

Y3.W89²:53/P-1₀₃



RECENT TRENDS IN EMPLOYMENT AND UNEMPLOYMENT IN PHILADELPHIA

Univ. of Ky. Libraries



USA
WORK
PROGRAM
WPA

WORKS PROGRESS ADMINISTRATION
NATIONAL RESEARCH PROJECT AND
INDUSTRIAL RESEARCH DEPARTMENT
UNIVERSITY OF PENNSYLVANIA

THE W.P.A. NATIONAL RESEARCH PROJECT
ON REEMPLOYMENT OPPORTUNITIES AND RECENT CHANGES
IN INDUSTRIAL TECHNIQUES

Under the authority granted by the President in the Executive Order which created the Works Progress Administration, Administrator *Harry L. Hopkins* authorized the establishment of a research program for the purpose of collecting and analyzing data bearing on problems of employment, unemployment, and relief. Accordingly, the National Research Program was established in October 1935 under the supervision of *Corrington Gill*, Assistant Administrator of the WPA, who appointed the directors of the individual studies or projects.

The Project on Reemployment Opportunities and Recent Changes in Industrial Techniques was organized in December 1935 to inquire, with the cooperation of industry, labor, and governmental and private agencies, into the extent of recent changes in industrial techniques and to evaluate the effects of these changes on the volume of employment and unemployment. *David Weintraub* and *Irving Kaplan*, members of the research staff of the Division of Research, Statistics, and Finance, were appointed, respectively, Director and Associate Director of the Project. The task set for them was to assemble and organize the existing data which bear on the problem and to augment these data by field surveys and analyses.

To this end, many governmental agencies which are the collectors and repositories of pertinent information were invited to cooperate. The cooperating agencies of the United States Government include the Department of Agriculture, the Bureau of Mines of the Department of the Interior, the Bureau of Labor Statistics of the Department of Labor, the Railroad Retirement Board, the Social Security Board, the Bureau of Internal Revenue of the Department of the Treasury, the Department of Commerce, the Federal Trade Commission, and the Tariff Commission.

The following private agencies joined with the National Research Project in conducting special studies: the Industrial Research Department of the University of Pennsylvania, the National Bureau of Economic Research, Inc., the Employment Stabilization Research Institute of the University of Minnesota, and the Agricultural Economics Departments in the Agricultural Experiment Stations of California, Illinois, Iowa, and New York.

WORKS PROGRESS ADMINISTRATION

HARRY L. HOPKINS
Administrator

CORRINGTON GILL
Assistant Administrator

NATIONAL RESEARCH PROJECT

on

Reemployment Opportunities and Recent Changes
in Industrial Techniques

DAVID WEINTRAUB
Director

IRVING KAPLAN
Associate Director

In cooperation with

INDUSTRIAL RESEARCH DEPARTMENT
WHARTON SCHOOL OF FINANCE AND COMMERCE
UNIVERSITY OF PENNSYLVANIA

JOSEPH WILLITS
Director

ANNE BEZANSON
Director

Philadelphia Labor Market Studies

Gladys L. Palmer, Economist in Charge

PHILADELPHIA LABOR MARKET STUDIES

GLADYS L. PALMER, Research Associate, Industrial Research Department, University of Pennsylvania; Consultant, National Research Project, directing studies of this section

JANET H. LEWIS, Statistician

MURRAY P. PFEFFERMAN, Associate Statistician

MARGARET W. BELL, Assistant Statistician

VIRGINIA F. SHRYOCK, Chief Statistical Clerk

RECENT TRENDS IN EMPLOYMENT AND UNEMPLOYMENT
IN PHILADELPHIA

by

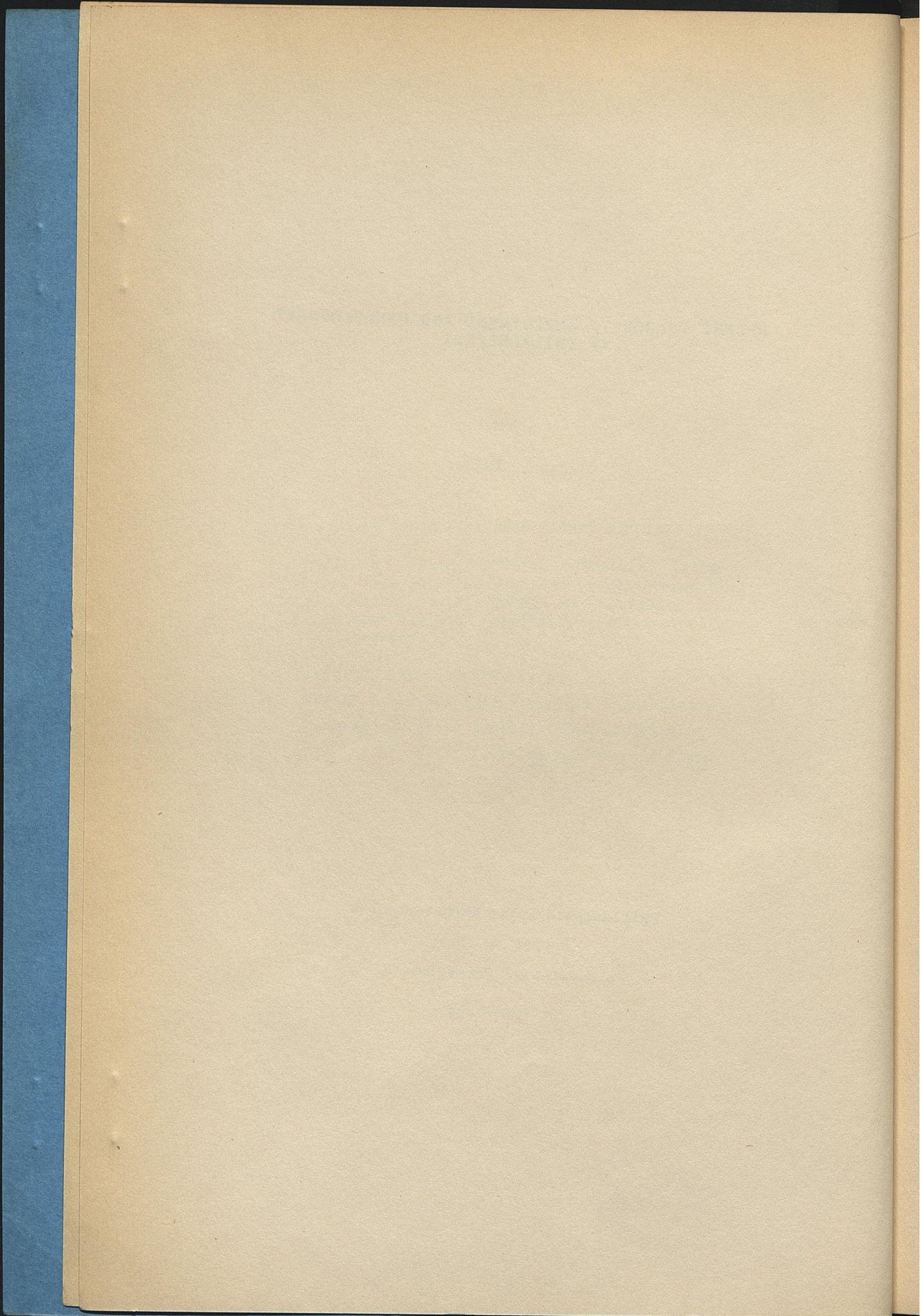
Gladys L. Palmer

Philadelphia Labor Market Studies

Report No. P-1

Philadelphia, Pennsylvania

December 1937



WORKS PROGRESS ADMINISTRATION

WALKER-JOHNSON BUILDING
1734 NEW YORK AVENUE NW.
WASHINGTON, D. C.

HARRY L. HOPKINS
ADMINISTRATOR

December 23, 1937

Hon. Harry L. Hopkins
Works Progress Administrator

Sir:

I have the honor to transmit a summary report on the studies of the Philadelphia labor market carried on by our National Research Project in cooperation with the Industrial Research Department of the University of Pennsylvania. Of special interest to the Works Progress Administration are the findings of the nine successive censuses of unemployment which were taken in Philadelphia annually beginning in 1929. The other studies will be described in detail in forthcoming reports. These studies are being conducted under the supervision of Dr. Gladys L. Palmer.

Employers generally exercise as much discrimination in the selection of their labor force as the size of the available labor reserve will permit. This selectivity is exercised during periods of declining industrial activity when an effort is made to retain as many workers as possible within the limits of profitable operation. It is also exercised during periods of rising activity when jobs are offered first to those who meet the highest specifications for the jobs. In the latter instance, the existence of a large labor reserve is conducive to the maintenance of job specifications at so high a level that a "labor shortage" is sometimes created in certain occupations simultaneously with general widespread unemployment. Furthermore, the existence of a large volume of unemployment represents a pressure of human need which drives into the labor market many who would not otherwise seek jobs. The employers' limits for selectivity are thus widened even beyond the

scope provided by declines in employment. The effect of the operation of these forces can be seen in the data presented in this report.

It is apparent from these studies that during the depth of the depression employers kept as many workers attached to their plants as they could afford. This was usually accomplished by the device of part-time employment. A considerable proportion of the increased production during the years 1933-1937 therefore resulted in more work for those already employed, that is, in a decline of part-time employment rather than of unemployment.

Since there was a large labor reserve to choose from, such additional jobs as became available represented employment opportunities only for those who happened to meet the relatively high standards of selection. Evidence of this is available in the specifications contained in the orders received by the Philadelphia State Employment Office as well as in the Philadelphia unemployment census statistics. The latter show that the level of unemployment declined from 46 percent of the total gainful workers in 1933 to 25 percent in 1937. Yet, inexperienced young workers under 25 years of age were unemployed to the extent of 37 percent of their number, even in 1937. The industrially aged workers too received less than their share of the reemployment. The combination of these factors resulted in a situation in which declining unemployment was accompanied by an increase in the number of those persons who were unemployed longest. This indicates that so long as the volume of unemployment remains at even its recent lowest level, a certain number of those who were working in industry prior to 1929 have no reasonable expectation of ever again being reabsorbed.

During the years of depression and recovery noteworthy changes took place in the proportions of women who came into or left the labor market. The entrants and reentrants into the labor market were apparently prompted to a considerable extent by the fact that during the depth of the depression and early recovery there were relatively more jobs available for women than for men. The declines in the proportions that women are of the total gainful workers, which took place in the second

ct
ta

half of 1936 and in 1937, probably reflect declining need resulting from increased employment among men.

he
rs
is
me
ed
ed
a
y-

The Philadelphia figures show that the earliest increases in the proportion of women came from those over 40 years of age, and in the age group 20 to 24. During the years 1933 to 1936, the relative increase in the availability of jobs for women under 40 brought a sharp increase of women between the ages of 25 and 40 who were seeking work. A considerable proportion of this last group actually found jobs and remained in the labor market, while the youngest, that is, those under 25, and the oldest, that is, those over 40, were found in 1936 and 1937 to be dropping out of the labor market to an appreciable extent. The net effect of these movements was: Discounting the change in the size of the population, there were 19 percent more women in the labor market in 1937 than in 1931; a large number of them had actually found jobs; and at least so long as the level of unemployment remains as high as it is, they will probably stay in the labor market, whether employed or unemployed.

m,
ed
ed
i-
n-
te
m-
he
he
7.
ge
ir
oo
he
in
n-
ed
of
l,
ry
er

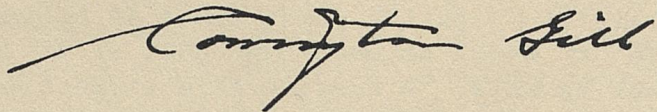
Existing social security legislation is of little value to many of the unemployed groups mentioned above. Aside from those who are attached to occupations which are not covered by the existing unemployment insurance legislation, the unemployed youths remain outside the protection of these laws so long as they are without opportunity to start working in industry and to amass credit toward unemployment insurance. Neither can those whose unemployment today is of long duration lay claim to benefits from unemployment insurance funds. Apparently, so long as unemployment remains as extensive as it has been during recent years of depression and recovery, some system of assistance for those who cannot qualify for unemployment benefits will continue to be needed not only to provide a measure of security for these groups, but also to afford them an opportunity to receive that training or to retain that training which should help them eventually to find employment in private industry.

e-
en
ts
ly
r-
re
or
of
nd

In addition to the analysis of the unemployment census data, this report also contains summaries of findings on the last ten years of employment and unemployment

experience of selected groups of workers in such occupations as machinists, weavers, radio workers, and others. The detailed reports on these and related studies will be transmitted to you when completed.

Respectfully yours,

A handwritten signature in cursive script, reading "Corrington Gill". The signature is written in dark ink on a light-colored paper background.

Corrington Gill
Assistant Administrator

CONTENTS

Section	Page
PREFACE.	xiii
I. INTRODUCTION	1
II. EMPLOYMENT TRENDS IN PHILADELPHIA PRIOR TO 1930	3
III. UNEMPLOYMENT IN PHILADELPHIA SINCE 1930.	7
IV. THE RELATIONSHIP OF RELIEF TO UNEMPLOYMENT	14
V. JOB OPPORTUNITIES AND THE OCCUPATIONAL CHARACTERISTICS OF JOB SEEKERS IN PHILADELPHIA DURING THE DEPRESSION	18
VI. THE EMPLOYMENT EXPERIENCE OF WORKERS IN SELECTED OCCUPATIONS AND INDUSTRIES, 1926-1936	22
Radio workers.	26
Machinists	27
Weavers and loom fixers.	28
Full-fashioned hosiery workers	30
Comparative experience	32
VII. SUMMARY OF FINDINGS WITH RESPECT TO RECENT TRENDS IN EMPLOYMENT AND UNEMPLOYMENT IN PHILADELPHIA.	35
APPENDIX	39

CHARTS

Chart	Page
1. Index of employment in manufacturing industries in Philadelphia, 1923-1936.	4
2. Socio-economic group of usual occupation of gainful workers in Philadelphia, 1910, 1920, 1930.	6
3. Employment status of employable persons in the Philadelphia Unemployment Sample, 1929-1937	9
4. Number of direct- and work-relief cases in Philadelphia, 1932-1936.	16

CONTENTS

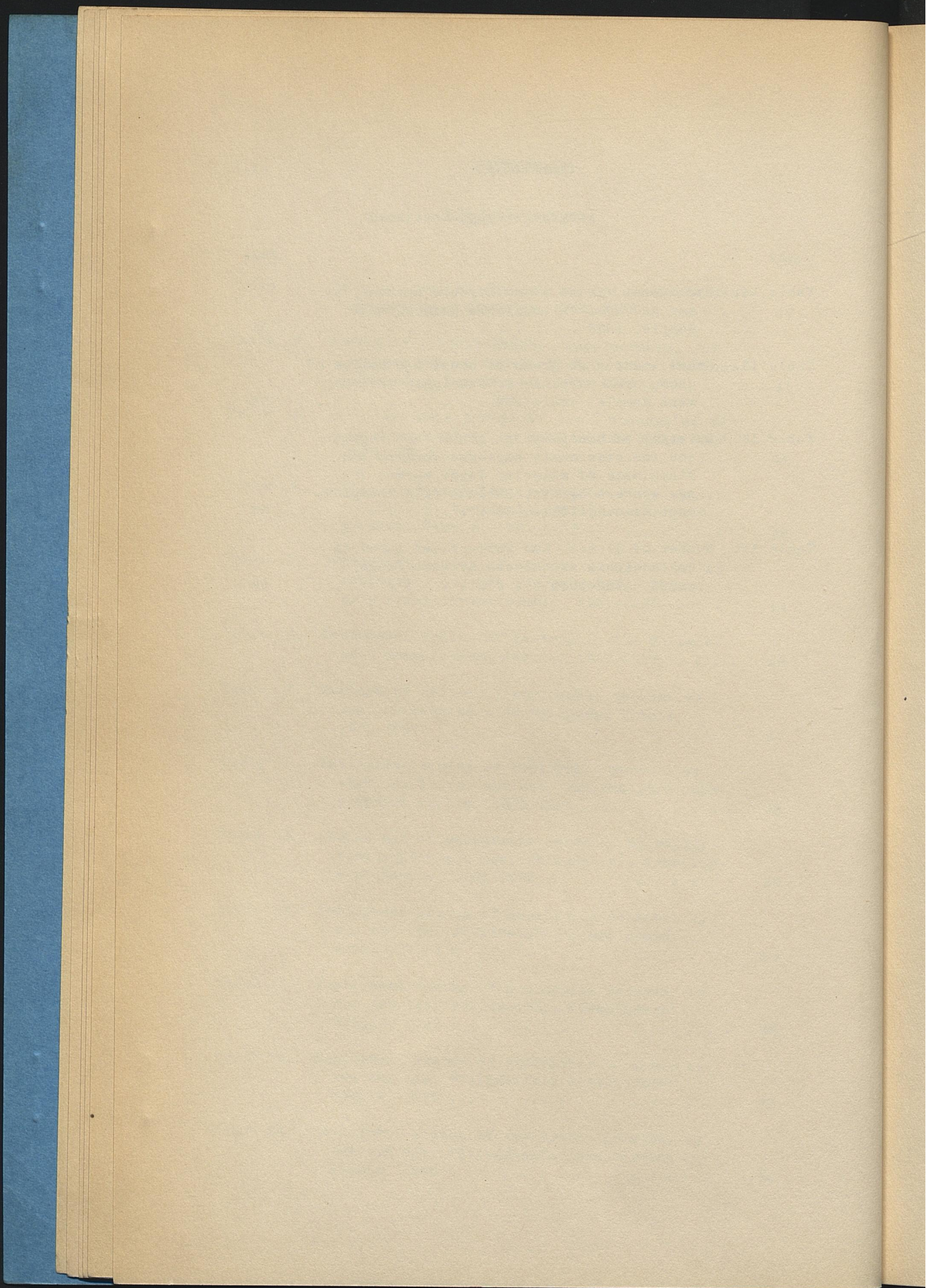
APPENDIX TABLES

	Page
Table 1. Monthly index of employment, Philadelphia manufacturing industries, 1923-1936	40
Table 2. Number of establishments, wage earners, and value added by manufacture, Philadelphia manufacturing industries, 1923-1935	41
Table 3. Socio-economic groups of usual occupation of gainful workers, by sex, Philadelphia 1910, 1920, 1930	42
Table 4. Number of households by number of employable persons per household, Philadelphia Unemployment Sample, 1931-1936	43
Table 5. Employment status of households by number of employable persons per household, Philadelphia Unemployment Sample, 1931-1936.	44
Table 6. Employment status of persons in the Philadelphia Unemployment Sample, 1929-1937.	46
Table 7. Employment status of employable persons by sex, Philadelphia Unemployment Sample, 1931-1937.	47
Table 8. Employment status of employable persons by race, nativity, and sex, Philadelphia Unemployment Sample, 1931-1936	48
Table 9. Median age of employable persons, by employment status and sex, Philadelphia Unemployment Sample, 1931-1936	50
Table 10. Employment status of employable persons, by sex and age, Philadelphia Unemployment Sample, 1931	51
Table 11. Employment status of employable persons, by sex and age, Philadelphia Unemployment Sample, 1932	52
Table 12. Employment status of employable persons, by sex and age, Philadelphia Unemployment Sample, 1933	53
Table 13. Employment status of employable persons, by sex and age, Philadelphia Unemployment Sample, 1935	54

