SHOCKING LABOR SUPPLY:
A REASSESSMENT OF THE ROLE OF WORLD WAR II ON U.S. WOMEN'S LABOR SUPPLY

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ABSTRACT

The most prominent feature of the female labor force across the past hundred years is its enormous
growth. But many believe that the increase was discontinuous. Our purpose is to identify the short-
and long-run impacts of WWII on the labor supply of women who were currently married in 1950
and 1960. We use mobilization rates for various groups of men (by age, race, fatherhood) to see whether
there was a wartime impact. We find that an aggregate mobilization rate produces the largest and
most robust impacts on both weeks worked and the labor force participation of married white (non-farm)
women. The impact, moreover, was experienced primarily by women in the top half of the education
distribution. Women who were married but without children during WWII were the group most impacted
by the mobilization rate in 1950, although by 1960 WWII still influenced the labor supply decisions
of them as well as those with children during WWII. We end the paper with a resolution between
the watershed and revisionist views of the role of WWII on female labor supply.

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The female labor force in the United States increased greatly across the twentieth century to the late 1990s. The change was more rapid at some moments than at others and for some age groups than for others. But for most ages and cohorts the dominant feature of the female labor force is its striking and large increase across the century. But continuity in the increase may be an illusion.

In fact, many believe that women's paid employment was altered inexorably at certain moments in its history, and the 1940s have been seen as such a watershed decade. Several reasons have been offered for this presumption. The aggregate participation rate for women has an upward tick at 1940 and the participation rate for the older group (45 to 54 years old) of married, white women shows an even greater change in slope (see Fig. 1, Part A). In addition, changes in the labor force during the wartime period were huge. Around 14 million men were mobilized for U.S. armed forces duty from 1940 to 1945.[1] The male labor force declined by almost 9 million during the war years whereas the female labor force increased by more than 7 million, an enormous change given that the female labor force stood at 14 million in 1940.[2]

Another reason to believe there was fundamental change in the social fabric was that the U.S. government produced well-targeted posters and news reels during World War II (WWII) entreating women to enter the workforce. The actual accounts of women who were drawn into the workforce during the war have also spoken to its transformative impact.

But no sooner did the "watershed theory," as we will call it, get aired that a revisionist account of the role of WWII emerged.[3] Women, to be sure, were recruited during the early 1940s but, according to the revisionist view, many were forced off their jobs at war's end to make room for returning GIs. Others left willingly when their husbands came home from service and still others married at war's end and left the labor force. Many women who were young during the early 1940s and were employed in the war years became mothers of the baby boom and left their jobs to raise families. To many in the revisionist camp, the general propaganda machine went into reverse gear after VJ-day extolling the virtues of women's role in the home.

Without longitudinal data on women's experiences it had been impossible to determine the veracity of these two opposing interpretations. Were many female workers in 1950 those

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[1] There were 11.5 million men 18 to 44 years old who were drafted or enlisted at their draft board and were not deemed to have a deferment. Another 3.1 million volunteered for the services, but not all volunteers were considered eligible to serve.

[2] Employed males decreased by only 3.5 million because the unemployment rate was still high in 1940. The decrease for men is from the peak in July 1940 to the trough in Jan. 1945; the increase for women is from the trough in Jan. 1941 to the peak in July 1944. U.S. Bureau of the Census (1947), tables 4 and 5.

[3] Anderson (1981) and Milkman (1987) provide fine antidotes to the "watershed" literature; see also Goldin (1991a) for a bibliography of the "watershed" and "revisionist" literatures.

who had been drawn in during the war? The answer came from archival records—the surveys underlying the Palmer report—and overlooked evidence from government reports that enabled a piecing together of cohort work histories.[4]

For the group of married women who were 18 to 42 years old in Dec. 1941 and thus 27 to 51 in Jan. 1951, about half of those employed in 1951 were also employed at the end of 1941, just before the U.S. declared war. And the increase in participation for this cohort was about the same in the first half of the 1940s decade as in the second half. Among those who first entered the labor force from the onset of war in Dec. 1941 to March 1944, 46 percent remained in the labor force to Jan. 1951. The group of WWII entrants accounted for just 20 percent of the married women 27 to 51 years old who were employed in 1951. From this evidence WWII does not look like a great watershed in the employment history of women.

Yet, WWII could still have had an effect in the 1940s, although not creating a watershed moment. Furthermore, the long-run impact of the experience could have been greater still and the archival source just referenced ends in 1951 and cannot divulge it.

There are several recently unearthed pieces of evidence that argue for a longer-range impact of WWII on women's labor supply and a possible return to the watershed view. The first is that the war's impact on women's participation in the 1941 to 1945 years does not appear to have resulted from increases in real, after-tax wages. Although pre-tax real wages rose, after tax wages actually fell due to the large increase in taxes.[5] Because female employment during the war soared, a usual explanation that relies on standard increases in the opportunity cost of time and an expansion in the household budget set would not seem to be correct.

There are many reasons why a standard model of changing budget sets would not be fully applicable to the early 1940s. Before the war various regulations at the firm and government levels, termed "marriage bars," restricted the employment of married women (Goldin 1991b). Restrictions of this nature were struck down in 1941 in more than 20 states and many at the firm level were, by and large, left unenforced or abandoned. Unemployment in 1940 stood at almost 15 percent and since labor supply is fairly elastic at the current wage under conditions of high unemployment, demand increases would not affect the real wage.[6] It may not be surprising that employment soared while real, after-tax wages were fairly constant. But that impact may not be the main factor that affected women. The reason that employment increased so substantially for women without an increase in their real wages may be because their labor supply function shifted to the right.

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[4] See Goldin (1991a), who used the manuscripts from the Palmer (1954) surveys.
[5] See Mulligan (1998) and Aldrich (1989). According to Mulligan (table 1) real after-tax wages for women fell by 4 percent from 1940 to 1944 and then rose by 17 percent from 1944 to 1948.
[6] *Historical Statistics*, vol. 2, table Ba485.

That possibility is supported by a recent finding about the impact of the war on women's employment by Acemoglu, Autor, and Lyle (2004) in a paper that cleverly uses the mobilization rate by state to identify the impact of the war.[7] The mobilization rate, by which is meant the fraction of males between certain ages who were inducted into the military, varied by state for many reasons and provides a way to measure the "treatment effect" of the war. The greater the mobilization rate, the more "treated" are various other groups in the state, the smallest geographic unit for which these data exist. Acemoglu, Autor and Lyle (hereafter AAL) employ the mobilization rate to obtain an estimate of the impact of women's employment on the aggregate wage structure. In the process of accomplishing that goal, they identify a treatment effect of the war on female labor supply.

Because the goal of AAL was to assess the impact of female labor supply on the wage structure, not to estimate the role of the war on women's labor supply, they used a wide age range for women and did not disaggregate by other variables such as race, marital status, and parenthood. And because of that, they used an aggregate mobilization rates and not one that would have targeted specific groups.

Our purpose is to identify the short- and long-run impacts of WWII on women's labor supply for women who were currently married in 1950 and 1960. We term these effects as "shocking" labor supply and we divide the factors affecting labor supply into those that are general and that are specific.

The general influence of the war would have affected all women living through the period. The specific influence of the war would have been experienced by women whose husbands were in the armed services and away from home. Husbands in the armed services generally earned less than in their civilian jobs giving rise to an income effect that shifted female labor supply to the right.[8] Perhaps of greater importance is that husbands were often an impediment to a wife's working for pay. With so many husbands away, wives could work outside the home without their protest. As is clear from Table 1, women whose husbands were away during the war years had twice the employment rate than those of the same age whose husbands were not away.[9] Because fathers had a much lower probability than non-fathers of serving during the war years, we also consider that factor.

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[7] Others who have used the mobilization rate identification include Fernández, Fogli and Olivetti (2004) and Doepke, Hazan and Maoz (2012).

