts of women reaching retirement in the next few decades.

Data and Methodology

This paper uses the 1994-2014 waves of the HRS, a longitudinal dataset that surveys Americans ages 50 and older biennially about their labor market outcomes, family structure, public benefit receipt, and other characteristics.⁷ The public-use HRS is linked to SSA's administrative earnings and benefit records to provide accurate information on women's earnings histories and their late spouses' age at death. The initial sample includes widows ages 65 through 85, though the analysis, when examining possible future outcomes, will focus exclusively on married individuals under 65.⁸ Respondents are excluded if they were living in a nursing home or if their spousal information was missing. The key outcome of interest is the poverty rate. A widow is determined to be in poverty if her income is below the official poverty thresholds that the Census Bureau publishes for people older than 65 (U.S. Census Bureau 2018).⁹

To determine the reasons for declining widows' poverty, the estimates will first determine how much of the drop in the poverty rate between 1994 and 2015 was due to increases in education and labor force participation. Next, we will estimate how much of the change from these combined effects is due to marital selection, because selection into marriage could have led to a group of widows who are even more educated and have more labor market experience than they would have had if marriage patterns had remained unchanged.

To do this, the project first uses a linear regression model to assess the relationship between widows' poverty and two key independent variables: 1) years of education; and 2) years in the labor force. The regression controls for other factors that may be associated with poverty, such as the widow's age, the age difference between her and her late spouse, the spouses' Social Security claiming age, indicators for race/ethnicity, an indicator for whether the spouse was alive at age 65, and a linear control for time. Because the regression includes multiple observations

⁷ The first wave of the HRS included only respondents born between 1931-1941, the oldest of whom were 61 in 1992. Widows ages 65-85 are first observed with the addition of the AHEAD cohort, born before 1924, in wave 2

⁸ The ages 65-85 are chosen to facilitate the selection of cohorts of future widows in 2029.

⁹ Poverty is based on the prior year's income and Census Bureau poverty thresholds. HRS records only total household income, which, for a widow living by herself, would equal her own income. The RAND codebook indicates that this measure minus food stamps is close to the Census definition of income, with the exception of income from resident family members besides the Respondent and spouse. Thus the HRS income measure would be higher than the Census measure if a woman receives food stamps, and lower if she lives with other adults who contribute to the household income (HRS only includes income from the respondent and spouse). However, the HRS poverty rates closely track the widows' poverty rate calculated from the CPS; therefore, this discrepancy likely has minimal effects on the estimates.

for each widow, the standard errors are clustered at the individual level to adjust for serial correlation of the error terms over time. The regression to be estimated is:

$$p_{i,t} = \beta_0 + \gamma Ed_i + \theta LFP_i + X'_{i,t}\rho + \delta t + \varepsilon_{i,t} \quad (1)$$

where $p_{i,t}$ is an indicator for poverty; Ed_i is the widows total years of education; LFP_i her total years in the labor force; $X_{i,t}$ the other characteristics mentioned; and t the control for time.

The second step is to use the coefficients from equation (1) on education and labor force participation, γ and θ , to predict the decline in poverty between 1994 and 2014 if only those two factors had changed. This calculation would be accomplished by replacing widows' average years of education and average years in the labor force in 1994 with those of the widows in 2014. If these two factors are negatively related to poverty, as expected, then the predicted drop in the poverty rate will provide an estimate of the combined effect of these two factors.

A second set of calculations will be required, however, to reveal whether the change is due to these two factors and or is partly due to a third factor, marital selection between 1994 and 2014. To determine what role changing selection into marriage has played in the decline in widows' poverty, the increases in education and labor force participation experienced by women over this period are first decomposed into the share due to changing marital composition and the share due to general improvements. The second step is to determine how much of the poverty change is due to each of these shares.