CONTENTS

APPENDIX TABLES-*Continued*

	Page
Table 14. Employment status of employable persons, by sex and age, Philadelphia Unemployment Sample, 1936	55
Table 15. Usual industrial group of usual occupation of unemployed persons, Philadelphia Unemployment Sample, 1931-1936	56
Table 16. Duration of unemployment since last regular job for previously employed workers and since date of entering labor market for new workers by sex, Philadelphia Unemployment Sample, 1931-1936	57
Table 17. Number of direct- and work-relief cases in Philadelphia at the end of each fiscal month, 1932-1936	58



PREFACE

The Philadelphia industrial area is one of the oldest manufacturing centers in the country, with highly diversified industries requiring a variety of skills. It has heavy as well as light industries; they produce durable as well as nondurable goods, producers' as well as consumers' goods; they include such old industries as foundries and textiles and such new industries as radio manufacture and automobile bodies, declining industries like carpet weaving, and growing industries like the manufacture of television equipment and industrial instruments. As a metropolitan center, Philadelphia affords all types of employment in trade, clerical, and service occupations. The size and diversity of Philadelphia add to the results of the studies described in this report an interest which extends beyond their locale.

These studies cover a number of approaches to the analysis of labor market problems in Philadelphia. The series of unemployment censuses are designed to measure changes in the volume of unemployment and the change in the composition and characteristics of the employed and unemployed populations which have attended the successive changes in industrial conditions. Closely related to this analysis is the study of job openings and placements in the local public employment office, designed to throw light on the kinds of opportunities available for employment, the type of personnel requisitioned by industry, and the relationship of these specifications to the characteristics of persons who are able to find employment at different times. Of special interest in these studies are the differences in the sex, age, and prior occupational or industrial experience of those who are employed and of those who are unemployed at different times, as they reflect the trend of changes in industrial conditions and the operating requirements of industry, and the characteristics of those who have been suffering relatively long periods of unemployment or have become "frozen" on the relief rolls.

Changes in industrial conditions are not, of course, uniform for all industries during any period of time, and each industry has, to a greater or lesser extent, groups of workers attached to it whose fortunes depend in varying degrees upon the work requirements of the industry. The more intimate relationship of the employment and unemployment experience of the labor supply of selected industries has therefore been an additional subject

of study. The groups selected are representative of the 1936 labor supply of the radio industry and of certain specialized textile industries - upholstery, woolens and worsted, and carpet weaving - and of the occupational group of machinists. The radio industry represents an expanding industry with several large plants located in the Philadelphia area; the specialized textile industries represent declining industries in an old center for these industries; and the machinists represent a skilled craft in an old center of the metalworking industry. In addition to the above, the labor force of recently shut-down mills in the hosiery industry, which has been declining in the area, has been a subject of study. These studies are based upon analyses of ten years of employment and unemployment experience of the workers selected.

Established governmental and private research agencies have accumulated a great deal of information on employment and unemployment in Philadelphia. Much of this information is without parallel in other parts of the country. With the cooperation of these agencies, it was possible to arrange the series of studies which are described in this report.

The Philadelphia studies have been carried out in cooperation with the University of Pennsylvania's Industrial Research Department. This Department not only made available to us its records and the goodwill which it has earned in the community through years of useful research, but through the loan of the services of Dr. Gladys L. Palmer it has made possible a task which could not otherwise have been done. We welcome this occasion to express our deep gratitude to Drs. Joseph Willits and Anne Bezanson, Directors of Research of the Industrial Research Department of the Wharton School of the University of Pennsylvania.

DAVID WEINTRAUB
IRVING KAPLAN

PHILADELPHIA

December 18, 1937

SECTION I

INTRODUCTION

This report summarizes the findings of a program of studies of the Philadelphia labor market and outlines the contents of subsequent publications which describe these findings in greater detail. The program was initiated by the Industrial Research Department of the University of Pennsylvania in 1923 and was continued in 1936 by the National Research Project of the Works Progress Administration in cooperation with the former agency. It has been the opinion of the sponsors of the program that a fairly intensive analysis of conditions in one labor market over a period of years might throw considerable light on problems of unemployment, occupational and industrial shifting, and occupational re-absorption during depression and recovery.

Several approaches to the analysis of recent trends in the Philadelphia labor market have been followed in this series of studies. The original studies of the Industrial Research Department of the University of Pennsylvania¹ included an unemployment census of a sample of 45,000 households in Philadelphia which has been taken in the spring of each year since 1929. This sample covered 10 percent of the city's employable population in 1929. Annual surveys of job openings, of applications filed by job seekers, and of placements made by the Philadelphia State Employment Office were started in 1932. Data for a monthly index of help-wanted advertising in Philadelphia newspapers are available from 1922 to date. Special studies of employment in selected industries in the Philadelphia area were also undertaken as a part of this program.

Beginning in 1936, the National Research Project of the Works Progress Administration cooperated with the Industrial Research Department of the University of Pennsylvania in bringing certain of these studies down to date and in expanding the program in other directions. The taking of the annual Unemployment Census for the years 1936 and 1937 and the survey of employment-office

¹The writer wishes to acknowledge her indebtedness to the Directors and former members of the staff of the Industrial Research Department of the University of Pennsylvania for their contributions to the present series of studies. Among present employees of the Department, the contributions of Charlotte Evans and Elizabeth Geary should be noted.

2 EMPLOYMENT AND UNEMPLOYMENT IN PHILADELPHIA

records for 1936 were a part of this program. In addition, special studies of the occupational characteristics of relatively immobile parts of the city's labor supply on relief rolls were undertaken. These studies were supplemented by the work histories of approximately 2,500 persons usually employed in selected important occupations or industries in the city. The latter included machinists, millwrights, and tool makers in metalworking trades, workers of all grades of skill in the radio industry, knitters, toppers, seamers, loopers, and menders and examiners in the full-fashioned hosiery industry, and weavers and loom fixers in certain specialized textile industries. The writer is deeply indebted to the Director and Associate Director of the National Research Project for their assistance at all stages of the work in this part of the broader program of studies.

A number of community agencies and individuals have cooperated with the sponsors of the studies of the Philadelphia labor market. The Bureau of Compulsory Education of the School District of Philadelphia, the Pennsylvania State Emergency Relief Administration, the Pennsylvania State Employment Service, the Pennsylvania Works Progress Administration, and Area Statistical Office No. 2 of the Works Progress Administration have cooperated in furnishing information. Many of the city's workers, employers, and government officials have given data of basic value to this program and their cooperation has been appreciated. Special acknowledgment should be made to the Philadelphia County Relief Board, to the Philadelphia State Employment Office, and to the local Works Progress Administration for cooperation in the present as well as in the earlier program of studies.²

²Acknowledgments have already been made in earlier publications of the Industrial Research Department of the University of Pennsylvania for assistance from local Emergency Relief or Works Progress Administration projects, with one exception. The 1935 Unemployment Census was collected and coded by workers on WPA Project 65-23-6883 and was partly tabulated and analyzed by workers on WPA Project 6014. Acknowledgment is hereby made to Charlotte Evans for supervision of the work of WPA Project 6014 and to her assistants.

SECTION II

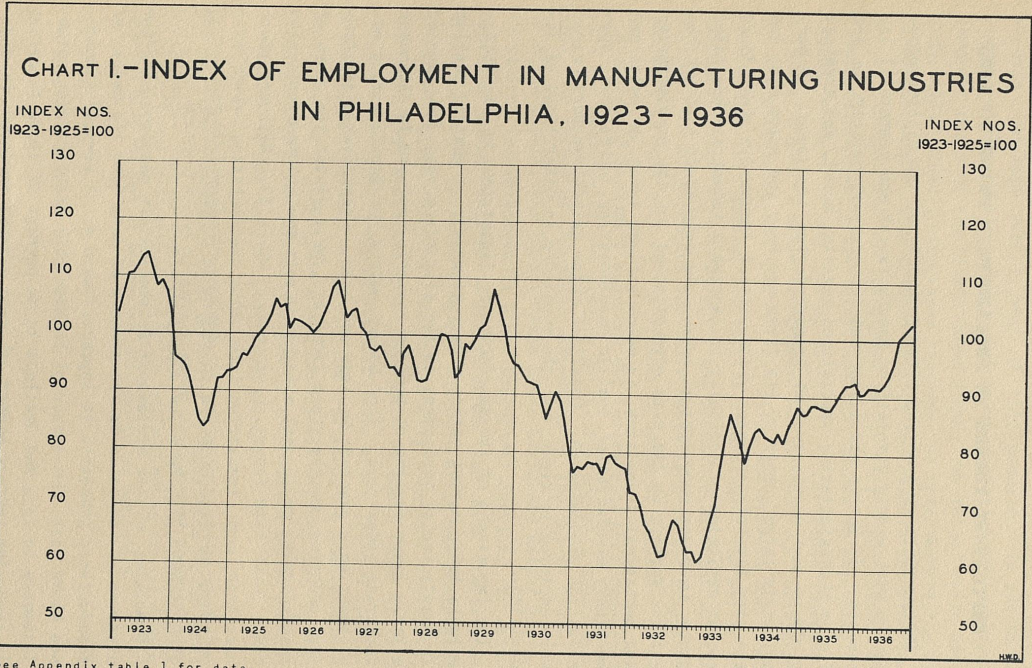
EMPLOYMENT TRENDS IN PHILADELPHIA PRIOR TO 1930

Philadelphia is a metropolitan community of two million population with widely diversified manufacturing and commercial interests. It is an old industrial center, particularly in the fields of manufacturing specialized textile, metal, and chemical products and machinery and transportation equipment. A surprisingly large number of its firms are over 100 years old, and the city has retained much of its initial leadership even though recent expansion of typically Philadelphia industries has taken place in other geographical areas. In 1930 about half of the gainful workers in the city were attached to the manufacturing and mechanical industries, in which various types of metal and machinery manufacturing, textile manufacturing, and building construction predominated. One-fifth of the gainful workers in 1930 were employed in trade and the remainder in other types of industries.¹

The importance of the manufacturing industries to the Philadelphia labor market cannot be overestimated. A general decline in manufacturing employment in the city since 1923 has created a large labor reserve of persons formerly employed in the manufacturing industries. The lowest points in manufacturing employment were reached in 1932 and 1933. Considerable improvement occurred in the years from 1933 to 1936 but the peak of manufacturing employment attained in 1923 has not been duplicated since that time (chart 1, Appendix table 1). Although there have been some industries like radio manufacturing which have expanded in this area, a considerable number of textile and other plants have moved out of the city.

Some idea of the decline of Philadelphia's manufacturing industries is indicated in the summary of data from the *Census of Manufactures* presented in Appendix table 2. A 10-year comparison shows that the number of Philadelphia manufacturing establishments in 1935 had declined to 79 percent of those reporting in 1925, the average number of wage earners employed in manu-

¹*Fifteenth Census of the United States, 1930, "Unemployment"* (U. S. Dept. Com., Bur. of Census, 1932), Vol. I, table 9, p. 868.



See Appendix table 1 for data.

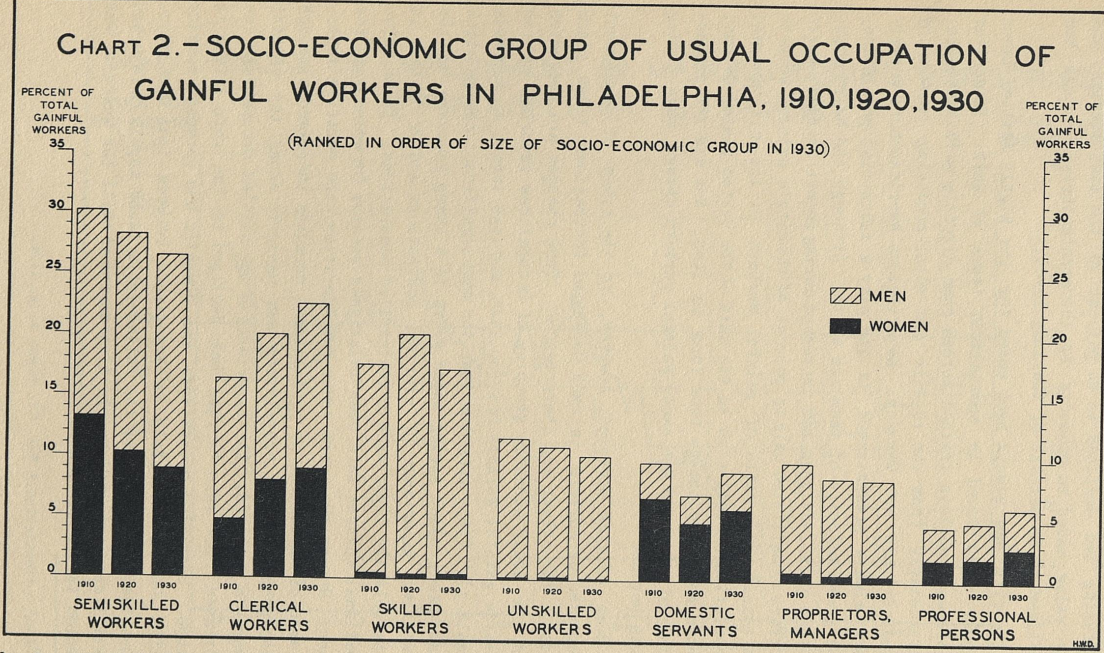
Philadelphia Labor Market Studies
Industrial Research Department -
University of Pennsylvania and
WPA - National Research Project
P-1

facturing had declined to 82 percent of the 1925 average, and the value added to products by the manufacturing process had declined to 66 percent of the 1925 level.

The city has always been noted for its highly skilled labor supply experienced in specialized types of work. In earlier years many workers trained abroad came directly to Philadelphia, particularly from the textile and metal-producing centers of Great Britain and Germany. Nevertheless American-born workers have always predominated in the city's industrial population. The great majority of them are white. Although the Negro population of Philadelphia has increased during recent decades, Negro workers constituted only 13 percent of the city's gainful workers in 1930.² The ratio of gainful workers to the city's total population, as reflected in the data of the United States Census, shows no marked change from 1900 to 1930. Nor did the proportion of women to men among gainful workers change much during this period.

Some changes occurred, however, in the types of employment reported by workers in each Census of Occupations taken since 1900. The extent and character of these changes are reflected in the socio-economic grouping of occupations reported by the city's gainful workers in 1910, 1920, and 1930 (chart 2, Appendix table 3). These data show that the most significant change which has taken place during these years is a sharp increase in the relative importance of clerical occupations and a decline in the relative importance of semiskilled occupations. These occupational changes have been relatively greater for women than for men. During the years under consideration, the relative importance of employment in professional pursuits increased although the proportion of proprietors and managers among the gainful workers declined. The importance of the skilled occupations increased from 1910 to 1920 but declined to the 1910 levels in 1930. Unskilled occupations and domestic and personal service also declined slightly in importance between 1910 and 1930. Despite these changes, the Philadelphia labor supply in 1930 was still characterized by the high degree of skill for which it was noted in earlier years.

