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NATIONAL RESEARCH PROJECT

on

Reemployment Opportunities and Recent Changes in Industrial Techniques

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In cooperation with

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THE LABOR FORCE OF THE PHILADELPHIA RADIO INDUSTRY IN 1936

by

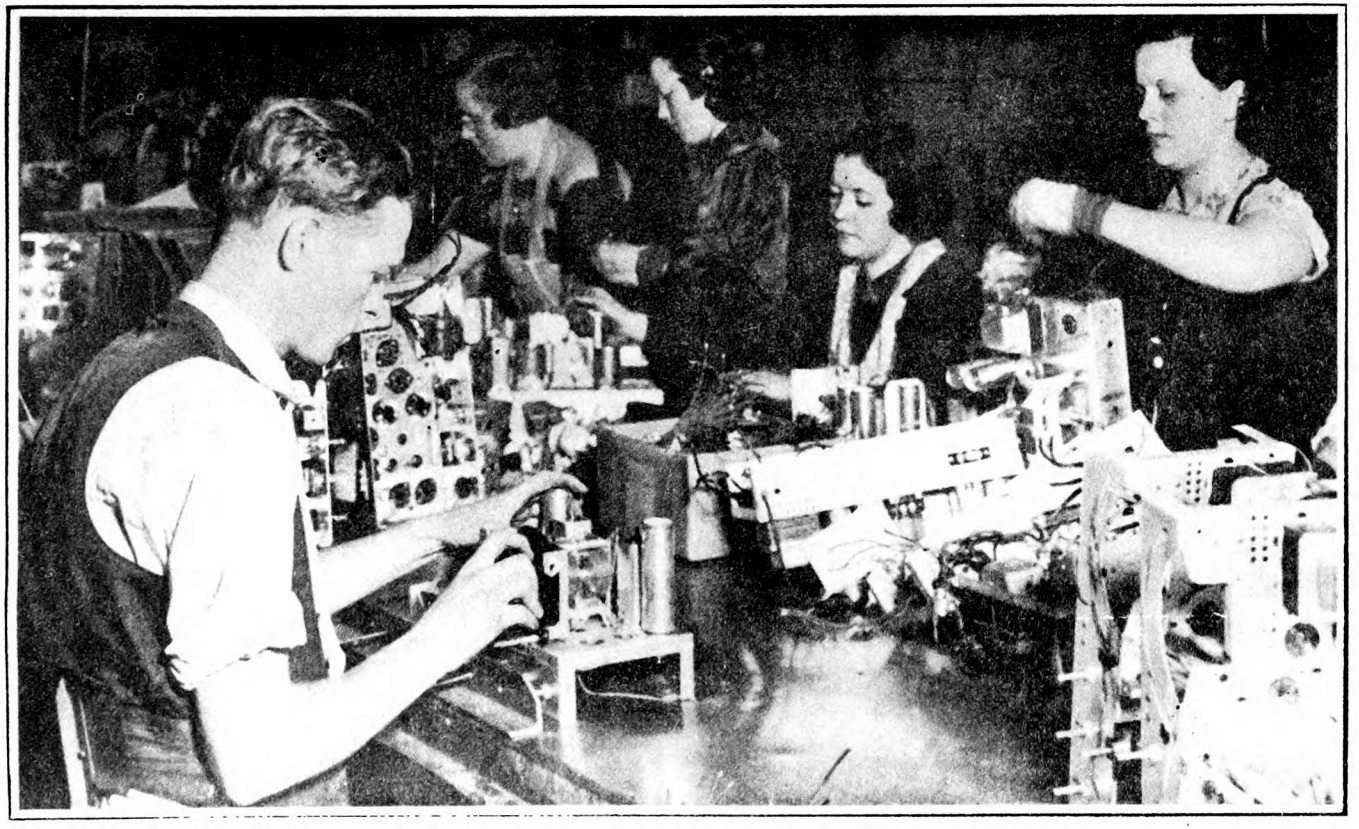
Gladys L. Palmer and Ada M. Stoflet

Philadelphia Labor Market Studies

Report No. P-2

Philadelphia, Pennsylvania

April, 1938



WPA - National Research Project *(Hine)*

WORKERS IN THE RADIO INDUSTRY

The typical man or woman attached to the radio industry of the Philadelphia area in 1936 was, like these workers, young and semiskilled. Of 686 production and maintenance workers studied, 553 were classified as semiskilled, only 121 as skilled, and 12 as unskilled. The average age of women workers was 24 and of men 33 years - only 11 percent of all workers were 45 or more years old.

This picture shows the end of the feeder line along which transformers, coils, capacitors, cables, and tube sockets are installed.

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

HARRY L. HOPKINS
ADMINISTRATOR

April 26, 1938

Hon. Harry L. Hopkins
Works Progress Administrator

Sir:

Much of the research work of the Works Progress Administration and its predecessors has centered around the questions: What kind of people are the unemployed? How, if at all, do they differ from the employed population? We now know in considerable detail what age groups predominate among the unemployed, what their occupational and industrial composition is in various areas, how many of those seeking jobs have never worked before, and a great deal more. Some of this material was published in such research monographs as *Urban Workers on Relief*, *Farmers on Relief and Rehabilitation*, *The Transient Unemployed*, *The Migratory-Casual Worker*, and *Rural Youth on Relief*.

In the light of the heterogeneous character of the unemployed population, it is of direct interest to the Works Progress Administration to find out what it can about the opportunities for reemployment which may be open to workers of various ages and differing occupational experience. For instance: Which groups among the unemployed are likely to find employment should certain types of mass-production industries expand or should a new mass-production industry develop?

The report submitted herewith throws some light on these questions. The radio-manufacturing industry is relatively new. Within a period of about 15 years it developed into one of the country's important manufacturing industries. In the Philadelphia area it is a major employer of labor. Where did it obtain its labor force? Who among the unemployed can hope to find

employment in the industry should production and employment expand?

The outstanding fact developed by the study of *The Labor Force of the Philadelphia Radio Industry in 1936* is that older workers found it practically impossible to gain a foothold in the industry. Although the growth of this new industry in Philadelphia has undoubtedly afforded employment opportunities for some workers who were displaced from older and declining industries in the area, it was only the younger workers who were absorbed. This fact becomes even more significant when it is realized that the major establishments in the radio-manufacturing industry are not new but have existed in the area for a long period of years as producers of either musical instruments, storage batteries, or ignition equipment. It was found that, in spite of this, only one-eighth of the labor force in 1936 consisted of workers who had been employed by these plants prior to their introduction of radio manufacture and that this group was concentrated in the skilled occupations.

One-fifth of the labor force in 1936 had never had a job before. Aside from the eighth who were former employees, the remainder were relatively young workers who had transferred into the radio-manufacturing industry from a large variety of other industries. Even in those instances in which the industry found it necessary to employ skilled workers, such as machinists and cabinetmakers, it was only the younger workers in those skilled occupations who were absorbed by the radio-manufacturing industry.

This report covers one of the studies of the Philadelphia labor market carried on by the National Research Project on Reemployment Opportunities and Recent Changes in Industrial Techniques in cooperation with the Industrial Research Department of the University of Pennsylvania. The study was conducted under the supervision of Dr. Gladys L. Palmer, who, with Ada M. Stoflet, also wrote the report.

Respectfully yours,

Corrington Gill
Assistant Administrator

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PREFACE

While the Philadelphia area, with its diversified industries, can be regarded as a single general labor market, it also represents numerous individual labor markets which are either overlapping and competitive or highly specialized. One effect of the existence of these labor markets within a labor market is the fact that persons with certain occupational and industrial experience are either overrepresented or underrepresented among those who are unemployed during any period of time. Both during periods when the number of jobs available is declining and when employment opportunities are increasing, the industrial, occupational, sex, age, and racial composition of the unemployed reflect the degree to which these selective factors operate in the labor market.

Perhaps more striking is the fact that a metropolitan labor market like Philadelphia's can simultaneously experience a labor shortage and a stranded-population problem - the one with respect to machinists and the other with respect to textile weavers. These two groups are the subject of forthcoming reports in this series.[1] The present study deals with still another type of labor-market problem: How and where does a new and growing industry located in a highly diversified labor market obtain its labor force?

The radio-manufacturing industry is organized along highly modern production lines and employs mainly semiskilled workers. The training of a semiskilled production worker ordinarily requires a period of only 2 weeks to 1 month. The report on *The Labor Force of the Philadelphia Radio Industry in 1936* illustrates how the nature of the production process employed in an industry has influenced the selection of workers in the building of the labor force of a new and growing industry. While the data available for analysis do not cover the labor force as it existed prior to 1936 and therefore do not permit a complete study of the character of the labor turn-over and of the process of personnel selection, they clearly show that the 1936 labor force

[1]The Philadelphia Labor Market Studies being carried on in cooperation with the Industrial Research Department of the University of Pennsylvania have been described by Gladys L. Palmer in *Recent Trends in Employment and Unemployment in Philadelphia* (Works Progress Administration, National Research Project in cooperation with Industrial Research Department, University of Pennsylvania, Report No. P-1, Dec. 1937).

was built up by drawing to a large extent on young and untrained workers in the labor reserve of the general market and that the older unemployed workers in Philadelphia never had a chance to be absorbed by this new mass-production industry.

Philadelphia's 1923 peak in manufacturing employment has never been reached since, and even the spring of 1929 saw a rate of unemployment of 10 percent. This fact doubtless made it possible for the new radio-manufacturing industry to pick and choose from a growing labor reserve and thus to end up in 1936 with a labor force which consisted of 39 percent women and 61 percent men and whose average age was below the average for all industries in Philadelphia by 5 years for men and 4 years for women.

This report is based on data supplied by a sample of Philadelphia radio workers who patiently answered time-consuming questions concerning the past 10 years of their working life. Without their cooperation this study could not have been made. We are happy to have this opportunity to express our gratitude to them as well as to all those who have otherwise contributed toward this study.

DAVID WEINTRAUB
IRVING KAPLAN

PHILADELPHIA
April 22, 1938

SECTION I

INTRODUCTION

PURPOSE OF THE STUDY

The major objectives of this study have been to examine the sources of the labor supply used by a relatively new and expanding industry in Philadelphia and the recent employment opportunities offered in it. The radio industry was selected for special study of these questions.

The Philadelphia labor market has been characterized in recent years by the presence of a large unemployed labor reserve.[1] This reserve has been made up of workers from industries and occupations with a large volume of unemployment during the depression and of workers displaced from industries and occupations of declining importance in the local area. The reserve has also included a growing group of new entrants to the labor market who were unsuccessful in securing employment. At the same time, one of the largest plants in the radio industry in Philadelphia was expanding operations and enlarging its labor force.

There were many specific questions upon which it was hoped that some light might be shed by this study. Were new entrants to the labor market employed in large numbers? Among previously employed persons, were older or younger workers preferred, men or women? From what occupations and industries were workers accepted for employment in the radio industry? Were unemployed workers who were laid off from the occupations or industries of declining importance in the local labor market absorbed by the radio industry? Were skilled workers recruited to the industry and were they employed at the same levels of skill? Did the background experience of the workers attached to the industry in 1936 indicate occupational mobility or a high degree of specialization and immobility? When workers transferred to the radio industry, was the transfer immediately preceded by employment or unemployment?