[8] According to Acemoglu, Autor and Lyle (2004, p. 520, fn. 10), "annual military pay in 1944 averaged $1,811 vs. $2,109 for all full-time civilian workers."

[9] Mulligan (1998), using data from Pidgeon (1944), notes that women whose husbands were "away at war" also had higher labor force participation before the U.S. declared war. According to Pidgeon, among women 20 to 44 year old, whose husbands were "away at war" in 1944, 41.5 percent were in the labor force in 1941 before war was declared. But these women might not have been married in 1941.

We use mobilization rates for various groups of men to see whether there was an impact and whether it was due to the general or specific factors. We focus our attention on women who were young during the war years (25 to 34 years old in 1950 and 35 to 44 years old in 1960) and currently married in 1950 or 1960 since they would have been more constrained by social norms before the war and more highly treated by the mobilization rate.

We find that most of the impact was general in nature, meaning that the aggregate mobilization rate produces the largest and most robust impact on both weeks worked and the labor force participation of women. The impact, moreover, was experienced primarily by women in the top half of the education distribution. The effects we find are for 1950, which we term the short-run impact, and for 1960, which we term a longer-run effect on women who were married in the war years. Women who were married but without children during WWII were most impacted by the mobilization rate in 1950. By 1960 WWII still influenced the labor supply decisions of these women as well as those with children during WWII. We end the paper with a resolution between the two competing theories of the role of WWII on female labor supply during and after the war.

I. Identifying the "Shocking" of Female Labor Supply by WWII

Before the 1940s married women were considerably constrained in their labor supply. Social norms and "marriage bars," at local, state, and federal governmental levels and in various white collar positions, circumscribed their ability to work outside the home for pay.[10] Surveys show that these norms loosened during the 1940s and WWII may have demonstrated to husbands, other relatives, and community busy-bodies that women could work outside the home without loss of social status and personal harm. The fact that real after-tax wages did not increase during the war years, yet the number of female workers soared, suggests that there was an outward shift in the labor supply function of various groups of women.

The war could have changed the reservation wage of women for several reasons. All women, regardless of marital and motherhood status, could have reduced their reservation wage for the good of the nation. That is what we have termed the general impact. For women with husbands who were inducted, their reservation wage would have been lowered further by their decreased household income. If their husbands had previously been a barrier to their employment their reservation wage would have been lowered even further while their husbands were no longer at home. These effects are what we mean by the specific impact of the war.

Rather, they might have gotten married when their future husbands were drafted and their husbands may have been drafted early because they had no dependents. Similarly, these women might not have had children in 1944 and that could have been why their husbands were drafted or volunteered. The point is that we do not know whether the difference is due to selection or treatment.

[10] Goldin (1991b) discusses marriage bars. On social norms and data from the Gallup polls, see Fernández, Fogli and Olivetti (2004, fn. 6).

Married women with children, however, would have been impacted less by WWII than other women in part because their husbands were drafted at a lower rate. But, in addition, it was highly unusual for women with young children to work even during the war for a host of factors.

The shift in female labor supply during the war could have been temporary or could have been more permanent. We address whether women who went through the war experienced an impact on their labor supply and whether the impact was a lasting effect because *they* were treated. For those who were married during the war we also address whether they experienced an impact and a lasting effect because their *husbands* were treated. The enormous increase in the demand for female labor during WWII may have "shocked" women's labor supply beyond the WWII period and had more permanent effects.

A. World War II Mobilization Rates

Mobilization in the U.S. began Sept. 16, 1940 with the Selective Training and Service Act, which called for the registration of all men 21 to 35 years old. Deferments could be granted based on dependents, occupation, and fitness to serve. Registration was extended five additional times including, most notably, Feb. 16, 1942, which added 20 year olds and 37 to 44 year olds and June 30, 1942, which added 18 to 20 year olds.[11]

Wives were initially considered dependents as were children if born before Sept. 15, 1942 (that is, if conceived before Pearl Harbor). The wife deferment ended April 12, 1943 and the automatic child deferment ended Dec. 11, 1943. But many other deferments still existed. Certain agriculture and war-industry occupations were considered deferments and some men, deemed IV-F, were exempt because of physical and mental disabilities. On April 21, 1944, however, almost all deferments were eliminated.

But whatever official rules existed, fathers were considered draftable only after others in the local draft board pool were exhausted.[12] The mobilization rates for fathers are considerably lower than for other groups.

To identify the treatment effect of WWII on women, we produce mobilization rates from the Selective Service bulletins for several groups of men by race, age, and parental status as of August 1, 1945 (see Table A.1). The ones we use here are as follows. An aggregate rate for all 18 to 44 year olds, termed *MOB* is almost identical to the one AAL use. It includes men of all races and parental statuses.[13] We also use a mobilization rate for white men 18 to 37 years old

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[11] See also Acemoglu, Autor and Lyle (2004) on mobilization during WWII.
[12] U.S. Public Law 197, approved Dec. 5, 1943, directed draft boards to have non-fathers report for induction before (pre-Pearl Harbor) fathers. See U.S. Selective Service (1948a, p. 22).
[13] The main difference between our aggregate measure and that used by AAL is that they use inductions as of Jan. 1946 whereas our rates are all as of Aug. 1, 1945.

(white *MOB*) and another for fathers 18 to 37 years old (father *MOB*) to identify the existence of specific treatments. Of these mobilization rates the aggregate one (*MOB*) generally performs the best. That for whites performs almost as well and because our observations are for white women it could indicate a specific effect. That for fathers, to identify the impact on married women with children during the war, does just as poorly for this group as the general one probably because married women with young children were simply immovable by 1950.

A few clarifications about the draft, mobilization, induction, and enlistment are in order. Men were drafted by their local draft boards of which there were about 6,500 nationwide. Alternatively, they could volunteer (enlist) at their local draft boards or through one of the Armed Services. When they volunteered through a Service, information on their race and parental status was not collected. Therefore, when we use the data by race, we cannot include volunteers who entered through a Service. But since there were almost no blacks who volunteered through a Service (probably because of the coordination difficulties of having a segregated army), we add all Service volunteers to the white enlisted numbers to get the white total. Fathers are also given for all but the Service volunteers. But it was rare for a father to have volunteered with the Services, so these mobilization rates are probably accurate.

Our estimation relies on the fact that mobilization rates varied by state. AAL demonstrate that mobilization rates depended on the factors that led to deferments in each of the states (fraction of males with a farm occupation, fraction blacks, and fraction German). Quotas were set from the number of Registrants available for service (I-A) plus those already serving (I-C). Thus, the higher the number of deferments, the lower would be the mobilization rate since Registrants include those with deferments. Within those bounds relatively fewer fathers would allow the fathers to get greater draft protection from non-fathers through draft board preferences. More fathers would mean less protection and a greater chance of a father's being drafted. The most important effects are from the fraction of the male population in farm occupations and the fraction black.[14]

The aggregate mobilization rate for 18 to 44 year olds has a total mean of 0.462 and varies by state from 0.400 to 0.536; the mobilization rate for 18 to 37 year old white men has a mean of 0.616 and varies from 0.504 to 0.720, and the mobilization rate for all fathers has a mean of just 0.168 and ranges from 0.112 to 0.225.[15] These rates are not strongly correlated. The rates for fathers and the aggregate have a raw correlation coefficient of 0.298 and that between the white rate and the aggregate is 0.688. (Mobilization rates by state are given in Table A.1 and the analysis of the state-level determinants of the alternative rates is in Table A.2.)

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[14] Note that the fraction German mops up the rest, mainly in Wisconsin, and is not an important determinant of the mobilization rate.
[15] These data are for our sample and exclude individuals born or residing in Nevada and D.C.

