

POPULATION AND THE PATTERN OF UNEMPLOYMENT, 1930-1937

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THE problem of unemployment presents many facets of interest to students of population trends. It is reasonable to suppose, for example, that in a contracting economy reciprocal relations of cause and effect may exist between population increases and increased unemployment. Thus a recent paper by T. J. Woofter, Jr., in the *Quarterly* furnishes presumptive evidence that natural increase in the rural farm population aged 18 to 65 years will lead to greater unemployment unless we have an expanding economy.² Conversely, prolonged unemployment itself is likely to have adverse effects on population increase. Presumably such effects may be related to the fact that the whole population comes to be supported by a smaller proportion of the total group engaged as a working force. Moreover, changes in the age and sex ratios of both employed and unemployed workers may be expected to affect population increases and thus in turn affect population policy. In a large sense our policy in relation to unemployment and reemployment might in time come to be regarded as part of a national population policy.

Any discussion of these problems would benefit from an analysis of the pattern of employment and population as they developed during the depression. For this purpose we must make use of the regular Census of 1930 and the Special Unemployment Census of 1937. The enumerative check census of the 1937 Special Unemployment Census applies age and sex distribution to the pattern of the

¹ From the Study of the Southern People, a project of the Institute for Research in Social Science, University of North Carolina.

² Woofter, T. J., Jr.: Replacement Rates in the Productive Ages. The Milbank Memorial Fund *Quarterly*, October, 1937, xv, No. 4, pp. 348-354.

employed, the unemployed, and those unavailable for gainful employment among the adult population, aged 15-74.³

In order to throw light on increasing unemployment during the depression this paper adjusts the 1930 and 1937 censuses of unemployment to a comparable basis in the attempt to estimate changes due: (1) to population increases, and (2) the changes in social-economic conditions.

SOURCE AND RELIABILITY OF DATA

Such use of the 1937 Census involves some judgment as to its reliability. Presumably the Census has as yet been put to little use by students of population, largely because of doubts of its reliability. In regard to the voluntary registration of the unemployed secured by postal card returns, these doubts seem to be justified. To supplement and check these data, however, an enumerative check census was made of 2 per cent of the postal routes, covering 1.5 per cent of our total population. Conducted by regular mail carriers, this registration covered 1,640 check areas, containing a total of 1,950,000 persons of both sexes and all races, and selected as representative of the 82 per cent of our population who are reached by postal delivery service. This enumeration represents the first use the Census has made of the sampling technique on a national basis, and the Bureau of the Census accompanied each important estimate made from the sample data by a statement of its validity. Within the postal delivery areas a high degree of accuracy was attained.⁴

In extending the estimated totals of employed, unemployed, and unavailable to include the non-delivery areas this high degree of accuracy is not maintained. In the final estimate of the distribution

³ Biggers, John D.: *CENSUS OF PARTIAL EMPLOYMENT, UNEMPLOYMENT, AND OCCUPATIONS*, Volume IV. *The Enumerative Check Census*. By Calvert L. Dedrick and Morris H. Hansen. Washington, Government Printing Office, 1938.

⁴ Thus the estimated percentage of males available for employment is 85.6 with fiducial limits of $\pm .4$. In this case the chances are 99 to 1 that the difference between the estimate of 85.6 per cent and the true percentage in all areas having postal delivery service would lie between 85.2 and 86.0 per cent (*See* Table A in the Appendix).

by functional class (Volume IV, Table VI, p. 20), percentages have been adjusted to allow for differences in age and sex composition between the population in the delivery areas and the total population in the nation. The number of unemployed in the final estimate was computed on the basis of the voluntary registration which included the non-delivery areas with corrections for completeness of registration. The remaining functional classes were computed from the data of the check census and from an independent estimate of the 1937 population by age and sex groups furnished by the Bureau.⁵

The facts justifying the use of the estimates for the total United States can be summed up as follows: (1) Computed sampling variations of estimates within the postal delivery area are very small. (2) For the three classes of unemployed the estimate was based in part on data including the whole population. (3) Adjustments were made to take care of age and sex differences between the total population and that of the non-delivery area. (4) Some of the errors due to omission of the non-delivery areas in the sample are self-compensating.⁶ If used with due caution, the estimates of the sample census seem to be of sufficient validity to warrant analysis. "The most valuable achievement," writes Thomas C. McCormick, "of this unique experiment by the Census Bureau was probably to show that it is perfectly feasible to apply the method of sampling to certain kinds of census estimates."⁷

THE EFFECTIVE LABOR FORCE AND THE
NATURAL DEPENDENTS, 1937

As the Special Census shows, the population aged 15-74 in 1937 presented a varied pattern of employment. Out of every ten men,

⁵ Percentages by functional class were derived from data of the check census and applied to the total population of each age and sex group as given in the estimate. (*See* Vol. IV, p. 133, Ap. B., Method 2.)

