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JAMES J. DAVIS, SECRETARY
WOMEN'S BUREAU
MARY ANDERSON, Director

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THE
OCCUPATIONAL PROGRESS
OF WOMEN

AN INTERPRETATION OF CENSUS STATISTICS
OF WOMEN IN GAINFUL OCCUPATIONS



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LETTER OF TRANSMITTAL.

UNITED STATES DEPARTMENT OF LABOR,
WOMEN'S BUREAU,
Washington, September 30, 1922.

Sir: Herewith is transmitted a report showing the occupational progress of women. This report is an interpretation of preliminary census statistics of women in gainful occupations. The bureau is trying to answer in this report questions continually asked of it, such as: How many women are at work in the United States and its Territorial possessions? Where do they work? What do they do? Has their number increased or decreased during the last decade? The replies to at least some of these questions are to be found in this bulletin.

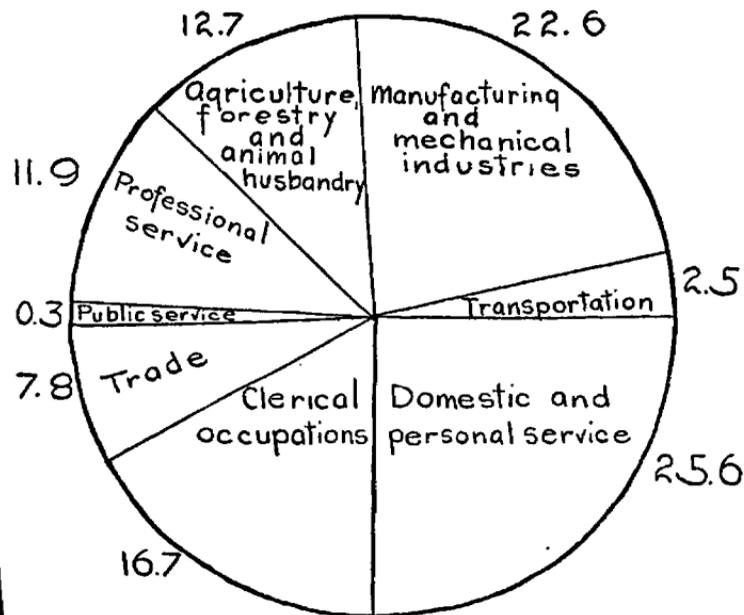
The research work and the writing of this report were done by Miss Mary V. Dempsey, special agent of the Women's Bureau.
MARY ANDERSON, *Director.*

Hon. JAMES J. DAVIS,
Secretary of Labor.

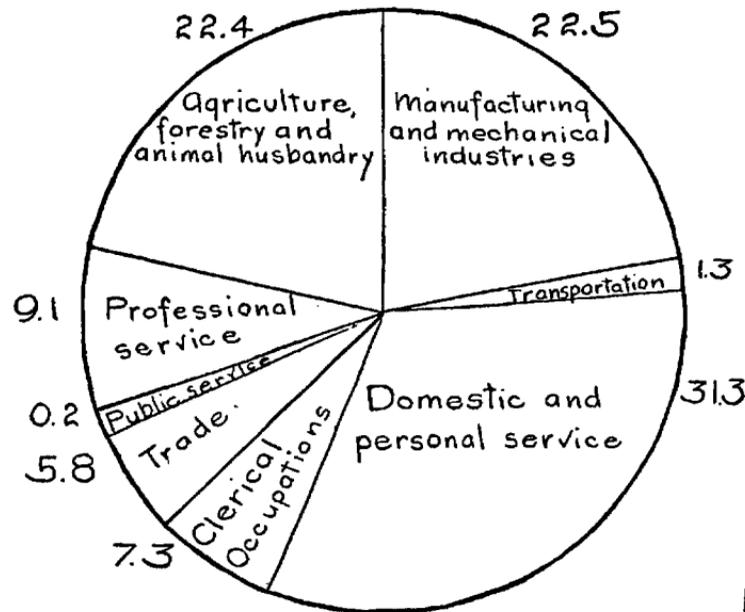
OCCUPATIONAL DISTRIBUTION OF WOMEN

1920

1910



8,549,511 women gainfully employed



8,075,772 women gainfully employed

THE OCCUPATIONAL PROGRESS OF WOMEN.

INTRODUCTION AND SUMMARY.

The country's half-awakened interest in the problems of women in industry was completely aroused by the unusual conditions attending the World War. Never before had women been called so urgently to take the places of men at the plow, the lathe, and the desk; and never had industrial crises been met more valiantly. During this chaotic period of replacing the labor of men by that of women many adverse conditions were met and endured and women achieved a deserved recognition as potent factors in the industrial world.

Since that time has passed it seems likely that women will to some extent continue to pursue the occupations which they then undertook; at any rate, that they will not lose the recognition gained during the war of their importance to industry. The industrial problems of women are far more conspicuous than they were ten—even five—years ago, but their full importance can not be known unless certain questions are first answered: How many women are at work in the United States and in its territorial possessions? Where do they work? What do they do? Has their number increased or decreased during the last few years?

The replies to many of these questions are to be found in several bulletins on occupation statistics recently issued by the Federal Bureau of the Census.¹ Since the figures shown in these bulletins have so direct a bearing on the problems of women in industry, the Women's Bureau is publishing this interpretation of the material which they present.

During the past few years, every time a woman invaded an occupation hallowed for generations as a pursuit for men only, attention was called to the fact by the woman's coworkers and in some cases by the press. The publicity given these changes in the occupational status of women caused the public to believe that a large and increasing proportion of women were seeking employment outside

¹ U. S. Bureau of the Census. 14th Census: 1920. Population. Bulletin: Comparative occupation statistics for the United States. 1922.

——— Bulletin: Alaska—Occupation statistics. 1922.

——— Bulletin: Hawaii—Occupation statistics. 1922.

——— Bulletin: Porto Rico—Occupation statistics. 1922.

NOTE.—All statistics quoted in the present discussion include women 10 years of age and over, for the reason that figures showing the age distribution of gainfully occupied women were not available at the time this report was written.

the home. When a woman dropped out of domestic service or gave up dressmaking to work in a munition factory or to become a street-car conductor, the entire community heard of her new employment, but no one mentally subtracted her from the ranks of those in her former occupation; and so the impression gained ground that vast numbers of women were taking up gainful occupations for the first time.

This impression is not upheld, however, by census statistics. In continental United States 8,549,511 women 10 years of age and over were gainfully occupied on January 1, 1920. This number represents an actual increase since 1910 of nearly half a million; but if the increase in population be taken into consideration the proportion of all women 10 years of age and over gainfully occupied decreased from 23.4 per cent in 1910 to 21.1 per cent in 1920.

Such general figures as these, however, by no means tell the whole story or represent the true conditions for many important groups of wage-earning women. In studying the returns for certain occupations it appears that, although the decrease in the number of women working on farms was very great, there were large increases in many other occupations. As the figures showing the number of women employed on farms in 1910 and 1920 are not strictly comparable (see explanation in footnote to Table I, p. 8), the change indicated for "all occupations" may be considered less significant than those for smaller groups. In nonagricultural occupations the proportion of all women 10 years of age and over increased from 18.1 per cent in 1910 to 18.5 per cent in 1920. Furthermore, eliminating child labor from consideration, 21.3 per cent of all women 16 years of age and over were employed in nonagricultural pursuits in 1920, as compared with 20.7 per cent similarly employed in 1910.² This comparison confirms the general impression that proportionately more women were engaged in industrial and allied pursuits in 1920 than in 1910, a fact which is obscured when the figures as a whole are considered, because of the apparent great decrease in the number of women working on farms.

Considering the general divisions of occupations, it is evident that striking changes took place in the employment of women during this decade.

Changes in census date and instructions to census enumerators partially explain the tremendous decrease among women returned as employed in agriculture, forestry, and animal husbandry. But if this decrease loses some of its significance, such is not the case with a decrease of 344,297 (13.6 per cent) among women engaged in domestic and personal service; an increase of 832,892 (140.4 per

² U. S. Bureau of the Census. Fourteenth Census: 1920. Population: Occupations of children.

cent) among women in clerical occupations; an increase of 282,607 (38.5 per cent) among women in professional service; an increase of 106,429 (99.8 per cent) among women engaged in transportation; and an increase of 109,771 (only 6 per cent) in manufacturing and mechanical industries. Certain of these changes indicate upheavals in the traditions of women's employment, which may be verified by a closer study of the facts.

The really significant deduction to be made from a study of the census statistics is that, while the proportion of women 10 years of age and over engaged in nonagricultural pursuits showed but a slight increase from 1910 to 1920, there was a decided change in the distribution of women among the various gainful occupations. In 1910 there were 203 occupations in which 1,000 or more women were employed; in 1920 the occupations in this group had increased in number to 232, and a very large part of this increase was in occupations in manufacturing and mechanical industries and professional service. Increases of 50,000 or more occurred among women who were clerks in offices, stenographers and typists, bookkeepers and cashiers, teachers, saleswomen, telephone operators, trained nurses, and clerks in stores. Decreases of 50,000 or more occurred among farm laborers (at home), farm laborers (working out), cooks, general servants, laundresses, dressmakers, and seamstresses (not in factory), and milliners and millinery dealers. If the women employed as servants, as farm laborers, as dressmakers, and as milliners had held their own in numbers from 1910 to 1920, a pronounced increase in the proportion of all women employed would have resulted. If the women in these four occupations had shown an increase in number commensurate with that of the female population, then 25.4 per cent of all women 10 years of age and over would have been gainfully employed in 1920, as compared with 23.4 per cent so occupied in 1910.

On the whole, the great change seems to have been in a decrease among women working in or for the home and in personal-service occupations, and a corresponding increase in clerical and allied occupations, in teaching, and in nursing, all of which have been women-employing occupations for many decades but have not before reached such numerical importance.

In manufacturing and mechanical industries it is necessary to search more closely for the significant changes. Increases since 1910 of more than 10,000 women were found among semiskilled operatives in food, iron and steel, and clothing industries, in silk and knitting mills, and in electrical supply, shoe, and cigar and tobacco factories; among laborers in cotton mills; and among forewomen and overseers in manufacturing. The most striking increase shown for women in any industrial group was that for operatives in automobile fac-

tories, among whom there was an increase of 1,408 per cent. In the entire iron and steel industry women increased 145.4 per cent as semiskilled operatives. A slightly larger increase (148.1 per cent) occurred among women operatives in electrical supply factories. Many of the changes which took place in manufacturing and mechanical industries were indicative of changes within the industries themselves and showed increases for men also, but it is significant to find that while women operatives in automobile factories increased 1,408 per cent (from 848 in 1910 to 12,788 in 1920), the largest percentage increase for women in any one industry, men operatives in automobile factories increased only 435.4 per cent (from 20,243 in 1910 to 108,376 in 1920), the second largest percentage increase for men. Clearly, in this one rapidly developing industry the employment of women was increasing at a much greater rate than that of men, though the number of men employed was still far in excess of the number of women.

In studying all occupations employing an appreciable number (1,000 or more) of both men and women in 1910 and 1920, an interesting situation was found to exist. The changes in rate of increase or decrease for the two sexes were entirely disproportionate, and in by far the greater number of cases the women took the lead in the rate of increase. Of course, in most of the occupations considered, men still were numerically far above women, and the conspicuously large percentage increases shown for women in certain occupations are the direct result of small basic figures in 1910; but these huge increases none the less indicate that more and more industrial opportunities are being offered to women.

Contrary to general impression, women seem not to have gone into absolutely new occupations to any great extent. They had, however, enlarged their field of work by entering in greater numbers occupations in which formerly they had but scant representation.

The statistics for women in American Territories show that unusual problems exist for these women whose conditions of employment are a more direct national responsibility. From these figures it appears that while the numbers gainfully employed in Alaska are so small as to be almost negligible (2,005), Hawaii and Porto Rico both have considerable numbers of gainfully occupied women whose employment falls under somewhat different classifications from those for the women in continental United States.

In Hawaii 45 per cent of the 14,263 gainfully employed women are engaged in agriculture, forestry, and animal husbandry, 24 per cent are in domestic and personal service, and 13.4 per cent are in professional service, most of the last group being teachers.

The number of women employed in Porto Rico (86,462) was much larger than the number in either Hawaii or Alaska, and their occupational distribution indicates a very different situation for them. In domestic and personal service were found 37.6 per cent of Porto Rican women, while another very large group, 35.6 per cent, were in manufacturing and mechanical industries; only 20.5 per cent were in agriculture. Of the more than 86,000 Porto Rican women who were engaged in manufacturing and mechanical industries nearly 14,000, about one-sixth, were reported as sewing outside of factories, numbers which illustrate the great prevalence of industrial home work for women in Porto Rico.

All the figures for the Territories, however, are representative of such unusual conditions that they can not be compared in any way with what seem to be similar figures for continental United States, and can be satisfactorily interpreted only in connection with an intimate knowledge of the local situations. They are presented in this bulletin in the hope that they may somewhat illuminate the question and draw attention to the extent of the problem regarding the employment of women with which this country is faced in the regulation of its territorial affairs.