B. Identification Strategy

The idea behind our identification strategy is that various groups of (white) women who went through the war may have been treated differently by the mobilization of men. All were affected by the increase in demand for their own labor in local labor markets (here U.S. states) and by a desire to aid the nation in its war effort. But some were treated further. Those who were married at the time of increased mobilization were affected by the induction of their husbands. They would have been affected by the reduction in their family income and also by their increased independence. Those who had children would have been less impacted by the mobilization of their husbands because the induction rate for fathers was considerably less than for non-fathers of the same age, and women with children had low labor force participation rates for various reasons.

We have two main samples and two outcome measures. In each case the treated women went through the WWII years, 1941 to 1945, in one of three demographic circumstances: married with children; married without children; and unmarried.[16] One of the samples is white (non-farm) married women who were 25 to 34 years old in 1950 and thus ranging from 16 to 29 years old from 1941 to 1945, the years of U.S. involvement in WWII.[17] The control for this group is white (non-farm) married women in 1940 similarly situated demographically during a "pseudo" WWII period in the 1930s. The other sample and its control group are likewise constructed for white (non-farm) married women 35 to 44 years old in 1960 and 1940.[18]

The two outcomes we analyze are weeks worked and labor force participation. We use the 1940, 1950, and 1960 IPUMS of the U.S. population census. Note that both for the 1950 sample and for 1960 the women are 25 to 34 years old in 1950. We first investigate if the treatment effect of WWII existed over the short run to 1950 and then if the treatment effect of WWII had a more lasting effect on female labor supply to 1960.

We estimate the treatment effect of the war where the dosage is measured by either the aggregate mobilization rate or by a mobilization rate specific to the demographic groups by state of birth. For all women the specific mobilization rate is that for white men 18 to 37 years old since these men were most likely to have been their husbands during the war or to have become their husbands after the war. For those with children during the war, another specific

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[16] A trivial fraction of unmarried women had children in both years.
[17] We select white women because black women's labor force participation was high before the war and many were employed in agricultural occupations, excluded here. For selection rules see notes to Table 3.
[18] The 35 to 44 year old women in 1960 may differ from those in the same demographic circumstances who were 25 to 34 years old in 1950 for several reasons. Because we use first marriages that lasted to 1960 women who remarried or became widows will not be included. In addition, it is possible that a child born before or during the WWII years already left the parent's household by 1960 and had no other siblings born in that period. If so, we will misidentify the demographic group of that woman.

mobilization rate is that of fathers 18 to 37 years old.[19] We find that the aggregate mobilization rate provides the most significant results, that for white men (18 to 37 years old) yields qualitatively similar results, but that for fathers generally does not have much of an effect.

Covariates identified by AAL are included to account for differences in mobilization by state that may be correlated with the outcome variables such as fraction of male employment in agriculture (fraction farm) and the fraction black. The mobilization rates are given by state of birth to ensure greater exogeneity; dummies for state of birth and age are also included.

The general version of the estimating equation is:

$$y_{its} = \varphi_s + \gamma d_\tau + \alpha_t Z_{it} + \beta_t d_\tau X_{s1940} + \delta d_\tau MOB_s + \varepsilon_{its} \tag{1}$$

where y_{its} is an outcome, either weeks worked or labor force participation for person i in year t and having state of birth s. φ_s are state of birth dummies, d_τ is a year dummy for either $\tau =1950$ or 1960, and Z_{it} are covariates for woman i such as number of children and age dummies. X_{s1940} are state of birth covariates such as fraction of male employment in farm occupations, fraction black, and mean level of education of the adult population all as of 1940. The coefficient of greatest interest is δ, that on the interaction of the year dummy and the relevant mobilization rate (MOB_s) in the individual's state of birth.

When we use the three demographic groups (married with children, married without children, or single), which is the case on which we will concentrate, we add main effects, an interaction with the year dummy, and another with the mobilization rate and the year dummy. It is this triple difference on which we will focus. Of great importance to our results is that we divide the sample roughly in half by those who have graduated from high school and those who have not, and we estimate the equation for each group separately.

The use of the mobilization rate is valid only if it is not related to pre-WWII outcomes. AAL demonstrate this in their paper and we do so as well (see Table A.3) since our sample differs from theirs and our mobilization rates are somewhat different as well. We follow their useful technique of dividing states into three groups of equal size termed low, medium and high mobilization rate states. As can be seen in Table A.3, weeks worked and labor force participation rates for our sample of 25 to 34 year old and 35 to 44 year old women do not vary consistently by the grouping of mobilization rates in the state of birth for 1940.[20]

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[19] We do not have a mobilization rate of fathers by race.
[20] Means for the outcomes are not statistically significant from each other across low, medium, and high mobilization states.

II. Results and Interpretation

A. Impact of the Mobilization Rate on Labor Supply Outcomes

We first analyze the short run impact of WWII on weeks worked and labor force participation for young women, 25 to 34 years old, who were currently married in 1950. A key feature of the outcome variables to note in Table 2 is that average weeks of work for this age group did not increase much, if at all, from 1940 to 1950 even though labor force participation increased somewhat (see also Fig. 1, part A). One reason for the disparity is that mean weeks of work conditional on participation for these women fell from 1940 to 1950, an indicator of the emergence of part-time, part-year work for married women (see Table A.3). The late 1940s and early 1950s saw the growth of jobs that employed women with household responsibilities. Firms, particularly in the retail sales sector, adjusted work schedules to accommodate a newly expanded labor force and to expand it further.

Women who were 25 to 34 in 1950 appear to have been impacted by WWII, as can be seen from the coefficients on the triple differences in Table 3. Although the coefficients in cols. (1) and (3) for less-educated women have fairly large standard errors and are occasionally of the wrong sign, those for women with schooling above the median level, as in cols. (2) and (4), are positive, large and more precisely estimated for both weeks worked and labor force participation. The finding that the more-educated group was impacted, whereas the lesser-educated group was generally not, is a robust result and found in virtually all of our estimations.

For the group of 35 to 44 year old white, married women in 1960 we similarly find that the largest and most consistently significant results are for the more-educated group of women (see Table 4, cols. 2 and 4). For both weeks worked and labor force participation the coefficients on the triple differences have the largest and most significant relationship to the mobilization rate. Married women 35 to 44 years old in 1960 experienced a substantial increase in both weeks worked and labor force participation relative to their demographic counterparts in 1940 (see Table 2). Note that even though these women are the same individuals as the 25 to 34 year old group in 1950, as the mothers of the baby boom they were more able to enter the labor force when their children were older.[21]

B. Interpretation of the Role of WWII

In interpreting Tables 3 and 4 we use only the results for the more-educated group of women and we compare states with low mobilization rates to those with high mobilization

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[21] They are not necessarily identical individuals since we cannot accurately identify women who were married in the 1941 to 1945 period unless that marriage survived to the later census date.

rates.[22] We use a simple difference metric in this regard: the mobilization rate of the median state in the "high" group minus that of the median state in the "low" group. The measure is equivalent to the difference between the rate of the eighth highest and the eighth lowest states by mobilization rate. Considering the aggregate mobilization rate for all men 18 to 44 years old the state difference metric is 6.8 percentage points. For the mobilization rate for white men 18 to 37 years old the difference metric is 5.2 percentage points.

Consider, first, the Table 3 results on weeks worked for the 25 to 34 year old women in 1950. For those who were married and without children (Table 3, col. 2), the effect of a change in the mobilization rate of 6.8 percentage points is 2.9 weeks (= 43.33×0.068), or about a 28 percent increase compared with the 1940 or 1950 mean for the group (around 10 or 11 weeks).[23] The change for more-educated women who were not married during WWII is 2.6 weeks (= 37.95×0.068) or about an 18 percent increase from the 1940 mean for the group of 14 weeks.