²*Ibid.*, "Population," Vol. IV, table 9, p. 1404.



See Appendix table 3 for data.

Philadelphia Labor Market Studies
 Industrial Research Department -
 University of Pennsylvania and
 WPA - National Research Project
 P-2

SECTION III

UNEMPLOYMENT IN PHILADELPHIA SINCE 1930

No comprehensive survey of recent changes in population or in the geographic mobility of workers attached to the Philadelphia labor market has been made. The city's vital statistics show a natural increase in population but estimates differ as to the extent of migration into and out of the city.¹ Even if workers left the city during the depression years to secure cheaper housing in suburban areas, the chances are that they continue to be a part of the city's labor supply despite a change in legal residence. It is probable that the number of people who live in Philadelphia and work outside of the city's limits, in such places as Chester, Wilmington, and Camden, is balanced or more than balanced by the group who live outside of the city and work within the city's limits. Both groups of workers appear to be a part of the actual or potential labor supply of the community.

Although there is a difference of opinion concerning changes in the number of employable persons in the city since 1930, there is no doubt concerning the fact that there have been significant changes in the employability composition of households and in the employment status of the individuals who composed the labor supply between 1930 and 1937. The nature of these changes is indicated in a comparison of the findings of the surveys of the Philadelphia Unemployment Sample of 45,000 households for the years 1929 to 1937.²

¹The State Emergency Relief Administration in a census of employable workers in urban and rural nonfarm areas of Pennsylvania and in a survey of Philadelphia real property (both of which were made in 1934) found fewer persons and fewer employable persons in Philadelphia in 1934 than were found by the United States Census in 1930. Other evidence, however, would indicate that although there was considerable migration out of the city from 1931 to 1933, this loss was counterbalanced by persons entering the city in later years.

²This survey covers a selected sample of blocks in the ten school districts of Philadelphia. It covers about one-tenth of the city's employable population. Although the exact number of households enumerated each year has varied with the enumerating facilities available, there is every reason to believe that the findings are comparable from year to year. Further details concerning definitions used on schedules will be presented in later publications.

The data relating to the Unemployment Sample of Philadelphia for the years 1929 through 1932 have been published in the following reports: J. Frederic Dewhurst and Ernest A. Tupper, *Social and Economic Character of Unemployment in Philadelphia, April, 1929* (U. S. Dept. Labor, Bur. Labor Statistics, Bull. No. 520, "Employment and Unemployment Series," June 1930); J. Frederic Dewhurst and Robert R. Nathan, *Social and Economic Character of Unemployment in Philadelphia, April, 1930* (U. S. Dept. Labor, Bur. Labor Statistics, Bull. No. 555, "Employment and Unemployment Series," Mar. 1932); Special Reports #1-8 written and published by Industrial Research Department, University of Pennsylvania, Phila., Pa., under following titles: *Unemployment in Philadelphia Families*

8 EMPLOYMENT AND UNEMPLOYMENT IN PHILADELPHIA

From 1929 to 1932 the average household consisted of 4.4 persons. The average number of employable persons per household was 1.9 in most of the years between 1929 and 1933. In 1935 and 1936 the average household consisted of 3.9 persons, and the number of employable persons per household had declined to 1.8 persons. The proportion of households with no member 16 years of age or over working or seeking work increased during the period for which data are available (Appendix table 4). The proportion of households with one, two, and three employable members remained more or less stationary. Households with five or more employable members increased at the depth of the depression, particularly in 1932 and 1933, but declined in later years.

About half of the households in the Philadelphia Unemployment Sample have only one employable member. Variations in the employment status of these households are of importance to relief agencies. In 1931, 83 percent of such households reported employment of their only employable member and 17 percent reported unemployment. In 1933, the full- or part-time employment of the only employable member had declined to 66 percent and unemployment had risen to 34 percent. In 1936, 76 percent of the households with one employable member reported employment and 24 percent reported unemployment. (See Appendix table 5.)

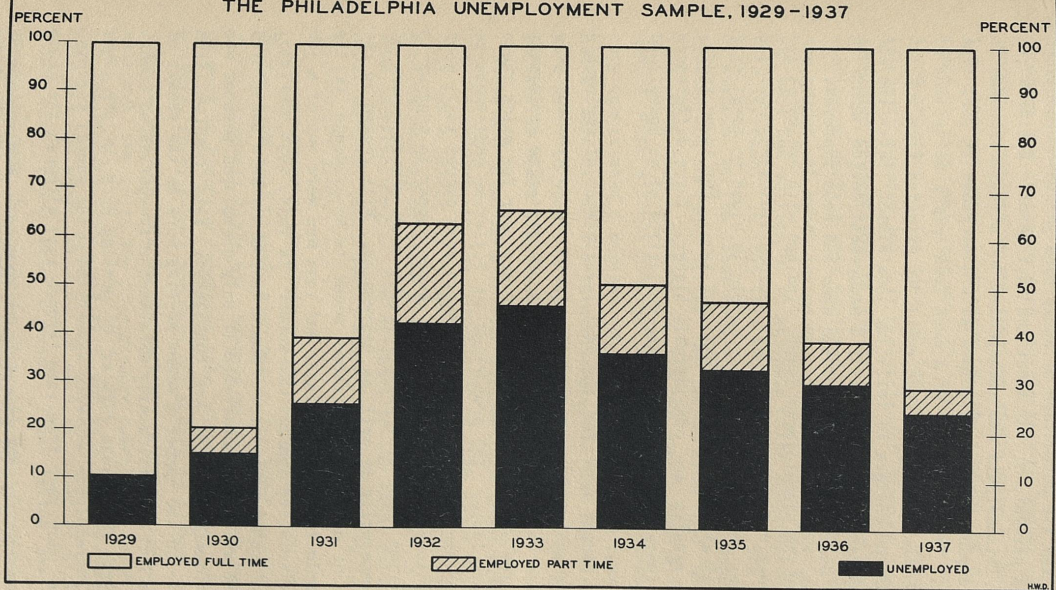
The employment status of all employable individuals has also varied from year to year during the depression (chart 3, Appendix table 6). In 1930, for example, 80 percent of the employable persons 16 years of age and over who were working or seeking work were employed full time, 5 percent were employed part time, and 15 percent were unemployed. The peak in the volume of unemployment occurred in 1933 when almost half of the employable population (46 percent) were unemployed, a fifth were working part time, and only a third had full-time employment. By 1936 the percentage of persons employed full time had increased to the 1931 level of 61 percent, although the percentage of unemployed persons had declined only to 30 percent. Initial tabulations of the results of the 1937 survey indicate that the percentage of persons employed full time had increased to

Footnote 2 (Continued)

- April 1931, #1 (revised, mimeo., Oct. 31, 1931); *Social Characteristics of Unemployment in Philadelphia, April 1931*, #2 (mimeo., Feb. 5, 1932); *Duration of Unemployment in Philadelphia, April 1931*, #3 (mimeo., Mar. 1, 1932); *Industrial and Occupational Characteristics of Unemployment in Philadelphia, April 1931*, #4 (mimeo., May 2, 1932); *Family Conditions in Philadelphia, May 1932*, #5 (mimeo., Feb. 23, 1933); *Unemployment in Philadelphia Families, May 1932*, #6 (mimeo.).

CHART 3. - EMPLOYMENT STATUS OF EMPLOYABLE PERSONS IN

CHART 3. - EMPLOYMENT STATUS OF EMPLOYABLE PERSONS IN THE PHILADELPHIA UNEMPLOYMENT SAMPLE, 1929-1937



See Appendix table 6 for data.
In 1929 part-time employment was included in full-time.

Philadelphia Labor Market Studies
Industrial Research Department -
University of Pennsylvania and
WPA - National Research Project
P-3

UNEMPLOYMENT SINCE 1930

10 EMPLOYMENT AND UNEMPLOYMENT IN PHILADELPHIA

71 percent and the percentage of unemployed persons had declined again to 25 percent, or to about the 1931 level. Business recovery in Philadelphia was accompanied by a rapid increase to full-time employment and coincided with a decrease in part-time employment. This resulted in a much less rapid absorption of the unemployed into jobs than would be expected from an inspection of the changes in full-time jobs alone. Part-time employment appears to be primarily a management device which is adopted in dull times and abandoned when business improves.

A check of the Unemployment Sample findings with estimates for the city derived from independent sources indicates that the unemployment level reported in the Sample is close to total city estimates in all years except 1932 and 1933. For those years, the Sample results are considerably higher. These differences reflect primarily differences in the definition of an unemployed person.³

When the Sample data for the employment status of employable persons are analyzed by sex (Appendix table 7), interesting differences are observed. The percentage of part-time employment is higher for women than for men in every year for which these data are available. The proportion of full-time employment is greater for men than for women in every year except 1931, when the proportions are about the same. Women appear to seek or to find part-time jobs to a greater degree than men in years of relative prosperity as well as depression. With regard to the incidence of unemployment, there seems to be evidence in the Census Sample that in 1931, 1932, and 1933 men were out of a job in greater relative numbers than women. In 1935, 1936, and 1937, however, a higher proportion of women than of men were unemployed but this relationship is reversed if only unemployed persons who were previously employed are considered. This resulted from an increase in the number of women seeking work as the result of depression forces, particularly the number of inexperienced women.

The number of persons working or seeking work in the labor market of Philadelphia, who were enumerated in the annual surveys, has varied each year from 1929 through 1937 although the quota

³The estimates for the city as a whole are based on a labor supply which takes into account previously employed persons enumerated in the 1930 Census and new entrants to the labor market as of the rate of entrance in 1930. The Unemployment Sample findings include among the unemployed all persons 16 years of age and over able and willing to work whether previously employed or not. The unemployed in the Sample, therefore, include all persons forced into the labor market to look for work because of depression influences.

of households to be covered has remained the same.⁴ The number of women has increased more rapidly than the number of men. The number of employable men remained approximately the same from 1931 through 1933. Increases in the numbers of both men and women in 1935 and 1936 over the earlier years are attributable to an increase in the size of the Sample as the result of more intensive enumeration. It is significant, however, that with more intensive enumeration in the last two years, the number of men working or seeking work declined between 1935 and 1936 whereas the number of women increased. The higher proportion of women who were new workers or re-entrants to the labor market explains this increase. In 1937 this trend was reversed. The proportion of workers in the labor market without previous experience increased considerably during the period from 1930 to 1936. In 1931 less than 1 percent of the employable population of the Sample were without previous occupational experience. By 1936 they constituted 6 percent of the total of employable persons and 21 percent of the total unemployed. The majority of these were under 20 years of age and there was twice as high a proportion of women as of men in the group.

These and other data for the Philadelphia Unemployment Sample reflect changes in the composition of the labor supply of the city as a result of depression and recovery influences. The most noteworthy of these changes is the increase in young persons seeking work as new entrants to the labor market and of older persons, particularly women, forced into the labor market to look for jobs.

The incidence of unemployment, as reflected in the Unemployment Sample from 1931 to 1936, also varies for each race and nativity group (Appendix table 8). Negroes in Philadelphia have been out of work in higher proportions than white persons. Among white workers, foreign-born men were out of work in higher proportions than native-born men in the earlier years of the depression, although the ratio for foreign-born women was lower than that for native-born women. In 1935 and 1936, native-born workers, both men and women, were out of work in higher relative proportions than foreign-born workers. These ratios are dependent primarily upon the incidence of unemployment in the occupations

⁴Employable persons were defined as persons 16 years of age and over working or seeking work, including workers not previously employed. There was no change in this definition during the years in which the surveys were made.

12 EMPLOYMENT AND UNEMPLOYMENT IN PHILADELPHIA

and industries in which Negroes, and/or native-born or foreign-born workers predominate among those usually employed.

The average age of employable persons in the Unemployment Sample has increased slightly during the years studied (Appendix table 9). The average employable man was 37 years old; the average employable woman, 27 or 28 years of age. Employed workers were slightly older than all employable persons and three or four years older than unemployed workers. The inclusion of new workers among the unemployed accounts for this difference. If new workers are excluded from consideration in the years for which such a distinction can be made, the results are different. The age of the average employable man remains approximately the same from year to year, although the average employable woman in 1936 was older than in 1933. The average age of unemployed workers who had been previously employed, both men and women, increased from 1933 to 1936. Women tend to be from seven to ten years younger than men in each employment status group throughout the period studied.

The ratio of unemployed to employable persons in each age group shows certain persistent trends in the years for which the Sample data are available (Appendix tables 10-14). For men the incidence of unemployment is highest in the two youngest groups and next highest in the oldest group. In general, unemployment is lowest among men 40 to 45 years of age. For women the highest rate of unemployment is also found in the lowest age group, but the ranking of all other age groups from year to year is less consistent than for men. The small number of women in the labor market in the older age brackets may account for this difference. A much higher proportion of all unemployed women than of all unemployed men is found in the younger age groups.

Perhaps the industry from which workers have been laid off is the most important single factor in the number or proportion of unemployed persons (Appendix table 15). In this respect manufacturing industries have been the most important. They accounted for about half of all unemployed persons in 1931, for one-third in 1935, and for over one-third in 1936. While total unemployment declined chiefly because of increased employment in manufacturing, the proportion of unemployed persons who had been formerly employed in building and construction rose from 13 to 16 percent between 1931 and 1936. There was a considerable variation in the proportion of unemployed persons who considered trade

to be their usual industry in the years surveyed. Government agencies, public utilities, and business and professional offices were much less important with respect to the incidence of unemployment. The proportion of all unemployed persons who had formerly been employed by private families or in institutions remained approximately the same from year to year. Various types of service industries, on the other hand, showed an increase in their relative contribution to unemployment during the period under consideration.

The average duration of unemployment, as measured from the date of loss of the last regular job for previously employed persons and the lapse of time after entering the labor market for new workers, increased in the years from 1931 through 1935 (Appendix table 16). In the case of men, the average duration of unemployment rose from 6 months in 1931 to 25 months in 1935, and dropped to 21 months in 1936. Women as a group were seeking work for shorter periods of time than men. The average duration of unemployment for women rose from 5 months in 1931 to 16 months in 1935 and remained the same in 1936. If new workers are excluded from consideration, in the years where such a distinction can be made, the average duration of unemployment is higher than that for the total unemployed in each year for both men and women. The trend, however, remains the same. Despite a decrease in the average duration of unemployment reported by previously employed men and women after 1935, the proportion of the total group who had been unemployed for the longest periods of time steadily increased.

A more detailed description of the occupational characteristics of employed and unemployed workers and an analysis of the incidence and duration of unemployment in different occupations as well as for different age, race, and sex groups in the Sample in 1936 and 1937 will be given in later reports of this series.

SECTION IV

THE RELATIONSHIP OF RELIEF TO UNEMPLOYMENT

Because of the diversified character of its industries the unemployment and relief problems of Philadelphia during the depression have been relatively less severe than in some other large cities and in many smaller specialized industrial centers. Of the ten largest cities in the country¹ Philadelphia ranked third in population in 1930 but fifth in the incidence of unemployment among gainfully occupied persons in 1930 and 1931.² When an Unemployment Census of Urban Areas was taken by the State Emergency Relief Administration of Pennsylvania in 1934, Philadelphia County, which is coextensive with the City of Philadelphia, had one-third of its employable population out of a job and, in the incidence of unemployment, ranked third among all counties surveyed in the State.³ In the next year (March 1935), when a Nation-wide inventory of all persons on relief was taken, Philadelphia ranked third, with New York, in the ratio of persons on general relief (including direct and work relief) to the total population as of 1930.⁴ Among the ten largest cities Pittsburgh and Cleveland had a higher proportion of their 1930 population on relief in 1935 than New York or Philadelphia.

Although the volume of unemployment in Philadelphia reached a peak in 1933, the average number of cases on general relief rolls increased each year from 1933 to 1936. At the peak of the relief load, however, less than half of the unemployed population of Philadelphia was on relief. The gradual increase in the size of the relief load during these years may be due to the fact that there is a less close relationship between fluctuations in employment and the number of cases on relief rolls in Philadelphia

¹When ranked in order of size of population, these are New York, Chicago, Philadelphia, Detroit, Los Angeles, Cleveland, St. Louis, Baltimore, Boston, and Pittsburgh.

²Combining Class A and Class B unemployed, Philadelphia had 9.5 percent unemployed in 1930 and 27.7 percent in 1931. Cities with a higher incidence of unemployment were Cleveland, Detroit, and Chicago in both years, and also Boston in 1930 and Pittsburgh in 1931. *Fifteenth Census of the United States, 1930, "Unemployment"* (U. S. Dept. Com., Bur. of Census, 1932), Vol. II, table 5, pp. 197-200 and table 9, pp. 427-30.

³Fayette and Northumberland Counties had a higher ratio of unemployment. *Census of Employable Workers in Urban and Rural Non-Farm Areas of Pennsylvania - 1934* (Harrisburg, Pa.: Pa. State Emergency Relief Administration, Division of Research and Statistics, 1936), table 1, p. 1.