PART I.

WOMEN AT WORK IN CONTINENTAL UNITED STATES.

CHANGES IN NUMBER AND PROPORTION OF WOMEN IN GENERAL DIVISIONS OF OCCUPATIONS.

In all general divisions of occupations other than agriculture, forestry, and animal husbandry and domestic and personal service, women have increased in number since 1910. (See Table I.) In clerical occupations they were nearly two and one-half times as numerous in 1920 as in 1910, as they were also in the extraction of minerals, though the number in the latter industrial group was small; the number in transportation doubled; those in trade increased 42.7 per cent, and those in professional service 38.5 per cent.

Much more significant than numerical increases or decreases, however, is the comparison of the proportion of all women occupied in 1920 and in 1910 as shown for each general division of occupations in Table I, on the page following.

Domestic and personal service.

In domestic and personal service a great decrease in both the number and the proportion of women so occupied is shown in Table I. Under this heading the Census Bureau groups not only servants, waitresses, and laundresses, as one might expect, but all persons who cater directly to our personal needs, with the exception of physicians, trained nurses, healers, etc., who are classified under professional service. For instance, barbers, hairdressers, and manicurists, bootblacks, elevator tenders, janitors and sextons, laundry operatives, midwives and nurses (not trained), porters, bartenders, bathhouse keepers and attendants, cleaners and renovators (clothing, etc.) are among the occupations which belong in this group. Certain proprietary occupations likewise fall in this class, such as laundry owners, officials, and managers; restaurant, café, and lunch-room keepers; hotel keepers and managers; boarding and lodging house keepers; saloon keepers; and billiard room, dance hall, and skating-rink keepers. The designation "domestic and personal service" thus includes a much larger group than servants only, though the latter comprise nearly one-half of the total number of women engaged in this general division of occupations.

In this group were employed 5.4 per cent of all women 10 years of age and over in 1920, as compared with 7.3 per cent in 1910. This decrease, however, does not necessarily represent a net loss to

the ranks of those gainfully employed, for some women turned from domestic service to factory work or other industrial employment, a statement especially true of negro women, who entered factory employment in large numbers during the war.

TABLE I.—Number and proportion of all women 10 years of age and over engaged in each general division of occupations, 1920 and 1910.¹

| General division of occupations. | 1920 | | 1910 | |
|--|------------------|---|------------------|---|
| | Number of women. | Per cent of women 10 years of age and over. | Number of women. | Per cent of women 10 years of age and over. |
| POPULATION 10 YEARS OF AGE AND OVER..... | 40, 449, 346 | 100.0 | 34, 552, 712 | 100.0 |
| All occupations..... | 8, 549, 511 | 21.1 | 8, 075, 772 | 23.4 |
| Agriculture, forestry, and animal husbandry..... | 1, 084, 128 | 2.7 | 1, 807, 501 | 5.2 |
| Nonagricultural occupations..... | 7, 465, 383 | 18.5 | 6, 268, 271 | 18.1 |
| Extraction of minerals..... | 2, 864 | (²) | 1, 094 | (²) |
| Manufacturing and mechanical industries..... | 1, 930, 341 | 4.8 | 1, 820, 570 | 5.3 |
| Transportation..... | 213, 054 | .5 | 106, 625 | .3 |
| Trade..... | 667, 792 | 1.7 | 468, 088 | 1.4 |
| Public service (not elsewhere classified ³)..... | 21, 794 | .1 | 13, 558 | (²) |
| Professional service..... | 1, 016, 498 | 2.5 | 733, 891 | 2.1 |
| Domestic and personal service..... | 2, 186, 924 | 5.4 | 2, 531, 221 | 7.3 |
| Clerical occupations..... | 1, 426, 116 | 3.5 | 593, 224 | 1.7 |

¹ The decrease during the decade 1910 to 1920 in the proportion of all women 10 years of age and over who were gainfully occupied is to some extent apparent only and may probably be attributed to three main causes: 1. The change in the census date from April 15 in 1910 to January 1 in 1920—from a very busy farming season to a time of the year when all farming activities are at their lowest ebb. This change in date probably resulted in a great reduction in the number of women returned in agriculture, forestry, and animal husbandry, though the returns for men apparently were to a less extent affected by the same circumstance. 2. An overstatement in 1910 of the number of women engaged in agriculture, forestry, and animal husbandry—a general division of occupations which comprised 22.4 per cent of all occupied women in 1910 and 12.7 per cent in 1920. The Census Bureau in 1910 (U. S. Bureau of the Census, 13th Census: 1910, v. 4, Population; occupation statistics, p. 28) estimates this overstatement at almost half a million, and suggests that it may have been largely the result of an instruction issued to census enumerators to return every woman working regularly at outdoor farm work as a farm laborer. In compliance with this instruction many women who regularly fed their chickens or did other chores for an hour or so each morning undoubtedly were returned as gainfully occupied. To correct this tendency to overstatement census enumerators were in 1920 instructed as follows: "159. Women doing farm work. For a woman who works *only occasionally*, or *only a short time each day* at outdoor farm or garden work, or in the dairy, or in caring for live stock or poultry, the return should be *none*; but for a woman who works *regularly and most of the time* at such work, the return should be *farm laborer—home farm; farm laborer—working out; laborer—garden; laborer—dairy farm; laborer—stock farm; or laborer—poultry yard*, as the case may be. Of course, a woman who herself operates or runs a farm or plantation should be reported as *farmer* and not as a 'farm laborer.'" This stringent instruction, together with the change in census date, naturally resulted in the return of relatively fewer women in agricultural pursuits, since in January few women are regularly employed most of the time out of doors on farms. Possibly, also, early in 1920 some women who had formerly been employed on farms may have been occupied with other work, though there is but little evidence to support this theory. 3. A great decrease in the employment of girls 10 to 15 years of age. This decrease to a large extent overlaps the decrease among women in agricultural work, but it is by no means confined to this sphere of activities. According to a recent census bulletin (U. S. Bureau of the Census, 14th Census: 1920. Population; Occupations of Children) the proportion of all girls 10 to 15 years of age who were gainfully occupied dropped from 11.9 per cent in 1910 to 5.6 per cent in 1920. The numerical decrease during the decade was 290,476, of which 222,106 was in the number employed in agricultural pursuits and 68,370 in the number employed in nonagricultural pursuits.

² Less than one-tenth of 1 per cent.

³ For explanation, see p. 15.

Many and varied are the reasons assigned for a numerical decrease of 344,297 women in domestic and personal service in a single decade, most of which occurred among women employed as servants and laundresses. Some persons have reached the conclusion that "the secret lies in the perfecting of the machine"; in other words, that

fewer servants are needed because of the widespread adoption of mechanical household devices.³ But is the extensive use of these devices the cause or the effect of a shortage of servants? Would so many families have invested in vacuum cleaners, in electric laundry appliances, in iceless refrigerators, none of which is inexpensive, if servants were to be had as in former days? Probably in many instances the machine in the home has displaced the servant, while in other cases it merely took the place already abandoned by the servant.

It is true that during the war period large numbers of those who had been servants were attracted to other pursuits by the higher wage offered, thus leaving an actual shortage of servants in many sections—a shortage which still existed to a considerable extent in 1920. It is also true that the wages of servants have within the past decade increased beyond the ability of many families to pay. This phenomenal increase might be considered an enticement for women to enter this class of work, yet servants become fewer and fewer in number, and apparently the American people are becoming reconciled to the scarcity and have decided to run their homes without them.

The servant problem pertains almost exclusively to the urban community. Few, indeed, relatively speaking, are the servants employed on farms, and though the tendency of wealthy families to live the year round in country homes within motoring distance of the large cities becomes more and more evident, such families comprise an extremely small proportion of our population. In the cities a great drift toward apartment-house life has been noted in recent years; and the scarcity of servants has been considered a prominent factor in the trend away from large private houses.

Is the decrease in the number of servants permanent or temporary? What part does the higher esteem usually shown toward factory work, with its clearly defined hours, play in this shortage? How much of the falling off is due to the curtailment of immigration since 1914, which has meant practically the elimination of those recruits who in the past took the places of girls who went on to other employment? Did the war-time action of the Government in urging the American people to release for more necessary employment every servant possible place a lasting stigma on domestic and personal service as nonessential work? Or, what is far more likely, did this action of the Government tend to introduce women who lacked initiative to new kinds of work which they individually would never have undertaken, yet which they found themselves perfectly

³ Exit the servant in the house. *America at Work*. V. 6, No. 1, June, 1922.

capable of doing and which was often more interesting, at higher pay, and done under more desirable working conditions? Were there not also at the date of the census some women customarily employed as servants who were remaining at home because it was easy for the men of the family to find work? Was not the latter cause responsible for some part of the decrease among negro women servants in the South? To what extent the suggestions here made may be considered factors in the reduction in the number of women employed in domestic and personal service is a matter of sheer conjecture, the only certainty being an actual decrease since 1910 of 431,546 among women employed as servants and laundresses.

Yet not every occupation listed under domestic and personal service shows a falling off in numbers during this decade. On the contrary, the most phenomenal change in any one occupation was that of elevator tenders, a group which increased from 25 in 1910 to 7,337 in 1920. Large increases were noted also among barbers, hairdressers, and manicurists; restaurant, café, and lunch-room keepers; laundry owners, officials, and managers; cleaners and renovators (clothing, etc.); janitors and sextons; and waitresses; while smaller increases were found in the numbers of housekeepers and stewardesses, nurses (not trained), and laundry operatives. These increases, however, were completely outweighed by the enormous decreases among servants, laundresses (not in laundry), cooks, and boarding and lodging house keepers.

Manufacturing and mechanical industries.

Under manufacturing and mechanical industries are grouped not only all factory laborers and semiskilled operatives but all persons engaged in the skilled building and hand trades, together with their apprentices, and all persons working in manufacturing industries in proprietary, official, and supervisory capacities. Clerks in factories are grouped with clerical occupations.

Over 100,000 more women were employed in manufacturing and mechanical industries in 1920 than in 1910, yet the proportion which women in this general division of occupations formed of all women 10 years of age and over decreased from 1910 to 1920. In other words, the number of women engaged in manufacturing and mechanical industries increased only 6 per cent, while the number of women 10 years of age and over in the population increased 17 per cent.

Industries in which women predominate.—Women employees outnumbered men in 11 manufacturing industries both in 1920 and in 1910. Among these were the clothing industries as a whole, as well as four of their six subdivisions; also silk mills, knitting mills, candy

factories, and other groups less important numerically. The numbers of men and women occupied in these 11 industries are shown in Table II.

TABLE II.—*Number of employeess¹ in those manufacturing industries in which women predominated both in 1920 and 1910, classified by sex.*

| Industry. | 1920 | | 1910 | |
|--|---------|---------|---------|---------|
| | Male. | Female. | Male. | Female. |
| Blank-book, envelope, tag, paper-bag, etc., factories..... | 7,763 | 9,386 | 4,518 | 7,071 |
| Candy factories..... | 25,311 | 33,554 | 15,433 | 18,468 |
| Clothing industries..... | 150,132 | 272,005 | 154,290 | 242,086 |
| Corset factories..... | 1,309 | 12,104 | 1,661 | 12,246 |
| Glove factories..... | 7,483 | 17,631 | 5,799 | 14,410 |
| Shirt, collar, and cuff factories..... | 11,673 | 43,407 | 14,132 | 48,221 |
| Other clothing factories ² | 32,545 | 125,957 | 31,360 | 92,806 |
| Knitting mills..... | 33,525 | 86,022 | 28,792 | 68,878 |
| Lace and embroidery mills..... | 6,763 | 13,264 | 4,804 | 11,928 |
| Linen mills..... | 1,224 | 1,808 | 1,182 | 1,540 |
| Paper-box factories..... | 9,478 | 14,358 | 5,653 | 13,667 |
| Silk mills..... | 50,303 | 75,498 | 31,705 | 51,472 |

¹ Includes laborers and semiskilled operatives.

² Except hat factories (felt) and suit, coat, cloak, and overall factories.

According to the census bulletin the only instance of an industry where women lost in 1920 the numerical supremacy which they had in 1910 is in straw factories (including straw-hat factories), where in 1910 women numbered 4,064 and men 2,264, while in 1920 there were 8,264 men and only 6,415 women. Offsetting the decrease in this industry, however, is the striking increase in numbers of women in cigar and tobacco factories. In 1910 these women numbered 76,801, as compared with 91,392 men, while the 1920 figures for the same industry show 97,822 women and 82,557 men. This comparison indicates that women are supplanting men in the manufacture of cigars and tobacco, but there is only slight evidence of a similar tendency in other industries.

Industries in which women have increased at least 10,000 since 1910.—Those groups listed under manufacturing and mechanical industries in which at least 10,000 more women were employed in 1920 than in 1910 afford an interesting study, even though the increase in per cent is not always large.

