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How is one to account for the illusion in Germany or elsewhere? Observers agree on the great flow of women into industry in all three countries. Yet analysis indicates that the increase in the female labor force propensity was invariably small or negligible, whether the comparison is with the number of women already in industry or with the number of men withdrawn from the civilian population. Here is a field, apparently, in which direct and unchecked observation can easily mislead. One part of the so-called rise in the labor force is merely the absorption of the female unemployed. Another part results from fixing attention on war industries, traditionally men's industries, where apparent inflow into the labor force may be really the transfer of women from agriculture, domestic service, and retail trade.⁵⁰ Even in these 'men's' industries, women stand out in wartime, not always because of the influx of females but because of the exodus of males.

Statistically, too, there has been much opportunity for illusion. Except for Germany, war and prewar comparisons have been made among employment (not labor force) figures of large firms in war industries. Increases are noted in female employment usually without noting also the growth in population, the fall in unemployment, or the transfer from industries not covered by statistics. The resulting errors are then inflated by applying the erroneous percentage increases to the 'uncovered' firms and industries. It must be concluded that, actually, none of the three countries discussed was able to add more than slightly to the normal male civilian labor force from this source. The greatest net loss from a civilian labor force, by 1916 anyway, was suffered by Germany (18-20 per cent). Great Britain, by 1918, had suffered a net loss of 10-13 per cent; and the United States one of 7-10 per cent. The order of these losses is roughly the order of the extent of mobilization, which had been, for Germany, one-third; for Great Britain, one-fourth; for the United States, one-tenth of the normal labor force. To the extent that these net losses were made up at all, it was by more intensive use of the diminished civilian labor force.

8 THE AMERICAN LABOR FORCE IN WORLD WAR II (With Some British and German Comparisons)

Though the statistics, when examined critically, do not show much of a rise in total labor force propensity during World War I, a good-

⁵⁰ In many cases the industries from which women transfer simply close down.

sized rise during World War II cannot be doubted (App. B). Little or no net increase took place during the two years before the United States entered the war, despite fuller employment. During 1942 and 1943, however, there was a rise of nearly 6 million men and women, of whom more than four-fifths came in independently of the growth in the working-age population and constituted the rise in labor force propensity from 49.9 to 54.3 per cent (App. B) that here concerns us. Of this four-fifths (nearly 5 million persons), slightly more than two million were women, all but a quarter of whom were 25 and older.⁵¹ More than two and a half million were men, all but a fifth of whom were 24 or younger. The rise in the war labor force propensity was thus dominated by young men and older women. It is significant, though often overlooked, that the absolute increase of males was greater than that of females, which could happen presumably only in the United States with its large male high school and college enrollment.

Readers are cautioned that these increases and their age-sex group details are merely approximations, for the Census is revising its 1940-43 monthly labor force estimates (see App. C). Preliminary revisions published recently by the Census, however, show substantially the same absolute increases in the male and female labor force figures in November 1943 over December 1941 as were shown in the original estimates (see Table 17).

But how can these big rises in the labor force propensity during World War II be explained, in view of the apparent absence of any significant rise during World War I? To be sure, the percentage of the normal labor force drafted for military service has been much greater in this war (Table 18), and a draft of soldiers may be expected to pull men from school or idleness into the war labor force. Of the men involved in the rise of labor propensity in the first year of World War II a million were, we have seen, of school-age. The monthly poll data may be used to measure the drop from February 1942 to February 1943 of about 1,200,000 in the number of males outside the labor force and in school. Detailed estimates, based on my own sample survey of 8 city school systems and 30 colleges and universities, indicate that this decline had been about evenly distributed between high school and college level, but that the fall in female school enrollment had hardly touched the higher institutions (Table 19).