[1] Gladys L. Palmer, *Recent Trends in Employment and Unemployment in Philadelphia* (Works Progress Administration, National Research Project in cooperation with Industrial Research Department, University of Pennsylvania, Report No. P-1, Dec. 1937).

THE POSITION OF THE RADIO INDUSTRY IN PHILADELPHIA

Radio manufacturing is a relatively new but important industry in Philadelphia. At the present time the industry ranks as one of the 10 leading manufacturing industries.[2] This place of importance has been attained, moreover, within the past 15 years. Prior to 1922 the industry did not exist in Philadelphia, and radio-receiving sets, which were used chiefly for experimental purposes, were made by plants manufacturing electrical machinery and apparatus.

It is common knowledge in the industry that Philadelphia is one of the most important centers for the manufacture of radio-receiving sets in the United States. Two of the largest radio-set manufacturers in the country are located here, and one of these firms is known to be the largest single employer among manufacturers in the city of Philadelphia. Although the radio industry is considered a new industry, the three most important companies developing radio production in Philadelphia, the R C A Victor Company, Inc., the Philco Radio and Television Corporation, and the Atwater Kent Manufacturing Company, were well-established manufacturing plants in the local area before they began producing radios.

Before 1928 the Philco Radio and Television Corporation had manufactured storage batteries for more than 24 years. During the 5 years preceding 1928, the company had specialized in the production of batteries for radio-receiving sets. In the fall of 1927, alternating-current tubes were perfected, and sets equipped with these tubes could be plugged into any electric outlet. Batteries, therefore, became superfluous. This new advance in radio reception meant that this battery firm was faced with the immediate loss of its markets and with extinction. It escaped this fate by entering the field of radio-set production and in doing so has greatly increased the dollar value of its business over that of the years when it was producing batteries.

The Victor Company had long been famous for its production of phonographs. During the 1920's, demand for these products was contracting as a result of the growing popularity of the radio. In 1929 this company was purchased by the Radio Corporation of America, which held most of the basic patents essential to the

[2] Norman F. Hall, Radio - A Key Industry in Philadelphia, an unpublished report prepared by the Research Section of the Philadelphia Chamber of Commerce, 1937.

manufacture of radio sets. The latter company had not manufactured radio sets prior to this time, but had marketed sets produced by two electrical-machinery and -apparatus firms with which it had manufacturing contracts. The victrola plant provided adequate manufacturing space, an excellent cabinetmaking shop, and nationally established distributing outlets. Accordingly, after the radio company acquired the victrola plant, it began the production of radio sets as well as phonographs.

The Atwater Kent Manufacturing Company, the oldest radio manufacturer in the Philadelphia area, produced automotive and other types of ignition systems prior to 1923 when the production of radio sets was started. The company began curtailing production in 1935 and discontinued the manufacture of radios in the spring of 1936.

Figure 1, showing an index of the pay rolls of the radio industry in the Philadelphia area from 1926 to 1936,[3] may be used as a rough index of the productive activity in the industry during this period, despite the fact that changes in wage rates as well as in business activity are reflected in the index. The industry was expanding in this area from 1926 to 1930; this was followed by a sharp decline from 1931 to 1933. During the latter year and in the years 1934 and 1935 productive activity increased, but the levels of the earlier years were not attained. See table 1.[4] There was a serious dislocation of the market resulting from drastic price competition during the years from 1930 to 1933. This was reflected in the loss of orders by firms which could not meet the price competition because of higher operating costs. One firm failed to regain its markets after 1933 and discontinued the manufacture of radios in 1936; other firms increased production following 1933, but the production levels of 1930 have not been attained again.

The three firms in the Philadelphia area, previously discussed, assemble radio sets and produce all or a considerable number of the necessary parts. These plants have adopted the most up-to-date

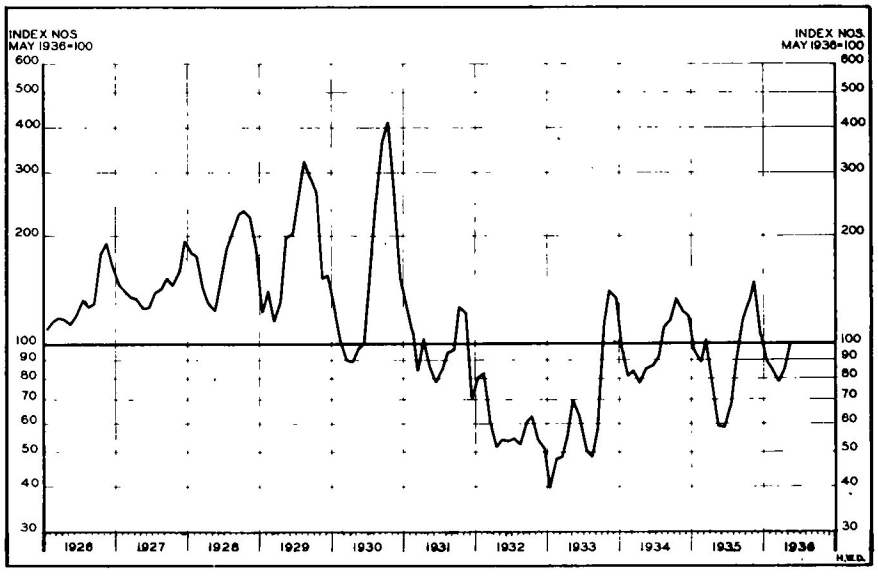
[3]This index is based on pay-roll data furnished by a number of representative firms manufacturing radio sets and parts in the Philadelphia Federal Reserve District. The radio industry in this district is located primarily in Philadelphia, Pennsylvania, and Camden, New Jersey. The index, therefore, reflects the radio industry in the Philadelphia area. The base for the index, as compiled by the Department of Research and Statistics of the Federal Reserve Bank of Philadelphia, is the 1923-25 average taken as 100. For use in this study the index has been converted to a base using May 1936 as 100.

[4]All of the tables in this report will be found in Appendix A.

production techniques of modern large-scale industry. They have introduced the use of moving-conveyor systems for assembling parts and sets. Many of the other operations are highly routinized and mechanized. Improvements in production methods, moreover, are being constantly introduced. Other firms operating in the area specialize in the manufacture of radio parts and employ relatively few persons.

There are several characteristics of the industry which affect employment opportunities in it. The pay-roll index of plants manu-

FIGURE 1.- INDEX OF PAY ROLLS IN THE MANUFACTURE OF RADIO AND MUSICAL INSTRUMENTS IN THE PHILADELPHIA FEDERAL RESERVE DISTRICT JANUARY 1926-MAY 1936



See table 1 for data.

Industrial Research Department - University of Pennsylvania and WPA - National Research Project

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facturing radios and parts in the Philadelphia area (figure 1) indicates very clearly that the industry is a seasonal one. Each season the latest style and most recent inventions which are being constantly developed through experimentation are incorporated in the new product. Since consumers demand the latest improvements, a new invention may make sets manufactured for stock obsolete overnight. Most firms, therefore, follow the practice of produc-

ing only for orders and hiring large numbers of workers for the rush season and laying them off when orders decline.

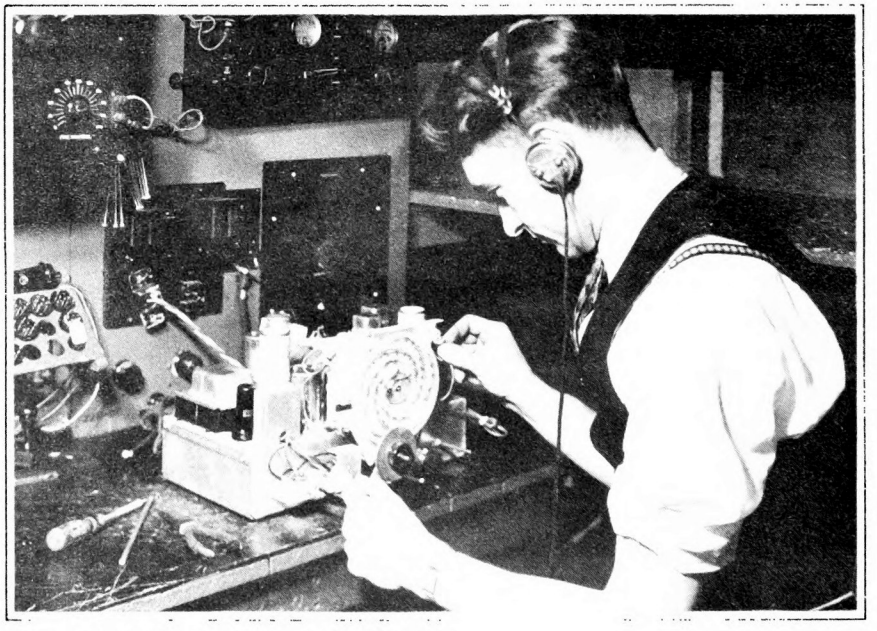
Because the industry uses mass-production methods, the majority of the operations require only semiskilled labor. The training period of the average radio worker is relatively short, and even a new worker in the industry quickly becomes adept at an operation. Persons informed about the labor market of the industry state that an inexperienced worker on such an operation as assembling is able to earn the basic wage rate within a period of from 2 weeks to 1 month. Firms which produce parts to any extent, however, employ as part of their labor force a relatively large group of skilled toolmakers, die setters, and machinists. For plants which produce any or all of their cabinets, cabinetmakers and cabinet workers are an important part of the industry's labor supply. Much of this work requires a cabinetmaker's skill and knowledge, although no cabinet worker makes a complete cabinet. Because of the rapid changes that are constantly being introduced in the structure of the radio set, however, skilled workers must be fairly adaptable to be successful in the industry. There is little evidence that new skills have been developed in the production of radio sets. The nature of the production technique, however, demands a highly developed type of mechanical inspection of parts and an elaborate and intricate testing of the assembled product. The latter type of work requires more specialized training than is necessary for inspectors and testers in many other industries. This is one of the few instances of the development of a new skill in the radio industry.

COMPOSITION OF THE SAMPLE STUDIED

In order to study the sources of the radio industry's labor force and the employment experience afforded by the industry, a detailed record of the work histories of persons attached to the radio industry in May 1936 was obtained for the previous 10 years. This period coincides with that of the most rapid development of the industry in Philadelphia. All persons who reported that they were employed in radio manufacturing or, if unemployed, that their usual industry was radio manufacturing when the Philadelphia Survey of Employment and Unemployment was made in May 1936 were selected for further interview. In the course of sampling, three additional conditions were made: (1) that the

persons were or had been production or maintenance workers in radio manufacturing (this requirement eliminated clerical workers including shipping clerks),[5] (2) that, if unemployed, their last job was in radio manufacturing,[6] (3) that the unemployed persons were seeking work in May 1936.[7]

The persons thus selected were asked to give an account of the occupation, industry, and duration of every job at which they had been employed for a month or more and the duration of every unemployment period which they had lasting 1 month or more,



WPA - National Research Project *(Hine)*

FIGURE 2.- INSPECTING

The final inspector, working in a room entirely surrounded by copper screening which eliminates interference, tests frequency alignment and makes a final checkup on the chassis of the completed mechanism.

from January 1926 to the date of the interview in 1936. Time not in the labor market lasting 1 month or more during these

[5] A few persons employed as machinists, millwrights, carpenters, electricians, plumbers, pipe, gas, and steam fitters, watchmen, and janitors have been included in the study.