Great numerical increases are shown among women employed as semiskilled operatives in food, iron and steel, and clothing industries. But a number of different specific industries form the component parts of each of these groups, making the inclusive figures less significant. Considering, therefore, specific industries rather than groups of related industries, it is apparent that during the decade 1910 to 1920 women operatives increased more in number in

"other clothing factories," in silk mills, in "other iron and steel factories," in electrical-supply factories, and in knitting mills, than in any other factories.⁴ In general, however, these increases are merely indicative of changes which are taking place for all workers regardless of sex.

TABLE III.—Occupations in manufacturing and mechanical industries in each of which the number of women employed increased 10,000 or more from 1910 to 1920, with number and per cent of increase.

| Occupation. | Increase 1910 to 1920. | |
|---|------------------------|-----------|
| | Number. | Per cent. |
| Semiskilled operatives, food industries..... | 35,802 | 97.8 |
| Semiskilled operatives, candy factories..... | 14,033 | 81.0 |
| Semiskilled operatives, iron and steel industries..... | 34,262 | 145.4 |
| Semiskilled operatives, automobile factories..... | 11,940 | 1,408.0 |
| Semiskilled operatives, other iron and steel factories ¹ | 20,295 | 126.5 |
| Semiskilled operatives, clothing industries..... | 28,273 | 12.0 |
| Semiskilled operatives, other clothing factories ² | 32,538 | 35.4 |
| Semiskilled operatives, silk mills..... | 22,408 | 44.5 |
| Semiskilled operatives, electrical supply factories..... | 16,348 | 148.1 |
| Semiskilled operatives, knitting mills..... | 15,344 | 23.5 |
| Semiskilled operatives, shoe factories..... | 14,146 | 23.9 |
| Semiskilled operatives, cigar and tobacco factories..... | 12,115 | 16.9 |
| Laborers, cotton mills..... | 10,902 | 189.0 |
| Forewomen and overseers (manufacturing)..... | 10,431 | 52.8 |

¹ Includes all iron and steel factories and foundries other than agricultural implement factories, automobile factories, blast furnaces and steel rolling mills, car and railroad shops, ship and boat building, and wagon and carriage factories.

² Includes all clothing factories other than corset factories, glove factories, hat factories (felt), shirt, collar, and cuff factories, and suit, coat, cloak, and overall factories.

Unusual occupations for women.—Occupations grouped under manufacturing and mechanical industries which form one of the last strongholds of which men have a monopoly are the skilled building and hand trades. To be sure, some women returned their occupations as machinists, electricians, carpenters, and house painters, but they were extremely few in number. The widow who continues to run her husband's plumbing, blacksmith, or carpenter shop has a tendency to return her occupation as plumber, blacksmith, or carpenter, though she may never have had the tools of the trade in her hands. The girl who after long experience in a factory becomes expert in the operation of a certain machine may decide that she ought to return her occupation as machinist. Largely because of such returns the error in the number of women reported in the skilled building and hand trades is still believed to be high, though every

⁴ For explanation of terms, see footnotes to Table III.

practicable means was used to insure the accuracy of figures showing women in unusual occupations.

Although women have long been firmly established as an integral part of our industrial life, they seem more reluctant than men to assume the four years' apprenticeship necessary to become a machinist, an electrician, or a cabinetmaker, as evidenced by the small number of women apprentices who are reported for these trades. The small number of women in the building and hand trades may also be due to the fact that these occupations involve work of a very heavy nature.

Skilled trades.—Certain skilled hand trades in which women have been more or less numerous in the past showed decreases during the decade under consideration. These trades are bakers; compositors, linotypers, and typesetters; jewelers and lapidaries (factory); tailoresses; enamellers, lacquerers, and japanners; and shoemakers and cobblers (not in factory). Larger reductions in the number of dressmakers and milliners are discussed on page 24. The numbers of women employed as jewelers and watchmakers (not in factory) and as engravers show slight increases. It will be observed that the hand trades enumerated in this paragraph combine lighter work and less rigid apprenticeships than those of most other trades. These features may explain their attraction for women.

On January 1, 1920, the skilled building and hand trades in which no women were employed were boilermakers; millwrights; wheelwrights; brass molders, founders, and casters; cement finishers; pressmen and plate printers (printing); rollers and roll hands (metal); roofers and slaters; and structural-iron workers (building). Fewer than 10 women returned their occupations as blacksmiths, forgemen, and hammermen; brick and stone masons; cabinetmakers; coopers; loom fixers; machinists; toolmakers and die setters and sinkers; gunsmiths, locksmiths, and bellhangers; millers (grain, flour, feed, etc.); iron molders, founders, and casters; plasterers; plumbers and gas and steam fitters; sawyers; annealers and temperers (metal); stonecutters; and coppersmiths.

Hazardous occupations.—A few distinctive occupations are shown separately under manufacturing and mechanical industries, not because they are necessarily classed as skilled trades but because of the peculiar occupational hazards involved. One of these groups includes filers, grinders, buffers, and polishers (metal). This occupation group gave employment to 2,470 women in 1920, as compared with 2,846 in 1910. By far the greater number of these women were employed as buffers and polishers—occupations in which the workers run the risk of contracting diseases caused by metal dust and filings in the air.

Only six women were classified in the group of furnacemen, smeltermen, heaters, pourers, etc.—metal-working occupations in which the employees are necessarily exposed to great extremes of heat. Forty-four women worked as oilers of machinery in factories, an occupation with a high accident rate. Women employed in lead and zinc factories numbered 346 in 1920, as against 337 in 1910. Many of the processes carried on in this industry have been proved by medical authorities to be extremely detrimental to the health of women, as are also certain processes involving work with lead in potteries, paint, rubber, and chemical factories.

Transportation.

This term includes water transportation; road and street transportation (including the building, repair, and cleaning of streets); railroad transportation; and transportation by express, post, telegraph, and telephone. The 106,625 women engaged in this general division of occupations in 1910 had practically doubled in 1920. (See Table I.)

Perhaps women are pioneering more in this field than in any other general division of occupations. Though small numbers are involved—possibly to some extent because of the very recent dates on which women began to undertake these occupations—there has been a great increase among women chauffeurs; among draymen, teamsters, and expressmen; garage keepers; garage laborers; switchmen and flagmen on steam railroads; ticket and station agents; telegraph messengers; steam and street railway laborers, etc.; while the large numbers of women working as telephone operators and telegraph operators in 1910 had in each case more than doubled by 1920. In this general division of occupations the census returns for January 1, 1920, show no women working as locomotive engineers or firemen, brakemen, steam railroad conductors or motormen, railway mail clerks, or forewomen on docks or in water transportation. That there were no women railway mail clerks may seem surprising in view of the fact that on December 6, 1919, the United States Civil Service Commission threw open to women the examinations for railway mail clerks. Some time in 1920 after the census was taken, appointments were made from this register and women now technically hold the positions of railway mail clerks. These women are employed, however, only in terminal stations and are never permitted to work on trains where they would be subjected to the peculiar hazards attached to this occupation.

Notwithstanding the fact that from 1910 to 1920 women entered in numbers many transportation pursuits which they previously

had not followed to any great extent, yet of the total increase of women in these pursuits during the decade more than 84 per cent was in the single occupation of telephone operator.

Trade.

Under "Trade" are listed wholesale and retail dealers and most of their employees; bankers, brokers, and money lenders; real estate and insurance agents; undertakers; and workers in coal and lumber yards, grain elevators, stockyards, and warehouses.

The number of women engaged in trade increased 42.7 per cent from 1910 to 1920, and in many occupations, mainly those of a proprietary nature, enormous increases are shown. Of the total net increase of 199,704 women in trade, 164,637, or 82.4 per cent, were engaged in two occupations which women have long pursued—clerks in stores and saleswomen in stores. There is no occupation listed under "Trade" in which women are not engaged.

Public service.

In the group known as "Public service (not elsewhere classified)" the number of women increased 60.7 per cent. The persons shown in this general division of occupations form for the most part a residuary public-service group, as many persons who work for the Government are classified according to the actual work they are doing. For instance, all Government clerks, stenographers, etc., are classed with clerical occupations, navy yard machinists are grouped with other machinists in the manufacturing and mechanical industries, operatives in the Bureau of Engraving and Printing and in the Government Printing Office are classified as printing-office operatives rather than as Government employees, and physicians and trained nurses in the Government service are classified under professional service. Because of the multiplicity of activities in which the Government was engaged at the date of the census—a year after the close of the war—the Census Bureau deemed it imperative to group under "Public service" only those Government employees who were engaged in peculiarly public-service pursuits and who could not properly be classified under any other general division of occupations.

During the decade under consideration women officials have greatly increased in number, especially county officials; also Federal officials other than postmistresses increased from 275 in 1910 to 652 in 1920. Probation and truant officers numbered 780 in 1920, though there were only 188 in 1910. At the date of the census no women were employed as firemen in city fire departments, and there were no women soldiers, sailors, or marines. During the war women doing subclerical work in the Navy Department were known as yeomen (f) and were entitled to all the privileges of military status,

but the Secretary of the Navy ruled in 1919 that yeomen (f) should thereafter be given a civil rather than a military status, provided they were able to meet the qualifications laid down by the Civil Service Commission.

Professional service.

Professional service may be said to have three main subdivisions: Professional and semiprofessional pursuits and the occupations of attendants and helpers. From 1910 to 1920 women in this general division of occupations increased 38.5 per cent, and in 1920 they comprised 11.9 per cent of all gainfully occupied women as against 9.1 per cent in 1910.

In 1920 professional service included eight more occupations with 1,000 or more women in each than there had been in 1910. (See Table VI.) These eight occupations were those of chemists, assayers, and metallurgists; clergymen; draftsmen; lawyers, judges, and justices; osteopaths;⁵ theatrical owners, managers, and officials; abstractors, notaries, and justices of the peace; and theater ushers.

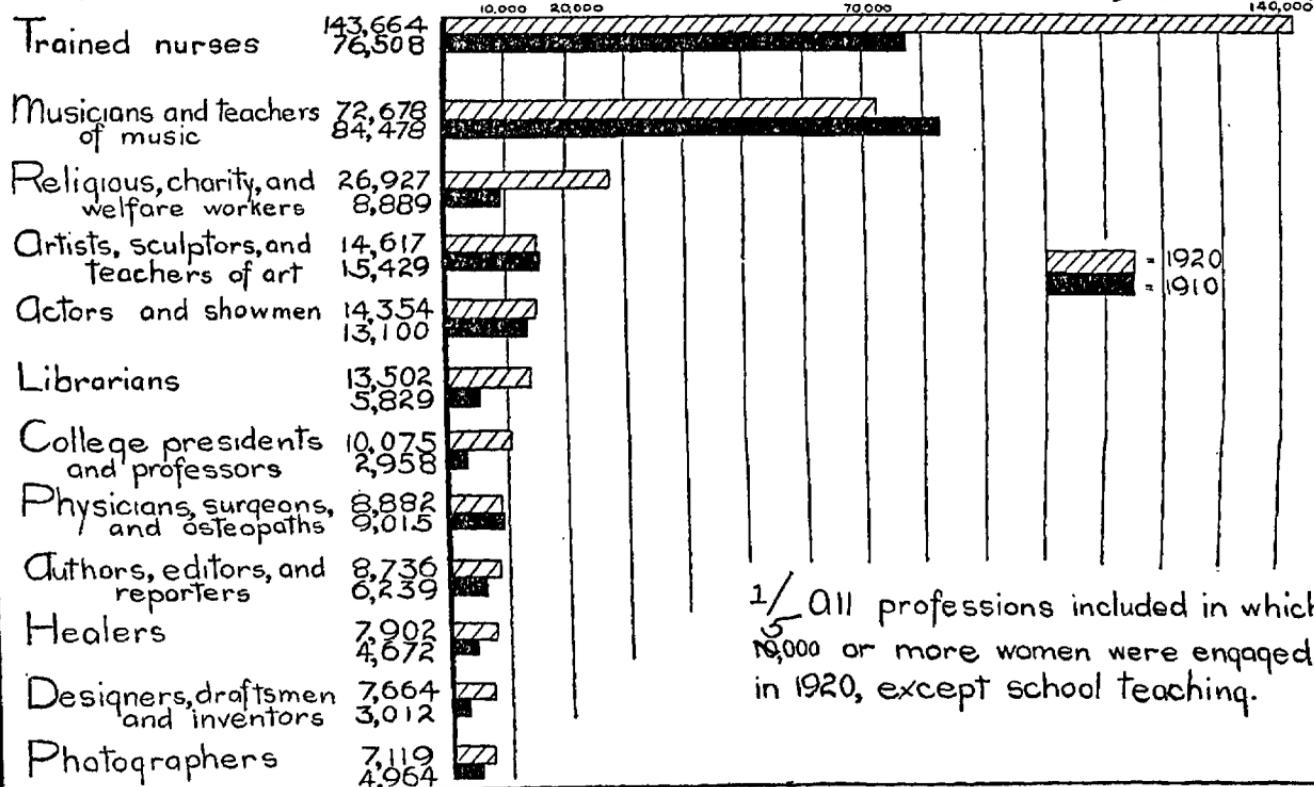
Professions, in which women trebled in number from 1910 to 1920 are those of chemists, assayers, and metallurgists; lawyers, judges, and justices; college presidents and professors; religious, charity, and welfare workers; and teachers of athletics and dancing. Draftsmen were five times as numerous as in 1910 and designers had doubled in number.

