

Tables of Working Life for Women, 1950

Bulletin No. 1204

U. S. DEPARTMENT OF LABOR

James P. Mitchell, *Secretary*

BUREAU OF LABOR STATISTICS

Ewan Clague, *Commissioner*



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Preface

As a part of the U. S. Department of Labor's program for analyses of employment, unemployment, and labor force, the Bureau of Labor Statistics is publishing this comprehensive analysis of the length and pattern of working life for women. Bureau of Labor Statistics' Bulletin 1001, *Tables of Working Life: Length of Working Life for Men*, published in 1950, was a pioneering development in the techniques for analyzing the changing structure of working life in the United States. *Tables of Working Life for Women*, which takes on added significance because of the recent rapid increase in the number of working women, provides a basis for the analysis of factors that affect the work careers of women—marriage, the birth of children, and widowhood and divorce.

This study of the pattern of work life for women was prepared by Stuart H. Garfinkle of the Bureau's Division of Manpower and Employment Statistics and is based upon his doctoral dissertation presented at American University.

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Tables of Working Life for Women, 1950

I—Introduction

CERTAIN DEMOGRAPHIC FACTORS—marriage, birth of children, widowhood, and divorce—affect the size and composition of the female work force. Marriage and the birth of children have been found to be the principal factors causing women to leave the work force or to be out of the work force at certain ages, according to statistical tables of working life for women recently developed by the Bureau of Labor Statistics.

Because women have become an increasingly significant proportion of our labor force—nearly one-third of all workers in 1955 were women—a knowledge of their patterns of working life and the relationship between work, marriage, and child raising is essential to an understanding of the problems of women workers. It is equally vital in economic analysis of this significant segment of the Nation's human resources. It is useful in analyzing labor force trends among women under various economic conditions; in estimating potential expansion of the female labor force under a mobilization situation; in estimating prospective losses in certain occupations resulting from marriage and retirement; and in providing a basic tool for pension system planning.

To provide an analytical framework for the study of working characteristics of women, the BLS statistical tables of working life for women were prepared.¹ Perhaps the two most significant conclusions that may be drawn from these data are: (1) that marriage and the presence of children are the most important factors tending to keep women out of the work force; and (2) that women are apt to seek reemployment when their children reach school age and their family responsibilities

TABLE 1.—Stationary female population by marital status and presence of children, 1950

Year of age	All women	Single women	Ever married by presence or absence of husband			Ever married by child status		
			Total	Married, husband present	Other marital status	Never mother	With children under 5 years	With children 5 years and over
1	2	3	4	5	6	7	8	9
14.....	96,457	95,782	675	401	274	675	.....	.....
15.....	96,401	94,473	1,928	1,490	438	1,639	270	119
16.....	96,337	90,653	5,684	4,689	995	3,854	1,705	1,125
17.....	96,266	83,270	12,996	11,177	1,819	7,990	4,419	1,587
18.....	96,189	72,911	23,278	20,554	2,724	12,697	10,010	1,571
19.....	96,108	60,068	36,040	32,400	3,640	17,107	17,696	1,237
20.....	96,021	47,530	48,491	44,030	4,461	20,069	26,922	1,500
21.....	95,931	36,742	59,189	53,862	5,327	22,064	35,217	1,908
22.....	95,837	28,559	67,278	61,290	5,988	22,714	41,376	3,188
23.....	95,737	22,090	73,647	66,819	6,828	22,306	44,924	5,817
24.....	95,635	18,553	77,082	70,376	6,706	21,327	47,405	8,350
25.....	95,529	15,571	79,958	73,082	6,876	19,966	49,174	10,818
26.....	95,419	13,454	81,965	74,998	6,967	18,321	50,654	12,980
27.....	95,305	11,818	83,487	76,391	7,096	16,773	52,179	14,535
28.....	95,185	10,566	84,619	77,342	7,277	15,324	52,837	16,408
29.....	95,058	9,696	85,362	77,936	7,426	13,973	52,071	19,318
30.....	94,923	9,018	85,905	78,345	7,560	12,814	49,481	23,610
31.....	94,781	8,530	86,251	78,488	7,763	11,848	46,231	28,172
32.....	94,630	8,233	86,397	78,443	7,954	11,116	43,198	32,033
33.....	94,467	8,030	86,437	78,225	8,212	10,363	40,280	35,294
34.....	94,295	7,921	86,374	77,909	8,465	10,938	37,373	37,863
35.....	94,111	7,811	86,300	77,584	8,716	11,011	34,520	40,769
36.....	93,915	7,701	86,214	77,258	8,956	11,082	31,554	43,578
37.....	93,703	7,590	86,113	76,841	9,272	11,151	28,590	46,372
38.....	93,475	7,478	85,997	76,407	9,590	11,217	25,627	49,153
39.....	93,229	7,458	85,771	75,478	10,293	11,188	22,558	52,025
40.....	92,969	7,457	85,526	74,835	10,691	11,156	19,585	54,785
41.....	92,675	7,414	85,261	74,092	11,169	11,121	16,626	57,514
42.....	92,363	7,359	84,974	73,243	11,726	11,084	13,766	60,124
43.....	92,025	7,362	84,663	72,387	12,276	11,043	11,430	62,190
44.....	91,659	7,333	84,326	71,508	12,818	10,999	9,276	64,051
45.....	91,264	7,301	83,963	70,529	13,434	10,952	7,053	65,958
46.....	90,836	7,267	83,569	69,443	14,126	10,900	5,265	67,404
47.....	90,376	7,230	83,146	68,348	14,800	10,845	3,825	68,476
48.....	89,880	7,190	82,690	67,227	15,463	10,786	2,646	69,258
49.....	89,349	7,148	82,201	66,090	16,111	10,722	1,644	69,835
50.....	88,783	7,103	81,680	64,936	16,744	10,654	817	70,209
51.....	88,176	7,054	81,122	63,681	17,441	10,581	.....	70,541
52.....	87,526	7,002	80,524	62,406	18,118	10,503	.....	70,921
53.....	86,829	6,946	79,883	61,031	18,852	10,420	.....	69,465
54.....	86,081	6,886	79,195	59,555	19,640	10,330	.....	68,065
55.....	85,280	6,822	78,458	57,902	20,556	10,234	.....	68,224
56.....	84,421	6,754	77,667	56,231	21,436	10,130	.....	67,537
57.....	83,498	6,680	76,818	54,541	22,277	10,020	.....	66,798
58.....	82,507	6,601	75,906	52,831	23,075	9,900	.....	66,006
59.....	81,442	6,515	74,927	51,100	23,827	9,773	.....	65,154
60.....	80,298	6,424	73,874	49,200	24,674	9,636	.....	64,238
61.....	79,074	6,326	72,748	46,922	25,826	9,489	.....	63,259
62.....	77,763	6,221	71,542	44,571	26,971	9,332	.....	62,210
63.....	76,365	6,109	70,256	42,224	28,032	9,164	.....	61,092
64.....	74,880	5,990	68,890	40,025	28,865	8,896	.....	59,904
65 and over ²	1,108,266	88,661	1,019,605	371,136	648,469	132,550	.....	887,056

¹ The estimates shown for women aged 15 through 19 with children over 5 are overstated because of the method of computation. They are obtained by subtracting the number of women who have children under 5 from the number who have ever borne a child—the only feasible way to derive these data. Because the number with children under 5 excludes child deaths while the number with children ever borne includes all child deaths, the number with children over 5 is overstated.

² Data for age 65 and over represent the cumulative total of women in the hypothetical birth group of 100,000 who are still alive at each year of age after 65.

NOTE.—Figures derived from data of U. S. Bureau of the Census and National Office of Vital Statistics. Minor incongruities arise in the figures because of the methods of computation and because most of the data for single years of age had to be adapted from data for 5-year age groups.

¹ For similar tables previously developed for men, see Tables of Working Life: Length of Working Life for Men, BLS Bull. 1001, August 1950. Also see Changes in Working Life of Men, 1900 to 2000, Monthly Labor Review, March 1955 (p. 297).

are somewhat diminished. This tendency of women to reenter the work force at later ages is heightened by the need to support themselves as more of them become widowed or divorced.

Stationary Population

In order to determine how such factors as age, marriage, and presence of children affect the propensity of women to work outside the home, the entire female population must first be described in terms of these important demographic characteristics. A so-called "stationary population" (table 1)—adapted from the actuarial technique of measuring life expectancy—was chosen as a convenient tool to show the effect of these factors.

The stationary population is an estimate of the number of women surviving at each age (beginning at age 14) from a hypothetical group of 100,000 girl babies born alive. This estimate is based on the assumption that the actual 1950 death rates of women in the United States at each age had been experienced by those in the hypothetical group. By using this statistical device instead of actual population data, it is possible to isolate the effects of mortality; thus, differences in the numbers of women at each age shown in table 1 are due solely to the effects of mortality. In the actual population, because of variations in the level of births and in immigration from year to year, there might be, for example more 40-year-old women than 30-year-old women; but the use of the stationary population eliminates the effect of such variations on the size of the age groups. The composition of this population classified by marital and child status is based upon the assumption that marriage rates, birth-rates, and death rates of the selected year—in this case, 1950—remain constant throughout the lifetime of any group of 100,000 girl babies born alive annually for an indefinite period.

In the preparation of table 1, the stationary population is classified into several categories according to marital and child status in each age group. The proportions of the stationary population who are single (column 3) and married (column 4) are derived by applying the actual 1950 percentages. The married women ("ever married" in the table) are classified into those with husbands present (column 5) and those who are not living with their husbands ("other marital

status" in the table) because of separation, divorce, or widowhood (column 6). They are further classified on the basis of motherhood: those who never had children (column 7); those with children under 5 years of age (column 8); and those with children 5 years of age and over (column 9).

The statistics in table 1 relate the age of each surviving group to such demographic characteristics as marriage, birth of children, and widowhood and divorce. It is, in a sense, a demographic life history of the hypothetical group of 100,000 girl

TABLE 2.—Labor force participation rates by marital status and presence of children, 1950

Year of age	All women	Single women	Ever married by presence or absence of husband			Ever married by child status		
			Total	Married, husband present	Other marital status	Never mother	With children under 5 years	With children 5 years and over
1	2	3	4	5	6	7	8	9
14.....	4.1	4.1	8.2	4.2	14.0	8.2	.....	.....
15.....	6.4	6.3	12.8	10.5	20.8	14.1	5.6	5.3
16.....	13.0	12.8	16.6	14.4	27.2	20.6	7.6	16.0
17.....	22.3	22.7	19.9	17.9	32.4	25.8	9.2	25.0
18.....	40.1	45.7	22.8	20.8	37.6	32.6	10.0	29.0
19.....	47.3	60.7	25.2	23.3	42.0	38.9	11.5	31.6
20.....	46.9	66.0	27.5	25.6	46.0	51.5	12.8	36.6
21.....	45.3	71.0	28.9	26.9	49.4	53.0	13.3	37.8
22.....	43.6	74.0	30.4	28.3	52.2	53.5	13.4	38.8
23.....	41.0	77.0	29.6	27.2	54.2	53.7	13.3	38.6
24.....	38.3	78.5	28.2	25.6	55.6	54.0	13.1	37.6
25.....	35.5	79.5	26.0	23.3	56.8	54.0	12.6	36.6
26.....	33.2	80.3	25.4	22.4	57.8	54.5	12.2	35.8
27.....	32.1	80.4	24.9	21.8	58.8	54.5	11.9	35.2
28.....	31.5	80.3	25.1	21.8	59.7	54.3	11.7	34.4
29.....	30.9	80.0	25.2	21.8	60.5	53.5	11.5	33.6
30.....	30.6	79.3	25.6	22.0	61.2	52.3	11.3	32.8
31.....	30.7	78.7	25.9	22.3	61.9	51.3	11.2	32.1
32.....	30.9	78.1	26.4	22.7	62.6	50.8	11.1	31.7
33.....	31.2	77.6	27.0	23.2	63.2	50.2	11.1	31.9
34.....	31.8	77.1	27.7	23.8	63.8	49.8	11.1	32.3
35.....	32.4	76.6	28.4	24.4	64.4	48.9	11.2	32.7
36.....	33.0	76.3	29.3	25.1	65.0	48.3	11.2	33.0
37.....	33.7	76.0	30.2	25.8	65.6	47.8	11.4	33.0
38.....	34.5	75.9	31.2	26.7	66.2	47.2	11.5	32.9
39.....	35.3	75.8	32.1	27.4	66.4	46.7	11.8	32.7
40.....	35.9	75.8	32.4	27.6	66.3	46.2	12.0	32.5
41.....	36.2	75.6	32.9	27.8	65.7	45.6	12.3	32.0
42.....	36.3	75.3	32.9	27.6	65.1	44.8	12.6	31.7
43.....	36.2	74.9	32.8	27.4	64.0	44.0	12.9	31.2
44.....	36.0	74.5	32.7	27.1	62.9	43.0	13.3	30.4
45.....	35.7	74.0	32.4	26.6	61.8	42.0	13.7	29.8
46.....	35.3	73.4	32.0	26.0	60.6	41.0	14.1	29.0
47.....	34.8	72.7	31.5	25.3	59.2	40.0	14.6	28.4
48.....	34.2	71.8	30.9	24.5	57.8	38.6	15.1	27.8
49.....	33.4	70.9	30.1	23.5	56.4	37.5	15.2	27.0
50.....	32.4	69.9	29.1	22.5	54.9	36.2	.....	26.4
51.....	31.4	68.8	28.1	21.3	53.4	35.0	.....	25.6
52.....	30.5	67.7	27.3	20.0	51.9	33.7	.....	24.8
53.....	29.5	66.5	26.3	18.7	50.4	32.5	.....	24.0
54.....	28.5	65.2	25.3	17.4	48.9	31.2	.....	23.2
55.....	27.5	63.8	24.3	16.0	47.3	30.0	.....	22.6
56.....	26.4	62.3	23.3	14.6	45.7	28.8	.....	21.6
57.....	25.4	60.7	22.3	13.4	43.7	27.5	.....	20.8
58.....	24.4	59.0	21.4	12.3	41.5	26.3	.....	20.0
59.....	23.4	57.2	20.5	11.3	39.3	25.0	.....	19.2
60.....	22.4	55.2	19.5	10.2	37.1	23.8	.....	18.3
61.....	21.4	53.0	18.7	9.0	34.9	22.8	.....	17.5
62.....	20.4	50.6	17.8	8.1	32.6	21.7	.....	16.7
63.....	19.3	47.8	16.8	7.2	30.5	20.5	.....	15.8
64.....	18.0	44.5	15.7	6.6	28.5	19.2	.....	14.8
65 and over ¹	7.8	19.7	6.8	4.5	7.8	8.3	.....	6.4

¹See footnote 2, table 1.

babies born alive in 1950. By age 14, over 96,000 are alive and nearly all of them are single. Between ages 14 and 20, half of the group get married; the highest marriage rates are attained at ages 18 and 19. The proportion of women who are single drops from 87 percent at age 17 to 50 percent at age 20. About 90 percent of the married women at age 20 are living with their husbands and the remainder are separated, widowed, or divorced. Three-fifths of the married women at this age have children.

TABLE 3.—Stationary female labor force by marital status and presence of children, 1950

Year of age	All women	Single women	Ever married by presence or absence of husband			Ever married by child status		
			Total	Married, husband present	Other marital status	Never mother	With children under 5 years	With children 5 years and over
1	2	3	4	5	6	7	8	9
14.....	3,955	3,900	55	17	38	55	-----	-----
15.....	6,170	5,923	247	156	91	231	15	11
16.....	12,524	11,580	944	673	271	794	130	120
17.....	21,467	18,881	2,586	1,997	589	2,063	406	1,117
18.....	38,572	33,265	5,307	4,283	1,024	4,140	1,001	1,166
19.....	45,459	36,377	9,082	7,553	1,529	6,656	2,035	1,391
20.....	45,034	31,687	13,347	11,293	2,054	9,637	3,293	507
21.....	43,457	26,359	17,098	14,467	2,631	11,695	4,685	713
22.....	41,785	21,347	20,438	17,314	3,124	13,121	5,988	1,328
23.....	39,252	17,618	21,634	18,148	3,486	12,829	6,404	2,401
24.....	36,628	14,865	21,763	18,030	3,733	12,013	6,485	3,264
25.....	33,928	13,139	20,789	16,883	3,906	10,706	6,154	3,929
26.....	31,699	10,880	20,819	16,792	4,027	9,993	6,183	4,643
27.....	30,593	9,898	20,785	16,614	4,171	9,291	6,298	5,196
28.....	30,029	8,790	21,239	16,895	4,344	8,772	6,520	5,947
29.....	29,420	7,909	21,511	17,018	4,493	8,067	6,453	6,991
30.....	29,046	7,076	21,970	17,345	4,622	7,338	6,130	8,502
31.....	29,098	6,713	22,385	17,570	4,815	6,693	5,798	9,984
32.....	29,287	6,503	22,784	17,813	4,971	6,243	5,309	11,232
33.....	29,496	6,158	23,338	18,569	5,310	5,998	4,924	12,416
34.....	29,996	6,034	23,962	18,545	5,407	5,964	4,575	13,413
35.....	30,420	5,911	24,509	18,896	5,613	5,833	4,191	14,485
36.....	31,065	5,804	25,261	19,377	5,884	5,810	3,865	15,586
37.....	31,703	5,697	26,006	19,792	6,214	5,799	3,537	16,670
38.....	32,507	5,676	26,831	20,284	6,547	5,822	3,247	17,762
39.....	33,185	5,653	27,532	20,697	6,835	5,782	2,946	18,804
40.....	33,374	5,637	27,737	20,650	7,087	5,658	2,580	19,499
41.....	33,641	5,605	28,036	20,672	7,364	5,579	2,243	20,214
42.....	33,528	5,564	27,964	20,299	7,665	5,397	1,874	20,693
43.....	33,313	5,514	27,799	19,911	7,888	5,254	1,585	20,960
44.....	32,997	5,463	27,534	19,444	8,090	5,121	1,349	21,064
45.....	32,581	5,403	27,178	18,841	8,337	4,946	1,033	21,199
46.....	32,065	5,334	26,731	18,135	8,596	4,838	802	21,091
47.....	31,451	5,256	26,195	17,396	8,809	4,663	602	20,930
48.....	30,739	5,162	25,577	16,580	8,997	4,476	435	20,666
49.....	29,843	5,068	24,775	15,630	9,145	4,311	273	20,192
50.....	28,766	4,965	23,801	14,610	9,191	4,094	-----	19,707
51.....	27,687	4,853	22,834	13,539	9,295	3,882	-----	18,952
52.....	26,695	4,740	21,955	12,521	9,434	3,710	-----	18,245
53.....	25,615	4,619	20,996	11,458	9,538	3,548	-----	17,448
54.....	24,533	4,490	20,043	10,398	9,645	3,367	-----	16,676
55.....	23,452	4,352	19,100	9,319	9,781	3,171	-----	15,929
56.....	22,287	4,208	18,079	8,250	9,829	3,019	-----	15,060
57.....	21,208	4,055	17,153	7,361	9,792	2,847	-----	143,06
58.....	20,132	3,895	16,237	6,575	9,662	2,679	-----	13,558
59.....	19,057	3,727	15,330	5,845	9,485	2,499	-----	12,831
60.....	17,987	3,546	14,441	5,121	9,320	2,354	-----	12,087
61.....	16,922	3,353	13,569	4,332	9,237	2,212	-----	11,357
62.....	15,864	3,148	12,716	3,710	9,006	2,073	-----	10,643
63.....	14,738	2,920	11,818	3,101	8,717	1,926	-----	9,892
64.....	13,462	2,666	10,802	2,638	8,164	1,761	-----	9,041
65 and over ¹	86,445	17,466	63,979	17,122	51,857	11,197	-----	57,782

¹ See footnote 1, table 1.