[6] Twenty-two unemployed persons (17 men and 5 women) who reported radio as their usual industry were excluded from the study because their last job was not in the radio industry.

[7] This condition excludes 76 persons (71 women and 5 men) who were not seeking work, but whose last job was in the radio industry. A few persons temporarily not seeking work because of illness (persons who had been sick for over 1 week but less than 1 year) or women occupied with household duties in May 1936, but who at the time of the interview for this study had reentered the labor market, have been included. Since these latter persons were only temporarily out of the labor market, it was decided that they should logically be considered a part of it.

years was also accounted for. Certain skeletal work-history data for the years prior to 1926 for those who had become gainful workers prior to that date were also obtained, especially data pertaining to the first job and the longest job beginning before 1926. Other information regarding the major social characteristics and the usual occupation and industry was procured from all persons.[8] These data form the basic information of the present report.

The total sample is composed of 686 workers, 421 men and 265 women. About four-fifths of these reported that their usual industry, as well as the industry of their last job, was radio manufacturing. The remainder did not consider radio manufacturing their usual industry, although their present job happened to be in it. The sample does not include those persons who worked in radio manufacturing at some time during the period from January 1926 to May 1936, but who in May 1936 were either working in some other industry or, if unemployed, had last worked in some other industry. In order to present a completely representative picture of the workers in the industry during the entire 10-year period under study, this group of persons should be included in the study. In evaluating the material collected, therefore, it must be borne in mind that the sample is composed only of persons who had been able to adapt themselves to the production techniques of the radio industry, or who had elected to remain with the industry, or who had just become associated with the industry. The employment history of these workers prior to 1936 may not be typical of workers formerly employed in the industry but no longer so employed.

A significant fact regarding the composition of the sample is that over two-thirds of the radio workers for whom work histories were obtained were attached to the largest plant operating in the Philadelphia area in 1936. The sample is, therefore, heavily weighted by the experience of the employees of the Philco Company. Moreover, the social characteristics and background employment experience of this sample of radio workers reflect, to a considerable degree, the type of labor supply which this company has recruited or accepted for employment. There are several ex-

[8] The occupation and industry codes used in classifying the work-history material are adaptations of Bulletin No. 3, Occupation Code, and Bulletin No. 4, Industry Code, Works Progress Administration, National Research Project in cooperation with the Industrial Research Department of the University of Pennsylvania (mimeo., Apr. 1936). The revisions provided for the identification of additional occupations and industries which have been subjects of special studies.

planations for this preponderance of employees from one plant in the sample. The company increased its operating equipment and labor force during the period under study, particularly during the 3 years from 1933 to 1936. Also, the expansion of this plant occurred while the Atwater Kent Company, at one time the leading radio plant in the country, was contracting production and laying off workers permanently. According to informed persons in the area, the Philco Company which was enlarging its labor force, absorbed many of the employees of the plant discontinuing radio production. The only other large employer in the radio industry, the R C A Victor Company, is located in nearby Camden, New Jersey. Although this plant relies upon the Philadelphia labor market for a part of its personnel, many of its employees reside in Camden and its immediate environs.

The sample is composed of a significant number of individuals who were not a part of the gainful population during the entire period. This is particularly true of the women. Two-thirds of them, as opposed to three-tenths of the men in the sample, started working for the first time in January 1926 or after. Moreover, such first entries occurred during each year of the period from 1926 to 1935. This means that for a number of workers the work histories cover a period of considerably less than 10 years. For this reason it has been necessary to confine the special analyses of unemployment and mobility during the years from 1926 to 1935 to persons who entered the labor market before 1926. The latter group were available for employment throughout the entire 10 years, except for periods of temporary absence from the labor market because of illness or duties at home.

RELIABILITY OF THE DATA

The relative reliability of data collected by personal interviews is known to be affected by the possibilities of error in the respondent's understanding of the questions asked and by the interviewer's interpretation of the answers. The data collected for this study were subject to an additional source of error. Since the work histories cover a period of 10 years, there is no doubt that there were errors in recalling the dates of beginning and ending jobs and that certain jobs and periods of unemployment were not recalled at all, or their duration was reported inaccurately.

The internal consistency of the data has been checked, and, in the opinion of the enumerators, the sequence and the relative lengths of previous jobs and unemployment periods appear to be fairly accurately recalled, although the exact dating is less reliable. The data presented in this report appear to be relatively reliable for the purposes of the study outlined here.

SECTION II

OCCUPATIONAL AND SOCIAL CHARACTERISTICS OF RADIO WORKERS IN MAY 1936

EMPLOYMENT STATUS IN MAY 1936

Although the slack season in radio varies from year to year and from firm to firm, operations are usually resumed in the latter part of the spring months, preceding the busy season in the summer and early fall. The majority of the radio workers studied were employed in May 1936 (table 2), and most of the workers were employed full time. This reflects an unusual degree of activity during the production season of 1935 and 1936 in the Philco Company (Plant No. 2), at which most of the radio workers in this study were employed or were last employed (table 3).

Regardless of the plant of attachment, a higher proportion of women than of men were unemployed in May 1936. About a fourth of the women and over a tenth of the men were unemployed. For women radio workers the incidence of unemployment increases with age. Over a third of the women from 30 to 44 years of age were unemployed, as compared with about a fifth of the women from 16 to 29 years of age. There is less difference in the volume of unemployment among the older and younger men, although the men in the middle group, i. e., those from 30 to 44 years of age, had the lowest rate of unemployment. Only 11 percent of the men in this age group were unemployed compared with 16 percent of the men from 16 to 29 and 45 years of age and over. A higher proportion of men in skilled occupations than in semiskilled and unskilled occupations were employed at the time of the study. Of those employed part time, the proportion of men was greater than that of women. Over two-fifths of the unemployed men and a third of the unemployed women had been out of work for a year or more. A few persons had lost their last job 5 years or more previously.[1] Workers 30 years of age and over had been unemployed longer than workers from 16 to 29 years of age. Men had lost their last job before women. See table 4.

[1] Although the 7 individuals who had not been employed for 5 years or more claimed that they were seeking work when questioned by the interviewer, nevertheless their schedules indicate that there was some doubt in the enumerator's mind as to whether they had been genuinely looking for work all the time since they lost their last job.

Radio workers who were unemployed in May 1936 represent several distinct groups: workers who had been laid off by a plant which gradually curtailed its operations during the latter half of 1935 and discontinued production of radios in June 1936, workers who had been temporarily laid off from other plants as a result of slack work, and workers who had been unemployed for long periods and probably would not be recalled by their former employers. The workers laid off by the firm which closed in 1936 account for three-tenths of those unemployed in May 1936, yet employed and unemployed workers attached to this firm in May 1936 together form less than a tenth of the total number of radio workers in the study. As might be expected, over two-thirds of the individuals who reported this firm as their place of employment on their present or last job, were unemployed.[2] See table 3.

The extent to which the remainder of the radio workers who were unemployed in the spring of 1936 (seven-tenths of the unemployed persons) represent either those laid off for short periods of time or the long-time unemployed was tested by analyzing their employment status in September 1936. Over half were still unemployed in September 1936; the proportion of men out of work was greater than that of women (table 5). This is a reversal of the sex ratio as of May 1936. The greatest change in employment status occurred in the youngest age group. Those who were reemployed by September 1936 had, for the most part, returned to work at the same radio firm at which they had been employed formerly. Nevertheless a few men and women had obtained work outside the radio industry.[3] It is significant that the persons who were reemployed by September 1936 were the ones who had been out of work for only short periods of time prior to May 1936, whereas those still unemployed in September 1936 tended to be the persons who had been unemployed for longer periods of time.

OCCUPATION OF PRESENT OR LAST JOB

As has been stated, all the persons included for study were either employed in radio manufacturing in May 1936, or, if unem-

[2]The rate of the reabsorption of these displaced workers (both those who were unemployed in May 1936 and those who were laid off a month later when the firm stopped production) was tested through an analysis of their employment status in September 1936. It was found that over half were unemployed 4 months later. Of those who had secured jobs, the women were reabsorbed into the radio industry, but most of the men were not.

[3]Table 5 presents the employment status in September 1936 of all persons unemployed in May 1936. These conclusions regarding the composition of the unemployed still obtain when the persons displaced by the plant discontinuing operation are not included.

ployed, considered radio manufacturing their usual industry *and* had been employed in the radio industry on their last job. The occupations at which these persons were working, or had last worked, ranged from highly skilled tool makers, die setters, and cabinetmakers through semiskilled assemblers, inspectors, and examiners to unskilled factory laborers. In order to facilitate comparisons, all workers have been grouped according to the grade of skill of their present or last occupation. Persons employed at semiskilled occupations predominated, as might be expected in a mass-production industry. See table 6. Less than one-fifth had jobs at occupations generally considered to be skilled.[4] Almost all of the women and about seven-tenths of the men were employed in semiskilled occupations. The number of men reporting work at unskilled occupations was very small. In the following discussion, the employment and unemployment experience and the social and occupational characteristics of persons in this study will be considered separately for men in skilled occupations, for men in semiskilled and unskilled occupations, and for women in semiskilled occupations in the radio industry in 1936.

The five largest occupations in each of the occupational groups, ranked according to the number of persons attached to each, are listed below:

Skilled occupations of men	Semiskilled and unskilled occupations of men[5]	Semiskilled occupations of women
Cabinetmakers	Inspectors and examiners	Assemblers
Radio repairmen and installation men	Cabinet workers	Coil winders
	Assemblers	Solderers
	Testers	Inspectors and examiners
Tool makers and die setters	Punch-press operators	
		Wirers
Foremen		
Machinists		

These occupations were the present or last occupation for more than half of the workers in the study. Only two occupations are

[4]The proportion of skilled workers employed in a radio plant varies with the extent to which the firm manufactures the parts of a radio set.