The decline in school attendance in my estimate is less than that

TABLE 17

Changes in the Male and Female Labor Force, United States, 1941-1943
Comparisons of Original Monthly Poll Estimates with
Preliminary Revisions by the Census
(millions)

	CIVILIAN LABOR FORCE				TOTAL LABOR FORCE (including armed forces)			
	ORIGINAL ESTIMATES		PRELIMINARY REVISIONS		ORIGINAL ESTIMATES		PRELIMINARY REVISIONS	
	Number	Change from 1941	Number	Change from 1941	Number	Change from 1941	Number	Change from 1941
M A L E								
1941								
Dec.	40.2	..	40.3	..	42.2	..	42.3	..
1943								
Nov.	35.6	-4.6	35.1	-5.2	45.6	+3.4	45.1	+2.8
F E M A L E								
1941								
Dec.	13.8	..	14.6	..				
1943								
Nov.	16.3	+2.5	17.5	+2.9	Same as Civilian Labor Force			
M A L E A N D F E M A L E								
1941								
Dec.	54.0	..	54.9	..	56.0	..	56.9	..
1943								
Nov.	51.9	-2.1	52.6	-2.3	61.9	+5.9	62.6	+5.7

SOURCES: Original estimates from Appendix B; revision from *The Labor Force*, Feb. 1944. For sources of data on the armed forces see Appendix B.

Since females in the armed forces have been too few to justify classification, they were included in the civilian labor force.

⁵¹ Bureau of the Census, *The Labor Force Bulletin*, Sept. 30, 1943, pp. 10-11; *Monthly Labor Review*, March 1943 and Jan. 1944.

registered in the monthly poll estimates, for two reasons. The more important is that monthly poll data register a drop not merely in attendance but also in the number of students attending school and *not working part time*. The second is that my sample of colleges

TABLE 18

Armed Forces as a Percentage of the Normal Civilian Labor Force
United States, World War I and II

WORLD WAR I		WORLD WAR II	
1917 Apr.	.5	1941 June	2.6
		1941 Dec.	3.7
1918 May	5.3	1942 June	6.4
		1943 Jan.	12.5
1918 Nov.	10.0	1943 Nov.	18.2

My estimates of the armed forces exclude armed forces normally outside the continental United States (200,000). Normal civilian labor force 1941-43 computed by multiplying the working-age population for each month by the civilian labor force propensities in 1940 (51 per cent in the summer months and 48 per cent in the winter months).

and universities represents only the most stable institutions and does not reflect the attendance at colleges going out of existence.

TABLE 19
Changes in School Enrollment, Males and Females 14-24, by Age Groups
United States, World War I and II
(thousands)

	14-17	MALE 18-24	14-24	14-17	FEMALE 18-24	14-24
WORLD WAR I						
<i>October</i>						
1916-17	-210	-65	-275	-25	+55	+30
1916-18	-180	-10	-190	-155	no change	-155
WORLD WAR II						
<i>February</i>						
1941-42	-200	-150	-350	-110	-30	-140
1941-43	-450	-420	-870	-265	-90	-355

SOURCES: For estimates of school enrollment 1916-18 see Sec. 2.

For World War II the sample included senior high schools of 8 city school systems covering 340,000 boys and girls; and 30 colleges and universities covering about 175,000 male and female students. The data had to be obtained by correspondence.

Incidentally, the greater relative decline in this war may have less unfortunate effects upon our educational program, because school enrollment, relative to the school-age population, was about a quarter higher than at the outbreak of World War I, and the country could more easily absorb such a loss. A large part of the addition to the labor force has other explanations, for half was made up of women over 24 and men over 54. The reasons why relatively so many older persons, especially women, entered the labor force in this war are elementary enough. Labor force propensities of males were somewhat lower in 1941 than in 1916; therefore, some labor force propensity might be said to have been in reserve. Even supposing the 1941 propensities were held down by the old age security and relief system, the reserves of this year would be more easily brought onto the market than would reserves made up of bigger proportion of hardcore unemployables and very old persons, such as characterized 1916, when male labor force propensities were higher.

