

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: The Labor Force Under Changing Income and Employment

Volume Author/Editor: Clarence D. Long

Volume Publisher: UMI

Volume ISBN: 0-87014-064-7

Volume URL: <http://www.nber.org/books/long58-1>

Publication Date: 1958

Chapter Title: THE LABOR FORCE OF FEMALES AND THE EARNING OF MALES IN DIFFERENT INCOME GROUPS AT A GIVEN TIME

Chapter Author: Clarence D. Long

Chapter URL: <http://www.nber.org/chapters/c2621>

Chapter pages in book: (p. 82 - 116)

## CHAPTER 5

# THE LABOR FORCE OF FEMALES AND THE EARNINGS OF MALES IN DIFFERENT INCOME GROUPS AT A GIVEN TIME

### *The Labor Force of Wives by Income Group of Husbands in the Same City or Type of Area*

CITIES and states are unsatisfactory units for the study of labor force and earnings; they have been used only because better data were lacking. In the census statistics for 1940 and 1950, however, infinitely superior materials are at hand: namely, wives in the labor force grouped according to the incomes of husbands. These data are classified by color and age of wife and by age of children—information that enables us to eliminate many extraneous elements unfortunately present in inter-area comparisons. Some of the same elements, it is true, may affect even comparisons between income groups within a city since the well-to-do and the less prosperous do not normally reside in the same section of town. Nevertheless cultural patterns and the structure of industry are likely to be more homogeneous *within* a city than *among* cities; this suggests that there may be real advantages in studying the labor force by income groups.

Farm areas were excluded, largely because of defects in the wage and salary materials (Appendix D). All income groups for the rural nonfarm areas however, and for large, medium, and small cities yielded rather similar results (Table 9 and Chart 4). Wives were less apt to work if their husbands were well-to-do than if their husbands were poor—even when the wives were standardized for possession of young children and for age (to eliminate the possibility that the age factor kept wives out of the labor force). The effect of income was, moreover, pronounced. In 1940, the nonfarm labor force of married women ranged from 245 per 1,000 in the lowest income bracket to 64 in the highest, where incomes were \$3,000 or more.<sup>1</sup> Furthermore, the higher the income level, the more women (percentagewise) dropped out with additional prosperity. At the lower range about 0.1 per cent fewer wives were in the labor force if income was 1 per cent higher; at the top of the range the figure was close to 0.9 per cent fewer. The weighted average for all levels was about  $-0.35$  for the United States excluding farm areas and standardizing for age of wife and possession of young children. The unstandardized figure was only slightly different ( $-0.33$ ).

<sup>1</sup> *Census of Population, 1940, Population, The Labor Force (Sample Statistics), Employment and Family Characteristics of Women*, p. 135.

TABLE 9

Variations in Labor Force of Wives Associated with Differences in Earnings of Husbands, United States, 1940  
 (Number of persons by which rate of participation of wives 18-64 in labor force—per 1,000 wives in same area, age, and income group—was reduced for every additional \$100 of wage or salary earned by their husbands in the previous year, and percentage by which the rate was reduced for every 1 per cent addition to the husband's earnings. Husbands had no other income.)

	Income Level					Weighted Averages, All Income Levels <sup>a</sup>	
	\$100- \$00	\$300- 500	\$500- 800	\$800- 1,250	\$1,250- 1,750		\$2,500- 3,250 and over
A. ALL WIVES, STANDARDIZED FOR AGE AND POSSESSION OF YOUNG CHILDREN <sup>b</sup>							
	Reduction per \$100 Additional Income of Husband (persons)						
United States (except farm areas)	-19	-1	+0.3	-8	-8	-5	-6
Metropolitan areas 100,000 and over	-14	-5	-4	-7	-9	-6	-7
Cities 25,000-100,000	-35	-1	-8	-15	-9	-8	-11
Cities 2,500-25,000	-26	-10	-2	-13	-10	-6	-10
Rural nonfarm areas	-19	-3	+6	-7	-8	-3	-5
	Reduction per 1 Per Cent Additional Income of Husband (per cent)						
United States (except farm areas)	-0.08	-0.01	+0.01	-0.30	-0.61	-0.71	-0.35
Metropolitan areas 100,000 and over	-0.05	-0.06	-0.10	-0.27	-0.60	-0.72	-0.42
Cities 25,000-100,000	-0.10	-0.01	-0.14	-0.48	-0.58	-0.94	-0.41
Cities 2,500-25,000	-0.08	-0.12	-0.05	-0.46	-0.76	-0.91	-0.39
Rural nonfarm areas	-0.11	-0.06	+0.23	-0.37	-0.79	-0.60	-0.19

TABLE 9, continued

	Income Level						Weighted Averages, All Income Levels*
	\$100- 300	\$300- 500	\$500- 800	\$800- 1,250	\$1,250- 1,750	\$1,750- 2,500	
<b>B. WIVES WITHOUT CHILDREN UNDER 10 c</b>							
Reduction per \$100 Additional Income of Husband (persons)							
United States (except farm areas)	-11	-3	-2	-6	-11	-7	-5
Metropolitan areas 100,000 and over	-22	-7	-7	-7	-10	-7	-6
Cities 25,000-100,000	-31	-4	-10	-16	-6	-7	-7
Cities 2,500-25,000	-26	-15	-2	-4	-21	-8	-2
Rural nonfarm areas	+7	-3	+5	-7	-9	-5	-2
Reduction per 1 Per Cent Additional Income of Husband (per cent)							
United States (except farm areas)	-0.04	-0.03	-0.03	-0.18	-0.56	-0.66	-0.92
Metropolitan areas 100,000 and over	-0.06	-0.06	-0.12	-0.21	-0.52	-0.66	-1.02
Cities 25,000-100,000	-0.07	-0.03	-0.14	-0.41	-0.34	-0.59	-1.11
Cities 2,500-25,000	-0.07	-0.14	-0.04	-0.12	-1.00	-0.91	-0.85
Rural nonfarm areas	+0.04	-0.05	+0.14	-0.28	-0.72	-0.68	-0.64

TABLE 9, continued

	Income Level						Weighted Averages, All Income Levels <sup>a</sup>
	\$100-300	\$300-500	\$500-800	\$800-1,250	\$1,250-2,500	\$2,500-3,250 and over	
C. WIVES WITH CHILDREN UNDER 10 <sup>c</sup>							
	Reduction per \$100 Additional Income of Husband (persons)						
United States (except farm areas)	-12	-2	+3	-8	-6	-3	-4
Metropolitan areas 100,000 and over	-13	-8	-1	-7	-7	-3	-5
Cities 25,000-100,000	-41	+4	-5	-15	-6	-5	-9
Cities 2,500-25,000	-25	-3	-3	-12	-7	-3	-8
Rural nonfarm areas	-9	-3	+8	-8	-5	-1	-2
	Reduction per 1 Per Cent Additional Income of Husband (per cent)						
United States (except farm areas)	-0.08	-0.04	+0.12	-0.52	-0.91	-0.91	-0.44
Metropolitan areas 100,000 and over	-0.08	-0.16	-0.04	-0.46	-0.92	-0.95	-0.55
Cities 25,000-100,000	-0.15	+0.06	-0.12	-0.68	-0.71	-1.09	-0.57
Cities 2,500-25,000	-0.12	-0.05	-0.09	-0.64	-0.92	-0.93	-0.48
Rural nonfarm areas	-0.09	-0.11	+0.55	-0.60	-1.01	-0.35	-0.15

Source: *Census of Population, 1940, Vol. IV, The Labor Force (Sample Statistics), Employment and Family Characteristics of Women, Table 23, pp. 132-136.*

<sup>a</sup> Weighted by number of wives 18-64 belonging to the various income levels.

<sup>b</sup> Standardized for age and child status on basis of total wives of the United States (except farm areas).

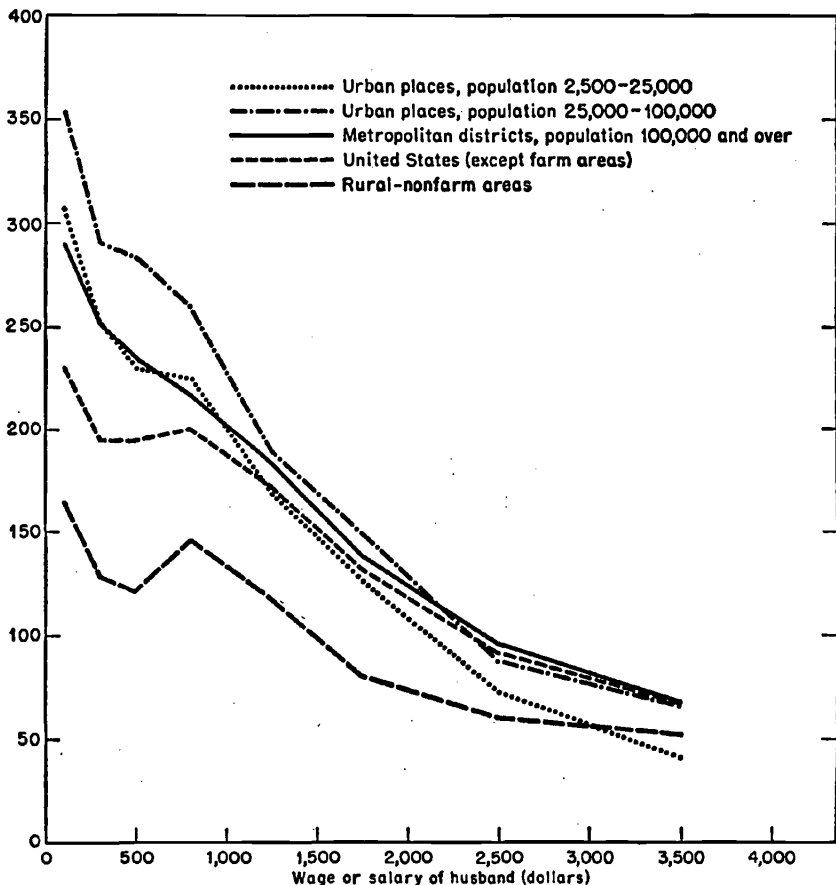
<sup>c</sup> Standardized for age of wives on basis of total wives of the United States (except farm areas).

FEMALE LABOR FORCE AND MALE EARNINGS

CHART 4

Labor Force of Wives and Earnings of Husbands: Various Types of Nonfarm Areas, United States, April 1940

Labor force, per 1,000 of wives aged 18-64 and living with husband. Standardized for age on basis of total wives in same type of area.



Limited to wives whose husband's income (in 1939) was entirely from wages or salary. The income groups are \$1-199; 200-399; 400-599; 600-999; 1,000-1,499; 1,500-1,999; 2,000-2,999; and 3,000 and over. Readings are centered at midpoints of the ranges, except for the open-end class.

