Returns to Education for Women in the Mid-Twentieth Century: Evidence from Compulsory Schooling Laws *

Sophie Li †

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Abstract

Women had a similar level of schooling to men during the mid-twentieth century United States, but research on the returns to education for women is scarce. Using compulsory schooling laws as instrumental variables, this paper examines the causal effect of education on women's labor market and marriage market outcomes. I show that an additional year of education increased women's probability of gainful employment by 7.1 pp. and being in a skilled occupation by 1.2 to 3.3 pp. The positive returns in the labor market were larger for women from lower socioeconomic backgrounds and women from rural areas. On the other hand, education did not affect women's probability of marriage, but it increased their probability of divorce and separation by 1.4 pp. Conditional on marriage formation, there is evidence of assortative mating and a positive effect of women's education on the husband's employment and wage earnings, which suggests an increasing level of education for women led to a better match in the marriage market. Women from lower socioeconomic backgrounds also benefited more in the marriage market.

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[†]Department of Economics, University of Southern Denmark. Contact: soli@sam.sdu.dk

1 Introduction

Women and men had similar educational attainment during the early 20th-century United States. Although the returns to education for men during this period have been well-studied (Goldin and Katz, 2000; Feigenbaum and Tan, 2020; Clay et al., 2021), much less is known about the returns for women. On the one hand, a woman with higher educational attainment "could secure a position as a clerk, stenographer, or, better yet, a secretary," and on the other hand, women would also have "a better chance of securing a higher income husband" (Goldin and Katz, 2008). This paper examines how education shaped women's economic and social opportunities by analyzing its returns in both the labor market and the marriage market.

Because education is an endogenous choice that is often correlated with family socioeconomic background, OLS estimates are likely biased downward. To establish the causal effect of education, I instrument years of education completed with state-level legislation on compulsory attendance, child labor, and school continuation following Clay et al., 2021. The instrumental variable approach explores cohort-by-state variations in the length of compulsory attendance. I show that laws requiring children to attend school for seven, eight, and nine years or above positively affected women's educational attainment, and the magnitudes of the effects are comparable to those of men (Stephens and Yang, 2014; Clay et al., 2021).

I use the complete-count decennial census data from 1940 to study birth cohorts born between 1885 and 1912 that were affected by state compulsory schooling laws (Ruggles et al., 2021). I further restrict the sample to native-born White women, as they were more likely to be directly constrained by these laws than, for example, foreign-born women who may not have completed their schooling in the United States. I also draw on Census Tree linked data that uses genealogical records to track women longitudinally to examine how the returns to education varied by socioeconomic background (Price et al., 2021; Buckles et al., 2023a). Women's socioeconomic background is measured by their fathers' occupational scores, whether their fathers worked on the farm, and whether they lived in urban or rural areas.

First, I show that women experienced large returns to education in the labor market, and women from lower socioeconomic backgrounds benefited more. In particular, the two-stage-least-square (2SLS) estimate indicates that an additional year of schooling increased women's probability of having a gainful occupation by 7.1 percentage points (pp.), which is a large effect

since only 25% of women in the sample were gainfully employed in 1940. The effect is 8.2 pp. for women of lower socioeconomic backgrounds and 4 pp. for women of higher socioeconomic backgrounds. Furthermore, conditional on earning positive wages, an additional year of schooling increased working women's wage earnings by 16.9%. This sizable effect likely reflects that education enabled women to move into higher-paying skilled occupations, since an additional year of education increased the probability of working as a stenographer, clerical worker, or bookkeeper by 1.2 to 3.3 pp.

Next, I present positive returns to education for women regarding their marriage market outcomes. The outcomes include women's decision to marry/divorce and the match quality between the wife and the husband. I first show that an additional year of education did not affect the women's probability of marriage on average, but it increased the probability of being never married in 1940 for those of lower socioeconomic backgrounds. This could imply that education allowed women of lower socioeconomic backgrounds to search in the marriage market for longer. On the other hand, an additional year of education increased women's probability of divorcing or separating by 1.4 pp., a large increase relative to the average share of 2.5% of women who had been divorced or separated. This finding suggests that more education helped women leave marriages, likely because it improved their ability to support themselves financially.

Additionally, I find that higher levels of education improved match quality for married women, as reflected in their husbands' labor market performance. Conditional on marriage formation and the husband's education, an additional year of the wife's schooling reduced the probability of the husband being unemployed by 3.16 pp. This is a sizable effect, given that the unemployment rate was 13% in 1940, just a few years after the Great Depression. I also show that an additional year of women's education increased husbands' wage earnings by 8.5%, although it did not affect their labor supply. Finally, heterogeneous effects indicate that women from lower socioeconomic backgrounds gained the most from education in improving their match quality in the marriage market.

The findings on women's education and marriage outcomes contribute to a broader literature on marriage patterns and their implications for intergenerational mobility in the historical United States (Eriksson et al., 2023; Bailey and Lin, 2025). While prior work has documented the long-run effect of assortative mating on intergenerational mobility, this paper shifts attention to a key determinant during the process: education. By showing how compulsory schooling laws

raised women's educational attainment and, in turn, improved their marriage market outcomes, this paper provides a foundation for understanding the mechanisms that shaped the assortative mating patterns highlighted in the literature.

I advance the literature in two additional dimensions. First, I focus on how legislative actions helped people achieve higher educational attainment and thereby affected future labor market and marriage market outcomes. My paper is closely related to prior work on the effects of compulsory schooling laws (Angrist and Krueger, 1991; Schmidt, 1996; Margo and Finegan, 1996; Lleras-Muney, 2002; Goldin and Katz, 2008; Stephens and Yang, 2014; Clay et al., 2012a; Gihleb and Lang, 2016; Rauscher, 2016; Clay et al., 2021) and studies on the educational and earnings impacts of the G.I. Bill (Bound and Turner, 2002; Angrist and Chen, 2011; Lennon, 2021). It also complements research studying how female-specific labor regulations increased women's employment (Haddad and Kattan, 2024).

In addition, my findings add new insights into the large literature on returns to schooling in the United States (Angrist and Krueger, 1991; Card, 1993; Goldin and Katz, 2008; Oreopoulos and Salvanes, 2011; Stephens and Yang, 2014). The estimates on the returns to schooling in the labor market are larger for women than those for men in Feigenbaum and Tan, 2020, which is consistent with evidence in the broader literature showing that the education coefficient is often higher for women (Mincer and Polachek, 1974; Corcoran and Duncan, 1979; Kane and Rouse, 1995; Card, 1999; Dougherty, 2005, to name a few). The fact that only a quarter of women were employed may explain this, as education likely served as a stronger signal of ability and productivity for women, resulting in higher relative returns compared to men.

2 Background and Data

2.1 State Laws on Compulsory Attendance, Child Labor, and Continuation

State-level legislation on compulsory attendance, child labor, and school continuation was enacted between the 1850s and the 1910s to specify the period during which children should be in school. There are significant variations in the components of these laws across states.

Among the three categories of laws to keep children in school, compulsory attendance laws were established the earliest. The laws set a minimum school entry age, a maximum school leaving age, and a minimum period that children should be in school. Massachusetts was the first state to enact compulsory attendance laws in 1852, and other states in the Northeast (such as Vermont and New Hampshire) followed suit quickly, establishing their own compulsory attendance laws in the 1860s and 1870s. States in the south, on the other hand, generally did not establish compulsory attendance laws until the early 1900s. By 1920, all states in the U.S. had established compulsory attendance laws.

Over the years, compulsory attendance laws were updated to increase the length of mandatory attendance, such as by lowering the minimum entry age and increasing the maximum leaving age. In some cases, truant officers and fines were established to enforce compliance with the laws. According to W.E.B. Du Bois, who grew up in a small town in western Massachusetts, "truant laws were enforced" and he was brought up with "the idea of regular attendance at school" (Du Bois, 1983, page 12).

Complementary to the compulsory attendance laws, a large wave of state-level child labor laws was introduced during the early 1900s.¹ Child labor laws often allowed children to leave school for work at age 14 by having exemptions for children who completed certain levels of schooling, which varied by state. While many states specified that children must complete 8th grade to be eligible for a labor permit, some states (such as Arizona, Missouri, and Vermont) required a lower level of schooling (Deffenbaugh and Keesecker, 1935).

State governments also enacted school continuation laws, which required working children who were still under the maximum school leaving age to attend school in their spare time. The required school time was short, usually only a few hours per week, but it increased the opportunity cost of hiring children under the maximum school leaving age since they might not always be excused from school (Goldin and Katz, 2011).

Laws on compulsory attendance, child labor, and school continuation combined generate large variations in length of school attendance across birth cohorts and states. This paper follows the procedures in Stephens and Yang, 2014 and Clay et al., 2021, which calculate the number of cumulative years each child needed to be in school while taking age limits and exemptions into

¹A few states had enacted child labor laws before 1900, but they lacked enforcement, and there was an increase in child labor between 1880 and 1900 (Bliss, 1905). Between 1900 and 1910, however, more states established child labor laws and committees to enforce these laws, and the share of young children (13 years old and under) working declined below 5 percent by 1930 (Feigenbaum and Russo, 2020), although Moehling, 1999 finds that minimum age limits had little effect in the decline of child labor in the long run.

consideration.² Using the data obtained from the replication package of Clay et al., 2021, I show the variations in length of schooling required for birth cohorts born between 1880 and 1910 in Figure 1. Later cohorts were required to be in school for longer, and children outside of the South were affected by these laws earlier than children in the South.

Using the 1940 complete-count census (Ruggles et al., 2021), I show the share of population affected by different lengths of compulsory schooling in Figure 2. The majority of the population was affected by laws requiring compulsory schooling of 6 years or longer. It was most common to be required to attend school for 8 years, and a small share of the population was required to attend school for 9 or 10 years.

2.2 Women's Education during the Late 19th and Early 20th Centuries

The American education system embraced the virtue of gender neutrality starting from the early 19th Century, offering to educate female and male students to similar levels for those under 15 years old (Goldin and Katz, 2008). Publicly funded schools helped to achieve such a goal since parents of poorer households did not have to choose between educating their sons or daughters.

I show that women and men had similar educational attainment in Figure 3 using the sample of native-born white people aged 28 to 55 in the 1940 complete-count census (Ruggles et al., 2021).³ I restrict the sample to native-born white individuals because foreign-born individuals might not have completed schooling in the US and, as a result, might not be subjected to state-level schooling laws. In addition, since the US South was late in introducing state schooling laws and had weak enforcement of such laws (Margo, 1990; Lleras-Muney, 2002; Stephens and Yang, 2014), I do not include Black women or Black men in the sample.⁴ It is thus important to note that the women and men studied in this paper are referring to native-born white individuals. Across every birth cohort, the share of women completing 8th and 12th grade is slightly higher than that of men. To lessen the concern that this pattern is driven by attrition (e.g., women lived longer and were more likely to survive until 1940), I show that the share of women completing 8th and 12th grade was also slightly higher than that of men in the 1915 Iowa state census where

²Many previous works have also discussed the variations in length of school attendance generated by state laws, see Moehling, 1999; Lleras-Muney, 2002; Goldin and Katz, 2011; Clay et al., 2012b; Rauscher, 2015.