The influx of females during World War II may have been the consequence of inductions of single and childless married men over 24 and the relatively few young children to be cared for. The absolute number of children under 10, as we observed, was no larger in 1941 than in 1917, and the proportion per 1,000 women 14 and

older had fallen from 642 in 1917 to 425 in 1941.⁵² Yet by Pearl Harbor the female labor force propensity had never risen as high as the drop in the number of children the average woman had to care for would have 'allowed'. If the 1917 ratio of 642 children per 1,000 women may be said to have 'allowed' a labor force propensity of 23.5 per cent for women 14 and older, then the ratio before Pearl Harbor of 425 would have 'allowed' a propensity of 35.5 per cent. But the labor force propensity of January 1942 was still only 25.5 per cent. Accordingly, the reserve propensity of that time may have amounted to as much as 10 per cent. If so, 5,000,000 women may have been potentially available for the labor force, given the necessary pressure and opportunity. A year later the female labor force propensity had risen to 29.2,⁵³ reducing the 'reserve' to 6 per cent, or 3,000,000 women.

Both pressure and opportunity had been set up during the intervening year by the large draft of men from the civilian labor force. Not only was the draft heavier, relative to the normal labor force, during the first year of World War II than during entire World War I; it probably took also a somewhat larger proportion of older and married men.⁵⁴ Its effectiveness in bringing replacements into the civilian labor force during 1942 is as striking as its ineffectiveness in doing so in 1943.

Up to the end of 1942 the cumulative drain of men 20-44 from the civilian labor force to the military services had virtually been replaced by the cumulative additions of females 10 and older and of males under 20 and over 44 (Table 20). This replacement was not always regular; in some quarters it ran behind the losses, and in others, it ran ahead. Moreover, that section of the labor force from which the replacements were drawn was rather larger than that from which the losses were taken, so that a very small part of the re-

⁵² Based on 1930-40 comparisons, the percentage of married women without children must have risen correspondingly.

PERCENTAGE OF MARRIED WOMEN 18-44 WITHOUT CHILDREN UNDER 10

1930	37.5	(Bureau of the Census, Series P-9, No. 13 North East Central Division)
1940	45.5	[<i>Ibid.</i> , Series P-18, No. 13 (U. S., Married women, husband present)]

⁵³ Recent preliminary revisions of the monthly poll estimates suggest that the propensities at these dates were somewhat higher: 27.5 per cent in January 1942, and 28.9 per cent in January 1943. If these revisions are correct, the reserve propensities would have involved 3.75 million females at our entry into the war and 2.5 million a year later.

⁵⁴ In World War I 90 per cent of all married registrants were deferred (Provost Marshall General, *Second Report*, 1919, p. 117).

placement was the result of the differential population increase. Nevertheless, the contrast is sharp between the strong replacement effect of 1942 and the negligible replacement effect of 1943. The contrast is sharpened by the fact that two-thirds more men were added to the armed forces in the earlier than in the later year. What then is the explanation for the occurrence of a replacement effect in the first year of this war but not in the second?

TABLE 20
Replacement of Males of Military Age in the Civilian Labor Force
United States, 1941-1943
Quarterly Averages
(millions)

	CIVILIAN LABOR FORCE				CHANGE FROM PRECEDING QUARTER		CUMULATIVE CHANGE FROM 3D QUARTER OF 1941	
	TOTAL	MALES	ALL	MALES	ALL	MALES	ALL	
	Unadj. (1)	Adj. for Seasonal (2)	20-44 Unadj. ¹ (3)	OTHERS Adj. for Seasonal ² (4)	20-44 Unadj. (5)	OTHERS Adj. for Seasonal (6)	20-44 Unadj. (7)	OTHERS Adj. for Seasonal (8)
1941								
III	55.9	54.5	23.1	31.4
IV	54.1	54.4	22.9	31.5	-0.2	+0.1	-0.2	+0.1
1942								
I	53.7	55.0	22.5	32.4	-0.4	+0.9	-0.6	+1.0
II	54.7	54.5	21.8	32.7	-0.7	+0.3	-1.3	+1.3
III	55.7	54.2	21.1	33.1	-0.7	+0.4	-2.0	+1.7
IV	54.0	54.3	19.9	34.4	-1.2	+1.3	-3.2	+3.0
1943								
I	52.2	53.5	18.6	34.9	-1.3	+0.5	-4.5	+3.5
II	53.2	53.1	18.2	34.8	-0.4	-0.1	-4.9	+3.4
III	54.6	53.2	18.0	35.1	-0.2	+0.3	-5.1	+3.7
IV ³	51.9	51.9	17.7	34.2	-0.3	-0.9	-5.4	+2.8

SOURCES: Unadjusted data: *The Labor Force*, *The Labor Force Bulletin*, and the *Monthly Labor Review*.