² See footnote 2, table 1.

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Between ages 20 and 35, childbearing is the most significant demographic characteristic of women. The number and proportion of women with preschool children reaches a maximum in their late twenties with well over half of all women in ages 24 to 30 having preschool children. After age 35, the birthrate and the number of women with preschool children diminish sharply. Age 35 also marks the period when an increasing number of women become widows. Women in the other marital status group comprise less than 10 percent of the ever-married population up to 35, but 16 percent at age 45. Thereafter this group grows rapidly because of widowhood. By age 64, 42 percent of all women in the ever-married population are in the other marital status group.

After age 50, death rates rise rapidly. In the 36-year period between ages 14 and 50, mortality reduces the stationary population by about 7,000, but in the 15 years between ages 50 and 65, the stationary population is reduced by about twice this number. Despite the higher mortality rates after age 50, almost 75,000 of the hypothetical group of 100,000 girl babies are still alive at age 64.

Labor Force Participation Rates

The foregoing statistical description of the demographic characteristics of all women in the stationary population provides a framework for the analysis of the characteristics of working women. To discover to what extent family responsibilities affect the propensity of women to work outside the home, it is necessary to determine what proportion of women in each of the age, marital, and motherhood categories are working. Table 2 presents such labor force participation rates, or worker rates, for each of the categories used in table 1 for the period 1950. A worker rate is the proportion of all the persons in a particular demographic classification who are in the labor force—that is, working for pay or profit or looking for such work.² For example, the worker rate of 26 percent shown in the table for 46-year-old married women with husbands present means that 26 out of 100 women in this category are in the labor force.

² For a more complete discussion of labor force definition, see Concepts and Methods Used in Current Labor Force Statistics, Current Population Reports, Series P-23, No. 2, U. S. Department of Commerce, Bureau of the Census, 1954.

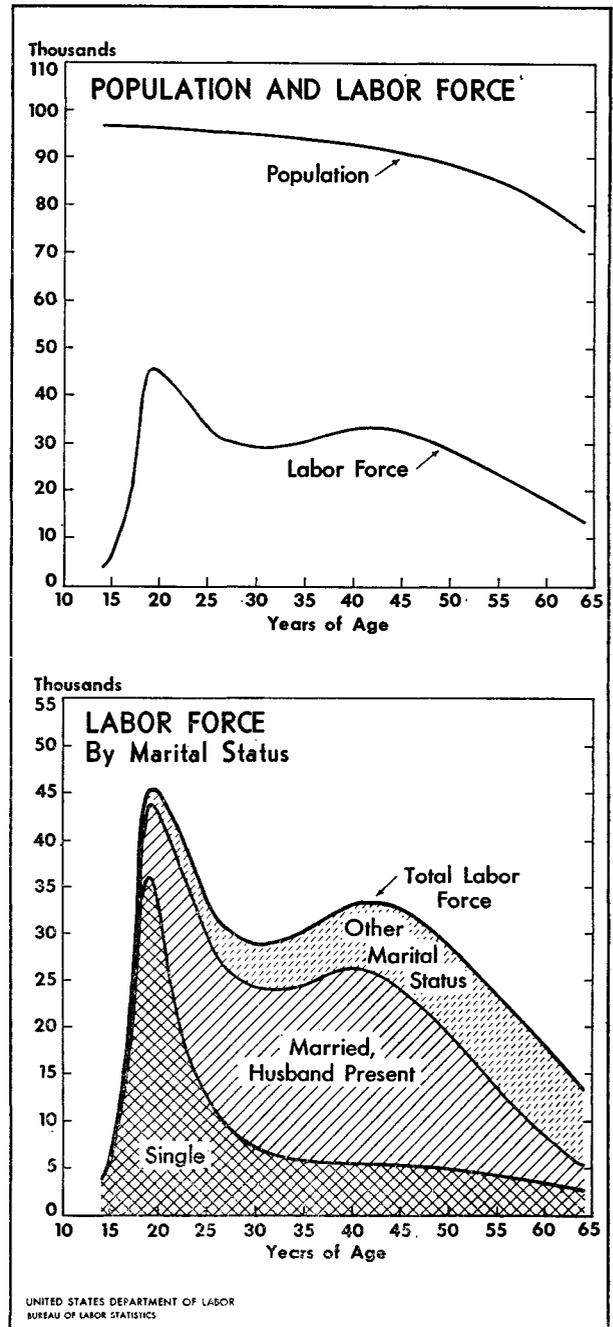
All three of the major demographic factors used in this analysis—age, marital status, and presence of children—significantly affect the propensity of women to work. Considering age only, the worker rate quickly reaches its peak at age 19, and then declines through age 30, when it starts to rise again. Beginning at about age 41 or 42, the rates decline again and continue to fall thereafter.

An examination of overall labor force participation rates of the female population at each age by marital and child status shows that age is not the controlling factor. Actually, in the middle years—18 through 44—the influence of age alone on worker rates is not of primary importance. The range of variation in worker rates for each of the marital and child status groups is considerably less than for the combined worker rates for all women. Marriage and having children are the major determinants of labor force activity.

Because single women generally work to support themselves and because in most cases their home responsibilities are less than those of married women, the worker rate for single women in each age group is much higher than for married women. It reaches a peak of about 80 percent in the late twenty age group—a rate close to that for single men at that age. (Both of these rates are below those for married men at the same age, probably because both men and women who at this age are unable to work tend to remain single.) The continuous decline between ages 19 and 30 in the worker rates for all women, which occurs despite the increasing worker rate for single women and those in other marital status, is simply due to the increasing proportion of married women.

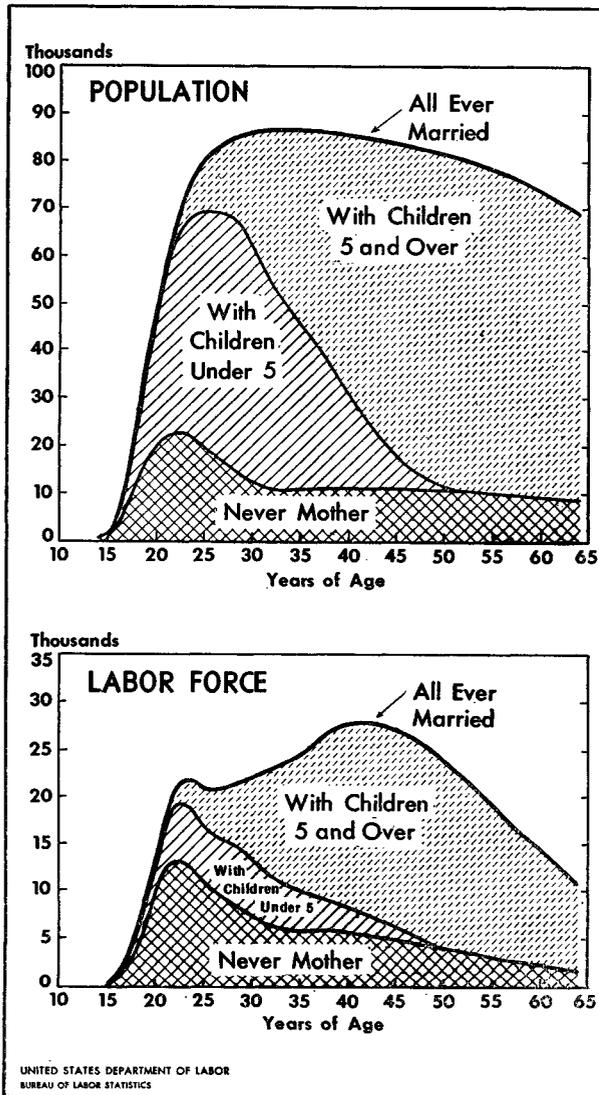
Beginning at age 20, presence or absence of young children also increasingly affects the overall worker rates. The worker rates for married women with and without young children illustrate the influence of this factor in keeping women out of the labor force; at age 20, the rate for married women without children is over 4 times as high as for married women with children under 5. Labor force participation rates for married women reach an initial peak of about 30 percent at age 22, when about one-third of the married women have no children, but drop to 22 percent between the ages of 25 and 30 when the proportion of married women with no children declines to about 20 percent.

Chart 1. Stationary Female Population and Labor Force, 1950



Changes in female worker rates which occur between ages 30 and 40 provide additional evidence that age is less important than the presence of children in determining the worker rates for all women. Worker rates for all women rise from about 31 percent at age 30 to 36 percent

Chart 2. Stationary Ever-Married Female Population and Labor Force, By Presence of Children, 1950



at age 40, because about 60 percent of the married women at age 30 have children under 5, while at age 40 only about 20 percent have children under 5. Worker rates for married women with children under 5, which range narrowly between 10 and 15 percent, indicate that the presence of children of preschool age is the predominant factor in keeping women, regardless of their age, out of the labor force. The presence of older children is also important in keeping women out of the labor force—the worker rates for women with children over 5 are generally 10 to 20 per-

centage points below those for women without children.

Although the factor of age on worker rates is heavily outweighed, in the middle-age range, by the effects of marital status and presence of children, it has a major influence at both ends of the age range—among girls under 18 and women over 45. The overall worker rates for girls under 18 are low, rising to only 22.3 percent at age 17—primarily because most girls at this age are in school, and partly because those who are not in school tend to have more limited employment opportunities than older women. Beginning at about age 40, worker rates for all women and for each of the subcategories, except for those with children under 5, begin to decline steadily. One of the most important factors in this decline is that higher proportions of older women are unable to work for physical reasons. Another is that women past middle age, unlike younger women, tend not to reenter the labor force, or find difficulty in getting a job, and eventually stop trying.

The effect of economic pressures on worker rates is indicated by a comparison of worker rates for married women with no children and women in other marital status, many of whom have young children. The worker rates for married women with no children are lower than for women in other marital status at every age except those prior to age 22, probably because many women who are not living with their husbands have to work even when they have young children.

The Stationary Female Labor Force

The actual number of women, by age, marital status, and presence of children, who are in the stationary labor force is determined by multiplying the total number of women in these respective categories in the stationary population (table 1) by their corresponding labor force participation rates (table 2). The result is the stationary female labor force by age, marital status, and presence of children (table 3). By combining the effects of the size of female population groups and worker rates, the composition of the stationary female labor force for 1950 is obtained.

As noted earlier, the stationary population is based on an assumption that 100,000 girl babies

are born each year for an indefinite period of time and that the marriage rates, birthrates, and death rates of 1950 will remain constant throughout their lifetime. In computing the stationary labor force, one more assumption is made—that the worker rates for each marital and child status group will remain at 1950 levels throughout the lifetime of these women. The figures in table 3 may be considered as the number of survivors of the hypothetical 100,000 girl babies at each age and in each marital and presence-of-children classification who would be in the labor force.

Although single women have relatively high worker rates at every age, they comprise a majority of the women workers only up to age 22 (chart 1). Thereafter, married women furnish the greater number in the female labor force, although their worker rates are much lower than those for single women. Over three-fourths of all women workers at age 30 come from the ranks of the married women.

Beginning at about age 30, the decline in the proportion of married women with preschool children greatly affects the size and characteristics of the female labor force (chart 2). At age 30, almost three-fifths of the married women in the stationary population have children under 5, but this group only accounts for about one-fourth of

the work force because of their relatively low worker rates. By age 40, women with children under 5 have decreased to about one-fourth of the married population, while those with children over 5, who have relatively higher worker rates, had increased to two-thirds of the married population. As a result, 70 percent of the married labor force at age 40 consists of married women with children over 5. Also, as would be expected, the increase in the number of women with children over 5 brings about an increase in the size of the female work force.

The increase in the size of the other marital status group also begins to affect the labor force after age 40. At this age, the other marital status group comprises about one-eighth of the married female population, and one-fourth of the married work force. By age 55, about one-fourth of all married women are widowed, divorced, or separated, but make up 50 percent of the married work force. Despite the numerical increase in the size of this group of women, who have a much greater tendency to be in the labor force than married women with husbands present, the effects of other factors such as disability and voluntary withdrawal from the work force cause the continued decline in their work force participation after age 55.

II—Work Life Expectancy and Accession and Separation Rates

ALTHOUGH there is no typical pattern of working life for women, estimates of the number of years of work likely to be performed by each age group in the female population can be developed on the basis of experience. In making such estimates, it must be assumed that each age group in the female population will experience, during the remaining years of life, the labor force participation rates shown for each age at a particular time—in this analysis, 1950.

Work Life Expectancy of the Female Population

Work life expectancy for women at any age, e. g., 20-year-old women, is derived by cumulating the stationary female labor force³ at all ages over 20 to obtain the aggregate number of man-years that 20-year-old women in the stationary population can be expected to work during the rest of their lives. This aggregate divided by the stationary population at age 20 will yield average work life expectancy for 20-year-old women.

Because the average number of years of work remaining for women is computed from the experience of all women, including those in the labor force for a year or two and those never in the labor force, the work life potential for women estimated in this way is about one-fourth of their life expectancy. For example, the average life expectancy of women at age 20 is an additional 54 years, and average remaining years of work life is 15 years. (See table 4 and chart 3.)

Thereafter, work life expectancy decreases by about one-third of a year for each year of age. By age 30, work life expectancy and average remaining years drop to 11 and 44 years, respectively—still about one-fourth of the remaining years of life. By age 40, about one-fifth of the 35 remaining years of life would be spent in the work force; at 60, however, the average work life potential is 2 years, about one-tenth of the remaining years of life.

It must be emphasized that work life expectancy is in no sense a measure of the length of time most women will spend in the labor force, because the average includes women who work all their adult

lives and women who never work at all, women who marry and those who remain single, and those who have children and those who do not.

The measure of work life potential is useful for evaluating the work life potential of the female population under different social and economic circumstances. For example, work life expectancy in 1950—a period of relatively high economic activity—can be compared with that for 1940—a period of considerably more unemployment and lower economic activity. Work life potential of women in different countries can be compared in order to evaluate the relative economic contribution of women in terms of expected man-years of work.

Effect of Marriage on Working Life. For young single women, chances of marriage and of having children are the most important factors in determining work life expectancy. The overriding effect of marriage and of birth of children on the work life patterns of women can be illustrated by comparing the work life expectancy of single women with that of all women who have ever been married, at three different ages: age 14, when almost all women are single; age 20, the average age at which women marry; and age 30, after which relatively few women marry. For this comparison, estimates of the average remaining years of work have been prepared for single women at each age, allowing for the chances of marriage after that age. The work life potential of single women at any age is computed to include those years of work which they may perform after marriage.

Because virtually all women are single at age 14, the work life expectancy of single women at that age is about the same as the work life expectancy of all women—16 years (chart 3). Even at age 20, the 15-year work life expectancy of single women is about the same as for all women. Between ages 20 and 30, the work life potential of single women increases because the chances of marriage decrease for those remaining unmarried at each succeeding age. For single women at age 30, work life potential is twice as high as for married women at the same age—21.6 years as compared with 9.7. Two reasons for this sharp difference are: (1) their labor force attachment is likely to be continuous because their chances of marriage after age 30 are very low; and (2) a large proportion of such women are in the labor force

³ For definition of the stationary female labor force, see page 5.

both because of economic necessity and because they have fewer housekeeping responsibilities than married women of the same age. This differential continues throughout the rest of the age span. At age 64, the remaining lifetime for all women is 16 years and at that age, single women on the average will spend about one-fifth of their remaining lifetime in the work force, while married women will spend less than one-tenth of their remaining lifetime at work. It should be remembered that this figure is not a work life expectancy for those at work—it is the work life potential expressed in terms of an average number of man-years of work remaining for the female population, which includes many persons who are not in the work force.