The marked increase in women librarians, a group which numbered nearly two and one-half times as many in 1920 as in 1910, and the large decrease in librarians' assistants and attendants were due in part to the classification of cataloguers in libraries with librarians in 1920 and with librarians' assistants and attendants in 1910. Considering these two groups as one unit, the number of women so engaged has increased 73.6 per cent.

A slight decline was noted in the number of artists, sculptors, and teachers of art, as well as in the number of women physicians and surgeons and osteopaths combined, while there was a pronounced decrease in the case of women musicians and teachers of music. The instruction to enumerators which stated that a woman's occupation should be one pursued *regularly* and *most of the time*, no doubt militated against the occupational returns of a large number of music teachers who are occupied neither regularly nor most of the time. A decrease from 1,220 to 698 is noted among fortune tellers, hypnotists, and spiritualists—a group classed with semiprofessional pursuits. Increasing legal restrictions may have tended to reduce

⁵ The number of women osteopaths in 1910 was unknown, since they were at that time included with physicians and surgeons.

WOMEN IN SELECTED^y PROFESSIONS, 1920-1910



the number of women in this class. To some extent the decrease in the numbers of women artists, musicians, fortune tellers, etc., may have been due to the greater demand for women workers in 1920 and the higher compensation paid in other occupations.

Mining engineering is apparently the only profession not yet invaded by at least one woman, though but one, the superintendent of a dog hospital, reported her occupation as veterinary surgeon. Among the somewhat unusual professions for women are noted 8 aeronauts, 27 inventors, 41 technical engineers, and 137 architects. Two occupations listed under agriculture, forestry, and animal husbandry, though they require professional attainments, are landscape gardeners, of whom 25 were women, and foresters, forest rangers, and timber cruisers, an occupation engaging but 2 women.

Of the total net increase of 282,607 women in professional service, 228,370, or 80.8 per cent, were found in two time-honored feminine pursuits—those of teachers and trained nurses.

Clerical occupations.

This general division of occupations, in which the number of women increased 140.4 per cent in the decade, presumably embraces all clerical workers regardless of the industry in which they may be employed. In 1920, 16.7 per cent of all women workers were engaged in clerical occupations, as compared with 7.3 per cent in 1910. At both dates the number thus reported is probably slightly low. This condition is a result of the unfortunate tendency in common parlance to call saleswomen in stores "clerks in stores." Although census enumerators were specifically directed to the contrary, thousands of saleswomen have undoubtedly been so returned. Since all evidence pointed to the fact that the overwhelming majority of these "clerks in stores" were actually selling goods, those so designated have been classed with "Trade," even though it is recognized that in so doing some clerical workers in stores are unavoidably separated from clerical occupations. The increase from 1910 to 1920 of 832,892 women in clerical occupations formed 69.6 per cent of the net increase of 1,197,112 women in nonagricultural pursuits. In other words, the numerical increase among women in clerical occupations was greater than the increase shown for all other general divisions of occupations combined; it was seven and one-half times as great as the increase among women in manufacturing and mechanical industries and almost three times as great as that among women in professional service. These facts are strikingly brought out in the following Table IV which shows the actual increase or decrease in number of women employed in each general division of occupations.

TABLE IV.—Numerical increase or decrease from 1910 to 1920 among women 10 years of age and over, according to general division of occupations.

| General division of occupations. | Increase, 1910 to 1920. | Decrease, 1910 to 1920. |
|--|-------------------------------|-------------------------------|
| All occupations..... | 472, 739 | ..... |
| Agriculture, forestry, and animal husbandry..... | ..... | 723, 373 |
| Extraction of minerals..... | 1, 770 | ..... |
| Manufacturing and mechanical industries..... | 109, 771 | ..... |
| Transportation..... | 107, 429 | ..... |
| Trade..... | 193, 704 | ..... |
| Public service (not elsewhere classified)..... | 8, 236 | ..... |
| Professional service..... | 282, 607 | ..... |
| Domestic and personal service..... | ..... | 344, 297 |
| Clerical occupations..... | 832, 892 | ..... |

CHANGES IN WOMEN'S OCCUPATIONAL STATUS.

Some of the most conspicuous changes in the occupational status of women are brought out by a study of those occupations and occupation groups in which vast numbers of women were employed, as shown by reports of the Twelfth, Thirteenth, and Fourteenth Censuses.

Occupations with more than 50,000 women in each.

The Fourteenth Census, taken in 1920, lists 30 occupations in each of which more than 50,000 women were employed in continental United States. (See Table V). In 1910 there were 28 occupations employing such numbers of women and in 1900 only 19 occupations. In 20 years, then, the number of occupations and occupation groups employing as many as 50,000 women increased from 19 to 30, though the validity of the comparison with the 1900 figures is somewhat impaired by changes made since that time in the occupation classification scheme used by the Census Bureau. Until 1910, however, the number of women employed in each of the following occupation groups, the classification of which has remained essentially the same since 1900 and which now employ numbers greatly in excess of 50,000, was below that figure: Retail dealers, telephone operators, shoe-factory operatives, cigar and tobacco factory operatives, and silk, woolen and worsted, and knitting mill operatives.

The 19 occupation groups each employing more than 50,000 women in 1900 comprised 88.8 per cent of all wage-earning women 16 years of age and over; the 28 similar groups shown in 1910 represented 88.7 per cent of all working women 10 years of age and over; but while these groups increased to 30 in number in 1920, the proportion they formed of all gainfully occupied women 10 years of age and over decreased to 85.7 per cent—another indication that the occupational field for women is broadening rather than concentrating on a few long-established occupations. It is true, however,

that only a very small proportion of all gainfully occupied women were in 1920 engaged in occupations not pursued by women for many years.

TABLE V.—Occupations in which 50,000 or more women 10 years of age and over were employed in 1920 and number of women employed in each, 1920 and 1910.¹

| Occupation. | Number of women 10 years of age and over employed in— | |
|--|---|-----------|
| | 1920 | 1910 |
| Farmers, general farms..... | 247,253 | 257,703 |
| Farm laborers, general farms ² | 788,611 | 1,514,107 |
| Dressmakers and seamstresses (not in factory)..... | 235,519 | 447,760 |
| Miliners and millinery dealers..... | 69,598 | 122,447 |
| Semiskilled operatives: | | |
| Cigar and tobacco factories..... | 83,960 | 71,845 |
| Clothing industries..... | 265,643 | 237,270 |
| Food industries..... | 72,402 | 36,600 |
| Iron and steel industries..... | 57,819 | 23,557 |
| Shoefactories..... | 73,412 | 59,266 |
| Cotton mills..... | 149,185 | 140,666 |
| Knitting mills..... | 80,682 | 65,338 |
| Silk mills..... | 72,768 | 50,360 |
| Woolen and worsted mills..... | 61,715 | 52,056 |
| Telephone operators..... | 178,379 | 88,282 |
| Clerks in stores ³ | 170,397 | 111,594 |
| Retail dealers..... | 78,980 | 67,103 |
| Saleswomen (stores)..... | 356,321 | 250,487 |
| Musicians and teachers of music..... | 72,678 | 84,478 |
| Teachers (school)..... | 635,207 | 476,864 |
| Trained nurses..... | 143,684 | 76,508 |
| Boarding and lodging house keepers..... | 114,740 | 142,400 |
| Housekeepers and stewardesses..... | 204,350 | 173,333 |
| Laundresses (not in laundry)..... | 385,874 | 520,004 |
| Laundry operatives..... | 80,747 | 76,355 |
| Nurses (not trained)..... | 132,658 | 110,912 |
| Servants ⁴ | 1,012,133 | 1,809,549 |
| Waitresses..... | 116,921 | 85,798 |
| Bookkeepers and cashiers..... | 345,746 | 183,569 |
| Clerks (except clerks in stores)..... | 472,163 | 122,605 |
| Stenographers and typists..... | 564,744 | 263,315 |

¹ Because of differences in the occupation classification used by the Census Bureau in 1900, it was not feasible to include the 1900 figures in this table.

² Includes farm laborers (home farm) and farm laborers (working out).

³ Many of the "Clerks in stores" probably are "Saleswomen."

⁴ Includes chambermaids, cooks, ladies' maids, nursemaids, bell girls, chore girls, etc., and other servants.

About one-half of the 30 occupation groups each employing more than 50,000 women in 1920 have for many decades been considered traditionally feminine callings, such as servants, dressmakers, milliners, school-teachers, boarding-house keepers, stenographers and typists, musicians, nurses both trained and untrained, laundresses, clothing-factory operatives, textile-mill operatives, etc. Certain other occupations, such as saleswomen, bookkeepers and cashiers, retail dealers, cigar-factory operatives, shoe-factory operatives, clerks in stores, and clerks in offices, have within the last decade or two come to be regarded as offering opportunities just as suitable for women as for men.

Not all Americans know that farm labor is the occupation in which more women are engaged than in any other except domestic service, yet according to census figures this condition has prevailed

in the United States for at least 40 years. The number of women who in 1920 returned their occupation as farm laborer on general farms was 788,611, and this figure, admitted by the Census Bureau to be an understatement because of the change in census date,⁶ represents an enormous decrease since 1910 in this occupation. The number of women farmers operating general farms shows a decrease of only 10,450. This group has probably not been affected by the change in date, for it is likely that a woman who owns and operates her farm considers herself just as much of a farmer in January as in April, but a woman who works in the fields during the summer months does not always return her occupation as farm laborer during January.

Some of the 28 occupations which in 1910 had more than 50,000 women at work showed great decreases in 1920, notably farm laborers, servants, laundresses, dressmakers, and milliners, yet all of them retained in the census of 1920 their standing as employing more than 50,000 women.

The two groups in which the number of women employed reached 50,000 for the first time in 1920 are semiskilled operatives in iron and steel industries and in food industries. Partly because of the seasonal nature of the food industries and the change in census date to a time nearer the latest harvest season, and partly because of the growth of the industries, the number of men, women, and children returned as operatives in food industries shows a great increase since 1910.

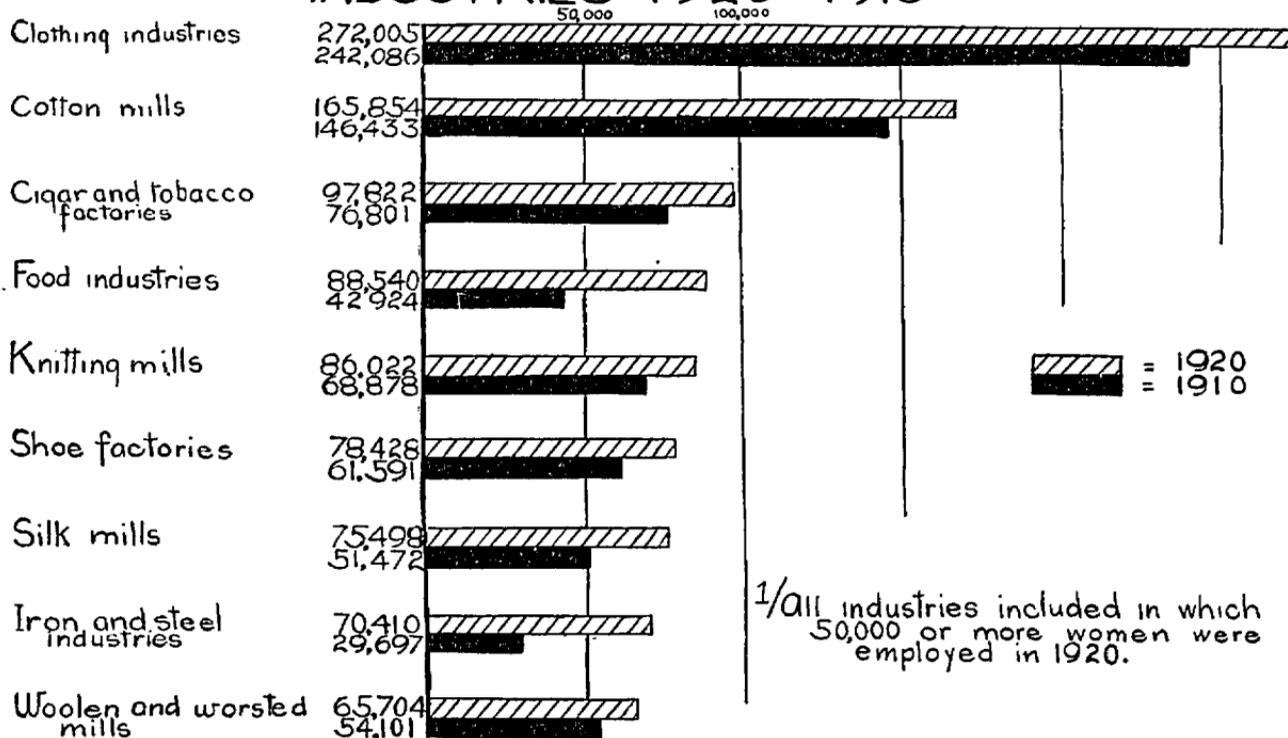
Iron and steel industries.—It is probable that women are a permanent factor in the iron and steel industries. The number employed as semiskilled operatives increased 145.4 per cent during the decade 1910 to 1920, and the number of women laborers more than doubled. Although the census was taken only 14 months after the close of the war, and the industrial prosperity due to the war still existed, the fact must not be overlooked that there was a great increase from 1900 to 1910 in the number of women employed in the iron and steel industries, indicating that women were firmly established there even before the war, whose industrial upheaval served only to accelerate a movement already well under way.