³The 1940 census is the first complete-count census that has information about education.

⁴I also restrict the sample to people born between 1885 and 1912 because they were affected by changes in compulsory schooling laws and were young enough to be in the labor force.

the sample was much younger.

Despite similarity in educational attainment between women and men, there are substantial gender differences in schooling. Most women did not go to school with the goal of a lifelong career. Instead, they went to school to learn knowledge and morals to become good wives and mothers (Rury, 1991). For the small share of women who attended school to pursue future employment, they often worked at the cost of marriage due to marriage bars that prevented married women from working and fired women after marriage (Goldin, 1988; Goldin, 2021), although they were able to financially support themselves without a husband (Harris, 1978).

2.3 Education and Women's Labor Market Outcomes

Although education for women was not originally intended to prepare them for careers after leaving school, the skills taught to improve their performance as homemakers also enhanced their potential as workers. For example, courses in bookkeeping and accounting were offered to help women manage household finances more efficiently after marriage, but these skills also opened up opportunities for paid employment as bookkeepers. Similarly, many women took courses in typewriting and stenography, and they often worked as stenographers or secretaries briefly before marriage (Rury, 1984).

This acquisition of transferable skills through education directly influenced women's employment prospects and returns to schooling. Educated women gained access to more skilled occupations that offered higher wages (Goldin and Katz, 2008). The value of their education was further amplified by demand-side factors (Becker, 1985); technological advancements, for example, created entirely new job categories like telephone operation, which became a major employer for American women early in the 20th century (Feigenbaum and Gross, 2024). Finally, occupational segregation and discrimination might also have increased the value of education for women in the labor market. Education often prepared men for management and administrative positions, creating vacancies in lower-ranked jobs that women, in turn, were able to fill (Rury, 1991).

This paper uses the 1940 complete-count census to study women's labor market outcomes. Outcome variables include whether a woman was gainfully employed, women's labor supply, and the types of occupations women engaged in.

2.4 Education and Women's Marriage Market Outcomes

Educators and domestic feminists during this period argued that education made women more efficient homemakers and knowledgeable mothers. In the marriage market, women with higher education could be considered better partners through several channels. Schools often offered practical courses in sewing and cooking, enabling women to mend and alter clothing for their families and, in some cases, produce goods for sale to supplement household income (Rury, 1991). Education also instilled moral values and emphasized character development, qualities considered essential for effective child-rearing. As contemporaries put it, raising children was a sacred responsibility, and women required "all the intellectual and moral ballast" they could obtain (Nash, 2005). Mothers were thus seen as responsible not only for their own children but also for cultivating "both the skills and the character in future generations necessary for continued social and economic development" (Rury, 1991). Finally, educated women could directly contribute to household income by participating in the labor market, which might be extremely useful if the husband was out of a job.

Past work provides consistent evidence with the historical account outlined above, although it primarily focuses on women from more recent generations. Benham, 1974 shows women's education has positive effects on their husbands' earnings, likely through human capital sharing within marriage. Similarly, Lefgren and McIntyre, 2006 finds that about half of the benefits of women's education arise from marrying higher-income husbands, and Kim and Sakamoto, 2017 shows that more education for married women improved the family standard of living.

This paper uses the 1940 complete-count census to study women's marriage market outcomes, which provides information on women's marital status as well as age at first marriage (although only for sample-line women). Conditional on marriage formation, the census also has information on the husband's education and employment.

2.5 Heterogeneous Effects By Women's Socioeconomic Background

The effect of education might vary by women's socioeconomic background. For women from poorer households, an additional year of schooling might allow them to access better employment opportunities and be matched with better-quality husbands, generating larger returns.

To study the heterogeneous returns to education based on family socioeconomic background,

I use the linked data for women from the Census Tree Project (Price et al., 2021; Buckles et al., 2023a). The Census Tree data relied on user-contributed links from FamilySearch.org, a geneal-ogy platform where users find their ancestors using historical records. This approach overcomes a major challenge in historical data linkage—tracking women who often changed their names after marriage—and represents a substantial improvement in the ability to follow women longitudinally.

In this paper, I use the Census Tree linked data to follow women in the 1940 census back to their childhood censuses, either in 1900, 1910, or 1920 (Buckles et al., 2023b; Buckles et al., 2023c; Buckles et al., 2023d). The linked data provide information on the father's occupation and occupational score, which are used as measures of socioeconomic background. Occupational score is a numerical score assigned to an occupation, and a higher occupational score indicates a higher socioeconomic background. I classify women as coming from a high socioeconomic background if their father's occupational score is above the median, and from a low socioeconomic background if it is below the median.

3 Identification: Instrumental Variables

Education is an endogenous choice that often correlates with family socioeconomic backgrounds, making OLS estimates unlikely to capture causal effects. In particular, during the historical period in the United States, women from higher socioeconomic backgrounds were more likely to complete additional schooling but less likely to work after marriage.⁵ This selection bias leads OLS estimates to understate the true effect of education on employment. To address this, I instrument years of schooling using laws related to compulsory attendance, child labor, and school continuation. The IV estimates help mitigate omitted variable bias and better identify the causal effect of education.

3.1 Compulsory Schooling Laws As Instruments

Almost 90% of women aged 28 to 55 in 1940 had been affected by compulsory schooling laws while they were young. As shown in Figure 2, among those who were required to attend school,

⁵As shown in Table A4, women from higher socioeconomic backgrounds had more years of schooling and were more likely to complete 8th and 12th grade.

the vast majority were required to attend school for at least six years and at most ten years, while very few were required to attend school for only one to five years.

Due to this non-linearity in the number of required years of attendance, I use a group of dummy variables (instead of a continuous variable) that indicate different lengths of compulsory attendance as instruments for years of schooling completed. In particular, the instruments consist of four dummy variables, which are equal to 1 if the required number of years of attendance is six, seven, eight, and nine years or above.

The positive effect of compulsory attendance on years of schooling completed is illustrated in Figure 4 and Table A1. The results show that requiring children to attend school for six, seven, eight, and nine years or above increased their probability of completing sixth, seventh, eighth, and ninth grade respectively, which suggests that compulsory attendance laws are effective in increasing years of education. Among these estimates, requiring children to attend school for nine years or above has the largest effect, which increased the probability of finishing the ninth grade by 4.1%, although it did not affect the probability of finishing high school.

3.2 Instrumental Variables Specification

The instrumental variables specification used to estimate the returns to education for women is the following:

$$Y_{icsr} = \beta_0 + \beta_1 Educ_{icsr} + \gamma_s + \gamma_{cr} + \epsilon_{icsr}$$

$$Educ_{icsr} = \alpha_0 + CA'_{icsr}\Omega + \theta_s + \theta_{cr} + u_{icsr}$$

 Y_{icsr} is the outcome variable in the 1940 census (that measures labor market returns and marriage market returns) for individual i who was born in birth cohort c, state s, and region r, and $Educ_{icsr}$ is the years of schooling completed. CA_{icsr} is a vector of instruments consisting of four dummy variables, which are equal to 1 if the required number of years of attendance is six, seven, eight, and nine years or above. The specification also includes birth state fixed effects γ_s and birth year by birth region fixed effects γ_{cr} . With both fixed effects, β_1 captures changes within the state over time and variations across states but within the same region and birth cohort. This is similar to the specification used by Stephens and Yang, 2014 and Clay et al., 2021.

3.3 First Stage Results

Table 1 presents the first stage estimates of the instruments on years of schooling completed for several groups of women. Column 1 includes all native-born White women born between 1885 and 1912. The results first show that women required to attend school for six years did not experience a large positive effect on years of education relative to women who were not required to attend school and women who were required to attend school for one to five years.⁶ On the other hand, requiring women to attend school for seven, eight, and nine years or above increases women's educational attainment by 0.069, 0.078, and 0.153 years, respectively. A higher number of required years of attendance seems to be more effective at increasing educational attainment among women. The Kleibergen-Paap Wald F-statistic in Column 1 is around 16.

The magnitudes of all these estimates in Column 1 are slightly smaller than those of men (shown in Stephens and Yang, 2014 and Clay et al., 2021), indicating that the laws might have a weaker effect on increasing women's education. This could be because women's labor during their teenage years was valued less than men's labor in the industry, and women were more likely to attend school than men in the first place.

In addition, I further restrict the sample to currently married women in 1940, working women who earned positive wages in 1940, sample-line women in the 1940 census (which is less than 5 percent of the female population), and women born outside the south in Columns 2, 3, 4, and 5. Using various samples allows me to examine the returns to education among different groups.

The first-stage results from Columns 2, 3, 4, and 5 are similar to those of Column 1, suggesting that compulsory attendance laws have a positive effect on years of schooling for married women, working women, sample-line women, and women born outside the South as well. Note that the results for working women in Column 3 are slightly different because the coefficients do not increase monotonically with the increasing number of required years of attendance, which could be due to the selection of women who were earning positive wages (which consists of less than 25% of the female population in the analysis). In addition, the F-statistic among sample-line women is smaller than 10, suggesting that the instruments are weak in this case, which could be due to the much smaller sample size of sample-line women.

⁶The results are similar if we include compulsory attendance for one to five years as an instrument in the first stage. See more details in Table A2.

3.4 First Stage Results By Socioeconomic Background

The IV estimates capture the local average treatment effect (LATE), which is the effect of education among compliers who followed compulsory schooling laws. The likelihood of compliance with these laws is potentially correlated with several factors, such as family socioeconomic background (SES) and urban status. As a result, I additionally examine the heterogeneous effect of compulsory attendance laws on education by household socioeconomic background using the linked Census Tree sample of women. The household socioeconomic background is measured by (1) the father's occupational score, where a higher score reflects higher occupational status, and (2) the father's occupation category, which can be skilled (such as managers, carpenters, and motormen), and others (such as guards and farm laborers).

Since the linked sample of women likely differs from the complete-count sample of women, we might be concerned that the selection into the linked sample of women could bias the results. To address this issue, I show that the first stage results from the linked sample of women are similar to those of the complete-count sample of women aged 28 to 55 in 1940 (see the comparison between Columns 1 of Table 2 and Table 1). This indicates that compulsory attendance laws positively affected education attainment for women in the linked sample, which is reassuring.

Columns 2 to 5 of Table 2 show that compulsory attendance laws affected children from high and low socioeconomic backgrounds differently. For children from higher socioeconomic backgrounds (fathers with above-median-level occupations), compulsory attendance laws that required students to attend school for 6, 7, 8, and 9 years or more increased their educational attainment. This suggests that children from higher socioeconomic backgrounds were more likely to comply with compulsory schooling laws, possibly because the opportunity cost of an extra year of schooling was relatively low. Conversely, for children from lower socioeconomic backgrounds (fathers with below-median-level occupations), only compulsory attendance laws that required students to attend school for nine years or above increased their education, and other types of laws mostly had a null effect. This suggests that many children from lower socioeconomic backgrounds might not have complied with compulsory schooling laws below the nine-year threshold.