⁴Data furnished by the Social Research Division of the Works Progress Administration.

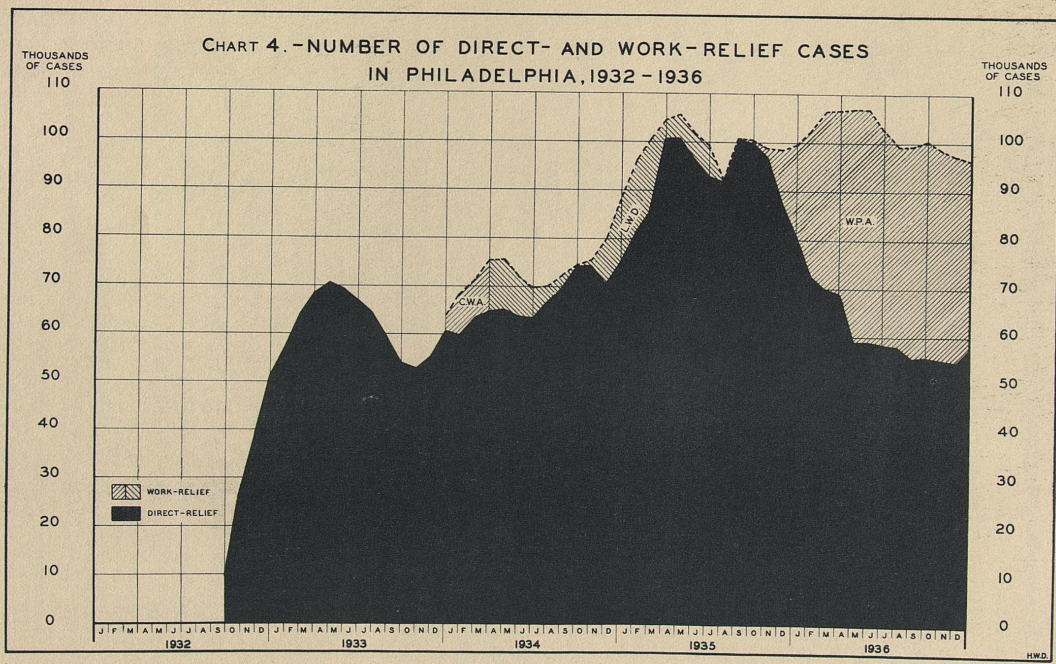
than in many cities in which the industries are more highly specialized. The relationship between relief standards and prevailing wages in the major industries of a community, as well as policies in the administration of relief, also affects the relationship of relief loads to fluctuations in employment. Perhaps the most significant factor in Philadelphia is that with improvement in business in 1935, 1936, and the first half of 1937 there came a considerable increase in full-time employment, but a much more gradual decrease in total unemployment. It is only the latter which has a significant effect on the relief case load. It should also be noted that in Philadelphia the relief load has absorbed many types of categorical relief cases in addition to strictly unemployment relief cases. In other cities such cases were frequently cared for by other public funds. It is estimated that 25 percent of the direct relief load are unemployable cases.

A citizens' committee on unemployment relief which was organized in Philadelphia in the fall of 1930, operated a work-relief program that continued until the summer of 1932. Some 35,000 applicants registered for employment on the work-relief program sponsored by this committee, and, of this number, 15,515 were employed.⁵ In the fall of 1932, the Philadelphia County Relief Board started operations with the assistance of State appropriations and later of State and Federal (emergency relief) appropriations. The monthly average of the number of cases on general relief rolls rose from 62,063 in 1933 to 74,305 in 1934, 99,857 in 1935, and 101,896 in 1936 (chart 4, Appendix table 17). At the end of December 1936 there were 96,260 cases on relief rolls of whom 57,305 were on direct relief and 38,955 on work relief. The average number of new cases on relief rolls increased during 1934 and the first half of 1935, but declined in 1936. The County Relief Board estimates that in the years from 1934 to 1937, 38 to 42 percent of the unemployed population were on public relief rolls.⁶

A special study of the incidence of relief in the 45,000 households included in the Philadelphia Unemployment Sample indicates that, when the survey was made in April and May of 1936, over half of the households with unemployment were known to the Phila-

⁵Ewan Clague and Webster Powell, *Ten Thousand Out of Work* (Phila., Pa.: University of Pennsylvania Press, 1933), pp. 135-7.

⁶Data supplied by Sava S. Schwartz of the Research Division of the Philadelphia County Relief Board.



See Appendix table 17 for data.

Philadelphia Labor Market Studies
 Industrial Research Department -
 University of Pennsylvania and
 WPA - National Research Project

delphia County Relief Board. Forty percent of such households were "active" on home or work relief at the time the Census was taken. Although there are some discrepancies which must be recognized between the relief case name and the "household" of the Unemployment Sample, 44 percent of the unemployed persons in the Sample in May 1936 were living in households in which some member was on relief rolls.⁷ There is preliminary evidence that the size of households with "active" relief status was about the same as the size of nonrelief households with unemployed members. The average number of employable persons per household, however, was larger for nonrelief than for relief households. A more detailed analysis of the size and employability composition of relief and nonrelief households with unemployed members and the occupational characteristics of heads of such households will be given in a later report presenting the general findings of the 1936 survey in more detail.

The occupational characteristics of persons on direct- and work-relief rolls differ from the characteristics of the nonrelief unemployed and their own composition varies over a period of time. No exhaustive analysis of this problem is undertaken in this series of reports, but studies are in progress in which two special groups of persons on general relief rolls, who appear to be relatively immobile in the city's labor market, will be described in some detail. One of these studies concerns the employability composition of 20,000 cases (relief households) having employable members on Philadelphia direct- or work-relief rolls continuously for two years or more prior to August 1936. The employment characteristics and previous work experience of the first priority workers in such cases will also be examined. Another study analyzes the occupational characteristics of 23,000 employable persons certified for Works Program employment who had not been absorbed by private industry or the Works Program by March 1937. The characteristics of this group are compared with those of other job seekers in the city's labor market, and with those of persons placed in private industry through the activities of the State Employment Office. The purpose of these studies is to test whether the occupational characteristics of the selected groups offer any explanation of their relative immobility in the labor market.

⁷Only households in which there were unemployed employable members were cleared for relief status. A "household" was defined as a "group of persons living together in one housekeeping unit."

SECTION V

JOB OPPORTUNITIES AND THE OCCUPATIONAL CHARACTERISTICS OF JOB SEEKERS IN PHILADELPHIA DURING THE DEPRESSION

The relative employability of the average unemployed job seeker in the current labor market depends, in large measure, upon the number and kinds of jobs available, the number and characteristics of other people looking for work at the same time, and the employment qualifications of the person himself. Studies have therefore been made of job openings in Philadelphia and of the occupational characteristics of persons looking for work and of those placed in private employment through the activities of a public employment bureau. A later publication in this series will develop the findings of the most recent of these studies in greater detail.

The number and character of jobs which were open during the depression are reflected in the help-wanted advertising columns of Philadelphia newspapers and in job openings in private employment cleared with the Philadelphia State Employment Office. Data from these sources have been examined in order to learn what changes have occurred in the demand for labor in this area since 1930, and which occupations or types of occupations have offered relatively the best employment opportunities to men and women each year.

Throughout the period under consideration, employment opportunities cleared with the Philadelphia State Employment Office were relatively less numerous for men than for women.¹ Considerable improvement occurred in the employment opportunity for men, however, when the PWA program was developed in Philadelphia in 1934 and when manufacturing employment in the city increased during 1935 and 1936. Job opportunities have varied for different occupational groups and for different sex and age classifications within the occupational groups during this period.

¹Findings on surveys of State Employment Office job openings for the years 1932-1934 are published in the following bulletins by Gladys L. Palmer: *Depression Jobs. A Study of Job Openings in the Philadelphia Employment Office, 1932-1933* (Phila., Pa.: Univ. of Pa., Spec. Report A-1, mimeo., May 14, 1934); *Trends in the Philadelphia Labor Market in 1934* (Phila., Pa.: Univ. of Pa., Spec. Report A-5, mimeo., Aug. 1935).

Those who register for work at a public employment bureau are among the most significant groups of unemployed persons to study. Under conditions of completely voluntary registration, such as prevailed in Philadelphia prior to the end of 1935, they tend to be the group most actively seeking work in the labor market at any one time. It is estimated by the Philadelphia State Employment Office that over half of the unemployed in the city as of any one date are registered in the "active" files at the bureau. In March 1937, for example, there were 148,000 registrations in the "active" files, and 220,000 registrations were in the "inactive" files,² at a time when the number of unemployed persons in the city was estimated as 224,000.

The employment or occupational characteristics of applicants at the Philadelphia State Employment Office in the years from 1932 through 1934 have been described elsewhere.³ A detailed description of the employment characteristics of new applicants and of persons placed in private employment in 1936 will be given in a later report of this series. In this report only a few points need to be summarized. The records of applicants studied concern persons 21 years of age and over.⁴ Despite a great variety in the types of occupations found in the applications on file at the Philadelphia State Employment Office, the registration work of the bureau tends to be concentrated in a few occupations. Persons registering in these occupations account for from 40 to 50 percent of the total number of registrants. In all five years from 1932 through 1936, for example, the following occupations were among the 15 largest: laborers, deliverymen and truck drivers, domestic servants, office clerks,

²The "active" file is made up of those registrants, not yet placed by the bureau in private industry, who have had contact with the office within a 3-months' period. Data quoted above were supplied by the Philadelphia State Employment Office.

³For further details see the following reports by Gladys L. Palmer: *Is the Average Worker "Employable"? A Study of Applicants in the Fifteen Largest Occupations, Philadelphia Employment Office, 1933* (Phila., Pa.: Univ. of Pa., Spec. Report A-2, mimeo., May 14, 1934); *The Applicants at Three Pennsylvania State Employment Offices in 1933* (Phila., Pa.: Univ. of Pa., Spec. Report A-3, mimeo., Oct. 31, 1934); *The Employment Characteristics of New Applicants at the Philadelphia State Employment Office, 1934* (Phila., Pa.: Univ. of Pa., Industrial Research Dept. in cooperation with Pa. State Employment Service, Spec. Report A-6, mimeo., Nov. 1935); *The Incidence and Duration of Unemployment Among New Applicants, Philadelphia State Employment Office, 1934* (Phila., Pa.: Univ. of Pa., Spec. Report A-7, mimeo., Mar. 1936); *Thirty Thousand in Search of Work* (Harrisburg, Pa.: Pa. Dept. Labor and Industry, State Employment Commission, 1933).

⁴Persons under 21 years of age are registered for placement in private industry with the Junior Employment Service of the Philadelphia Board of Public Education, the records of which are not included in this series of studies. Only persons over 20 years and 9 months of age may register at the State Employment Office for placement in private industry.

day workers (domestic), and painters. These occupations were also among the largest in the city's gainfully occupied population in 1930. The relative importance of major occupational groups has remained the same in the years surveyed although the occupational distribution of the bureau's registrations has varied with employment trends in the city's industries and the occupational characteristics of the relief load since July 1935, when the registration of employable persons on relief was made compulsory. The placement activity of the bureau during the years surveyed has also been concentrated in a few occupations: namely, domestic servants, laborers, carpenters, machinists and tool makers, and waiters and waitresses.

The occupational groups which are most important for men applicants at the State Employment Office are the skilled and semiskilled occupations in manufacturing and mechanical industries and unskilled labor. Throughout the period studied, women have registered in larger numbers from domestic and personal service occupations than from any other single occupational group. Clerical workers were second in importance in numbers of registrants during the depression but in 1935 and 1936 women applicants from manufacturing occupations ranked second in importance. Work-relief applicants have a higher proportion of persons whose previous experience has been in unskilled and domestic and personal service jobs than other applicants. It should be noted that the occupational composition of the applicants at a public employment bureau, while influenced primarily by the rate of unemployment in the community's occupations, is also influenced by the service facilities of the bureau and its location, and by such factors as the compulsory registration of persons from relief rolls.

In the five years for which comparable data are available, the average age of male job seekers at the Office has ranged from 35 to 37 years, while the average age of women applicants has ranged from 29 to 32 years. Men placed by the bureau tend to be the same age as the average male applicant. Women placed by the bureau, on the other hand, are younger than the average woman applicant. Applicants certified from public relief rolls tend to be older than the average applicant.

Previous surveys of the Philadelphia State Employment Office records indicate that although some workers register at a public employment office the day they lose their jobs or even before,

most applicants have been out of work some time before they register. Men have been out of work longer on the average than women and also in most occupations or occupational groups. Work-relief applicants in most occupational groups have been unemployed for longer periods than other applicants.⁵ It is interesting to note that the persons placed by the bureau in private industry have been out of work for shorter periods than the average registrant.

Some notion of the average job seeker's relative employment opportunity emerges from a fuller analysis of the data outlined in this summary. Nevertheless, there is no certainty that a job opening plus a job seeker with apparently good occupational qualifications for the job will equal a job placement. One of the most important characteristics of the Philadelphia labor market during the depression has been the high standard of selectivity used by employers in hiring workers. Definite specifications as to age, sex, and race are usual at all times, but in many occupations physical appearance and even "type" of personality have been important specifications in recent years. In addition, highly specialized experience requirements have been characteristic of the Philadelphia labor market in most manufacturing and mechanical occupations and in some clerical jobs since 1930. Although much has been said of labor shortages in some of the manufacturing industries in recent months, it is apparent from present and previous surveys that up to 1937 any significant shortages in the Philadelphia labor market have been temporary, usually seasonal in character, or have been largely the result of the highly specialized character of the qualifications demanded. Nevertheless, there appear to have been a few genuine labor shortages in certain highly skilled occupations. In the case of a special type of coppersmith, for example, the work had not been done in this area since the period of the World War. These shortages, however, do not represent any appreciable number of job openings.

⁵Palmer, *Incidence and Duration of Unemployment*.

SECTION VI

THE EMPLOYMENT EXPERIENCE OF WORKERS IN SELECTED OCCUPATIONS AND INDUSTRIES, 1926-1936

The studies discussed up to this point present a picture of the volume and incidence of unemployment in Philadelphia as measured at recurring intervals of time and of the characteristics of the unemployed labor supply in relation to the demand for labor as reflected in a cross section of public employment office records within certain periods. But in any given local labor market there are more specialized occupational and industrial labor markets. For this reason, four studies which describe the employment and unemployment experience of individual workers in selected occupations and industries were made for the 10-year period from 1926 to 1936.

The groups selected for study represent important occupations and industries in the Philadelphia labor market and, in addition, represent different types of unemployment and occupational mobility situations. Although the workers may not have been employed when interviewed, nevertheless in 1936 they were attached to the labor markets of the selected occupations and industries. The types of labor market situations selected for this more intensive analysis may be described briefly. The 1936 Unemployment Sample was used as a basis for selecting workers for interview in three of the studies. A group of 686 workers attached to the radio industry in 1936 were studied to see what types of workers have been recruited to a relatively new and expanding industry in Philadelphia, and to examine the recent employment and unemployment experience of these persons. A second group of occupations which was seriously affected by cyclical unemployment but which experienced fairly rapid recovery and is now reputed to show signs of labor shortage is that of machinists, millwrights, and tool makers. Work histories were obtained for 683 men who considered themselves attached to this labor market in 1936. The third group is composed of 357 skilled weavers and loom fixers attached to the labor markets of the carpet and rug, woolen and worsted, and upholstery-goods manufacturing industries. During the past ten years, the employment opportunity in these industries has been curtailed, not only by recent cyclical forces,

but also by reason of a long-time downward trend. The emphasis of this study has been on the work experience and pattern of shifting in a group of skilled workers who persist in their attachment to the labor market of an occupation which is declining in importance in this area.

An additional study is concerned with the employment and unemployment experience of workers from certain full-fashioned hosiery plants within the larger labor market of that industry. Work histories were obtained from 673 workers laid off from three full-fashioned hosiery mills which had operated under union contract and closed in 1933 and 1934. Four-fifths of the displaced workers were rapidly reabsorbed into the industry. The work histories of all of the workers laid off have been examined to discover factors influencing the rate at which unemployed hosiery workers were reabsorbed into jobs and to what extent experience after a shut-down reflects previous employment and unemployment experience.

It is recognized that the employment data secured from the work histories of persons attached to a given labor market in 1936 probably represent the employment and unemployment history of workers with better-than-average employment in the selected occupations and industries. Only those who had remained on jobs, those who had been reabsorbed after unemployment, and those who still sought employment at the occupation in 1936, were included in these studies. It is, therefore, probable that the findings give a representative picture of the labor supply in selected situations in 1936, but that the prior work history of such persons represents what may have been the "optimum" employment experience in the local labor market at the occupation during the period covered. In general, the workers studied are a more stable group in the occupations or industries concerned than those who left prior to 1936 or those who remained in the occupation or industry for short periods only. In the case of an occupation which has been declining in Philadelphia for some years, such as upholstery weaving, this bias is more pronounced.