The greatest increase for any manufacturing industry in which an appreciable number of women were employed in 1920 is shown for automobile factories, where women working as semiskilled operatives increased 1,408 per cent, or from 848 in 1910 to 12,788 in 1920. Men operatives in automobile factories increased from 20,243 in 1910 to 108,376 in 1920, or 435.4 per cent, the largest increase in any occupation for men except operatives in ship and boat building.

Women operatives in blast furnaces and steel-rolling mills, another subdivision of the iron and steel industries, numbered 4,101 in

⁶ See footnote to Table I, p. 8.

WOMEN IN SELECTED^{1/} MANUFACTURING INDUSTRIES 1920-1910



1920, nearly twice as many as were similarly employed in 1910. Women are seldom employed in the actual operation of blast furnaces and steel-rolling mills, but a number of steel mills have iron-manufacturing departments employing women who may have returned their occupations as steel-mill operative. The increase in the number of women employed as operatives in iron and steel factories and foundries manufacturing machinery and iron and steel products other than those already mentioned was 126.5 per cent during the decade considered, 36,338 being employed on the census date.

Occupations with more than 1,000 women in each.

The number of occupations each employing 1,000 or more women in the various industrial groups is shown in the table following.

TABLE VI.—Number of occupations in each general division of occupations in which 1,000 or more women 10 years of age and over were employed, 1920 and 1910.

| General division of occupations. | Number of occupations in which 1,000 or more women 10 years of age and over were employed. | |
|--|--|------|
| | 1920 | 1910 |
| All occupations..... | 232 | 203 |
| Agriculture, forestry, and animal husbandry..... | 15 | 13 |
| Extraction of minerals..... | 1 | — |
| Manufacturing and mechanical industries..... | 111 | 98 |
| Transportation..... | 5 | 6 |
| Trade..... | 30 | 27 |
| Public service (not elsewhere classified)..... | 5 | 3 |
| Professional service..... | 32 | 24 |
| Domestic and personal service..... | 22 | 22 |
| Clerical occupations..... | 11 | 10 |

The comparison presented in Table VI is the more interesting if one considers that only 125 occupations were represented by 1,000 or more women each in the census of 1900. This difference must be discounted, however, because of the fact that the occupation classification in use at that census was much less comprehensive in scope than were those used in 1910 and 1920. Furthermore, as the population increases it is natural to find a larger number of occupations affording employment to 1,000 women, even if each occupation had merely retained its relative proportion.

On the whole, the number of occupations in which 1,000 or more women were engaged was greater by 29 in 1920 than in 1910. It is particularly interesting to find that the two groups in which most of these additional occupations were found were the manufacturing and mechanical industries, which showed an increase of 13 in the

number of occupations employing 1,000 or more women, and professional service, which showed an increase of 8.

Of the 572 occupations and occupation groups established by the census classification for 1920, women were employed in all but 35, while of the 428 such classes in 1910 there were 49 in which no women were engaged. In general, it may be said that the statistics reported for women in unusual occupations are more nearly accurate for 1920 than they were for 1910, because in 1920 a much more rigid scrutiny was made of the returns of such occupations to eliminate every possible error.

Women in proprietary, official, and supervisory occupations.

Healthy increases occurred among women engaged in proprietary, official, and supervisory pursuits in nearly every field of employment. Women managers and superintendents of factories were nearly three and one-half times as numerous in 1920 as in 1910; officials of factories were more than eight times as numerous, and women manufacturers showed a substantial increase. There were in 1920 more than two and one-half times as many women bankers and bank officials as in 1910, while women insurance agents doubled and real estate agents and officials more than trebled in number. Women stockbrokers increased 81.6 per cent, and retail dealers 17.7 per cent, though the number of women commission brokers and wholesale merchants declined. Theater owners, officials, and managers numbered more than four times as many as in 1910, a change probably due in part to the increased number of motion-picture theaters. In spite of the great general decrease noted in the case of women engaged in agricultural pursuits farm forewomen increased 84.4 per cent between 1910 and 1920. Forewomen and overseers in factories increased 52.8 per cent. Laundry owners, officials, and managers increased 47.4 per cent; restaurant, café, and lunchroom keepers also showed a big increase, though hotel keepers and managers practically remained stationary. Women proprietors, officials, and managers of telegraph and telephone companies decreased from 1,409 in 1910 to 544 in 1920, a condition probably due in part to the taking over of small rural exchanges by the large telephone companies.

Striking changes in occupations for women.

In certain occupational groups overwhelming changes have occurred in the employment of women during the decade from 1910 to 1920. The unusual conditions brought about by the war, as well as the phenomenal development and specialization of industry during this period, are responsible for these changes, the nature of which is brought out by a study of the eight occupations in each of which the number of women increased at least 50,000 during the decade, and,

as a contrast, the seven occupations in each of which a similar decrease took place.

TABLE VII.—Eight occupations in each of which the number of women 10 years of age and over increased 50,000 or more from 1910 to 1920, and number and per cent of increase.

| Occupation. | Increase 1910 to 1920. | |
|---------------------------------------|------------------------|-----------|
| | Number. | Per cent. |
| Clerks (except clerks in stores)..... | 349,498 | 234.9 |
| Stenographers and typists..... | 301,429 | 114.5 |
| Bookkeepers and cashiers..... | 162,177 | 88.3 |
| Teachers (school)..... | 158,343 | 33.2 |
| Saleswomen (stores)..... | 105,834 | 42.3 |
| Telephone operators..... | 90,117 | 102.1 |
| Trained nurses..... | 67,156 | 87.8 |
| Clerks in stores ¹ | 58,803 | 52.7 |

¹ Many of the "Clerks in stores" probably are "Saleswomen."

TABLE VIII.—Seven occupations in each of which the number of women 10 years of age and over decreased 50,000 or more from 1910 to 1920, and number and per cent of decrease.

| Occupation. | Decrease 1910 to 1920. | |
|--|------------------------|-----------|
| | Number. | Per cent. |
| Farm laborers (home farm) ¹ | 599,943 | 51.0 |
| General servants ² | 216,762 | 23.7 |
| Dressmakers and seamstresses (not in factory)..... | 212,241 | 47.4 |
| Laundresses (not in laundry)..... | 134,130 | 25.8 |
| Farm laborers (working out) ¹ | 125,553 | 37.2 |
| Cooks..... | 64,818 | 19.4 |
| Milliners and millinery dealers..... | 52,849 | 43.2 |

¹ The decrease in this occupation, which is primarily due to the change in the census date, is discussed on page 8.

² Except chambermaids, cooks, ladies' maids, nursemaids, and bell girls, chore girls, etc.

During the decade considered the greatest numerical increases were found in the various clerical occupations, a field in which women have been prominent for many years, though not to so overwhelming an extent prior to 1920. As fast as the war claimed men in clerical occupations women filled their places, and it seems doubtful that women will relinquish the position which they have won in this field of endeavor.

Telephone operators have more than doubled in number since 1910 and still the telephone companies scour the bypaths and hedges for operators and yet more operators. These figures bear mute testimony to the eminence which the telephone has attained in our industrial and social life.

The great increase in the number of trained nurses is probably directly traceable to war conditions; furthermore, the number reported in 1920 may even be an understatement, because the Census

Bureau classifies in this group only those who made it clear that they were trained, registered, graduate, or professional nurses; those who deemed it sufficient to return their occupations simply as "nurse" or as "nurse, private family," or in some other indefinite fashion, were relegated to the group of practical nurses, who themselves had increased more than 20,000 during the decade. The understatement in the number of trained nurses is probably slight, however, since it is a trait of human nature to return the highest occupation to which one is entitled.

No doubt war conditions with their accompanying new opportunities in industry brought about some part of the decreases among laundresses, cooks, and servants, as has already been stated. To the great development of the steam laundry and its machinery may be attributed no small part of the decrease in the case of laundresses working at home; while the increasing tendency of women to buy their clothes ready-made, together with the better paid positions opened during the war to many former workers in this occupation, presumably accounts for a large part of the great reduction in the number of dressmakers and seamstresses who were not employed in factories. In the case of milliners and millinery dealers, however, the decrease is not so readily accounted for, though it is known that so-called millinery factories where standardized hats are manufactured are both increasing in number and enlarging in size.

The number of women more than doubled from 1910 to 1920 in 77 occupations employing each at least 500 women in 1920 (see Table IX). Between 1890 and 1900—only 20 years earlier—there were but 14 occupations in which the number of women increased by more than 100 per cent.

TABLE IX.—Occupations having 500 or more women each in 1920 which had more than doubled in number since 1910, number of women occupied in 1920 and in 1910, and per cent of increase.

| Occupation. | Number of women occupied in— | | Per cent of increase, 1910 to 1920. |
|---|------------------------------|------|-------------------------------------|
| | 1920 | 1910 | |
| Elevator tenders..... | 7,337 | 25 | (1) |
| Chauffeurs..... | 949 | 33 | (1) |
| Laborers, automobile factories..... | 2,467 | 139 | 1,674.8 |
| Theater ushers..... | 2,353 | 147 | 1,500.7 |
| Semiskilled operatives, automobile factories..... | 12,788 | 848 | 1,408.0 |
| Switchmen and flagmen (steam railroad)..... | 558 | 52 | (1) |
| Semiskilled operatives, petroleum refineries..... | 662 | 70 | (1) |
| Draymen, teamsters, and expressmen..... | 648 | 73 | (1) |
| Officials (manufacturing)..... | 3,381 | 401 | 743.1 |
| Laborers, butter, cheese, and condensed milk factories..... | 1,016 | 128 | 683.8 |
| Semiskilled operatives, butter, cheese, and condensed milk factories..... | 2,745 | 533 | 415.0 |
| Draftsmen..... | 1,985 | 391 | 407.7 |
| Laborers, furniture factories..... | 2,672 | 529 | 405.1 |
| Laborers, fish curing and packing..... | 1,039 | 233 | 345.9 |
| Theatrical owners, managers, and officials..... | 1,257 | 295 | 326.1 |
| Probation and trust officers..... | 780 | 188 | 314.9 |

¹ Not computed because base is less than 100.

TABLE IX.—Occupations having 500 or more women each in 1920 which had more than doubled in number since 1910, number of women occupied in 1920 and in 1910, and per cent of increase—Continued.