Effect of Presence of Husband on Working Life.

In addition to the differences in work life potential between married and single women, there are differences within the ever-married group between married women living with their husbands and all other women who have ever been married, i. e., widowed, divorced, or separated. For technical reasons, it is difficult to compute work life expectancy for married women living with their husbands; however, rough estimates indicate that

work life expectancy for ever-married women is not significantly different from that for married women living with their husbands because most married women are in the latter category up to age 40. Therefore, in the following discussion, the comparison is made between widowed, divorced, or separated women—called “other marital status”—and all women who have ever been married. The estimates of the length of working life for women in the other marital status group do not take into account the possibilities of remarriage; they are based on the assumption that women once in the other marital status group remain in that status for the rest of their lives.

Ever-married women generally have an average work life potential half as long as women in other marital status. At age 20, for example, all married women on the average will spend about 12 man-years, or about one-fifth of their remaining lifetime, in the work force, compared with 24 man-years, or over two-fifths of their remaining lifetime, for women in other marital status. At age 40, married women on the average will spend 7 years of their remaining lifetime in the work force, while women in other marital status can expect to spend almost 13 years of their remaining life at work. Although work life expectancy for the other mari-

TABLE 4.—Average remaining lifetime for all women and average number of years of work remaining, at specified ages, by marital status, 1950

Year of age	Average remaining lifetime for all women (in years)	Average number of years of work remaining				Year of age	Average remaining lifetime for all women (in years)	Average number of years of work remaining			
		All women	Single women	Ever married	Other marital status			All women	Single women	Ever married	Other marital status
14.....	59.49	15.8	16.0	13.2	25.8	40.....	35.06	7.8	17.6	7.0	12.8
15.....	58.52	15.8	16.0	13.2	25.6	41.....	34.17	7.5	16.9	6.7	12.1
16.....	57.56	15.7	15.8	13.0	25.4	42.....	33.28	7.1	16.2	6.4	11.5
17.....	56.60	15.6	15.6	12.9	25.2	43.....	32.39	6.8	15.5	6.1	10.9
18.....	55.64	15.4	15.5	12.7	24.9	44.....	31.51	6.5	14.8	5.8	10.3
19.....	54.68	15.0	15.2	12.5	24.5	45.....	30.64	6.1	14.1	5.4	9.7
20.....	53.73	14.5	15.1	12.2	24.1	46.....	29.78	5.8	13.4	5.1	9.2
21.....	52.78	14.1	15.4	12.0	23.7	47.....	28.92	5.5	12.8	4.9	8.6
22.....	51.83	13.6	16.0	11.7	23.2	48.....	28.07	5.2	12.1	4.6	8.0
23.....	50.88	13.2	16.9	11.4	22.7	49.....	27.23	4.9	11.4	4.3	7.5
24.....	49.94	12.8	17.8	11.1	22.2	50.....	26.40	4.5	10.8	4.0	7.0
25.....	48.99	12.4	18.3	10.9	21.7	51.....	25.57	4.3	10.2	3.7	6.5
26.....	48.04	12.1	19.0	10.6	21.1	52.....	24.75	4.0	9.6	3.5	6.0
27.....	47.10	11.8	20.1	10.4	20.6	53.....	23.93	3.7	9.0	3.2	5.5
28.....	46.16	11.5	20.4	10.1	20.0	54.....	23.13	3.4	8.4	3.0	5.1
29.....	45.22	11.2	20.9	9.9	19.4	55.....	22.33	3.2	7.8	2.8	4.6
30.....	44.28	10.9	21.6	9.7	18.9	56.....	21.55	2.9	7.2	2.6	4.2
31.....	43.34	10.6	21.9	9.4	18.3	57.....	20.77	2.7	6.7	2.3	3.8
32.....	42.41	10.3	21.6	9.2	17.7	58.....	20.00	2.5	6.1	2.2	3.4
33.....	41.48	10.0	21.4	8.9	17.1	59.....	19.25	2.3	5.6	2.0	3.0
34.....	40.55	9.7	21.1	8.7	16.5	60.....	18.50	2.0	5.1	1.8	2.6
35.....	39.63	9.4	20.6	8.4	15.9	61.....	17.77	1.8	4.6	1.6	2.3
36.....	38.71	9.1	20.1	8.1	15.3	62.....	17.05	1.7	4.2	1.5	2.0
37.....	37.79	8.8	19.6	7.9	14.7	63.....	16.34	1.5	3.7	1.3	1.7
38.....	36.88	8.5	19.0	7.6	14.0	64.....	15.64	1.3	3.3	1.2	1.4
39.....	35.97	8.2	18.3	7.3	13.4						

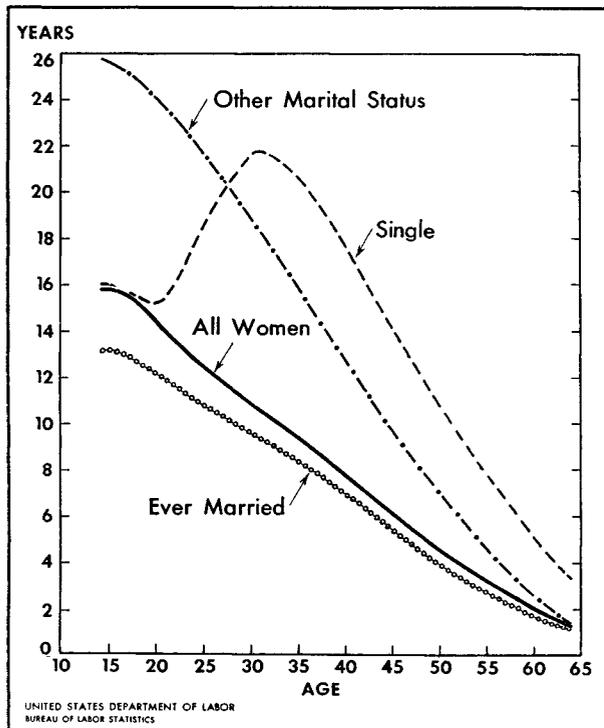
NOTE.—Basic data from U. S. Bureau of the Census and National Office of Vital Statistics.

tal status group is nearly twice as long as for all married women at age 40, it is only two-thirds of the work life expectancy of single women at the same age.

Work Life Expectancy of the Labor Force

Work life expectancy of the female labor force pertains to the average number of years that working women in specific age and marital status groups will spend in the labor force. This concept

Chart 3. Average Number of Years of Work Remaining for Women, by Marital Status, 1950



differs sharply from the work life expectancy of the female population discussed in the previous section. The latter is an average referring to all those in the population including those at work and those not at work. The measure of work life expectancy of the labor force is, of course, always substantially larger at corresponding ages than the work life expectancy of the whole female population.

The length of time that working women will continue to work is of great interest in pension planning, and in determining personnel policies,

as well as in measuring the socioeconomic status of the female population. The measurement of work life, however, is much more complicated for women than for men⁴ because the work careers of women typically are interrupted by periods of homemaking and childraising. For men, work careers are generally continuous and it is reasonable to assume that the age-to-age decreases in the worker rates reflect mainly the effect of disabilities and retirements. Because men typically stay in the labor force until disabled or retired, their work life expectancy can be computed from the pattern of worker rates by age.

Women over 50 years of age live longer than men, but spend less time in the labor force and therefore spend a considerably longer period of their lives outside the labor force. (See table 5.) The life expectancy of the female work force at age 50 is about 26 years, as compared with a work life expectancy of 14 years, leaving about 12 years in retirement. This compares with a life expectancy of 23 years for 50-year-old male workers, a work life expectancy of 17 years, and a 6-year period of retirement. (These figures are averages—they include persons who stop work in their fifties as well as those who work until they die.) Even at age 60, working women can still expect to live 18.5 years and to work about 9 years, leaving almost 10 years in retirement, compared with 60-year-old men who have a life and work potential of about 16 and 10 years, respectively, and 6 years of expected retirement.

The second group of working women for whom it is possible to estimate the length of working life are the single women over age 35, because these women have relatively small chances of marrying and the majority are likely to continue to work until they die or retire. At age 35, a single working woman can expect to live about 40 years and to work about 27 years, leaving a period of 13 years in retirement (table 6). The retirement life expectancy for single women is over twice as long as for men at age 35. By age 50, the average retirement life expectancy for single women has declined to 11 years—still about twice as long as for men of the same age. The gap continues to narrow and by age 60, the retirement life expectancy for single

⁴ For a discussion of methods of estimating the length of working life for men, see *Tables of Working Life: Length of Working Life for Men*, BLS Bull. 1001, August 1950; see also *Changes in Work Life of Men, 1900 to 2000*, *Monthly Labor Review*, March 1955 (p. 297).

women is only 9 years—about one and a half times as high as for men.

As has been shown in the previous discussion, the age pattern of worker rates for women reflects, in addition to disabilities and retirement, separations from the labor force because of marriage, the birth of children and the entry or reentry of women into the labor force as their children become older. For this reason, neither the age pattern of worker rates for all women nor the pattern for married women can be used to measure the effects of disability and retirement in estimating work life expectancy.

It is possible, however, to estimate the length of working life for certain groups of women whose work careers are more or less continuous and for all women over age 50, after which age very few women enter or reenter the work force. Because a few women enter the work force even at this relatively late age, the work life expectancy of 50-year-old working women shown in table 5 is slightly overstated.

TABLE 5.—Average remaining lifetime and average number of years of work remaining for working women, 1950

Year of age	Average remaining lifetime ¹ (in years)	Average number of years of work remaining	Average number of years in retirement
50.....	26.4	13.8	12.6
55.....	22.3	11.3	11.0
60.....	18.5	8.9	9.6

¹ Data are for all women; similar figures are not available for working women.

NOTE.—Basic data from U. S. Bureau of the Census and National Office of Vital Statistics.

TABLE 6.—Average remaining lifetime and average number of years of work remaining for single working women, 1950

Year of age	Average remaining lifetime ¹ (in years)	Average number of years of work remaining	Average number of years in retirement
15.....	58.5	45.4	13.1
20.....	53.7	40.5	13.2
25.....	49.0	35.7	13.3
30.....	44.3	31.2	13.1
35.....	39.6	26.7	12.9
40.....	35.1	23.2	11.9
45.....	30.6	19.0	11.6
50.....	26.4	15.4	11.0
55.....	22.3	12.1	10.2
60.....	18.5	9.1	9.4

¹ Data are for all women; similar figures are not available for working women.

NOTE.—Basic data from U. S. Bureau of the Census and National Office of Vital Statistics.

Work life expectancy can also be estimated for working women who remain single. The pattern of worker rates over age shows that most single women who begin a work career and remain single, continue to work until they become disabled or retire much in the same manner as do men. Work life expectancy for these women is about 40 years at age 20, considerably less than for men of the same age despite the longer life expectancy of women.

A third group of women which has a more or less continuous work career are women who have been married only once, who are living with their husbands and who do not have children. Age-to-age declines in worker rates for these women are not affected by the birth of children, by the reentry into the work force of women whose children reach school age, or by the incidence of divorce or widowhood.

Work life expectancy for 20-year-old married working women whose work careers are not interrupted by the birth of children or by divorce or widowhood is about 31 years. (See table 7.) It is considerably less than the 43 years for men of the same age and the 40 years expected from working women who remain single all their lives. At age 35, it is about 20 years, some 7½ years less than for single women who must work to support themselves. At age 50, work life expectancy for these women is 11.8 years, still 3.6 years less than for single women and 2 years less than for all women.

Work life expectancy for women who have been married only once, who are living with their

TABLE 7.—Average remaining lifetime and average number of years of work remaining for working women, married once, living with their husbands, and who have never had a child, 1950

Year of age	Average remaining lifetime ¹	Average number of years of work remaining	Average number of years in retirement
20.....	53.7	31.1	22.6
25.....	49.0	26.3	22.7
30.....	44.3	22.8	21.5
35.....	39.6	19.8	19.8
40.....	35.1	16.9	18.2
45.....	30.6	14.1	16.5
50.....	26.4	11.8	14.6
55.....	22.3	10.3	12.0
60.....	18.5	8.9	9.6

¹ Data are for all women; similar figures are not available for working women.

NOTE.—Basic data are from U. S. Bureau of the Census and National Office of Vital Statistics.

husbands and who do not have children is probably very similar to that for married women who have completed their families. For example, if a married woman reenters the work force at age 35 and has no more children, her work life expectancy would probably be about the same as that for married women who have no children. Neither of these categories of women is affected by the major factors which cause women to drop out of the labor force—getting married and having children. Moreover, both groups of women typically have working husbands, and are in a better position to stop working than are women without husbands. For example, women with husbands may stop working for minor disabilities, while women without husbands would be forced to continue working under the same circumstances.

Accession and Separation Rates

The same demographic factors which affect the size, composition, and working life potential of the female labor force also influence the movement of women into and out of the work force. In order to make use of the pattern of labor force entry and separation in analyzing the female labor force, rates have been computed to relate movement into the labor force to such demographic factors as age, children growing older, and loss of husband, and movement out of the labor force to such factors as age, marriage, childbirth, and death.⁵ An application of these rates is shown at the end of this part (p.13).

TABLE 8.—Estimated annual accessions to the female labor force by selected demographic factors, 1950

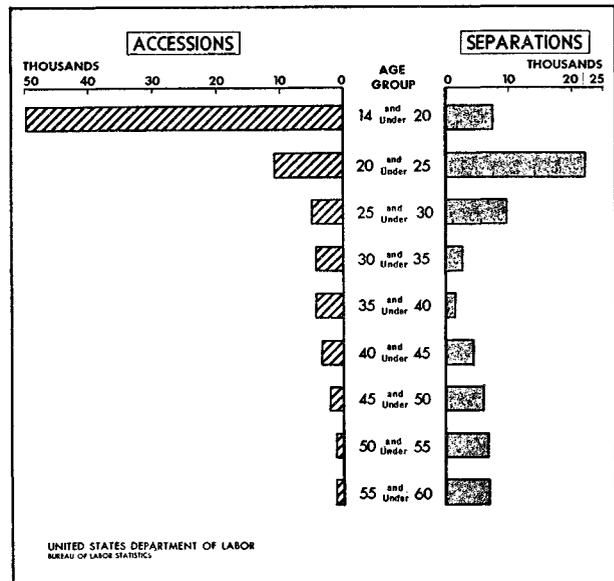
[Per thousand in the stationary female population]

Age group	Total accessions	Accessions related to—		
		Age	Children reaching school age	Loss of husband
14-19	86.3	85.1	0.5	0.7
20-24	23.1	16.9	4.8	1.4
25-29	10.1	3.5	6.0	.6
30-34	9.3	.4	7.7	1.2
35-39	9.4	.2	7.3	1.9
40-44	7.5	—	4.9	2.6
45-49	4.7	—	1.8	2.9
50-54	3.0	—	—	3.0
55-59	3.0	—	—	3.0

Chart 4 shows the relative volume of accessions and separations in each age group of the female

⁵ The method of computing the accession and separation rates is described in the technical appendix.

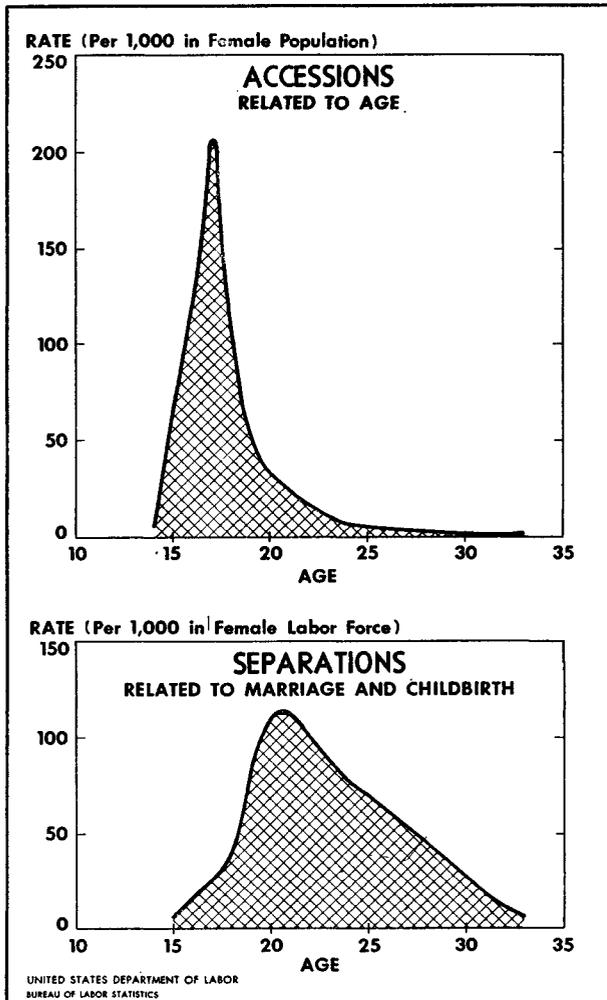
Chart 4. Estimated Annual Number of Accessions and Separations for the Female Labor Force, by Age Group, 1950



stationary population in 1950. Most women who enter a work career begin work between ages 14 and 19. Even at this young age, some women are beginning to leave the work force as they marry and have children. In the age group 20 to 29, there are still substantial numbers of women entering the labor force, but such entries are more than offset by the large number of separations associated with marriage and the birth of children. As a consequence, the female work force actually declines between ages 20 and 30. Between ages 30 and 40, losses due to marriage and childbirth are small, and labor force reentries—most of them associated with children reaching school age—actually exceed losses, with the result that the labor force increases. After age 40, the effect of widowhood in bringing women into the labor force is appreciable, but the effects of other factors causing women to leave the labor force outweigh the entries.