⁶ Vol. IV, p. 24, footnote 7.

⁷ Thomas C. McCormick in a review in *American Sociological Review*, August, 1939, iv, pp. 613-615.

one was unable to work, and nine were employable. Of these nine only six or seven could get jobs while two or three were left unemployed or worked on WPA and other projects. Of every ten women, seven sat at home while three sought jobs, two of whom were successful. For the total population, four remained at home, six sought jobs, but only four could find them. Significant categories in this analysis are based on the concept of availability for employment for gain or profit. Those available constituted the labor force made up of two classes: the employed and the unemployed. The third class consists of those unavailable for gainful employment.⁸ This economic classification cannot rightly be understood apart from consideration of age and sex distribution.

Age and sex distribution in any society sets the demarcation between the working force and the natural dependents—the young and the aged. Within the economically productive groups, age and sex distinctions also serve to distinguish between those in the labor market and those who do not seek gainful employment, as for example youth in school and busy housewives.

In depression it is realized that an increased proportion of the labor force is “wasted,” leaving a smaller part of the population to support the whole group. Table 1 represents an attempt to answer the question: what portion of the available labor force was left unutilized or wasted? Part-time employed and partly unemployed are computed at half time and the ill and temporarily idle are counted with the totally unemployed. This procedure gives an estimate that somewhat less than one-fourth (23.8 per cent) of the nation’s labor force was “wasted” in 1937.

Population students are also interested in finding out what proportion of the group “supports” the total population. This may be shown by including in our analysis (1) the natural dependents, those too young and too old to work, and (2) those who are not

⁸ See Table A in the Appendix for figures and discussion of the three functional classes: employed, unemployed, and unavailable for employment.

seeking work, "the unavailables." In the nation 28.2 per cent of the total population are under 15 or over 75 and thus largely dependent, 10 per cent are "wasted" man-power, and 29.8 per cent are un-

Table 1. Per cent of total man-power 15-74 available for employment by functional class with per cent wastage of man-power, 1937.¹

Functional Class	United States	
	Per Cent Man-Power	Per Cent Wastage
TOTAL AVAILABLE FOR EMPLOYMENT	100.0	23.8
Totally Unemployed	16.4	16.4
Emergency Workers	3.8	
Partly Unemployed	10.2	5.1
Part-Time Workers	2.2	1.1
Fully Employed	66.2	
Ill or Voluntarily Idle	1.2	1.2

¹ For sources and data see Table A in the Appendix.

Table 2. Distribution of population by effective man-power, 1937. (Estimate in thousands.)

Population Group	United States	
	Number	Per Cent
TOTAL POPULATION	129,533 ¹	100.0
Workers (Full-Time)	41,504	32.0
Dependent	88,029	68.0
Wasted	12,970	10.0
Not Available: 15-74 yrs.	38,589	29.8
Under 15 and Over 75	36,470	28.2

¹ Corrected estimates of the United States Census Bureau for November 1, 1937; all other estimates derived from the United States Census of Partial Employment, Unemployment, and Occupations.

available (Table 2). Thus in 1937 the total population of 129,533,000 was supported by 41,504,000 equivalent full-time workers, comprising only 32 per cent of the population.

Traditionally the problem of the support of the total population by the working force has been met in the family. It was the family group which supported the unemployed and those unavailable for employment along with its natural dependents. Increasingly, economic insecurity has shifted the burden of support of the unemployed and the aged from the private to the public sphere. Once unemployment becomes affected with a public interest, society comes to watch with concern its maturing youth who, simply by

growing up, may make the transition from natural dependents to unemployed youth, a social responsibility. Important also in this connection are the large numbers classified as unavailable for employment. Almost 7,000,000 men and 32,000,000 women, 41.5 per cent of the population 15-74, were in this category in 1937 (Table A). For any number of them to seek work and fail to find it adds to our mounting figures of unemployed. In any society committed to the relief of unemployment this indicates that, unless they find work, the problem of their support has shifted from the private to the public sphere.