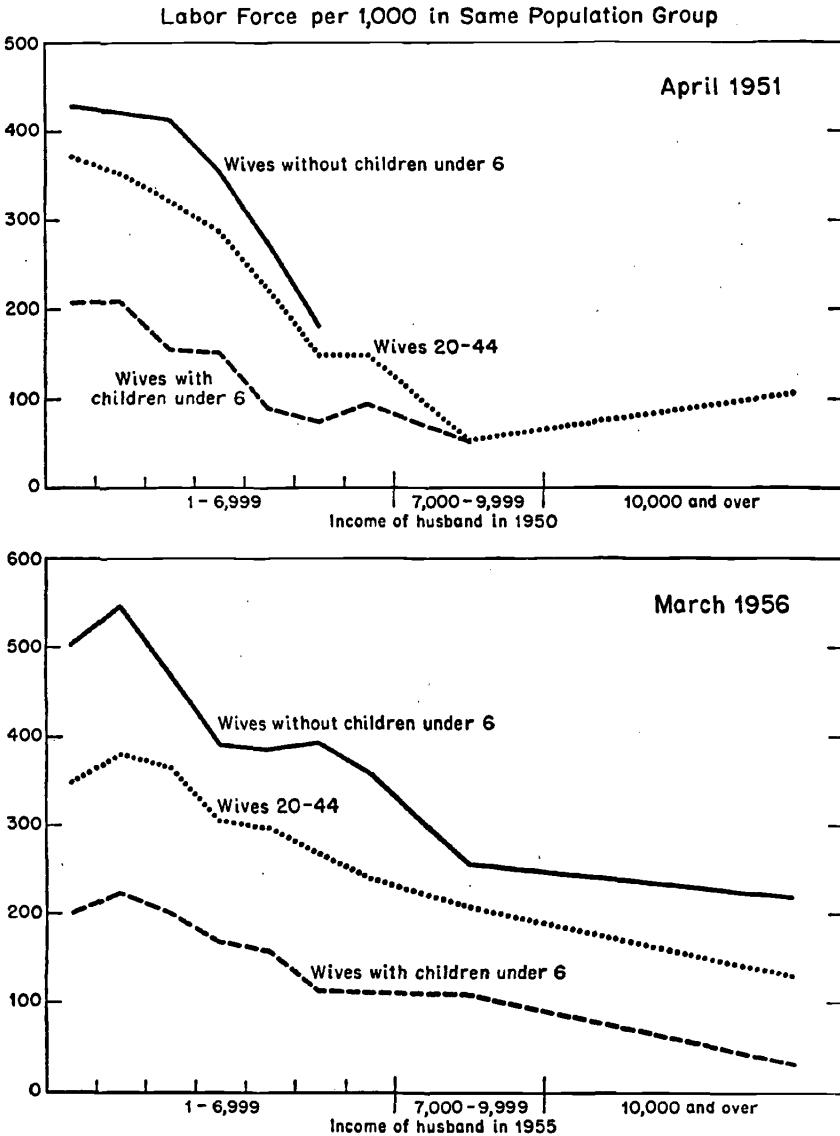
Source: *Employment and Family Characteristics of Women*, as cited in Table 9.

The association varied little among different-sized urban areas, but it was markedly lower for rural nonfarm areas.

The same data for 1940 allow separate analysis for wives with, and without children under 10. The participation of wives without young children had associations with husbands' income very similar to those of all wives (Table 9, Section B and Chart 6). This close similarity

### CHART 5

## Labor Force of Wives with and without Young Children, and Income of Husbands: United States, 1951 and 1956



Source: For both years, "Marital and Family Status of Workers: 1956," *Current Population Reports, Labor Force*, Series P-50, No. 73, p. 14. Labor force not shown where sample base is less than 200,000. Income data are grouped at 500-dollar intervals up to \$5,000, then \$5,000-5,999, 6,000-6,999, 7,000-9,999, and 10,000 and over. Readings are centered at mid-points except for the open-end class.

## FEMALE LABOR FORCE AND MALE EARNINGS

was not surprising, since most wives in the labor force do not have young children and could be expected to dominate the average. Wives *with* young children (Table 9, Section C) showed somewhat different tendencies. Their labor force participation fell more sharply as the husbands' income rose ( $-0.44$  instead of  $-0.32$ )—also not surprising, since this group would be more apt to leave jobs and care for their children, given the advantage of an increase in the husband's income.

At this writing the census has still not published similar tabulations for 1950. The only available data are a table from *Current Population Reports* which covers 1951 and 1956, and refers to wives aged 20-44 (Chart 5). Income groups differ, since the whole schedule of incomes had shifted upward. The table provides no data for younger or older wives or for standardizing for possession of young children. Nevertheless, the unstandardized association for 1951 was very similar to the unstandardized and standardized results for 1940 (Table 10). The associations for 1956 indicate a smaller reduction in labor force participation for wives associated with each higher income group of husband. The decline in the association was, in general, greater for the higher income groups.

These results must be regarded as far more reliable than correlations based on the crude unit of a city, and they would seem to establish a rather overwhelming presumption that, for wives at least, lower labor force participation accompanies higher income.

### *White and Colored Wives by Age of Wife and Possession of Young Children*

The inverse association between wives in the labor force and husbands' earnings cannot be attributed to the presence of higher proportions of Negroes in the lower income groups. It is true that proportionately more Negro wives were in the labor force than white wives regardless of age, number of children, or income—perhaps because Negro women had less security, received lower average earnings, or carried a larger share of responsibility for the family. Yet, both Negro and white wives tended to enter the labor market in relatively fewer numbers, the higher their husbands' earnings. In the case of older women and of those with children under 10, the proportions were all on lower levels; but within each age<sup>2</sup> and child status group—as illustrated by the

<sup>2</sup> *Employment and Family Characteristics of Women*, as cited, p. 132. Mothers of preschool children were more likely to be in the labor force if there were older children to help care for the younger ones. Wives were least apt to work if all children were preschool, more apt if some children were of school age, most apt if no children were preschool. "Employment Characteristics of Household and Married Couples, April 1947," *Current Population Reports, Labor Force, Series P-50*, No. 5, May 7, 1948, p. 3, and Table 7, p. 10.

TABLE 10

Variations in Labor Force of Wives Aged 20-44 Associated with Differences in Income of Husbands in Previous Year, United States, 1951 and 1956

	Income Level (dollars)						Weighted Averages, All Income Levels <sup>a</sup>	
	500-1,500	1,500-2,500	2,500-3,500	3,500-4,500	4,500-5,500	5,500-6,500	6,500-8,500	8,500-10,000 over
<b>April 1951</b>								
All wives, 20-44 <sup>c</sup>	-2	-3	-4	-7	-7	0	-5	+1
With children under 6 years	<sup>d</sup>	-5	<sup>d</sup>	-6	-2	+2	-2	...
Without children under 6 years <sup>e</sup>	-1	-1	-6	-8	-9	...	...	...
All wives, 20-44 <sup>c</sup>	-0.03	-0.13	-0.28	-0.80	-1.48	0	-2.09	+1.31
With children under 6 years	<sup>d</sup>	-0.31	-0.07	-1.44	-0.77	+1.58	-1.49	...
Without children under 6 years <sup>e</sup>	<sup>d</sup>	-0.03	-0.35	-0.80	-1.51	...	...	...
<b>March 1956</b>								
All wives, 20-44 <sup>c</sup>	+3	-2	-6	-1	-3	-3	-2	-1
With children under 6 years	+2	-2	-3	-1	-5	<sup>a</sup>	<sup>a</sup>	-1
Without children under 6 years <sup>e</sup>	+4	-8	-8	-1	+1	-3	-5	-1
All wives, 20-44 <sup>c</sup>	+0.45	-0.58	-0.42	-0.09	-0.45	-0.56	-0.45	-0.49
With children under 6 years	+0.60	-0.18	-0.41	-0.16	-1.32	-0.05	-0.06	-0.94
Without children under 6 years <sup>e</sup>	+0.44	-0.21	-0.43	-0.04	+0.10	-0.48	-0.93	-0.19

Source: "Marital and Family Status of Workers: 1956," *Current Population Reports, The Labor Force*, Bureau of the Census. Series P-50, No. 78, p. 14; *Census of Population, 1950*, Vol. II, Part 1, *United States Summary*, p. 304.

<sup>a</sup> Weighted by the proportion of wives 14 and older belonging to different income levels as reported by the census of 1950.

<sup>b</sup> Number of persons by which rate of participation of wives 20-44 in labor force (per 1,000 wives of same age and income group) was reduced for every additional \$100 of income of husbands in the previous year; and percentage by which the rate was reduced for every 1 per cent addition to the husband's income.

<sup>c</sup> Data could not be standardized for possession of young children. <sup>d</sup> Negligible.

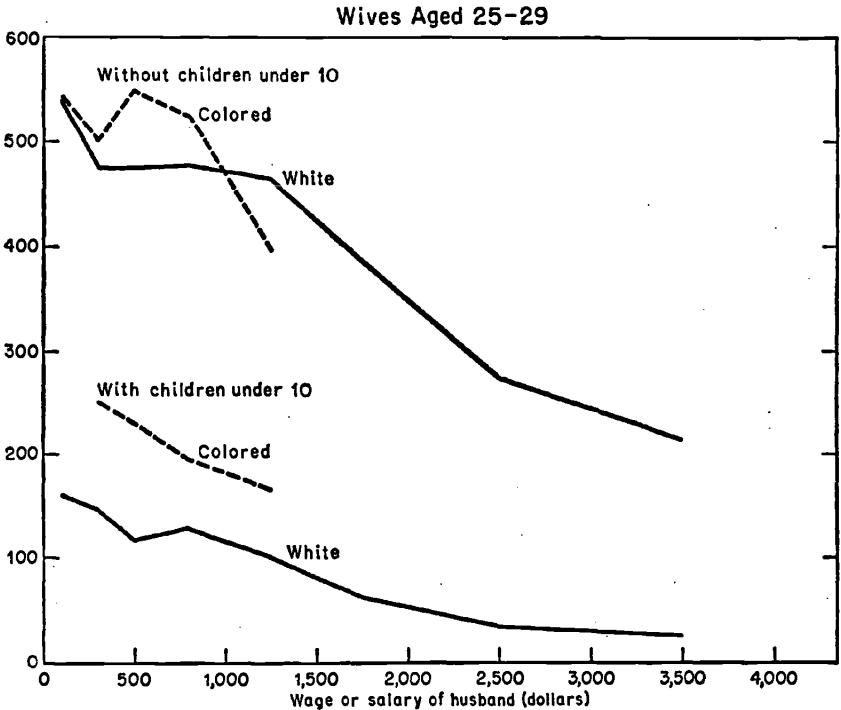
<sup>e</sup> Wives with children under 18 but not under 6; wives with no children under 18 excluded.

FEMALE LABOR FORCE AND MALE EARNINGS

CHART 6

Labor Force of Colored and White Wives with and without Young Children, and Earnings of Husbands: Metropolitan Districts Combined, United States, April 1940

Labor force per 1,000 in same population group.



25-29 and 35-44 groups (Chart 6)—the inverse association persists regardless of color of wife, age of wife, or child-care responsibilities.