Accessions. Ages 16, 17, and 18 are the most common years for entering the labor force, with 11 percent of the 16-year-olds, 21 percent of the 17-year-olds, and 9 percent of the 18-year-olds beginning a work career at those ages. The accession rate drops rapidly after 18. (See table 8 and chart 5.)

Chart 5. Selected Labor Force Accession and Separation Rates for Women, 1950



Since many women tend to enter or reenter the labor force as their children reach school age, estimated labor force entries associated with this factor—many of which are reentries—occur in greatest volume between ages 25 and 39 (table 8), reaching a peak of almost 8 percent of the population for the age group 30 to 34. The peak in the accession rate associated with children reaching school age occurs approximately 10 years after the peak in labor force separation due to marriage and birth of children, roughly indicating the average length of time that women spend out of the labor force. Such accessions, most of which are reentries, continue to occur in significant volume up to age 50—about 5 years after the end of the fertility period for most women.

Another important factor causing women to go to work is separation from husbands. Accessions associated with separation, widowhood, or divorce become increasingly significant in the ages over 30 primarily because of the high incidence of widowhood.

Separations. While the pattern of labor force accessions for women is somewhat similar to that for men in that most persons of both sexes begin their work careers prior to the age of 20, the pattern of separations is strikingly different. Some women are already beginning to leave the work force between ages 14 and 19 because of marriage and birth of children. One-sixth of those who had begun a work career had already left the work force by age 19. The highest separation rate occurs in the age group 20 to 24 as a result of the high marriage and birth rates in that age span. (See table 9.)

Virtually all separations from the labor force up to age 35 are due to the combined effects of marriage and birth of children, with the latter cause accounting for about three-fourths of the separations due to both of these causes, i. e., three working women wait until their first child is born before leaving the labor force for every one who leaves immediately after marriage. The financial responsibilities of young married couples are probably a major factor in keeping these women at work. About 80 percent of the separations from the labor force associated with marriage take place between ages 19 and 25. Almost 90 percent of the labor force separations due to the birth of children occur between ages 18 and 29; the maximum number of separations associated with this cause is reached at ages 20, 21, and 22, shortly after the median age of first marriage.

TABLE 9.—Estimated annual separations from the female labor force by selected demographic factors, 1950

[Per thousand in the stationary female labor force]

Age group	Total separations	Separations related to—			
		Marriage	Childbirth	Death	Other
14-19	58.3	13.1	36.4	0.8	8.0
20-24	107.6	28.6	71.7	1.0	6.4
25-29	62.3	12.1	43.6	1.2	5.4
30-34	18.1	-----	12.7	1.7	3.7
35-39	9.2	-----	-----	2.4	6.9
40-44	25.5	-----	-----	3.5	21.9
45-49	37.9	-----	-----	5.3	32.6
50-54	49.6	-----	-----	7.7	42.0
55-59	63.3	-----	-----	11.4	51.9

Labor force separations due to death rise constantly over the age range from about 1 per thousand in the age group 20 to 24 to 11 per thousand in the age group 55 to 59.

A large proportion of the separations are attributable to several forces, acting singly or in combination, and unrelated to marriage, childbirth, and death. Losses from these other factors account for the large volume of labor force exits beginning at about age 45, but some occur even in the teens and early twenties. Among the factors are illness and disability, which, in the case of women who have other means of support, may be more likely to result in labor force dropouts than would be the case for male family breadwinners. Another factor which may account for some labor force withdrawals in middle life is the improved earning power of the husband, or the settlement of financial obligations such as home mortgages. Some women may stop working after their children have finished college.

Because women, who are usually secondary wage earners, are not under the same economic pressure to keep working as men, and are subject to greater age discrimination in employment than men, they tend to "retire" at an earlier age than men. A comparison of the rates of labor force withdrawals for men and women between ages 55 and 60 illustrates this point. For men in this age range, there are about 2 withdrawals for every 100 in the labor force and for women, 5 per 100.

Separations associated with age and the other miscellaneous factors reach a significant volume beginning at about age 40, when the rate for these factors is 22 per thousand.

Application of Separation Rates. The rates of accessions and separations can be applied in labor force analysis in several ways. One use to which tables of working life for women, as well as those for men, can be put, is in the estimation of replacement needs for certain occupations. By applying separation rates to the age distributions for various occupations, differential replacement needs due to different age distributions can be estimated. For example, relatively fewer workers probably will be needed to replace teachers leaving the labor force (47 per thousand), compared with necessary replacements for stenographers, typists, and secretaries (59 per thousand). These estimates, of course, are based entirely on differences in age distributions and take no account of the characteristics of the occupation, or of occupational separations due to shifts from one occupation to another. It is also assumed that birth and marriage rates are similar in both occupations. Occupational replacement needs for 10-year periods can be estimated by multiplying the separation rate by 10 if one assumes that the new entrants into the occupation will maintain the 1950 distribution.

III—Changes in Patterns of Working Life, 1940 and 1950

THE COMBINED effect of the changes in marriage and birth rates and socioeconomic environment on the female labor force can be appraised by comparing data for 1940 and 1950 for each of the various demographic groupings of women as shown in the tables of working life for women. In the two preceding parts of this study, marriage and the presence of children were found to be the principal factors affecting the labor force participation of women. While this is always true, changes in social and economic circumstances also affect women's labor force participation rates both directly and because of their influence on the demographic characteristics of the female population.

Socioeconomic Changes

Between 1940 and 1950, the female labor force increased from about 14 to about 18 million. About half of this rise resulted from the increase in the number of women over 14 years of age in the population and half resulted from an increase in the proportion of these women in the labor force—from about 1 in 4 in 1940 to 1 in 3 in 1950. This increase in female labor force participation, during a decade when both marriage and birth rates rose sharply, clearly shows that the proportion of women working outside the home is significantly affected by economic and social changes.

The most important of these changes was the continuing need for workers following World War II. During the war, large numbers of women entered the labor force because of patriotic motivation and the inducement of jobs at good wages. Many continued to work at the end of the war because the sharply increased demand for civilian goods and services and the continuing high level of economic activity created further opportunity for the employment of women. Moreover, acquired skills and work experience made them better qualified for the jobs which were open.

Another factor contributing to the increase in labor force activity of women between 1940 and 1950 was that economic activity in 1940 was at

a low level. About 15 percent of the total work force was unemployed in 1940 compared with about 5 percent in 1950; because of the higher level of unemployment in the earlier year, many women who were available for work did not even look for jobs.

Increased social and business acceptance of working women also contributed to the rise in the female work force between 1940 and 1950. Many jobs which were once thought to be appropriate only for men later became acceptable for women. By 1950, a working wife was generally not considered a reflection on the husband's ability to support his family. Other factors contributing to the rise in the female work rates were that many women were able, because of the high level of employment, to satisfy their desire for a higher level of living by remaining at work. Others had vested interests in pension plans and remained at work as long as they could in order to qualify for private pensions and social security benefits.

Changes in the age pattern of marriage and birth rates also affect the size and composition of the female work force. In 1950, higher marriage rates at lower ages cut the number of single women in the labor force, but this was more than offset by the increased number of married women who were working. Moreover, comparison of the labor force separations associated with marriage revealed that marriage was far less important as a cause for leaving the labor force in 1950 than it was in 1940.

The effect of the high birthrates in 1950 was to increase the number of young married women whose labor force activities were limited by the presence of small children. However, high marriage rates and increased worker rates for women with children in 1950 caused an increase in the size of the married labor force during this period. Another reason for the increase in the size of the married labor force in 1950 was that separation rates associated with the birth of children were higher in that year than in 1940, indicating that in 1950 most married women continued to work until their first child was born. Although the pattern of separations associated with marriage and the birth of children is so strikingly different in the two periods, the combined effect of separations for these two causes was very similar in 1940 and 1950. (See chart 6.)

Stationary Labor Force

Analysis of changes in labor force participation for married women with children 5 years of age and over in 1940 and 1950 illustrates how changes in socioeconomic factors affect the work force. Since most women in this category rely on their husbands' income for support, their propensity to work is affected not so much by economic need as it is by the social and economic circumstances of the time. Most of the increase in the female labor force between 1940 and 1950 was among married women with children over 5 (chart 7).

Among married women with children 5 years of age and over, the largest increase in the size of the labor force occurred between ages 40 and 50. For example, at age 45, the labor force more than doubled as a result of a 75-percent rise in their

worker rate combined with a rise of about 10 percent in their number in the population. (See table 10.) While the increases in the labor force for women with children age 5 and over were very striking, the limiting effects of the responsibilities for the care of children were still very evident in 1950, for only about 1 in 3 of these women aged 30 to 45 were in the work force.

As women with children 5 years of age and over grow older, their children require less immediate attention, and their propensity to work is increasingly affected by employer attitudes toward hiring married women and by the economic situation. The relative increase between 1940 and 1950 in worker rates for these women—about 40 percent at age 35 and about 80 percent at age 50—reflected the more favorable 1950 employment situation.

Chart 6. Selected Labor Force Separations Related to Marriage and Childbirth, 1940 and 1950

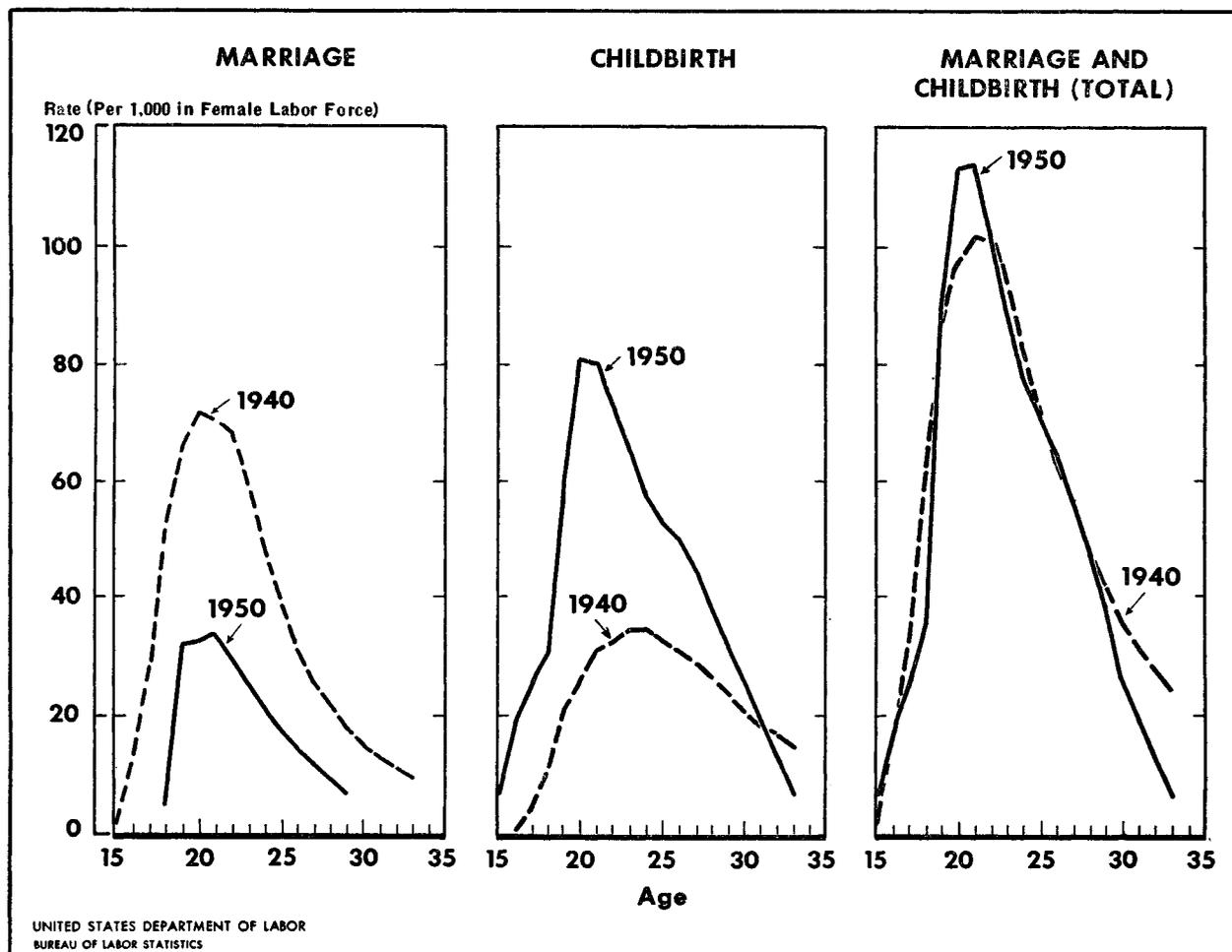


TABLE 10.—Stationary population, labor force participation rates, and labor force for ever-married women, by presence of children, 1950 and 1940

Year of age	Ever-married women		Never mother		With children under 5 years		With children 5 years and over	
	1950	1940	1950	1940	1950	1940	1950	1940
Stationary population								
15.....	1,928	1,221	1,639	1,033	270	181	119	17
20.....	48,491	33,833	20,069	16,123	26,922	16,747	1,500	932
25.....	79,958	66,117	19,966	22,408	49,174	35,108	1,818	8,576
30.....	85,905	76,122	12,314	20,032	49,481	32,656	23,610	23,401
35.....	86,300	78,896	11,011	17,123	34,520	22,722	40,769	39,090
40.....	85,526	79,104	11,156	14,594	19,585	13,131	54,785	51,417
45.....	83,963	77,887	10,952	13,355	7,053	5,296	65,958	59,228
50.....	81,680	75,456	10,654	13,189	817	-----	70,209	62,262
55.....	78,458	71,878	10,234	12,818	-----	-----	68,224	59,051
60.....	73,874	66,555	9,636	11,887	-----	-----	64,238	54,678
Labor force participation rates								
15.....	12.8	2.0	14.1	1.9	5.6	2.2	5.3	-----
20.....	27.5	18.0	51.5	28.2	12.8	6.8	36.6	41.8
25.....	26.0	22.4	54.0	39.7	12.6	8.7	36.6	33.4
30.....	25.6	23.1	52.3	42.1	11.3	7.9	32.8	27.7
35.....	28.4	22.8	48.9	41.6	11.2	7.3	32.7	23.5
40.....	32.4	21.6	46.2	40.4	12.0	6.8	32.5	20.0
45.....	32.4	19.9	42.0	38.5	13.7	6.5	29.8	16.9
50.....	29.1	18.3	36.2	36.7	-----	-----	26.4	14.4
55.....	24.3	16.3	30.0	34.2	-----	-----	22.6	12.4
60.....	19.5	14.0	23.8	30.6	-----	-----	18.3	10.4
Stationary labor force								
15.....	247	24	231	20	15	4	11	-----
20.....	13,347	6,090	9,637	4,554	3,203	1,146	507	390
25.....	20,789	14,817	10,706	8,906	6,154	3,049	3,929	2,862
30.....	21,970	17,500	7,338	8,437	6,130	2,575	8,502	6,488
35.....	24,509	17,981	5,833	7,123	4,191	1,658	14,485	9,200
40.....	27,737	17,051	5,658	5,900	2,580	887	19,499	10,264
45.....	27,178	15,514	4,946	5,138	1,033	344	21,199	10,032
50.....	23,801	13,816	4,094	4,837	-----	-----	19,707	8,979
55.....	19,100	11,704	3,171	4,378	-----	-----	15,929	7,326
60.....	14,441	9,341	2,354	3,637	-----	-----	12,087	5,704

¹ The estimates shown for women aged 15 with children over 5 are overstated because of the method of computation. See table 1, footnote 1 (p. 1).

NOTE.—Basic data from U. S. Bureau of the Census and National Office of Vital Statistics.

Married women with children under 5 years of age (preschool) were a second group for whom worker rates rose sharply between 1940 and 1950—from a level of about 6 to 12 percent—because of greater job opportunities and more liberal social attitudes. Despite this increase, it is important to note again that the presence of children was by far the most important factor determining the level of the rates. In both 1950 and 1940, the rates for these women were far below those of any other demographic group.

For women with preschool children, the increase in the size of the labor force between 1940 and 1950 was strongly affected by changing demographic circumstances as well as by changes in their worker rates. The number of these 25-year-old women in this stationary population, for example, was about 40 percent higher in 1950 than

in 1940 as a result of the higher 1950 marriage and birth rates. This increase in stationary population, combined with the rise in the worker rate from 8.7 to 12.6 percent, resulted in a two-fold increase in the female labor force between 1940 and 1950. Even with this sharp increase in their numbers, however, this group comprised less than 20 percent of the total female work force at that age.