PRIMARY AND SECONDARY UNEMPLOYMENT, 1930-1937

With these considerations in mind we shall attempt to trace the change in numbers of workers by the three functional classes: unemployed, employed, and unavailable for employment from 1930 to 1937. Any increase in the amount of unemployment from one period to another may be due (1) to change in the number and composition of the population, and (2) to change in social-economic conditions. Changes in unemployment due to social-economic conditions can conceivably be explained from the point of view of (a) lost jobs or of (b) increased proportions of job-seekers among the population, 15-74.

In order to separate (1) the population factor from the (2) social-economic factor we have attempted to reduce the two Censuses to a comparable basis⁹ and to compute the difference due only to change in population for each functional class. Thus to ascertain changes in the number of the unemployed due to change in age-sex-group composition, it was necessary to compute the 1930 age specific unemployment rates for each five-year age group, male and female, 15-74, and to apply these rates to the 1937 population distribution. The summation of these figures for each sex and for the total population gives us the amount of unemployment we

⁹ Table B in the Appendix shows readjustments by sex and age groups needed to bring the 1930 and 1937 Censuses to a comparable basis.

should expect with 1930 employment held constant. The results summed up for all age groups¹⁰ by functional class are presented in Table 3 by sex under the heading *Expected Number in 1937 with Conditions as of 1930*. Thus, for example, the expected number of totally unemployed of both sexes with social-economic conditions unchanged from 1930 is 2,641,000.

The results of this analysis for the three functional classes are shown in Table 3 and Figure 1. The first two rows (Table 3) show the adjusted number of workers in 1930 and 1937. The actual difference between the two sets of figures (third horizontal row) is due to the two factors: (1) change in number and composition of population, (2) change in social-economic conditions. In order to separate the effects of these two factors, we have computed the difference due only to change in population. Thus, column 3 shows that the total number of unemployed "expected" in 1937 is 2,641,000. Since the total number of unemployed in 1930 was 2,426,000 (*see* second horizontal line), the increase due only to change of population amounts to 215,000. The actual increase in the number of unemployed persons from 1930 to 1937 was 8,586,000. This represents the combined effect of population and social-economic changes. The net difference in unemployment, which can be attributed to change in social-economic conditions alone, is 8,586,000 minus 215,000, or 8,371,000.

Following this method for various functional classes and both sexes, we can state that the increase in unemployment from 1930 to 1937 was caused by a drastic change in conditions, since the surplus of unemployed due to population changes contributes but a negligible share of the total surplus. On the other hand, the total surplus in "all workers available" (category 2) of both sexes, or 7,682,000, was created almost equally by the effect of changed population (4,051,000)¹¹ and changed conditions (3,631,000). Analyzing this

¹⁰ The method involves the same principle used in computing the standardized death rate.

¹¹ Of 4,051,000 increased population, it would appear (category 4) that 3,836,000 got jobs.

ITEM	TOTAL POPULATION AGED 15-74									
	Total Population Aged 15-74		Employed or Available for Employment						Unavailable for Employment	
			Total		Totally Unemployed		Employed (Fully or Partly)			
	1 (equals 2+3)		2 (equals 3+4)		3		4		5	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
A										
ALL										
Number in 1937	93,063	100.0	54,503	58.6	11,012	11.9	43,491	46.7	38,560	41.4
Number in 1930	84,805	100.0	46,821	55.2	2,426	2.9	44,395	52.3	37,984	44.8
Actual Difference	8,258		7,682		8,586		-904		576	
Exp. No. in 1937 ¹	93,063		50,872		2,641		48,231		42,191	
Surplus over 1930										
Due to Increase in Pop. 15-74	8,258		4,051		215		3,836		4,207	
Net Difference	0		3,031		8,371		-4,740		-3,031	
B										
MALE										
Number in 1937	46,704	100.0	40,115	85.9	7,555	16.2	32,560	69.7	6,589	14.1
Number in 1930	42,965	100.0	36,615	85.2	2,057	4.8	34,558	80.4	6,350	14.8
Actual Difference	3,739		3,500		5,498		-1,998		239	
Exp. No. in 1937 ¹	46,704		39,717		2,241		37,476		6,987	
Surplus over 1930	3,739		3,102		184		2,918		637	
Net Difference	0		398		1,314		-4,916		-398	
C										
FEMALE										
Number in 1937	46,359	100.0	14,388	31.0	3,457	7.4	10,931	23.6	31,971	69.0
Number in 1930	41,840	100.0	10,206	24.4	369	0.9	9,837	23.5	31,634	75.6
Actual Difference	4,519		4,182		3,088		1,094		337	
Exp. No. in 1937 ¹	46,359		11,155		400		10,755		35,204	
Surplus over 1930	4,519		949		31		918		3,570	
Net Difference	0		3,233		3,077		176		-3,233	