[5]Excluding "operatives in radio manufacture, not elsewhere classified" whose rank precedes that of punch-press operators. Since the former is an occupational group, it is not entirely comparable to the other more distinct occupations listed, and, hence, is omitted from the list.

important for both men and women, namely, inspectors and assemblers, although both men and women were employed at 14 different occupations. Women were employed in larger numbers than men at coil winding, soldering, wiring, and assembling. Only a few men and women worked as drill-press operators, labelers, pasters, packers, platers, enamelers, and welders. Men were employed in larger numbers than women in the other occupations at which both men and women were engaged.[6]

AGE AND SEX

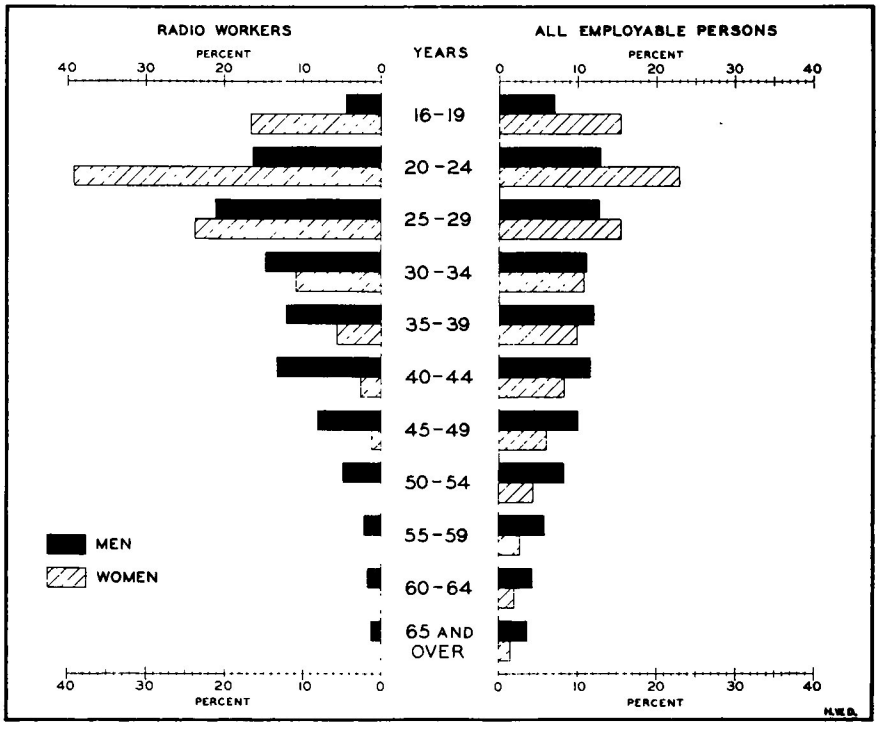
Radio workers in Philadelphia, as represented by this study, were younger than the employable population in all industries in the Philadelphia Survey of Employment and Unemployment when surveyed in May 1936. At that time the average age of men in the employable population was 37.5 years and of men in the radio industry, 32.7 years. The average age of the employable women was 28.7 years and of those in the radio industry, 24.3 years. See figure 3 and table 7.

Age varies, especially for men, with the occupation of the present or last job (table 8). The range of the medians by occupation clearly shows that there are two concentration points in the ages of men in the radio industry. The median ages of tool makers and die setters, machinists, and skilled machine operators, cabinetmakers, and cabinet and allied workers range from 39.1 to 43.3 years; whereas, the median ages of radio repairmen and installation men, assemblers, testers, foremen, and inspectors and examiners range from 25.5 to 29.9 years. In other words, there is a difference of about 18 years between the median ages of the oldest and youngest men when classified by occupation. Furthermore, men engaged in occupations more specific to the manufacture of radios, such as radio repair and installation, are important among the younger workers, and the men engaged in occupations not specific to the manufacture of radios, such as tool making, die setting, machinist's work and skilled machine operating, and cabinetmaking, are important among the older workers. Persons informed regarding the employment practices of the industry state that only experienced workers are accepted for the latter jobs. Since the skilled labor supply in Philadelphia,

[6] These are: foremen, inspectors and examiners, operatives in radio manufacture not elsewhere classified, punch-press operators, press operators not otherwise specified, radio repairmen and installation men, and testers.

particularly of the cabinetmakers and cabinet workers, is an older group, any age requirements which the industry may have established in employing new workers have been waived in the case of these persons. There are no important differences in the average ages of women employed in various occupations. Wirers and wire operators, with a median age of 21.8 years, were the young-

FIGURE 3.- AGE DISTRIBUTION OF WORKERS IN THE RADIO INDUSTRY AND OF ALL EMPLOYABLE PERSONS IN PHILADELPHIA, MAY 1936



See table 7 for data.

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est, and solderers and welders, with a median age of 25.9 years, were the oldest.[7]

In an industry that has adopted the techniques of mass production to such a large extent and that produces such a relatively

[7] In referring to the age groups in the discussion, persons from 16 to 29 years of age will be described as the younger group and those 30 years of age and over as the older. When it is necessary to differentiate between the age groups 30 to 44 years of age and 45 years of age and over, this distinction will be stated.

light product as radios, one would expect to find women employed in fairly large numbers. The women in this study make up 38.6 percent of the total sample. The women reporting in the 1936 Philadelphia Survey of Employment and Unemployment were a smaller proportion of the total employable population (31.4 percent).[8] Persons familiar with personnel problems in the radio industry report a varying proportion of men and women employed by different plants; the proportion of women to total employees ranges from 30 percent in one plant to 50 percent in another plant during the good-to-peak season, with an average of probably 40 percent throughout the year.

RESIDENCE AND NATIONALITY

Women radio workers are less mobile geographically than men, as measured by the proportion who reported continuous residence in Philadelphia since birth. More than three-fourths of the women and only a little over one-half of the men had lived in Philadelphia since birth. A slightly higher percentage of the younger women (82.9) than of the younger men (77.4) had always lived in the city. The greatest difference, however, is seen in the length of residence in the city of the older men and women. Only 39.0 percent of the men from 30 to 44 years of age and only 29.4 percent of the men 45 years of age and older had lived in Philadelphia continuously since birth. The older women, on the other hand, reported a larger percentage who had been lifetime residents of the city (62.8) than the older men. See table 9.

The majority of workers in the radio industry in 1936 were born in the United States (table 10). The proportion of radio workers who reported that they were foreign-born is about the same as the proportion of employable persons who reported in the 1936 Philadelphia Survey of Employment and Unemployment that they were foreign-born.[9] A considerably higher proportion of older than of younger radio workers are foreign-born. Italy is the country of birth for the largest number of men who were foreign-born. Italian workers in the radio industry are engaged, for the most part, at

[8] This figure and other data used below to compare workers in the radio industry with the employable population of Philadelphia are from another report in this series, in preparation, by Gladys L. Palmer, on employment and unemployment in Philadelphia in May 1936.

[9] Twenty-eight and one-half percent of the men and 9.1 percent of the women in the radio sample were foreign-born; 23.8 percent of the employable men and 12.0 percent of the employable women in the 1936 Philadelphia Survey of Employment and Unemployment were foreign-born.

cabinetmaking and cabinet work. Many cabinetmakers learned their trade abroad and worked at it both abroad and in this country for a number of years preceding employment in radio manufacturing. In fact, Italian workers have long constituted an important part of the skilled labor supply for the cabinet- and furniture-manufacturing industry in Philadelphia. Although none of the women are direct immigrants from Italy, a number are of Italian extraction. Many other women working in the radio industry are daughters of textile workers who were born in the British Isles.

SCHOOLING

An analysis of the schooling of the men and women reveals that the women have had slightly more education than the men (see table 11). This difference is also true for men and women who are employed at occupations of the same grade of skill.[10] The percentage of women who completed more than elementary school is 45.4 and of men 37.9. Similar proportions of men and women reporting in the Philadelphia Survey of Employment and Unemployment in 1936 completed more than eight grades of schooling. The close correspondence between the schooling of radio workers and of employable persons in all industries is of interest because of a difference in the composition of the two groups. In the 1936 Philadelphia Survey of Employment and Unemployment, clerical and professional persons, who are known to have had considerably more schooling than industrial workers, are included as well as production workers.

The fact that the educational background of radio workers is more representative of a cross section of employable persons in all industries than of workers in other manufacturing industries reflects an important characteristic of radio workers, as well as the industry's policy of recruiting workers with high-school training on jobs that do not require previous experience. One obvious reason is that radio workers are young and have, therefore, had more opportunities for schooling. A second point is that former white-collar workers have been recruited to the radio industry in larger proportions than are normally found in manufacturing industries. This group of radio workers reported more schooling than the group as a whole. Moreover, although the proportion to the total is small, 10 men engaged in production

[10] These findings regarding the difference in the educational background of men and women radio workers of the same grade of skill are supported by similar findings in the 1936 Philadelphia Survey of Employment and Unemployment.

operations reported that they had either attended or graduated from college. Most of these indicated that they had taken engineering courses, usually electrical. All workers with college training were 35 years of age or younger, except one person who was 40 years old. The experience of one worker is illustrative of the educational and occupational background of the radio workers with more than a high-school education. In 1936 he was 28 years old and employed as a radio repairman. He had graduated from a technical institute with a degree in electrical engineering in 1931 and, not finding employment in his chosen field, he looked for a job in the radio industry where he has since worked as a final tester, a supervisor of inspectors and testers, and a radio repairman.

MARITAL STATUS

The marital status of workers in the radio industry is similar to that of the employable population in the city. Over half of the women (57.7 percent) and a third of the men (32.8 percent) attached to the radio industry in May 1936 were single. However, about the same percentage of men and women from 30 to 44 years of age (84.6 and 84.3 respectively) reported that they were either married, widowed, or divorced. See table 12. From these figures one may believe that there were no barriers to the employment of married women in the industry in 1936.

SECTION III

SOURCE OF THE RADIO INDUSTRY'S LABOR FORCE IN 1936

Perhaps of primary interest in the background experience of radio workers is an analysis of the industries and occupations from which they were recruited and the dates at which they began work in the radio industry. When did workers attached to the radio industry in May 1936 first enter the industry? Were radio workers previously employed in the industries known to be declining in Philadelphia during the past decade, such as certain branches of the textile industry? Were they to any extent continued in employment by the three largest radio-set manufacturers during the time that these plants were converted into radio-manufacturing plants? Or were they workers with no gainful employment of any kind prior to their first job in radio?

YEAR OF BEGINNING EMPLOYMENT IN THE RADIO INDUSTRY

Throughout the period from January 1926 to May 1936, workers were being recruited to the radio industry (table 13). Relatively few of the group studied began their first job in radio before 1926. This is partly due to the fact that prior to 1926 there were few employment opportunities in the industry, but may also be attributable to the fact that a large proportion of the workers who may have been employed before 1926 were not included in the sample of radio workers studied. Two-fifths of the men and about one-fourth of the women studied began their first job in the industry in or prior to 1929. One-half the women in this sample, however, and a little less than two-fifths of the men were recruited to the industry more recently, i. e., from 1933 to 1936. The year in the 10-year period in which the largest number of workers in the study first became attached to the radio industry is 1933. The year 1929 for men and 1935 for women are other years in which large numbers of workers were first employed in radio. Despite the great prosperity in the radio industry in 1928 and 1929, comparatively few workers in this study (27.6 percent of the men and 16.2 percent of the women) entered the industry at that time.

The relatively recent dates of absorption into the radio industry for the group studied in 1936 may be accounted for by a

number of factors. One is that workers laid off by the industry during the dull season were not rehired the following season, so that new workers, in the sense that they have had no previous radio experience, were constantly being hired by the industry during this period. This would account for the continuous accessions to the industry's labor force as reflected in the employment histories of the workers. Another factor is that the largest plant producing radio sets has had such a tremendous growth that it dominates the employment situation in the Philadelphia area.

As might be expected, more of the younger than of the older workers began the first job in the radio industry in the latter part of the 10-year period studied. In general, the skilled men entered the radio industry first, then the semiskilled and unskilled men. Women were recruited to the industry more recently than men.