For education, the first step in this decomposition is to separate women into three educational groups: less than high school, high school degree or some college, and bachelor's degree or more. The next step is to tabulate for 1994 and 2014 separately: 1) the share of all women in each education group, $e_{j,t}$; and 2) the share of each group that is widowed, $w_{j,t}$. The average years of education of widows in period t is:

$$E_{widow,t} = \sum_{j=1}^3 y_{j,t} * e_{j,t} * w_{j,t} \quad (2)$$

where $y_{j,t}$ is the average years of education in each group j in period t . Between 1994 and 2014, two things changed: 1) women became more educated; and 2) marital selection increased so that fewer women in lower educational groups were widowed. To calculate what the average

education in 2014 would have been with no marital selection, a weighted average is calculated using the shares of widows in 1994:

$$E_{widow,2014}^{NS} = \sum_{j=1}^3 y_{j,2014} * e_{j,2014} * w_{j,1994} \quad (3)$$

The analysis can now use the counterfactual average years of education, $E_{widow,2014}^{NS}$, and the regression coefficients from equation (1) to predict how poverty would have dropped if *only* marital composition had changed between 1994 and 2014. This process can be repeated for labor force participation.

Once this decomposition exercise is completed for the period 1994-2014, an analysis of the future period will estimate how much poverty among widows should be expected to drop by 2029, and what role education, labor force participation, and marital selection each play. To perform this calculation, the study focuses on a group of women who have the potential to be widowed in the future – those ages 50 to 70 and married in 2014 – and proceeds in three steps. First, a linear regression is estimated on women who entered the HRS at age 50-70 as married and who were observed 15 years later. In this regression, the dependent variable is an indicator for whether they were widowed at the end of the 15-year period. The independent variables included are the woman's age, the woman's own health at her entry into the HRS, her husband's health at his HRS entry, years of education, years in the labor force, the spousal age gap, indicators for black, Hispanic and of another race, and a linear control for time. The regression to be estimated is:

$$w_{i,t+15} = \alpha_0 + \gamma Ed_i + \pi LFP_i + Z'_{i,t} \alpha + \delta t + \eta_{i,t} \quad (4)$$

where $w_{i,t+15}$ is an indicator for widowhood 15 years after initial observation; and $Z_{i,t}$ is a vector for the non-education and non-labor force participation controls.

The coefficients from the widowhood regression are then used to predict who in the sample of married women ages 50-70 in 2014 will likely be widowed in 2029.¹⁰ Finally, the

¹⁰ To do this, the predicted values of the probability of widowhood are calculated using the coefficients from the widowhood regression and the younger married women's characteristics. A random number between 0-1 is drawn; if it is larger than the predicted value, she is included in the sample of future widows.

regression coefficients from the poverty regression are used to predict how this group is likely to be faring in 2029. This time, the calculation starts out with the 2014 widows' poverty rate and replaces average years of education and average years in the labor force of widows in 2014 with that of the predicted future widows' average years of education and labor force participation.¹¹ As before, the predicted decline is then broken down into the part due to secular increases in education and labor force participation, and the part due to the changing selection into marriage only.

Results

This section first discusses the decline in widows' poverty and presents descriptive evidence of how the three key factors – education, labor force participation, and marital selection – may have been important contributors to its decline. The section then presents the OLS regression results, and shows how each factor has contributed to the decline in widows' poverty to date. Finally, it shows how each of the factors will contribute to further declines in widows' poverty in the future.

Descriptive Results

Figure 1 shows that widows' poverty has dropped from 19.9 percent in 1994 to 13.2 percent in 2014. It is likely that the tremendous gain in education and labor market experience over the second half of the past century could have contributed to this decline. Indeed, Table 1 shows that widows' education went up by 1.4 years and their years spent in the labor force went up by 10.5 between 1994 and 2014. Other changes in widows' characteristics also likely contributed to the decline in poverty, such as spouses claiming their Social Security benefits later and living longer.¹²

While higher education and more labor market experience are likely important factors behind the decline in widows' poverty, these factors could have improved among widows for two different reasons. First, average education and work experience among widows could have gone up simply because it was increasing for women generally. Second, they could have gone

¹¹ To determine the years in the labor force of the future widows, the study assumes that women retire at age 65.