NOTE: Number of workers in 1937 and 1930 adjusted for differences in definitions; employed workers include those defined in 1937 as fully employed, partly employed, part-time workers, and ill or voluntarily idle; unemployed include totally unemployed and emergency workers in 1937, and unemployed of class A in 1930, adjusted for comparable definitions; "expected" number of workers in 1937 computed by adjusting 1930 workers for changes in population by age-groups and sex from April, 1930, to November, 1937. Due to the adjustments for comparable definitions, there are certain discrepancies between the figures for 1937 in this Table and in Appendix Table A.

¹ Conditions as of 1930.

SOURCE: UNITED STATES CENSUS OF PARTIAL EMPLOYMENT, UNEMPLOYMENT, AND OCCUPATIONS, 1937: Vol. IV, Chapter VIII, Table 49, p. 111; Table 60, p. 134. FIFTEENTH CENSUS OF THE UNITED STATES, 1930: POPULATION, Vol. V, Chapter 6, Table 9; UNEMPLOYMENT CENSUS, 1930, Vol. I, Tables 1 and 6.

Table 3. Comparison of number of workers by sex and functional class in the United States in 1930 and in 1937. (In thousands.)

change in "total workers available" by sex, we see that most of the increase in male job-seekers was due simply to increased population, while the increase in female job-seekers (4,182,000) is explained by changed conditions (3,233,000), rather than population changes (949,000).

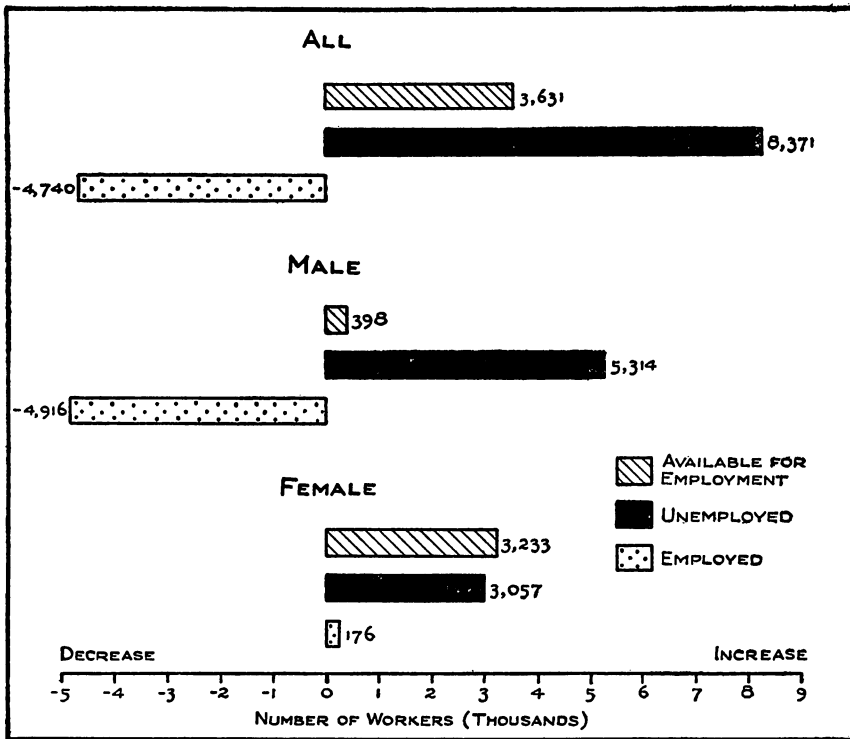


Fig. 1. Difference between actual number of workers in 1937 and number expected according to the 1930 pattern of distribution by functional class in the United States.