| Occupation. | Number of women occupied in— | | Per cent of increase, 1910 to 1920. |
|---|------------------------------|---------|-------------------------------------|
| | 1920 | 1910 | |
| Agents..... | 8,910 | 2,290 | 280.1 |
| Clerks (except clerks in stores)..... | 472,163 | 122,665 | 284.9 |
| Accountants and auditors..... | 13,378 | 3,586 | 273.1 |
| Coal mine operatives..... | 1,495 | 405 | 269.1 |
| Teachers (athletics, dancing, etc.)..... | 4,034 | 1,163 | 246.9 |
| College presidents and professors ¹ | 10,075 | 2,958 | 240.6 |
| Managers and superintendents (manufacturing)..... | 4,950 | 1,462 | 238.6 |
| Semiskilled operatives, slaughter and packing houses..... | 8,085 | 2,405 | 236.2 |
| Laborers, fruit and vegetable canning..... | 3,315 | 987 | 235.9 |
| Dentists, assistants and apprentices..... | 4,940 | 1,504 | 228.5 |
| Semiskilled operatives, fish curing and packing..... | 3,223 | 990 | 225.6 |
| Real estate agents and officials..... | 9,208 | 2,927 | 214.6 |
| Laborers, brass mills..... | 871 | 279 | 212.2 |
| Lawyers, judges, and justices..... | 1,738 | 538 | 211.5 |
| Retail dealers, clothing and men's furnishings..... | 3,313 | 1,044 | 207.8 |
| Semiskilled operatives, sugar factories and refineries..... | 662 | 216 | 206.5 |
| Religious, charity, and welfare workers..... | 26,927 | 8,889 | 202.9 |
| Laborers, rubber factories..... | 3,952 | 1,322 | 198.9 |
| Chemists, assayers, and metallurgists..... | 1,714 | 579 | 196.0 |
| Laborers, cotton mills..... | 16,669 | 5,767 | 189.0 |
| Laborers, slaughter and packing houses..... | 4,112 | 1,432 | 187.2 |
| Laborers, cigar and tobacco factories..... | 13,862 | 4,956 | 179.7 |
| Opticians (retail dealers)..... | 889 | 330 | 169.4 |
| Decorators, drapers, and window dressers (stores)..... | 1,155 | 439 | 163.1 |
| Laborers, glass factories..... | 2,476 | 948 | 161.2 |
| Clergymen..... | 1,787 | 685 | 160.9 |
| Semiskilled operatives, car and railroad shops..... | 976 | 377 | 158.9 |
| Laborers, tanneries..... | 777 | 307 | 153.1 |
| Bankers and bank officials..... | 4,226 | 1,672 | 152.8 |
| Semiskilled operatives, electrical supply factories..... | 27,389 | 11,041 | 148.1 |
| Laborers, tinware, enamelware, etc., factories..... | 2,169 | 878 | 147.0 |
| Laborers, silk mills..... | 2,730 | 1,112 | 145.5 |
| Laborers, saw and planing mills..... | 4,349 | 1,781 | 144.2 |
| Laundry managers and officials..... | 584 | 240 | 143.3 |
| Semiskilled operatives, flour and grain mills..... | 588 | 242 | 143.0 |
| United States officials (except postmistresses)..... | 652 | 275 | 137.1 |
| Florists (retail dealers)..... | 962 | 407 | 136.4 |
| Retail dealers, department stores..... | 3,952 | 1,481 | 134.5 |
| Laborers, electrical supply factories..... | 3,227 | 1,381 | 133.7 |
| Librarians..... | 13,502 | 5,829 | 131.6 |
| Semiskilled operatives, other iron and steel factories ² | 36,338 | 10,043 | 126.5 |
| Laborers, other woodworking factories ³ | 2,993 | 1,346 | 122.4 |
| Keepers of charitable and penal institutions..... | 4,931 | 2,245 | 119.6 |
| Designers..... | 5,652 | 2,577 | 119.3 |
| Laborers, shoe factories..... | 5,016 | 2,325 | 115.7 |
| Stenographers and typists..... | 564,744 | 263,315 | 114.5 |
| Retail dealers, curios, antiques, and novelties..... | 760 | 358 | 112.3 |
| Retail dealers, music and musical instruments..... | 549 | 259 | 112.0 |
| Laborers, public service..... | 1,530 | 729 | 109.9 |
| Oil, gas, and salt well operatives..... | 725 | 347 | 108.9 |
| Messenger, errand, and office girls ⁴ | 9,787 | 4,695 | 108.5 |
| Officials and inspectors (county)..... | 3,262 | 1,575 | 107.1 |
| Telegraph operators..... | 16,860 | 8,219 | 105.1 |
| Laborers, steam railroad..... | 6,586 | 3,248 | 102.8 |
| Packers, wholesale and retail trade..... | 6,098 | 3,009 | 102.7 |
| Laborers, glove factories..... | 858 | 424 | 102.4 |
| Telephone operators..... | 178,379 | 88,262 | 102.1 |
| Laborers, porters, and helpers in stores..... | 8,403 | 4,164 | 101.8 |
| Laborers, piano and organ factories..... | 725 | 360 | 101.4 |
| Painters, glaziers, and varnishers (factory)..... | 2,263 | 1,129 | 100.4 |
| Insurance agents..... | 5,083 | 2,537 | 100.4 |

¹ Probably includes some teachers in schools below collegiate rank.

² Includes all iron and steel factories and foundries other than agricultural implement factories, automobile factories, blast furnaces and steel rolling mills, car and railroad shops, ship and boat building, and wagon and carriage factories.

³ Includes all woodworking factories other than furniture factories, piano and organ factories, and saw and planing mills.

⁴ Except telegraph messengers.

Except under extraordinary conditions, those occupations which show increases amounting to huge numbers (see Table VII) are not

the ones which show great percentage increases. Clerks (except clerks in stores), stenographers and typists, and telephone operators are occupations which appear in Tables VII and IX as having increased enormously both in number and in per cent.

Changes in occupations numerically unimportant.

Changed times and changing conditions are evidenced also by increases and decreases in occupations which are unimportant numerically. The country loses nothing by the fact that there are fewer midwives, fewer women bartenders and saloon keepers, fewer bathhouse keepers and attendants, and fewer dance-hall and skating-rink keepers. Nor is the country always the gainer when women branch out into new and untried occupations; for instance, 323 women reported their occupations as longshoremen and stevedores in 1920, as compared with 44 in 1910; 1,495 said they were coal-mine operatives, and 163 gave their occupations as laborers on road and street building and repairing.

On the other hand, policewomen numbered 236 in 1920 and street car conductors 253; in neither of these occupations was a single woman returned in 1910.

COMPARISON WITH CHANGES IN THE OCCUPATIONS OF MEN.

As women branch out into every phase of industry, are they taking the places of men or are they merely keeping pace with development in our industrial life? Table X throws a little light on this question, as it shows the increase or decrease from 1910 to 1920 in the number of men and women engaged in occupations in which 1,000 or more persons of each sex were employed at each census.

TABLE X.—Increase or decrease from 1910 to 1920 in number of persons of each sex 10 years of age and over engaged in certain selected¹ occupations, and per cent of increase or decrease.

| Occupation. | Increase (+) or decrease (-), 1910 to 1920. | | | |
|---|---|-----------|------------|-----------|
| | Male. | | Female. | |
| | Number. | Per cent. | Number. | Per cent. |
| POPULATION 10 YEARS OF AGE AND OVER | +5,262,411 | +14.2 | +5,896,634 | +17.1 |
| All occupations..... | +2,973,173 | +9.9 | +473,739 | +5.9 |
| Agriculture, forestry, and animal husbandry..... | -982,551 | -9.1 | -723,373 | -40.0 |
| Dairy farmers, farmers, and stock raisers..... | +230,041 | +4.0 | -8,120 | -3.1 |
| Dairy farm, farm, and stock farm laborers..... | -1,302,535 | -28.6 | -725,159 | -47.8 |
| Dairy farm, farm, garden, orchard, etc., foremen..... | +35,289 | +81.3 | +6,564 | +84.4 |
| Gardeners, florists, fruit growers, and nurserymen..... | +28,695 | +21.8 | +1,449 | +18.5 |
| Garden, greenhouse, orchard, and nursery laborers..... | +1,136 | +0.9 | +1,947 | +26.1 |
| Poultry raisers and poultry yard laborers..... | +3,602 | +30.6 | -271 | -7.5 |
| Extraction of minerals..... | +123,284 | +12.8 | +1,770 | +161.8 |

¹ Only those occupations were selected for this table in which 1,000 or more persons of each sex were employed at each census (1920 and 1910).

TABLE X.—Increase or decrease from 1910 to 1920 in number of persons of each sex 10 years of age and over engaged in certain selected occupations, and per cent of increase or decrease—Continued.

| Occupation. | Increase (+) or decrease (-), 1910 to 1920. | | | |
|---|---|--------------|-----------------|---------------|
| | Male. | | Female. | |
| | Number. | Per cent. | Number. | Per cent. |
| Manufacturing and mechanical industries..... | +2,080,022 | +23.6 | +109,771 | +6.0 |
| Bakers..... | +8,595 | +10.1 | -186 | -3.9 |
| Buffers and polishers (metal)..... | -4,293 | +1.0 | -278 | -12.1 |
| Compositors, linotypers, and typesetters..... | +15,321 | +13.5 | -2,745 | -19.5 |
| Foremen and overseers (manufacturing)..... | +121,854 | +78.5 | +10,431 | +52.8 |
| Jewelers and lapidaries (factory)..... | -1,082 | -12.3 | -792 | -42.9 |
| Laborers: | | | | |
| Building, general, and not specified laborers..... | -245,604 | -28.8 | -671 | -4.2 |
| Chemical and allied industries..... | +31,283 | +7.8 | +1,265 | +62.3 |
| Cigar and tobacco factories..... | +9,859 | +86.2 | +8,906 | +179.7 |
| Clay, glass, and stone industries..... | -32,223 | -21.1 | +1,941 | +81.3 |
| Clothing industries..... | +990 | +18.3 | +1,546 | +32.1 |
| Electrical supply factories..... | +13,509 | +134.4 | +1,846 | +133.7 |
| Food industries..... | +67,706 | +89.5 | +9,814 | +155.2 |
| Iron and steel industries..... | +240,221 | +50.4 | +6,451 | +105.1 |
| Other metal industries..... | +20,637 | +49.0 | +2,477 | +93.9 |
| Lumber and furniture industries..... | -3,354 | -1.1 | +6,723 | +167.4 |
| Paper and pulp mills..... | +19,827 | +66.2 | +1,048 | +73.3 |
| Printing and publishing..... | +3,669 | +70.3 | +726 | +39.8 |
| Rubber factories..... | +35,291 | +288.7 | +2,630 | +198.9 |
| Shoe factories..... | +6,242 | +78.5 | +2,691 | +115.7 |
| Textile industries— | | | | |
| Cotton mills..... | +27,609 | +86.2 | +10,902 | +189.0 |
| Knitting mills..... | +2,339 | +54.9 | +1,800 | +50.8 |
| Silk mills..... | +4,664 | +173.6 | +1,618 | +145.5 |
| Woolen and worsted mills..... | +7,993 | +78.0 | +1,944 | +95.1 |
| Managers and superintendents (manufacturing) | +94,023 | +91.5 | +3,488 | +238.6 |
| Manufacturers and officials..... | -28,603 | -11.4 | +3,627 | +77.2 |
| Milliners and millinery dealers..... | -1,802 | -33.0 | -52,849 | -43.2 |
| Painters, glaziers, and varnishers (factory)..... | +8,349 | +14.0 | +1,134 | +100.4 |
| Semiskilled operatives: | | | | |
| Broom and brush factories..... | +1,182 | +13.1 | +261 | +12.3 |
| Button factories..... | +1,086 | +16.3 | +430 | +9.0 |
| Chemical and allied industries..... | +14,914 | +86.9 | +4,722 | +34.9 |
| Cigar and tobacco factories..... | -18,694 | -23.4 | +12,115 | +16.9 |
| Clay, glass, and stone industries..... | -6,961 | -8.8 | +3,704 | +39.2 |
| Clothing industries..... | -5,148 | -3.5 | +28,373 | +12.0 |
| Electrical supply factories..... | +23,816 | +174.7 | +16,348 | +148.1 |
| Food industries..... | +47,810 | +69.6 | +35,802 | +97.8 |
| Iron and steel industries..... | +286,678 | +83.0 | +34,262 | +145.4 |
| Other metal industries..... | +11,885 | +24.3 | +9,588 | +46.0 |
| Leather belt, leather case, etc., factories..... | +4,336 | +51.2 | +1,300 | +42.2 |
| Lumber and furniture industries..... | -4,245 | -2.8 | +4,693 | +33.6 |
| Paper and pulp mills..... | +15,518 | +60.1 | +2,768 | +26.2 |
| Paper box factories..... | +2,215 | +45.6 | +320 | +2.5 |
| Printing and publishing..... | +6,430 | +19.6 | +5,183 | +14.4 |
| Rubber factories..... | +46,200 | +218.2 | +8,411 | +80.7 |
| Shoe factories..... | +11,069 | +9.1 | +14,146 | +23.9 |
| Straw factories..... | +5,806 | +298.5 | +2,381 | +60.0 |
| Tanneries..... | -3,148 | -9.9 | +1,722 | +90.3 |
| Textile industries— | | | | |
| Carpet mills..... | -4,652 | -26.3 | -9,308 | -47.3 |
| Cotton mills..... | +13,786 | +9.9 | +8,519 | +6.1 |
| Hemp and jute mills..... | -56 | -2.8 | -397 | -15.2 |
| Knitting mills..... | +4,394 | +19.5 | +15,344 | +23.5 |
| Lace and embroidery mills..... | +1,750 | +40.4 | +1,306 | +11.2 |
| Rope and cordage factories..... | +1,692 | +56.0 | +245 | +7.0 |
| Sail, awning, and tent factories..... | +214 | +9.2 | -36 | -3.5 |
| Silk mills..... | +13,934 | +48.0 | +22,408 | +44.5 |
| Textile dyeing, finishing, and printing mills..... | +986 | +8.8 | +379 | +7.3 |
| Woolen and worsted mills..... | +11,573 | +21.8 | +9,659 | +18.6 |
| Tailors and tailoresses..... | -3,391 | -2.1 | -8,985 | -22.0 |
| Upholsterers..... | +8,410 | +44.4 | +974 | +75.3 |
| Transportation..... | +319,733 | +12.6 | +106,429 | +99.8 |
| Laborers, steam railroad..... | -76,307 | -14.1 | +3,338 | +102.8 |
| Mail carriers..... | +10,464 | +13.1 | +309 | +30.6 |
| Telegraph operators..... | +840 | +1.4 | +8,641 | +105.1 |
| Telephone operators..... | +2,150 | +22.3 | +90,117 | +102.1 |
| Ticket and station agents..... | +1,394 | +6.1 | +1,053 | +87.2 |