¹² Some of this might be driven by an improvement in data quality over time. In the first waves of the HRS, less information was available on deceased spouses, because they passed away before the start of the HRS.

up due to declining marriage rates at retirement (see Figure 2), which have centered on lower-SES individuals. This selection into marriage would drive up the average education and work experience of widows who reach retirement.

Indeed, Figure 3 shows how marital selection is, in fact, changing the socioeconomic composition of women who become widowed over time – although this change is somewhat recent. Among older cohorts, women of all socioeconomic backgrounds married at similar rates. Figure 3 shows that marital selection has likely not played much of a role in the drop in widows' poverty from 1994 through 2014 – both lower- and higher-educated retired women were similarly likely to be married at age 50 among the oldest two cohorts, who were ages 65 to 85 in 1994 and 2014, respectively. However, this is starting to change for younger women. While higher-educated women in the youngest cohort remained equally likely to be married at age 50 as slightly older women, lower-educated women have become less likely to be married, suggesting that marital selection will start playing a larger role in explaining widows' poverty in the future as these women's husbands pass away.

OLS Regression and Decomposition of the Decline in Widows' Poverty

The descriptive analysis is suggestive of a correlation between falling poverty and rising education and labor force participation. However, without more analysis it is difficult to say: 1) how much of the decline is due to these factors; and 2) how much of the decline is due to simple secular increases in these variables that occurred for all women versus marital selection.

As mentioned above, answering the first question involves a two-step process. The first step is to estimate an OLS regression. The results of this regression are presented in Table 2 and show that years in the labor force, years of education, the deceased spouse's Social Security claiming age, and whether the spouse was alive at age 65 are all negatively associated with poverty and statistically significant at the 1-percent level. Having a larger age gap with one's late spouse, as well as being black, Hispanic, or of another race (white is the omitted category) are positively associated with being in poverty.

The next step is to use these coefficients to see how much of the decline in widows' poverty rate was due to increases in education and labor force participation. One concern with this exercise is that Table 2 indicates that the R-squared of the regression is just 0.15, meaning that the regression explains just 15 percent of the variance in widows' poverty at the *individual*

level – 85 percent is explained by unobserved factors. However, the question here is what share of the reduction in *average* poverty between 1994 and 2014 can be explained by these two factors – this effect could be larger than 15 percent to the extent that unobserved factors play a similar role in 2014 as they did in 1994. Indeed, Figure 5 shows that education and years in the labor force explain almost all of the decline in widows’ average poverty over this period. If all other factors are held constant to 1994 levels except for education and labor market experience, widows’ poverty would have declined from 19.9 percent in 1994 to 13.7 percent in 2014 – fairly near the actual average level of 13.2 in 2014.

To determine what role changing selection into marriage has played, the increases in education and labor force participation experienced by women over this period are decomposed into the share due to changing marital composition and the share due to general improvements. As mentioned earlier, it is unlikely that these changes have played a major role in driving decreases in widows’ poverty to date, because in the current generation of widows, women in all socioeconomic groups were getting married. The results in Figure 6 confirm that marital selection did not play a role in the decline in widows’ poverty to date.

However, times are changing. Figure 3 suggests that marital selection is becoming increasingly important among younger cohorts. What does this mean for the future of widows’ poverty? To answer this question, the project turns to the group of women who will likely make up the sample of widows in 2029: married women who are age 50-70 today.¹³ To determine who in this sample is likely to become widowed, the study first uses the regression model for widowhood from equation (4). Table 3 shows that women who are older and black and whose husbands’ were older or in bad health at their first HRS interview were more likely to be widowed 15 years later. Hispanic women, women who were in good health at their first interview, and who were better educated were less likely to be widowed.