*Employment Opportunities*

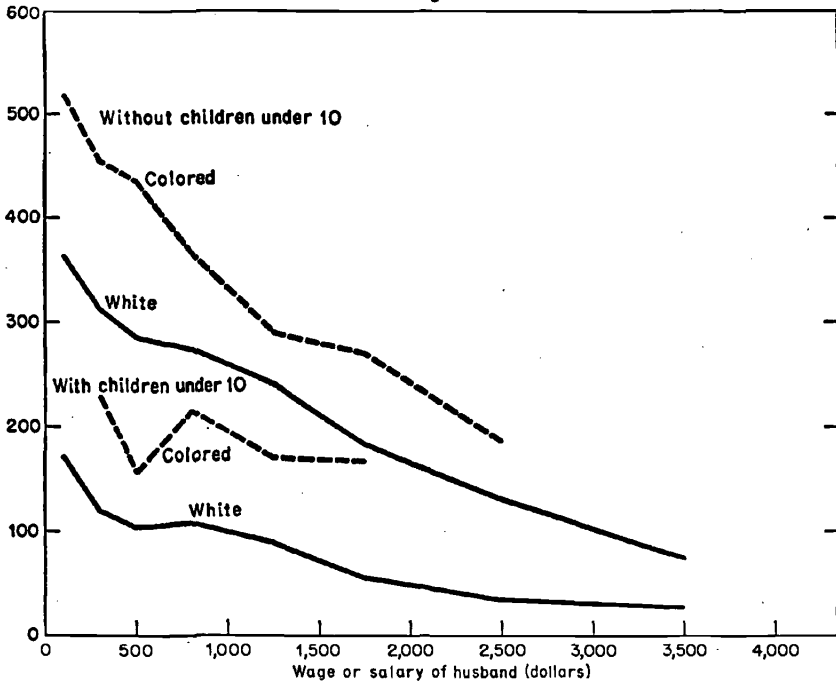
Could the inverse correlation between female labor force and income be really due to the fortuitous effect of differences in job opportunities for women in different cities? A recent study by Nedra Belloc proposes that women, instead of being forced into employment by low earnings, are drawn into it by "abundant employment opportunities," which are measured by the ratio of females employed in manufacturing and domestic service to all females employed.<sup>3</sup> It would seem just as plausi-

<sup>3</sup> Nedra B. Belloc, "Labor Force Participation and Employment Opportunities for Women," *Journal of the American Statistical Association*, September 1950, pp. 400-410.

FEMALE LABOR FORCE AND MALE EARNINGS

CHART 6, concluded

Wives Aged 35-44



Limited to wives whose husband's income (in 1939) was entirely from wages or salary. The income groups are \$1-199; 200-399; 400-599; 600-999; 1,000-1,499; 1,500-1,999; 2,000-2,999; and 3,000 and over. Readings are centered at midpoints of the ranges, except for the open-end class. Metropolitan districts are urban areas with population of 100,000 or over.

Source: *Employment and Family Characteristics of Women*, as cited in Table 9.

ble to argue the reverse. In localities where women are obliged to work because men's incomes are meager, there tends to be a larger proportion of women available for factory jobs or for relatively low-paid domestic employment—attracting manufacturing industries that use female labor, and making it easier for middle- and upper-class women to hire domestic help. In any case, these two occupations have on the average, provided employment for scarcely one in four women; the main opportunities for female employment have always been furnished by stores, banks, insurance and real estate firms, beauty parlors, restaurants, schools, and government agencies.

Fortunately the problem has a solution. If it can be agreed that all women in any one city enjoy about the same job opportunities, the existence of an inverse association between labor force and income *within* the city would demonstrate effectively that the tendency exists and is not the spurious result of variations in opportunity among cities. This is what we find on examining separately each of eleven metropoli-

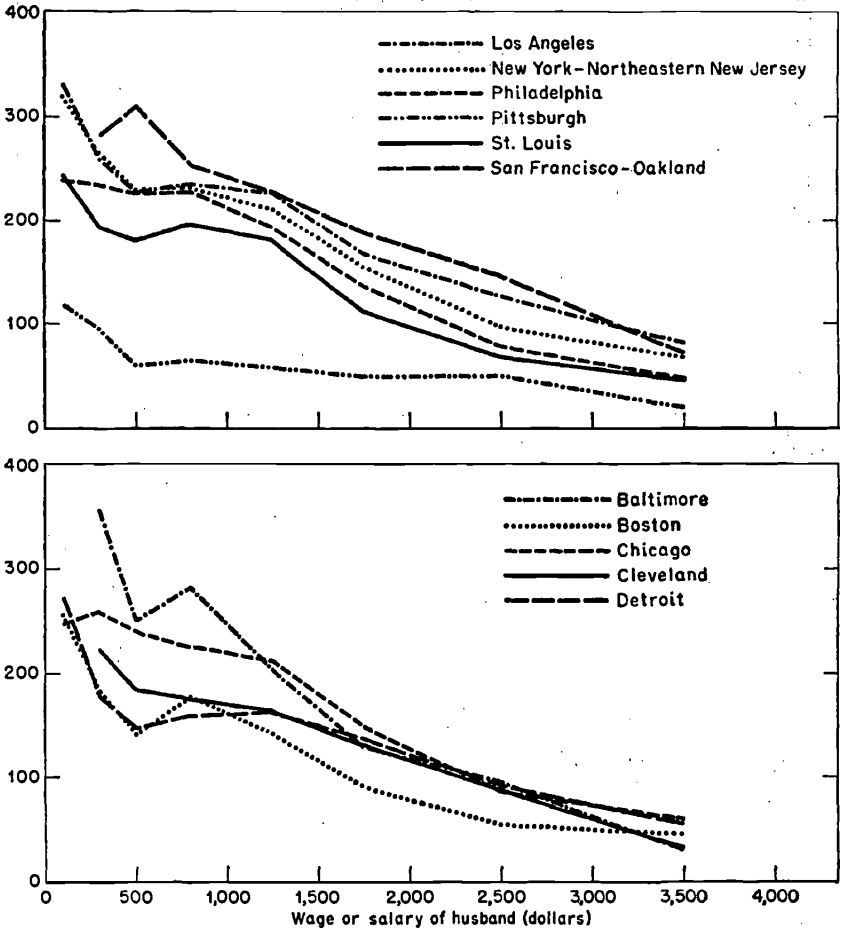
FEMALE LABOR FORCE AND MALE EARNINGS

tan districts of a million population or over (Chart 7). Classified by age, possession of children under 10, and color (for cities with large Negro populations), four or five times as many wives of low-income husbands were in the labor force as were wives of high-income husbands. Moreover, the higher the level of income, the more the participation of wives dropped for every additional \$100 of earnings. This tendency

CHART 7

Labor Force of Wives and Earnings of Husbands: Large Metropolitan Districts, United States, April 1940

Labor Force, per 1,000, of Wives 18-64



Limited to wives whose husband's income (in 1939) was entirely from wages or salary. The income groups are \$1-199; 200-399; 400-599; 600-999; 1,000-1,499; 1,500-1,999; 2,000-2,999; and 3,000 and over. Readings are centered at midpoints of the ranges, except for the open-end class. Large metropolitan districts are those with population of 1,000,000 or over.

Source: *Employment and Family Characteristics of Women*, as cited in Table 9.

occurred for all groups except those in the \$400-999 range.<sup>4</sup> The results do not demonstrate that job opportunities can be discarded as a factor, but they do suggest that the inverse relation cannot be attributed exclusively to them.

A different version of the influence of job opportunities could, of course, be urged—that female labor force participation may at any time tend to be high in those cities where unemployment is low and jobs are easy to get. This possibility was tested for 38 cities by correlating labor force participation rates of white females of various ages with unemployment rates of white men aged 25-44. (Male unemployment rates were used to avoid any tendency for both labor force and unemployment of females to be low merely because unemployed females had been discouraged from the labor market.) The relationship between female labor force and male unemployment appeared generally insignificant. The only exception was the correlation for young women 20-24, which exhibited a tendency that was positive and therefore, if anything, upsetting to the notion that white women would be in the labor force in greater proportion where jobs were easily found. As to colored females, the 23 cities with data for Negroes showed a significant tendency for their participation rates to be higher in cities where male unemployment rates were low and jobs presumably easier for colored women to get. The associations with male unemployment were inverse for all age groups of females and were significant on the 95 per cent level for all age groups except the 20-24 and 65 and older.

#### *Rural Population Density and Size of City*

No sign of any connection between the labor force and density of population was manifested for rural females; in all of the 48 states they were in the labor force without regard to the number of inhabitants per square mile. For example, Connecticut had relatively fewer females in jobs than Georgia, which was one-seventh as thickly populated. A slightly higher proportion of females was gainfully occupied in urban than in rural areas, and in big cities than in small towns; but no association with size of city was shown in the 38 cities, which ranged in population from 100,000 to 7 million, or in the 11 metropolitan districts of 1,000,000 or over, which also varied widely in size. The same findings resulted from a detailed study by color and age of wife, by child status of wife, and by income group of husband, e.g. white wives aged 25-29, with no children under 10, having husbands with a wage or salary of \$1,000-1,499<sup>5</sup> but no other income. Participation in the labor force in the four smallest metropolitan districts did not differ consistently from that in the four largest.

<sup>4</sup> *Employment and Family Characteristics of Women* as cited, pp. 152-163.

<sup>5</sup> *Ibid.* The computations separating white wives from all wives were the author's.

*Education*

Do not well educated persons have a better chance of getting jobs, and are they not therefore more apt to enter the labor force than the poorly educated or the illiterate? This expectation is not completely borne out in the case of wives. According to the 1940 census, married women living with their husbands were distinctly more apt to work if they were college graduates; but no similar association between education and employment was observable among women below the college level, even when they were also analyzed by age, and possession of young children. It is, of course, possible that well educated women had less need to earn money because their husbands were more prosperous on the average, and that the two counter-tendencies—the greater employability of the educated and their less urgent need to work—canceled each other out; but information was lacking for exploration of this possibility.