TABLE X.—Increase or decrease from 1910 to 1920 in number of persons of each sex 10 years of age and over engaged in certain selected occupations, and per cent of increase or decrease—Continued.

| Occupation. | Increase (+) or decrease (-), 1910 to 1920. | | | |
|---|---|-----------|----------|-----------|
| | Male. | | Female. | |
| | Number. | Per cent. | Number. | Per cent. |
| Trade | +428,605 | +13.6 | +199,704 | +42.7 |
| Bankers and bank officials..... | +23,762 | +43.7 | +2,554 | +152.8 |
| Clerks in stores ² | -32,068 | -11.6 | +58,803 | +52.7 |
| Commercial travelers..... | +15,487 | +9.6 | +213 | +8.2 |
| Demonstrators..... | +389 | +31.1 | +54 | +1.7 |
| Floorwalkers and foremen in stores..... | +1,665 | +11.2 | +893 | +32.6 |
| Fruit graders and packers..... | +2,311 | +86.3 | +1,048 | +51.4 |
| Inspectors, gaugers, and samplers..... | +998 | +8.5 | -730 | -41.6 |
| Insurance agents..... | +28,909 | +33.6 | +2,546 | +100.4 |
| Laborers, porters, and helpers in stores..... | +18,433 | +18.8 | +4,241 | +101.8 |
| Packers, wholesale and retail trade..... | +3,211 | +30.9 | +3,089 | +102.7 |
| Real estate agents and officials..... | +16,992 | +13.8 | +6,281 | +214.6 |
| Retail dealers..... | +121,369 | +10.8 | +11,877 | +17.7 |
| Sales agents..... | +8,783 | +27.9 | -2,464 | -60.1 |
| Salesmen and saleswomen (stores)..... | +142,710 | +22.8 | +105,834 | +42.3 |
| Public service (not elsewhere classified) | +302,933 | +68.0 | +8,236 | +60.7 |
| Officials and inspectors (city)..... | -281 | -0.9 | +570 | +57.0 |
| Officials and inspectors (county)..... | +1,361 | +7.8 | +1,687 | +107.1 |
| Postmasters..... | +1,600 | +8.4 | +2,486 | +28.5 |
| Professional service | +167,921 | +17.5 | +282,607 | +38.5 |
| Actors and showmen..... | -1,475 | -4.2 | +1,254 | +9.6 |
| Artists, sculptors, and teachers of art..... | +2,110 | +11.3 | -812 | -5.3 |
| Authors, editors, and reporters..... | -382 | -1.2 | +2,497 | +40.0 |
| College presidents and professors ³ | +10,622 | +83.6 | +7,117 | +240.6 |
| Dentists..... | +15,680 | +40.2 | +575 | +45.9 |
| Designers..... | +547 | +5.9 | +3,075 | +119.3 |
| Healers (except osteopaths and physicians and surgeons)..... | +4,710 | +217.9 | +3,230 | +69.1 |
| Keepers of charitable and penal institutions..... | +2,707 | +51.6 | +2,686 | +119.6 |
| Librarians..... | +201 | +12.6 | +7,673 | +131.6 |
| Musicians and teachers of music..... | +2,755 | +5.0 | -11,800 | -14.0 |
| Officials of lodges, societies, etc..... | +3,329 | +63.3 | +192 | +9.7 |
| Photographers..... | +329 | +1.2 | +2,155 | +43.4 |
| Physicians and surgeons and osteopaths ⁴ | -992 | -0.7 | -133 | -1.5 |
| Religious, charity, and welfare workers..... | +7,070 | +99.8 | +18,038 | +202.9 |
| Teachers (athletics, dancing, etc.)..... | +2,909 | +105.1 | +2,871 | +246.9 |
| Teachers (school)..... | -1,594 | -1.3 | +158,343 | +33.2 |
| Trained nurses..... | -355 | -6.1 | +67,156 | +87.8 |
| Domestic and personal service | -23,370 | -1.9 | -344,287 | -13.6 |
| Barbers, hairdressers, and manicurists..... | +9,988 | +5.8 | +10,948 | +49.1 |
| Boarding and lodging house keepers..... | -4,400 | -19.1 | -27,660 | -19.4 |
| Charwomen and cleaners..... | +4,653 | +64.7 | -1,884 | -7.0 |
| Cleaners and renovators (clothing, etc.)..... | +4,879 | +39.9 | +1,928 | +72.9 |
| Cooks..... | +12,853 | +11.0 | -64,818 | -19.4 |
| General servants ⁵ | +11,292 | +13.0 | -216,762 | -23.7 |
| Hotel keepers and managers..... | -8,820 | -17.5 | -101 | -0.7 |
| Housekeepers and stewards..... | +1,322 | +8.3 | +31,017 | +17.9 |
| Janitors and sextons..... | +57,901 | +63.3 | +7,586 | +35.4 |
| Laborers (domestic and professional service)..... | -19,041 | -37.9 | -1,646 | -48.1 |
| Laundresses and laundresses (not in laundry)..... | -2,811 | -20.5 | -134,190 | -25.8 |
| Laundry operatives..... | +4,059 | +11.3 | +4,392 | +5.8 |
| Nurses (not trained)..... | +3,412 | +21.4 | +21,746 | +19.6 |
| Restaurant, café, and lunch room keepers..... | +22,027 | +43.8 | +5,128 | +48.8 |
| Waiters..... | +9,569 | +9.3 | +31,123 | +36.3 |
| Clerical occupations | +556,596 | +48.7 | +832,892 | +140.4 |
| Accountants and auditors..... | +69,420 | +194.7 | +9,792 | +273.1 |
| Agents, canvassers, and collectors..... | +63,616 | +66.0 | +7,029 | +79.9 |
| Bookkeepers and cashiers..... | +6,599 | +2.5 | +162,177 | +88.3 |
| Bundlers and cash boys and girls..... | -1,768 | -41.4 | -2,125 | -32.2 |
| Clerks (except clerks in stores)..... | +417,909 | +69.9 | +349,498 | +284.9 |
| Messenger, errand, and office boys and girls ⁶ | +3,788 | +4.1 | +5,092 | +108.5 |
| Stenographers and typists..... | -2,968 | -5.6 | +301,429 | +114.5 |

² Many of the "Clerks in stores" probably are "Salesmen and saleswomen."

³ Probably includes some teachers in schools below collegiate rank.

⁴ Osteopaths were included with physicians and surgeons in the census of 1910 and therefore they must be combined with physicians and surgeons in 1920 for purposes of comparison.

⁵ Exclusive of bell boys, chora boys, etc.; butlers; chambermaids; coachmen and footmen; cooks; ladies' maids, valets, etc.; and nursemaids.

⁶ Except telegraph messengers.

A study of this table shows that in a majority of the occupations listed an increase or a decrease was common to both sexes. Of the 125 occupations shown, only 29 indicated a decrease for one sex and an increase for the other. Most of these 29 occupations were in manufacturing and mechanical industries and in professional service.

The rate of increase in the various occupations, however, was by no means the same for each sex. Table X shows 83 occupations with increases for both men and women and 50 occupations with greater percentage increases for women than for men. With all due allowance for the smaller basic figures in the case of women workers, it is nevertheless of interest to note that in each of 12 occupations the per cent of increase for women was more than 100 points higher than that shown for men in the same occupation.

No one is surprised to learn that men decreased in number and women increased as clerks in stores, as school teachers, as trained nurses, and as stenographers and typists. But why should men actors and showmen decrease 1,475 during this decade and women in the same profession increase 1,254? Why did the number of men authors, editors, and reporters decline 382 in ten years and women increase 2,497 during the same period? On the other hand, why did the number of women musicians and artists decrease while men in the same professions were increasing? The only answers to these questions which suggest themselves are that the war may have caused a temporary shortage in the number of men actors; and that many women musicians and artists who had previously been content to "dabble" in these pursuits turned to more remunerative employment.

It is even more startling to learn that male cooks increased 12,853 and general servants 11,292, when the reduction among women in these two classes has already been shown to have run into the hundreds of thousands. The Census Bureau does not distinguish between servants in private homes and those employed in more public capacities, but it is probable that the proportion of all men servants who are employed in hotels, restaurants, clubs, etc., is greater than the proportion of all women servants so employed, and it is probable that an increase rather than a reduction has taken place among employees in this type of establishment.

The great increase in the number of women telegraph operators has already been mentioned in this report, but its significance is not brought out unless one understands that there was no corresponding increase among the men engaged in this occupation. In 1920 there were 8,641 more women and 840 more men working as telegraph operators than in 1910. In 1920 men still outnumbered

women nearly four to one in this occupation, but if the rate of increase noted for the decade in question continues, it will not be long before women overtake the men in numbers.

From Table X it appears that women are supplanting men in cigar and tobacco factories, while they show increases in lumber and furniture industries and in clay, glass, and stone industries which are made conspicuous by decreases in the number of men as well as by the fact that they have in the past not been considered as offering any special inducements leading to the employment of women.

The numbers of both men and women operatives greatly increased in those industries which showed an unusual development during this decade, notably iron and steel industries, food industries, rubber factories, electrical supply factories, and silk mills. These industries experienced an imperative demand for labor, but in general it may be said that the numerical increases for the semiskilled of the two sexes were in the same proportion, roughly speaking, as were the total numbers of gainfully employed in the United States—a ratio of nearly 4 men to 1 woman. These figures show that the employment of women in important industrial occupations is keeping pace with the needs of industry, that opportunities for such employment are steadily increasing, and that a very significant development of the use of women in manufacturing and mechanical industries has occurred during the past decade, even though men are numerically much more important.

PART II.

WOMEN AT WORK IN AMERICAN TERRITORIES.

Much information of interest concerning the employment of women in the territorial possessions of the United States is found in three bulletins on "Occupation Statistics" issued by the Bureau of the Census early in 1922. These bulletins give the number of gainfully employed women in Alaska, Hawaii, and Porto Rico, classified by occupation, by color or race, nativity, and parentage, by age, and by marital condition, for each of the Territories as a whole, and for Honolulu and Hilo in Hawaii, and for Arecibo, Bayamon, Caguas, Mayaguez, Ponce, and San Juan in Porto Rico. Comparisons are made with the census statistics of 1910 and 1900.

In studying the statistics for women at work in the three Territories, two things must be borne in mind: First, the difference in size of the female population of the three Territories; and second, the remarkable differences in the per cent of increase shown for this population from 1910 to 1920. Table XI shows the increases in the Territorial population for women during the decade considered and compares them with the corresponding increase for continental United States.

TABLE XI.—*Total female population, female population 10 years of age and over, and per cent of increase from 1910 to 1920, for continental United States, for Alaska, for Hawaii, and for Porto Rico.*

| Area. | Total female population. | | | Female population 10 years of age and over. | | |
|--------------------------------|--------------------------|--------------|-----------------------|---|--------------|-----------------------|
| | 1920 | 1910 | Per cent of increase. | 1920 | 1910 | Per cent of increase. |
| Continental United States..... | 51, 810, 169 | 44, 639, 989 | 16. 1 | 40, 449, 346 | 34, 552, 712 | 17. 1 |
| Alaska..... | 20, 497 | 18, 499 | 10. 8 | 14, 824 | 13, 859 | 7. 0 |
| Hawaii..... | 104, 766 | 68, 810 | 52. 3 | 70, 994 | 47, 502 | 49. 5 |
| Porto Rico..... | 651, 984 | 560, 711 | 16. 3 | 456, 646 | 395, 084 | 15. 6 |

A phenomenal increase for one decade is noted in the female population of Hawaii, the per cent shown being more than three times as great as that for continental United States. The number of women in Alaska is increasing very slowly, however, while in Porto Rico, by far the most populous of the Territories, the increase in female population is practically the same as that for the United States as a whole.

In each of the three Territories studied the per cent of increase is less among women 10 years of age and over than among those of all ages; the opposite is true of the United States. These facts may indicate a higher birth rate in the Territories than in the United States; or, on the other hand, they may indicate that the accessions by immigration of adult women overbalance in the United States the natural increase in the population.

Alaska is the only Territory in which the increase in the number of gainfully employed women has more than kept pace with the increase in female population 10 years of age and over. This fact is brought out in Table XII.

TABLE XII.—Number and proportion of gainfully occupied women 10 years of age and over in continental United States, in Alaska, in Hawaii, and in Porto Rico, 1920 and 1910.

| Area. | Women 10 years of age and over. | | | | | |
|--------------------------------|---------------------------------|---------------------------------|-----------|---------------|---------------------------------|-----------|
| | 1920 | | | 1910 | | |
| | Total number. | Engaged in gainful occupations. | | Total number. | Engaged in gainful occupations. | |
| | | Number. | Per cent. | | Number. | Per cent. |
| Continental United States..... | 40, 449, 346 | 8, 549, 511 | 21. 1 | 34, 552, 712 | 8, 075, 772 | 23. 4 |
| Alaska..... | 14, 824 | 2, 035 | 14. 1 | 13, 850 | 1, 723 | 12. 4 |
| Hawaii..... | 70, 994 | 14, 283 | 20. 1 | 47, 502 | 11, 271 | 23. 7 |
| Porto Rico..... | 456, 646 | 86, 462 | 18. 9 | 395, 084 | 76, 892 | 19. 5 |

In 1920 there was a larger proportion of women employed in Hawaii than in Alaska or in Porto Rico, though a slightly smaller proportion than in continental United States. In 1910 the proportion of women occupied was higher in Hawaii than in continental United States, much higher than in Porto Rico, and nearly twice as high as in Alaska.