The coefficients in Table 3 are then used to predict who among married women ages 50-70 today are likely to be widowed in 2029.¹⁴ Figure 4 shows that this group of future widows is expected to have higher education and labor market experience than widows in 2014 and,

¹³ As described in the *Data and Methodology* section, this sample is adjusted for the probability of being widowed. Table 3 shows the regression coefficients from the widowhood model used for this adjustment.

¹⁴ To do this, the predicted values of the probability of widowhood are calculated using the coefficients from the widowhood regression and the younger married women’s characteristics. A random number between 0-1 is drawn; if it is larger than the predicted value, she is included in the sample of future widows.

therefore, lower poverty.¹⁵ Following a similar prediction method as the method used earlier, Figure 5 shows that widows' poverty is predicted to decline from 13.2 percent in 2014 to 8.3 percent in 2029. Finally, the predicted drop in poverty between 2014 and 2029 is again decomposed into the portion that is driven by secular changes in labor force participation and education, and the portion due to marital selection. The results in Figure 6 show that marital selection will be a larger driver behind the predicted decline in widows' poverty over the next 15 years, explaining about half of the drop. So far, the decline in widows' poverty has been driven by trends that have applied to all women. In the future, the increasing selection of well-off women into marriage will drive poverty rates down even further than they otherwise would have.

Conclusion

This study finds that the general rise in women's education and labor force participation can almost fully explain the decline in average widows' poverty over the past two decades, and that marital selection did not play much of a role. However, the projections for the future suggest that widows' poverty will likely continue its decline down from 13.2 percent in 2014 to about 8 percent by 2029, and that half of this decline is going to be driven by the change in the marital composition of widows. However, it is worth noting that even this lower level of poverty would still be about twice that of married women today.

These estimates are subject to some caveats. The current study is descriptive in nature, and the results may not be the causal effects of education and labor force participation on poverty. For example, women with high education may have had better access to jobs with good benefits through their parents' networks, meaning that this effect and not their education per se could drive lower rates of poverty. If a relationship like this exists, then as education spreads to women without these connections the relationship to poverty will weaken. Because the current regression analyses does not account for these kinds of effects explicitly, it may overstate the effects of education and labor force participation on poverty. The results in this paper, therefore, should be interpreted with some caution.

Even given this caveat, the results provide information on how widows have fared over the past decades and what might be expected in the future, given the documented trends in education, work experience, and the probability of reaching retirement married. These results

¹⁵ Women are assumed to work until age 65.

contribute to the ongoing discussions about how to better ensure that vulnerable groups have adequate income in retirement. As policymakers consider changes to Social Security to bring the program into financial balance, widows will continue to be more vulnerable than women who are still married, albeit less vulnerable than they were in the past.

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Table 1. *Widows' Key Characteristics at Age 65-85, 1994 and 2014*

	1994	2014
In poverty	19.9%	13.2%
Years in labor force	14.7	25.2
Years of education	10.7	12.1
Spouse claimed after age 65	6.4%	19.4%
Spouse alive at age 65	20.9%	44.7%
Age gap (positive if spouse is older)	1.6	1.6
Age	77.3	76.0
Black	10.0%	12.1%
Other race	2.1%	4.6%
Hispanic	3.8%	7.9%

Source: Authors' calculations from the HRS (1994-2014).

Table 2. *Regression of Widows' Poverty at Ages 65-85, 1994-2014*

Variable	Probability of being in poverty
Years in labor force	-0.002*** (0.000)
Years of education	-0.027*** (0.002)
Spouse claimed after age 65	-0.043*** (0.012)
Spouse alive at age 65	-0.037*** (0.011)
Age gap [positive if husband older]	0.002* (0.001)
Age	0.001 (0.001)
Black	0.167*** (0.019)
Other race	0.089** (0.042)
Hispanic	0.153*** (0.036)
Year	0.000 (0.001)
Constant	-0.530 (1.474)
R-squared	0.148
N	12,960

Notes: Poverty rates are based on the prior year's income and poverty thresholds. Regressions are weighted. Robust standard errors in parentheses, standard errors are clustered at the person level. *** p<0.01, ** p<0.05, * p<0.1.