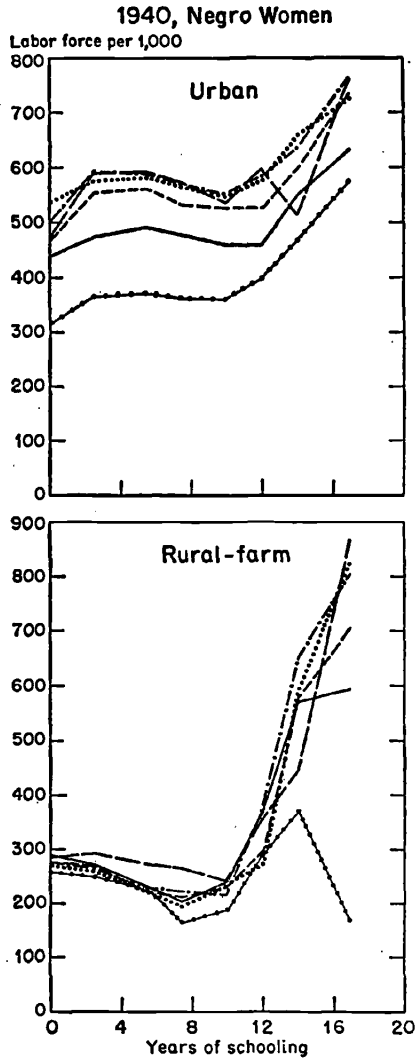
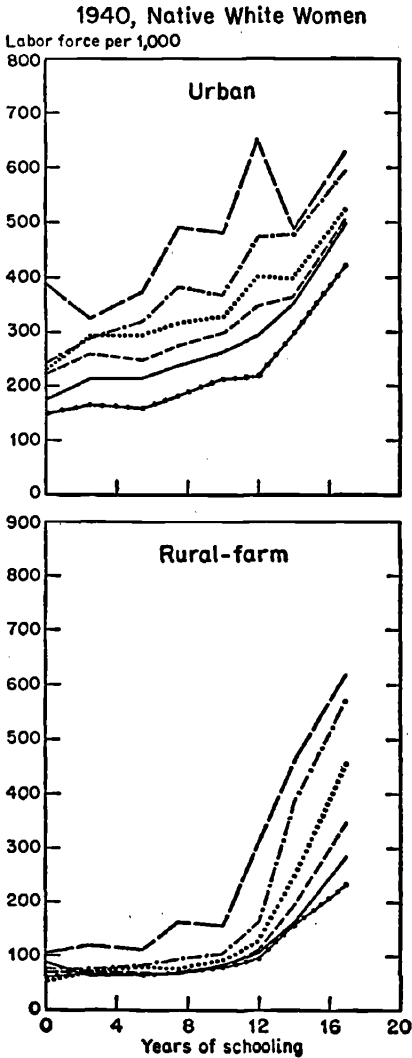
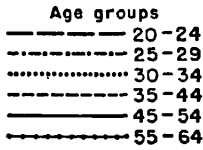
However, for all women, married and unmarried combined, the association between education and participation in the labor force was nothing short of powerful. Chart 8—which traces for 1940 and 1950 the rate of participation of women in the age groups 20–64 by color, by urban or rural-farm residence, and by years of school completed—brings out certain well defined tendencies.

One is that education seems to have been an even stronger factor than age in determining a woman's presence in the labor force. Among both whites and Negroes living in urban areas in 1940, the younger group, 20–24, had 200 more workers per 1,000 than did persons 55–64. Within each age group, on the other hand, women who had graduated from college were in the labor force at a rate typically about 250 or 300 more per 1,000 than those who had only a few years of grade school or no education at all. The patterns were different, however, in rural-farm areas. There age and education had little to do with the participation of persons who had not completed high school, but seemingly much to do with that of high school and college graduates. It may be that rural-farm women with less than a high school education had few chances to get jobs in nearby towns—at least jobs that paid enough to attract them—and that regardless of age or education they either worked on the farm as laborers and unpaid family workers or did no paid labor at all. But rural-farm women with a fairly good education could aspire to many types of jobs in stores and offices, and had greater opportunities the younger they were.

The second characteristic of the relationship with education is that for any given age, residence, or color the participation of females increases slowly with education up to high school, then rapidly up to

### CHART 8

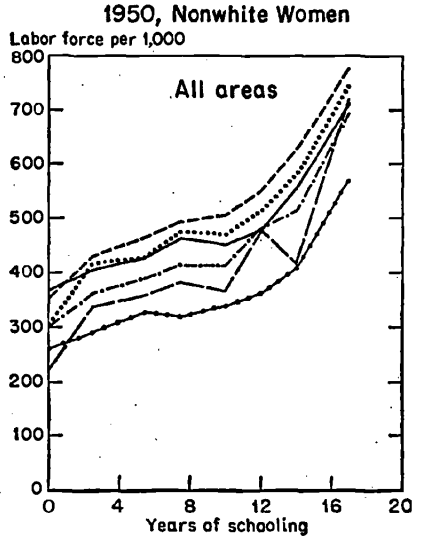
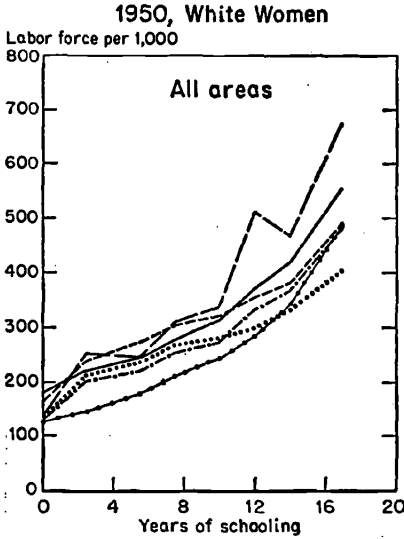
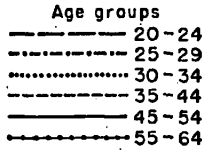
Labor Force of White and Colored Women and Years of Schooling: by Age Group, United States, for Urban and Rural Areas, 1940, and All Areas, 1950



(concluded on next page)

FEMALE LABOR FORCE AND MALE EARNINGS

CHART 8, concluded



Education data are for years of school completed—0, 1-4, 5-7, 8, 9-11, 12, 13-15, 16 and over—plotted at midpoint for the grouped years, except 16 and over.

Source: *Census of Population: 1940, Education, Educational Attainment by Economic Characteristics and Marital Status*, pp. 76-85; *1950, Education, PE No. 5B*, pp. 73-76.

college or beyond. That of males behaves in the opposite way, rising rapidly with education through grammar school, then slowly or not at all through high school or college. The explanation is fairly obvious. Most men must work if they are at all employable, and while their education affects their chances of getting a job, it would influence their decision to stay in the labor force only if it were so deficient as to make getting a job hopeless. On the other hand, females of any age do not automatically enter the labor force. Their decision to work doubtless depends partly on how abundant and attractive are the jobs open to them and these opportunities appear to increase rapidly with education, especially at high school or above. These general patterns held not only for 1940, a year of scarce jobs, but also for 1950.

## CHAPTER 6

# FEMALES IN THE LABOR FORCE OVER TIME

### *The Upward Trend in the Female Labor Force*

WE TURN to the five-nations data that enable us to examine changes over time. In all the countries during the last half century, the number of females in the labor force increased much faster than in the population.<sup>1</sup> And since about 1930 the increase has tended to be both greater and more uniform than it was in the earlier decades. An exception is Germany. World War II not only disrupted industry in that country but left people in the immediate postwar years with little incentive to work, since many had very large holdings of cash in relation to going wages—cash which, because of rationing, they could not use to buy the things they needed. In recent years a very large percentage of the population—as much as a fifth—has been receiving war and social security pensions which have been high in relation to earnings.<sup>2</sup>

In the United States female participation rose from slightly under 4 million in 1890 to over 16 million in 1950, a gain of about 17 per decade for every 1,000 females of working age (Table 11). This was approximately the median for the five countries; the increases varied from 11 per decade in Britain to 31 in Germany (up to 1939).

### *Compared with Changes in Income*

Before comparing changes in labor force and income, a decision must be made as to what comprises income and who receives it and when.

If income has any influence on the labor force, it would surely be the sums actually paid out to persons as individuals: that is, national income less corporate profits withheld, and personal income taxes and social security contributions withheld or paid, plus government and business transfer payments to persons. In the recent decades the data, though they leave much to be desired, are readily available from the official income estimates of the four English-speaking countries. But no disposable personal income data have been available since World War II for Germany or in the earlier years for the other countries.

<sup>1</sup> Except for a decline in New Zealand in 1926, probably due to the fact that working children under 15, who had been included in the labor force by censuses through 1921, were left out beginning in 1926.

<sup>2</sup> "The pension system in West Germany is on so ruinous a scale that it has not been possible . . . to maintain it on a straight actuarial basis. Substantial subsidies have had to be voted by the federal and state governments." *New York Times*, Jan. 6, 1955, p. 6.

FEMALE LABOR FORCE OVER TIME

Consequently, it was necessary to make rough calculations (Appendix D).

Theoretically, labor would be influenced by non-labor income or by the lack of it, since a man may be under less pressure to work if, say, he receives rent, interest, dividends, a pension, or social security, than if his income is derived solely from current efforts. Therefore in

TABLE 11  
Average Per-Decade Changes in Female Labor Force, 5 Countries,  
Various Periods, 1890-1951

	<i>Change per 1,000 Female Population of Same Age (number)</i>					
	<i>14 &amp; Older</i>	<i>14-19</i>	<i>20-24</i>	<i>25-44</i>	<i>45-64</i>	<i>65 &amp; Older</i>
A. ENTIRE PERIOD						
United States:						
1890-1950	+17	-3	+20	+29	+27	-1
1890-1950 <sup>a</sup>	+20					
1890-1950 <sup>b</sup>	+14	-11	+8	+22	+23	-1
Rural areas, <sup>a</sup> 1890-1950	+15	-2	+20	+26	+16	-4
Urban areas, <sup>a</sup> 1890-1950	+14	-16	+1	+21	+28	0
Large cities, <sup>a</sup> 1900-1950	+22	...	...	...	...	...
Native white, <sup>a</sup> 1890-1950	+26	+7	+31	+33	+31	+2
Foreign-born white, <sup>a</sup> 1890-1950	+10	-45	-8	+29	+24	+1
Colored, <sup>a</sup> 1890-1950	-2	-33	-13	+15	+3	-24
Great Britain, <sup>a, c</sup> 1911-1951	+11	-6	+12	+16	+17	-16
Canada:						
1921-1951 <sup>a</sup>	+25	+23	+39	+29	+26	-4
1911-1951 <sup>a</sup>	+23	+10	+58	+24	+21	-1
New Zealand:						
1901-1951 <sup>a, d</sup>	+10	+31	+4	+7	-10	
1896-1951 <sup>a, d</sup>	+12	+34	+7	+8	-17	
Germany:						
1895-1939 <sup>a</sup>	+31	+42	+22	+43	+25	-13
1895-1950 <sup>a</sup>	+15	+12	+22	+25	+10	-18
B. EARLY PERIOD						
United States:						
1890-1930	+14	-4	+29	+25	+15	-1
1890-1930 <sup>a</sup>	+16					
1890-1930 <sup>b</sup>	+10	-12	+15	+16	+13	-1
Rural areas, <sup>a</sup> 1890-1930	+10	-7	+22	+17	+10	0
Urban areas, <sup>a</sup> 1890-1930	+9	-17	+11	+16	+15	-1
Large cities, <sup>a</sup> 1900-1930	+17	...	...	...	...	...
Native white, <sup>a</sup> 1890-1930	+22	+5	+41	+29	+18	+2
Foreign-born white, <sup>a</sup> 1890-1930	+4	-34	+11	+11	+10	-1
Colored, <sup>a</sup> 1890-1930	+10	-19	-5	+24	+16	-7