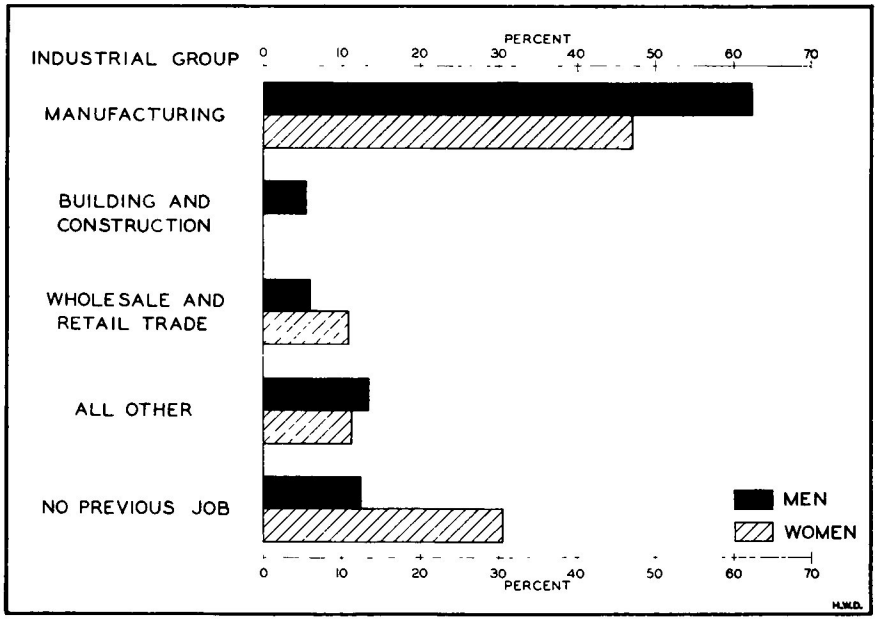
INDUSTRY AND OCCUPATION OF LAST JOB PRECEDING EMPLOYMENT IN THE RADIO INDUSTRY

The job that has been chosen to throw light on the source of the labor supply of the radio industry is the job immediately preceding the worker's entrance into the radio industry. This job has the limitation that it may or may not be at an occupation or in an industry to which the worker had some continuous attachment. For the younger worker it is likely to be his first job and of the blind-alley type which is available to the newcomer in the labor market. Nevertheless, in addition to giving a picture of the industries and occupations of workers prior to their employment in radio, the analysis of data concerning this job will show the proportion of workers who were absorbed directly into the radio industry by the firms who converted their plants from the manufacture of automotive and other types of ignition systems, storage batteries, and phonographs into the manufacture of radios, and the proportion who were inexperienced workers at the time they began employment in the industry.

When the job immediately preceding entrance into the radio industry is studied, it is found that men had been employed in most of the industries found in the Philadelphia area and women had worked in the industries which usually employ large numbers of women. See figure 4 and table 14. Both men and women worked to a greater extent in manufacturing industries than in other

industrial groups, although the proportion was higher for men than for women. It may be said, therefore, that radio workers have been recruited from a wide diversity of industries, although the textile and clothing industry has been by far the most important single source of labor supply for women. Of the women who had previous jobs, almost two-fifths had worked in textile and clothing manufacturing on the last job preceding employment in radio. A personnel worker familiar with labor policy in the radio industry states that one radio firm in particular employed

FIGURE 4.- INDUSTRIAL GROUP OF LAST JOB PRECEDING EMPLOYMENT IN THE RADIO INDUSTRY



See table 14 for data.

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large numbers of women textile workers. Women with this type of previous employment experience had developed the manual dexterity which is required of persons doing coil winding and all types of assembly work. The next important industry for the women was wholesale and retail trade, which supplied 10.9 percent of the total number of women. The proportion of men who worked in any one of the various industries is even smaller, because they worked in a larger number of the industries in the area than women. A slightly higher proportion of the men, however, had worked in

the manufacture of machinery, musical instruments, transportation equipment, and textiles than in other industries prior to entrance into the radio industry.

The industries in which persons worked prior to radio employment vary with age. The industries enumerated above as important ones from which men were recruited are also the industries in which a fairly large proportion of older men worked (almost half of the men from 30 to 44 years of age and seven-tenths of the men 45 years of age and over). For these men the lumber- and timber-products industry was also important. Slightly less than half of the older women had worked in textile and clothing manufacturing. The next most important industry in which they worked was machinery manufacturing. More than half of the younger women who had been employed prior to their first job in the radio industry also worked in textile and clothing manufacturing and in wholesale and retail trade.

Men engaged at different grades of skill in radio manufacturing in 1936 reported differences in the industries of the job immediately preceding radio employment. Relatively more of the men in the skilled occupations worked in industries producing machinery, transportation equipment, and lumber and timber products and many less in textile and clothing manufacturing. More of the men in semiskilled and unskilled occupations, on the other hand, worked in textile and clothing manufacturing and the production of musical instruments.

Only 15 out of 265 women worked in the three plants which were converted into radio-manufacturing plants. Although the proportion of men as a whole who were employed at these plants before they were manufacturing radios was not large (17.1 percent), these workers formed a larger proportion of older than of younger men. About a third of the men 45 years of age and over, and a little more than a fifth of the men from 30 to 44 years of age worked at these three plants. For the younger men, this proportion was very small (5 percent). It is the opinion of several persons in the industry that it was the policy of at least two of these firms when they became radio manufacturers to continue in employment their former labor force. These firms, it will be remembered, had been operating in the area for a number of years before the change in the major product was effected. This explains the fact that this nucleus of radio employees is, on the whole, older because established firms tend to have an older plant personnel.

As has been stated before, since it has been impossible for the radio industry to obtain an experienced labor force, all types of firms have employed newcomers into industry and have trained them, as well as persons with a previous employment record. The learning period for the person with no gainful employment prior to radio has been found to be little or no longer than for a worker with some employment experience, but with no previous radio experience. To a considerable extent, therefore, the radio industry obtained its labor force from new entrants into the labor market. This is especially true in the case of women. As might be expected, workers with no gainful employment prior to entrance into radio were younger workers under 30 years of age. They accounted for 30.6 percent of all the women and 12.6 percent of all the men included in the sample, 37.9 percent of the younger women and 29.9 percent of the younger men (table 14).

When the occupations prior to radio employment are classified into occupational groups, it is found that the skilled and semiskilled occupations in manufacturing and mechanical industries were the predominating occupations in preradio employment (table 15). Practically every type of occupation, nevertheless, was represented. Women had not worked at so great a variety of occupations as men had, but they had worked at some of the occupations in all the occupational groups in which women are normally engaged. See table 15.

SELECTED WORK HISTORIES

A few work histories have been selected to present background employment experience of radio workers in more detail than has been possible through the statistical analysis of the last job preceding employment in radio. The following case stories are illustrative of the preradio employment of workers who have made a successful transfer into radio and who were attached to either skilled or semiskilled occupations in the industry in May 1936:

Mr. D., age 36, was employed as a tool maker in the radio industry in May 1936. Before 1932 when he began radio work, he had had 14 years of experience as a tool maker and, in addition, had served a 4-year apprenticeship at machine work in a locomotive repair shop. Most of his 18 years of preradio employment were spent in jobbing shops which specialized in the production of machine tools. He also worked for firms manufacturing electrical

equipment, metal fasteners, laminated bakelite, and automobile bodies and transferred into the radio industry at the age of 32.

Mr. S., a cabinetmaker, began working in a radio-set manufacturing plant in the middle of 1928 at the age of 32 and has worked there ever since. He transferred into the radio industry at that time, because the furniture factory where he was working went out of business. Before 1928 he had worked 12 years as a cabinetmaker in a number of the large furniture factories in Philadelphia. His apprenticeship at cabinetmaking was served in Italy.

Since 1929 Mr. M. has been working as a press operator in the radio industry. Immediately prior to employment in radio manufacturing he had been employed for 5 years as a press operator in a firm producing heavy castings for streetcar equipment. For 12 of the 22 years of his working experience prior to radio employment he was engaged either as a press operator or as a machinist's helper in the manufacture of streetcar equipment or in shipbuilding. In 1936 he was 42 years of age.

Mrs. G. had been employed for 8 years as a stenographer in a mail-order house before she took a "better job" in the radio industry in 1935. She was 24 years old when she transferred to the radio industry, where she has worked as a condenser.

Mrs. T., 31 years old and an assembler in the radio industry in 1936, began working in radio in 1929 after 11 years experience as a woolen- and worsted-cloth weaver. Since 1929 Mrs. T. has alternated between assembling in radio and weaving in textiles. The slack periods in weaving generally coincided with the busy season in radio manufacture and vice versa.

In contrast to the transfer experience of the other workers described, Mr. O. experienced a long period of unemployment before he began working as a radio inspector in 1933. He was then 25 years of age. Prior to the time when he became unemployed, he had worked for less than 1 year as time clerk for a firm which manufactured sporting goods and for about 3 years as a candy maker.

OCCUPATION OF LAST JOB PRECEDING EMPLOYMENT IN THE RADIO INDUSTRY COMPARED WITH OCCUPATION OF PRESENT OR LAST JOB

As has been pointed out previously, the majority of jobs which have been available in the industry, primarily because of its production techniques, are semiskilled in character. In order to determine the extent to which workers shifted the level of

skill of their occupation by reason of entrance into this industry, the grade of skill of the occupation of the present or last job in May 1936 relative to that of the occupation preceding employment in radio was compared. A refinement of the Occupation Code based on Alba Edwards' socioeconomic classification for the United States Census occupational returns was used as a basis for the comparisons.[1] This rearrangement made it possible to differentiate between three grades of skill associated with production occupations, namely, skilled, semiskilled, and unskilled, and between production and nonproduction occupations.[2]

GRADE OF SKILL

Although for most workers some lapse of time occurred between the present or last job and the preradio job, it was found that about three-fifths of both the men and the women worked at the same grade of skill on the two jobs (table 16). Only 4.9 percent of the men increased their grade of skill and a greater percentage (15.5) shifted from a higher to a lower grade of skill. Only 6.0 percent of the women were attached to a less skilled job in radio in 1936. Most of the workers who raised their level of skill were individuals working at skilled occupations on the present or last job in 1936. Of the 57 men who took a less skilled job in radio, 25 had formerly worked at skilled occupations in building and construction and 15 at skilled occupations in the manufacture of metal products, machinery, and electrical goods. Of the 11 women who reported jobs in 1936 which indicated a decrease in skill, 8 were formerly skilled textile workers. A third of the women and slightly less than a fifth of the men worked at nonproduction occupations prior to work in radio. Persons engaged at nonproduction occupations prior to radio employment were, for the most part, white-collar workers in clerical and selling jobs. Almost three-fourths of the men in skilled occupations in 1936 and three-fifths of the men in semiskilled and unskilled occupations worked at the same level of skill on both these jobs. A fifth of the men in semiskilled and unskilled

[1] For a description of Dr. Edwards' classification see: Alba M. Edwards, "A Social-Economic Grouping of the Gainful Workers of the United States," *Journal of the American Statistical Association*, XXVIII, No. 184 (Dec. 1933), 377-87. The rearrangement of the Occupation Code, based on Dr. Edwards' classification, is available in the files of the Philadelphia Labor Market Studies Section of the National Research Project of the Works Progress Administration.

[2] Nonproduction occupations are found in the following socioeconomic groups: clerks and kindred workers, domestic and personal service workers, professional and semiprofessional persons, proprietors, managers, and officials.

occupations experienced a decline in the level of their skill. Approximately the same proportion of the men in skilled and semiskilled and unskilled occupations formerly worked at nonproduction occupations.

As age increases, a greater proportion of the workers are found to have worked at the same level of skill on both jobs. Considerably fewer of older than of younger workers were employed at nonproduction occupations. Those who lowered the grade of skill in the transfer to radio employment, however, tended to be older workers.