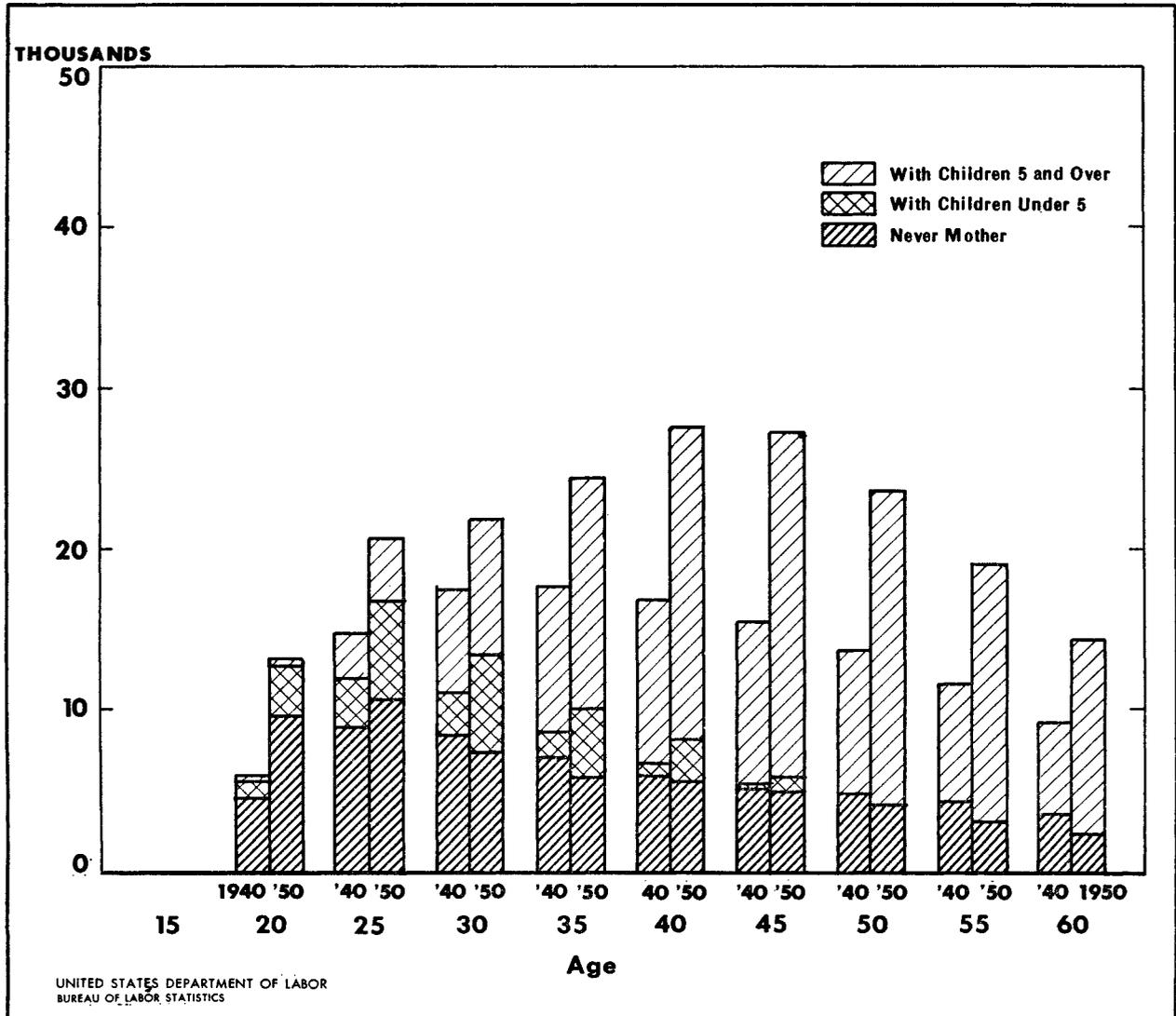
Married women who had never had a child had the greatest absolute increase in worker rates between 1940 and 1950, even though this group at all ages except 20 had the highest worker rates among married women in 1940. The level of labor force participation for these women was not restricted by the responsibility of caring for children, and since many of them relied upon their husbands' income for support, their decisions about employment were frequently made on the basis of ready availability of jobs.

The effect of changes in worker rates and changes in the marriage rates can be illustrated for the women who were never mothers by comparing the 1940 and 1950 stationary labor force at age 20. As a result of the high 1950 marriage rate, there were 24.4 percent more of these women in 1950 than in 1940. This increase in population, together with an increase from 28.2 to 51.5 percent in the worker rate, resulted in a labor force for these women in 1950 that was over twice as high as it was in 1940.

Young single women, whose propensity to work was probably determined by economic need more than for any other group of women, had the smallest changes in worker rates between 1940 and 1950 (table 11). Their worker rates at ages under 35 were generally about the same in 1940 and 1950; at ages over 35, however, they declined more sharply in 1940 than in 1950—probably because the adverse effects of minor disabilities and age on employment were mitigated by the improved 1950 economic situation.

Even though the 1940 and 1950 worker rates did not change for younger single women, the lower age of marriage substantially affected the size of the stationary labor force of single women. At age 20, the number of women in the population who were still single declined about 20 percent between 1940 and 1950, and the single labor force also declined about the same amount. The effect of these declines on the total female work

Chart 7. Stationary Ever-Married Female Labor Force, by Presence of Children, Selected Ages, 1940 and 1950



force was more than offset, however, by the increased worker rates for married women (chart 8).

Another group of women whose worker rates were largely determined by economic need were those in the other marital status group (i. e., the widowed, separated, and divorced). For these women, the worker rates at ages under 40 were actually higher in 1940 than in 1950, probably indicating that their economic need was greater in the earlier period. After age 40, they were higher in 1950 than in 1940, with the greatest increases occurring at the older ages as was also true for single women. Probably because most

women in this other marital status group depend on their own earnings for support, their rates were higher both in 1940 and 1950 than the rates for married women with no children. Although their rates were lower than those for single women in both periods, they were closer to those for single women than any other group.

Female Work Life Expectancy

One of the most significant summary measures of the social and economic well-being of a nation is the average remaining lifetime or life expectancy at birth. This measure when compared with work

TABLE 11.—Stationary female population, labor force participation rates, and labor force, by marital status, 1950 and 1940

Year of age	All women		Single		Married, husband present		Other marital status	
	1950	1940	1950	1940	1950	1940	1950	1940
Stationary population								
15.....	96,401	93,944	94,473	92,723	1,490	1,068	438	153
20.....	96,021	93,204	47,530	59,371	44,030	30,788	4,461	3,045
25.....	95,529	92,214	15,571	26,097	73,082	60,497	6,876	5,620
30.....	94,923	91,055	9,013	14,933	78,345	68,890	7,590	7,232
35.....	94,111	89,655	7,811	10,759	77,584	69,744	8,716	9,152
40.....	92,963	87,893	7,437	8,789	74,835	68,950	10,691	11,154
45.....	91,264	85,590	7,301	7,703	70,529	64,802	13,434	13,085
50.....	88,783	82,466	7,103	7,010	64,936	59,610	16,744	15,846
55.....	85,280	78,213	6,822	6,335	57,902	52,615	20,556	19,263
60.....	80,298	72,421	6,424	5,866	49,200	43,793	24,674	22,762
Labor force participation rates								
15.....	6.4	3.1	6.3	3.1	10.5	0.8	20.8	10.0
20.....	46.9	47.8	66.0	64.8	25.6	14.7	46.0	51.0
25.....	35.5	38.6	79.5	79.7	23.5	18.7	56.8	62.0
30.....	30.6	32.2	79.3	78.8	22.0	18.5	61.2	66.1
35.....	32.4	29.2	78.6	76.2	24.4	17.0	64.4	66.5
40.....	35.9	26.7	75.8	73.0	27.6	15.0	66.3	61.8
45.....	35.7	24.3	74.0	68.6	26.6	12.8	61.8	55.3
50.....	32.4	22.1	69.9	62.9	22.5	10.8	54.9	46.5
55.....	27.5	19.5	63.8	56.0	16.0	8.8	47.3	36.8
60.....	22.4	16.6	55.2	45.7	10.2	7.6	37.1	26.5
Stationary labor force								
15.....	6,170	2,912	5,923	2,888	156	9	91	15
20.....	45,034	44,552	31,687	38,462	11,283	4,537	2,052	1,553
25.....	33,928	35,573	13,139	20,799	16,883	11,333	3,906	3,484
30.....	29,046	29,320	7,076	11,767	17,365	12,717	4,627	4,783
35.....	30,492	26,179	5,911	8,198	18,896	11,894	5,613	6,087
40.....	33,374	23,467	5,637	6,416	20,654	10,158	7,088	6,893
45.....	32,581	20,798	5,403	5,284	18,761	8,278	8,302	7,236
50.....	28,766	18,225	4,965	4,409	14,611	6,448	9,192	7,368
55.....	23,452	15,252	4,352	3,548	9,264	4,615	9,723	7,089
60.....	17,987	12,022	3,546	2,681	5,030	3,309	9,154	6,032

NOTE.—Basic data from U. S. Bureau of the Census and National Office of Vital Statistics.

life expectancy of the female population provides an even better indicator of our economic and social well-being. Higher worker rates for women over 30 years of age in 1950 as compared to 1940 resulted in a lengthening of potential work life by about one-fourth. This increase was three times as great as the gain in life expectancy for women.

The work potential of a girl baby rose from 12.1 years in 1940 to 15.4 years in 1950, an increase of 27 percent; similarly, the average remaining lifetime at birth for the female population rose from about 65.9 to 71 years, an increase of about 8 percent. Thus, assuming constant 1950 death and worker rates at each age, a girl baby could be expected to spend about 22 percent of her lifetime in the labor force as compared with 18 percent in 1940. The greater relative increase in the work potential was mainly due to the higher labor force participation rates for married women, particularly those with children.

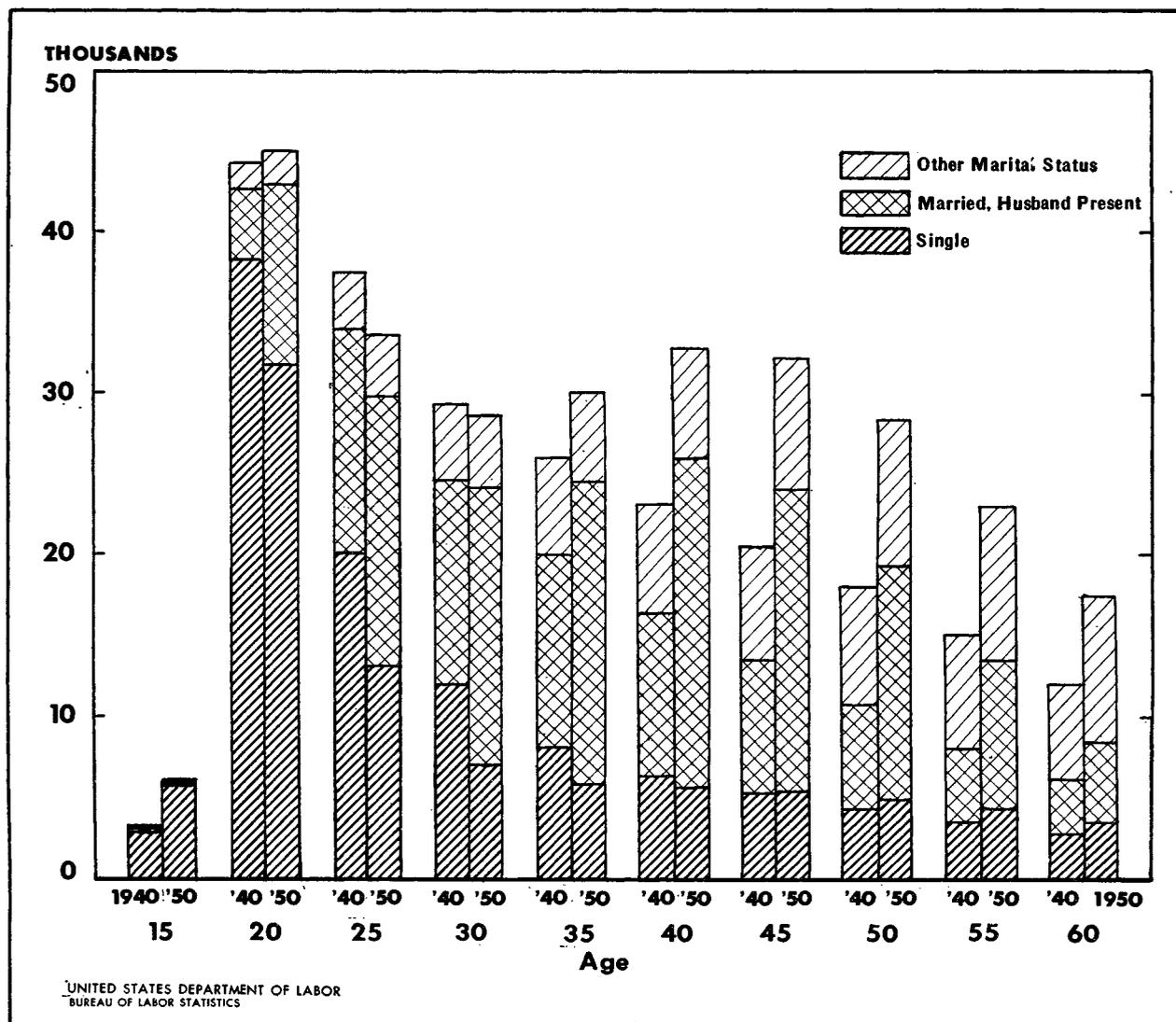
Higher worker rates for married women also brought about a sharp change between 1940 and 1950 in the number of years women could expect to work after marriage. Assuming continuation of 1940 death, marriage, and worker rates at each age, of the 12.1 man-years that would be worked by women, 5.4 years would be worked before marriage, and 6.7 years after marriage. Under 1950 rates, earlier marriages reduced the man-years of work before marriage to 4.6 years and the rise in worker rates for married women increased their work life expectancy after marriage to 10.8 years.

Comparison of the average remaining years of work life in 1940 and 1950 at each age also points up some of the more important changes that have occurred in the female work force during that decade. The 1950 work life potential for women exceeded that for 1940 at all ages. At age 20, for example, this figure rose from 11.9 years in 1940 to 14.5 years in 1950—an increase of 22 percent (table 12). Because most of the increase in labor force participation occurred at ages over 30, the relative increase in work life expectancy was greatest at the older ages. At age 40, for example, the increase between 1940 and 1950 in expected work life was 47 percent as compared with the 22-percent increase at age 20.

Higher marriage rates in 1950 and other changed socioeconomic factors significantly affected the work life potential of single women, which includes the man-years of work done by these women after marriage. For example, the work life potential of women who were single at age 20 was only 1 year higher in 1950 than in 1940, largely because women who were still single at age 20 in 1940 could expect to spend many more years of their life as single women than they could in 1950. In 1950, about half of the 20-year-old women were already married, while in 1940 only 37 percent had married by age 20. In both years, work life expectancy for single women at age 30 was greater than at age 20, because the chances of marriage and leaving the labor force were considerably lower for 30-year-old women than for women at age 20.

The difference in work life expectancy of single women between ages 20 and 30 was much greater in 1950 than in 1940. Single women 20 years of age had a work life expectancy of 15.1 years, and 30-year-old women, 21.6 years in 1950 as com-

Chart 8. Stationary Female Labor Force by Marital Status, Selected Ages, 1940 and 1950



pared with expectancies of 14 years and 15.9 years, respectively, in 1940. This greater difference in 1950 as compared with 1940 resulted partly from higher worker rates for single women at ages over 30 in 1950, and partly from the larger number of single women who could be expected to marry and stop work after age 30 in 1940.

The work life potential of ever-married women (including those widowed, divorced, and separated) was about $1\frac{1}{2}$ times as high in 1950 as in 1940 at all ages as a result of the higher worker rates generally experienced by these women in 1950.

Labor Force Life Expectancy

Work life expectancy for 50-year-old working women was virtually the same in both 1940 and 1950—about 14 years—despite the fact that both life expectancy and the economic situation had improved since 1940 (table 13). It should be kept in mind that average work life expectancy of the female labor force is significantly different from the measure of work life expectancy of the female population which was discussed in the preceding section. Limitations of data and the complicated

TABLE 12.—Average remaining lifetime for all women and average number of years of work remaining, at specified ages, by marital status, 1950 and 1940

Year of age	Average remaining lifetime for all women (in years) ¹		Average number of years of work remaining							
			All women		Single women		Ever married		Other marital status	
	1950	1940	1950	1940	1950	1940	1950	1940	1950	1940
15.....	58.5	55.0	15.8	12.9	16.0	13.0	13.2	8.8	25.6	23.1
20.....	55.7	50.4	14.5	11.9	15.1	14.0	12.2	8.5	24.1	22.0
25.....	49.0	45.9	12.4	9.7	13.3	15.2	10.9	7.5	21.7	19.4
30.....	44.3	41.4	10.9	8.1	21.6	15.9	9.7	6.5	18.9	16.4
35.....	39.6	37.0	9.4	6.6	20.6	15.3	8.4	5.4	15.9	13.3
40.....	35.1	32.7	7.8	5.3	17.6	13.5	7.0	4.4	12.8	10.3
45.....	30.6	28.5	6.1	4.2	14.1	11.2	5.4	3.5	9.7	7.5
50.....	26.4	24.4	4.5	3.1	10.8	8.6	4.0	2.6	7.0	5.2
55.....	22.3	20.5	3.2	2.2	7.8	6.3	2.8	1.9	4.6	3.3
60.....	18.5	16.9	2.0	1.4	5.1	4.0	1.8	1.2	2.6	1.8

¹ Data are for all women; similar figures are not available for working women.

NOTE.—Basic data from U. S. Bureau of the Census and National Office of Vital Statistics.

TABLE 13.—Average remaining lifetime and average number of years of work remaining for working women, 1950 and 1940

Year of age	Average remaining lifetime (in years) ¹		Average number of years of work remaining		Average number of years in retirement	
	1950	1940	1950	1940	1950	1940
50.....	26.4	24.4	13.8	14.0	12.6	10.4
55.....	22.3	20.5	11.3	11.3	11.0	9.2
60.....	18.5	16.9	8.9	8.4	9.6	8.5

¹ Data are for all women; similar figures are not available for working women.

NOTE.—Basic data from U. S. Bureau of the Census and National Office of Vital Statistics.

pattern of work life for women make it impossible to estimate the average remaining work life except for working women over 50 years of age. It is only after that age that it is reasonable to assume

that women who stop work will not return to work at a later age and that very few will begin a work career after that age.