Source: Authors' calculations from the HRS (1994-2014).

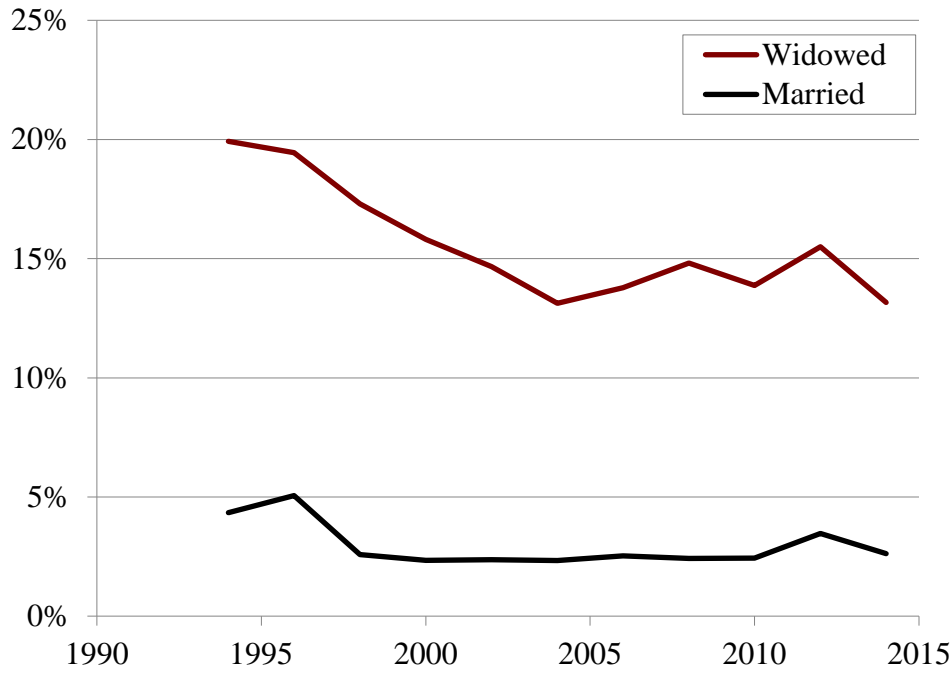
Table 3. *Regression of Widowhood Probability at Ages 65-85, 1994-2014*

	Probability of being a widow
Age	0.011*** (0.001)
Years in labor force	0.001*** (0.000)
Years of education	-0.006*** (0.002)
Age gap [positive if husband older]	0.011*** (0.001)
Black	0.050*** (0.017)
Other race	0.005 (0.028)
Hispanic	-0.043** (0.020)
Own health bad at HRS entry	-0.040*** (0.014)
Spouse's health bad at HRS entry	0.155*** (0.016)
Year	-0.005*** (0.002)
Constant	9.911** (3.966)
R-squared	0.081
N	5,888

Notes: Bad health is specified as fair or poor self-reported health. Robust standard errors in parentheses. The regression is unweighted. *** p<0.01, ** p<0.05, * p<0.1.