The lack of benefit from certain compulsory attendance laws for children from lower socioe-

⁷For example, Table A3 suggests women in the linked sample were more likely to have been married/be in farming households in 1940.

conomic backgrounds is initially surprising, since conventional wisdom often suggests that such laws should reduce educational inequality between different class backgrounds.⁸ One explanation for this lies in the non-linear returns to education. For children from low SES households facing significant economic constraints, only higher educational requirements that substantially improved labor market prospects could justify the opportunity cost of staying in school. While mandates of 6 to 8 years of schooling did little to expand access to better jobs, requiring 9 or more years effectively initiated high school education, creating opportunities to access more skilled occupations. Other factors, such as the degree of enforcement of compulsory attendance laws, may also have played a role.⁹

Additional analysis by household type indicates that compulsory attendance laws were less effective in raising educational attainment among children from farm households compared to those from non-farm households, but they were similarly effective for children in rural and urban settings (see Columns 6–9 of Table 2). Taken together, these results suggest that requiring fewer than nine years of schooling had little effect on the educational attainment of children from lower socioeconomic backgrounds.

4 Returns to Education on Women's Labor Market Outcomes

4.1 Positive Returns on Gainful Employment and Occupational Status

In this section, I present evidence on the positive effect of education on women's gainful employment and occupational status. While past literature on men mostly focuses on the effect of education on earnings, studying the effect of education on the probability of gainful employment and labor supply is more important for women because women's labor supply was much more elastic (Goldin, 2006).

⁸For example, Rauscher, 2016 finds compulsory attendance laws improved inequality in school attendance among white male children using data from 1850 to 1920.

⁹It is plausible that stronger enforcement was positively correlated with longer length of compulsory attendance requirements. According to Deffenbaugh and Keesecker, 1935, there are ten different types of provisions a state can impose to enforce the compulsory attendance laws (see more details in Figure A1). The data suggest the Midwest region had the highest average number of provisions regarding enforcement (Figure A2), and the Midwest also had more states enacting laws requiring children to attend school for nine years or above: Illinois, Indiana, Ohio, and Nebraska required some birth cohorts to do so. The other states with similar laws were New Mexico, Utah, Wyoming, and New Jersey. However, definitively examining the impact of enforcement on educational attainment is challenging. The available enforcement data are limited to 1935, and many states significantly strengthened their compulsory attendance laws between 1915 and 1935 (Schmidt, 1996), making it difficult to disentangle the effects of the laws themselves from their varying enforcement over time.

The first outcome variable is whether an individual was employed in 1940, defined as reporting a gainful occupation in the 1940 census, ¹⁰ and the results are shown in Column 1 of Table 3. The OLS estimate suggests that an additional year of schooling increases women's probability of having a gainful occupation by 2.2 pp. On the other hand, the IV estimate suggests a much larger 7.9 pp. effect, which is a substantial increase given that only 25 percent of women had a gainful occupation in 1940. An additional year of schooling also increases women's labor supply, as suggested by positive OLS and IV estimates in Columns 2 and 3. In particular, the IV estimates suggest an additional year of schooling increases weeks worked per year by 3.4 weeks and hours worked per week by 2.3 hours. The increase in labor supply is sizeable, considering that most women in the sample were not working, and the average labor supply was 11 weeks per year and 9 hours per week.

Conditional on the sample of working women who earned positive wages in 1940, I show that an additional year of schooling substantially increased women's earnings in Column 4. The OLS and IV estimates suggest that an additional year of schooling increases wage earnings by 11.2 to 16.9 percent. One reason behind the large returns on wage earnings might be that education allowed women to enter higher-paying and skilled occupations, such as clerical workers or bookkeepers. To test this hypothesis, I examine some additional outcome variables that are dummy variables equal to one if the woman was a stenographer, a clerical worker, a bookkeeper, or a housekeeper. The first three occupations were higher-paying occupations, while the last was not. Columns 5 to 8 of Table 3 show that an additional year of schooling increases the probability of being a stenographer/clerical worker/bookkeeper by 1.2 to 3.3 pp. while it decreases the probability of being a housekeeper by 1.9 pp. Although the improvement in women's occupational status might not fully account for the 16.9 percent increase in women's earnings because women earning positive wage earnings in 1940 were highly selected, it provides supportive evidence that women with more education were more likely to enter higher-paying occupations and receive larger returns to education in the labor market.¹¹

¹⁰"Gainful occupation" is not a formally defined term, but census enumerators were instructed to mark down a gainful occupation if the occupation is income-generating. For example, a housekeeper is not considered a gainful occupation if the woman works in her home as the housekeeper but is considered a gainful occupation if the woman works for other households and gets paid for the housework done. See more details here: https://www.census.gov/library/publications/1929/dec/monograph-9.html

¹¹Note that the results from Table 3 are the average effect among native-born White women aged 28 to 55 in 1940, and the identification strategy cannot separate the effect of education on earnings over the life cycle. We might expect education not only benefit women immediately after graduation but also benefit women when they have the option to rejoin the labor force when they are older and after the children leave the households (Bailey, 2006,

Finally, I show that the results among non-southern-born women are similar to those shown in Table 3. The similarity between the two groups of results rules out that Southern-born White women were driving the results because the laws were adopted later during the South and the birth cohorts affected in the South were the youngest group in 1940. More details are illustrated in Table A3.

4.2 Heterogeneous Returns By Socioeconomic Background

Examining the heterogeneous returns by children's socioeconomic backgrounds shows that children from lower socioeconomic backgrounds benefited more from increasing years of education. As shown in Panels A and B of Table 4, an additional year of education increased the probability of gainful employment by 4 pp. for children whose father's occupational score was above the median level while it increased the probability of gainful employment by 8.2 pp. for children whose father's occupational score was below the median level. The differences become larger when we consider the differences in employment: 24.5% of children from high SES households were gainfully employed in 1940, while only 16.3% of children from low SES households were doing the same. This means children from a lower class experienced roughly a 50% increase in employment with an additional year of schooling. The results for other labor market outcomes (such as labor supply and occupational score) are similar, although some of the differences in IV estimates between the two groups are not statistically significant.

Perhaps surprisingly, the gap in the increase in gainful employment does not translate into a similarly large gap in wage earnings between children from lower and higher socioeconomic backgrounds – Column 5 of Table 4 suggests the increase in wage earnings is 20% for the former and 18% for the latter. This implies that although more women from low SES households joined the labor force thanks to an increasing level of education, the wage growth among those with positive earnings was comparable to that of women from high SES households.

In addition, I show that the heterogeneous returns based on the farm status of the childhood households are similar to the results based on socioeconomic backgrounds. Children from farm households experienced a larger increase in gainful employment relative to children from non-farm households, but they did not experience a larger increase in wage earnings because of an

Goldin, Kerr, et al., 2022). The effects over the life cycle are more difficult to examine due to the lack of panel data during this period.

increasing level of education.

Finally, Panels E and F of Table 4 show that children from rural areas benefited more from increasing levels of schooling. In particular, an additional year of education increased their probability of employment by 7.8 pp. It also increased their labor supply by 3.2 weeks worked per year and 2.6 hours worked per week and their occupational score by 2.0. In contrast, these labor market outcomes of children from urban areas were largely unaffected by increasing levels of schooling. The differences might be explained by the fact that more women in urban areas have accomplished a high level of education and were more likely to be gainfully employed.

5 Returns to Education on Marriage Market Outcomes

The returns to education for women are not limited to their labor market outcomes since most married women did not work due to marriage bars and gender norms that prevented women from working outside the home (Goldin, 1988; Goldin, 1990; Goldin, 2021). As a result, I additionally examine the returns to education for women regarding their marriage market outcomes, which include their decision to marry as well as the match quality (conditional on marriage formation).

5.1 Marriage Formation and Dissolution

Given the positive returns to education in the labor market, we might expect the effect of an additional year of education on the probability of marriage to be negative because some women would give up marriage to pursue a career. The OLS estimate of years of education on the probability of never marrying in Column 1 in Table 5 is 1.36, confirming the positive correlation between the two variables. By contrast, the IV estimate is -0.41, suggesting that an extra year of education actually lowered the probability of never marrying by 0.41 pp. However, the IV coefficient is small in magnitude relative to the 12.5% share of women aged 28–55 who were never married in 1940, and it is not statistically significant. Thus, we cannot reject the hypothesis that education had no causal effect on marriage formation. Though initially surprising, the null result is consistent with the historical account that most women attended school to become

¹²For example, Lafortune et al., 2022; Olivetti et al., 2024 show that women of the highest socioeconomic background were also least likely ever to get married.

efficient housekeepers and knowledgeable mothers after marriage, and many women eventually married despite their high educational status.

Conditional on marriage formation, there is clear evidence of assortative matching. Column 4 of Table 5 shows that each additional year of a wife's education is associated with 0.71 to 0.93 additional years of her husband's education. This pattern is consistent with prior research on assortative mating in the historical United States (Goldin, 2004; Bailey, Guldi, et al., 2014).

On the other hand, education might positively affect women's bargaining power within the household and allow women to exit marriage more easily. Column 2 of Table 5 supports this argument. Although only 2.5% of women in the 1940 sample got divorced or separated, the OLS and IV estimates suggest that an additional year of education increased the probability of divorce or separation by 0.06 and 1.43 pp., respectively. This is likely because women with more education could support themselves financially, and they were more likely to get a divorce or separation thanks to financial independence.

In addition, I examine whether education delayed women's age at first marriage, given that education might make women stay in school longer. Column 3 of Table 5 shows that an additional year of education increased age at first marriage by 0.38 to 0.75 years, where the IV estimate is larger than the OLS estimate. This is consistent with the evidence from the post-WWII United States (Lennon, 2022) and the mid-20th Century United Kingdom (Powdthavee and Adireksombat, 2010). Note that the question regarding age at first marriage was only asked for sample-line women who were less than 5% of the female population. The results here should be interpreted cautiously, since the smaller sample size leads to a much weaker first stage (Column 4 of Table 1).

Finally, I show that the results among non-southern-born women are similar (see more details in Table A7). This helps address the concern that Southern-born White women might bias the results, since compulsory schooling laws were adopted later in the South and the affected cohorts there were relatively younger in 1940.

5.1.1 Heterogeneous Effects By Socioeconomic Background

The comparison of women from lower versus higher socioeconomic backgrounds reveals an interesting result: women from low SES households were more likely to be never married in

1940 with more years of education (see Column 1 of Table 6). Although the negative coefficients do not imply that these women remained never married forever, they indicate that an additional year of education might allow women from low SES households to search for a good marital match for longer. Moreover, higher levels of education opened opportunities in the labor market, making it more feasible for these women to remain single for a longer period.