The fact that work life expectancy for 50-year-old women workers in 1940 was as high as in 1950 resulted from the differing economic situations in those years and from the higher proportion of single women in the over-50 female labor force in 1940. Women who reached ages 50 and over and still had a job in 1940 were predominantly those who had to remain at work because of economic need. For those women, retirement possibly took place only when they became disabled or were otherwise forced to retire. For this reason, their work life was relatively long. In 1950, many women 50 years and over were at work because jobs were readily available and their earnings supplemented those of the primary family breadwinners. Frequently, these women voluntarily left the labor force and thus decreased the work life expectancy of working women 50 years of age and over.

For 50-year-old women, retirement life expectancy—i. e., the average length of time workers can expect to live after retirement—rose about 2 years (from 10.4 to 12.6) between 1940 and 1950. While expected work life remained unchanged, life expectancy rose 2 years. At age 60, work life expectancy in 1950 had risen about one-half year above the 1940 figure—substantially less than the 1.5 years' improvement in life expectancy at this age—with the result that retirement life expectancy rose from 8.5 years in 1940 to 9.5 years in 1950.

Technical Appendix

Methods of Deriving Tables of Working Life for Women

This appendix describes the sources and methods of deriving the Tables of Working Life for Women.⁶

It is divided into three major sections. The first describes the derivation and sources of the data presented in tables 1, 2, 3, A-1, A-2, and A-3,

which show the stationary population, the labor force participation rates, and the stationary labor force for women classified by marital status and by presence and absence of children.

The second section deals with the derivation of rates of entry into the labor force and rates of separation from the labor force. The third section describes the methods for estimating various measures of work life expectancy.

Stationary Female Population by Marital Status and Presence and Absence of Children (tables 1 and A-1)

Year of Age (x) (column 1)

The age interval is the interval between two successive birthdays.

Stationary Female Population (L_x) (column 2)

This is an estimate of the number of women surviving at each age from a hypothetical group of 100,000 girl babies born alive. The figures are based on an assumption that the actual death rates at each age experienced by women in 1950 would apply throughout the lives of the hypothetical 100,000 born alive in that year. The stationary female population for 1950 is taken directly from United States Life Tables.⁷ The data for 1940 are also from United States Life Tables.⁸

Stationary Single Population (L_x^s) (Column 3) and Stationary Ever-Married Population (L_x^m) (column 4)

The 1950 stationary female population for each year of age was distributed into single and all other women who have ever been married accord-

ing to the distributions shown in the 1950 census.⁹ The raw data were smoothed in order to eliminate the effects of age misreporting and other chance variations.

As a check on the reasonableness of these figures, first marriages by age were obtained from a report of the National Office of Vital Statistics.¹⁰ The first marriages shown at each age in this report for 1950 were related to the 1950 female population to obtain first marriage rates by age. These rates agreed in general with the rates obtained by taking the first differences in the percent of women who were single at each age from the Census data except at the higher ages where the National Office of Vital Statistics data showed higher marriage rates than the Census data. Since no Census age group showed more than 92 percent married, it was assumed that this would be a maximum. The rates obtained from the vital statistics report cumulated to well over 92 percent, indicating that such rates could not represent the experience of a cohort of women such as is desired for life table purposes.

The distribution of the 1940 stationary female population into single and ever-married women

⁶ 1950 data appear in the text of Pts. I, II, and III; 1940 data appear at the end of the appendix.

⁷ United States Life Tables, 1949-51, Vital Statistics, Special Reports, Vol. 41, No. 1 (table 3).

⁸ United States Life Tables and Actuarial Tables, 1930-41, Sixteenth Census of the United States: 1940 (table 3).

⁹ U. S. Census of Population: 1950, Vol. IV, Special Reports, Pt. 2, Ch. D, Marital Status (table 5).

¹⁰ Demographic Characteristics of Recently Married Persons, Vital Statistics, Special Reports, Vol. 39, No. 3 (table 5).

was obtained from the 1940 Census.¹¹ Irregularities in the proportions of women who were single at older ages made it impossible to use the Census data at these ages. For this reason, the pattern of first marriages in the older ages was taken from Wilson Grabill's article on Attrition Tables for the Single Population.¹² The use of Grabill's higher first-marriage rates for the older ages also had the effect of raising the proportion of women who had ever been married somewhat above that shown by the Census data.

Married, Husband Present (L_x^h) (column 5) and Other Marital Status (L_x^o) (column 6) Stationary Population

The ever-married stationary female population at each year of age was classified into those living with their husbands (married, husband present) and all other ever-married women—married, husband absent, widowed, divorced, and separated—(other marital status).

For 1950, this distribution was obtained by single years of age from the 1950 Census.¹³ These distributions were hand smoothed and applied to the stationary ever-married population to obtain the "married, husband present" group and the "other marital status" group.

A somewhat more indirect method was used for the 1940 table. The ratio of married women (which included married, husband present; and married, husband absent) to ever-married women was obtained for each year of age for the age range 18 to 34.¹⁴ These ratios were used to obtain single-year-of-age ratios of married women, with husband present to ever-married women from data which were available in 5-year age groups. After age 35, the ratios of married women with husband present to ever-married women from the Census were obtained by 5-year age groups¹⁵ and smoothed into a single year pattern by means of

graphic interpolation. These ratios were applied to the stationary ever-married population to obtain the stationary population for married women with husband present. The other marital status population was obtained by deducting the married, husband present, stationary population from the ever-married group.

Stationary Female Population by Child Status, Never Mother (L_x^{mcn}) (column 7), Women With Children Under 5 years ($L_x^{mc < 5}$) (column 8) Women With Children 5 years and over ($L_x^{mc > 5}$) (column 9)

In both 1940 and 1950, the Decennial Census included a tabulation of the number of women at each age who had ever borne a child. By relating the number of these women—designated in this report as ever-mothers—to all women, it was possible to compute the proportion of women in each age who had ever borne a child. These proportions were applied to the stationary female population to obtain the stationary ever-mother population. The married, never-mother population—the women who, up to each age, had never borne a child—was obtained by subtracting the stationary ever-mother population from the ever-married population.

The proportion of women in 1950 who had ever borne a child was available in 5-year age groups from the 1950 Census.¹⁶ A single year of age pattern for these data was obtained by the use of data for white women who had ever borne a child which were available for each year of age.¹⁷

As a check on the pattern of first birthrates at each age implied from the Census data on women who have ever had a child, the number of first births occurring at each year of age, as reported by the National Office of Vital Statistics,¹⁸ was related to the Census estimates of female population for the corresponding age, thus obtaining an alternate set of first birthrates. The cumulative total of these rates at any particular age provides an estimate of the proportion of women at that age who have ever had a child.

The ever-mother proportions obtained from the

¹¹ 1940 Census Reports, Population, Vol. IV, Pt. 1, United States Summary (tables 6 and 7).

¹² Journal of the American Statistical Association, September 1945, Vol. 40, No. 231.

¹³ U. S. Census of Population: 1950, Vol. IV, Special Reports, Pt. 2, Ch. D, Marital Status (table 5).

¹⁴ 1940 Census Reports, Population, Vol. IV, Pt. 1, United States Summary (table 7).

¹⁵ Ibid. (table 9).

¹⁶ U. S. Census of Population: 1950, Vol. IV, Special Reports, Pt. 5, Ch. C, Fertility (table 1).

¹⁷ Ibid. (table 8).

¹⁸ Vital Statistics of the United States, 1950, Vol. II (table 23).

two sources were charted by age. The rates corresponded at the younger ages, but the vital statistics data showed a considerably higher ever-mother ratio at older ages. The vital statistics data implied an ever-mother proportion of over 92 percent for all women—considerably higher than past experience would support. The Census data at ages over 40, on the other hand, showed a very low proportion of women who had ever borne a child—about 75 percent—probably because of the effect of the depression of the 1930's and World War II. Because of those considerations, the Census data on ever mothers were arbitrarily adjusted upward to a maximum of about 80 percent for ages over 40.¹⁹

The stationary married population with children under 5 was estimated from grouped data on the proportions of women with children under 5 shown in the Census Bureau's Special Report on Fertility for 1950.²⁰ These proportions for 5-year age groups were charted and hand smoothed into a single-year-of-age pattern. The single-year-of-age pattern for women in the 15-19 year-old age group was based upon ever-mother data which was available by single year of age.

The stationary married female population with children 5 years of age and over was obtained as the difference between the married women who had ever borne a child and those with children under 5.

The distribution by child status for 1940 was based on Census ever-mother data which was available by 5-year age groups.²¹ Because the Census data excluded substantial numbers of women not reporting on child status, an adjustment was made to correct for this bias by compar-

ing the proportion of women with children under 5 at each age for women reporting their ever-mother status and for women not reporting such status.²²

Vital statistics data on the number of first children born in 1938,²³ which were available by single year of age of mothers, were related to the female population in each year of age to establish a single year of age pattern of first birthrates. These rates were used to adjust the estimates derived from Census grouped age data in order to obtain single year of age estimates of the proportion of women at each age who had ever borne a child.

In order to provide a single-year-of-age pattern consistent with other Census data, of the proportions of women who had ever borne a child in ages 15-19, the proportions of women with children under 5, which were available from unpublished Census data, by single year of age, were used to estimate the ever-mother data. The data on women with children under 5 were adjusted to take account of those children who had died before the Census was taken.

Estimates of the stationary married female population with children under 5 years of age were obtained by applying the proportion of mothers who had children under 5 to the married stationary population. These data which were obtained from the 1940 Decennial Census²⁴ were available in 5-year age groups and were converted to single year data by the use of unpublished single-year-of-age Census data on native white women with children under 5. The number of women with children 5 years of age and over was derived by subtracting the number of women with children under 5 from those who had ever borne a child.

¹⁹ This figure used by P. K. Whelpton as a medium assumption of the proportion of women who would ever have a child in his Cohort Fertility published in 1954.

²⁰ U. S. Census of Population: 1950, Vol. IV, Special Reports, Pt. 5, Ch. C, Fertility (table 34).

²¹ 1940 Census Reports, Population, Differential Fertility 1940 and 1910, Women by Number of Children Ever Born (tables 1, 2, and 3).

²² Ibid. (pp. 408-410).

²³ Vital Statistics of the United States, 1938, Pt. 1 (table 5).

²⁴ 1940 Census Reports, Population, Differential Fertility 1940 and 1910, Women by Number of Children Under 5 Years Old (tables 1 and 2).

Labor Force Participation Rates by Marital Status and Presence of Children (tables 2 and A-2)

The worker rates for 1950 were obtained as follows:

Rates for all women (W_x) (column 2) by single year of age were available from the 1950 Census.²⁵ These worker rates were charted and hand smoothed in order to eliminate the effects of misreporting and other factors causing irregularities.

Worker rates for single women (W_x^s) (column 3), ever married women (W_x^m) (column 4), married women with husband present (W_x^h) and for women in the other marital status group (W_x^o) (column 6) were also available in 5-year age groupings.²⁶ The 5-year rates were smoothed into single-year-of-age patterns.

Worker rates for ever-married women by presence and absence of children were available through age group 55-59 from the 1950 Census. Rates were obtained for married women who had never borne a child (never mothers)²⁷ ($W_x^{m\text{en}}$) (column 7) and for those who have ever borne a child²⁸ and for those with children under 5 ($W_x^{m\text{c}<5}$)²⁹ (column 8). Worker rates for ages 60 and over were estimated from declines in rates for all married women after age 60.

Worker rates for mothers with children 5 years of age and over ($W_x^{m\text{c}>5}$) (column 9) were obtained by taking the difference at each age between the labor force for women who had ever borne a child and the labor force for those who had children under 5 years of age and dividing the resulting labor force by the corresponding population group with children 5 years of age and over.

Labor force participation rates for 1940 in table A-2 were obtained as follows:

Rates for all women (W_x) (column 2) were available, by single years of age, directly from the 1940 Census.³⁰

Rates for single women (W_x^s) (column 3) were also available from the 1940 Census³¹ in various age groupings. These were adjusted to single

year rates by the use of other 1940 Census data and by hand smoothing.³²

Worker rates for ever-married women (W_x^m) (column 4) were obtained from Employment and Personal Characteristics³³ in 5- and 10-year age groups. The rates were smoothed into a single-year-of-age pattern and adjusted so that the single and ever-married labor forces and worker rates were consistent with those for total women.

Worker rates for married women with husband present (W_x^h) (column 5) and for those in the other marital status group (W_x^o) (column 6) were obtained from Employment and Personal Characteristics³⁴ and Employment and Family Characteristics of Women³⁵ by 5- and 10-year age groups. They were adjusted into a single year of age pattern by hand smoothing.

Worker rates for women who had never borne children (W_x^{en}) (column 7) (never mothers) were estimated by the use of several relevant sets of data. Worker rates for married women who had no children under 10 were available in varying age groups to age 64³⁶ as were worker rates by selected age groups for the wives of heads of families without children under 10 and without children under 18.³⁷ After adjusting the data on wives of heads of families for an assumed 3-year difference between the ages of husbands and their wives, the differences between these two rates at corresponding ages were smoothed into a single year pattern. These differences were added to the worker rates for married women with no children under 10 to obtain estimated worker rates for married women with no children under 18.

Up to age 35, these rates may be considered as equivalent to rates for women who have never had a child. After age 35, the married female work force who have no children under 18 cannot be so considered because increasingly large numbers of women over 35 have children over 18 years of age. The estimates of worker rates over age 35 for the "never mother" group were made by

²⁵ U. S. Census of Population: 1950. Vol. IV, Special Reports, Pt. 1, Ch. A, Employment and Personal Characteristics (table 1).

²⁶ Ibid. (table 10).

²⁷ U. S. Census of Population: 1950. Vol. IV, Special Reports, Pt. 5, Ch. C, Fertility (tables 24 and 26).

²⁸ Ibid. (tables 24 and 26).

²⁹ Ibid. (tables 46 and 47).

³⁰ 1940 Census Reports, Population, Labor Force, Employment and Personal Characteristics (table 2).

³¹ Ibid. (table 7).

³² 1940 Census Reports, Population, Labor Force, Employment and Family Characteristics of Women (table 2).

³³ Op. cit. (table 7).

³⁴ Op. cit. (table 7).

³⁵ Op. cit. (table 2).

³⁶ 1940 Census Reports, Population, The Labor Force, Employment and Family Characteristics of Women (table 2).

³⁷ 1940 Census Reports, Population, Families, Employment status (table 11).

relating them to the pattern of decline in the worker rates after age 35 for single women.

Worker rates for married women with children under 5 ($W_x^{mc<5}$) (column 8) were obtained from Employment and Family Characteristics of Women³⁸ by age groups, and were adjusted into single year patterns by hand smoothing.

Worker rates for married women with children 5 years of age and over ($W_x^{mc>5}$) (column 9) were obtained as follows:

Labor force data for married women who had never had a child were subtracted from all married working women to obtain the married labor force for those who had ever borne a child (ever mothers). Labor force data for married women with children under 5 were subtracted from the ever-mother group to obtain the married labor force with children over 5. The labor force data were divided by the corresponding population to obtain worker rates.

Stationary Female Labor Force by Marital Status and Presence of Children (tables 3 and A-3)

Labor force data for both the 1950 and 1940 tables were obtained by multiplying the population figure in table A-1 by the corresponding worker rate in table A-2. One group—married women with children over 5—was obtained by subtracting the labor force for women with children under 5 from the labor force for women who

had ever borne a child. In some instances, minor inconsistencies appear between the worker rate and the labor force tables because labor force data were forced to add to group totals. The symbols used are the same as for the corresponding stationary population groups except the letter "W" follows the capital "L."

Labor Force Accessions and Separations Associated With Various Demographic Factors (tables 8, 9, and A-4)

Labor force accessions and separations for 1950 are shown in the text of this bulletin. Data for 1940 are presented at the end of this appendix.

Separations associated with marriage were computed by applying the first marriage rate for single women to the single labor force to obtain the number of marriages occurring at each year of age among single women in the labor force. This computation gives the number of single women workers who leave the single labor force. However, some single women who marry continue to work after marriage and become a part of the stationary married labor force. In order to estimate the numbers in the single labor force who marry and leave the labor force, the following formula was used:

$$S_x^m = MR_x \left(1 - \frac{W_{x+1}^{men}}{W_x^s} \right)$$

Where x is attained age in years.

MR_x is the first marriage rate for single women.

W_x^{men} is the worker rate for women married once, husband present, who have never borne a child.

W_x^s worker rate for single women.

The first marriage rates at each age for all women were computed from the first differences in the percent single at each age in the stationary single population. The first marriage rates for single women were computed by dividing these first differences by the percent single at each age.

The computation of the number of separations was based upon the following major assumptions:

1. The marriage rate for the single female labor force is the same as the rate for the single population.

2. The worker rates for women married once, with husband present, who have no children approximates the worker rates of newly married women.

Separations associated with childbirth were estimated from the following formula:

$$S_x^c = BR_x \left(1 - \frac{W_{x+1}^{mc<5}}{W_x^{men}} \right)$$

Where x = age in years.

BR is the birthrate for the married never-mother population.

$W_x^{mc<5}$ is the worker rate for ever-married women with children under 5.

³⁸ Op. cit. (table 2).

W^{mc} is the worker rate for the ever-married never-mother population.

The rates so obtained were applied to the ever-married, never-mother labor force to get separations associated with the birth of a first child. First birthrates used in this computation were obtained as the first differences in the proportion of all women who have never had a child. These first differences were related to the proportions of women in each age who have never had a child to get the first birthrate for never mothers. The following major assumptions were made in this computation.