A general question posed by the studies of Philadelphia work histories, therefore, is: Who secures employment when there is competition for jobs? The answer to this question depends upon the answers to a series of interrelated questions about a variety of factors which influence the chances of employment for individuals. The relationship between the number of jobs and their work requirements and the size of the unemployed labor

reserve and its qualifications differs considerably in various occupations and industries. The importance of such factors as age, sex, skill, length of experience, and mobility must therefore be judged separately for each occupation and industry. We know that age is a major handicap in securing employment in certain jobs where physical strength and speed of operation are important. Is it equally a handicap in the occupations where training and experience are major qualifications? Was the comment of a skilled weaver who had been born in Lyons, France, and had come to Philadelphia to work as a young man correct? He said that in Europe the "system" was different. There, a man's years were respected because his training and experience were considered valuable, whereas in this country a man was "through" when he was 40 or 45 years old.

In the process of reabsorption after lay-off, do workers with the longest experience get jobs first? Or do workers in a given occupation, laid off from the same mill and with apparently equal qualifications for work, vary in their capacity to secure reemployment? Is the person who has worked at one occupation all his working life and with one employer most of that time at an advantage or disadvantage when competing for jobs with those who have shifted many times? When unemployed persons are reabsorbed, do they secure jobs at the same level of skill as their former jobs? Do they go to related or totally different kinds of work? Do workers displaced from a declining industry get an opportunity to work in a new and expanding industry, or is the labor supply of the latter recruited from other sources?

Many questions in labor market research can be answered only by studies of individual work histories. At the present experimental stage in the use of this research technique, not all such questions can be fully answered. We know that the demand for labor in any given occupation is somewhat flexible both as to numbers and qualifications required, and that the labor supply varies both in terms of numbers seeking work and the qualifications offered. It may be largely a matter of chance that at a time of severe unemployment and large-scale lay-offs one person is unemployed and another employed. In a period of general business recovery, however, the unemployed population is likely to consist of a residual group with attributes distinct from those of the employed population. The characteristics of those not re-

absorbed into jobs during a period of recovery tend to reflect in a negative sense the longer-time changes in the demand for labor as it relates to the labor supply in specific occupations in a local area. These trends are of major significance in estimating the character of reemployment opportunity of groups of workers within a community.

There are several explanations concerning the mobility of labor in specialized labor markets. One is that workers tend to stay in the same grade of skill and move from industry to industry. Another is that workers become attached to the raw material of their industry and remain in the industry but move from one level of skill to another. According to this theory, the feel of yarn and fabrics holds a worker in the textile industries and a knowledge of metals holds the man who expects to be a machinist in the metalworking industries. According to a third theory, both occupational and industrial labor markets are constantly being fused as new technological changes and improvements in process and product are introduced. Extremists with this view conclude from the leveling effects of changes in work requirements that all workers within very broad classes are, or soon will be, interchangeable. The presence or absence of mobility for individuals is therefore largely a matter of chance or temperament.

Work experience can be varied by four kinds of shifting: job and employer shifting, and occupational and industrial shifting. Each of these types of labor mobility has been considered in relation to the age and sex of workers attached to the occupations and industries selected for study. And, since most of the shifting in a period of rapidly declining business activity is probably enforced rather than voluntary, work experience in a period of relative business prosperity has also been studied for appraisal of inherent mobility in its relation to the reabsorption of unemployed persons.

The four studies of the employment experience of workers in selected occupations and industries will be described in detail in subsequent reports. The emphasis of these reports will be on a description of the employment characteristics of the labor supply in the selected labor market situations in 1936 and on an analysis of work experience prior to 1936. The sampling method will also be described in detail. At this point, only the major findings of each of these studies will be outlined.

RADIO WORKERS

The local labor market for radio workers has apparently offered job opportunities throughout the depression and early recovery years. One-half of the women and two-fifths of the men attached to the radio industry in 1936 entered in the years from 1933 to 1936. Although the majority of the workers had been previously employed, one-fifth of the total labor supply in 1936 were new entrants to the labor market when they secured jobs in this industry. The group of radio workers studied in 1936 was undoubtedly more stable than any group which might have been studied at an earlier date. This is largely the result of the building up of the 1936 labor supply through the years covered by this study. Radio workers were relatively more mobile than the machinists, full-fashioned hosiery workers, or weavers and loom fixers studied. Their background experience had been varied rather than specialized in character, except in the case of workers in the most skilled occupations. These, however, constituted a minority. Experienced men for the skilled occupations came from the major woodworking and metalworking industries in the city. Many of the women who had been previously employed came from the textile and clothing industries.

Radio workers in 1936 were much younger than workers in other industries. The average radio worker in 1936, for example, was 33 years old if a man, and 24 years old if a woman. Most of them had been born in the United States and had lived in Philadelphia many years. The largest number of foreign-born workers were Italian, and most of them were employed as cabinetmakers or cabinet workers. Radio workers were relatively well educated as compared with workers in other manufacturing industries. This was partly attributable to the difference in their age and the fact that some were new workers who had come into the industry during the depression. A few workers in production occupations had had a college education and many had been recruited from such "white-collar" employment as clerical and selling jobs.

Unemployment for workers attached to the radio industry in 1936 had been a recurring experience throughout the ten years, 1926-1935, selected for special study. More persons, however, reported some unemployment and the periods were of longer duration in the second half of the period studied despite an increase in the labor force of one large plant during the later

years studied. At the time of this study in the spring of 1936, recovery in the radio industry had taken place and the majority of the workers studied were employed full time.

The average length of unemployment reported by unemployed workers was relatively short. Of the small group who were unemployed in May 1936, a third had but recently lost their jobs, another third had been permanently laid off from a plant discontinuing radio production, and the remainder constituted a group of persons unemployed for longer periods of time. The latter group was, however, only 7 percent of the total studied.

From the point of view of general labor market conditions in Philadelphia, an analysis of the background experience of radio workers in 1936 offers interesting information concerning the characteristics of the labor supply of a mass-production type of industry. The large majority of the group studied worked at semiskilled occupations requiring only short training periods. Relatively large numbers of women were employed. The average age of both men and women was low. Many radio workers had not been previously employed when they secured jobs in the radio industry. During the period of recent expansion in the industry workers were recruited from the unemployed labor reserve of the industries of declining importance in the local area, but they were a selected group from the point of view of age. They were the younger workers in the declining industries.

MACHINISTS

Machinists present a contrast to the radio workers just described because all of the men studied were highly skilled and had had relatively long experience of a specialized character. The majority of this group were also native-born residents of Philadelphia, but their average age was high. The average worker attached to the machinists' labor market in 1936 was 45 years old if employed on that date; if unemployed, he was approximately three years older. Four-fifths of the group studied were customarily attached to industries manufacturing a great variety of metal products, and one-fifth to government agencies, public utilities, and miscellaneous industries.

The majority of the machinists studied had served a paid apprenticeship. Of these, some stayed with the same firm for the rest of their working lives. Others had more varied experience,

but two-fifths of them had served apprenticeships in the industry to which in 1936 they considered themselves customarily attached. Machinists were less mobile than radio workers in shifting from job to job or occupation to occupation. They spent most of their working lives on jobs at their usual occupation and these jobs lasted for relatively long periods of time.

Half of the machinists studied in 1936 had experienced no consecutive unemployment for periods of one month or longer in the ten years from 1926 to 1935. This group was even more stable than the others as measured in terms of the number or type of job changes made and their length of service on jobs and in the occupation. They were also slightly older than other machinists and their industrial backgrounds differed.

Unemployment for the machinists reporting periods of unemployment, on the other hand, was long-term rather than seasonal or intermittent in character. The greatest volume of unemployment occurred during 1932 and 1933. Many machinists were reabsorbed as the trade picked up in the Philadelphia area in 1934 and 1935. By the spring of 1936, there were rumors of a labor shortage in the occupation, although 85 of the 683 machinists studied were unemployed at that time.

The machinists who were unemployed in the recovery period of 1936 were for the most part a residual group who had been out of work for relatively long periods of time. They were, on the average, three years older than the machinists who were employed at this time and their industrial experience differed. Many of them had last been employed in the transportation equipment industries, notably those manufacturing locomotives, ships, and streetcars. These industries were the slowest to experience recovery in the Philadelphia area. Machinists trained in these industries had found some difficulty in transferring to the precision work characteristic of the lighter metal products industries where recent job opportunities occurred.

WEAVERS AND LOOM FIXERS

The study of weavers and loom fixers throws into sharper relief some of the trends indicated in the other work history studies. This is because the occupations of weaving and loom fixing are declining in importance in the Philadelphia labor market and have a relatively large unemployed labor supply. The industries selected for study, i.e., carpet and rug, woolen and

worsted, and upholstery-goods manufacturing, have been declining in this area for some years. Depression influences, therefore, only accentuated an unemployment situation which had started before 1930. Although there has been business recovery in these industries since 1933, the production and employment levels of earlier decades have not been attained. For such skilled workers as weavers and machinists, age does not seem to be a handicap in retaining a job, but once an older worker becomes unemployed as the result of general lay-offs, his chances of securing work are less good in comparison with those of younger workers. Not only were unemployed weavers older than those who had secured work in other occupations or were employed at weaving in 1936, but the length of time they had been out of work increased with their age.

The group who were unemployed when this study was made (29 percent of the total) contributed about half of the aggregate unemployment reported by all weavers and loom fixers within the ten years from 1926 to 1935. In spite of the decline in textile production and the closing of many mills, one-third of the total group studied reported no unemployment during the 10-year period. Over half of the loom fixers were in this group. The average amount of unemployment reported by all weavers and loom fixers in this period was approximately one and a half years although this was unevenly distributed. Half of the residual group of unemployed who had not secured work by the spring of 1936 had been out of work for one and a half years, and about 10 percent had been unemployed for 5 years or more. Four-fifths of those who were unemployed in the spring of 1936 had had no job lasting one month or longer since the loss of their last job at weaving or loom fixing.

The majority of the weavers and loom fixers who had obtained jobs in other industries by 1936 were young, and most of them had left jobs at weaving or loom fixing before 1930, although they still considered these to be their usual occupations. Semi-skilled jobs in various manufacturing industries offered employment to some of this group. Loom fixers occasionally secured jobs as weavers, but older weavers who secured jobs at other occupations usually found work only at unskilled jobs.

The weavers and loom fixers in this study evidenced the characteristics peculiar to the labor market for these occupations in Philadelphia. Although the majority of the workers were

native-born, one-half of the workers over 45 years of age were foreign-born. These came predominantly from the textile centers of Great Britain, Italy, Poland, and France. The average age of the weavers was 44 and of the loom fixers 57 years. Most of the workers had entered the labor market before 1910. A negligible proportion had entered during the ten years covered by this study. Paid apprenticeships are not customary even in industries making fine-grade specialty textile products, so the majority of the group studied had not served a formal apprenticeship. Many of them had been taught their trade by their parents or other relatives. They had entered the textile industries because of the influence of family tradition or the accident of location of mills in relation to the location of their homes. Most of this group resided in the textile areas of the city, principally in Kensington.

The workers who considered themselves attached to the labor market of weavers and loom fixers in the three selected industries in 1936 were a group who had had long experience of a highly specialized type. They had worked almost exclusively in the textile industries, except for the accident of first jobs or the exigencies of seeking other work after prolonged unemployment. Men weavers averaged $18\frac{1}{2}$ years at the occupation, and women weavers 15 years. Loom fixers had spent, on the average, $24\frac{1}{2}$ years at this particular occupation. These figures do not include time spent at other occupations in the textile industries or what might be thought of as a lifetime of experience in handling or making fabrics. The plight of the unemployed members of this group was well expressed by one weaver interviewed. He said, "I'm no bum. I've got a trade, but where am I going to practice it?"

FULL-FASHIONED HOSIERY WORKERS

Another of the studies in this series deals with the work experience, in the 10 years, 1926-1935, of 673 workers who were laid off when three full-fashioned hosiery mills closed in 1933 and 1934. The three plants selected were closed shops and, since the source of information used for locating these persons in 1936 was the address file of the local branch of the American Federation of Full-fashioned Hosiery Workers, these workers were union members at the time of lay-off and when the study was made

in 1936. Among those who remained in the labor market after lay-off, 24 percent of the men and 30 percent of the women found jobs in less than one month. At the other extreme, 28 percent of the men and 32 percent of the women who looked for work immediately after shut-down were unemployed seven or more consecutive months. It took the average worker who did not find employment within a month following his or her dismissal, six months to find a job lasting one month or longer. Compared with machinists and weavers laid off during the same period, the hosiery workers secured jobs relatively quickly.

The hosiery workers studied exhibit the characteristics specific to the labor market for full-fashioned hosiery workers in Philadelphia and their experience reflects the fact that they normally worked or sought work in a union labor market. They were younger than machinists and younger than the weavers and loom fixers in the selected textile industries, but older than the radio workers. The average age of both men and women in 1936 was 31 years. Over half of the women workers were married, and their work experience showed intermittent periods of time out of the labor market to a greater degree than other women workers studied. More of this group of workers had entered this industry between 1921 and 1925 than in any other five years. This was a period of great prosperity in the industry in Philadelphia during which it had the reputation of paying high wages. The group studied had worked almost exclusively in the hosiery or textile industries and had worked two years, on the average, for the mills from which they had been laid off in 1933 and 1934.

The occupational characteristics of the group longest unemployed were not very different from those of all workers laid off from the three mills. In only two respects, age and length of service at the mill of lay-off, were important differences found between the longest unemployed and the total group. Workers over 50 years of age and under 30 were found in larger proportions among those longest unemployed than in the total group. The older workers may have been refused jobs because employers considered them slower than younger workers, and the youngest because they lacked experience. Middle-aged workers, with greater family responsibilities, may have sought work more vigorously or obtained it more readily because of their responsibilities. With regard to length of service at the mill of lay-off, it was found that those who had been employed in the largest of the three

mills for the longest periods of time were the slowest in finding jobs after lay-off. Apparently, long service with one employer limits a hosiery worker's knowledge of conditions outside his own plant and makes it difficult for him to make adjustments to changes. In other employment qualifications or social characteristics, such as schooling, nativity, marital status, years of service at the occupation or industry, the length of the longest job ever held, and the number of occupations and industries worked in, which are usually considered as playing a part in determining the ease or difficulty with which a person finds a job, the longest unemployed and the total group showed only minor differences.

It was found that the season of lay-off was important in determining the proportion of workers who found a job within a month after lay-off and that the year of lay-off was important in determining the average length of time between lay-off and finding a job lasting one month or longer. A factor which affected employment conditions in the full-fashioned hosiery industry and aided unemployed workers in obtaining jobs was the general adoption in union mills in Philadelphia in 1931 and 1932 and in nonunion mills in 1933 of a shorter workweek and of the operation of certain machine equipment on a two-shift basis. After the invalidation of the National Industrial Recovery Act the union was strong enough to have the shorter workweek generally maintained. Other factors of a technological nature, however, adversely affected employment opportunities in certain occupations employing women. Loopers and menders and examiners were unemployed in larger proportions and for longer periods of time after lay-off than toppers and seamers. Knitters and knitters' helpers, the only men in the study, were reemployed relatively quickly after lay-off, particularly in the age group from 30 to 50 years.

COMPARATIVE EXPERIENCE

The four work history studies outlined demonstrate the need for analyzing a local labor market in terms of the special occupational or industrial labor markets which are its component parts. No adequate picture of the character of a city's unemployment or reemployment problems is possible without this more detailed picture. Recent job opportunities for radio workers, hosiery workers, machinists, and weavers and loom fixers have

differed in both number and character. If the unemployed labor supply is large in relation to given job opportunities, more selective factors are obviously at work in the determination of who secures the available jobs.

Although these studies are by no means conclusive, there is important evidence that too specialized a work experience or too long a service with one plant may be a handicap in securing a new job, once a skilled worker becomes unemployed. Age is apparently not a handicap in retaining a job in the skilled occupations but is a distinct liability after a permanent lay-off. Radio factories, which are typical of mass-production industries, hire only young persons. Even in the highly skilled occupations, radio workers are younger than comparable workers in many other industries. For such workers, therefore, age is a handicap in obtaining as well as in holding a job.

Concerning the question of labor mobility the four work history studies have demonstrated that younger workers who came into the labor market after the World War are decidedly more mobile than those who were working before that time. The mobility of labor, which was measured in terms of the number of job separations and the number of employer, occupational, and industrial shifts reported by a worker in the ten years, does not appear to be affected by age alone. It was found that the oldest workers, those 45 years of age and over, are, in general, no less mobile than those 30 to 44 years old, but that workers under 30 are considerably more mobile by all four measures. The 30-year age division point was especially important in the case of weavers, loom fixers, and machinists.

Radio workers were the most mobile and machinists the least mobile of the four groups studied, as reflected in the average number of shifts reported by each group. In all four groups, job separations and employer shifts were more numerous than occupational shifts. Industrial shifts were more numerous than occupational shifts except for textile workers. In the case of weavers and loom fixers, an industrial shift usually accompanied an occupational shift, and in the case of hosiery workers, occupational shifts outnumbered industrial shifts. The absence of shift experience for significant proportions of the workers in each group except radio workers should be noted. Perhaps the work histories of any group of semiskilled or skilled workers

who might be studied at the end of a long depression would offer evidence of relative stability rather than mobility.