5.2 Match Quality Among Married Couples

More education may have enabled women to secure better matches in the marriage market. To assess this, I examine the effect of women's education on their husbands' labor market outcomes. Because men and women were subject to compulsory attendance laws during the same period, it is difficult to disentangle the effect of a wife's education on match quality from that of her husband's education. To address this concern, I control for the husband's years of education in the specification. While this does not establish causality, it allows me to assess whether a wife's education, which is independent of her husband's education to some extent, contributes to match quality.¹³

I measure match quality using the husband's labor market outcomes. The first outcome of interest is whether the husband was unemployed in 1940, a category that also includes men employed on public emergency projects under the New Deal. Unemployment was widespread in the aftermath of the Great Depression, so a lower probability of unemployment reflects higher match quality. Column 1 of Table 7 shows that, in the OLS specification, both the wife's and husband's education are associated with a 0.87 to 0.93 pp. reduction in the husband's unemployment probability. The IV estimate, by contrast, suggests that an additional year of the wife's education reduced her husband's likelihood of being unemployed by 3.16 pp., which is a sizable effect, given that only 13% of husbands in the sample were unemployed. These results indicate that higher levels of women's education may have enabled them to secure better matches in the marriage market.

In addition, I also show that an additional year of education attained by the wife increased the husband's wage earnings by 8.5 pp., despite the fact that the wife's education did not improve

¹³Causal interpretation remains challenging, as marriage is endogenous, the sample includes only married couples, and husbands' education is itself endogenous.

¹⁴Public emergency work projects were designed to move workers from unemployment to relief work. Thus, participation in such projects indicates prior unemployment.

the husband's occupational status or increase the husband's labor supply. This effect may reflect that a more educated wife enhanced her husband's productivity on the job, or alternatively, that more educated women were more likely to marry more productive men. That said, there is little evidence that a wife's education affected her husband's non-wage earnings.

5.2.1 Heterogeneous Effects By Socioeconomic Background

The results on match quality by socioeconomic background are shown in Table 8. Column 1 shows that an additional year of a wife's education reduced her husband's probability of being unemployed in 1940 by by 4.9 pp. among those from low SES households, substantially larger than the 0.4 pp. decrease observed for those from high SES households. In addition, Column 6 shows that an additional year of the wife's education also reduced their husband's probability of earning non-wage earnings above fifty dollars, a proxy for self-employment. Together, these findings suggest that women from lower socioeconomic backgrounds may have gained more from education in terms of match quality in the marriage market.

6 Conclusion

Although women and men had similar levels of educational attainment during the historical United States, the returns to education for women are not well documented. This paper fills the gap in the literature by estimating the effect of women's education on their labor market and marriage market outcomes using compulsory schooling laws as instrumental variables.

I find that additional years of education significantly increased women's likelihood of employment, generating substantial returns in the labor market. By contrast, there is little evidence that more education reduced women's probability of marrying, though it did slightly increase the likelihood of divorce. Conditional on marriage, women's education positively affected their husbands' labor market outcomes. Across both labor and marriage markets, women from lower socioeconomic backgrounds appear to have benefited more from education.

Future research should explore the mechanisms behind these effects, though this is challenging given data limitations. For instance, do more educated women enhance their husbands' productivity, thereby improving the husbands' labor market outcomes? Understanding these mechanisms is crucial for interpreting the broader role of women's education in shaping both

labor market success and marital outcomes.

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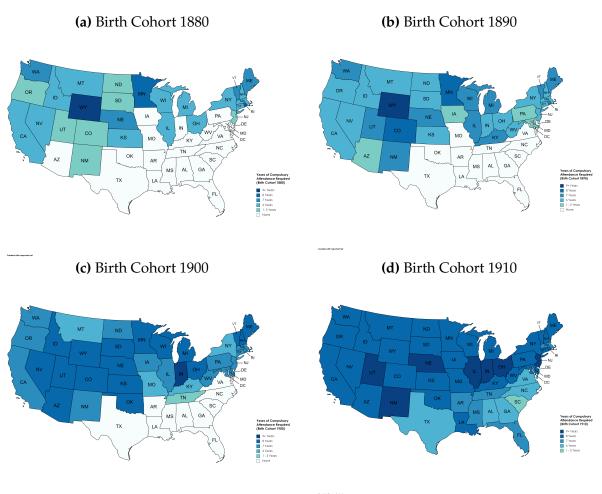
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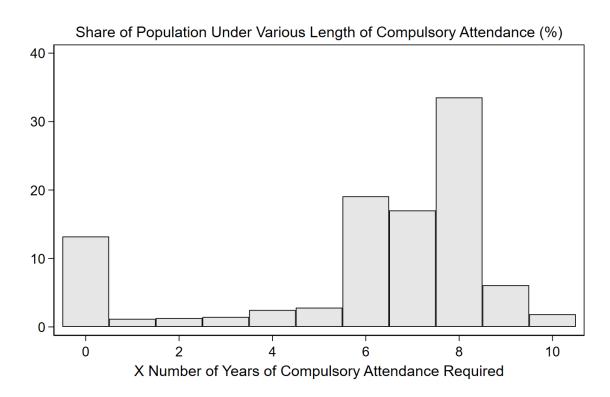
7 Figures

Figure 1: States with Different Lengths of Compulsory Attendance



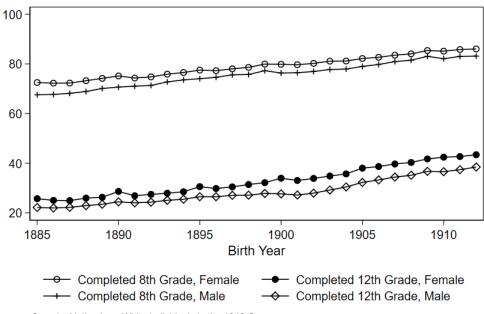
The figure illustrates the lengths of compulsory attendance for birth cohorts 1880, 1890, 1900, and 1910 in different states. Lengths of compulsory attendance are categorized into (1) None; (2) 1-5 years; (3) 6 years; (4) 7 years; (5) 8 years; (6) 9 years and above.

Figure 2: Share of Population Under Various Lengths of Compulsory Attendance (%)

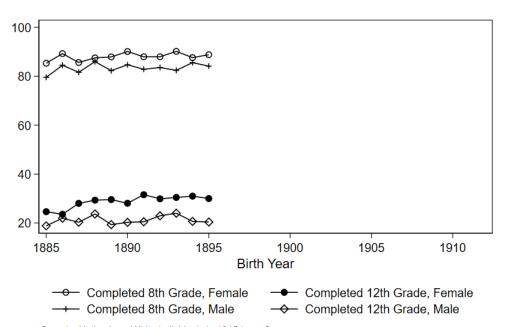


The figure shows the share of the population that was under various lengths of compulsory attendance laws in 1940. The sample is restricted to white and native-born women who were born between 1885 and 1912.

Figure 3: Share of Population that Completed 8th and 12th Grade by Gender (%)



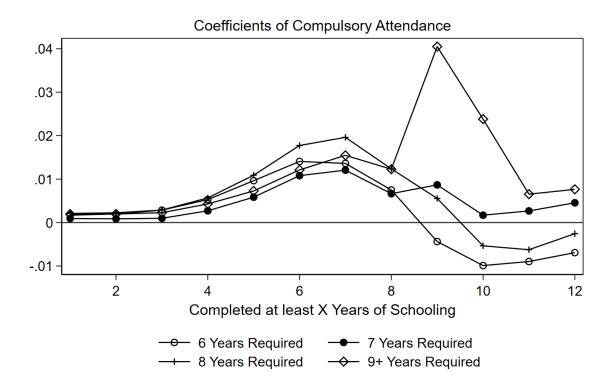
Sample: Native-born White Individuals in the 1940 Census



Sample: Native-born White Individuals in 1915 Iowa Census

The figure at the top shows the share of the population completed 8th and 12th grade as reported in the 1940 Decennial Census. The sample is restricted to white and native-born people who were born between 1885 and 1912. The figure at the bottom shows the share of the population completed 8th and 12th grade as reported in the 1915 Iowa State Census. The sample is restricted to white and native-born people who were at least 20 years old when the 1915 Iowa State Census was taken.

Figure 4: The Effect of Compulsory Attendance Laws on Years of Schooling Completed



The figure plots the coefficients of dummy variables that indicate different lengths of compulsory attendance laws from separate regressions. Each regression has a different outcome variable that indicates whether one completed at least *X* years of schooling, where *X* ranges from 1 to 12. Detailed results from the regressions are shown in Table A1. The sample is restricted to white and native-born women who were born between 1885 and 1912 (N=18836237).

8 Tables

Table 1: First Stage - The Effect of Compulsory Attendance on Years of Schooling Completed

	(1) All Women	(2) Married Women	(3) Working Women	(4) Sample-line Women	(5) No South
Required Years of Schooling				.,,	
6 Years	0.018	0.010	0.111***	0.030	0.009
	(0.013)	(0.013)	(0.018)	(0.020)	(0.015)
7 Years	0.069***	0.060***	0.193***	0.081***	0.060***
	(0.015)	(0.016)	(0.022)	(0.023)	(0.017)
8 Years	0.078***	0.067***	0.206***	0.096***	0.063***
	(0.017)	(0.018)	(0.023)	(0.025)	(0.018)
9 Years +	0.153***	0.154***	0.184***	0.168***	0.138***
	(0.023)	(0.024)	(0.028)	(0.032)	(0.023)
N	18836237	14902197	4151245	936920	14784416
F Stats	15.983	15.541	24.121	8.392	15.283

The outcome variable is years of education completed reported in the 1940 census. The independent variables are dummy variables indicating years of required compulsory attendance. The regression includes birth state fixed effects and birth year by region fixed effects. The sample from Column 1 is White, native-born women who were born between 1885 and 1912. Columns 2, 3, 4, and 5 further restrict the sample to currently married women in 1940, working women who earned positive wages in 1940, sample-line women in the 1940 census, and women born outside of the South. Kleibergen-Paap Wald F-statistic is reported.

Table 2: First Stage By Socioeconomic Background - The Effect of Compulsory Attendance on Years of Schooling Completed

	(1)	(2)	(3)	(4)	(5)
	All	> Median	$\leq=$ Median	Skilled	Other
		OccScore	OccScore	Occ.	Occ.
Required Years of Schooling					
6 Years	0.030*	0.035*	-0.003	-0.005	0.009
	(0.014)	(0.016)	(0.016)	(0.015)	(0.016)
7 Years	0.079***	0.108***	0.014	0.092***	0.011
	(0.016)	(0.019)	(0.019)	(0.018)	(0.019)
8 Years	0.099***	0.121***	0.032	0.097***	0.028
	(0.017)	(0.020)	(0.021)	(0.020)	(0.021)
9 Years +	0.220***	0.229***	0.236***	0.220***	0.169***
	(0.023)	(0.027)	(0.031)	(0.027)	(0.030)
N	6159887	2946448	3213439	2142574	3444008
F Stats	24.535	20.447	23.198	23.956	11.599
		(6)	(7)	(8)	(9)
		Non-	Farm	Rural	Urban
		Farm			
6 Years		0.040*	-0.019	0.030*	-0.032
		(0.016)	(0.018)	(0.015)	(0.019)
7 Years		0.105***	0.004	0.045*	0.071**
		(0.019)	(0.021)	(0.018)	(0.023)
8 Years		0.127***	0.010	0.069***	0.076**
		(0.020)	(0.024)	(0.021)	(0.024)
9 Years +		0.243***	0.221***	0.248***	0.156***
		(0.026)	(0.033)	(0.030)	(0.031)
N		3274783	2885104	4311929	1847958
F Stats		23.750	25.712	21.047	14.205

The outcome variable is years of education completed reported in the 1940 census. The independent variables are dummy variables indicating years of required compulsory attendance. The regression includes birth state fixed effects and birth year by region fixed effects. The sample from Column 1 is the linked sample of White native-born women who were born between 1885 and 1912. Columns 2 and 3 select the sample of women based on their father's occupational scores (above and below median), Columns 4 and 5 select the sample of women based on the category of their father's occupations (skilled and others), and Columns 6 to 9 select the sample of women based on farm and urban status of their fathers.