1. Birthrates are the same for the married, never-mother labor force as they are for that population group.

2. The worker rate for married women with children under 5 is a reflection of the level of labor force activity of mothers immediately after their first child is born.

Separations due to death for all marital status groups were computed by applying death rates for all women to each of the marital status stationary population as shown in table A-1. No allowance was made for differences in death rates by marital status.

Entries or reentries of women into the labor force associated with children reaching school age were computed by using the following formula:

$$A_x^{ca} = [(L_{x+1}^{mc>5}) - (L_x^{mc>5}) (1 - DR_x)] [W_{x+1}^{mc>5} - W_x^{mc<5}]$$

Where x is attained by age in years.

$L_x^{mc>5}$ is the stationary ever-married female population with children 5 and over.

DR_x is the death rate.

$W_x^{mc<5}$ is the worker rate for ever-married women with children under 5.

$W_x^{mc>5}$ is the worker rate for ever-married women with children 5 years of age and over.

No allowance was made in these estimates for the women who reenter the population group "with children under 5" by having a child 5 years or more after a previous child was born.

The major assumption implicit in these estimates is that the worker rates for women with children 5 years of age and over can validly be used to indicate the labor force status of women whose children attain school age.

Labor force entries or reentries associated with the loss of a husband were computed for 1940 by the following formula:

$$A_x^{lh} = [(L_{x+1}^h) - (L_x^h) (1 - DR_x)] [W_x^o - W_x^h + 1]$$

Where x is attained age in years.

L_x^h is the stationary female population with husband present.

DR_x is the death rate.

W_x^o is the worker rate for women in the other marital status group.

W_x^h is the worker rate for married women with husband present.

The formula for 1950 was modified slightly to take data on worker rates, by duration of marital status into account. The formula was the same except the worker rate for women in other marital status from 2 to 4 years³⁹ was substituted for the rate for all women in other marital status.

Accessions and separations associated with age for the single population were obtained from age-to-age changes in the stationary single labor force after allowing for deaths and for separations associated with marriage.

Accessions associated with age and separations for all other causes for the married population were computed from age-to-age changes in the stationary married population after allowing for separations due to death and to the birth of children, for entries or reentries associated with children reaching school age and with the loss of a husband. Because the accessions and separations derived in this way are residuals, there are occasional variations in the single year of age pattern of accessions and separations which are attributed to chance variations. For this reason, the figures were combined into 5-year age groupings.

Work Life Expectancy (tables 4, 5, 6, 7, 12, and 13)

Average Number of Years of Work Remaining—All Women, 1940

The computation of work life expectancies were essentially the same for both 1940 and 1950. The tables showing the computations relate to 1940.

Table A-5 illustrates the computation of the average number of years of work remaining for all women in 1940.

³⁹ U. S. Census of Population: 1950, Vol. IV, Special Reports, Pt. 2, Ch. E, Duration of Current Marital Status (tables 15, 20, 25, and 30).

The stationary population (column 2) is the same as the stationary population for all women and was taken directly from the United States Life and Actuarial Table for 1939-41.

The labor force participation rate (column 3) is the same as the rate for all women shown in table A-2. The derivation of this column is described in the section on labor force participation rates.

Stationary labor force (column 4) was derived by multiplying column 2 by column 3.

The number living of 100,000 born alive at the beginning of the year of age (column 5) was also taken directly from the United States Life and Actuarial Tables for 1939-41.

The number of years of work expected in all subsequent ages from those living at each age (column 6) was computed by summing all of the stationary labor forces in column 4 at all older ages. The figure opposite age 64, for instance, is the number in the stationary labor force at age 65 and over plus those in the labor force at age 64.

The average number of years of work expected from women at specified ages (column 7) was obtained by dividing the item in column 6 by the item in column 5.

The basic assumption necessary in making the estimates of the average number of years of work remaining for all women is that each age group in the female population will experience, during their remaining years of life, the labor force participation rates shown for all women at each older age.

The Average Number of Years of Work Remaining for Women at Work

These figures were derived by dividing the items in column 6 in table A-5 by the number at work at the beginning of each year of age which is obtained by interpolation between the stationary labor forces at ages $x-1$ and x .

The principle assumptions made in preparing these estimates are as follows:

1. Age-to-age declines in worker rates for all women after age 50 show the extent of retirement from the labor force.

2. All women who stop working after the age of 50 never return to work, and no women enter the work force after that age.

⁴⁰ 1950 Census of Population, Vol. IV, Special Reports, *Employment and Personal Characteristics and Duration of Current Marital Status*.

Average Number of Years of Work Remaining—Ever-Married Women

The computation for this group was the same as for all women except that worker rates for ever married were used in column 3. The following major assumptions apply to this computation:

1. Death rates at each year of age are the same for married women as for all women.

2. The married population at each age will experience during the rest of their lives the worker rates that were experienced by all married women at each age shown in the 1940 and 1950 Censuses.

3. Women who marry at any age take on the labor force characteristics of married women in that age.

Examination of 1950 Census data showed that women who had been married less than 2 years had considerably higher worker rates than all married women at comparable ages. By the time these women had been married 2 to 4 years, their rates were virtually the same as for all married women.⁴⁰ Since worker rates for women who had just been married were somewhat higher than for those who had been married for a few years, the work life expectancy of newly married women was biased downward because of the third assumption.

Average Number of Years of Work Remaining for Ever-Married Women at Work

For this computation also, the method was exactly the same as for all women except that the worker rates for ever-married women were used rather than the rates for all women. The major assumptions are the same as in computing work life expectancy for all women at work.

Average Number of Years of Work Remaining for Single Women in 1940

Table A-6 shows the method of computation.

Stationary single population (column 2). This column is the same as is shown in table A-1.

Labor force participation rate for single women (column 3) is the same as the labor force participation rate for single women shown in table A-2.

Stationary labor force, single women (column 4), was obtained by multiplying column 2 by column 3.

Number of years of work expected in all subsequent ages from single women who remain single

out of 100,000 born alive (column 5) was computed from column 4 by cumulating the numbers in the stationary labor force from the oldest age, down the age range.

The first marriage rate for single women (column 6) was the same as was used in estimating separations from the single labor force associated with marriage. (See p. 25.)

Expected marriages in each age from 100,000 girl babies born alive (column 7) was obtained by multiplying column 2 by column 6 at corresponding ages.

Expected number of years of work for ever-married women (column 8) is the average work life expectancy for married women discussed previously. (See p. 27.)

Number of years each cohort of newly married women will work (column 9). Figures in this column were obtained by multiplying column 7 by column 8. The figures represent the total number of years that will be worked by each cohort of newly married women until they die or retire.

Number of years of work expected from all cohorts of married women subsequent to each age (column 10). The figures in this column were obtained by adding the figures in column 9 down the age range from age 64 to age 14.

Total number of years of work expected in all subsequent ages from each cohort of single women (column 11). This is the sum of the items for each age in column 5 plus column 10.

Number living of 100,000 born alive and single as the beginning of year of age (column 12). This column was obtained from column 2 by interpolating between consecutive ages of the stationary single population.

Average number of years of work expected from single women at specified ages (column 13). This was obtained by dividing the total number of years of work expected as indicated in column 11 by the number living of 100,000 born alive and single in column 12.

The estimates of the work life expectancy for single women were based upon the following major assumptions: (1) The single population at each age will be subject during the rest of their lives to the 1950 death rates at each age for all women, (2) the 1950 marriage rates at each age will remain unchanged during the rest of their

lifetime, (3) the labor force participation rates at each age for single women in 1950 will apply to each age group of women that remains single, (4) the work life expectancy of women marrying at each age is the same as for all married women at that age.

Average Number of Years of Work Remaining for Single Working Women

The computation of this measure was similar to that for the female population. A separate table was not prepared to show the computation, but the procedure can be described by referring to table A-5. Column 2 is the same as in table A-5.

Column 3 would be the worker rates for single women. For ages prior to age 27—the age at which the worker rate reaches a maximum—the worker rate is held constant at the maximum level. Column 4 would be obtained by multiplying column 2 by column 3. Column 5 would be called “number at work of 100,000 born alive at beginning of year of age.” It would be obtained by interpolating in column 4 between ages $x-1$ and age x . Column 6 would be derived as in table A-5. Column 7 would be called “number of years of work remaining for working women.” It would be obtained by dividing the item in column 6 by the corresponding item in column 7.

The following major assumptions were made in this computation: (1) Death rates for single women at each age are the same as for all women; (2) worker rates at each age for women who remain single are the same as for all single women in corresponding ages; (3) the work career of young single women who enter the labor force, and who remain single, is continuous until they die or retire. In the computation, this assumption involves holding the worker rate constant at the maximum level from age 14 to the age when it reaches the maximum level.

Average Number of Years of Work Remaining for Women in the Other Marital Status Group

The computation for this group was exactly the same as for all women (table A-5) except that the worker rates for the other marital status group were used in place of the worker rates for all women. The assumptions upon which this computation was based are essentially the same as

those for all married women but with one additional assumption. Women who enter the other marital status group remain in that group—that is, no allowance is made for the possibility of remarriage.

Average Number of Years of Work Remaining for Working Women, Married Once, Living With Their Husbands, and Who Have Never Had a Child

The computation of the measure was exactly the same as for single women except that worker rates for these women were used instead of the

rates for single women. Worker rates were obtained from the 1950 Census.⁴¹ The following major assumptions were made in preparing these estimates: (1) Death rates for these women are the same as for all women; (2) young women in this category who begin to work, continue to work until they die or retire; (3) the worker rates for the women who remain in this category all their lives are the same at each age as for women who leave this category at older ages by having a child or because of widowhood or divorce.

⁴¹ U. S. Census of Population, 1950, Vol. IV, Special Reports, Pt. 5, Ch. C, Fertility (tables 25 and 27).

TABLE A-1.—Stationary female population by marital status and presence of children, 1940

(1) Year of age x to x+1	(2) All women L _x	(3) Single women L _x ^s	(4) Ever married by presence or absence of husband			(7) Ever married by child status		
			Total L _x ^m	Married, husband present L _x ^b	Other marital status L _x ^o	Never mother I _x ^{mcn}	With children under 5 years L _x ^{mc} <5	With children 5 years and over L _x ^{mc} >5
14	94,049	93,767	282	243	39	282		
15	93,944	92,723	1,221	1,068	153	1,033	181	17
16	93,822	90,257	3,565	3,162	403	2,627	900	138
17	93,686	85,254	8,432	7,547	885	5,528	2,782	122
18	93,536	77,541	15,995	14,411	1,584	9,259	6,445	290
19	93,377	68,539	24,838	22,503	2,335	12,886	11,425	560
20	93,204	59,371	33,833	30,788	3,045	16,123	16,747	932
21	93,024	50,605	42,419	38,729	3,690	18,325	21,973	1,140
22	92,831	42,702	50,129	45,868	4,261	20,241	26,518	1,342
23	92,633	35,849	56,784	52,014	4,770	21,584	30,379	1,617
24	92,427	30,316	62,111	56,894	5,217	22,275	33,291	1,962
25	92,214	26,097	66,117	60,497	5,620	22,408	35,108	2,317
26	91,998	22,724	69,274	63,316	5,958	22,265	35,607	2,682
27	91,774	20,099	71,675	65,439	6,236	21,841	35,479	3,057
28	91,542	18,034	73,608	66,966	6,542	21,240	34,843	3,452
29	91,304	16,343	74,961	68,065	6,896	20,635	33,882	3,867
30	91,055	14,933	76,122	68,890	7,232	20,032	32,656	4,302
31	90,798	13,801	76,997	69,451	7,546	19,428	31,030	4,757
32	90,530	12,855	77,675	69,752	7,923	18,828	29,128	5,232
33	90,251	12,003	78,248	69,954	8,294	18,318	27,074	5,727
34	89,959	11,335	78,624	69,897	8,727	17,823	24,834	6,242
35	89,655	10,759	78,896	69,744	9,152	17,123	22,722	6,777
36	89,335	10,274	79,061	69,495	9,566	16,528	20,714	7,342
37	89,001	9,790	79,211	69,230	9,981	16,022	18,773	7,927
38	88,650	9,397	79,253	68,871	10,382	15,517	16,802	8,532
39	88,281	9,093	79,188	68,418	10,770	15,007	14,887	9,157
40	87,893	8,789	79,104	67,950	11,154	14,594	13,131	9,812
41	87,484	8,486	78,998	67,464	11,534	14,257	11,534	10,487
42	87,052	8,270	78,782	66,886	11,896	13,925	9,927	11,182
43	86,593	8,053	78,540	66,288	12,252	13,679	8,325	11,907
44	86,107	7,826	78,271	65,591	12,680	13,519	6,810	12,652
45	85,590	7,703	77,887	64,802	13,085	13,355	5,296	13,427
46	85,040	7,589	77,471	63,914	13,557	13,264	3,951	14,252
47	84,454	7,432	77,022	63,004	14,018	13,263	2,850	15,127
48	83,831	7,293	76,538	61,996	14,542	13,245	1,837	16,052
49	83,169	7,153	76,016	60,813	15,203	13,221	988	17,027
50	82,466	7,010	75,456	59,610	15,846	13,189		18,052
51	81,717	6,864	74,853	58,385	16,408	13,152		19,127
52	80,921	6,716	74,205	56,989	17,216	13,116		20,252
53	80,094	6,566	73,508	55,572	17,936	13,056		21,427
54	79,173	6,413	72,760	54,133	18,627	12,988		22,652
55	78,213	6,335	71,878	52,615	19,263	12,818		23,927
56	77,193	6,253	70,940	51,006	19,834	12,657		25,252
57	76,107	6,165	69,942	49,379	20,563	12,482		26,627
58	74,952	6,071	68,881	47,666	21,215	12,294		28,052
59	73,726	5,972	67,754	45,802	21,952	12,097		29,527
60	72,421	5,866	66,555	43,793	22,762	11,887		31,052
61	71,039	5,754	65,285	41,652	23,633	11,642		32,627
62	69,571	5,635	63,936	39,385	24,551	11,405		34,252
63	68,016	5,509	62,507	37,129	25,378	11,148		35,927
64	66,370	5,376	60,994	34,767	26,227	10,873		37,652
65 and over ²	889,353	72,038	817,315	237,695	529,620	145,853		671,462

¹ See footnote 1, table 1 (p. 1). ² See footnote 2, table 1 (p. 1).

TABLE A-2.—Labor force participation rates by marital status and presence of children, 1940

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year of age	All women	Single women	Ever married by presence or absence of husband			Ever married by child status		
			Total	Married, husband present	Other marital status	Never mother	With children under 5 years	With children 5 years and over
x to x+1	W_x	W_x^s	W_x^m	W_x^h	W_x^o	W_x^{men}	$W_x^{mo < 5}$	$W_x^{mo > 5}$
14.....	1.6	1.6						
15.....	3.1	3.1	2.0	.8	10.0	1.9	2.2	
16.....	8.8	9.0	4.0	2.6	15.0	4.4	2.9	2.6
17.....	18.0	19.1	7.0	5.2	22.0	8.6	3.6	8.2
18.....	35.4	40.4	11.0	8.6	33.0	15.4	4.4	15.9
19.....	45.2	55.8	16.0	12.9	45.0	24.3	5.5	38.6
20.....	47.8	64.8	18.0	14.7	51.0	28.2	6.8	41.8
21.....	47.7	71.3	19.5	16.2	54.0	31.0	7.9	39.3
22.....	46.7	76.9	21.0	17.7	57.1	34.4	8.7	37.9
23.....	44.0	79.2	21.8	18.4	59.1	36.5	8.9	36.8
24.....	41.0	79.4	22.2	18.7	60.6	38.2	8.8	35.6
25.....	38.6	79.7	22.4	18.7	62.0	39.7	8.7	33.4
26.....	36.6	79.8	22.4	18.8	63.1	41.0	8.5	30.8
27.....	35.0	79.8	22.4	18.8	64.1	41.8	8.3	29.6
28.....	33.9	79.7	22.6	18.8	64.9	42.2	8.1	28.8
29.....	33.0	79.3	22.9	18.6	65.6	42.2	8.0	28.3
30.....	32.2	78.8	23.1	18.5	66.1	42.1	7.9	27.7
31.....	31.4	78.3	23.0	18.3	66.6	42.1	7.7	27.0
32.....	30.8	77.8	23.0	18.1	66.7	42.1	7.5	26.2
33.....	30.2	77.3	23.0	17.8	66.8	42.0	7.4	25.3
34.....	29.7	76.8	22.9	17.4	66.7	41.8	7.3	24.4
35.....	29.2	76.2	22.8	17.0	66.5	41.6	7.3	23.5
36.....	28.7	75.6	22.6	16.7	65.8	41.4	7.1	22.9
37.....	28.2	75.0	22.4	16.3	64.8	41.1	7.0	22.2
38.....	27.7	74.4	22.2	15.9	63.8	40.9	6.9	21.4
39.....	27.2	73.7	21.9	15.4	62.8	40.7	6.9	20.7
40.....	26.7	73.0	21.6	15.0	61.8	40.4	6.8	20.0
41.....	26.2	72.3	21.2	14.5	60.7	40.1	6.6	19.4
42.....	25.7	71.5	20.9	14.0	59.5	39.7	6.6	18.7
43.....	25.2	70.6	20.5	13.6	58.2	39.3	6.6	18.1
44.....	24.7	69.8	20.2	13.1	56.8	38.9	6.5	17.4
45.....	24.3	68.6	19.9	12.8	55.3	38.5	6.5	16.9
46.....	23.9	67.5	19.6	12.4	53.7	38.0	6.3	16.5
47.....	23.5	66.4	19.4	12.1	52.0	37.7	6.2	16.0
48.....	23.1	65.3	19.0	11.8	50.2	37.4	6.0	15.5
49.....	22.7	64.2	18.8	11.4	48.4	37.0	6.0	15.1
50.....	22.1	62.9	18.3	10.8	46.5	36.7		14.4
51.....	21.5	61.6	17.8	10.3	44.6	36.3		13.9
52.....	21.0	60.3	17.4	9.8	42.7	35.8		13.5
53.....	20.5	58.9	17.1	9.4	40.8	35.3		13.1
54.....	20.0	57.5	16.7	9.1	38.8	34.8		12.8
55.....	19.5	56.0	16.3	8.8	36.8	34.2		12.4
56.....	19.0	54.5	15.9	8.5	34.8	33.5		12.1
57.....	18.5	53.0	15.5	8.2	32.8	32.7		11.7
58.....	18.0	51.2	15.1	8.0	30.9	32.1		11.4
59.....	17.4	48.7	14.6	7.9	28.7	31.6		11.0
60.....	16.6	45.7	14.0	7.6	26.5	30.6		10.4
61.....	15.7	43.2	13.3	7.0	24.4	29.2		9.8
62.....	14.7	40.6	12.4	6.2	22.3	27.5		9.1
63.....	13.6	37.8	11.5	5.6	20.1	25.6		8.4
64.....	12.5	34.9	10.5	5.0	17.9	23.2		7.8
65 and over ¹	6.0	17.0	5.0	2.8	6.2	12.8		3.3

¹ See footnote 2, table 1 (p. 1).