More of the men and women who entered the radio industry prior to 1931 than of those who entered between 1931 and 1930 were employed at the same grade of skill on both jobs. A considerably smaller proportion of those who entered in the earlier period had been employed at white-collar jobs. More men lowered their grade of skill in the group who entered during the later than in the earlier years of the period studied. This was not true for women. See table 18.

A comparison of the occupations of the two jobs showed that a third of the men and only 6 percent of the women worked at the same occupation immediately before entrance into the radio industry and on their present or last job (table 17). Fifty-five percent of the men in skilled occupations but only 25 percent of the men in semiskilled and unskilled occupations worked at the same occupation or these two jobs. Especially in the case of men, a greater proportion of the older than of the younger workers tended to work at the same occupation on both jobs.

OCCUPATION AND INDUSTRY OF LONGEST JOB

The longest job, except in the case of the worker who has been in the labor market for a short time, represents work in an industry and at an occupation to which the worker has been attached for some time.[3] In the case of persons whose longest job was outside the radio industry, it also reflects the source of the radio industry's labor force as found in 1936. The persons who reported that the industry of their longest job was in radio manufacturing (29.2 percent of the men and 56.6 percent of the

[3] In this study, a job is defined as continuous service at 1 occupational assignment with 1 employer for 1 month or longer. The longest job is defined as the longest job beginning before January 1926 for those who began gainful work prior to this date and the longest job held in the period from January 1926 to May 1936 for those who began work in or after January 1926.

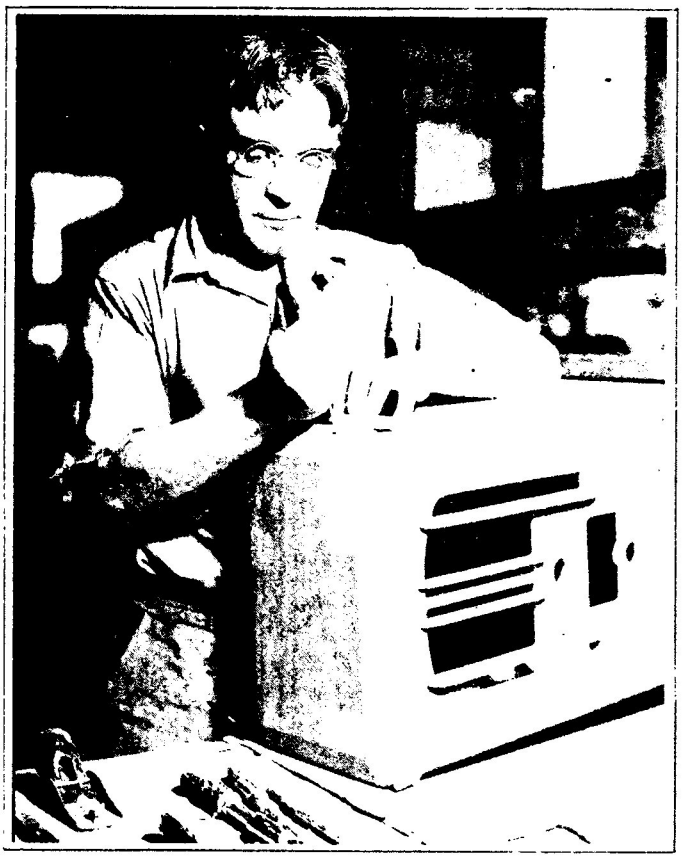

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FIGURE 5.– CABINET WORK

Skilled, experienced cabinetmakers are employed in the radio industry. Even the assembler working at the conveyor in the lower picture needs a thorough knowledge of cabinetmaking. In the upper picture the worker is preparing to cut a piece of veneer to replace a section damaged during assembly.

women) have, therefore, been eliminated in analyzing the data on the industry and occupation of the longest job so that some indication of the sources of the industry's labor supply might be obtained.

Radio workers were engaged in as wide a variety of industries on the longest job (table 19) as on the job preceding initial employment in the radio industry. The largest number worked in manufacturing industries (67.4 percent of the men and 69.6 percent of the women). A comparison of the industry of the longest job with that of the last job preceding radio employment confirms the findings already discussed regarding the sources of the industry's labor supply. The two industrial groups which contributed the largest proportion of women radio workers in 1936 are textile and clothing manufacture and wholesale and retail trade, the former being the more important source. For men the important industries of the longest job are somewhat different from the industries in which a large number had worked on the last job preceding radio employment. On both jobs, however, a significant group had been engaged in the manufacture of electrical machinery and apparatus and other machinery and parts. Men to a greater extent than women had been recruited from a wide range of industries.

Differences in the industry of the longest job when analyzed for the effects of age are worth noting. The two industries from which the greatest proportion of women have been recruited are the same for both older and younger women, although more younger women had been employed in nonmanufacturing industries, such as trade. Younger men in a higher proportion than older men had also worked in nonmanufacturing industries.

The analysis of the occupation of the longest job substantiates the findings already stated regarding the preradio employment experience of the industry's labor supply in 1936. The typical radio worker in May 1936 had worked at a skilled or semiskilled occupation in a manufacturing or mechanical industry on his longest job (table 20) and on the job immediately preceding his employment in the radio industry. For both men and women a greater proportion of younger than of older workers had been employed at clerical or selling occupations.

STABILITY OF WORKERS' JOBS AND OCCUPATIONS

Data on the length of service on the longest job and the years spent at the usual occupation constitute two rough measures of

the stability of workers. The one measures a worker's service record on the job designated as the longest for this study, and the other, the length of time a person has been employed at the occupation he considered to be his usual one and may include time employed on several jobs. The analysis of these data will emphasize the difference between the background work experience of men and women and of workers engaged at different levels of skill in the radio industry in 1936.

LENGTH OF SERVICE ON THE LONGEST JOB

The length of service on the longest job for workers attached to the radio industry in 1936 varies considerably according to sex and age. Men, on the average, worked almost 2 years more (4.6 years) than women (2.7 years). This difference is not so marked for younger workers; nevertheless, younger men reported a longer period of service (2.8 years) on the longest job than the younger women did (2.3 years). The oldest men, 45 years of age and over, spent over 10 years on their longest job; men from 30 to 44 years of age spent about 6 years; and the younger men less than 3 years. The differences were less pronounced for women, because older women worked about 2 years more on the longest job (4.1 years) than did the younger women (2.3 years). See table 21.

Although the differences in the average length of service of the men in skilled and semiskilled and unskilled occupations are not large, the men in the skilled occupations had a slightly longer record of service on the longest job (4.9 years) than the men in the semiskilled and unskilled occupations (4.5 years).

NUMBER OF YEARS EMPLOYED AT USUAL OCCUPATION

The number of years of employment at the usual occupation, as interpreted by the workers interviewed, reflects more of the total work experience of individuals than does the length of service on the longest job. Men had been employed at the usual occupation a little more than twice as long as women (6.9 years compared with 3.1 years). See table 22. This difference in the number of years spent at the usual occupation reflects an important factor peculiar to the employment experience of women. It is common knowledge that married women leave the labor market,

often for long periods of time, to care for their home and children and may later return to gainful employment. This fact affects considerably the number of years for which women are employed at a given occupation. (See pages 36 and 37 for a more detailed account of this factor.) The difference between the number of years spent at the usual occupation by younger men and women (3.3 years and 2.8 years) is not as great as that between the number of years spent at the usual occupation by men and women from 30 to 44 years of age. In the latter age group men were employed 10.1 years at the usual occupation and women, only 5.1 years. It will be remembered that the women in this age group were for the most part either married, divorced, or widowed, and, therefore, the number of years spent at the usual occupations for this group would be considerably affected by the factor of not seeking work while they were occupied with the care of home and children. The oldest men, 45 years of age and over, had been employed over five times as long at their usual occupation as the younger men (17.4 years compared with 3.3 years). Older women, on the other hand, have had, on the average, 5.1 years of service at the usual occupation and the younger women 2.8 years.

There is a significant difference between the number of years employed at the usual occupation for men in skilled as compared with semiskilled and unskilled occupations. Men in skilled occupations spent 10.3 years at the usual occupation, whereas men in semiskilled and unskilled occupations spent only 6.0 years at the usual occupation.

SECTION IV

TEN-YEAR EMPLOYMENT HISTORY OF WORKERS ATTACHED TO THE RADIO INDUSTRY IN 1936

Several methods have been used to present the 10-year employment and unemployment experiences of all radio workers studied in 1936. Their employment status with regard to employment in the radio industry or in other industries has been presented for each month during the period from 1926 to 1935. The average number of months of full-time and part-time employment, of unemployment, and of time not seeking work have been computed. Bar charts of the employment history of individual workers depict the incidence of employment and unemployment on individuals over the 10-year period.

EMPLOYMENT STATUS, 1926-35, BY MONTHS

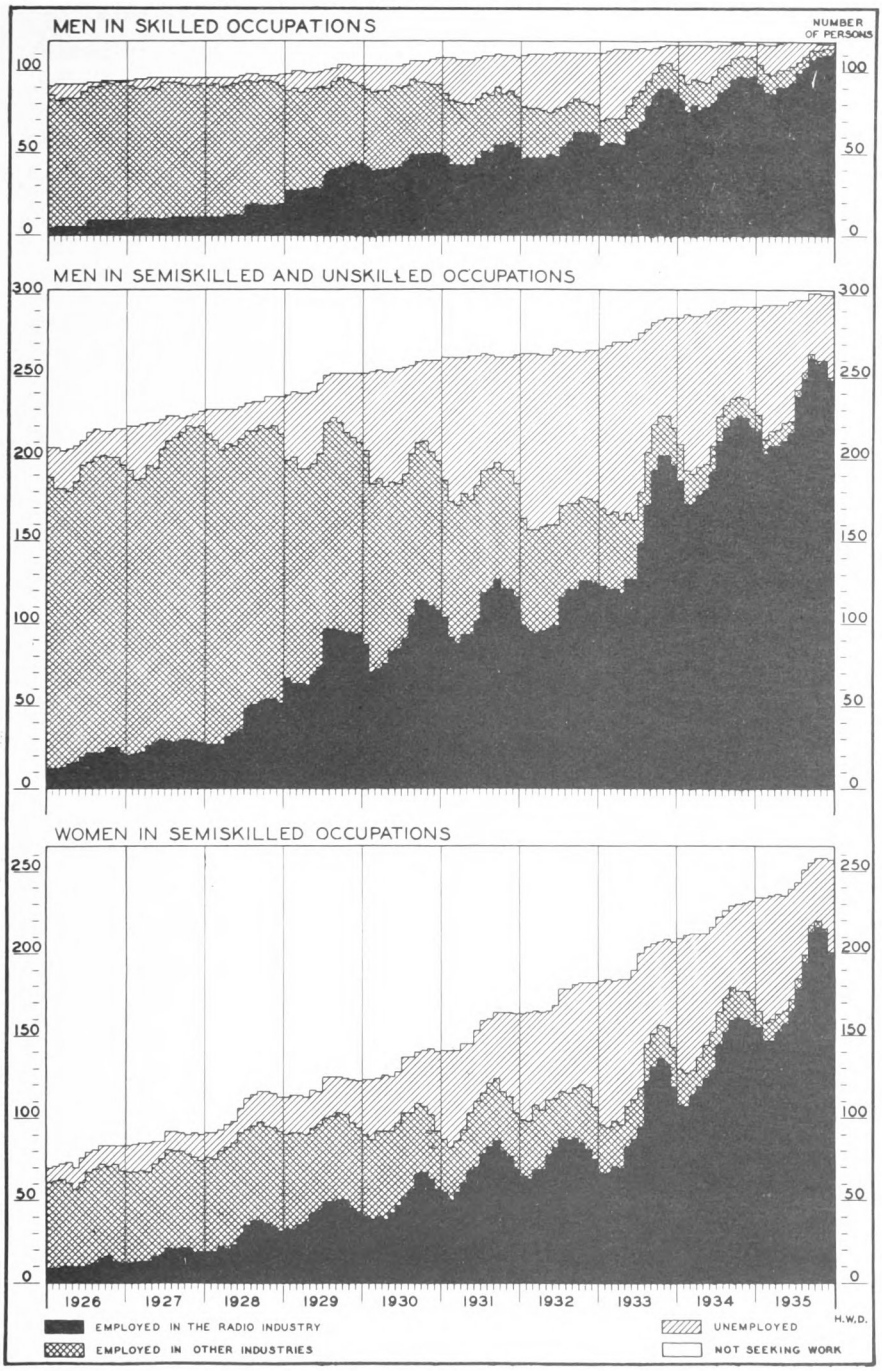
Figure 6 presents the employment status of the workers studied according to the occupational group in the radio industry to which they were attached in May 1936, month by month for the 10-year period (tables 23, 24, 25).[1] This type of work-history analysis is significant in that it discloses certain important facts regarding employment and unemployment experiences which are concealed by other methods of summarizing the data.