Table 3: The Returns to Education on Labor Market Outcomes

	(1)		(2)		(3	(3)		(4)	
	Gainful		Weeks		Но	Hours		ln Wage	
	Occup	oation	Woı	ked	Woı	ked			
	OLS	IV	OLS	IV	OLS	IV	OLS	IV	
Educ	2.190***	7.129***	0.907***	3.399***	0.752***	2.289***	0.112***	0.169***	
	(0.019)	(1.862)	(0.009)	(0.829)	(0.006)	(0.614)	(0.001)	(0.023)	
	00 0 0 1	00 0 0 1			0.010	0.010		< 2 04	
\overline{Y}	25.871	25.871	11.114	11.114	9.219	9.219	6.391	6.391	
	(5)		(6)		(7)		(8)		
	Ste	no-	Clerical		Во	ok-	Ho	use-	
	grap	hers	Workers		keepers		keepers		
	OLS	IV	OLS	IV	OLS	IV	OLS	IV	
T 1	0 =4 =444	0.040444	0.000444	4	0.04.0444	4 04 4444	0.000444	4 000444	
Educ	0.515***	3.342***	0.238***	1.777***	0.213***	1.214***	-0.282***	-1.899***	
	(0.011)	(0.724)	(0.003)	(0.438)	(0.002)	(0.225)	(0.003)	(0.391)	
\overline{Y}	2.482	2.482	1.748	1.748	1.284	1.284	2.012	2.012	

The outcome variables are whether one had a gainful occupation in 1940 (*100), weeks worked in 1939, weekly hours worked in 1940, the natural log of wages reported in 1940, and whether the woman was a stenographer, a clerical worker, a bookkeeper, or a housekeeper (*100). The independent variable is the number of years of education completed. Both OLS and IV estimates are reported. The regression includes birth state fixed effects and birth year by region fixed effects. The sample is White, native-born women who were born between 1885 and 1912 (N=18836237). Column 4 further restricts the sample to working women who earned positive wages (N=4151245).

Table 4: The Returns to Education on Labor Market Outcomes By Socioeconomic Background

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Gainful	Weeks	Hours	OccScore	ln(Wage)	Steno-	House-
	Occ.	Worked	Worked		(0 /	grapher	keeper
						0 1	1
		Panel A	A: Father's	OCCSCORE	E > Median		
Educ	3.991*	2.131*	1.611*	1.174**	0.179***	2.766***	-0.589**
	(1.771)	(0.832)	(0.653)	(0.425)	(0.045)	(0.725)	(0.212)
\overline{Y}	24.460	10.350	8.363	5.676	6.512	3.252	0.903
				CCSCORE			
Educ	8.167***	3.293***	2.477***	2.107***	0.201***	2.041***	-0.558**
_	(1.432)	(0.589)	(0.463)	(0.351)	(0.052)	(0.451)	(0.209)
\overline{Y}	16.338	7.792	6.228	3.490	6.138	0.992	1.145
		D 1	0 01 11 1	C T	TT 1 1 1 1		
- 1	= <0=,,,,			from Farm		4 4 6 6 4 4 4	0 =444
Educ	7.635***	2.921***	2.094***	1.909***	0.184**	1.133***	-0.511*
_	(1.238)	(0.507)	(0.412)	(0.305)	(0.063)	(0.236)	(0.225)
\overline{Y}	15.178	7.477	5.972	3.171	6.037	0.649	1.146
		Danal De	Children fi	om Non-farı	m Houcahold	la.	
Educ	4.400**	2.124**	1.832**	1.312**	0.219***	.5 2.797***	-0.520**
Lauc	(1.695)	(0.781)	(0.619)	(0.407)	(0.042)	(0.696)	(0.200)
\overline{Y}	24.065	10.202	8.236	5.573	6.502	3.153	0.931
1	21.005	10.202	0.250	3.373	0.502	3.133	0.751
		Pan	el E: Childi	ren from Rur	al Areas		
Educ	7.830***	3.232***	2.601***	2.017***	0.217***	1.592***	-0.584**
	(1.312)	(0.545)	(0.439)	(0.319)	(0.042)	(0.390)	(0.217)
\overline{Y}	17.027	7.911	6.362	3.666	6.130	0.959	1.183
		Pan	el F: Childr	en from Urb	an Areas		
Educ	1.677	1.104	0.527	0.605	0.165**	3.948***	-0.333
	(1.671)	(0.773)	(0.623)	(0.405)	(0.056)	(0.881)	(0.228)
\overline{Y}	26.200	11.019	8.878	6.155	6.601	4.013	0.778

The outcome variables are whether one had a gainful occupation in 1940 (*100), weeks worked in 1939, weekly hours worked in 1940, the natural log of wages reported in 1940, and whether the woman was a stenographer, a clerical worker, a bookkeeper, or a housekeeper (*100). The independent variable is the number of years of education completed. Only IV estimates are reported. The regression includes birth state fixed effects and birth year by region fixed effects. The sample in Panel A and B consists of women aged 28 to 55 in 1940 whose fathers had OCC-SCORE above and below the median level (N=2946448 and N=3213439). The sample in Panel C and D consists of women aged 28 to 55 in 1940 who were from farm and non-farm households when they were children (N=2885104 and N=3274783). The sample in Panel E and F consists of women aged 28 to 55 in 1940 who were from rural and urban areas when they were children (N=4311929 and N=1847958). The table also shows the mean of the outcome variables \overline{Y} in each category.

Table 5: The Returns to Education on Marriage Market Outcomes

	(1)		(2)		(3)		(4)	
	Never Married		Divorced/ Separated		Age at First Marriage		H's Educ	
	OLS	IV	OLS	IV	OLS	ΙΫ	OLS	IV
Educ	1.361*** (0.017)	-0.410 (0.851)	0.063*** (0.003)	1.430*** (0.317)	0.382*** (0.003)	0.746** (0.272)	0.708*** (0.001)	0.925*** (0.059)
\overline{Y}	12.455	12.455	2.492	2.492	21.616	21.616	9.085	9.085

The outcome variables are whether one had never been married (*100), whether one had been divorced or separated (*100), age at first marriage, and the husband's years of education. The independent variable is the number of years of education completed. Both OLS and IV estimates are reported. The regression includes birth state fixed effects and birth year by region fixed effects. The sample is White, native-born women who were born between 1885 and 1912 (N=18836237). Column 3 further restricts the sample to sample-line women (N=710094) since information for age at first marriage is only available for this group. Column 4 further restricts the sample to White, native-born women who were married and with their husband present in the household in 1940 (N=12583226).

Table 6: The Returns to Education on Marriage Outcomes By Socioeconomic Background

	(1)	(2)	(3)	(4)
	Never	Divorced/	Age at First	, ,
	Married	Separated	Marriage	
		-	, and the second	
	Panel A:	Father's OCC	SCORE > Med	
Educ	-0.722	0.531	0.975**	0.761***
	(1.557)	(0.294)	(0.338)	(0.060)
\overline{Y}	12.971	1.748	21.570	9.790
	Panel B: F		SCORE <= Me	
Educ	2.986**	0.566**	0.741*	0.836***
	(0.922)	(0.202)	(0.326)	, ,
\overline{Y}	7.529	1.147	21.056	8.393
			ı Farm Househo	
Educ	2.870***	0.221	0.514	0.781***
_	(0.777)	` '	(0.342)	` ,
\overline{Y}	6.807	1.029	21.020	8.176
			Non-farm Hous	
Educ	-0.443		0.912**	
_	(1.465)	(0.271)	(0.331)	(0.055)
\overline{Y}	12.679	1.734	21.550	9.740
			om Rural Area	
Educ	2.013**	0.527**	0.615	
_	(0.731)	(0.180)	(0.316)	(0.047)
\overline{Y}	7.353	1.203	21.035	8.475
		T 01 11 1		
. .			om Urban Area	
Educ	-0.556	0.494	1.118**	0.673***
_	(1.676)	(0.328)	(0.386)	(0.079)
\overline{Y}	14.919	1.870	21.949	10.197

The outcome variables are whether one had never been married (*100), whether one had been divorced or separated (*100), age at first marriage, and the husband's years of education. The independent variable is the number of years of education completed. Only IV estimates are reported. The regression includes birth state fixed effects and birth year by region fixed effects. The sample in Panel A and B consists of women aged 28 to 55 in 1940 whose fathers had OCC-SCORE above and below the median level (N=2946448 and N=3213439). The sample in Panel C and D consists of women aged 28 to 55 in 1940 who were from farm and non-farm households when they were children (N=2885104 and N=3274783). The sample in Panel E and F consists of women aged 28 to 55 in 1940 who were from rural and urban areas when they were children (N=4311929 and N=1847958). The table also shows the mean of the outcome variables \overline{Y} in each category.

Table 7: The Returns to Education on Match Quality - Married Women Only

	(1) H's Unemployed		(2	2)	(3)		
			H's OccScore		H's Weeks Worked		
	OLS	IV	OLS	IV	OLS	IV	
Educ	-0.935***	-3.163**	0.396***	0.412	0.381***	0.419	
	(0.010)	(1.188)	(0.004)	(0.489)	(0.005)	(0.560)	
H's Educ	-0.874***	0.367	1.132***	1.124***	0.478***	0.456	
	(0.009)	(0.662)	(0.005)	(0.272)	(0.005)	(0.313)	
\overline{Y}	12.959	12.959	25.700	25.700	43.096	43.096	
	(4	<u>.</u>)	(5	5)	(6)		
	H's H	lours	H's ln((Wage)	H's No	H's Nonwage	
	Wor	ked			Earnings	s > \$50	
	OLS	IV	OLS	IV	OLS	IV	
Educ	0.577***	0.481	0.052***	0.085*	0.891***	2.633	
	(0.006)	(0.761)	(0.001)	(0.040)	(0.018)	(1.938)	
H's Educ	0.367***	0.421	0.077***	0.059**	-0.102***	-1.072	
	(0.007)	(0.426)	(0.000)	(0.022)	(0.026)	(1.081)	
\overline{Y}	38.001	38.001	7.029	7.029	37.171	37.171	

The outcome variables are whether the husband was unemployed or employed on public emergency work projects in 1940 (*100), the husband's occupational score, the husband's weeks worked in 1939, the husband's hours worked per week, the husband's natural log of wage earnings, and whether the husband earned more than \$50 in nonwage earnings in 1940. Both OLS and IV estimates are reported. The regression includes birth state fixed effects and birth year by region fixed effects. The independent variables are the number of years of education completed by the wife (instrumented in the IV regressions) and the number of years completed by the husband. The sample is White, native-born women who were married and with her husband present in the household in 1940 (N=12583226). Columns 5 further restricts the sample to households where the husband was earning positive wages in 1940 (N=8653408). The table also shows the mean of the outcome variables \overline{Y} in each category.