Adjusted data: Seasonal index was computed from monthly data on total civilian labor force, April 1940-November 1943: January, 97; February, 98; March, 98; April, 98; May, 100; June, 103; July, 104; August, 104; September, 100; October, 99; November, 100; December, 99.

I am grateful to Geoffrey H. Moore and Gerhard Bry for the seasonal adjustments and for other suggestions concerning this table.

¹ No seasonal adjustment was considered necessary.

² Column 2 minus column 3.

³ November figures taken to represent the quarter.

To some extent, of course, the loss of primary wage earners in 1942 eased the entry into the labor force of previously submarginal employables,⁵⁵ whereas by 1943 this class of person had been largely

⁵⁵ For the elderly males outside the labor force in peacetime, the lowered employability standards were doubtless the chief factor. This explanation may surprise those who

absorbed, if the low level of unemployment is any indication. Again, in 1942 a compelling factor was the combination of the pressure of a threatened reduction of living standard plus a release from domestic duties of females whose husbands, sons, or brothers were drafted, or of girls who would have married and set up housekeeping had the draft not intervened; during 1943, on the other hand, a much larger percentage of the draftees were older men with children born since the start of the war. The wives of these men were not as free to enter the labor force as were the younger, childless women; moreover, the pressure on them to do so was relieved by the substantial increase in soldier dependency allowances. The same factor will play a larger role when men with older and more children are drafted. Moreover, as pointed out below, an increase in overtime work in industry and a decrease in commercial services for the home put a greater domestic burden on wives whose husbands are in civilian industry, discouraging their entrance into the labor market.

The behavior of German and British labor force propensities in World War II is an interesting contrast to that of the United States propensities just reviewed. However, it must be remembered that the prewar labor force propensities appear to have been much higher in Germany and Great Britain. As was also observed in Section 6, so far as these differences were real and not due (as in Germany) to differences in the census classification of farm housewives, they arose from far smaller school attendance and fewer children to care for.

For the study of the behavior of the German and British propensities wartime statistics are meager, and the few we have cannot be checked. Nevertheless, in both countries figures for 1942 have been published that probably do not underestimate their labor forces, for they were intended to make the extent of labor force mobilizations appear in the most formidable light. The British data are those Mr. Bevin announced in the House of Commons. In May 1942, according to those figures, there were 22,000,000 full-time workers employed or under arms in Great Britain, not counting domestic serv-

(note 55 concl.)

expect that, for a group living on fixed incomes, insurance benefits, annuities, pensions, bond interest, and so on, price inflation would provide the chief compulsion to enter the labor force. This does not seem to have been the case. The percentage rise in the labor force propensity of the group 55 and older, or even 65 and older, has, in fact, been very small despite the large percentage rise in the cost of living.

Future price inflation may fetch a few elderly men into the labor force, but not many. Indeed, whether the opportunity or pressure factor is stronger, any early return of the elderly group to the propensity levels prevailing before World War I is unlikely.

ants, persons unemployed, and persons over 64 in the labor force,⁵⁶ all of which I estimate to have been not more than 1,500,000.⁵⁷ In addition, there were then about 500,000 married women engaged in part-time work.⁵⁸ Thus probably not more than 24,000,000 persons were under arms and in the civilian labor force full or part time—64.8 per cent of the working-age population. Mr. Bevin said this represented the maximum possible mobilization of the British population.⁵⁹ Yet from 1931 to May 1942 the rise in the labor force propensity had brought in only 4 per cent of persons 14 and older, less than the 4½ per cent rise for the United States between December 1941 and November 1943.