FEMALE LABOR FORCE OVER TIME

TABLE 11, *continued*

	<i>Change per 1,000 Female Population of Same Age (number)</i>					
	<i>14 &amp; Older</i>	<i>14-19</i>	<i>20-24</i>	<i>25-44</i>	<i>45-64</i>	<i>65 &amp; Older</i>
<b>B. EARLY PERIOD, <i>continued</i></b>						
Great Britain, <sup>a, c</sup> 1911-1931	+7	+27	+28	+8	-10	-17
Canada:						
1921-1931 <sup>a</sup>	+20	-23	+73	+34	+6	-2
1911-1931 <sup>a</sup>	+18	-26	+93	+22	+7	+5
New Zealand:						
1901-1926 <sup>a, d</sup>	+4	+26		-2	-2	-8
1896-1926, <sup>a, d</sup>	+9	+32		+5	+1	-21
Germany, <sup>a</sup> 1895-1925	+35	+22	+32	+50	+35	-7
<b>C. RECENT PERIOD</b>						
United States:						
1930-1950	+22	-2	0	+38	+50	-2
1930-1950 <sup>a</sup>	+28					
1930-1950 <sup>b</sup>	+24	-5	-7	+35	+45	-3
Rural areas, <sup>a</sup> 1930-1950	+25	+7	+14	+43	+29	-13
Urban areas, <sup>a</sup> 1930-1950	+22	-15	-21	+30	+55	+3
Large cities, <sup>a</sup> 1930-1950	+28	...	...	...	...	...
Native white, <sup>a</sup> 1930-1950	+34	+21	+11	+42	+56	+2
Foreign-born white, <sup>a</sup> 1930-1950	+24	-67	-47	+63	+53	+3
Colored, <sup>a</sup> 1930-1950	-24	-61	-30	-2	-23	-59
Great Britain, <sup>a, c</sup> 1931-1951	+15	-38	-3	+24	+44	-15
Canada, <sup>a</sup> 1931-1951	+28	+47	+23	+26	+36	-6
New Zealand, <sup>a, d</sup> 1926-1951	+16	+36		+9	+16	-12
Germany:						
1925-1939 <sup>a</sup>	+21	+86	0	+29	+1	-25
1925-1950 <sup>a</sup>	-9	0	+10	-6	-21	-32

Source: Appendix A.

<sup>a</sup> Labor force standardized for age composition on the basis of population of the United States in 1940.

<sup>b</sup> Labor force standardized for rural-urban composition and, in the case of age group 14 and older, for age composition on the basis of population of the United States in 1940.

<sup>c</sup> Age groups are available only for 14-17 and 18-24.

<sup>d</sup> Girls under 15 not included; 15-24 grouped together—no separate data available for girls 14-19 and women 20-24.

this comparison, disposable income includes property income and transfer payments. It would have been worth while to make a separate comparison with labor income alone, since this would be applicable to large segments of the population and labor force, who might there-

## FEMALE LABOR FORCE OVER TIME

fore be insensitive to the behavior of property income (although the propensity to work might be influenced by an urge to "keep up with the Joneses," and the "Joneses" might have property income). Unfortunately the disposable income data of most countries before very recent years do not permit separate estimates of labor earnings; and even in recent years important segments of labor income are combined with property income and could be made to yield separate wage and salary estimates only by arbitrary assumptions. The long-run comparisons must therefore be based on total disposable income from all sources.<sup>3</sup>

It is not, of course, the aggregate amount of the income that is expected to influence labor force participation; rather, it is the amount in relation to the number of persons who share in it. Income per worker could in turn depend on whether income is computed per persons in the *labor force* (thus including the unemployed) or per persons *employed*. Both computations were made but since the difference is not important in the years of high employment, with which the study is primarily concerned, and since the most relevant comparison is with income per employed worker, the latter is used in the formal analysis. Still there remains a statistical problem. Income per employed worker could also vary because of changes in age and sex composition of the workers. Many women and young people work fewer hours than men and most of them earn less per hour—and separate data on the income of men, women and young people are lacking. A more rapid increase in the number of employed women would lower the average earnings or retard their increase, and could result in a spurious relationship between changes in average income per worker and labor force participation. This bias cannot be eliminated entirely, but it can be minimized by weighting the number of employed belonging to these groups by a crude measure of their average earnings. This was done in Appendix C, where the employed are adjusted to an equivalent adult-male basis. The income in this study therefore may be regarded as a rough approximation to income per equivalent adult-male employed worker. It may, of course, take time for people to react to a new level of income, causing current levels to influence future, rather than present, labor force participation. Moreover, the labor force has usually been enumerated in the spring, so that much of the census-year income is received after enumeration. Perhaps what we should use for comparison, then, is the income received prior to labor force participation.

<sup>3</sup> Short-run comparisons in a later chapter are based on both total disposable income and wage earnings; and inter-area comparisons have, of necessity, been based on labor earnings alone.

## FEMALE LABOR FORCE OVER TIME

But should it be that for just the immediate preceding year or the average for several preceding years? Income may fluctuate for statistical reasons—because of difficulties of measuring income or of allocating its flow to a particular year. It may also fluctuate for cyclical reasons, and if the worker believes these fluctuations to be temporary and does not consider them in forming his decisions to enter or withdraw from the labor force, they may be less relevant to our purpose than the average of several years' income.

From some points of view it might have been best to use a five-year average but to do this would have involved fresh difficulties. In some instances, the materials were insufficient, e.g., German income data were available for one year only (1925) because of the inflation of the preceding years. In other instances, e.g. the United States in 1920, or Canada and Great Britain in 1921, the use of five years would have necessitated including income received in World War I, thus posing statistical and conceptual problems of measuring real income in wartime, and loading the average with income inflated or deflated by war and not applicable for peacetime. Therefore, averages for three years—the census year and the two preceding years—were used and were centered on the middle year.

Real income per equivalent adult-male employed worker doubled in the United States between 1890 and 1950; it increased substantially in Great Britain during 1911–1951, in Canada during 1921–1951, and in New Zealand during 1901–1951, and it rose even in Germany between 1895 and 1939, despite the disastrous military defeat in World War I. In Chapter 8, there is found to be very little difference in male labor force participation relative to income changes, whether the income changes were computed between census years or between three-year averages (each three-year average took in the census year and the two preceding years). Nor is any significant relative difference found here for females (Table 12). For the over-all period the differences were trifling except in Germany where, as it has been repeatedly pointed out, income comparisons are highly dubious in view of economic disruption, inflation, and the partitions that followed the two World Wars. For the early period the differences were negligible, except in Great Britain. For the recent period there was only a small difference for Germany.

Since income changes *per capita* are smaller, labor force variations in relation to these changes are larger. But there is the same lack of close relation in both the entire and recent periods as between labor force and real income.

TABLE 12

Average Per-Decade Changes in Female Labor Force per 1,000 Females 14 and Older, Associated with Average Per-Decade Increases in Income between Census Years and Three-Year Averages, 5 Countries, Various Periods, 1890-1951

	Change in Income <sup>a</sup> (Dollars) between:			Change in Labor Force <sup>b</sup> per \$100 Increase in Income between:			Per Cent Change in Labor Force <sup>b</sup> per 1 Per Cent Increase in Income between:		
	Census Years	3-Year Averages		Census Years	3-Year Averages		Census Years	3-Year Averages	
	(1)	(2)		(3)	(4)		(5)	(6)	
Entire Period									
United States	296	282		7	7		0.53	0.54	
Great Britain	113	114		10	10		0.34	0.35	
Canada	268	288		9	9		0.76	0.71	
New Zealand	342	322		3	3		0.20	0.20	
Germany	33	20		94	155		1.69	2.75	
1895-1950	7	-7		214	-214		3.95	-3.87	
Early Period									
United States	255	267		6	6		0.44	0.41	
Great Britain	30	17		23	41		0.77	1.40	
Canada	80	71		25	28		1.99	2.23	
New Zealand	218	228		2	2		0.10	0.10	
Germany	-43	-44		-81	-80		-1.48	-1.43	
Recent Period									
United States	377	311		7	9		0.69	0.81	
Great Britain	196	210		8	7		0.28	0.27	
Canada	363	396		8	7		0.63	0.58	
New Zealand	460	412		3	4		0.25	0.26	
Germany	196	172		11	12		0.18	0.20	
1925-1950	66	41		-14	-22		-0.25	-0.39	

Source: Appendixes A and D.

<sup>a</sup> Real disposable income per adult-male equivalent employed, in 1929 dollars. Each three-year average took in the census year and the two preceding years.

<sup>b</sup> Labor force standardized for age composition on the basis of population of the United States in 1940.

## FEMALE LABOR FORCE OVER TIME

### *Demographic Composition of Female Population*

Now that we have observed the behavior of females in the labor force as a whole, let us concern ourselves with their behavior when classified by age, rural and urban residence, color, and place of birth.

#### AGE COMPOSITION.

The age composition of the female population has changed in about the same way as that of the male population. The increase in the number of women aged 45 and over has offset the decrease in those under 25, and the proportion of all females 25-45 has changed very little. In most age groups, in most nations, and in most decades female participation in the labor force has grown; women have entered the labor force most readily in the 20-64 age groups, though in the most recent census the number of those aged 20-24 dropped nearly everywhere except in Germany. Reductions for girls 14-19 occurred in the United States and Great Britain, and for women 65 and older in all the countries and areas, though these latter reductions were not substantial in Canada or among white persons in the United States.

One consequence of the changes was a marked shift in the composition of the female labor force from young women and girls to women aged 25-64. Standardization does not alter very greatly the participation rate of the female population as a whole, since the groups that changed the most never contributed large numbers and therefore had little weight in determining the over-all propensity.

#### RURAL AND URBAN RESIDENCE.

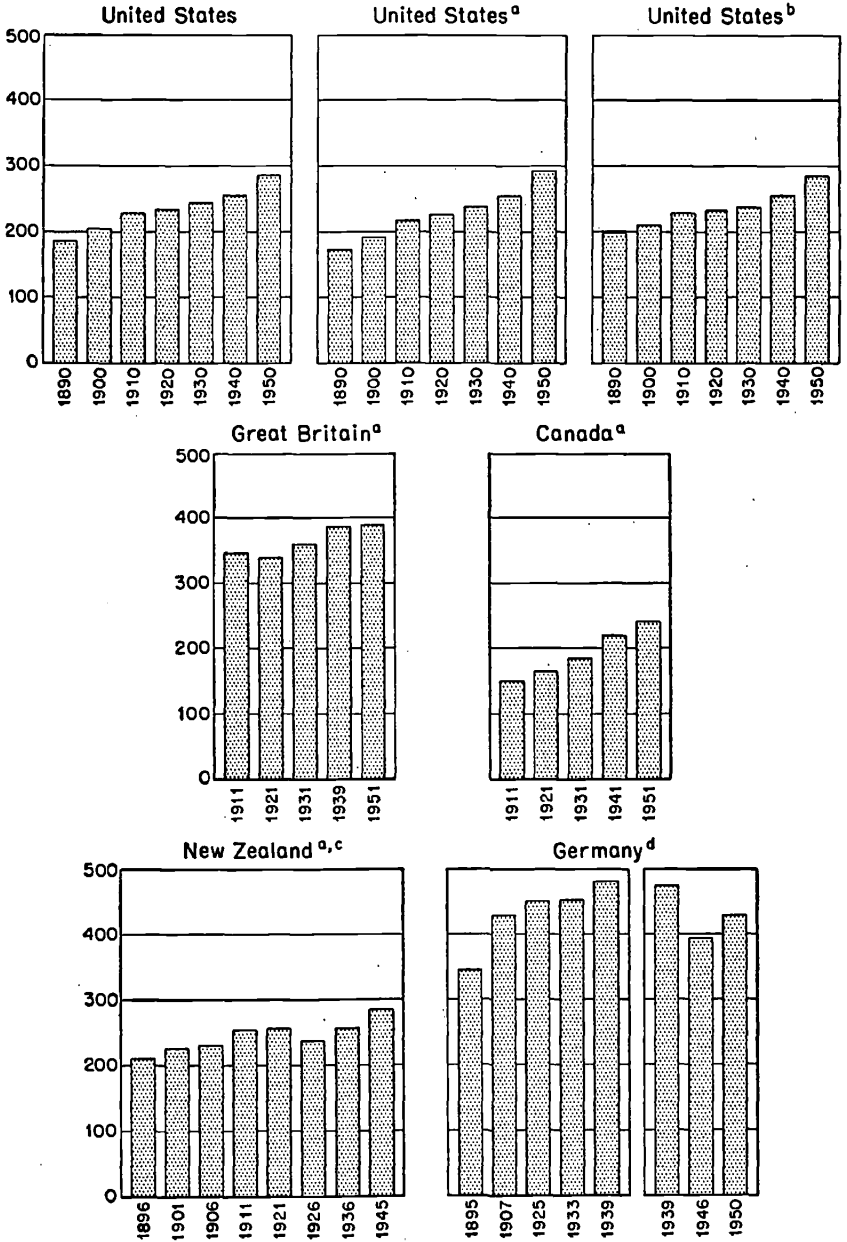
Many females in the United States have migrated to the cities, where their tendency to be in the labor force has been greater than in rural areas (Chart 9). The difference has narrowed somewhat—from twice as great in cities in 1890 to only half again as great in 1950, but otherwise the movements have been reasonably parallel.