Table 3 also gives an answer to the second question: how much of the unemployment in 1937 was due to a decrease in the number of jobs available, and how much to an increase in the number of workers seeking jobs? The answer can be read from the three italicized horizontal rows giving the “net” differences from 1930 to 1937 in workers by various classes. Thus, we see that the net increase in the unemployed males was 5,314,000, and that it was almost entirely due to the loss of jobs, which amounted to 4,916,000. The increase of 3,057,000 in the number of unemployed women, however, was caused exclusively by the tremendous increase in job-seekers among women (3,233,000), while the number of jobs for women actually increased. Obviously, the unemployment status of the total population reflects the combined effect of both factors: the

increase of unemployment (8,586,000) is explained by a loss of 4,740,000 jobs and by an increase of 3,631,000 job-seekers.

Evidently while the depression served to increase reported unemployment it operated for each sex in an entirely different fashion. Increased male unemployment was due to loss of jobs; female unemployment was due to increase in the proportion of job-seekers. To deny, however, that the increase of unemployed women is due to the loss of jobs would not be in strict accordance with the facts. It is due to the loss of jobs—by men, not by women. Loss of jobs by primary workers with its lowering of family levels of living has sent streams of secondary workers into the labor market in search of gainful employment.

THE POPULATION PYRAMID AND THE PATTERN OF EMPLOYMENT

Secondary workers have also been drawn from our reservoir of maturing youth. This movement is made clear when the pattern of employment is studied in connection with the population pyramid (Figure 2). From 1930 to 1937 the proportion of "available" workers increased most sharply in the younger ages, 15 to 30. Thus Table 4 indicates that in the group 15-19 the proportion of males working and seeking work in-

Table 4. Available workers as percentages of total population in each age group in 1930 and 1937.¹

Age	Male		Female	
	1930	1937	1930	1937
15-19	37.2	43.1	24.2	30.2
20-24	85.4	90.3	41.0	53.6
25-29	95.7	97.1	30.2	42.1
30-34	97.0	97.9	23.8	34.4
35-39	97.4	97.6	22.5	31.1
40-44	97.4	96.8	21.3	28.0
45-49	97.0	96.3	20.4	25.0
50-54	95.6	95.1	19.2	22.5
55-59	92.8	91.9	17.0	18.8
60-64	86.6	84.7	14.4	15.5
65-69	75.4	67.8	11.2	10.5
70-74	57.1	45.2	7.5	5.6

¹ Adjusted to a comparable definition. "Available workers" include both job-holders and job-seekers.

creased from 37.2 to 43.1 per cent; among females from 24.2 to 30.2 per cent. After age 30 the employment pattern of the sexes shows a decided differentiation. The proportion of males in the labor mar-

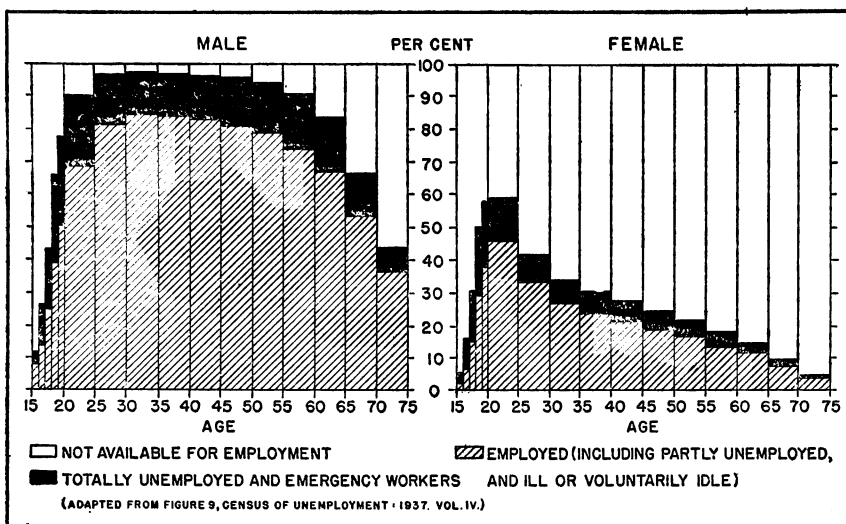


Fig. 2. Per cent distribution by functional class of the population of each age-sex group in the enumerative check areas of the Census of Unemployment, 1937. Reprinted from *Population Index*, 4, No. 4.

ket becomes stable at 30 and shows a slight decline after 40. Females however continue to flow into the labor market until after 65. The effect of old age pensions in the period may be seen in the marked decline of workers available after 65. For males 65-69 the decline was from 75.4 to 67.8 per cent.