The mean high school graduate woman married during WWII but having no children had one young child by 1950. Although her labor supply measured by weeks in 1950 was positively impacted by a higher mobilization rate during the war, this demographic group of women actually had lower weeks of work by 1950 (see the double interaction with year in Table 3). Recall that the impact of the mobilization rates on 25 to 34 year old women in1950 will largely take the form of labor force reallocations since weeks worked did not increase and participation increased slightly. We find that women from states with high mobilization rates increased their weeks worked and their labor force participation to a greater extent than did those from states with low mobilization rates.

Women who were married with children during the war would have had less ability to be impacted directly from the increase in demand for their labor. For the more-educated women the coefficient is smaller (and less-precisely estimated) for these women than for the other groups. In contrast, those who were already married during the war but had no children would have had the double impact of having an increased demand for their labor and husbands who were most likely away in the armed forces. That interpretation seems to be borne out when we use the aggregate mobilization rate, as in Table 3 and also when we use the mobilization rate for white men 18 to 37 years old (as in Table A.4).

We find similar results for the labor force participation rate measure but with some differences. We find, as we did previously, that more-educated women were impacted to a

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[22] We have chosen this hypothetical rather than ponder the imponderable of not having WWII. Note that we are always referring to the mobilization rate in a woman's state of birth rather than state of residence. Using state of residence instead does not noticeably change the results.

[23] The mobilization rate for white men 18 to 37 years old produces a slightly lower impact for married women without children during WWII. Using the 5.2 percentage point metric together with a coefficient of 33.82 yields 1.8 weeks.

greater extent by the mobilization rate than were the less-educated women. When we use the aggregate mobilization rate we also find that those who were married but had no children during WWII had the largest effect. The impact of changing the mobilization rate by 0.068 is 0.065 (= 0.96 × 0.068) or about a 30 percent increase using either the 1940 or 1950 participation rate (about 22 percent). The impact is a bit smaller for married women with children but because participation rates for that group are lower the effect as a fraction of the participation rate is larger. The coefficient for women who were not married during WWII is smaller and less significant than for those who were married with children.[24]

Finally, and perhaps most important, are the results in Table 4 for women 35 to 44 years old in 1940 and 1960. These demonstrate persistence for more-educated women, particularly those who were married during the WWII years. In this case women who were married during WWII with or without children show the greatest longer-run impact from changes in the mobilization rate. The finding holds for weeks worked and for the labor force participation rate.

For the magnitude of the effect, we again use the difference metric. For married women in the higher-educated group with children, the coefficient in Table 4, col. (2) implies an increase of 2.9 weeks (= 42.7 × 0.068) or about 24 percent of the 1940 and 1960 average of about 12 weeks. The estimate for married women without children is a bit lower and results in an increase of 2.2 weeks or 20 percent of the 1940 and 1960 average.

Similarly the coefficient for the labor force participation of the more-educated women with children during WWII implies a change of 4.6 percentage points (= 0.68 × 0.068) or 17 percent of the 1940 to 1960 mean of 0.28 for the group. The impact for the married women without children is about the same.

In summary, the impact of WWII as indicated by the relationship of labor supply outcomes to the mobilization rate is found for both weeks worked and labor force participation. It is generally strong in 1950 for white women who did not have children during WWII and it is also strong by 1960 for those who were married during WWII, with or without children. In all cases, the impact is almost entirely among those who were more educated. About half of the women were in the more-educated grouping and about one-third of that group were married without children and another quarter of the women were not married during WWII.

Because the aggregate data in Figure 1 show that the older age groups of women had the largest increase in participation after the 1940s we also examine the relationship between labor supply measures and the aggregate mobilization rate for women 35 to 44 and 45 to 49 years old.

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[24] The finding on those who were unmarried during the war is not robust to the use of the alternative mobilization rate. All three groups show a response to changes in the mobilization rate of white men 18 to 37 years old (see Table A.4).

In this case we do not distinguish among the three groups since currently married women who were in the forties in 1950 would have a small probability of being unmarried in 1940.[25] As in the previous analysis, we find an impact only for women with at least a high school diploma (see Table A.5). The effects we find are of a similar order of magnitude for women 35 to 49 years old but we identify no effect for women older.

We have performed many robustness checks to see if the results stand up to changing the sample and the mobilization rate used. Our findings in brief are that the results are robust to assigning mobilization rates by state of residence and to including a full interaction of individual-level controls with a year dummy. Excluding southern states made the 1940 to 1950 results somewhat larger, although those for 1940 to 1960 were less robust. Using an indicator whether weeks were at least equal to 20 left the results basically unchanged, probably because most working women in 1940 were employed a significant fraction of the year.

Some variants of the mobilization rate variable imply less of an impact than that given by the aggregate rate and that for white men 18 to 37 years old. The rates for fathers and for men in particular age groups produce large standard errors, although the results for women 35 to 44 years old in 1950 are significant for all mobilization rates. In sum, we view the checks as indicating robustness to changes in the sample and to the use of some of the mobilization rates, but not all, for both the 1940 to 1950 and 1940 to 1960 estimations.

In almost all of our estimations more-educated women display the greatest, and often the only, impact of the mobilization rate. One may wonder whether states with high mobilization rates had an occupational mix in 1940 that produces this result. We do not find that states with high mobilization rates had a very different fraction of their female labor forces employed in office, retail sales, managerial, and professional occupations in 1940 relative to those with low mobilization rates. Although the fraction in the clerical category is lower in low mobilization states, the growth from 1940 to 1950 is much greater. We do not find that adding state of residence fixed effects, region fixed effects, and fraction of the female labor force in white-collar occupations in 1940 (by state of birth) makes any difference and we are already including the fraction in agricultural occupations (by state of birth).

III. Concluding Remarks on Shocking Female Labor Supply

Did WWII have a "shocking" effect on women's labor supply as the "watershed theory" posits, or did it have no persistent impact as the "revisionists" would assert? Our work allows an integration of the two views of WWII and women's labor supply.

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[25] Most would have had children by the WWII years but if their children had left home by 1950 we will not be able to know their ages. That possibility is especially severe for the women in their forties.

By identifying the impact of WWII using the mobilization rate instrument we find that states with higher mobilization rates did experience an increase in female labor supply measured in terms of weeks worked and labor force participation. The impact, moreover, is perceptible only among the upper half of women by level of schooling. In addition, the shorter-run impact of WWII was greatest among those who did not have children during WWII whereas the longer run impact was greatest for those with children during WWII. In almost all cases the impact of mobilization on weeks and participation for the higher-educated group was substantial, around 20 percent of the average level for the period considered. But the same measures of labor supply for women with schooling levels below the median were generally not impacted by the mobilization rate.

How do these findings bear on the question posed? To better interpret our findings we use a survey of working women in 1951—the Palmer survey—that retrospectively followed their work histories from 1940. Women 25 to 44 years old in 1951who entered the workforce from 1940 to 1944 were probably "shocked" by the increased demand for female labor during WWII. But which of these women had a persistent effect of the "shock"?

The Palmer survey allows us to observe the occupations of these women and their education. Of great importance is that the occupations these women had in 1944 greatly depended on their level of education. Among those with at least a high school diploma, almost 80 percent were in white-collar jobs. But for those with less than a high school diploma just 25 percent were in white-collar position. About 75 percent were in blue-collar jobs and the vast majority of these were in manufacturing. By 1950 these women's occupations were not much different than in 1944, except that manufacturing positions decreased and service occupations took their place among the lesser-educated group.

Although the survey does not allow us to trace women who entered the labor force in 1944 but did not continue to 1951, it provides clues to why the higher-educated women would have had a persistent impact from the "shock." The lower-educated women were disproportionately pulled into manufacturing positions to 1944 and many probably did not remain in them because of the factors mentioned in the revisionist literature. Women were often unwelcome in manufacturing industries; unions were resistant to change; and the work may have been altered to accommodate women during WWII but was not after. The more-educated group, however, entered sectors that enabled women to remain to 1950 and beyond.