Had labor force participation rates moved over the years in exact parallels, the higher level of urban participation might have resulted in a rise in the over-all rate as women moved into urban areas.<sup>4</sup> When female labor force participation, standardized for age and rural-urban residence, is compared with the proportion standardized for age only (Table 13), the increase is found to have been somewhat larger as a result of the migration. But the increase was great in any case, and it was just as notable in Britain where the rural-urban distribution of population had not altered materially since 1911.

<sup>4</sup>It is not certain, of course, that women who move from the country to the city will thereafter follow the labor force pattern of city women.

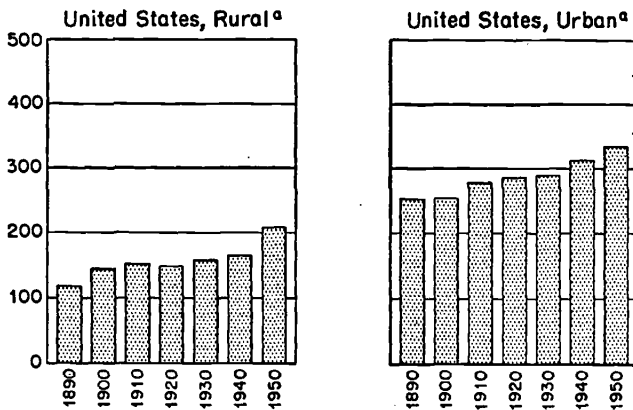
CHART 9

Females 14 and Older in Labor Force per 1,000 in Same Population Group:  
5 Countries, Various Years, 1890-1951



FEMALE LABOR FORCE OVER TIME

CHART 9, concluded



<sup>a</sup> Standardized for age on basis of population of United States in 1940.

<sup>b</sup> Standardized for age and rural-urban composition on basis of population of United States in 1940.

<sup>c</sup> Aged 15 and older.

<sup>d</sup> For 1895-1939, boundaries after World War I, without the Saar; 1939-1950, Federal Republic of Germany, without Berlin.

Source: Appendix A.

TABLE 13

Effect of Changes in Rural-Urban Residence on the Proportion of Females 10 and Older in the Labor Force, United States, Census Dates, 1890-1950

	<i>Female Labor Force per 1,000 Aged 10 and Older</i>						
	1890	1900	1910	1920	1930	1940	1950
1. Changes in age eliminated <sup>a</sup>	162	180	201	209	219	233	267
2. Changes in age and rural-urban residence eliminated <sup>b</sup>	187	197	212	215	219	233	260
3. Effect of changes in rural-urban residence (line 1 - line 2)	-25	-17	-11	-6	0	0	+7

Source: Appendix A.

<sup>a</sup> Standardized for age on the basis of population of females 10 and older in the United States in 1940.

<sup>b</sup> Standardized for age and rural-urban residence on the basis of population of females 10 and older in the United States in 1940.

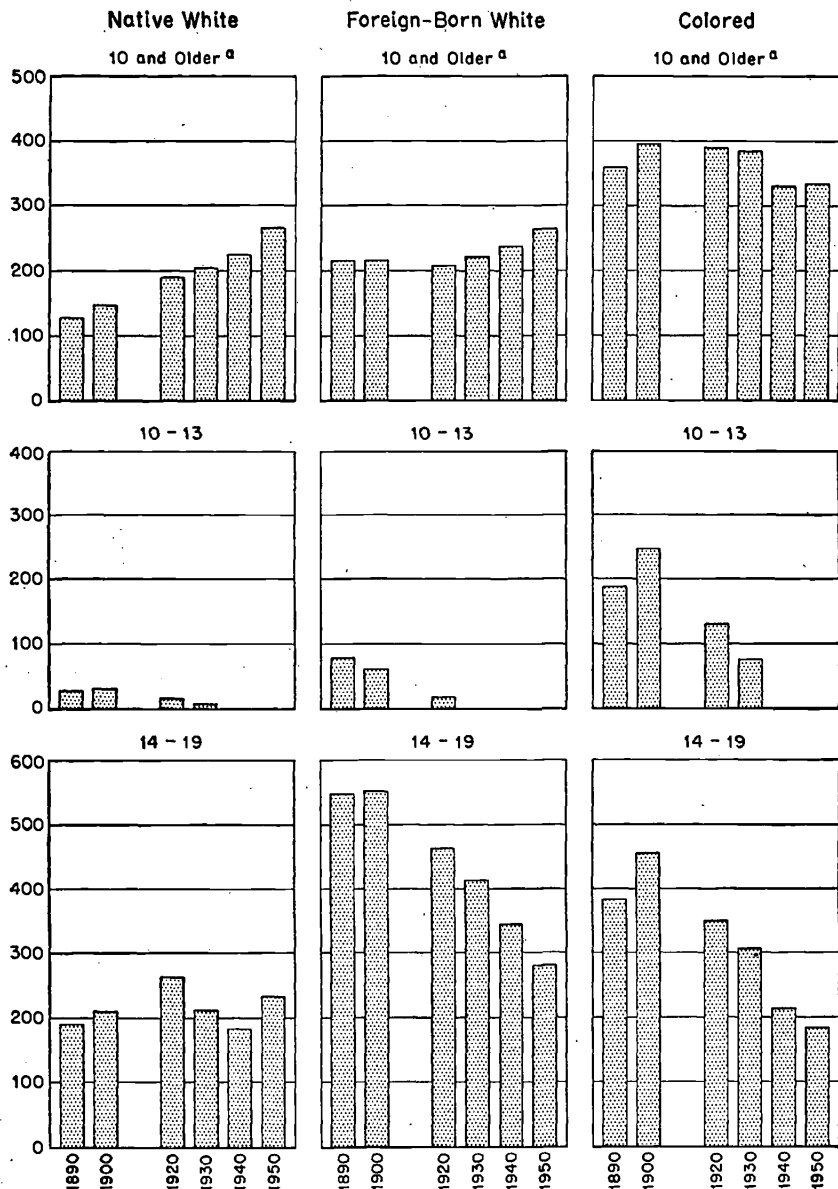
COLOR, ETHNIC COMPOSITION, AND PLACE OF BIRTH.

The population of each of the four foreign countries has been reasonably homogeneous; even in Canada, the relative numbers of British stock, French, and "Others"<sup>5</sup> have changed little in the last half century. Only in the United States has there been enough variation

<sup>5</sup> See Table 48.

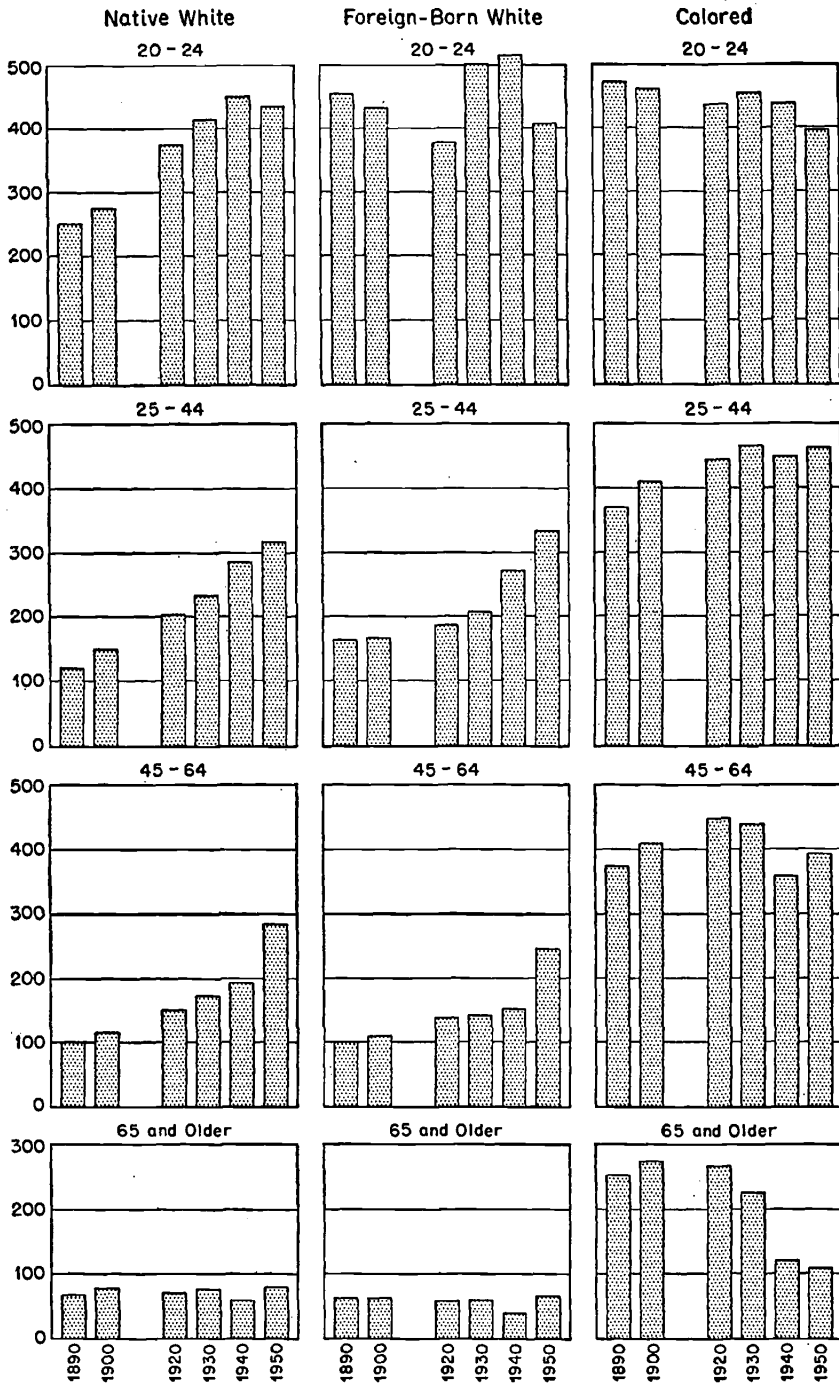
### CHART 10

Native White, Foreign-Born White, and Colored Females in the Labor Force per 1,000 in Same Population Group: by Age Group, United States, Census Dates, 1890-1950



<sup>a</sup> Standardized for age on basis of United States female population in 1940.  
Source: Appendix A.