Figure 2, which presents the population pyramid in terms of the three functional classes in 1937, shows that the conflicting claims of "unemployed" and "unavailable for employment" are especially apparent in the younger ages and among females. As women reach the age of marriage and mature home-making, their proportions in the labor market drop rapidly. Only in age group 20-24 are as many as half (53.9 per cent) of the women in the labor market. It is noticeable that by far the highest rate of unemployment (13 per cent) is found among women, 15-24 years old. Moreover when we analyzed the "net differences" in Table 3 by age groups we found that unemployment among youth 15-30 was due to an increase of job-seekers and not to a decrease of number of jobs from 1930 to 1937.

CONCLUSION

The preceding analysis clearly shows the tendency of mounting loss of jobs to increase disproportionately the numbers accounted as unemployed. When primary workers, the family bread winners, are displaced, secondary workers composed largely of women and youth enter the labor market in search of employment. Thus if the numbers displaced from jobs be counted as unity, the resulting increase in the number of unemployed will be a figure much greater than unity. Here we can make use of our estimates in order to secure a ratio. The loss of 4,740,000 jobs (1930-1937) gave a total increase of 8,586,000 unemployed. Thus if the loss of jobs be regarded as 100, the increase in the number of unemployed was 181. Some 215,000 of the additional unemployed were due, however, to natural increase in the population, 15-74. If we deduct this number, the ratio of increased unemployment to lost jobs becomes 176 per cent. This is equivalent to the statement that if 100 jobs are lost in the population, we may expect to find thereby not 100 but 176 unemployed. This, it seems, is what happened between 1930 and 1937.

To some these figures may suggest that unemployment should decline at an accelerating ratio once employment again picks up. As employment mounts, so the theory runs, the number seeking employment will decline at a greater than one to one ratio. This will be true if (1) primary workers are reemployed; and (2) if the body of secondary workers, composed largely of women, relinquish jobs or the search for jobs as primary workers are reemployed. To test this hypothesis it might be suggested that social policy should be first directed to the reemployment of the 4,916,000 males who have lost jobs since 1930. By the time this is done, it may be predicted that most of the 3,233,000 unemployed recently added to the labor market will be retired.

Such a view, some sociologists may point out, discounts the effect

of changes of habits and attitudes on women wage-earners. The effect of declining births and increasing life expectancy has been to enlarge the labor market at both ends of the life span. Women may no longer feel called upon to choose between jobs and marriage, but they may increasingly come to prefer pay envelopes to the child care that once went with marriage. Confronted with these imponderables we might find that reemployment of primary workers will not decrease so-called secondary unemployment as fast as the loss of jobs increased it during the depression. This leaves us with the disquieting thought that the numbers in the labor market are bound to increase, giving us a large reservoir of secondary unemployment. Some believe that this phenomenon is characteristic of the shift to urban environment.

These considerations impinge on public policy in the debatable question of rationing jobs by primary and secondary workers per family. Already applied to work relief, and to public employment in some states, this is a policy which traditional American individualism has hitherto largely avoided. It would be very repugnant to our traditional views, for example, to provide that joint employment of husband and wife should not be encouraged as long as families existed in which both husband and wife were unemployed and seeking work. Certainly in regard to qualifications for jobs this policy would run into great difficulties.

Some may be inclined to point out that attitudes developed in an expanding economy when more of our population was rural can hardly be maintained in a contracting economy where most of the population is urban. Here it may be claimed that the persistence of individualistic attitudes will make necessary more collective action, that is, public relief. Others may contend that an equitable application in private industry of the distinction between primary and secondary unemployed would the more quickly reduce unemployment and thus the need for public relief. There are those, no doubt, who would claim that such a policy should make for a more even

distribution of incomes, and might stimulate rising marriage and birth rates.

It should be realized by all that the effect of continued unemployment will be to make the struggle for jobs as much of a social and political issue as the question of relief itself. At this point, however, we are easily reminded that to make rabbit pie, one first catches the rabbit. Jobs for the primary unemployed are not yet in sight. If there should become apparent in our technology a long-time trend away from jobs in heavy industry for males to service jobs for women, reemployment of primary workers will become a hopeless issue, giving way to jobs for the secondary unemployed. As the skills of many primary unemployed become obsolescent, another question arises. Under such conditions is it likely that men will follow the pattern set by women workers and gradually become "unavailable for gainful employment"? Certainly the depressing effect of such trends on marriage and the birth rates should prove of the greatest importance to students of population policy.