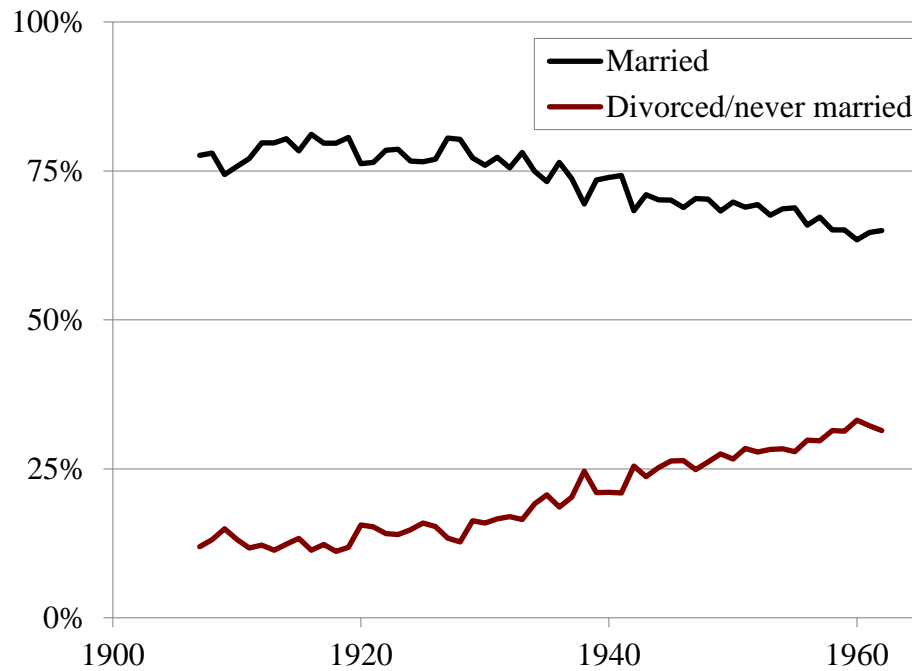
Source: Authors' calculations from the HRS (1994-2014).

Figure 1. *Female Poverty Rates at Ages 65-85 (1994-2014), by Marital Status*



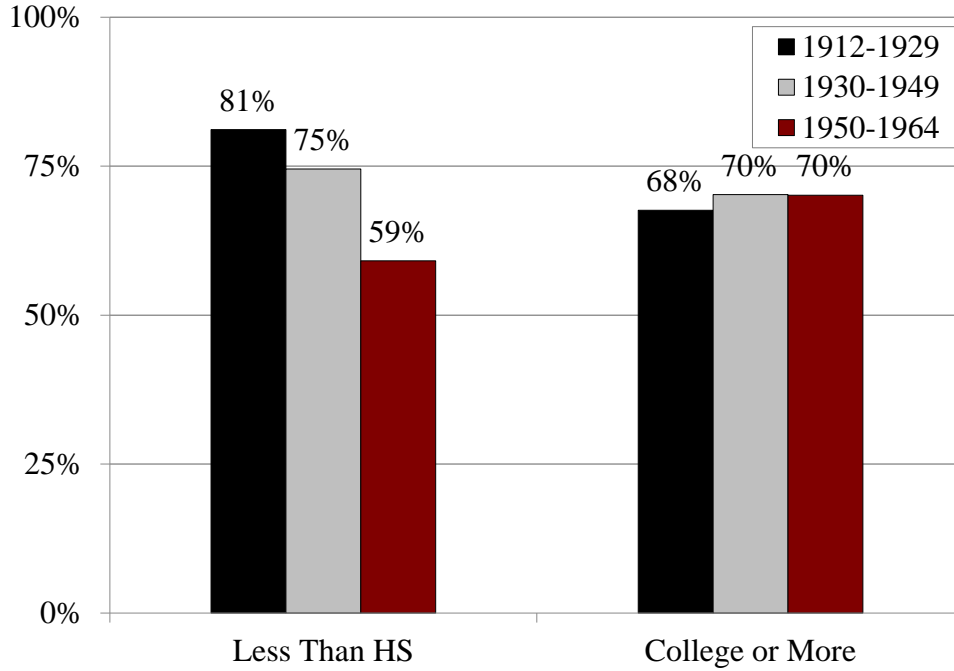
Source: Authors' calculations from the *Health and Retirement Study (HRS)*, 1994-2014.