Table 8: The Returns to Education on Match Quality By Socioeconomic Background

	(1)	(2)	(3)	(4)	(5)	(6)			
	H's Unem	H's OccScore	H's Weeks	H's Hours	H's ln(Wage)	H's Nonwage			
	-ployed		Worked	Worked	J	> \$50			
		Panel A:	Father's OCC	SCORE > M	edian				
Educ	-0.417	0.094	0.261	0.321	0.061	3.645			
	(1.227)	(0.447)	(0.616)	(0.765)	(0.037)	(1.862)			
\overline{Y}	11.658	28.448	43.982	38.141	7.213	32.414			
Panel B: Father's OCCSCORE <= Median									
Educ	-4.925***	0.865	2.055***	2.641**	0.077*	-7.352**			
	(1.126)	(0.452)	(0.533)	(0.856)	(0.037)	(2.247)			
\overline{Y}	12.841	22.686	43.040	39.009	6.782	47.544			
		Panel C:	Children fron	ı Farm Housei	holds				
Educ	-3.700***	1.428***	1.789***	1.320	0.082*	-8.997***			
	(1.067)	(0.418)	(0.462)	(0.855)	(0.036)	(2.196)			
\overline{Y}	12.685	21.779	42.962	39.234	6.691	49.809			
		Panel D: C	hildren from 1	Non-farm Hou	seholds				
Educ	-1.317	0.365	0.619	0.909	0.080*	2.669			
	(1.172)	(0.444)	(0.573)	(0.704)	(0.035)	(1.771)			
\overline{Y}	11.890	28.250	43.910	38.121	7.200	33.001			
		Panel	E: Children fr	om Rural Are	as				
Educ	-2.403*	1.274**	1.697***	1.607*	0.099**	-7.222**			
	(0.992)	(0.458)	(0.493)	(0.791)	(0.035)	(2.257)			
\overline{Y}	13.267	23.253	42.814	38.539	6.807	44.994			
		Panel	F: Children fr	om Urban Are	eas				
Educ	-0.757	0.041	0.019	0.398	0.048	2.607			
	(1.293)	(0.446)	(0.626)	(0.795)	(0.034)	(2.052)			
\overline{Y}	10.589	29.801	44.668	38.497	7.329	30.409			

The outcome variables are whether the husband was unemployed or employed on public emergency work projects in 1940 (*100), the husband's occupational score/weeks worked in 1939/hours worked per week/natural log of wage earnings, and whether the husband earned more than \$50 in nonwage earnings in 1940. Only IV estimates are reported. The regression includes birth state fixed effects and birth year by region fixed effects. The independent variables are the number of years of education completed by the wife (instrumented in the IV regressions) and the number of years completed by the husband (not reported). The sample in Panel A and B consists of married women aged 28 to 55 in 1940 whose fathers had OCCSCORE above and below the median level (N=2183674 and N=2653752). The sample in Panel C and D consists of married women aged 28 to 55 in 1940 who were from farm and non-farm households when they were children (N=2401011 and N=2436415). The sample in Panel E and F consists of married women aged 28 to 55 in 1940 who were from rural and urban areas when they were children (N=3538241 and N=1299185). The table also shows the mean of the outcome variables \overline{Y} in each category.

36

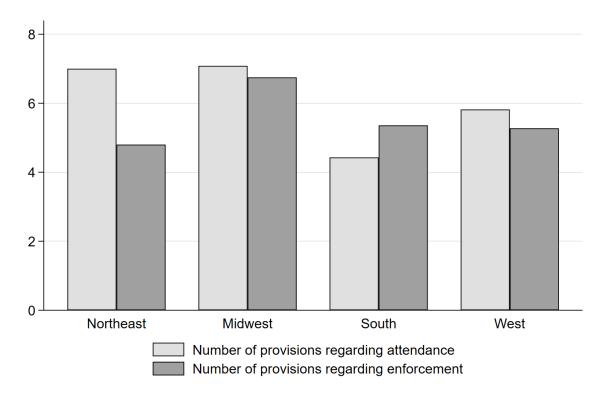
9 Appendix

Figure A1: Provisions Regarding Compulsory Attendance Laws

	Provisions Relating to Attendance, Age, Exemptions,		
	Term of Attendance		
	a a substitute of a substitute of the substitute		
1.	Minimum compulsory attendance age less than 8	(32)	
2.	Maximum compulary attendance age 16 or more	(42)	
3.	No exemptions allowed for poverty	(29)	
4.	No exemptions allowed for distance	(26)	
5.	No exemptions allowed for indefinite reasons	(31)	
. b.	Lighth grade or more required for work parmit	(20)	
7.	Attendance required for full term Nine years or more attendance required. School term of 8 or more months	(39)	-
8.	Nine years or more attendance required	(33)	
9.	School term of 8 or more months	(25)	
10.	Attendance officers certificated,	(8)	
	7:	1	
	Provisions for Enforcement	(A	
11.	Annual or continuous school census	(36)	
12.	Truancy defined	(21)	
13.	Provides when truency shall cease	(29)	
14	Penalty on principals or teachers for failure to report truancy_	(16)	
AT.			
15.	Penalty on attendance officers for neglect of duty		+ +
15. 16.	Penalty on attendance officers for neglect of duty	(19)	
15.	Penalty on attendance officers for neglect of duty Requires truancy to be reported immediately	(19) (11)	+ +
15. 16. 17.	Penalty on attendance officers for neglect of duty Requires truancy to be reported immediately Requires attendance officers to act immediately	(19) (11) (16)	
15. 16. 17. 18.	Penalty on attendance officers for neglect of duty Requires truancy to be reported immediately	(19) (11)	

The figure shows different provisions regarding compulsory attendance laws in Deffenbaugh and Keesecker, 1935.

Figure A2: Number of Provisions Regarding Compulsory Attendance Laws in Different Regions



The figure shows the number of provisions regarding compulsory attendance laws in different regions with data collected by Deffenbaugh and Keesecker, 1935.

Table A1: The Effect of Compulsory Attendance on Years of Schooling Completed

	(1)	(2)	(3)	(4)	(5)	(6)
Years of Schooling						
Completed==	One	Two	Three	Four	Five	Six
	0.001 7***	0.0000***	0.0000***	0.00 52 ***	0.0007***	0 01 41 ***
6 Years	0.0017***	0.0020***	0.0029***	0.0053***	0.0096***	0.0141***
	(0.0004)	(0.0005)	(0.0007)	(0.0010)	(0.0015)	(0.0019)
7 Years	0.0009	0.0009	0.0010	0.0027*	0.0058***	0.0108***
	(0.0006)	(0.0007)	(0.0009)	(0.0012)	(0.0017)	(0.0022)
8 Years	0.0021**	0.0023**	0.0029**	0.0057***	0.0109***	0.0177***
	(0.0007)	(0.0008)	(0.0010)	(0.0013)	(0.0018)	(0.0023)
9 Years +	0.0019*	0.0020	0.0023	0.0043*	0.0073**	0.0121***
	(0.0009)	(0.0011)	(0.0014)	(0.0017)	(0.0022)	(0.0027)
	(7)	(8)	(9)	(10)	(11)	(12)
Years of Schooling						
Completed==	Seven	Eight	Nine	Ten	Eleven	Twelve
6 Years	0.0136***	0.0075***	-0.0044	-0.0099***	-0.0090***	-0.0069**
	(0.0021)	(0.0021)	(0.0026)	(0.0023)	(0.0023)	(0.0023)
7 Years	0.0121***	0.0067**	0.0087**	0.0017	0.0027	0.0046
	(0.0025)	(0.0025)	(0.0030)	(0.0028)	(0.0030)	(0.0029)
8 Years	0.0196***	0.0124***	0.0056	-0.0054	-0.0062*	-0.0026
	(0.0027)	(0.0029)	(0.0035)	(0.0029)	(0.0029)	(0.0029)
9 Years +	0.0155***	0.0123***	0.0405***	0.0238***	0.0065	0.0076
	(0.0032)	(0.0034)	(0.0050)	(0.0043)	(0.0042)	(0.0040)

The table shows results from 12 separate regressions, and each regression has a different outcome variable that indicates whether one completed at least *X* years of schooling, where *X* ranges from 1 to 12. The independent variables are dummy variables that indicate different lengths of compulsory attendance laws. The regression includes birth state fixed effects and birth year by region fixed effects. The sample includes white and native-born women who were born between 1885 and 1912 (N=18836237).

Table A2: First Stage Results with An Alternative Set of Instruments

	(1)	(2)	(3)	(4)	(5)
	All	Married	Working	Sample-line	No South
	Women	Women	Women	Women	
Required Years of Schooling					
1 - 5 Years	0.028	0.020	0.038	0.038	0.019
	(0.018)	(0.018)	(0.024)	(0.027)	(0.031)
6 Years	0.043*	0.028	0.144***	0.063*	0.024
	(0.021)	(0.022)	(0.029)	(0.031)	(0.030)
7 Years	0.094***	0.079**	0.227***	0.115***	0.076*
	(0.023)	(0.024)	(0.032)	(0.033)	(0.032)
8 Years	0.104***	0.086**	0.241***	0.130***	0.079*
	(0.026)	(0.026)	(0.034)	(0.036)	(0.034)
9 Years +	0.180***	0.173***	0.220***	0.204***	0.155***
	(0.030)	(0.031)	(0.038)	(0.042)	(0.038)
N	18836237	14902197	4151245	936920	14784416
F Stats	12.858	12.435	19.443	6.993	12.160

The outcome variable is years of education completed reported in the 1940 census. The independent variables are dummy variables indicating years of required compulsory attendance. The regression includes birth state fixed effects and birth year by region fixed effects. The sample from Column 1 is White, non-South, native-born women who were born between 1885 and 1912. Column 2, 3, 4 and 5 further restricts the sample to currently married women in 1940, working women who earned positive wages in 1940, sample-line women in the 1940 census, and women born outside of the South. The Kleibergen-Paap Wald F-statistic is reported.