The relationship of employment status, in the recovery year of 1936 to labor mobility was also examined in three of the work history studies. Clear-cut relationships did not emerge, however, except in the case of weavers and loom fixers. Here, those unemployed in 1936 were less mobile than those employed in 1936 on all counts except the number of job separations which included separations to unemployment. Differences in mobility between the occupations studied and between age groups within the occupational or industrial labor markets studied appear to be more consistent than differences in mobility in relation to employment or unemployment in 1936.

SECTION VII

SUMMARY OF FINDINGS WITH RESPECT TO RECENT TRENDS IN EMPLOYMENT AND UNEMPLOYMENT IN PHILADELPHIA

The surveys of the Philadelphia labor market initiated by the Industrial Research Department of the University of Pennsylvania brought to light certain facts about the volume, incidence, and character of unemployment in the city. Changes in the volume of unemployment during the depression years, 1929-1933, were accompanied by very gradual changes in the incidence of unemployment among households of varying composition, and among individuals from different sex, age, race, and occupational groups. Throughout this period the distribution of the occupational characteristics of the long-time unemployed differed from those of the short-time unemployed, and the distribution of the characteristics of workers from relief rolls differed from those of other unemployed job seekers. It has been one of the objectives of the present series of studies to examine these relationships further, and to see if observed differences are accentuated or diminished in a period of business recovery. It has also been a purpose of these studies to examine the relationship of age and other employment factors to the chances of reemployment of unemployed workers, and to discover whether the work histories of the unemployed differ from those of the employed as their occupational characteristics at a particular date differ. In concluding this report only a few major points need to be emphasized.

Manufacturing activity provides the chief key to the employment situation in Philadelphia. The recovery in manufacturing employment after 1933 has not reached the levels attained in 1929 and earlier years. A large unemployed labor reserve has, therefore, been characteristic of the local labor market in recent years. Business recovery has been accompanied by a rapid change from part- to full-time employment but by a slow decline in the number of unemployed persons. This has resulted in a smaller decrease in the number of persons on relief rolls than would otherwise have been anticipated. Despite this fact, it is estimated that at any given time not more than 42 percent of the city's unemployed population were on relief rolls.

There was turnover in the unemployed population during the depression, but the characteristics of the group as a whole remained fairly constant in the depression years. This was particularly true of the age and racial composition of the unemployed group. It was not until 1936 that the Philadelphia Unemployment Sample showed any appreciable decline in the average length of time out of work reported by unemployed persons. It was not until 1935 and 1936 that the industrial composition of the unemployed population changed. The findings of these studies indicate that the occupational characteristics of the unemployed population differ from those of the employed, and that these differences are accentuated in the group left unabsorbed in a period of general business recovery.

Throughout the years surveyed there have been consistent relationships evident in the incidence of unemployment for different age and racial groups. The same is true for the incidence of unemployment in households with varying numbers of employable members. The number of employable persons in the Philadelphia Unemployment Sample has varied only slightly from year to year when allowance is made for differences in enumeration facilities. In more recent years there has been an increase in the number of persons seeking work who have not been previously employed, particularly in the number of women.

Although the incidence of unemployment has been higher for men than for women among previously employed workers, the incidence of total unemployment was higher for women than for men in 1935, 1936, and 1937. This is accounted for by the increase of women seeking work in the city during the depression and early recovery years and the higher incidence of unemployment among inexperienced as compared with experienced persons. There were relatively more job openings for women than for men in the local public employment office during most of these years, but inexperienced women forced into the labor market as the result of economic pressure were apparently not successful in securing employment in proportion to their numbers. They have increased the size of the unemployed labor reserve in the locality in the recovery years and the effects of this trend may be more than temporary.

The unemployed who may be considered to be most actively seeking work at any one time are those who register voluntarily at a public employment bureau. Although applicants at the Philadel-

phia State Employment Office have been employed in a wide range of occupations and industries, both the registration and placement work of the bureau tend to be concentrated in a relatively small range of occupations. These represent occupations of major importance in the city's labor market. Persons placed through the activities of the bureau tend to be younger than other applicants and have been out of work for shorter periods of time prior to registration at the bureau. The composition of the group of applicants certified from relief rolls for the years from 1934 through 1936 shows a higher proportion of unskilled workers, a higher average age, and a higher proportion of the long-time unemployed than is found for applicants not on relief rolls. A group of some 20,000 applicants certified for Works Program employment but not assigned to work projects or reabsorbed in private industry appears to be "frozen" in the bureau's "active" files.

Variations in job opportunities listed with the Philadelphia State Employment Office and in placements made by the bureau have been affected by seasonal as well as recovery factors in business and also by changes in the service facilities of the bureau. Perhaps the most outstanding characteristic of labor demand during depression years as reflected in these data is the high degree of selectivity which prevailed for the few job opportunities which were open. Preliminary evidence indicates that most of the labor shortages which have occurred during recent years have been highly specialized in character or reported only at the peak of the "busy" season in an industry. Such specialized or sporadic shortages did not represent an appreciable number of unfilled jobs in the city's labor market.

Preliminary findings in the four work history studies indicate that the mobility of the labor supply varies with occupation, industry, sex, and age. Workers attached to the occupations and industries selected for study differ in the extent of job, employer, occupation, and industry shifting reported. These differences hold for periods which cover all phases of business activity. Women report fewer occupational and industrial shifts than men, even in occupations where job turnover is higher for women than men. Older workers in most of the situations studied are less mobile than younger workers. The employment and unemployment history of workers within a given occupation or occupational group and under specific conditions with regard to job

opportunities also varies according to sex and age and industrial experience. Perhaps the most significant results of these studies indicate that unemployed workers differ from the employed not only in their occupational characteristics at a given time but also in their work histories over a period of years.

This report has attempted to give a background of recent employment trends in the Philadelphia labor market, as reflected in data available from previous surveys, and an outline of the objectives of present studies. Against this background the findings of the Unemployment Sample for 1936 and 1937, the 1936 Employment Office record studies, and the surveys of selected groups on relief and selected occupational and industrial labor markets will be reported in detail in subsequent publications of this series. It is recognized that certain aspects of the Philadelphia labor market have not been covered in past or present studies. The most important of these gaps in present knowledge of labor market conditions in Philadelphia concern questions of geographic and occupational mobility in the area, the effects of the relief and social security programs on employment, unemployment, and occupational mobility, and the labor market conditions surrounding occupations in which there are alleged labor shortages. The studies of the work histories of workers in selected occupations and industries will shed some light on questions of occupational and industrial mobility in particular situations but the other problems must be left for future research.

APPENDIX

Unless otherwise noted, the data of the following Appendix tables are based on annual surveys of the Philadelphia Unemployment Sample made by the following agencies:

Surveys of 1929-1933 inclusive

Industrial Research Department
University of Pennsylvania

Survey of 1935

Industrial Research Department
University of Pennsylvania
in cooperation with
Pennsylvania State Emergency Relief Administration
and
Works Progress Administration

Surveys of 1936 and 1937

Works Progress Administration
National Research Project
in cooperation with
Industrial Research Department
University of Pennsylvania

Table 1.- MONTHLY INDEX OF EMPLOYMENT, PHILADELPHIA MANUFACTURING INDUSTRIES, 1923-1936^a

(1923-1925 = 100)

Month	Year													
	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
January	103.6	96.0	93.7	101.0	103.0	97.0	94.0	95.0	76.5	73.2	62.9	78.4	87.0	90.5
February	107.9	95.4	94.0	102.7	104.2	98.3	98.8	93.6	77.6	73.0	63.0	81.4	87.2	90.8
March	110.4	94.6	96.6	102.5	104.5	96.0	97.8	92.3	77.1	71.3	61.0	83.9	88.7	91.8
April	110.6	92.7	96.2	101.9	101.3	92.2	99.4	92.0	78.4	67.5	61.7	84.5	88.6	91.7
May	112.1	89.6	97.7	101.3	100.3	92.0	101.4	91.6	78.1	66.3	65.0	83.8	88.1	91.5
June	113.6	85.0	99.4	100.3	97.9	92.2	102.0	89.7	78.1	64.3	68.5	82.9	87.8	92.2
July	114.2	83.6	100.6	101.6	97.2	95.3	104.4	85.8	76.2	61.9	71.2	82.3	87.9	93.6
August	111.0	84.8	101.5	103.1	98.1	97.8	108.3	88.1	79.2	62.3	78.2	83.8	89.1	96.1
September	108.5	97.7	103.4	105.6	96.3	100.3	105.6	90.6	79.4	65.5	83.6	82.1	91.0	100.2
October	109.3	92.3	106.2	108.6	94.3	100.0	101.9	89.0	78.1	68.6	87.0	84.6	92.2	101.1
November	107.5	92.3	104.7	109.5	94.4	98.1	97.4	85.5	77.7	67.6	84.8	86.2	92.2	102.1
December	104.5	93.5	105.3	106.1	92.9	92.7	95.4	80.3	77.3	65.0	82.2	88.4	92.7	102.9
Average	109.4	90.6	99.9	103.7	98.7	96.0	100.5	89.5	77.8	67.2	72.4	83.5	89.4	95.4

^aFrom issues of *Survey of Current Business* (U. S. Dept. Com.): data for 1923-29, Vol. 13, No. 9 (Sept. 1933), p. 19; for 1930-31, Vol. 15, No. 3 (Mar. 1935), p. 20; for 1932-35, "1936 Supplement," p. 32; for 1936, Vol. 17, No. 3 (Mar. 1937), p. 29.

Table 2.- NUMBER OF ESTABLISHMENTS, WAGE EARNERS, AND VALUE
ADDED BY MANUFACTURE, PHILADELPHIA
MANUFACTURING INDUSTRIES
1923-1935^a

Year	Number of establishments		Average number of wage earners		Value added by manufacture	
	Number	Percent of 1925	Number	Percent of 1925	Dollars	Percent of 1925
1935	4,428	78.6	202,225	82.0	585,836,250	66.0
1933	3,903	69.3	168,906	67.7	468,157,061	52.7
1931	5,097	90.4	190,974	77.4	664,604,618	74.8
1929	5,567	98.8	246,908	100.1	978,080,698	110.2
1927	5,860	104.0	243,608	98.8	880,725,845	99.2
1925	5,636	100.0	246,680	100.0	887,934,994	100.0
1923	6,399	113.5	273,980	111.1	n. a.	-

^aData for 1929, 1933, and 1935 from *Census of Manufactures: 1935*, "Summary for Philadelphia, Philadelphia County, Pennsylvania," released Feb. 12, 1937; for 1931, *Biennial Census of Manufactures: 1933*, "Pennsylvania, Summary for Cities Having 10,000 Inhabitants or More and for Counties: 1933, 1931, and 1929," released July 1, 1935, p. 8; for 1925 and 1927, *Biennial Census of Manufactures: 1927*, table IV, p. 1473; for 1923, *Biennial Census of Manufactures: 1925*, table IV, p. 1431.

n. a. Data not available.

Table 3.- SOCIO-ECONOMIC GROUPS OF USUAL OCCUPATION OF GAINFUL WORKERS, BY SEX
PHILADELPHIA 1910, 1920, 1930^a

Socio-economic group	1910 ^b						1920 ^c						1930 ^d					
	Total		Men		Women		Total		Men		Women		Total		Men		Women	
	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent
Total	711,169	100.0	510,871	100.0	200,298	100.0	819,000	100.0	603,237	100.0	215,763	100.0	889,850	100.0	643,714	100.0	246,136	100.0
Professional persons	33,154	4.7	19,957	3.9	13,197	6.6	41,162	5.0	24,556	4.1	16,606	7.7	54,091	6.1	29,690	4.6	24,401	9.9
Proprietors, managers, officials	69,653	9.8	64,009	12.5	5,644	2.8	70,132	8.6	65,314	10.8	4,818	2.2	74,630	8.4	69,962	10.9	4,668	1.9
Clerks and kindred workers	116,978	16.4	82,379	16.1	34,599	17.3	163,992	20.0	98,060	16.3	65,932	30.6	200,552	22.5	120,620	18.7	79,932	32.5
Skilled workers and foremen	125,285	17.6	121,657	23.8	3,628	1.8	164,364	20.1	161,192	26.7	3,172	1.5	153,398	17.2	149,177	23.2	4,221	1.7
Semiskilled workers	214,384	30.2	120,957	23.7	93,427	46.7	231,394	28.3	147,012	24.4	84,382	39.1	236,307	26.6	157,009	24.4	79,298	32.2
Unskilled workers	82,680	11.6	81,240	15.9	1,440	0.7	89,464	10.9	87,742	14.5	1,722	0.8	90,647	10.2	89,634	13.9	1,213	0.5
Domestic and personal service workers	69,035	9.7	20,872	4.1	48,163	24.1	58,492	7.1	19,361	3.2	39,131	18.1	80,025	9.0	27,622	4.3	52,403	21.3

^aData are converted to an adaptation of Dr. Edwards' socio-economic grouping for Census occupational returns. *Journal of the American Statistical Association*, XXVIII, No. 184 (Dec. 1933), 377-87.
^bThirteenth Census of the United States, 1910, "Population" (U. S. Dept. Com., Bur. Census, 1914), Vol. IV, table III, pp. 183-93.
^cFourteenth Census of the United States, 1920, "Population," Vol. IV, table 19, pp. 204-20.
^dFifteenth Census of the United States, 1930, "Population," Vol. IV, table 4, pp. 1384-91.

Table 4.- NUMBER OF HOUSEHOLDS BY NUMBER OF EMPLOYABLE PERSONS PER HOUSEHOLD
PHILADELPHIA UNEMPLOYMENT SAMPLE, 1931-1936^a

Number of employable persons per household	Number of households									
	1931		1932		1933		1935		1936	
	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent
Total	36,410	100.0	35,471	100.0	35,820	100.0	43,997	100.0	44,817	100.0
0	818	2.3	865	2.4	334	2.6	1,839	4.2	2,329	5.2
1	17,565	48.2	16,672	47.0	17,271	48.2	21,164	48.1	20,604	46.0
2	9,710	26.7	9,287	26.2	9,245	25.8	11,695	26.6	12,287	27.4
3	4,935	13.6	5,046	14.2	4,781	13.4	5,462	12.4	5,705	12.7
4	2,192	6.0	2,298	6.5	2,266	6.3	2,413	5.5	2,521	5.6
5	800	2.2	857	2.4	900	2.5	983	2.2	926	2.1
6	249	0.7	307	0.9	276	0.8	289	0.7	330	0.8
7	87	0.2	91	0.3	100	0.3	93	0.2	96	0.2
8	38	0.1	25	0.1	27	0.1	31	0.1	14	*
9	4	*	8	*	10	*	15	*	3	*
10 and over	12	*	15	*	10	*	13	*	2	*
Average (employable persons per household)	1.8		1.9		1.9		1.8		1.8	

^aData for 1934 not available. Employable persons are persons 16 years of age and over working or seeking work. Data include persons not seeking work because of temporary illness for the years 1931, 1932, and 1933 but exclude such persons in 1935 and 1936.

*Less than 0.05 percent.

Table 5.- EMPLOYMENT STATUS OF HOUSEHOLDS BY NUMBER OF EMPLOYABLE PERSONS PER HOUSEHOLD
PHILADELPHIA UNEMPLOYMENT SAMPLE, 1931-1936^a

Employment status ^b	Households with employable persons		Households with -									
			One employable person		Two employable persons		Three employable persons		Four employable persons		Five and over employable persons	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1931												
Total number of households ^c	35,592	100.0	17,565	100.0	9,710	100.0	4,935	100.0	2,192	100.0	1,190	100.0
Complete employment	23,841	67.0	14,637	83.3	6,048	62.3	2,224	45.1	667	30.4	265	22.3
Partial unemployment	7,499	21.1	-	-	2,797	28.8	2,408	48.8	1,415	64.6	879	73.8
Complete unemployment	4,252	11.9	2,928	16.7	865	8.9	303	6.1	110	5.0	46	3.9
1932												
Total number of households ^d	34,606	100.0	16,672	100.0	9,287	100.0	5,046	100.0	2,298	100.0	1,303	100.0
Complete employment	17,056	49.3	11,725	70.3	3,744	40.3	1,166	23.1	315	13.7	106	8.1
Partial unemployment	9,382	27.1	-	-	3,615	38.9	3,055	60.6	1,688	73.5	1,024	78.6
Complete unemployment	8,168	23.6	4,947	29.7	1,928	20.8	825	16.3	295	12.8	173	13.3
1933												
Total number of households ^e	34,886	100.0	17,271	100.0	9,245	100.0	4,781	100.0	2,266	100.0	1,323	100.0
Complete employment	16,192	46.4	11,463	66.4	3,472	37.6	930	19.5	249	11.0	78	5.9
Partial unemployment	9,030	25.9	-	-	3,430	37.1	2,916	61.0	1,637	72.2	1,047	79.1
Complete unemployment	9,664	27.7	5,808	33.6	2,343	25.3	935	19.5	380	16.8	198	15.0

1935												
Total number of households ^f	42,158	100.0	21,164	100.0	11,695	100.0	5,462	100.0	2,413	100.0	1,424	100.0
Complete employment	24,790	58.8	16,062	75.9	6,055	51.8	1,903	34.9	566	23.4	204	14.3
Partial unemployment	9,460	22.4	-	-	3,782	32.3	2,957	54.1	1,609	66.7	1,112	78.1
Complete unemployment	7,908	18.8	5,102	24.1	1,858	15.9	602	11.0	238	9.9	108	7.6
1936												
Total number of households ^g	42,488	100.0	20,604	100.0	12,287	100.0	5,705	100.0	2,521	100.0	1,371	100.0
Complete employment	25,453	59.9	15,725	76.3	6,660	54.2	2,188	38.4	655	26.0	225	16.4
Partial unemployment	9,798	23.1	-	-	3,920	31.9	3,066	53.7	1,714	68.0	1,098	80.1
Complete unemployment	7,237	17.0	4,879	23.7	1,707	13.9	451	7.9	152	6.0	48	3.5

^aData for 1934 not available. Data include persons not seeking work because of temporary illness for the years 1931, 1932, and 1933 but exclude such persons in 1935 and 1936.