Figure 2. *Marital Status at Age 55, by Birth Cohort (1907-1962)*



Source: Authors' calculations from the *Current Population Survey (CPS)*, 1962-2017.

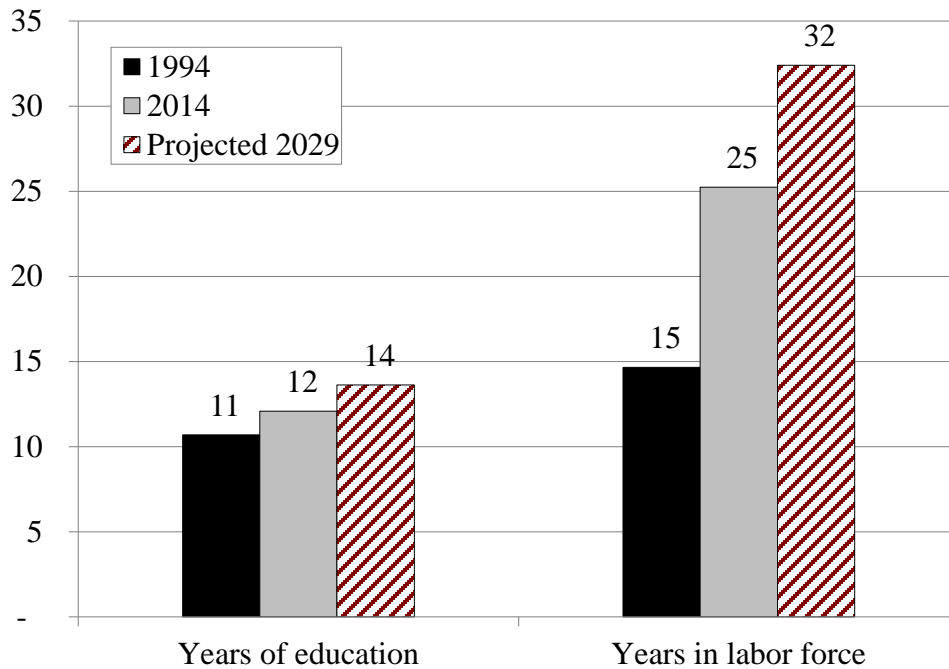
Figure 3. *Share Married in Top and Bottom Education Terciles at Age 50, by Birth Cohort*



Note: The birth cohorts in this figure are chosen to correspond as closely as possible to the cohorts ages 65-85 in 1994, 2014, and 2029.

Source: Authors' calculations from the CPS, 1962-2017.

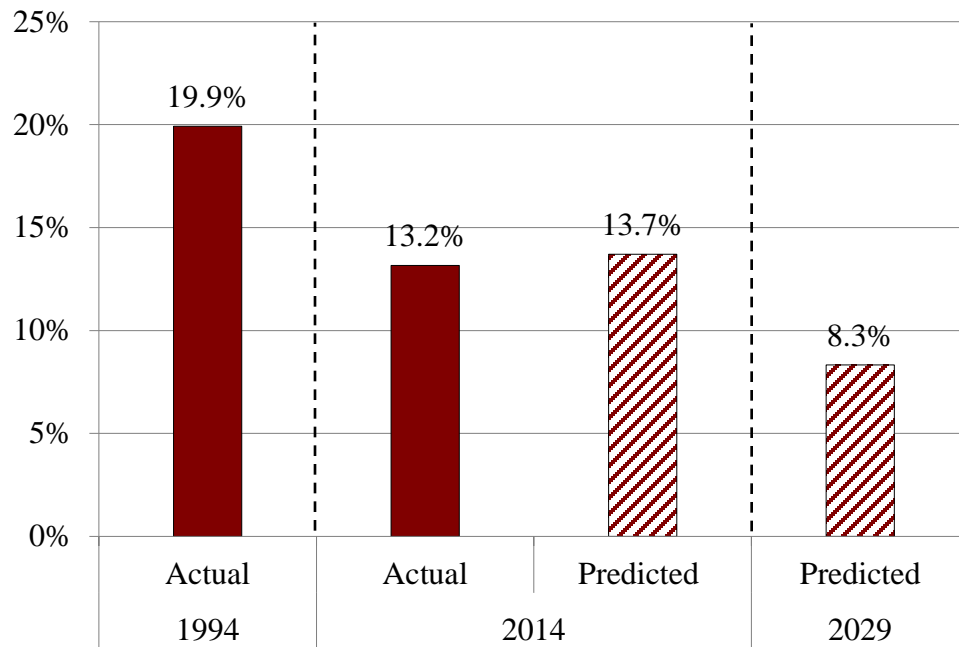
Figure 4. *Widows' Education and Labor Force Participation, 1994, 2014, Projected 2029*