Another important finding of this work is that the women who had the most persistent impact from WWII may not have been those who were in the labor force in 1950. Married women with children during WWII were impacted by the war experience but could not easily express it when their children were young. By 1960 their kids were grown and the more

educated in this cohort entered white-collar positions. Their entrance, it seems, was greater in states that had more demand for women during WWII.

Our work helps reconcile the watershed and revisionist views of WWII. Women's labor supply was altered by the war. But the labor supply of only some women remained impacted in the shorter and longer-term. Women whose labor supply was shifted appear to have been those who entered white-collar positions from 1940 to 1944. For some of them, WWII involved a "shock" to labor supply that had persistent effects.

Table 1: Labor Force Participation Rates of All Women by Age and Marital Status: 1940 to1950

Category	Husband	1940 %	1944 %	1947 %	1950 %
Married					
All ages	Present	15.6	21.7	20.0	23.8
	Away (war)		52.5		
25-44 years	Present	17.7	24.7	22.4	26.0
	Away (war)		55.0		
45-64 years	Present	10.3	20.0	18.4	21.8
	Away (war)		41.7		
All marital groups					
14-19 years	Mainly single	19.9	31.8	n.a.	22.6

Sources and Notes: Goldin (1991a, table 1).

Table 2: Labor Supply Sample Statistics for Three Demographic and Two Age Groups, 1940, 1950, and 1960

	All	< 12 Years Education	≥ 12 Years Education	All	< 12 Years Education	≥ 12 Years Education
	Weeks Worked, 25 to 34 years old			LFPR, 25 to 34 years old		
	All demographic groups					
1940	8.4	7.4	10	0.171	0.149	0.204
1950	9.1	7.8	10.1	0.198	0.174	0.217
	Married with children in "WWII"					
1940	6.0	5.7	6.7	0.117	0.109	0.138
1950	6.3	6.5	6.2	0.152	0.151	0.153
	Married no children in "WWII"					
1940	9.8	9.5	10.1	0.204	0.197	0.212
1950	10.3	9.0	10.9	0.220	0.197	0.231
	Unmarried in "WWII"					
1940	12.8	11.4	14.1	0.262	0.241	0.279
1950	14.3	11.6	15.6	0.280	0.234	0.302
	Weeks Worked, 35 to 44 years old			LFPR, 35 to 44 years old		
	All demographic groups					
1940	6.9	6.5	7.7	0.136	0.124	0.163
1960	14.5	13.8	14.9	0.347	0.331	0.358
	Married with children in "WWII"					
1940	6.0	5.8	6.9	0.114	0.105	0.147
1960	16.2	15.0	17.4	0.386	0.358	0.415
	Married no children in "WWII"					
1940	7.5	6.3	8.0	0.151	0.143	0.166
1960	13.9	13.1	14.3	0.335	0.317	0.346
	Unmarried in "WWII"					
1940	7.9	7.5	8.3	0.164	0.154	0.176
1960	12.4	11.5	12.7	0.294	0.271	0.304

Sources: 1940, 1950 and 1960 IPUMS of the U.S. decennial population censuses (Ruggles, et al. 2010)

Notes: Our sample includes all white, married women in their first marriage, not living in institutional group quarters and not employed in farming. The restriction to being in a first marriage is necessary to grouping women by their marital status and determining the presence of children during the "WWII" years (1941 to 1945 for 1950 and 1931 to 1935 for 1940). Only women born in and residing in the continental U.S., excluding D.C. and Nevada, are included. Women are excluded if the difference between their age and that of their eldest child is less than 12 years. We use sample line weights even when the dependent variable is available for everyone because some of the key variables used to create the demographic groups are available only for sample line women. In particular, the information on the number of times an individual was married is asked only of ever-married sample line women in 1940 and ever-married sample line persons in 1950. The age at marriage is available only for ever-married sample line women in 1940, and the 1950 information on marriage duration is also only available for ever-married sample line persons. Women with children during "WWII" are those living with an eldest child at least 5 years old at the time of the census. We drop Nevada for the same reasons as do Acemoglu, Autor and Lyle (2004, p. 511), that the state underwent a large population change during the 1940s and the base population in 1940 was small.

Table 3: Impact of World War II Mobilization on the Labor Supply of Married Women 25 to 34 Years Old, 1940 and 1950: By Education Level

	25 to 34 Year Old White, Married (in 1940 or 1950) Women			
	Weeks Worked		LFPR	
	(1)	(2)	(3)	(4)
	Education < 12 years	Education ≥ 12 years	Education < 12 years	Education ≥ 12 years
1950 × *MOB* × MarrChildWWII	12.98	23.65	0.15	0.90***
	(9.69)	(15.48)	(0.21)	(0.30)
1950 × *MOB* × MarrNoChildWWII	-17.90	43.33**	-0.78**	0.96***
	(15.45)	(17.14)	(0.36)	(0.34)
1950 × *MOB* × UnmarrWWII	-10.98	37.95*	-1.10**	0.79
	(20.92)	(19.48)	(0.44)	(0.49)
MOB × MarrChildWWII	-30.68***	12.04	-0.73**	-0.10
	(10.55)	(21.52)	(0.33)	(0.38)
MOB × UnmarrWWII	-8.47	-6.72	0.33	-0.07
	(6.38)	(17.70)	(0.39)	(0.52)
1950 × MarrChildWWII	11.17**	-4.15	0.27*	-0.28
	(4.89)	(7.20)	(0.15)	(0.18)
1950 × MarrNoChildWWII	-8.47	-10.89	-0.12	-0.28
	(6.38)	(8.93)	(0.17)	(0.21)
1950 × UnmarrWWII	0.28	-7.64	0.00	-0.20
	(5.90)	(9.75)	(0.12)	(0.27)
MarrChildWWII	13.57*	-6.99	0.40**	0.01
	(7.16)	(9.92)	(0.16)	(0.18)
UnmarrWWII	11.04	4.67	0.54**	0.05
	(10.34)	(8.22)	(0.21)	(0.24)
Number children < 5 years	-4.42***	-8.37***	-0.10***	-0.17***
	(0.25)	(0.27)	(0.00)	(0.00)
Number children ≥ 5 years	-0.71***	-2.28***	-0.02***	-0.05***
	(0.12)	(0.24)	(0.00)	(0.01)
State of birth and age dummies	y	y	y	y
State of birth covariates × 1950	y	y	y	y
Constant	12.21***	18.15***	0.25***	0.39***
	(0.65)	(0.88)	(0.02)	(0.02)
Number of observations	20,471	20,846	20,471	20,846
R^2	0.09	0.16	0.10	0.14

Significance levels are: * 10%, ** 5%, *** 1%.

Sources: 1940 and 1950 IPUMS of the U.S. decennial population censuses (Ruggles, et al. 2010)

Notes: Standard errors are clustered at state of birth and year level. Our sample includes all white, married women in their first marriage, not living in institutional group quarters and not employed in farming. The restriction to being in a first marriage is necessary to grouping women by their marital status and determining the presence of children during the "WWII" years. Only women born in and residing in the continental U.S., excluding D.C. and Nevada, are included. Women are excluded if the difference between their age and that of their eldest child is less than 12 years. We use sample line weights even when the dependent variable is available for everyone because some of the key variables used to create the demographic groups are available only for sample line women. In particular, the information on the number of times an individual was married is asked only of ever-married sample line women in 1940 and ever-married sample line persons in 1950. The age at marriage is available only for ever-married sample line women in 1940, and the 1950 information on marriage duration is also only available for ever-married sample line persons. Women with children during "WWII" are those living with an eldest child at least 5 years old at the time of the census. We drop Nevada for the same reasons as do Acemoglu, Autor and Lyle (2004, p. 511), that the state underwent a large population change during the 1940s and the base population in 1940 was small.