^bEmployment status:

Complete employment includes households with all workers employed on a full- or part-time basis.

Partial unemployment includes households with 1 or more workers employed and 1 or more workers unemployed.

Complete unemployment includes households with all workers unemployed.

^cExcludes 818 households with no employable person.

^dExcludes 865 households with no employable person.

^eExcludes 934 households with no employable person.

^fExcludes 1,839 households with no employable person.

^gExcludes 2,329 households with no employable person.

Table 6.- EMPLOYMENT STATUS OF PERSONS IN THE PHILADELPHIA UNEMPLOYMENT SAMPLE, 1929-1937^a

Year	Number of households enumerated	Total number of persons of all ages	Number of persons of all ages not seeking work	Employable persons ^b							
				Total		Employed				Unemployed	
						Full time		Part time			
				Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent
1929	31,551	140,174	81,308	58,866	100.0	52,756 ^c	89.6	(c)	-	6,110	10.4
1930	36,665	160,208	90,324	69,884	100.0	55,788	79.8	3,648	5.2	10,448	15.0
1931	36,410	157,560	90,410	67,150	100.0	40,766	60.7	9,243	13.8	17,141	25.5
1932	35,471	154,430	87,576	66,854	100.0	24,782	37.1	13,887	20.8	28,185	42.1
1933	35,820	154,797	88,343	66,454	100.0	22,630	34.1	13,256	19.9	30,568	46.0
1934	40,931	169,055	90,934	78,121	100.0	38,420	49.2	11,437	14.6	28,284	36.2
1935	43,997	173,400	94,876	78,524	100.0	41,489	52.8	11,125	14.2	25,910	33.0
1936	44,817	173,428	93,606	79,822	100.0	48,669	61.0	7,086	8.9	24,067	30.1
1937	45,927	174,935	95,329	79,606	100.0	56,142	70.5	4,007	5.0	19,457	24.5

^aThis table summarizes the results of machine tabulations for the University of Pennsylvania Unemployment Census taken in April or May of each year, with the exception of 1934. For this year figures were obtained from the Division of Research and Statistics of the State Emergency Relief Administration for the city blocks approximating the University Census Sample. These figures include institutions as well as residence households. For the city as a whole, in February 1934, the percentage of unemployed employable persons was 32.6 and the percentage of part-time employed 14.1. This table supersedes all previous reports based on preliminary hand tabulations for the years 1933-1937.

^bEmployable persons are all persons 16 years of age and over working or seeking work. Persons not seeking work because of temporary illness are included as unemployed employable persons from 1929 through 1934 but are excluded from employable persons from 1935 through 1937. Persons not seeking work because of temporary illness numbered 258 in 1935, 1,019 in 1936, and 640 in 1937. Part-time employment was recorded according to the prevailing practice of the industry prior to 1935; in 1935, 1936, and 1937, employment under 30 hours a week was counted as part-time employment.

All persons employed on work relief have been treated as unemployed in all years, but no count of them is available prior to 1936. In 1936, 4,912 persons and in 1937, 3,356 persons were employed on emergency work.

^cIn 1929 persons employed part time were included with those employed full time. The data are not available separately for persons employed full time and part time.

Table 7.- EMPLOYMENT STATUS OF EMPLOYABLE PERSONS BY SEX, PHILADELPHIA UNEMPLOYMENT SAMPLE, 1931-1937^a

Year	Employable persons											
	Employed						Unemployed					
	Total		Full time		Part time		Total		Previously employed		Not previously employed	
	Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent
Men												
1931	48,641	100.0	29,238	60.1	6,564	13.5	12,839	26.4	(b)	-	(b)	-
1932	48,526	100.0	18,234	37.6	9,611	19.8	20,681	42.6	(b)	-	(b)	-
1933	48,320	100.0	16,623	34.4	9,158	19.0	22,539	46.6	21,309	44.1	1,230	2.5
1935	55,775	100.0	30,284	54.3	7,159	12.8	18,332	32.9	15,877	28.5	2,455	4.4
1936	54,989	100.0	35,074	63.8	4,000	7.3	15,915	28.9	13,330	24.2	2,585	4.7
1937	55,848	100.0	40,812	73.1	2,018	3.6	13,018	23.3	10,827	19.4	2,191	3.9
Women												
1931	16,944	100.0	10,372	61.2	2,553	15.1	4,019	23.7	(b)	-	(b)	-
1932	17,953	100.0	6,388	35.6	4,243	23.6	7,322	40.8	(b)	-	(b)	-
1933	17,896	100.0	5,918	33.1	4,074	22.7	7,904	44.2	7,037	39.3	867	4.9
1935	22,749	100.0	11,205	49.3	3,966	17.4	7,578	33.3	5,493	24.1	2,085	9.2
1936	24,833	100.0	13,595	54.8	3,086	12.4	8,152	32.8	5,712	23.0	2,440	9.8
1937	23,758	100.0	15,330	64.5	1,989	8.4	6,439	27.1	4,360	18.4	2,079	8.7

^aData for 1934 not available. Data presented in this table exclude persons whose employment status is known but whose sex is unknown. They numbered 1,585 in 1931, 375 in 1932, and 238 in 1933. Data include persons not seeking work because of temporary illness for the years 1931, 1932, and 1933 but exclude such persons from 1935 through 1937.

^bThese data not separable in 1931 and 1932.

Table 8.- EMPLOYMENT STATUS OF EMPLOYABLE PERSONS BY RACE, NATIVITY, AND SEX
PHILADELPHIA UNEMPLOYMENT SAMPLE, 1931-1936^a

Race and nativity	Employable persons											
	Total				Employed				Unemployed			
	Men		Women		Men		Women		Men		Women	
	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent
1931												
Total reporting	46,259	100.0	15,880	100.0	34,036	73.6	12,059	75.9	12,223	26.4	3,821	24.1
Native-born white	29,513	100.0	10,818	100.0	22,339	75.7	8,362	77.3	7,174	24.3	2,456	22.7
Foreign-born white	10,629	100.0	1,507	100.0	7,829	73.7	1,273	84.5	2,800	26.3	234	15.5
Negro and all other	6,117	100.0	3,555	100.0	3,868	63.2	2,424	68.2	2,249	36.8	1,131	31.8
1932												
Total reporting	47,089	100.0	17,213	100.0	26,964	57.3	10,189	59.2	20,125	42.7	7,024	40.8
Native-born white	30,778	100.0	12,084	100.0	18,688	60.7	7,401	61.2	12,090	39.3	4,683	38.8
Foreign-born white	10,092	100.0	1,493	100.0	5,738	56.9	995	66.6	4,354	43.1	498	33.4
Negro and all other	6,219	100.0	3,636	100.0	2,538	40.8	1,793	49.3	3,681	59.2	1,843	50.7
1933												
Total reporting	47,416	100.0	17,482	100.0	25,292	53.3	9,753	55.8	22,124	46.7	7,729	44.2
Native-born white	32,065	100.0	12,573	100.0	17,834	55.6	7,208	57.3	14,231	44.4	5,365	42.7
Foreign-born white	9,510	100.0	1,465	100.0	5,184	54.5	1,012	69.1	4,326	45.5	453	30.9
Negro and all other	5,841	100.0	3,444	100.0	2,274	38.9	1,533	44.5	3,587	61.1	1,911	55.5

1935												
Total reporting	55,889	100.0	22,893	100.0	37,443	67.0	15,171	66.3	18,446	33.0	7,722	33.7
Native-born white	37,129	100.0	16,461	100.0	25,813	69.5	11,423	69.4	11,316	30.5	5,038	30.6
Foreign-born white	11,568	100.0	1,941	100.0	8,346	72.1	1,577	81.2	3,222	27.9	364	18.8
Negro and all other	7,192	100.0	4,491	100.0	3,284	45.7	2,171	48.3	3,908	54.3	2,320	51.7
1936												
Total reporting	55,408	100.0	25,407	100.0	39,068	70.5	16,668	65.6	16,340	29.5	8,739	34.4
Native-born white	35,393	100.0	17,467	100.0	25,669	72.5	11,817	67.7	9,724	27.5	5,650	32.3
Foreign-born white	13,195	100.0	3,046	100.0	10,019	75.9	2,325	76.3	3,176	24.1	721	23.7
Negro and all other	6,818	100.0	4,894	100.0	3,378	49.5	2,526	51.6	3,440	50.5	2,368	48.4

^aData for 1934 not available. For city as a whole in February 1934, the ratio of unemployed to employable men is 30.0 for native-born, 29.0 for foreign-born, and 49.5 for Negroes and others; the ratio of unemployed to employable women is 32.0 for native-born, 25.4 for foreign-born, and 45.7 for Negroes and others. State Emergency Relief Administration, *Census of Employable Workers in Urban and Rural Non-Farm Areas of Pennsylvania - 1934* (Harrisburg, Pa.: Pa. State Emergency Relief Administration, Division of Research and Statistics, 1936), tables 2, 3, 4.

Data presented in this table exclude persons whose employment status is known but whose sex is unknown. They numbered 1,565 in 1931, 375 in 1932, and 238 in 1933.

Data in this table and all subsequent tables through table 16 include, in all years, persons not seeking work because of temporary illness.

Total persons in this table differ from total persons in table 7 by the inclusion of 258 persons not seeking work because of temporary illness in 1935 and 1,019 such persons in 1936 and by the number for whom race and nativity are not available. In 1931 there were 2,382 men and 1,064 women for whom information regarding race and nativity was not available; in 1932, 1,437 men and 740 women; in 1933, 904 men and 414 women; and in 1936, 14 men and 14 women.

50 EMPLOYMENT AND UNEMPLOYMENT IN PHILADELPHIA

Table 9.- MEDIAN AGE OF EMPLOYABLE PERSONS, BY EMPLOYMENT STATUS AND SEX, PHILADELPHIA UNEMPLOYMENT SAMPLE 1931-1936^a

Year	Employable persons							
	Total		Employed		Unemployed			
					Total		Previously employed	
	Men	Women	Men	Women	Men	Women	Men	Women
1931	36.8	26.6	37.6	27.4	34.0	24.3	(b)	(b)
1932	36.3	26.3	37.5	27.6	34.4	24.5	(b)	(b)
1933	37.5	27.0	39.1	29.0	35.1	24.4	36.4	26.1
1935	37.7	28.4	38.9	29.7	34.6	24.7	37.9	29.6
1936	37.5	28.7	38.5	29.8	34.2	25.5	38.4	31.1

^aThe distributions, except those for persons unemployed who were previously employed, from which these medians are derived are presented in tables 10 through 14. Data for 1934 are not available.

^b1931 and 1932 data for unemployment of previously employed persons not available.

Table 10.- EMPLOYMENT STATUS OF EMPLOYABLE PERSONS, BY SEX AND AGE
PHILADELPHIA UNEMPLOYMENT SAMPLE, 1931

Age in years	Employable persons ^a											
	Total				Employed				Unemployed			
	Men		Women		Men		Women		Men		Women	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total reporting	43,907	100.0	14,635	100.0	31,905	72.7	10,941	74.8	12,002	27.3	3,694	25.2
16-19	3,358	100.0	3,015	100.0	1,920	57.2	1,957	64.9	1,438	42.8	1,058	35.1
20-24	5,370	100.0	3,521	100.0	3,413	63.6	2,604	74.0	1,957	36.4	917	26.0
25-29	5,633	100.0	2,378	100.0	4,067	72.2	1,871	78.7	1,566	27.8	507	21.3
30-34	5,408	100.0	1,570	100.0	4,106	75.9	1,226	78.1	1,302	24.1	344	21.9
35-39	6,038	100.0	1,410	100.0	4,689	77.7	1,124	79.7	1,349	22.3	286	20.3
40-44	5,162	100.0	969	100.0	4,030	78.1	768	79.3	1,132	21.9	201	20.7
45-49	4,630	100.0	756	100.0	3,588	77.5	608	80.4	1,042	22.5	148	19.6
50-54	3,143	100.0	425	100.0	2,388	76.0	333	78.4	755	24.0	92	21.6
55-59	2,406	100.0	313	100.0	1,819	75.6	244	78.0	587	24.4	69	22.0
60-64	1,498	100.0	159	100.0	1,058	70.6	118	74.2	440	29.4	41	25.8
65 and over	1,261	100.0	119	100.0	827	65.6	88	73.9	434	34.4	31	26.1

^aExcludes persons who did not specify age.

Table 11.- EMPLOYMENT STATUS OF EMPLOYABLE PERSONS, BY SEX AND AGE
PHILADELPHIA UNEMPLOYMENT SAMPLE, 1932

Age in years	Employable persons ^a											
	Total				Employed				Unemployed			
	Men		Women		Men		Women		Men		Women	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total re- porting	45,071	100.0	16,214	100.0	25,611	56.8	9,492	58.5	19,460	43.2	6,722	41.5
16-19	3,660	100.0	3,387	100.0	1,398	38.2	1,510	44.6	2,262	61.8	1,877	55.4
20-24	5,808	100.0	4,021	100.0	2,692	46.3	2,366	58.8	3,116	53.7	1,655	41.2
25-29	5,864	100.0	2,640	100.0	3,349	57.1	1,690	64.0	2,515	42.9	950	36.0
30-34	5,574	100.0	1,620	100.0	3,463	62.1	1,023	63.1	2,111	37.9	597	36.9
35-39	6,066	100.0	1,553	100.0	3,797	62.6	986	63.5	2,269	37.4	567	36.5
40-44	5,232	100.0	1,078	100.0	3,273	62.6	705	65.4	1,959	37.4	373	34.6
45-49	4,434	100.0	810	100.0	2,776	62.6	524	64.7	1,658	37.4	286	35.3
50-54	3,108	100.0	462	100.0	1,940	62.4	286	61.9	1,168	37.6	176	38.1
55-59	2,457	100.0	342	100.0	1,413	57.5	209	61.1	1,044	42.5	133	38.9
60-64	1,513	100.0	171	100.0	844	55.8	108	63.2	669	44.2	63	36.8
65 and over	1,355	100.0	130	100.0	666	49.2	85	65.4	689	50.8	45	34.6

^aExcludes persons who did not specify age.

Table 12.- EMPLOYMENT STATUS OF EMPLOYABLE PERSONS, BY SEX AND AGE
PHILADELPHIA UNEMPLOYMENT SAMPLE, 1933

Age in years	Employable persons ^a											
	Total				Employed				Unemployed			
	Men		Women		Men		Women		Men		Women	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total reporting	46,390	100.0	16,848	100.0	24,554	52.9	9,273	55.0	21,836	47.1	7,575	45.0
16-19	3,415	100.0	3,135	100.0	987	28.9	1,001	31.9	2,428	71.1	2,134	68.1
20-24	5,777	100.0	4,258	100.0	2,375	41.1	2,396	56.3	3,402	58.9	1,862	43.7
25-29	5,739	100.0	2,529	100.0	2,963	51.6	1,553	61.4	2,776	48.4	976	38.6
30-34	5,344	100.0	1,692	100.0	3,088	57.8	1,068	63.1	2,256	42.2	624	36.9
35-39	5,925	100.0	1,552	100.0	3,493	59.0	983	63.3	2,432	41.0	569	36.7
40-44	5,717	100.0	1,297	100.0	3,509	61.4	826	63.7	2,208	38.6	471	36.3
45-49	4,678	100.0	892	100.0	2,761	59.0	557	62.4	1,917	41.0	335	37.6
50-54	3,907	100.0	726	100.0	2,277	58.3	446	61.4	1,630	41.7	280	38.6
55-59	2,345	100.0	342	100.0	1,316	56.1	194	56.7	1,029	43.9	148	43.3
60-64	1,915	100.0	274	100.0	1,051	54.9	156	56.9	864	45.1	118	43.1
65 and over	1,628	100.0	151	100.0	734	45.1	93	61.6	894	54.9	58	38.4

^aExcludes persons who did not specify age.