The method adopted to compile the data for this analysis varies from that used for other material discussed in the report. When the employment-history data were collected, workers in many instances reported that the month ending a specific type of employment experience was the same as the month beginning another. In such cases the middle of the month was assumed as the date on which one type of employment experience ended and another began. For the analysis under discussion, the employment status of each worker, month by month, was determined by his status as of the middle of the month. This procedure necessitated arbitrarily shifting all changes in a worker's employment status which occurred in the middle of the month to the beginning of the month. It was found that this modification had little or no effect on the length of the periods of employment, unemployment,

[1] Only periods (of employment, unemployment, or not seeking work) lasting 1 month or more were recorded and tallied.

FIGURE 6.- EMPLOYMENT STATUS, JANUARY 1926-DECEMBER 1935

BY OCCUPATIONAL GROUP OF LAST JOB



See tables 23, 24, 25 for data.

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and time not seeking work as reported by the worker and that it facilitated the preparation of the data for graphic presentation. Figure 6 shows the number of workers in each specified employment status for every month of the period 1926 to 1935.

For the group studied in 1936, the greatest volume of unemployment occurred in 1932 and 1933. Prior to 1930 few individuals in any 1 month were unemployed. The number of persons who were unemployed began to increase, however, during the years from 1930 to 1932 when general business activity was decreasing. In the latter part of 1933 there was a noticeable decline in the number of persons unemployed, but the number out of work in the months of 1934 and 1935 continued to be greater than in the months prior to 1930. This is less true of men in skilled occupations than of men and women in semiskilled and unskilled occupations.

The periodicity of the industry's operation, as shown in the Philadelphia Federal Reserve Bank's index of pay rolls (figure 1), is not reflected in so great amplitude in the unemployment experience of the radio workers selected for study. That these workers, on the whole, do not seem to have experienced such irregular employment points to several facts regarding the sample. An important consideration is the fact that many of the workers studied had not become attached to the radio industry until quite recently. Temporary lay-offs by employers in a wide range of industries including radio, permanent displacement of workers by firms discontinuing or decreasing operations, and unemployment of workers before their first job are some of the diverse factors which explain the employment experience recorded in the sample in the months prior to 1933. At any rate the irregular employment of the relatively few workers in 1936 who had been attached to the industry for most of the 10 years does not stand out. After 1933 when a larger proportion of the sample was attached to the radio industry, it might be expected that intermittent employment and unemployment would be revealed in this analysis. But, again, it is not very marked. The firm at which most of the workers were employed in 1936 has operated under a union agreement for the past 3 years. It is possible that equal division of work and control of overtime as a result of the union contract may have curtailed seasonal lay-offs of workers and stabilized employment at this firm. A number of workers reported that this was true. As one worker stated, "There is a difference since the plant was unionized. Instead of overtime during

the rush season and then lay-offs, there are now alternate periods of full-time and part-time work." A special analysis of the radio employment and unemployment experience of 120 workers attached to this plant for the years from 1931 to 1935, a period including years before and after the union agreement became operative, however, does not show any appreciable change after 1933 in the seasonality of employment of these workers. The explanation seems to lie in the limitations of the method of recording individual employment experience used in this study. The numerous lay-offs to which many workers referred in the course of collecting the data probably lasted less than a month and, therefore, have not been recorded. Part-time work has been counted as employment.

For all three occupational groups, the largest number of persons were engaged in industries other than radio during the first part of the 10-year period. The numbers who were not employed in the radio industry during the last 2 years of the period were negligible. A lag in the transference into the radio industry sometimes occurred, i. e., a worker separated from a job in an industry other than radio to unemployment lasting 1 month or longer and then shifted to employment in the radio industry. A special analysis reveals that almost half of the persons having a job prior to employment in the radio industry reported a period of unemployment immediately preceding work in radio. With few exceptions, the periods during which workers are shown on the chart as employed in an industry other than radio manufacturing represent periods when the individuals had not yet entered the radio industry. When a special count was made of the number of persons who shifted from radio manufacturing to other industries and later returned to radio during the 10 years, it was found that only a tenth of the persons studied reported this type of experience. The majority of these people had only one job in an industry other than radio after entrance. Very few had jobs that could be considered supplementary employment in the dull seasons of radio. In general a larger proportion of men in skilled occupations than in semiskilled and unskilled occupations worked in industries other than radio, and a considerably larger proportion of men than of women worked in industries other than radio.

In 1926 and 1927, relatively few workers in the sample were employed in the radio industry. This is partly due to the fact

that fewer opportunities for employment in the industry existed at that time. After 1928, radio workers, as reflected in this sample, were accepted for employment in greater numbers. As was mentioned previously, men in skilled occupations were recruited earliest, then men in semiskilled and unskilled occupations. The women in this sample were recruited to the industry more recently than men.

The trend in the number of workers employed in the radio industry, as depicted in figure 6, is in rather sharp contrast to that of the index of the industry's productive activity in the Philadelphia area shown in figure 1. It will be remembered that the index of pay rolls discloses that the period of most rapid expansion in the industry in Philadelphia was prior to 1931. In contrast to this the majority of workers in the sample began their first job in the radio industry in the period from 1931 to May 1936. As has been pointed out earlier, the lowest point in productive activity occurred in 1933, the year in the 10-year period in which the largest number of workers in the study first became attached to the radio industry. The index of pay rolls does not reflect the enlarged operations of the largest plant, which was expanding at a time of declining operations in another plant in the area. A pay-roll index is also affected by changes in wage rates and by overtime and by part-time employment. None of these factors has been taken into account in the analysis of the employment status of radio workers over the 10-year period.

Women attached to the industry in 1936 stand in marked contrast to men with respect to the numbers who were not seeking work at any given time during the 10-year period. Over two-thirds of the men were either engaged at work or seeking work at the beginning of 1926, whereas slightly over a quarter of the women were in the labor market (tables 23, 24, 25). With few exceptions men not in the labor market were the individuals who were still in school and had not yet become gainful workers. To a large extent this is also true of women not seeking work. But there was a considerable number of women throughout the period who, although they had once been gainful workers, had withdrawn from the labor market because of personal reasons, primarily for the care of the home and of children. At all intervals dur-

ing the 10 years some women were withdrawing from the labor market and others were reentering it.[2]

NUMBER OF MONTHS EMPLOYED IN THE RADIO INDUSTRY AND IN OTHER INDUSTRIES, 1926-35

The number of months employed in the radio industry and in other industries varies considerably with age and occupational group (tables 26 and 27). During the 10-year period men worked in the radio industry, on an average, 37.2 months and women, 28.9 months. When time not seeking work was excluded, it was found that women spent a larger proportion of their total time in the labor market in the radio industry than did men. It was only the older men, 45 years of age and over, who averaged about 5 years of employment in the industry. For both younger men and women, the median number of months employed in the industry was considerably lower than for older men and women (30.3 and 26.8 for younger men and women respectively, compared with 44.1 and 42.3 for men and women from 30 to 44 years of age respectively).

During the 10-year period men had spent more time than women had in employment in industries other than radio (36.5 months for men and 9.8 months for women). Furthermore, a greater proportion of men (85.3 percent) than of women (65.7 percent) had worked in industries other than radio. Men workers who reported no employment in industries other than radio, were primarily the younger men; whereas a fairly large proportion of both younger and older women reported no employment in industries other than radio. The older women who reported no employment in other industries were, to some extent, individuals who had left the labor market prior to 1926 for personal reasons and then obtained work in radio when they returned to gainful employment in the 10-year period. The men from 30 to 44 years of age averaged the largest amount of employment in other industries (49.4 months) of any group studied; in fact they worked more months outside of radio than in radio. Younger workers reported fewer months of employment in other industries than older workers, although the differences in the median number of months employed outside of radio are less marked for older and younger women than for older and younger men.

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[2] Toward the end of the 10 years the number of women not seeking work because of personal reasons decreased sharply. This was due to the basis of the selection of the sample. Persons included for study, it will be recalled, were individuals who were either working or seeking work in May 1936.

FULL-TIME AND PART-TIME EMPLOYMENT, 1926-35

Data on the extent to which a worker's employment is full-time and part-time over a period of years have rarely been available. In this study full-time employment has no doubt been overstated, because in retrospect the distinction between full-time and part-time employment becomes less important to the worker. Such data as were obtained, however, reveal that about two-fifths of radio workers were employed part-time at some date in the 10-year period (tables 28 and 29). Very few persons experienced only part-time employment in the 10 years and, on the whole, all were employed considerably more months full-time than part-time. Among men who reported part-time employment, the median months so employed was 22.5. The median months employed full-time, on the other hand, was 74.1.[3]

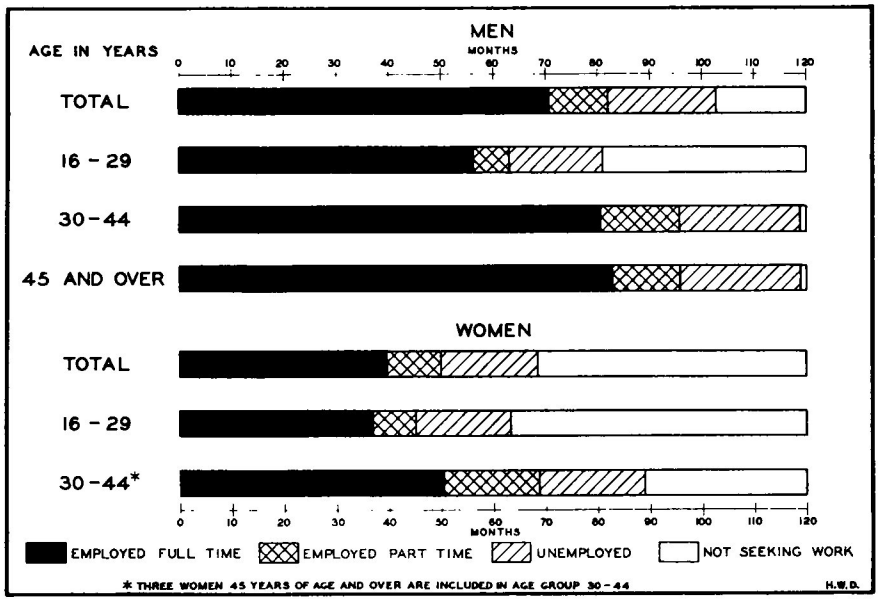
Figure 7 shows the relationship of the number of months of full-time and part-time employment to the number of months of unemployment and time not seeking work. See table 28. Men were employed, on the average, about 82 months out of the 120 months in the 10-year period. The equivalent of about a year (11.3 months) of the time employed was spent in part-time employment. The average number of months of unemployment (20.7) was almost twice as great as the average number of months of part-time employment. Men averaged 17.3 months of time not seeking work. The average number of months spent at each type of employment experience is about the same for both age groups of older men. Older men spent only about 1 month not seeking work because of personal reasons (illness, strikes, etc.) and were employed full-time almost 1 year longer and were unemployed a few months more than men as a whole. The most important difference in the 10-year employment experience of younger men compared to that of older men is that younger men averaged a little over 3 years of time not seeking work. This is primarily accounted for by time before entrance into the labor market.