TABLE A-3.—Stationary female labor force by marital status and presence of children, 1940

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year of age	All women	Single women	Ever married by presence or absence of husband			Ever married by child status		
			Total	Married, husband present	Other marital status	Never mother	With children under 5 years	With children 5 years and over
x to x+1	LW _x	LW _x ^s	LW _x ^m	LW _x ^h	LW _x ^o	LW _x ^{mn}	LW _x ^{mo <5}	LW _x ^{mo >5}
14	1,505	1,502			15			
15	2,912	2,888	24	9	60	20	4	
16	8,256	8,113	143	83	195	116	26	11
17	16,863	16,273	586	391	523	475	101	110
18	33,112	31,353	1,759	1,236	1,062	1,428	285	146
19	42,206	38,232	3,974	2,912	1,553	3,135	623	1216
20	44,552	38,462	6,090	4,537	1,993	4,654	1,140	390
21	44,372	36,100	8,272	6,279	2,432	5,689	1,741	842
22	43,352	32,825	10,527	8,095	2,820	6,966	2,295	1,266
23	40,759	28,392	12,367	9,547	3,160	7,884	2,712	1,771
24	37,860	24,071	13,789	10,629	3,494	8,517	2,937	2,335
25	35,573	20,799	14,817	11,333	3,757	9,125	3,049	2,862
26	33,631	18,134	15,649	11,892	3,996	9,130	3,012	3,512
27	32,119	16,039	16,299	12,305	4,247	8,971	2,881	4,232
28	30,994	14,373	16,804	12,557	4,527	8,698	2,712	5,002
29	30,122	12,690	17,196	12,669	4,785	8,437	2,575	5,786
30	29,320	11,767	17,600	12,717	5,024	8,182	2,391	6,488
31	28,511	10,806	17,725	12,701	5,287	7,924	2,197	7,152
32	27,893	10,001	17,889	12,602	5,536	7,686	2,001	7,768
33	27,256	9,278	17,989	12,453	5,824	7,400	1,822	8,302
34	26,718	8,705	18,013	12,189	6,087	7,123	1,658	8,791
35	26,179	8,188	17,981	11,894	6,291	6,840	1,474	9,200
36	25,639	7,767	17,872	11,581	6,468	6,591	1,313	9,558
37	25,098	7,342	17,756	11,288	6,624	6,341	1,165	9,847
38	24,556	6,991	17,565	10,941	6,764	6,102	1,020	10,188
39	24,012	6,702	17,310	10,546	6,893	5,900	887	10,264
40	23,467	6,416	17,051	10,138	7,001	5,716	767	10,303
41	22,921	6,135	16,786	9,735	7,078	5,534	656	10,289
42	22,372	5,913	16,459	9,331	7,131	5,378	548	10,210
43	21,821	5,685	16,136	8,912	7,202	5,261	446	10,107
44	21,268	5,454	15,814	8,512	7,236	5,138	344	10,032
45	20,798	5,284	15,514	8,275	7,289	5,045	250	9,921
46	20,325	5,109	15,216	7,936	7,300	4,952	177	9,799
47	19,847	4,935	14,912	7,623	7,358	4,898	111	9,540
48	19,365	4,762	14,603	7,303	7,368	4,837	59	9,330
49	18,879	4,592	14,287	6,929	7,345	4,770		8,979
50	18,225	4,409	13,816	6,448	7,351	4,700		8,243
51	17,569	4,228	13,341	5,996	7,318	4,612		7,936
52	16,993	4,050	12,943	5,592	7,227	4,519		7,629
53	16,415	3,867	12,548	5,230	7,089	4,378		7,326
54	15,835	3,687	12,148	4,921	6,937	4,234		7,025
55	15,252	3,548	11,704	4,615	6,745	4,085		6,728
56	14,667	3,408	11,259	4,322	6,550	3,945		6,438
57	14,080	3,267	10,813	4,068	6,309	3,821		6,099
58	13,491	3,108	10,383	3,833	6,032	3,637		5,704
59	12,828	2,908	9,920	3,611	5,766	3,404		5,263
60	12,022	2,681	9,341	3,309	5,475	3,142		4,797
61	11,153	2,486	8,667	2,901	5,101	2,849		4,319
62	10,227	2,288	7,939	2,464	4,695	2,522		3,898
63	9,250	2,082	7,168	2,067	4,286	2,197		3,498
64	8,296	1,876	6,420	1,725	3,886	1,872		3,102
65 and over ²	53,137	12,246	40,891	8,055	32,836	18,729		22,162

¹ See footnote 1, table 1 (p. 1). ² See footnote 2, table 1 (p. 1).

TABLE A-4.—Estimated annual accessions to and separations from the female labor force by selected demographic factors, 1940

Age group	Total accessions	Accessions related to—			Age group	Total separations	Separations related to—			
		Age	Children reaching school age	Loss of husband			Marriage	Childbirth	Death	Other
14-19	88.1	86.1	0.4	1.6	14-19	62.5	48.4	12.5	1.6	-----
20-24	25.1	18.2	4.6	2.3	20-24	97.6	64.1	31.5	2.1	-----
25-29	8.9	.4	6.8	1.7	25-29	64.2	27.4	28.5	2.5	5.9
30-34	8.5	-----	6.3	2.2	30-34	49.7	11.5	16.8	3.0	18.4
35-39	6.6	-----	4.3	2.3	35-39	45.1	5.8	10.8	3.8	24.6
40-44	4.7	-----	2.4	2.3	40-44	42.2	2.9	6.7	5.1	27.5
45-49	4.1	-----	1.2	2.9	45-49	43.3	1.5	.8	7.1	33.8
50-54	3.3	-----	-----	3.3	50-54	50.5	.8	-----	10.1	39.6
55-59	2.9	-----	-----	2.9	55-59	61.8	.4	-----	14.6	46.8

TABLE A-5.—Average number of years of work remaining, all women, 1940

(1) Year of age	(2) Stationary population	(3) Labor force participation rate	(4) Stationary labor force	(5) Number living of 100,000 born alive at beginning of year of age	(6) Number of years of work expected in all subsequent ages from those living out of 100,000 born alive	(7) Average number of years of work expected from women at specified ages
14	94,049	1.6	1,505	94,099	1,214,481	12.9
15	93,944	3.1	2,912	93,996	1,212,976	12.9
16	93,822	8.8	8,256	93,883	1,210,064	12.9
17	93,686	18.0	16,863	93,754	1,201,808	12.8
18	93,536	35.4	33,112	93,611	1,184,945	12.7
19	93,377	45.2	42,206	93,456	1,151,833	12.3
20	93,204	47.8	44,552	93,290	1,109,627	11.9
21	93,024	47.7	44,372	93,114	1,065,075	11.4
22	92,831	46.7	43,352	92,928	1,020,703	11.0
23	92,633	44.0	40,759	92,732	977,351	10.5
24	92,427	41.0	37,860	92,530	936,592	10.1
25	92,214	38.6	35,616	92,320	898,732	9.7
26	91,998	36.6	33,783	92,106	863,116	9.4
27	91,774	35.0	32,338	91,886	829,333	9.0
28	91,542	33.9	31,177	91,658	796,995	8.7
29	91,304	33.0	30,156	91,423	765,818	8.4
30	91,055	32.2	29,267	91,180	735,662	8.1
31	90,798	31.4	28,531	90,926	706,395	7.8
32	90,530	30.8	27,890	90,664	677,864	7.5
33	90,251	30.2	27,269	90,390	649,974	7.2
34	89,959	29.7	26,718	90,105	622,705	6.9
35	89,655	29.2	26,179	89,807	595,987	6.6
36	89,335	28.7	25,639	89,495	569,808	6.4
37	89,001	28.2	25,098	89,168	544,169	6.1
38	88,650	27.7	24,556	88,826	519,071	5.8
39	88,281	27.2	24,012	88,466	494,515	5.6
40	87,893	26.7	23,467	88,087	470,509	5.3
41	87,484	26.2	22,921	87,688	447,036	5.1
42	87,052	25.7	22,372	87,268	424,115	4.9
43	86,593	25.2	21,821	86,822	401,743	4.6
44	86,107	24.7	21,268	86,350	379,922	4.4
45	85,590	24.3	20,798	85,848	358,654	4.2
46	85,040	23.9	20,325	85,315	337,856	4.0
47	84,454	23.5	19,847	84,747	317,531	3.7
48	83,831	23.1	19,365	84,142	297,684	3.5
49	83,169	22.7	18,879	83,500	278,319	3.3
50	82,466	22.1	18,225	82,818	259,440	3.1
51	81,717	21.5	17,569	82,092	241,215	2.9
52	80,921	21.0	16,993	81,319	223,646	2.8
53	80,074	20.5	16,415	80,498	206,653	2.6
54	79,173	20.0	15,835	79,624	190,238	2.4
55	78,213	19.5	15,252	78,693	174,403	2.2
56	77,193	19.0	14,667	77,703	159,151	2.0
57	76,107	18.5	14,080	76,650	144,484	1.9
58	74,952	18.0	13,491	75,530	130,404	1.7
59	73,726	17.4	12,828	74,339	116,913	1.6
60	72,421	16.6	12,022	73,074	104,085	1.4
61	71,039	15.7	11,153	71,730	92,063	1.3
62	69,571	14.7	10,227	70,305	80,910	1.2
63	68,016	13.6	9,250	68,794	70,683	1.0
64	66,370	12.5	8,296	67,193	61,433	.9
65 and over	889,353	6.0	53,137	-----	53,137	-----

TABLE A-6.—Average number of years of work remaining, single women, 1940

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Year of age	Stationary single population	Labor force participation rate, single women	Stationary labor force, single women	Number of years of work expected in all subsequent ages from single women who remain single out of 100,000 born alive	First marriage rate	Expected marriages in each year of age from 100,000 girl babies born alive	Expected number of years of work per ever-married woman	Number of years each cohort of newly married women will work	Number of years of work expected from all cohorts of married women subsequent to each age	Total number of years of work expected in all subsequent ages from each cohort of single women	Number living of 100,000 born alive and single at beginning of year of age	Average number of years of work expected from single women at specified ages
14.....	93,767	1.6	1,500	542,491	1.0				666,612		94,289	12.8
14.....	92,723	3.1	2,884	540,991	2.5		938	8.8	666,612	1,207,603	93,245	13.0
16.....	90,257	9.0	8,114	538,107	5.4	2,318	8.8	20,398	658,358	1,126,456	91,490	13.1
17.....	85,254	19.1	16,275	529,993	8.9	4,874	8.8	42,891	637,960	1,167,953	87,756	13.3
18.....	77,541	40.4	31,350	513,718	11.5	7,588	8.7	66,016	595,069	1,108,787	81,398	13.6
19.....	68,539	55.8	38,231	482,368	13.2	8,917	8.6	76,686	529,053	1,011,421	73,040	13.8
20.....	59,371	64.8	38,461	444,137	14.6	9,047	8.5	76,900	452,367	896,504	63,955	14.0
21.....	50,605	71.3	36,102	405,676	15.4	8,668	8.3	71,944	375,467	781,143	54,988	14.2
22.....	42,702	76.9	32,825	369,574	15.8	7,793	8.1	63,123	303,523	673,097	46,654	14.4
23.....	35,849	79.2	28,392	336,749	15.2	6,747	8.0	53,976	240,400	577,149	39,276	14.7
24.....	30,316	79.4	24,071	308,357	13.8	5,449	7.8	42,502	186,424	494,781	33,082	15.0
25.....	26,097	79.7	20,799	284,286	12.5	4,184	7.5	31,380	143,922	428,108	28,206	15.2
26.....	22,724	79.8	18,134	263,487	11.1	3,262	7.3	23,813	112,542	376,029	24,410	15.4
27.....	20,099	79.8	16,039	245,353	9.8	2,522	7.1	17,906	88,729	334,082	21,412	15.6
28.....	18,034	79.7	14,373	229,814	8.9	1,970	6.9	13,593	70,823	300,137	19,066	15.7
29.....	16,343	79.3	12,960	214,941	8.1	1,605	6.7	10,754	57,230	272,171	17,188	15.8
30.....	14,933	78.8	11,767	201,981	7.3	1,324	6.5	8,606	46,476	248,457	15,638	15.9
31.....	13,801	78.3	10,806	190,214	6.6	1,090	6.3	6,867	37,870	228,084	14,367	15.9
32.....	12,855	77.8	10,001	179,408	6.0	911	6.1	5,557	31,003	210,411	13,328	15.8
33.....	12,003	77.3	9,278	169,407	5.4	771	5.9	4,549	25,446	194,853	12,429	15.7
34.....	11,335	76.8	8,705	160,129	4.9	648	5.7	3,694	20,897	181,026	11,669	15.5
35.....	10,759	76.2	8,198	151,424	4.5	555	5.4	2,997	17,203	168,627	11,047	15.3
36.....	10,274	75.6	7,767	143,226	4.1	484	5.2	2,517	14,206	157,432	10,516	15.0
37.....	9,790	75.0	7,342	135,459	3.7	421	5.0	2,105	11,689	147,148	10,032	14.7
38.....	9,397	74.4	6,991	128,117	3.3	362	4.8	1,738	9,584	137,701	9,594	14.4
39.....	9,093	73.7	6,702	121,126	2.9	310	4.6	1,426	7,846	128,972	9,245	14.0
40.....	8,789	73.0	6,416	114,424	2.6	264	4.4	1,162	6,420	120,844	8,941	13.5
41.....	8,486	72.3	6,135	108,008	2.3	229	4.2	962	5,258	113,266	8,638	13.1
42.....	8,270	71.5	5,913	101,873	2.0	195	4.0	780	4,296	106,169	8,378	12.7
43.....	8,053	70.6	5,685	95,960	1.8	165	3.8	627	3,516	99,476	8,162	12.2
44.....	7,836	69.6	5,454	90,275	1.6	145	3.7	536	2,889	93,164	7,944	11.7
45.....	7,703	68.6	5,284	84,821	1.4	125	3.5	438	2,363	87,174	7,770	11.2
46.....	7,569	67.5	5,109	79,537	1.2	108	3.3	356	1,915	81,452	7,636	10.7
47.....	7,432	66.4	4,935	74,428	1.1	91	3.1	282	1,559	75,987	7,500	10.1
48.....	7,293	65.3	4,762	69,493	1.0	82	3.0	246	1,277	70,770	7,362	9.6
49.....	7,153	64.2	4,592	64,731	.9	73	2.8	204	1,031	65,762	7,223	9.1
50.....	7,010	62.9	4,409	60,139	.8	64	2.6	166	827	60,966	7,082	8.6
51.....	6,864	61.6	4,228	55,730	.7	56	2.5	140	661	56,391	6,937	8.1
52.....	6,716	60.3	4,050	51,502	.6	48	2.3	110	521	52,023	6,790	7.7
53.....	6,566	58.9	3,867	47,452	.6	40	2.1	84	411	47,863	6,641	7.2
54.....	6,413	57.5	3,687	43,585	.5	39	2.0	78	327	43,912	6,490	6.8
55.....	6,335	56.0	3,548	39,898	.4	32	1.9	61	249	40,147	6,374	6.3
56.....	6,253	54.5	3,408	36,350	.4	25	1.7	42	188	36,538	6,294	5.8
57.....	6,165	53.0	3,267	32,942	.3	25	1.6	40	146	33,088	6,209	5.3
58.....	6,071	51.2	3,108	29,675	.3	18	1.4	25	106	29,781	6,118	4.9
59.....	5,972	48.7	2,908	26,567	.2	18	1.3	23	81	26,648	6,022	4.4
60.....	5,866	45.7	2,681	23,659	.2	12	1.2	14	58	23,717	5,919	4.0
61.....	5,754	43.2	2,486	20,978	.2	12	1.1	13	44	21,022	5,810	3.6
62.....	5,635	40.6	2,288	18,492	.2	12	1.0	12	31	18,523	5,694	3.3
63.....	5,509	37.8	2,082	16,204	.2	11	.9	10	19	16,223	5,572	2.9
64.....	5,376	34.9	1,876	14,122	.2	11	.8	9	9	14,131	5,442	2.6
65 and over.....	72,038	17.0	12,246	12,246								