Table 13.- EMPLOYMENT STATUS OF EMPLOYABLE PERSONS, BY SEX AND AGE
PHILADELPHIA UNEMPLOYMENT SAMPLE, 1935

Age in years	Employable persons ^a											
	Total				Employed				Unemployed			
	Men		Women		Men		Women		Men		Women	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total re- porting	55,691	100.0	22,763	100.0	37,286	67.0	15,066	66.2	18,405	33.0	7,697	33.8
16-19	3,607	100.0	3,439	100.0	1,190	33.0	1,263	36.7	2,417	67.0	2,176	63.3
20-24	6,995	100.0	5,479	100.0	3,999	57.2	3,686	67.3	2,996	42.8	1,793	32.7
25-29	7,039	100.0	3,656	100.0	4,790	68.0	2,728	74.6	2,249	32.0	928	25.4
30-34	6,405	100.0	2,509	100.0	4,725	73.8	1,820	72.5	1,680	26.2	639	27.5
35-39	6,937	100.0	2,305	100.0	5,047	72.8	1,607	69.7	1,890	27.2	698	30.3
40-44	6,576	100.0	1,819	100.0	4,834	73.5	1,348	74.1	1,742	26.5	471	25.9
45-49	5,784	100.0	1,277	100.0	4,188	72.4	912	71.4	1,596	27.6	365	28.6
50-54	4,726	100.0	1,044	100.0	3,428	72.5	777	74.4	1,298	27.5	267	25.6
55-59	3,104	100.0	521	100.0	2,150	69.3	381	73.1	954	30.7	140	26.9
60-64	2,444	100.0	398	100.0	1,628	66.6	294	73.9	816	33.4	104	26.1
65 and over	2,074	100.0	316	100.0	1,307	63.0	250	79.1	767	37.0	66	20.9

^aExcludes persons who did not specify age.

Table 14.- EMPLOYMENT STATUS OF EMPLOYABLE PERSONS, BY SEX AND AGE
PHILADELPHIA UNEMPLOYMENT SAMPLE, 1936

Age in years	Employable persons ^a											
	Total				Employed				Unemployed			
	Men		Women		Men		Women		Men		Women	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total re- porting	55,044	100.0	25,055	100.0	38,774	70.4	16,378	65.4	16,270	29.6	8,677	34.6
16-19	3,914	100.0	3,872	100.0	1,512	38.6	1,527	39.4	2,402	61.4	2,345	60.6
20-24	7,080	100.0	5,763	100.0	4,478	63.2	3,877	67.3	2,602	36.8	1,886	32.7
25-29	7,014	100.0	3,923	100.0	5,114	72.9	2,903	74.0	1,900	27.1	1,020	26.0
30-34	6,192	100.0	2,728	100.0	4,742	76.6	1,965	72.0	1,450	23.4	763	28.0
35-39	6,654	100.0	2,516	100.0	5,061	76.1	1,756	69.8	1,593	23.9	760	30.2
40-44	6,371	100.0	2,088	100.0	4,859	76.3	1,466	70.2	1,512	23.7	622	29.8
45-49	5,611	100.0	1,519	100.0	4,236	75.5	1,048	69.0	1,375	24.5	471	31.0
50-54	4,591	100.0	1,114	100.0	3,435	74.8	798	71.5	1,156	25.2	318	28.5
55-59	3,180	100.0	665	100.0	2,337	73.5	451	67.8	843	26.5	214	32.2
60-64	2,382	100.0	498	100.0	1,617	67.9	335	67.3	765	32.1	163	32.7
65 and over	2,055	100.0	369	100.0	1,383	67.3	254	68.8	672	32.7	115	31.2

^aExcludes persons who did not specify age.

Table 15.- USUAL INDUSTRIAL GROUP OF USUAL OCCUPATION OF UNEMPLOYED PERSONS
PHILADELPHIA UNEMPLOYMENT SAMPLE, 1931-1936^a

Industrial group	1931		1932		1933		1935		1936	
	Num- ber	Per- cent	Num- cent	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent
Total reporting	11,144	100.0	17,725	100.0	24,109	100.0	20,509	100.0	19,258	100.0
Manufacturing	5,390	48.4	7,949	44.9	11,243	46.6	6,878	33.5	7,313	38.0
Building and construction	1,416	12.7	2,099	11.8	3,389	14.1	3,350	16.3	3,010	15.6
Trade	1,475	13.2	2,933	16.5	2,657	11.0	3,338	16.3	2,833	14.7
Public utilities	725	6.5	1,170	6.6	1,634	6.8	1,553	7.6	1,310	6.8
Government	389	3.5	548	3.1	635	2.6	647	3.1	469	2.4
Business and professional offices ^b	112	1.0	400	2.3	772	3.2	672	3.3	567	3.0
Institutions	70	0.6	190	1.1	384	1.6	217	1.1	295	1.5
Service industries ^c	454	4.1	963	5.4	1,244	5.2	1,746	8.5	1,545	8.0
Private families	1,113	10.0	1,473	8.3	2,151	8.9	2,108	10.3	1,916	10.0

^aData for 1934 not available. Excludes self-employed, new workers, and a small group of persons formerly employed in other miscellaneous industries. Industry of *last* rather than *usual* job was recorded for unemployed persons in 1935. For details of industry code used, see Bulletin #4, Industry Code, Works Progress Administration, National Research Project in cooperation with Industrial Research Department of the University of Pennsylvania (mimeo. April 1936), and previous codes used by the latter agency.

^bIncludes Insurance and Finance.

^cService industries include barber and beauty shops, laundries, hotels, boarding houses, restaurants, dyeing and cleaning establishments, and shoe repair shops.

Table 16.- DURATION OF UNEMPLOYMENT SINCE LAST REGULAR JOB FOR PREVIOUSLY EMPLOYED WORKERS
AND SINCE DATE OF ENTERING LABOR MARKET FOR NEW WORKERS BY SEX
PHILADELPHIA UNEMPLOYMENT SAMPLE, 1931-1936^a

Duration of unemployment in months	1931				1932				1933				1935				1936			
	Men		Women		Men		Women		Men		Women		Men		Women		Men		Women	
	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent
Total re- porting	11,902	100.0	3,501	100.0	18,331	100.0	6,073	100.0	20,835	100.0	6,762	100.0	13,739	100.0	5,397	100.0	15,947	100.0	8,455	100.0
0- 2	2,629	22.1	1,155	33.0	2,885	15.7	1,648	27.1	2,022	9.7	1,205	17.8	803	5.8	443	8.2	2,091	13.1	1,434	17.0
3- 5	3,205	26.9	939	26.8	2,970	16.2	1,237	20.4	1,760	8.4	826	12.2	1,375	10.0	817	15.1	1,618	10.1	1,018	12.0
6- 8	1,891	15.9	403	11.5	1,928	10.5	538	8.9	1,639	7.9	744	11.0	1,015	7.4	439	8.1	1,122	7.0	559	6.6
9-11	1,636	13.8	429	12.3	3,324	18.1	1,098	18.1	3,000	14.4	1,160	17.2	1,037	7.6	661	12.3	1,123	7.0	779	9.2
12-23	1,644	15.5	435	12.4	5,256	28.7	1,142	18.8	7,081	34.0	1,775	26.2	2,520	18.3	1,160	21.5	2,595	16.8	1,447	17.1
24-35	358	3.0	76	2.2	1,363	7.5	274	4.5	3,693	17.7	724	10.7	2,201	16.0	820	15.2	1,921	12.1	909	10.8
36-47	156	1.3	30	0.9	338	1.8	80	1.3	1,041	5.0	198	2.9	1,941	14.1	454	8.4	1,689	10.6	651	7.7
48-59	74	0.6	12	0.3	120	0.7	32	0.5	353	1.7	73	1.1	1,438	10.5	290	5.4	1,451	9.1	494	5.8
60 and over	109	0.9	22	0.6	142	0.8	24	0.4	256	1.2	57	0.9	1,409	10.3	313	5.8	2,337	14.7	1,164	13.8
Median (un- employment in months)																				
Total	6.2		4.9		10.2		6.8		15.4		10.6		24.7		15.5		21.3		15.6	
Previously employed	(b)		(b)		(b)		(b)		15.5		10.8		26.4		16.8		22.6		16.0	

^aData not available in 1934. Work-relief employment excluded as "regular" employment in all years except 1932 when for a negligible proportion of the total employable persons work-relief jobs were counted as "regular" jobs. A "regular" job is defined as a job, on other than emergency or relief work, which lasted one month or more.
^bThese data are not separable in 1931 and 1932.

58 EMPLOYMENT AND UNEMPLOYMENT IN PHILADELPHIA

Table 17.- NUMBER OF DIRECT- AND WORK-RELIEF CASES IN PHILADELPHIA AT THE END OF EACH FISCAL MONTH, 1932-1936^a

Year and month	Cases			Year and month	Cases		
	Total	Direct-relief	Work-relief ^b		Total	Direct-relief	Work-relief ^b
1932				1935			
Sept.	9,935	9,935	-	Jan.	96,014	81,056	14,958
Oct.	27,012	27,012	-	Feb.	100,552	85,604	14,948
Nov.	38,720	38,720	-	Mar.	104,535	100,654	3,881
Dec.	50,115	50,115	-	Apr.	105,896	100,700	5,196
1933				May	101,915	96,188	5,727
Jan.	57,177	57,177	-	June	99,318	92,960	6,358
Feb.	63,699	63,699	-	July	92,020	91,635	385
Mar.	68,338	68,338	-	Aug.	100,619	100,599	20
Apr.	70,445	70,445	-	Sept.	100,445	99,708	737
May	69,290	69,290	-	Oct.	98,937	96,889	2,048
June	66,869	66,869	-	Nov.	98,528	87,007	11,521
July	64,201	64,201	-	Dec.	99,508	80,560	18,948
Aug.	59,014	59,014	-	1936			
Sept.	53,896	53,896	-	Jan.	102,338	72,385	29,953
Oct.	52,918	52,918	-	Feb.	106,369	69,895	36,474
Nov.	55,179	55,179	-	Mar.	106,733	68,679	38,054
Dec.	63,724	60,536	3,188	Apr.	106,972	58,857	48,115
1934				May	106,902	58,843	48,059
Jan.	68,203	59,947	8,256	June	102,702	58,190	44,512
Feb.	71,141	63,407	7,734	July	99,134	57,714	41,420
Mar.	75,287	64,788	10,499	Aug.	99,206	55,274	43,932
Apr.	75,499	65,082	10,417	Sept.	100,473	55,666	44,807
May	72,023	63,737	8,286	Oct.	98,477	55,073	43,404
June	69,755	63,350	6,405	Nov.	97,180	54,535	42,645
July	70,119	66,653	3,466	Dec.	96,260	57,305	38,955
Aug.	72,178	69,526	2,652				
Sept.	74,123	74,015	108				
Oct.	75,331	74,123	1,208				
Nov.	79,847	70,364	9,483				
Dec.	88,152	74,909	13,243				

^aData submitted by the Division of Research of the Philadelphia County Relief Board.

^bThere was no work relief in the city from September 1932 to December 1934. Work relief was administered by the Civil Works Administration from December 1933 to April 1934, by the Local Works Division of the Emergency Relief Administration from April 1934 to July 1935, and by the Works Progress Administration from July 1935 to date. From September 1935 through May 1936 the figures represent the net cumulative number of cases transferred to WPA, and from June 1936 through December 1936 the figures represent the number of certified relief persons working on the WPA program.

k-
ef^b

958
948
881

.96
'27
158

85
20
37

48
21
48

53
74
54

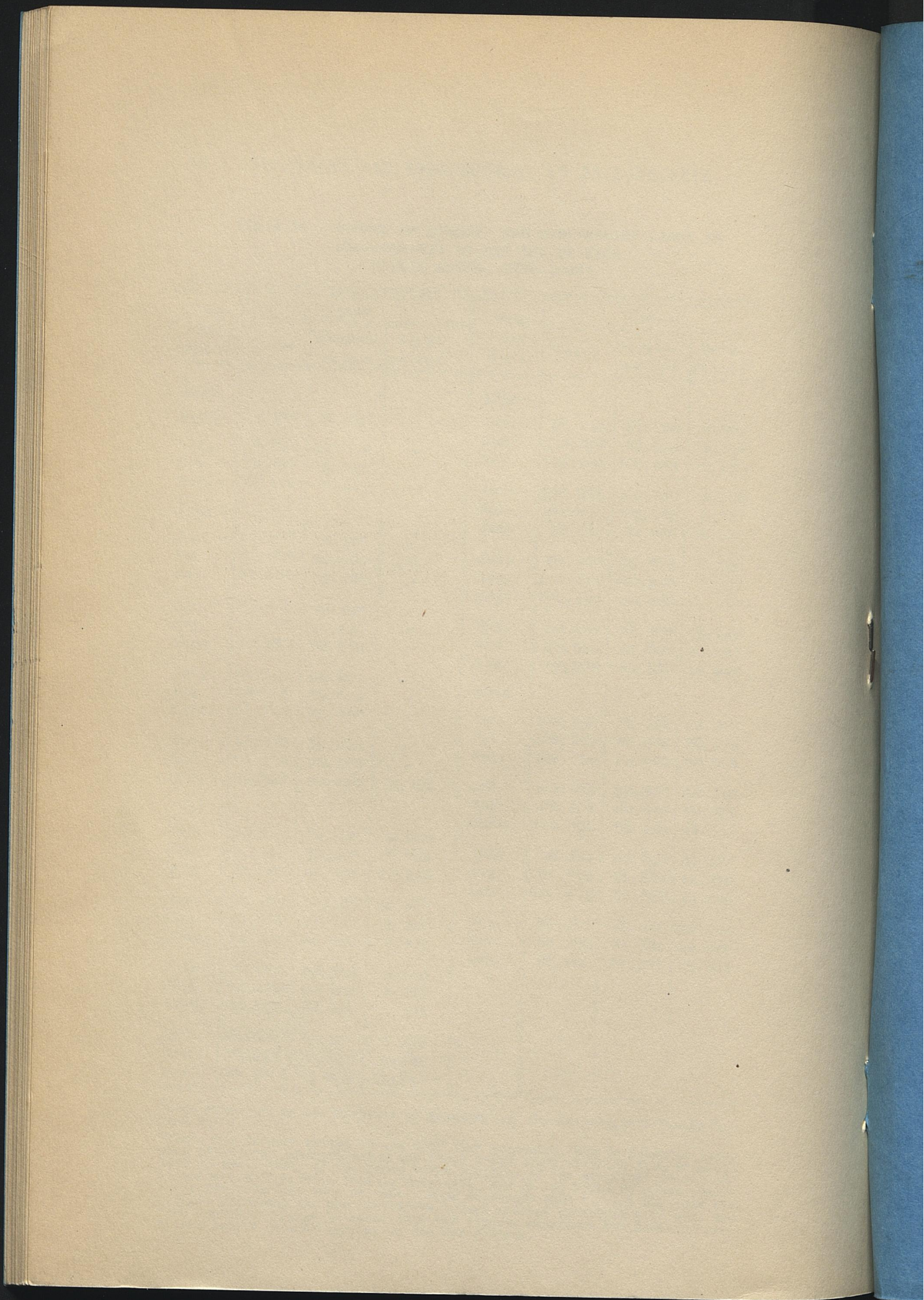
15
59
12

20
32
07

04
15
35

le-

34.
per
ad-
in-
the
and
er-



W.P.A. NATIONAL RESEARCH PROJECT

Reports issued to date

General

The Research Program of the National Research Project

Unemployment and Increasing Productivity

Statistical Problems Confronted in the Analysis of the Relationship Between Production, Productivity, and Employment

Studies in Changing Technology and Labor Productivity

Mining

- No. E-1 Technology and the Mineral Industries
- No. E-2 Small-Scale Placer Mines as a Source of Gold, Employment, and Livelihood in 1935 (out of print)
- No. E-3 Mechanization Trends in Metal and Nonmetal Mining as Indicated by Sales of Underground Loading Equipment
- No. E-4 Employment and Related Statistics of Mines and Quarries, 1935: Coal

Agriculture

- No. A-1 Changes in Technology and Labor Requirements in Crop Production: Sugar Beets
- No. A-2 Changes in Farm Power and Equipment: Mechanical Cotton Picker
- No. A-3 Selected References on Practices and Use of Labor on Farms (in two parts)
- No. A-4 Changes in Technology and Labor Requirements in Crop Production: Potatoes (in press)

Manufacture

- No. B-1 Labor Productivity in the Leather Industry (Summary)
- No. B-2 Mechanical Changes in the Cotton-Textile Industry, 1910 to 1936 (Summary)

Studies of the Effects of Industrial Change on Labor Markets

- No. P-1 Recent Trends in Employment and Unemployment in Philadelphia
- No. L-1 Cigar Makers — After the Lay-off

Requests for copies of these reports should be addressed to:
Corrington Gill, Assistant Administrator
Works Progress Administration
Washington, D. C.