MOB is the mobilization rate for all men 18 to 44 years old in the woman's state of birth. MarrChildWWII = individual was married with children during WWII or the pseudo-WWII period in the 1930s; MarrNoChildWWII = married without children during the WWII or pseudo-WWII period; UnmarrWWII = not married during the WWII or pseudo-WWII period. The WWII period is 1941 to 1945.

Table 4: Impact of World War II Mobilization on the Labor Supply of Married Women 35 to 44 Years Old, 1940 and 1960: By Education Level

	35 to 44 Year Old White, Married (in 1940 or 1960) Women			
	Weeks Worked		LFPR	
	(1)	(2)	(3)	(4)
	Education < 12 years	Education ≥ 12 years	Education < 12 years	Education ≥ 12 years
1960 × MOB × MarrChildWWII	10.67	42.68**	0.00	0.68*
	(10.60)	(17.86)	(0.24)	(0.41)
1960 × MOB × MarrNoChildWWII	10.50	31.89***	-0.04	0.64**
	(15.63)	(12.06)	(0.31)	(0.31)
1960 × MOB × UnmarrWWII	17.56	7.61	0.59	0.10
	(17.88)	(15.11)	(0.39)	(0.35)
MOB × MarrChildWWII	20.84*	-11.52	0.45	0.04
	(10.98)	(16.40)	(0.35)	(0.37)
MOB × UnmarrWWII	11.75	9.09	0.02	0.28
	(13.28)	(14.05)	(0.39)	(0.34)
1960 × MarrChildWWII	-8.78*	-0.67	-0.19	0.14
	(4.98)	(8.77)	(0.16)	(0.22)
1960 × MarrNoChildWWII	-5.28	1.46	-0.00	0.09
	(6.19)	(7.06)	(0.18)	(0.19)
1960 × UnmarrWWII	-5.59	12.01	-0.06	0.32
	(6.60)	(8.03)	(0.15)	(0.20)
MarrChildWWII	-7.80	6.88	-0.10	0.01
	(8.47)	(7.68)	(0.17)	(0.17)
UnmarrWWII	-12.32	-3.85	-0.43**	-0.12
	(9.69)	(6.47)	(0.21)	(0.16)
Number children < 5 years	-3.54***	-5.99***	-0.09***	-0.14***
	(0.32)	(0.19)	(0.01)	(0.00)
Number children ≥ 5 years	-1.36***	-2.85***	-0.03***	-0.05***
	(0.10)	(0.13)	(0.00)	(0.00)
State of birth and age dummies	y	y	y	y
State of birth covariates × 1960	y	y	y	y
Constant	13.21***	13.19***	0.24***	0.30***
	(1.29)	(1.01)	(0.02)	(0.02)
Number of observations	39,545	49,009	39,545	49,009
R^2	0.09	0.11	0.12	0.11

Significance levels are: * 10%, ** 5%, *** 1%.

Sources: 1940 and 1960 IPUMS of the U.S. decennial population censuses (Ruggles, et al. 2010)

Notes: See Table 3. For a woman in 1960 to have had children during WWII, the eldest child living at home is restricted to be at least 15 years old at the time of the census. *MOB* is the mobilization rate for all men 18 to 44 years old in the woman's state of birth.

Figure 1: Female Labor Force Participation Rates

A. Participation Rates for Married, White Women in Four Age Groups, 1920 to 1980
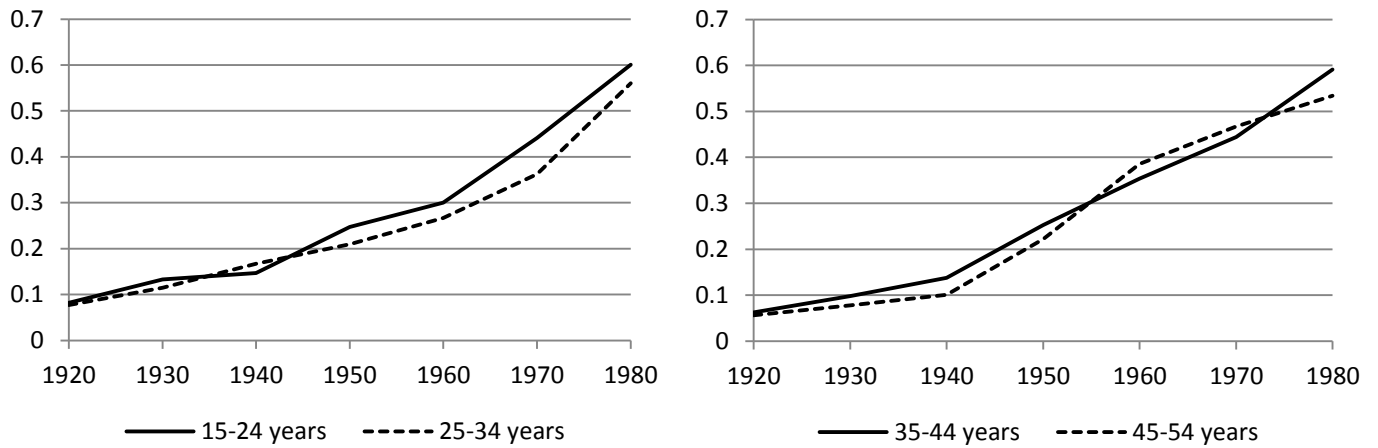
B. Labor Force Participation Rates of White Women of All Marital Statuses in Two Age Groups, 1920 to 1960 with detail for 1940s

Source: Goldin (1990, tables 2.2); *Historical Statistics* (1975), series D39, which is from the Current Population Surveys from 1940 on. Note that 1950 data points differ somewhat between census and CPS and also that the 1940 and 1950 data differ slightly from those in Goldin (1990, table 5.5).

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Table A.1: Three Mobilization Rates

State	(1) Aggregate (AAL), 18 to 44 Years Old	(2) Whites, 18 to 37 Years Old	(3) Fathers, All Races, 18 to 37 Years Old
Total	0.462	0.620	0.169
Standard deviation	0.036	0.044	0.025
AL	0.423	0.621	0.155
AR	0.485	0.603	0.190
AZ	0.424	0.631	0.190
CA	0.491	0.637	0.181
CO	0.486	0.625	0.190
CT	0.484	0.629	0.133
DE	0.454	0.622	0.175
FL	0.464	0.720	0.182
GA	0.400	0.598	0.151
IA	0.487	0.568	0.189
ID	0.463	0.606	0.157
IL	0.440	0.622	0.167
IN	0.440	0.574	0.175
KS	0.480	0.625	0.179
KY	0.436	0.556	0.170
LA	0.422	0.627	0.147
MA	0.491	0.704	0.175
MD	0.452	0.631	0.214
ME	0.536	0.632	0.198
MI	0.441	0.584	0.164
MN	0.456	0.590	0.181
MO	0.428	0.588	0.195
MS	0.441	0.666	0.130
MT	0.486	0.614	0.169
NC	0.450	0.571	0.143
ND	0.517	0.504	0.112
NE	0.486	0.583	0.144
NH	0.463	0.677	0.225
NJ	0.472	0.652	0.112
NM	0.407	0.580	0.174
NV	0.403	0.649	0.222
NY	0.466	0.642	0.171
OH	0.479	0.613	0.190
OK	0.522	0.629	0.188

OR	0.510	0.692	0.163
PA	0.529	0.652	0.188
RI	0.410	0.689	0.148
SC	0.406	0.644	0.156
SD	0.435	0.519	0.134
TN	0.449	0.582	0.162
TX	0.512	0 .608	0.178
UT	0.459	0.641	0.176
VA	0.431	0.599	0.181
VT	0.508	0.590	0.189
WA	0.468	0.651	0.136
WI	0.418	0.546	0.131
WV	0.479	0.594	0.183
WY	0.423	0.615	0.148

Sources: U.S. Selective Service System (1946, 1947, 1948b, 1950).