German figures for males present insoluble problems connected with foreign workers, prisoners, military mobilization, and war losses. According to statistics given in *The Economist*, March 6, 1943, from uncited German sources, 2,200,000 women, including conscripts for compulsory labor service and 'helpers' in the Wehrmacht, had been brought into employment from the labor reserve existing in August 1939.⁶⁰ About the same addition can be figured from social insurance statistics quoted from the *Reichsarbeitsblatt*.⁶¹ Of German females 14 and older 6.5 per cent were probably added to the labor force compared with an addition for the United States between December 1941 and November 1943 of 4.3 per cent and for Great Britain up to May-October 1942 of 7.4 per cent.⁶²

"Thus, it is obvious that only married women are available [in Germany] in

⁵⁶ *Parliamentary Debates*, House of Commons, May 21, 1942, col. 427-8.

⁵⁷ A very rough calculation extrapolated from 1931 census data.

⁵⁸ An estimate based on his speech a year later, when he said, "Over 600,000 women are doing part-time work"; *British Speeches of the Day* (British Information Services, July 1943), p. 24.

⁵⁹ These figures were substantially the same in the spring of 1943, when 23,000,000 full-time (including the armed forces) and 600,000 part-time workers were reported as employed. A 25,000,000 figure, often reported, covers persons in volunteer work. See *Monthly Labor Review*, July 1943, pp. 17-9, and *British Speeches of the Day*, July 1943, p. 24.

⁶⁰ The area to which these increases are supposed to apply includes Austria and Sudetenland, but not territorial additions since 1939. The population to which the additions apply covers farm housewives, but not war prisoners or foreign labor. The purpose of citing the increases is to show the extent to which Germany mobilizes her *native* population.

⁶¹ *The Economist*, July 4, 1942, pp. 16-7; *International Labour Review*, Montreal, Oct. 1942, p. 462. A colleague has expressed the opinion that these increases were mere reflections of territorial accretions to the Reich.

⁶² Assuming no change in the male labor force propensity from 1931 to 1942. If the male propensity increased slightly, as it may well have done, the British increase in female propensity must have been even smaller.

large numbers. Married women without children or with one child, have already been drawn into some kind of war work. To employ married women with two or more children in industry makes it necessary to establish more kindergartens and other services which need buildings, furniture and personnel. Part-time work, however, can be organized for considerable numbers of married women." *The Economist*, March 6, p. 300.

The British and German figures do show greater increases in labor force propensities of females than do the United States figures. But the rise in the labor force propensity of males in the United States during the war has probably far exceeded that in either Britain or Germany: 5 per cent of all males 14 and older came into the labor force between December 1941 and November 1943.

In short, the United States labor force propensity for males and females combined had risen more after 23 months of war⁶³ than the British after almost three years, assuming, of course, that the British propensity did not change materially between 1931 and 1939. It is possible, as Mr. Bevin claimed, that the British have mobilized their population for greater output over more hours than has any other people at any other time.⁶⁴ But so far as paid labor is concerned, mobilization has been largely of the time and energy of persons already in the labor force before the war. There is no evidence of any big increase in the labor force itself.

9 POSSIBILITIES FOR FURTHER INCREASES IN THE UNITED STATES WAR LABOR FORCE

As suggested by Mr. Bevin, the propensity of the British population to be in the labor force as soldier or worker attained its maximum in 1942: 70 per cent of Britons 14-65. In contrast, in the United States in late 1943 it was only 60 per cent.⁶⁵ At first blush this country seems to have still a long way to go before reaching its maximum. The question whether many additional persons can be brought into the labor force is especially interesting in view of the United States program to induct more than a million men in 1944.

The higher propensity in Britain did not begin with the war. Associated both with the traditionally smaller percentage of British children 14 and older in school and with the smaller percentage of British women with children under 14, it exceeded that in the United

⁶³ For remarks regarding recent census revisions of monthly poll estimates, see Sec. 8; see also Table 17 and App. C.

⁶⁴ *Parliamentary Debates*, May 21, 1942, col. 428.

⁶⁵ On the basis of recent preliminary revisions of the Census poll for 1941-43, the U.S. labor force propensity in late 1943 was 1 per cent higher than this.