Table A3: 1940 Characteristics of Women in the Linked Census Tree Sample and Complete-Count Sample

	(1)	(2)
	Tree	All Women
Age	39.9	39.8
	(7.7)	(7.9)
Ever Married	89.3	87.5
	(31.0)	(33.0)
Farm	22.5	19.7
	(41.7)	(39.8)
Urban	54.8	58.8
	(49.8)	(49.2)
Northeast	32.2	29.6
	(46.7)	(45.7)
Midwest	39.8	41.9
	(49.0)	(49.3)
South	21.9	21.6
	(41.3)	(41.2)
Educ	9.6	9.5
	(3.1)	(3.2)
Gainfully Employed	21.1	25.9
, I ,	(40.8)	(43.8)
Self Employed	2.5	3.0
1 7	(15.7)	(17.0)
OCCSCORE	4.8	5.7
	(9.9)	(10.5)
ln(Wage)	6.4	6.4
, 0,	(1.0)	(1.0)
Nonwage Earnings > \$50	11.Ó	12.8
	(31.3)	(33.4)
N	6270951	19244286

The outcome variables are age in 1940, whether one had been married in 1940 (*100), farm/urban status in 1940 (*100), whether one lived in the Northeast/Midwest/South region in 1940 (*100), years of education, whether one was gainfully employed/self-employed in 1940 (*100), one's OCCScore in 1940, natural log of wage earnings in 1940, and whether one had non-wage earnings higher than \$50 in 1940 (*100). The sample from Column 1 is the linked Census Tree sample of White and native-born women born between 1885 and 1912. The sample from Column 2 is the complete-count sample of White and native-born women born between 1885 and 1912.

Table A4: Educational Attainment By Socioeconomic Background

	(1)	(2)	(3)	(4)	(5)
	All	> Median	\leq Median	Rural	Urban
	Women	OccScore	OccScore		
Years of Schooling	9.6	10.1	9.0	9.1	10.3
	(3.1)	(3.0)	(3.1)	(3.1)	(2.9)
Completed 8th Grade (%)	79.3	83.7	73.0	73.8	86.2
	(40.5)	(36.9)	(44.4)	(44.0)	(34.5)
Some HS Education (%)	40.1	44.7	33.4	34.7	46.8
zonie 113 Zaacation (70)	(49.0)	(49.7)	(47.2)	(47.6)	(49.9)
	(2)10)	(2717)	(== ==)	(27.10)	(2) ()
Completed 12th Grade (%)	33.2	38.3	25.7	27.0	40.7
	(47.1)	(48.6)	(43.7)	(44.4)	(49.1)
N	6270951	2994232	3276719	4394039	1876912
IN	62/0951	2994232	32/6/19	4394039	18/6912

The table shows descriptive statistics on educational attainment by socioeconomic background. The average level of schooling, the share who completed 8th grade, the share who had some high school education, and the share who completed 12th grade are reported. The sample from Column 1 is the linked sample of White native-born women who were born between 1885 and 1912. Columns 2 and 3 select the sample of women based on their fathers' occupational scores (above and below the median), and Columns 4 and 5 select the sample of women based on the rural and urban status of their fathers.

Table A5: The Effect of Years of Schooling on Labor Market Outcomes (No South)

-	(1)		(2	(2)		3)	(4	4)
	Gai	inful	We	eks	Но	urs	ln Wage	
	Occu	pation	Woı	rked	Wor	ked		
	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Educ	2.333***	11.644***	0.984***	5.135***	0.772***	3.612***	0.113***	0.171***
	(0.020)	(2.282)	(0.009)	(1.011)	(0.007)	(0.743)	(0.001)	(0.026)
\overline{Y}	26.484	26.484	11.307	11.307	9.360	9.360	6.439	6.439
	((5)	(6)		(7)		3)	3)
	Ste	eno-	Clerical		Book-		House-	
	graj	ohers	Workers		keepers		keepers	
	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Educ	0.557***	4.462***	0.245***	2.317***	0.219***	1.633***	-0.290***	-2.048***
	(0.014)	(0.880)	(0.004)	(0.525)	(0.003)	(0.270)	(0.002)	(0.437)
\overline{Y}	2.714	2.714	1.927	1.927	1.383	1.383	2.113	2.113

The outcome variables are whether one had a gainful occupation in 1940 (*100), weeks worked in 1939, weekly hours worked in 1940, the natural log of wages reported in 1940, and whether the woman was a stenographer, a clerical worker, a bookkeeper, or a housekeeper (*100). The independent variable is the number of years of education completed. Both OLS and IV estimates are reported. The regression includes birth state fixed effects and birth year by region fixed effects. The sample is White, non-South, native-born women who were born between 1885 and 1912 (N=14784416). Column 4 further restricts the sample to working women who earned positive wages (N=3371943).

Table A6: The Returns to Education on Labor Market Outcomes By Socioeconomic Background (No South)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Gainful	Weeks	Hours	OccScore	ln(Wage)	Steno-	House-
	Occ.	Worked	Worked		, 0,	grapher	keeper
						0 1	1
		Panel A	A: Father's	OCCSCORE	E > Median		
Educ	5.485**	2.673**	1.961**	1.532**	0.166***	3.189***	-0.647**
	(1.981)	(0.933)	(0.727)	(0.475)	(0.044)	(0.832)	(0.237)
\overline{Y}	24.534	10.355	8.312	5.685	6.534	3.338	0.968
				OCCSCORE			
Educ	8.506***	3.380***	2.598***	2.161***	0.267***	2.229***	-0.532**
_	(1.383)	(0.565)	(0.446)	(0.338)	(0.058)	(0.440)	(0.205)
\overline{Y}	16.661	7.932	6.353	3.589	6.195	1.166	1.371
				_			
				from Farm I			
Educ	7.495***	2.753***	2.056***	1.828***	0.287***	1.235***	-0.422*
_	(1.124)	(0.457)	(0.376)	(0.276)	(0.077)	(0.220)	(0.214)
\overline{Y}	15.131	7.503	6.025	3.173	6.072	0.738	1.425
		D1 D-	C1.:11 C	NI C		1_	
Educ	5.483**	2.514**	2.094**	om Non-farr 1.573***	п ноиѕепога 0.202***	3.109***	-0.582**
Educ							
$\overline{\gamma}$	(1.843) 24.176	(0.852)	(0.672)	(0.443)	(0.040)	(0.776) 3.241	(0.217)
Y	24.176	10.229	8.204	5.593	6.526	3.241	0.995
		Dan	ol E. Child	ren from Rur	ral Areac		
Educ	8.736***	3.532***	2.818***	2.204***	0.275***	1.840***	-0.645**
Lauc	(1.343)	(0.555)	(0.445)	(0.326)	(0.050)	(0.405)	(0.223)
\overline{Y}	17.111	7.928	6.379	3.693	6.164	1.058	1.415
1	17.111	7.720	0.577	3.073	0.101	1.050	1.110
		Pan	el F: Childr	en from Urbi	an Areas		
Educ	2.086	1.227	0.524	0.704	0.158**	4.042***	-0.306
	(1.849)	(0.855)	(0.681)	(0.446)	(0.054)	(0.995)	(0.256)
\overline{Y}	26.143	10.984	8.794	6.128	6.612	4.001	0.822

The outcome variables are whether one had a gainful occupation in 1940 (*100), weeks worked in 1939, weekly hours worked in 1940, the natural log of wages reported in 1940, and whether the woman was a stenographer, a clerical worker, a bookkeeper, or a housekeeper (*100). The independent variable is the number of years of education completed. Only IV estimates are reported. The regression includes birth state fixed effects and birth year by region fixed effects. The sample in Panel A and B consists of non-southern women aged 28 to 55 in 1940 whose fathers had OCCSCORE above and below the median level (N=2475170 and N=2224390). The sample in Panel C and D consists of non-southern women aged 28 to 55 in 1940 who were from farm and non-farm households when they were children (N=1942926 and N=2756634). The sample in Panel E and F consists of non-southern women aged 28 to 55 in 1940 who were from rural and urban areas when they were children (N=3057821 and N=1641739). The table also shows the mean of the outcome variables \overline{Y} in each category.

Table A7: The Returns to Education on Marriage Market Outcomes (No South)

	(1)		(2)		(3)		(4)	
	Nev		Divorced/		Age at		H's Educ	
	Married		Sepa	rated	First M	arriage		
	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Educ	1.544*** (0.014)	0.333 (0.927)	0.045*** (0.003)	1.590*** (0.361)	0.400*** (0.003)	0.817** (0.293)	0.687*** (0.001)	0.963*** (0.062)
Y	13.356	13.356	2.556	2.556	21.912	21.912	9.401	9.401

The outcome variables are whether one had never been married (*100), whether one had been divorced or separated (*100), age at first marriage, and the husband's years of education. The independent variable is the number of years of education completed. Both OLS and IV estimates are reported. The regression includes birth state fixed effects and birth year by region fixed effects. The sample is White, native-born women who were born between 1885 and 1912 (N=14784416). Column 3 further restricts the sample to sample-line women (N=552530) since information for age at first marriage is only available for this group.

Table A8: The Returns to Education on Marriage Outcomes By Socioeconomic Background (No South)