In Porto Rico and in Hawaii, as in continental United States, the proportion of women occupied decreased from 1910 to 1920; this decrease was especially marked in Hawaii.

In the United States the ratio of gainfully employed men to women in 1920 was 3.9 to 1; in Alaska it was 11.9 to 1; in Hawaii 6.8 to 1; and in Porto Rico 3.7 to 1.

GENERAL DIVISIONS OF OCCUPATIONS.

Table XIII gives an idea of what the women in the Territories are doing and compares their distribution in the general divisions of occupations with that for continental United States.

TABLE XIII.—*Number and per cent distribution of women 10 years of age and over in each general division of occupations for continental United States, for Alaska, for Hawaii, and for Porto Rico, 1920.*

| General division of occupations. | Continental United States. | | Alaska. | | Hawaii. | | Porto Rico. | |
|--|----------------------------|------------------------|---------|------------------------|---------|------------------------|-------------|------------------------|
| | Number. | Per cent distribution. | Number. | Per cent distribution. | Number. | Per cent distribution. | Number. | Per cent distribution. |
| All occupations..... | 8,549,511 | 100.0 | 2,085 | 100.0 | 14,263 | 100.0 | 86,462 | 100.0 |
| Agriculture, forestry, and animal husbandry..... | 1,084,128 | 12.7 | 61 | 2.9 | 6,415 | 45.0 | 17,719 | 20.5 |
| Extraction of minerals..... | 2,864 | (¹) | 20 | 1.0 | ..... | ..... | ..... | ..... |
| Manufacturing and mechanical industries..... | 1,930,341 | 22.6 | 503 | 24.1 | 1,057 | 7.4 | 30,809 | 35.6 |
| Transportation..... | 213,054 | 2.5 | 32 | 1.5 | 153 | 1.1 | 283 | 0.3 |
| Trade..... | 667,792 | 7.8 | 169 | 8.1 | 708 | 5.0 | 916 | 1.1 |
| Public service (n. e. c.)..... | 21,794 | 0.3 | 18 | 0.9 | 20 | 0.1 | 63 | 0.1 |
| Professional service..... | 1,016,498 | 11.9 | 395 | 18.9 | 1,918 | 13.4 | 3,253 | 3.8 |
| Domestic and personal service..... | 2,186,924 | 25.6 | 739 | 35.4 | 3,419 | 24.0 | 32,482 | 37.6 |
| General occupations..... | 1,426,116 | 16.7 | 148 | 7.1 | 573 | 4.0 | 937 | 1.1 |

¹ Less than one-tenth of 1 per cent.² Not elsewhere classified.

Agricultural pursuits claimed a much larger proportion of the working women in Hawaii than in the other two Territories; nearly one-half of the employed women in these islands were working on farms, while 20.5 per cent in Porto Rico, 12.7 per cent in continental United States, and 2.9 per cent in Alaska were similarly engaged. Porto Rico occupied the highest place in the proportion of wage-earning women who were engaged in manufacturing and mechanical industries (35.6 per cent); between 20 and 25 per cent were so occupied in Alaska and in the United States and only 7.4 per cent in Hawaii. A much smaller proportion of the working women of Porto Rico were engaged in trade than in the other areas considered. The proportion of professional women was highest in Alaska, and higher in Hawaii than in the United States; while professional women in Porto Rico comprised only 3.8 per cent of all gainfully occupied women.

One out of every three working women in Porto Rico and Alaska was engaged in domestic and personal service, as compared with one out of every four in continental United States and in Hawaii. Yet Porto Rico, which had the highest proportion of women in this general division of occupations, showed a numerical decrease from 1910 to 1920 of 12,667 (28.1 per cent) among those so occupied; in Hawaii the corresponding decrease was 355 (9.4 per cent); and in the United States 344,297 (13.6 per cent). In Alaska the number of women engaged in domestic and personal service increased 11.3 per cent during the decade, though the proportion of all women so engaged showed a decrease.

PRINCIPAL OCCUPATIONS.

In Table XIV are presented certain selected occupations which offer employment to women in the Territorial possessions.

TABLE XIV.—*Women 10 years of age and over engaged in selected¹ occupations, for Alaska, for Hawaii, and for Porto Rico, 1920.*

| Occupation. | Women 10 years of age and over: 1920. | | |
|---|---------------------------------------|------------------|------------------|
| | Alaska. | Hawaii. | Porto Rico. |
| All occupations..... | 2,085 | 14,263 | 96,462 |
| Agriculture, forestry, and animal husbandry..... | 61 | 6,415 | 17,719 |
| Farmers, coffee farms..... | | 29 | 771 |
| Farmers, general farms..... | 9 | 39 | 2,153 |
| Farmers, sugar farms..... | | 140 | 238 |
| Farmers, tobacco farms..... | | | 122 |
| Garden and orchard laborers..... | 1 | 134 | 193 |
| General farmers (laborers) ² | | | 282 |
| Laborers, coffee farms..... | | 424 | 2,268 |
| Laborers, general farms..... | 1 | 180 | 2,964 |
| Laborers, pineapple farms..... | | 529 | |
| Laborers, sugar farms..... | | 4,651 | 1,774 |
| Laborers, tobacco farms..... | | | 6,667 |
| Extraction of minerals..... | 20 | | |
| Manufacturing and mechanical industries..... | 503 | 1,057 | 30,809 |
| Apprentices to dressmakers and milliners..... | (³) | 10 | 1,311 |
| Dressmakers and seamstresses (not in factory)..... | 120 | 274 | 12,650 |
| Straw hat makers..... | | 19 | 3,633 |
| Tailoresses..... | 6 | 102 | 24 |
| Workers ⁴ in— | | | |
| Cigar making and tobacco working..... | (³) | (³) | 8,766 |
| Clothing industries..... | (³) | 61 | 3,568 |
| Food industries..... | 253 | 352 | 201 |
| Fish curing and packing..... | 252 | (³) | (³) |
| Fruit and vegetable canning, etc..... | | 188 | 7 |
| Sugar factories..... | | 91 | 68 |
| Textile industries..... | (³) | 37 | 358 |
| Lace and embroidery making..... | (³) | (³) | 354 |
| Transportation..... | 32 | 153 | 283 |
| Telephone operators..... | 25 | 123 | 190 |
| Trade..... | 169 | 708 | 918 |
| Laborers, porters, and helpers in stores..... | 1 | 39 | 70 |
| Retail dealers..... | 68 | 223 | 442 |
| Saleswomen (stores)..... | 84 | 433 | 373 |
| Public service (not elsewhere specified)..... | 18 | 20 | 63 |
| Professional service..... | 395 | 1,918 | 3,253 |
| Musicians and teachers of music..... | 25 | 48 | 87 |
| Religious, charity, and welfare workers..... | 15 | 64 | 55 |
| Teachers..... | 245 | 1,447 | 2,636 |
| Trained nurses..... | 75 | 233 | 362 |

¹ Only those occupations are shown in this table in which 100 or more women were employed in Alaska, Hawaii, and Porto Rico combined.

² "General farmers (laborers)" operate small farms of their own, but work most of the time as laborers for other farmers.

³ If any women were engaged in this occupation they were so few in number as to be classed with "All other occupations" in the census bulletins.

⁴ Includes laborers and semiskilled operatives.

TABLE XIV.—Women 10 years of age and over engaged in selected occupations, for Alaska, for Hawaii, and for Porto Rico, 1920—Continued.

| Occupation. | Women 10 years of age and over: 1920. | | |
|---|---------------------------------------|------------------|---------------|
| | Alaska. | Hawaii. | Porto Rico. |
| Domestic and personal service | 739 | 3,419 | 32,482 |
| Barbers, hairdressers, and manicurists..... | 15 | 131 | 17 |
| Boarding and lodging house keepers..... | 49 | 49 | 39 |
| Hotel keepers and managers..... | 28 | 16 | 61 |
| Housekeepers and stewardesses..... | 80 | 155 | 102 |
| Hunters, trappers, and guides..... | 74 | (³) | 28 |
| Janitors and sextons..... | 5 | 16 | 119 |
| Laundresses (not in laundry)..... | 63 | 502 | 16,317 |
| Laundry operatives..... | 43 | 76 | 116 |
| Midwives and nurses (not trained)..... | 39 | 148 | 147 |
| Restaurant, café, and lunch room keepers..... | 15 | 16 | 126 |
| Servants..... | 244 | 2,159 | 15,382 |
| Cooks..... | 148 | 510 | 6,016 |
| Nursemaids..... | (³) | 30 | 153 |
| Waitresses..... | 73 | 107 | 28 |
| Clerical occupations | 148 | 573 | 937 |
| Bookkeepers and cashiers..... | 38 | 110 | 140 |
| Clerks (except clerks in stores)..... | 42 | 108 | 235 |
| Stenographers and typists..... | 63 | 331 | 506 |

³If any women were engaged in this occupation they were so few in number as to be classed with "All other occupations" in the census bulletins.

Some occupations numerically important deserve special mention. In Alaska there were only three occupations employing as many as approximately 250 women; these were workers in fish curing and packing, teachers, and servants. More than 90 per cent of the 252 women working in Alaskan fish curing and packing were American Indians, and nearly two-thirds of the women engaged in this industry were married. As might be expected, 207 of the 245 women teachers were Americans by birth; more than one-third of the teachers were married women. A number of women of each race and nativity group represented in the Territory were employed as servants.

In Hawaii 4,651 women were working as sugar-farm laborers; 4,116 of these women, or 88.5 per cent, were Japanese; more than three-fourths of all the sugar-farm laborers were married women. The servants in Hawaii numbered 2,159, of whom 1,667 were Japanese, with a scattering number in each of the many races represented among the women of these islands. One-half of these women servants were married. Of the 1,447 women teachers 707 were classed as "Other Caucasians" and presumably the majority of them were Americans; 176 were part Caucasian and part Hawaiian; 164 were Japanese, 113 Chinese, 97 native Hawaiian, 97 Portuguese, and 82 part Hawaiian and part Asiatic. Among the women working as laborers on coffee farms and on pineapple farms the Japanese had an overwhelming majority, as indeed they had in all agricultural

pursuits. As retail dealers and as saleswomen the Japanese women also predominated. More than one-half of the trained nurses in Hawaii were of Caucasian origin, as were also more than one-half of the women engaged in clerical pursuits.

Nearly three-fourths of the women engaged in agricultural pursuits in Porto Rico were classed as "Native whites" by the Census Bureau. Presumably the great majority of persons in this color and nativity group were born in Porto Rico of Spanish origin. Among the dressmakers and their apprentices 70.4 per cent were "native whites," and in most other occupations this nativity group predominated, though in domestic and personal service nearly one-half the women were negroes.

STATISTICS FOR CITIES.

Occupation statistics are shown separately for Honolulu and Hilo in Hawaii. Only one-third of the women workers of the islands were living in these two cities, a condition that bears close relation to the fact that 45 per cent of all women at work in Hawaii were engaged in agricultural pursuits.

No urban communities are mentioned in the bulletin on Alaska, but for Porto Rico statistics are given showing the women occupied in Arecibo, Bayamon, Caguas, Mayaguez, Ponce, and San Juan. The women workers in these six cities comprised only one-fourth of the total number at work—an even smaller proportion than in Hawaii. This situation can not be explained as in Hawaii, however, by a large proportion in agricultural pursuits, since only 20.5 per cent of all women workers were thus engaged in Porto Rico in 1920.

INDUSTRIAL HOME WORK IN PORTO RICO.

Nearly 14,000 women, or one-sixth of all gainfully occupied women in Porto Rico, were working as dressmakers and seamstresses or their apprentices (not in factories) while in continental United States only 2.8 per cent of all working women were so engaged. Probably the majority of these women were engaged in hand work on fine muslin underwear, generally done at home. Because of the fact that this work was done at home and by hand, most of the workers returned their occupations as dressmakers or as seamstresses and were classified by the Census Bureau as dressmakers and seamstresses (not in factory), the only possible classification of the data as returned. On the other hand, these women for the most part were in reality industrial home workers, just as are those sweat-shop workers who in the big industrial cities of the United States perform certain factory processes on the sewing machine or by hand in their own homes. In other industries also work is given out to be

done at home, and lace makers, cigar makers, tobacco workers, and straw-hat makers were found engaged in home work on factory processes. Conditions are, of course, by the very nature of things decidedly different in Porto Rico from those in a large industrial center, and, although definite information as to the extent of home work in those trades is not given, ~~that~~ the Census Bureau by a slight change in wording from that used to describe similar occupations in the United States indicates that a majority of those whose occupations are listed above seem to be engaged in home work on factory processes as well as dressmaking.