Note: For the 2029 projection, women are assumed to retire at age 65.

Source: Authors' calculations from the HRS, 1994-2014.

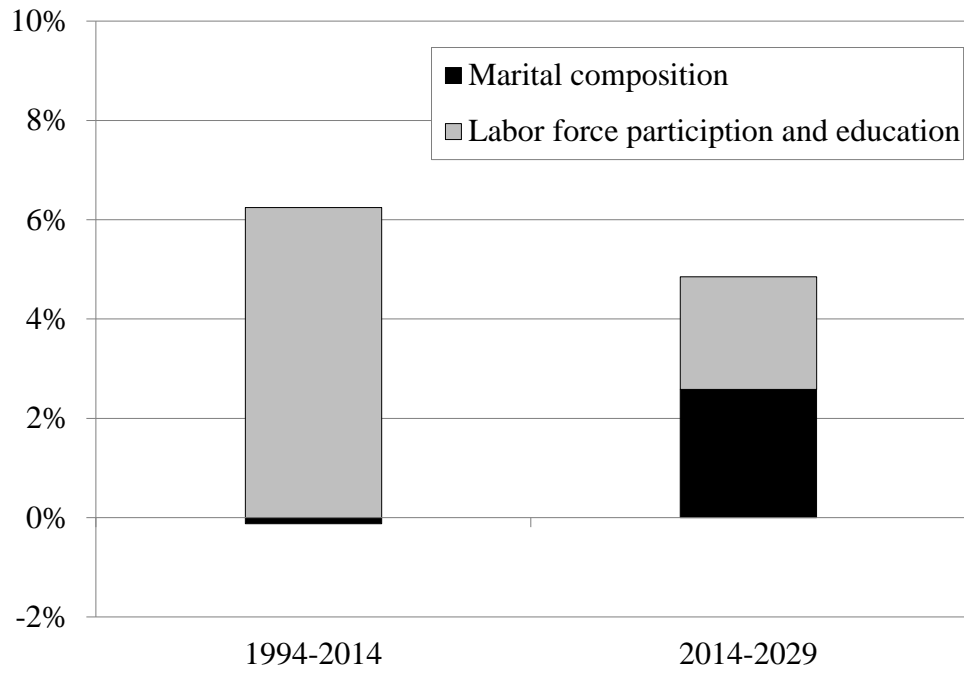
Figure 5. Actual and Predicted Widows' Poverty Rates Ages 65-85 in 1994, 2014, and 2029



Notes: The 2014 predicted poverty rate starts with the 1994 poverty rate, and predicts what poverty would be with widows' education and labor force participation levels in 2014 holding other characteristics constant. The 2029 predicted poverty rate combines with the 2014 poverty rate with education and LFP of married women ages 50-70 in 2014, adjusted for the likelihood of becoming widowed.

Source: Authors' calculations from the HRS, 1994-2014.

Figure 6. *Decline in Widows' Poverty Explained by Education, Labor Force Participation, and Marital Composition, 1994-2014 and 2014-2029*



Source: Authors' calculations from the HRS, 1994-2014.

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