CHART 10, concluded



## FEMALE LABOR FORCE OVER TIME

among ethnic groups to have had some effect on the labor force. The rate of participation of Negro females was several times higher than that of whites in 1890 and was still substantially higher in the latest census. And it has moved very differently—remaining relatively unchanged from 1890 to 1930, declining until 1940, and failing to rise significantly between 1940 and 1950 (Chart 10). But white females entered the labor force from 1890 to 1940 at much the same rate as did all classes of females (in which they are, of course, the major element).

Among teen-agers, both the foreign-born and Negroes showed the greatest reduction, and the participation rate for colored girls aged 14–19 was actually smaller in 1950 than that for native white girls of the same age. For females aged 20–24, the participation of the foreign-born fluctuated, and that of the colored declined, especially after 1940, while that of native white rose sharply. In the 25–44 age group, the participation of Negro women failed to rise after 1930, and for the 45–64 ages it declined between 1920 and 1940 and recovered only partially between 1940 and 1950. White women aged 25–64 moved into the labor market in large proportions. Native white and foreign-born women 65 and older manifested fluctuating but not declining tendencies, while Negro elderly women reduced their participation almost as much as Negro elderly men.

The effect of these great differences was to raise the rate of participation of all classes of females substantially but not enormously (Table 14), the impact made by the colored having been greatest. But the net effect has lessened over the years, and in 1946 was no more than a fraction of what it had been a half century earlier. The reasons could have been the decline in the number of foreign-born and the narrowing of differences in behavior between the various racial and national groups.

A word may be added on the behavior of the participation of Negro women. Perhaps it did not rise with that of native whites because it was so high to begin with; it was half again higher in 1890 than the level reached in 1950 by native white females after sixty years of rapid advance. It is also possible that the especially sharp decline in the participation of colored females since 1930, when the proportion for white females was rising faster than usual, may well have been due to the more rapid economic progress made by Negroes in this period. Although no real tendency has been discovered for income to influence the labor force of females over time, it is conceivable that as differences in the income of various groups grow smaller, cultural distinctions among these groups also diminish, with the effect of reducing the divergences in their labor force behavior. In the case of Negroes, such a convergence would mean a decline in participation. The decline has

FEMALE LABOR FORCE OVER TIME

TABLE 14

Effect of the Foreign-Born and Negroes on Rate of Female Participation in the Labor Force, United States, Census Dates, 1890-1950

	1890	1900	1920	1930	1940	1950
<i>Rate of Participation <sup>a</sup></i>						
1. All classes	170	187	213	224	237	271
2. Natives (white and nonwhite)	160	182	214	225	237	272
3. Whites (native and foreign-born)	145	160	193	207	227	265
4. Native whites	127	147	190	204	225	265
<i>Method No. 1</i>						
5. Effect of foreign-born (line 1 minus line 2)	+10	+5	-1	-1	0	-1
6. Effect of colored (line 2 minus line 4)	+33	+35	+24	+21	+12	+7
7. Combined effect (line 1 minus line 4 or line 5 plus line 6)	+43	+40	+23	+20	+12	+6
<i>Method No. 2</i>						
8. Effect of foreign-born (line 3 minus line 4)	+18	+13	+3	+3	+2	0
9. Effect of colored (line 1 minus line 3)	+25	+27	+20	+17	+10	+6
10. Combined effect (line 8 plus line 9)	+43	+40	+23	+20	+12	+6

Source: Appendix A.

<sup>a</sup> Number of females 10 and older in the labor force (standardized for age composition on the basis of population of the United States in 1940) per 1,000 females of same age group, color, and place of birth.

Note: Data were not reported by the census in 1910.

probably been reinforced by the movement of southern Negroes from rural areas, where their tendency to be in the labor force was high, to urban areas, where it became comparatively low.

The fact that foreign-born women 20 and older live mostly in urban areas was clearly not responsible for their lower participation compared to that of native-born women of the same age; for foreign-born women were also found to participate less when compared with native-born women residing in the same city (Table 15). They may have been handicapped by language or training in getting jobs or perhaps they had more children to care for. Among immigrant teen-age girls the participation levels much above those of native-born girls reflected a greater economic pressure, which could reveal itself only where there was no responsibility for the care of children.

As the immigrants died off they were replaced by their native-born

FEMALE LABOR FORCE OVER TIME

TABLE 15  
 Labor Force by Sex and Age Group of Persons of  
 Varying National and Color Parentage per 1,000 of Same  
 Age and Parentage, Philadelphia, 1920

Age	Native-Born Persons of:		Foreign-Born Persons	Negroes
	Native White Parents	Foreign and Mixed Parents		
M A L E S				
10-19	340	327	488	393
20-24	923	937	945	946
25-44	966	972	975	973
45-64	937	948	945	973
65 and older	643	712	577	818
F E M A L E S				
10-19	273	285	414	268
20-24	513	559	382	568
25-44	299	317	183	529
45-64	219	226	158	530
65 and older	81	100	74	214

Source: *Census of Population, 1920*, Vol. II, p. 301, and Vol. IV, p. 463.

children. Would these children manifest the tendencies of their parents, the tendencies of descendants of native-born parents, or some mixture of the two tendencies? A fairly definite answer is provided by comparisons for the city of Philadelphia where, in 1920, persons born of foreign or mixed parents had rates of participation very similar to those of the same age who were born of native parents, and very unlike persons of the same age who were born abroad (Table 15). In this respect, the "melting pot" affected the first generation born on American soil.

*School Attendance and Marriage*

FEMALES UNDER 25.

The two countries for which statistical evidence is available on labor force participation, school attendance, and marital status both reveal similar developments for females aged 14-24. In the United States from 1890 to 1920 and in Canada from 1911 to 1951, these girls and young women increased their attendance in school, their participation in the labor force, and their tendency to marry as shown by a lower percentage of those who remained at home, presumably helping with the housework and looking toward marriage. The development in this country had gone almost as far as it could by 1920 (Canada did not reach the same stage until thirty years later), perhaps because in the

## FEMALE LABOR FORCE OVER TIME

United States mass education had made an earlier start and because higher levels of well-being permitted younger marriages.<sup>6</sup> School attendance continued to grow in 1930 and 1940—in the latter year possibly because jobs were hard to get. And the proportion of young married women, which had been virtually constant for the previous half century, leaped ahead in 1950 as greater job opportunities, higher earnings, and veterans' benefits helped to finance matrimony at younger ages than ever before in this century. The absolute increase was largest among females aged 20–24, but the highest relative increase was among girls 14–19, of whom one in seven had husbands in 1950 compared to one in thirteen in 1890. The proportion of single girls of this age, who were not attending school and who were in the labor force, grew from a little over half in 1890 to over four-fifths in 1950.

In most of the five countries the ratio of wives—older as well as younger—to the female population has increased notably. The reason has doubtless been, partly, the lower incidence of death from childbirth. But in the English-speaking countries, early marriage was apparently encouraged by high employment and income and by relatively generous veterans' benefits following World War II—just as in Germany, as a result of the same conflict, it was probably discouraged by the loss of income and of marriageable men.

Single and married females aged 16 and older increased their participation in the four English-speaking countries (Chart 11). Widowed and divorced women, however, did so only in the United States; in Britain and New Zealand their participation decreased by amounts almost as large, in some cases, as the increase for single women and wives. In Germany wives showed sizable rises in participation up to 1939, while single, widowed, and divorced women—lumped together in the statistics—increased in the labor force, but only in very small amounts. The three latter groups and wives lowered their participation in Germany between 1939 and 1950—perhaps partly as an effect of the pensions which were referred to previously.

When the periods before and after 1930 (or approximately that date) are analyzed separately, both reveal increased participation of single and married women, but disclose no uniformity of behavior between the two periods. For wives, participation generally rose much more in the recent than in the earlier period, except in Germany, where the rise was much less. For single women there was a tendency in some countries for the reverse to be true.

Increases in participation were generally much smaller for females

<sup>6</sup> Females probably marry at younger ages in America than in most countries of the world. "Age of Marriage for Selected Countries," *Population Index*, April 1953, cover.

### CHART 11

## Single Females, Wives, and Widows and Divorcees 16 and Older in the Labor Force per 1,000 in Same Population Group: 5 Countries, Various Years, 1890-1951