Notes: Col. (1) all inductions and volunteers equal to cumulative inductions as of August 1, 1945 and cumulative enlistments as of Sept. 1, 1945 divided by all registrants; col. (2) is equal to all inductions for white men plus all volunteers divided by all white registrants of the appropriate age group; col. (3) numerator is fathers inducted and enlisted and denominator is all father registrants under the assumption that there were no father volunteers. The calculation of col. (2) implicitly assumes that all men who volunteered through the Services were white. That appears to have been the case: "practically all of the men enlisted by the Army and the Navy were whites" (U.S. Selective Service 1948a, p. 101).

Table A.2: 1940 State-Level Determinants of WWII Mobilization Rates

| | Mean | Dependent Variable: Mobilization Rate | | | | | | | | |
| | | All, 18 to 44 years old | | | White, 18 to 37 years old | | | Fathers, 18 to 37 years old | | |
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Share farmers	0.153	-0.09*	-0.15***	-0.18***	-0.13*	-0.23***	-0.23***	-0.07	-0.02	-0.06
	[-0.115]	(0.04)	(0.04)	(0.04)	(0.06)	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)
Share nonwhite	0.099	0.02	-0.02	0.06	0.36***	0.34***	0.41***	-0.10	-0.06	-0.09
	[-0.114]	(0.06)	(0.07)	(0.07)	(0.08)	(0.08)	(0.09)	(0.07)	(0.06)	(0.07)
Average education	9.012	0.02*	0.01	0.03*	0.03*	0.02*	0.03*	-0.00	-0.00	0.00
	[-1.026]	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Share aged 13-24	0.424	0.16		0.66*	-0.18		0.24	-0.19		0.20
	[-0.031]	(0.32)		(0.27)	(0.46)		(0.35)	(0.38)		(0.26)
Share aged 25-34	0.307	0.25		0.67	-0.07		0.30	-0.83		-0.42
	[-0.01]	(0.50)		(0.57)	(0.72)		(0.73)	(0.59)		(0.54)
Share German	0.007	-3.87***			-3.83**			-1.15		
	[-0.006]	(0.82)			(1.18)			(0.97)		
Share Ital. and Jap.	0.010	2.11***			2.21**			-0.28		
	[-0.012]	(0.53)			(0.76)			(0.62)		
Share married	0.501	-0.15		-0.08	-0.25		-0.24	0.34		0.42**
	[-0.029]	(0.17)		(0.15)	(0.25)		(0.20)	(0.20)		(0.14)
Share fathers	0.461	0.16			0.12			-0.09		
	[-0.034]	(0.14)			(0.20)			(0.16)		
Constant		0.15	0.42***	-0.20	0.52	0.41***	0.24	0.45	0.20*	0.02
		(0.34)	(0.08)	(0.32)	(0.49)	(0.10)	(0.41)	(0.40)	(0.08)	(0.30)
Number of obs.	47	47	47	47	47	47	47	47	47	47
R^2		0.79	0.57	0.64	0.66	0.51	0.55	0.29	0.06	0.23

Significance levels are: * 10%, ** 5%, *** 1%.

Table A.2 (continued)

Notes: Standard deviations are in brackets, standard errors in parentheses. Regressions are weighted by male state population ages 13 to 44 in 1940. "Share German" and "Share Italian and Japanese" are based on the place of the individual's birth.

Table A.3: Differences in Female Labor Supply Measures in Low, Medium and High
Mobilization Rate States, All Education Groups: 1940, 1950, and 1960

Part A.	Nonfarm Females Ages 25 to 34, All Education Groups							
	1940				1950			
	Low	Medium	High	All	Low	Medium	High	All
	Married with children							
Weeks worked	6.4	5.8	5.8	6.0	6.8	5.6	6.8	6.3
	(2.7)	(1.7)	(1.5)	(2.1)	(2.2)	(0.8)	(1.4)	(1.6)
Weeks worked | >0	38.1	39.1	36.2	38.0	30.4	29.2	29.8	29.8
	(3.2)	(3.0)	(4.7)	(3.7)	(3.2)	(3.6)	(4.0)	(3.6)
Weeks | LFP=1	36.5	35.4	35.3	35.8	31.4	29.8	31.5	30.9
	(4.0)	(3.5)	(4.6)	(4.0)	(4.2)	(3.6)	(3.8)	(3.9)
LFPR	0.114	0.114	0.126	0.117	0.159	0.134	0.170	0.152
	(0.060)	(0.036)	(0.040)	(0.046)	(0.046)	(0.021)	(0.035)	(0.038)
Number of obs.	2,622	3,044	1,850	7,516	4,231	4,675	3,112	12 018
	Married No children							
Weeks worked	9.2	10.1	9.9	9.8	10.5	10.1	10.3	10.3
	(2.5)	(1.9)	(2.7)	(2.3)	(2.5)	(1.6)	(2.0)	(2.0)
Weeks worked | >0	40.0	40.7	39.0	40.1	35.0	34.9	34.7	34.9
	(1.7)	(2.4)	(4.3)	(2.9)	(3.5)	(2.8)	(3.4)	(3.1)
Weeks | LFP=1	40.4	40.7	38.3	39.9	36.5	36.3	35.9	36.2
	(2.3)	(2.5)	(3.8)	(3.0)	(4.8)	(4.0)	(4.1)	(4.2)
LFPR	0.183	0.208	0.223	0.204	0.223	0.216	0.221	0.220
	(0.056)	(0.047)	(0.067)	(0.056)	(0.047)	(0.047)	(0.041)	(0.045)
Number of obs.	1,842	2,679	1,564	6,085	1,840	2,458	1,757	6,055
	Unmarried							
Weeks worked	12.7	12.9	12.9	12.8	14.1	14.1	14.6	14.3
	(3.1)	(3.3)	(2.7)	(3.0)	(3.1)	(2.2)	(2.2)	(2.4)
Weeks worked | >0	40.3	40.9	39.8	40.4	35.2	36.0	37.1	36.1
	(2.4)	(3.5)	(3.7)	(3.2)	(4.0)	(2.5)	(2.9)	(3.1)
Weeks | LFP=1	41.4	40.7	40.3	40.8	36.1	38.9	39.1	38.2
	(3.2)	(4.2)	(3.5)	(3.7)	(4.7)	(2.3)	(3.3)	(3.7)
LFPR	0.248	0.263	0.276	0.262	0.286	0.271	0.285	0.280
	(0.071)	(0.074)	(0.073)	(0.072)	(0.061)	(0.055)	(0.058)	(0.057)
Number of obs.	1,335	1,933	1,278	4,546	1,445	2,070	1,582	5,097