A P P E N D I X

METHODOLOGY

Many doubts have been cast on the validity of the unemployment enumeration taken in connection with the regular Census of 1930. Many of these criticisms, no doubt, are justified, but it is beyond the scope of this analysis to attempt to readjust the figures by any of the criteria suggested. It is necessary, however, to make several readjustments required by differences in the definition of classes used in the two periods. These adjustments have to do with (1) unpaid family workers, (2) "new" workers, and (3) the distinction between wanting work and actively seeking it.

"Gainful workers" of the 1930 Census are persons usually working for pay or profit whether actually employed (fully or partly) or unemployed at the time of the Census. This class corresponds to the "employed or available for employment" in 1937. However, in 1930 the number of gainful workers included all those classified as "unpaid family workers,"

a category excluded in 1937 from the number of those "available for employment" and added to the "unavailables." The great majority of unpaid family workers were engaged in agriculture. Since the 1930 Census classifies these workers in agriculture by age and sex groups, it was a simple matter to exclude them from the total gainful workers and add them to the "unavailable" group for 1930. Table B shows in the first three columns the procedure of adjustment for all gainful workers expressed as percentages of the population in each age-group by sex. The group of gainful workers in 1930 was subdivided into "totally unemployed," class A, as defined in Volume I of the 1930 Census of Unemploy-

Table A. Estimated population 15 to 74 years of age by functional class and by sex with per cent distribution in the United States, 1937. (In thousands.)

	ALL		MALE		FEMALE	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
TOTAL POPULATION (15-74)	93,063	100.0	46,704	100.0	46,359	100.0
<i>Employed or Available for Employment</i>	54,474	58.5 ± 0.5 ¹	39,978	85.6 ± 0.4 ¹	14,496	31.3 ± 0.9 ¹
Totally Unemployed	8,928	9.6 ± 0.5	5,761	12.3 ± 0.5	3,167	6.8 ± 0.4
Emergency Workers	2,055	2.2 ± 0.1	1,657	3.5 ± 0.2	398	0.9 ± 0.1
Partly Unemployed	5,550	6.0 ± 0.4	4,058	8.7 ± 0.5	1,492	3.2 ± 0.3
Part-Time Workers	1,190	1.3	688	1.5	502	1.1
Fully Employed	36,079	38.8 ± 0.6	27,399	58.7 ± 0.9	8,680	18.7 ± 0.6
Ill or Voluntarily Idle	672	0.7	415	0.9	257	0.6
<i>Not Available for Employ- ment</i>	38,589	41.5 ± 0.5	6,726	14.4 ± 0.4	31,863	68.7 ± 0.9

NOTE: "Employed" workers consist of several groups: the partly unemployed, part-time workers, "ill and voluntarily idle," and fully employed. A distinction in this classification is that the partly unemployed are looking for more work while part-time workers do not need more work. Unemployed are the totally unemployed and the emergency workers (W.P.A., P.W.A., C.C.C., and others). Together these classes make up the total labor force. Those not available for work comprise all outside the labor market, that is, all not actively seeking gainful employment. Among these are old persons, young persons pursuing studies, and housewives whose unpaid services are confined to the home or to helping in their husbands' businesses. Contrary to the practice of the 1930 Census, so called "unpaid family workers" are included by the 1937 Census among those unavailable for work.

¹ Limits of sampling variation are 99 per cent fiducial limits. Estimates for total population obtained from independent source and are not subject to sampling variation. Fiducial limits for "part-time" and the "ill" not computed.

SOURCE: UNITED STATES CENSUS OF PARTIAL EMPLOYMENT, UNEMPLOYMENT, AND OCCUPATIONS, 1937: Vol. IV, THE ENUMERATIVE CHECK CENSUS, Table 6, p. 20.

ment (corresponding to totally unemployed plus emergency workers of 1937), and "employed," containing the remaining groups of gainful workers and corresponding to the three categories of "employed" plus "partly unemployed" of the 1937 Census. It is obvious that the correction for "unpaid family workers" was also applied to the number of "em-

Table B. Workers available for gainful employment adjusted to a comparable definition in 1930 and 1937 as percentages of total population in each age group in the United States.