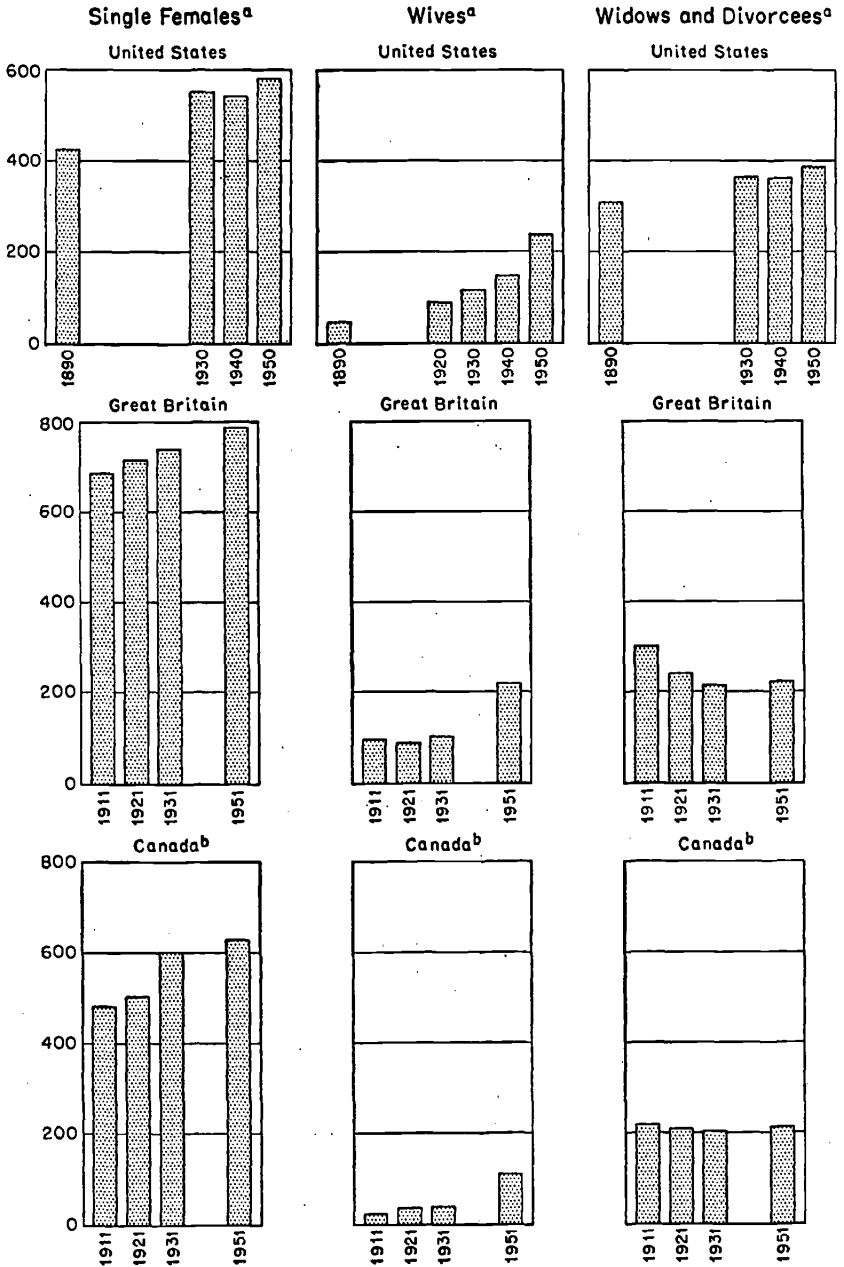
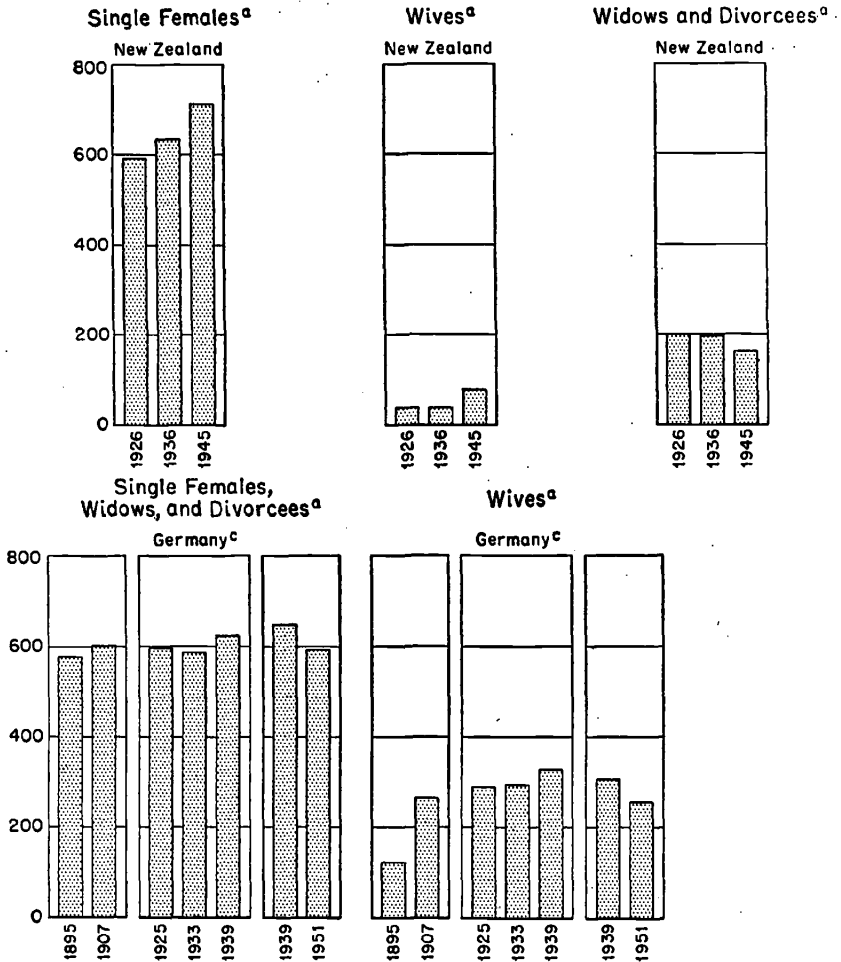


CHART 11, concluded



<sup>a</sup> Standardized for marital status and age on basis of female population of given country at latest census year before World War II.

<sup>b</sup> For 1921, standardized for marital status only.

<sup>c</sup> For 1895-1907, boundaries before World War I; 1925-1939, boundaries after World War I, without the Saar; 1939-1950, Federal Republic of Germany, without Berlin.

Source: Appendix A.

aged 45 and over—not so much in the United States as in Britain and Germany; in New Zealand, in fact, single women over 44 lowered their labor force activity, while younger women raised theirs enormously. The tendency for younger females to increase their participation more than older ones was generally characteristic of both early and recent periods—though in the United States older wives have increased their participation much more than younger wives in the recent period. In general it may be said that the rise of female participation, while it

## FEMALE LABOR FORCE OVER TIME

varied widely according to age, marital status, and period studied, was nevertheless characteristic of both young and old, married and single, and of recent as well as of earlier years. When female participation is standardized for marital status and broad age groups, it reveals rates of increase per decade in the various countries that differ surprisingly little from those standardized for age only. Standardizing for marital status accentuated the increase, particularly in the United States, Great Britain, and New Zealand.

The rises in the rate of female participation, standardized for age and marital status, were typically between 24 and 33 per 1,000 per decade, and amounted to surprisingly small differences among the five nations. When they were related to changes in male income, however, the similarities disappeared, because of the wide difference in income behavior. Percentages varied from a rise of 0.47 in the labor force for each 1 per cent rise in male real income in New Zealand and Britain to 0.87 in Canada and upwards of 4.0 in Germany during 1895-1950. Standardizing for marital status seemed further to reduce any appearance of influence of income on the labor force participation of females.

### *Motherhood*

Since young children tend to keep mothers out of the labor force, the propensity of women to participate will depend to some extent on how many of the nation's women have child-care responsibilities.

The interrelationships between marriage, motherhood, and labor force are complicated. A job for the young woman has undoubtedly helped to finance many early marriages that would otherwise have been postponed until the young man had finished school or achieved an adequate income in his job. On the other hand, wives may put off having children in order to keep the jobs that enabled them to marry at earlier ages. In general, the decline in the birth rate up to 1930 should have encouraged female labor force participation, and the rise in the birth rate and increase in the number of young mothers during the 1940's should have discouraged it.

Unfortunately only in the United States between 1940 and 1950 is it possible to determine with any degree of certainty what effect the changing proportion of women with young children has had on female participation. The effect in this decade may be seen from Table 16, line 11, to have been very weak—and opposite from what might have been expected. Despite the fact that more wives had young children in 1950, the mothers were a smaller proportion of all wives. If the proportion had been the same as in 1940, female participation would have risen less than it actually did, but by only 0.6 per cent of all fe-

FEMALE LABOR FORCE OVER TIME

TABLE 16

Women 16 and Older in the Labor Force, by Marital and Child Status, United States, 1890, 1940, and 1950

	1890	1940	1950	1890	1940	1950
NUMBER (IN MILLIONS)						
	<i>Population</i>			<i>Labor Force</i>		
1. Single	5.6	11.8	9.2	2.4	6.3	5.3
2. Widowed and divorced	2.3	8.1	9.5	0.7	2.9	3.6
3. Married	11.1 <sup>a</sup>	28.6 <sup>b</sup>	35.9	0.5 <sup>a</sup>	4.2 <sup>b</sup>	8.6
4. Without children under 10	5.1 <sup>a</sup>	18.0 <sup>b</sup>	24.1	0.3 <sup>a</sup>	3.4 <sup>b</sup>	7.6
5. With children under 10	6.0 <sup>a</sup>	10.6 <sup>b</sup>	11.8	0.2 <sup>a</sup>	0.8 <sup>b</sup>	1.4
6. Total, 16 and older	19.0	48.5	54.6	3.6	13.4	17.5
PER CENT IN LABOR FORCE						
	<i>Unstandardized</i>			<i>Standardized<sup>c</sup></i>		
1. Single	43.1	54.2	58.1	40.4	52.7	57.8
2. Widowed and divorced	29.9	36.2	37.8	41.4	51.4	59.7
3. Married	4.6	14.7	23.8	4.5	14.7	24.0
4. Without children under 10	5.9	18.9	29.6	7.7	23.3	33.8
5. With children under 10	3.3	7.8	11.9	2.1	4.8	7.6
6. Total, 16 and older	19.0	27.9	32.0			
6. Total, 16 and older	19.0	27.9	32.0			
7. Standardized for age <sup>d</sup>				18.2	27.9	32.4
8. Standardized for age & marital status <sup>d</sup>				18.2	27.9	34.7
9. Standardized for age-marital-child status <sup>d</sup>				18.6	27.9	34.1
10. Effect of marital status (line 7 minus line 8)				0		-2.3
11. Effect of child status (line 8 minus line 9)				-0.4		+0.6
12. Combined effect (line 7 minus line 9)				-0.4		-1.7

Source: Appendix A. *Census of Population, 1940, Employment and Family Characteristics of Women*, pp. 9-10; *Current Population Reports, The Labor Force*, Bureau of the Census, Series P-50, No. 29, p. 8.

<sup>a</sup> The census of 1890 did not report the number of married women having children under 10, or the participation of married women in the labor force. These were estimated hypothetically from 1940 census data, on the assumption that the ratios in 1890 were the same as those in 1940 for southern rural-farm areas, where the proportion of married women in the labor force in 1940 was similar to that for the United States as a whole in 1890.

<sup>b</sup> The original data were for married women aged 18-64. The present figures were derived by assuming that no married women aged 16 or 17 or over 64 had children under 10.

<sup>c</sup> Lines 1 through 5, standardized for age on the basis of population of the United States in 1940.

<sup>d</sup> Standardized on the basis of female population of the United States in 1940. It was assumed that all mothers of young children were under 45. Child status of widows and divorcees was ignored.

males aged 16 and older. Indeed, the change in the proportion of mothers offsets to some extent the effect of the change in the proportion of wives, so that the combined influence of marriage and motherhood was less than that of marriage alone.

## FEMALE LABOR FORCE OVER TIME

Although there were no actual data on the participation of mothers and non-mothers in the labor force in the United States before 1940, some indication was desired as to what the effect might have been within broad limits. Purely hypothetical figures for 1890 were constructed on the basis of the assumption that the proportions in 1890 were the same as those in the rural-farm South in 1940. (In 1940 the rural-farm South had much the same over-all female participation rate as did the United States as a whole in 1890.) On this assumption, the effect of changes in motherhood composition would have been small—less than 0.5 per cent of the female population aged 10 and older between 1890 and 1940. Unless the situation in 1890 was far more extreme than that assumed here, it may be concluded that the changing motherhood composition during 1890–1940 could not have had important effects. This does not mean that the number of children is not important in determining the proportion of females who work; the conclusion in the next chapter is that it may have been a major factor. It means simply that the mere distribution of females between mothers and non-mothers has in itself had little significance.