Part B.	Nonfarm Females Ages 35 to 44, All Education Groups							
	1940				1960			
	Low	Medium	High	All	Low	Medium	High	All
	Married with children							
Weeks worked	6.5	5.6	5.9	6.0	16.3	15.8	16.4	16.2
	(2.0)	(1.6)	(1.6)	(1.8)	(2.5)	(0.9)	(1.7)	(1.8)
Weeks worked | >0	40.1	38.6	35.2	38.3	37.4	36.4	36.3	36.7
	(3.5)	(4.1)	(5.7)	(4.7)	(1.7)	(0.7)	(1.5)	(1.4)
Weeks | LFP=1	38.2	37.4	33.8	36.7	38.5	37.9	37.6	38.0
	(4.0)	(4.8)	(7.0)	(5.5)	(1.6)	(0.7)	(1.2)	(1.3)
LFPR	0.104	0.113	0.132	0.114	0.388	0.378	0.394	0.386
	(0.036)	(0.038)	(0.041)	(0.039)	(0.054)	(0.023)	(0.039)	(0.040)
Number of obs.	2,016	2,283	1,344	5,643	11,399	12,905	8,693	32,997
	Married No children							
Weeks worked	9.1	6.8	6.6	7.5	14.7	13.2	13.8	13.9
	(1.9)	(2.3)	(1.8)	(2.3)	(2.6)	(0.9)	(1.9)	(1.9)
Weeks worked | >0	40.2	40.5	37.1	39.6	37.0	35.2	36.1	36.1
	(4.6)	(4.8)	(4.8)	(4.8)	(2.5)	(1.1)	(1.9)	(2.0)
Weeks | LFP=1	39.8	39.1	36.1	38.6	37.8	36.8	37.3	37.3
	(5.2)	(5.3)	(5.8)	(5.5)	(2.1)	(1.4)	(2.3)	(1.9)
LFPR	0.174	0.129	0.160	0.151	0.353	0.322	0.335	0.335
	(0.045)	(0.049)	(0.033)	(0.048)	(0.050)	(0.017)	(0.041)	(0.039)
Number of obs.	1,270	1,699	904	3,873	7,088	8,955	6,135	22178
	Unmarried							
Weeks worked	8.6	7.2	8.1	7.9	13.4	11.9	12.2	12.4
	(2.8)	(1.1)	(2.9)	(2.3)	(2.5)	(1.2)	(1.2)	(1.7)
Weeks worked | >0	41.8	41.4	40.1	41.1	37.0	35.8	35.7	36.1
	(4.3)	(3.6)	(4.1)	(4.0)	(2.0)	(1.7)	(1.6)	(1.8)
Weeks | LFP=1	40.9	39.1	40.0	39.9	38.1	37.4	36.8	37.4
	(5.8)	(2.5)	(3.2)	(3.9)	(1.8)	(1.4)	(1.3)	(1.6)
LFPR	0.159	0.158	0.177	0.164	0.313	0.283	0.293	0.294
	(0.061)	(0.032)	(0.069)	(0.053)	(0.055)	(0.026)	(0.027)	(0.038)
Number of obs.	1,111	1,632	1,090	3,833	5,431	8,172	6,427	20,030

Sources: 1940, 1950, and 1960 IPUMS of the U.S. decennial population censuses (Ruggles, et al. 2010). See also text.

Notes: Cross-state-of-birth standard deviations. For sample restrictions see Table 3. Sample line weight is always used. Weeks worked | >0 = weeks worked conditional on positive weeks worked; Weeks | LFP=1 = weeks worked conditional on labor force participation being one. Note that weeks worked is for the year preceding the census whereas labor force participation is as of the census week.

Mobilization rate categorization is: Low: Georgia, North Dakota, North Carolina, South Dakota, South Carolina, Wisconsin, Louisiana, Alabama, Arkansas, Mississippi, Virginia, Tennessee, Kentucky, Indiana, Michigan, and Iowa. Medium: Missouri, Texas, Nebraska, Minnesota, Maryland, Delaware, Vermont, Illinois, Florida, New Mexico, Ohio, West Virginia, New York, Wyoming, and Oklahoma. High: Kansas, Montana, Connecticut, Arizona, Colorado, New Jersey, Idaho, California, Maine, Washington, Pennsylvania, Utah, New Hampshire, Oregon, Rhode Island, and Massachusetts. Low ranges from 0.40 to 0.44; Medium from 0.441 to 0.479; High from 0.48 to 0.536. See Table A.1 for mobilization rates used here.

Table A.4: Impact of World War II on the Labor Supply of Married Women Using an Alternative Mobilization Rate Measure

	25 to 34 Year Old White, Married (in 1950) Women, with ≥ 12 Years Education		35 to 44 Year Old White, Married (in 1960) Women, with ≥ 12 Years Education	
	(1) Weeks Worked	(2) LFPR	(3) Weeks Worked	(4) LFPR
τ × Wh *MOB* × MarrChildWWII	7.21	0.42*	40.92***	0.71**
	(12.31)	(0.24)	(14.30)	(0.35)
τ × Wh *MOB* × MarrNoChildWWII	33.82***	0.66**	17.16*	0.19
	(12.72)	(0.28)	(10.31)	(0.28)
τ × Wh *MOB* × UnmarrWWII	28.43*	0.77*	3.12	-0.03
	(15.73)	(0.39)	(13.94)	(0.34)
Wh *MOB* × MarrChildWWII	17.70	0.08	-19.14*	-0.29
	(18.13)	(0.30)	(11.33)	(0.26)
Wh *MOB* × UnmarrWWII	2.43	0.03	6.60	0.14
	(12.45)	(0.38)	(13.50)	(0.34)
τ × MarrChildWWII	5.18	-0.05	-3.03	0.06
	(6.86)	(0.17)	(8.25)	(0.22)
τ × MarrNoChildWWII	-8.84	-0.17	8.73	0.32
	(8.53)	(0.19)	(6.54)	(0.20)
τ × UnmarrWWII	-4.82	-0.23	16.68*	0.43*
	(10.23)	(0.28)	(8.45)	(0.21)
MarrChildWWII	-12.33	-0.09	13.34*	0.21
	(11.16)	(0.18)	(7.01)	(0.16)
UnmarrWWII	0.08	-0.00	-3.70	-0.07
	(7.64)	(0.23)	(8.24)	(0.21)
Number children < 5 years	-8.37***	-0.17***	-5.99***	-0.14***
	(0.27)	(0.00)	(0.19)	(0.00)
Number children ≥ 5 years	-2.28***	-0.05***	-2.86***	-0.05***
	(0.24)	(0.01)	(0.13)	(0.00)
State of birth and age dummies	y	y	y	y
State of birth covariates × τ	y	y	y	y
Constant	18.01***	0.39***	13.33***	0.30***
	(0.73)	(0.01)	(0.84)	(0.02)
Number of observations	20,846	20,846	49,009	49,009
R^2	0.162	0.137	0.106	0.109

Significance levels are: * 10%, ** 5%, *** 1%.
Sources: 1940 and 1960 IPUMS of the U.S. decennial population censuses (Ruggles, et al. 2010)
Notes: See notes to Table 3. τ = 1950 (cols. 1, 2) or 1960 (cols. 3, 4); Wh *MOB* is the mobilization rate for white men 18 to 37 years old

Table A.5: Impact of World War II Mobilization on the Labor Supply of (White) Married Women 35 to 44 and 45 to 49 Years Old, 1940 and 1950

	Weeks Worked		LFPR	
	35-44 yrs, ≥ 12 yrs education	45-49 yrs, ≥ 12 yrs education	35-44 yrs, ≥ 12 yrs education	45-49 yrs, ≥ 12 yrs education
$1950 \times MOB$	35.85***	45.25**	0.52*	0.76*
	(11.09)	(18.92)	(0.28)	(0.45)
1950 dummy	-7.22	-25.13	-0.20	-0.61
	(6.73)	(15.40)	(0.19)	(0.38)
Number children < 5 years	-6.00***	-3.84***	-0.14***	-0.08***
	(0.37)	(1.12)	(0.01)	(0.02)
Number children ≥ 5 years	-2.38***	-1.54***	-0.05***	-0.03***
	(0.18)	(0.23)	(0.00)	(0.00)
State of birth and age dummies	y	y	y	y
State of birth covariates $\times$ 1950	y	y	y	y
Constant	13.55***	10.38***	0.30***	0.24***
	(1.20)	(1.26)	(0.02)	(0.02)
Number of observations	12,901	4,000	12,901	4,000
R^2	0.074	0.057	0.081	0.069

Significance levels are: * 10%, ** 5%, *** 1%.

Notes: See notes to Table 3. *MOB* is the mobilization rate for all men 18 to 44 years old in the woman's state of birth.