SEX AND AGE GROUP	1930			1937			
	Per Cent Gainful Workers	Per Cent Unpaid Family Workers ¹	Adjusted Per Cent Gainful Workers	Per Cent Employ- able Workers	Per Cent New Workers ²	Per Cent Omitted Unem- ployed Workers ³	Adjusted Per Cent Gainful Workers
	(1)	(2)	(1) - (2)	(4)	(5)	(6)	(4) - (5) + (6)
MALE							
15-19	47.8	10.6	37.2	44.7	2.9	1.3	43.1
20-24	89.9	4.5	85.4	90.2	1.1	1.2	90.3
25-29	97.0	1.3	95.7	96.6	0.4	0.9	97.1
30-34	97.6	0.6	97.0	97.4	0.2	0.7	97.9
35-39	97.7	0.3	97.4	97.1	0.2	0.7	97.6
40-44	97.6	0.2	97.4	96.3	0.2	0.7	96.8
45-49	97.2	0.2	97.0	95.7	0.2	0.8	96.3
50-54	95.7	0.1	95.6	94.4	0.3	1.0	95.1
55-59	93.0	0.2	92.8	90.9	0.4	1.4	91.9
60-64	86.8	0.2	86.6	83.7	0.5	1.5	84.7
65-69	75.7	0.3	75.4	66.7	0.7	1.8	67.8
70-74	57.5	0.4	57.1	44.1	0.5	1.6	45.2
FEMALE							
15-19	26.6	2.4	24.2	32.4	3.2	1.0	30.2
20-24	42.4	1.4	41.0	53.9	1.6	1.3	53.6
25-29	31.0	0.8	30.2	41.9	0.8	1.0	42.1
30-34	24.4	0.6	23.8	34.3	0.8	0.9	34.4
35-39	23.1	0.6	22.5	31.1	0.8	0.8	31.1
40-44	21.9	0.6	21.3	27.9	0.7	0.8	28.0
45-49	21.0	0.6	20.4	24.9	0.7	0.8	25.0
50-54	19.7	0.5	19.2	22.4	0.6	0.7	22.5
55-59	17.3	0.3	17.0	18.7	0.6	0.7	18.8
60-64	14.7	0.3	14.4	15.3	0.4	0.6	15.5
65-69	11.4	0.2	11.2	10.2	0.2	0.5	10.5
70-74	7.6	0.1	7.5	5.5	0.1	0.2	5.6

¹ Contrary to the practice of the 1930 Census, unpaid family workers were included by the 1937 Census among those unavailable for work rather than among the gainful workers.

² New workers were those who never worked before but were actively seeking work.

³ Unemployed workers who were omitted from the total employable workers are those who wanted work but did not actively seek it.

SOURCE: UNITED STATES CENSUS OF PARTIAL EMPLOYMENT, UNEMPLOYMENT, AND OCCUPATIONS, 1937: Vol. IV, Chapter VIII, Table 49, p. 111.

ployed" in 1930 but left the number of "unemployed" unchanged, since it does not affect this class of workers.

Two corrections were applied to the figures of 1937. The category of "new workers," persons seeking jobs who had never worked before, was excluded from the 1937 figures for "workers available for employment" to correspond with the 1930 practice. This adjustment is shown in column 5 of Table B. The second correction of the 1937 employable workers was required because of the definition of a certain group of unemployed. In 1930 all persons usually working, but without jobs and wanting work were classified as totally unemployed (Class A). In 1937 the enumerators were instructed to register as unemployed only those who were actively seeking jobs. This small group of totally unemployed, wanting work but not actively seeking it, were added to the 1937 figures in order to make them comparable to 1930 (columns 6, 7, Table B). Within the group of total available workers these corrections were applied to the totally unemployed, while the group of employed in 1937 was left unchanged since both corrections do not refer to employed workers.

The method of readjustment and the difficulties caused by variation in definition are fully discussed in Volume IV of the Unemployment Census (pp. 110-113). Obviously, many refinements of adjustment might be attempted, such as correction for unpaid family workers in industries. A number of such adjustments on the basis of fragmentary census data at hand were tried out by the Census. It was found that many of them worked in opposite directions, leaving the final results without significant change.