$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		(1)	(2)	(3)	(4)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Never		Age at First	Husband's
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Married	Separated	Marriage	Education
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					
$\begin{array}{ c c c c c c } \hline Y & 13.521 & 1.727 & 21.716 & 9.885 \\ \hline & \textit{Panel B: Father's OCCSCORE} <= \textit{Median} \\ \hline Educ & 3.138^{***} & 0.522^{**} & 0.318 & 0.817^{***} \\ & (0.885) & (0.197) & (0.358) & (0.052) \\ \hline \hline Y & 8.014 & 1.234 & 21.373 & 8.821 \\ \hline & \textit{Panel C: Children from Farm Households} \\ \hline Educ & 2.677^{***} & 0.108 & 0.227 & 0.748^{***} \\ & (0.698) & (0.163) & (0.402) & (0.046) \\ \hline \hline Y & 7.034 & 1.104 & 21.351 & 8.580 \\ \hline & \textit{Panel D: Children from Non-farm Households} \\ \hline Educ & -0.528 & 0.807^{**} & 0.965^{**} & 0.810^{***} \\ & (1.581) & (0.293) & (0.346) & (0.058) \\ \hline \hline Y & 13.239 & 1.717 & 21.696 & 9.857 \\ \hline & \textit{Panel E: Children from Rural Areas} \\ \hline Educ & 2.065^{**} & 0.513^{**} & 0.321 & 0.814^{***} \\ & (0.732) & (0.182) & (0.368) & (0.048) \\ \hline \hline Y & 7.654 & 1.276 & 21.305 & 8.837 \\ \hline & \textit{Panel F: Children from Urban Areas} \\ \hline Educ & -1.195 & 0.635 & 1.123^{**} & 0.683^{***} \\ & (1.859) & (0.363) & (0.421) & (0.082) \\ \hline \end{array}$	Educ				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		` ,	,	` ,	` ,
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Υ	13.521	1.727	21.716	9.885
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Danal D. I	Eathar's OCC	CODE <- M	adian
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Edua				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Educ				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	\overline{V}	, ,	, ,	,	, ,
Educ 2.677^{***} 0.108 0.227 0.748^{***} (0.698) (0.163) (0.402) (0.046) \overline{Y} 7.034 1.104 21.351 8.580 Panel D: Children from Non-farm HouseholdsEduc -0.528 0.807^{**} 0.965^{**} 0.810^{***} (1.581) (0.293) (0.346) (0.058) \overline{Y} 13.239 1.717 21.696 9.857 Panel E: Children from Rural AreasEduc 2.065^{**} 0.513^{**} 0.321 0.814^{***} (0.732) (0.182) (0.368) (0.048) \overline{Y} 7.654 1.276 21.305 8.837 Panel F: Children from Urban AreasEduc -1.195 0.635 1.123^{**} 0.683^{***} Educ -1.195 0.635 1.123^{**} 0.683^{***} (1.859) (0.363) (0.421) (0.082)	1	0.014	1.234	21.373	0.021
Educ 2.677^{***} 0.108 0.227 0.748^{***} (0.698) (0.163) (0.402) (0.046) \overline{Y} 7.034 1.104 21.351 8.580 Panel D: Children from Non-farm HouseholdsEduc -0.528 0.807^{**} 0.965^{**} 0.810^{***} (1.581) (0.293) (0.346) (0.058) \overline{Y} 13.239 1.717 21.696 9.857 Panel E: Children from Rural AreasEduc 2.065^{**} 0.513^{**} 0.321 0.814^{***} (0.732) (0.182) (0.368) (0.048) \overline{Y} 7.654 1.276 21.305 8.837 Panel F: Children from Urban AreasEduc -1.195 0.635 1.123^{**} 0.683^{***} Educ -1.195 0.635 1.123^{**} 0.683^{***} (1.859) (0.363) (0.421) (0.082)		Panel C:	Children fron	ı Farm Househo	olds
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Educ				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.698)	(0.163)	(0.402)	(0.046)
Educ -0.528 0.807^{**} 0.965^{**} 0.810^{***} \overline{Y} 13.239 1.717 21.696 9.857 Panel E: Children from Rural AreasEduc 2.065^{**} 0.513^{**} 0.321 0.814^{***} (0.732) (0.182) (0.368) (0.048) \overline{Y} 7.654 1.276 21.305 8.837 Panel F: Children from Urban AreasEduc -1.195 0.635 1.123^{**} 0.683^{***} (1.859) (0.363) (0.421) (0.082)	\overline{Y}	7.034	1.104	21.351	8.580
Educ -0.528 0.807^{**} 0.965^{**} 0.810^{***} \overline{Y} 13.239 1.717 21.696 9.857 Panel E: Children from Rural AreasEduc 2.065^{**} 0.513^{**} 0.321 0.814^{***} (0.732) (0.182) (0.368) (0.048) \overline{Y} 7.654 1.276 21.305 8.837 Panel F: Children from Urban AreasEduc -1.195 0.635 1.123^{**} 0.683^{***} (1.859) (0.363) (0.421) (0.082)					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			Children from 1	Non-farm House	eholds
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Educ				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	_	` ,	` ,	,	
Educ 2.065^{**} 0.513^{**} 0.321 0.814^{***} (0.732) (0.182) (0.368) (0.048) \overline{Y} 7.654 1.276 21.305 8.837 Panel F: Children from Urban AreasEduc -1.195 0.635 1.123^{**} 0.683^{***} (1.859) (0.363) (0.421) (0.082)	Υ	13.239	1.717	21.696	9.857
Educ 2.065^{**} 0.513^{**} 0.321 0.814^{***} (0.732) (0.182) (0.368) (0.048) \overline{Y} 7.654 1.276 21.305 8.837 Panel F: Children from Urban AreasEduc -1.195 0.635 1.123^{**} 0.683^{***} (1.859) (0.363) (0.421) (0.082)		Danal	E. Children fo	rom Darval Area	2
\overline{Y} (0.732) (0.182) (0.368) (0.048) \overline{Y} 7.654 1.276 21.305 8.837 Panel F: Children from Urban Areas Educ -1.195 0.635 1.123** 0.683*** (1.859) (0.363) (0.421) (0.082)	Educ				
\overline{Y} 7.654 1.276 21.305 8.837 Panel F: Children from Urban Areas Educ -1.195 0.635 1.123** 0.683*** (1.859) (0.363) (0.421) (0.082)	Lauc				
Panel F: Children from Urban Areas Educ -1.195 0.635 1.123** 0.683*** (1.859) (0.363) (0.421) (0.082)	\overline{V}	` ,	` ,	,	,
Educ -1.195 0.635 1.123** 0.683*** (1.859) (0.363) (0.421) (0.082)	1	7.001	1.270	21.505	0.037
Educ -1.195 0.635 1.123** 0.683*** (1.859) (0.363) (0.421) (0.082)		Panel	F: Children fr	om Urban Area	S
	Educ				
\overline{Y} 15.284 1.815 22.039 10.195		(1.859)	(0.363)	(0.421)	(0.082)
	\overline{Y}	15.284	1.815	22.039	10.195

The outcome variables are whether one had never been married (*100), whether one had been divorced or separated (*100), age at first marriage, and the husband's years of education. The independent variable is the number of years of education completed. Only IV estimates are reported. The regression includes birth state fixed effects and birth year by region fixed effects. The sample in Panel A and B consists of non-southern women aged 28 to 55 in 1940 whose fathers had OCCSCORE above and below the median level (N=2475170 and N=2224390). The sample in Panel C and D consists of non-southern women aged 28 to 55 in 1940 who were from farm and non-farm households when they were children (N=1942926 and N=2756634). The sample in Panel E and F consists of non-southern women aged 28 to 55 in 1940 who were from rural and urban areas when they were children (N=3057821 and N=1641739). The table also shows the mean of the outcome variables \overline{Y} in each category.

Table A9: The Returns to Education on Match Quality - Married Women Only (No South)

	(1)		(2	(2)		(3)	
	H's Uner	nployed	H's Oc	H's OccScore		H's Weeks Worked	
	OLS	IV	OLS	IV	OLS	IV	
Educ	-0.995***	-3.676**	0.360***	0.683	0.380***	1.083	
TT/ T 1	(0.012)	(1.240)	(0.004)	(0.522)	(0.006)	(0.574)	
H's Educ	-0.976***	0.431	1.177***	1.007***	0.511***	0.142	
	(0.008)	(0.651)	(0.006)	(0.273)	(0.006)	(0.302)	
\overline{Y}	12.974	12.974	26.436	26.436	43.196	43.196	
	(4	4)	(5	5)	(6)		
	H's H		H's ln(Wage)		H's Nonwage		
	Wor	ked			Earning	s > \$50	
	OLS	IV	OLS	IV	OLS	IV	
Educ	0.573***	0.752	0.046***	0.087*	1.067***	-1.529	
	(0.008)	(0.774)	(0.000)	(0.040)	(0.021)	(1.967)	
H's Educ	0.370***	0.277	0.075***	0.053*	0.063*	1.426	
	(0.010)	(0.409)	(0.000)	(0.021)	(0.031)	(1.030)	
\overline{Y}	37.942	37.942	7.103	7.103	35.253	35.253	

The outcome variables are whether the husband was unemployed or employed on public emergency work projects in 1940 (*100), the husband's occupational score, the husband's weeks worked in 1939, the husband's hours worked per week, the husband's natural log of wage earnings, and whether the husband earned more than \$50 in nonwage earnings in 1940. Both OLS and IV estimates are reported. The regression includes birth state fixed effects and birth year by region fixed effects. The independent variables are the number of years of education completed by the wife (instrumented in the IV regressions) and the number of years completed by the husband. The sample is White, native-born women who were married and with her husband present in the household in 1940 (N=9643189). Columns 5 further restricts the sample to households where the husband was earning positive wages in 1940 (N=6873292). The table also shows the mean of the outcome variables \overline{Y} in each category.

Table A10: The Returns to Education on Match Quality By Socioeconomic Background (No South)

	(1)	(2)	(3)	(4)	(5)	(6)
	H's Unem	H's OccScore	H's Weeks	H's Hours	H's ln(Wage)	H's Nonwage
	-ployed		Worked	Worked	` 0 /	> \$50
	1 ,					
		Panel A:	Father's OCC	SCORE > M	edian	
Educ	-0.750	0.095	0.508	0.479	0.071	2.635
	(1.298)	(0.477)	(0.656)	(0.801)	(0.039)	(1.925)
\overline{Y}	11.785	28.620	43.930	37.848	7.236	31.430
		Panel B: F	ather's OCCS	$SCORE <= \lambda$	1edian	
Educ	-5.287***	0.598	2.228***	3.058***	0.069*	-7.948***
	(1.062)	(0.412)	(0.502)	(0.810)	(0.035)	(2.109)
\overline{Y}	12.999	23.443	43.181	39.390	6.886	45.962
		- 10				
- 1	• • • • • • • • • • • • • • • • • • • •		Children from			0 = 40444
Educ	-3.940***	1.032**	1.818***	1.681*	0.069*	-8.748***
-	(0.960)	(0.362)	(0.423)	(0.793)	(0.033)	(1.937)
\overline{Y}	12.889	22.338	43.080	39.802	6.788	48.638
		Panel D: C	hildren from 1	Non-farm Hou	seholds	
Educ	-1.807	0.430	0.910	1.099	0.092*	1.946
	(1.243)	(0.477)	(0.616)	(0.740)	(0.038)	(1.837)
\overline{Y}	11.977	28.459	43.882	37.861	7.227	32.059
		Panøl	E: Children fr	rom Rural Are	vae	
Educ	-2.890**	1.065*	1.994***	2.057**	0.100**	-8.332***
Lauc	(0.973)	(0.435)	(0.491)	(0.796)	(0.035)	(2.227)
\overline{Y}	13.584	23.874	42.835	38.678	6.887	43.337
		Panel	F: Children fr	om Urban Are	eas	
Educ	-0.327	-0.000	0.101	0.516	0.052	2.046
	(1.374)	(0.480)	(0.679)	(0.851)	(0.036)	(2.203)
\overline{Y}	10.758	29.739	44.546	38.164	7.333	29.863

The outcome variables are whether the husband was unemployed or employed on public emergency work projects in 1940 (*100), the husband's occupational score/weeks worked in 1939/hours worked per week/natural log of wage earnings, and whether the husband earned more than \$50 in nonwage earnings in 1940. Only IV estimates are reported. The regression includes birth state fixed effects and birth year by region fixed effects. The independent variables are the number of years of education completed by the wife (instrumented in the IV regressions) and the number of years completed by the husband (not reported). The sample in Panel A and B consists of non-southern married women aged 28 to 55 in 1940 whose fathers had OCCSCORE above and below the median level (N=1818473 and N=1822169). The sample in Panel C and D consists of non-southern married women aged 28 to 55 in 1940 who were from farm and nonfarm households when they were children (N=1607083 and N=2033559). The sample in Panel E and F consists of non-southern married women aged 28 to 55 in 1940 who were from rural and urban areas when they were children (N=2492246 and N=1148396). The table also shows the mean of the outcome variables \overline{Y} in each category.