In contrast to men, women spent almost half of the total 10 years outside the labor market (51.4 months). This affects the amount of time they spent in unemployment and in full-time and part-time employment. Time not seeking work before entrance into the labor market accounts for most of the time younger women were not in the labor market. Older women, on the other hand,

[3] These figures combine employment in radio and in other industries.

FIGURE 7.- AVERAGE NUMBER OF MONTHS OF SPECIFIED TYPES OF EMPLOYMENT EXPERIENCE, 1926-35

BY AGE IN 1936



See table 30 for data.

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averaged 2½ years of time not seeking work because of personal reasons. They also spent more months in full-time and part-time employment than younger women and than women as a whole.

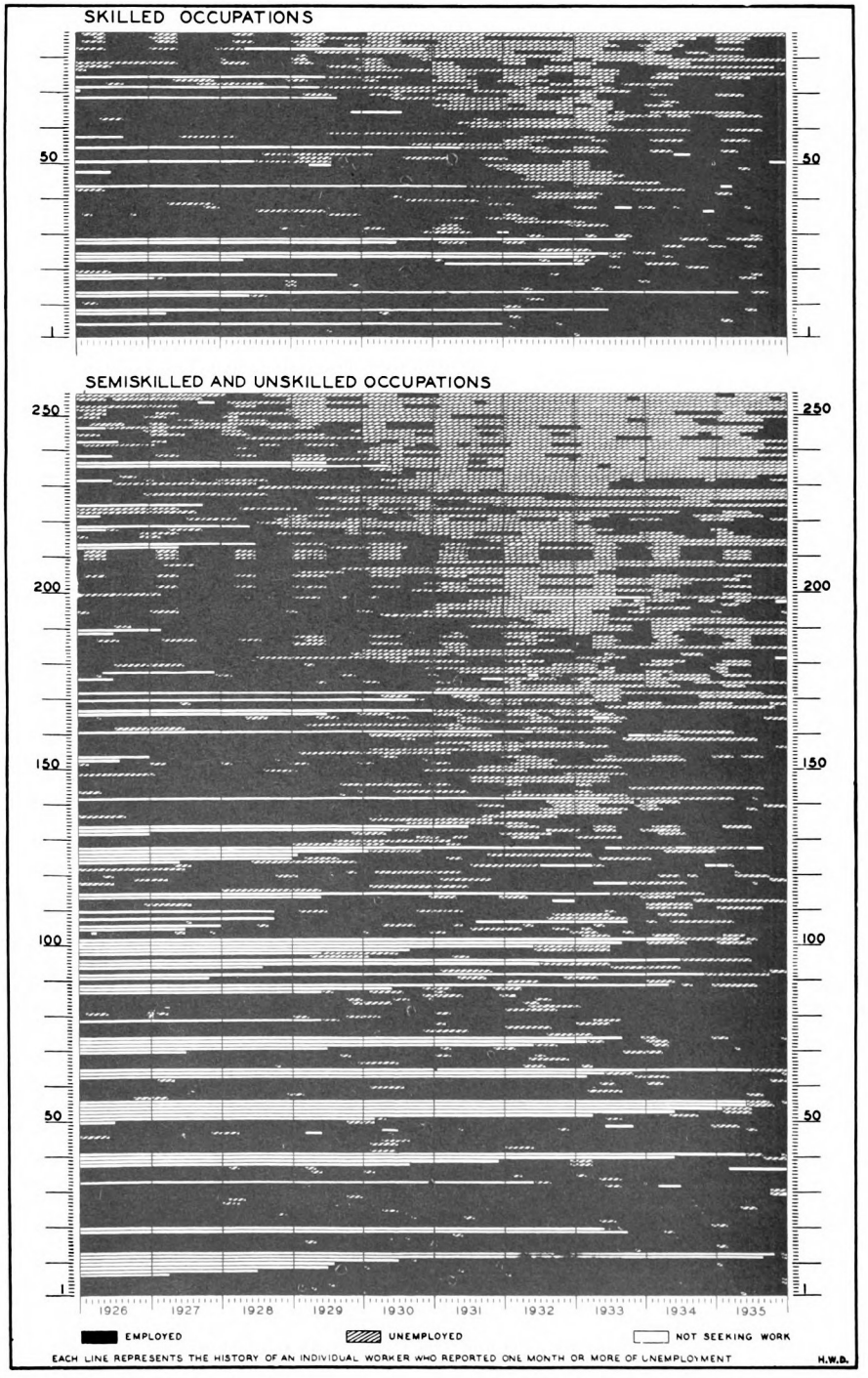
EMPLOYMENT HISTORY OF INDIVIDUAL RADIO WORKERS, 1926-35

Data regarding the employment and unemployment experience of workers attached to the radio industry in 1936 have been described for certain occupational and age groups. Figures 8 and 9 present the employment history of each individual who reported a period of unemployment lasting 1 month or longer, regardless of the date when the worker entered the labor market.[4] The individuals are ranked by the total number of months of unemployment which they experienced in the 10-year period. In plotting the employment history of an individual, a change in employment

[4]Data on which these charts are based are not presented in this report but are in the files of the Philadelphia Labor Market Studies Section of the National Research Project of the Works Progress Administration.

FIGURE 8.- EMPLOYMENT HISTORY OF MEN IN SKILLED, SEMISKILLED, AND UNSKILLED OCCUPATIONS, JANUARY 1926-DECEMBER 1935

(RANKED BY TOTAL AMOUNT OF UNEMPLOYMENT)



Based on data in files of Philadelphia Labor Market Studies Section, WPA - National Research Project.

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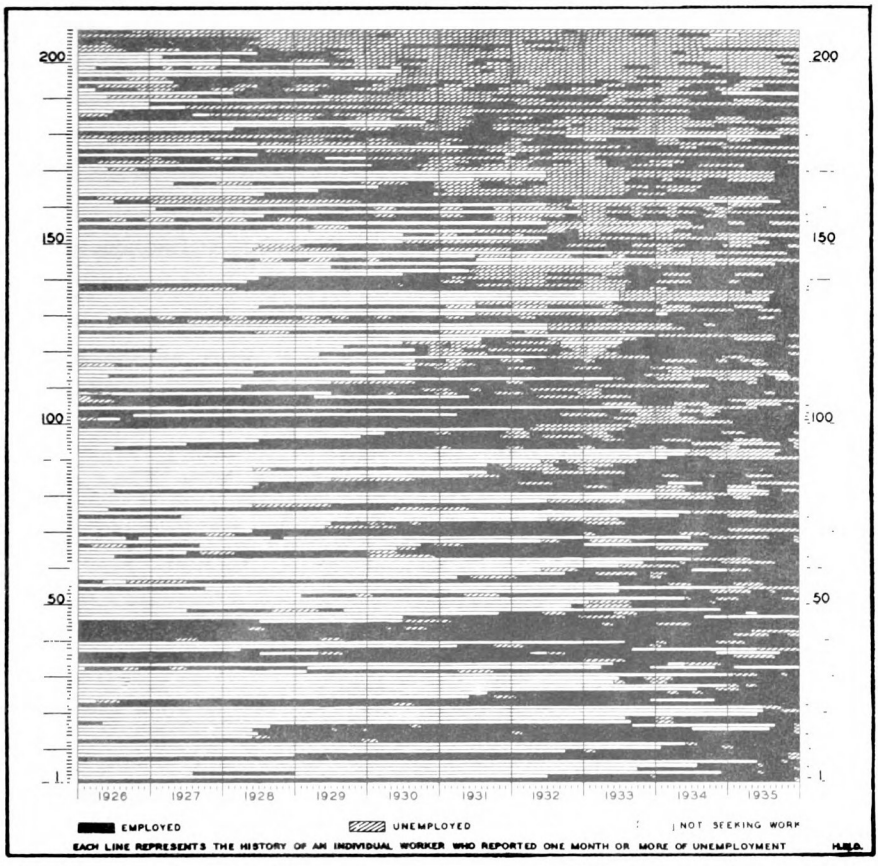
status was assumed to have occurred at the beginning of the month.[5]

This method of graphic presentation emphasizes strikingly the wide variations between workers with respect to their employment histories and several facts concerning unemployment experience.

FIGURE 9.- EMPLOYMENT HISTORY OF WOMEN IN SEMISKILLED OCCUPATIONS, JANUARY 1926-DECEMBER 1935

(RANKED BY TOTAL AMOUNT OF UNEMPLOYMENT)



Based on data in files of Philadelphia Labor Market Studies Section, WPA - National Research Project.

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Although a number of individuals in the three occupational groups experienced a long period of unemployment, lasting as long as 71 months in the case of one man attached to a skilled occupa-

[5] This procedure is the same as that followed in preparing data for figure 6. See p. 30 of the report for a more complete description of the method.

tion in 1936, most of the periods of unemployment tended to be of short duration.

Persons who reported a considerable number of months of unemployment were, for the most part, unemployed several times. In other words, the total number of months of unemployment experienced in the 10 years does not represent continuous unemployment for the majority of workers in the sample. There is a definite concentration of unemployment in the second half of the 10-year period, particularly in the years 1932 and 1933. A number of persons were unemployed in the first 5-year period, however, especially men in semiskilled and unskilled occupations. During the years from 1926 to 1930 less than a fourth of the skilled men experienced a period of unemployment preceding entrance into the radio industry, whereas about half of the men in semiskilled and unskilled occupations were unemployed a month prior to their first job in the industry. Women in semiskilled occupations also secured employment in the industry more frequently without experiencing unemployment. The employment histories of women, moreover, indicate that they have had shorter periods of unemployment than men. In comparison with men, relatively more women reported periods of not seeking work, both before and after entrance into the labor market, and women reported that they were not seeking work for considerably longer periods than men.

SECTION V

UNEMPLOYMENT EXPERIENCE AND MOBILITY OF WORKERS WHO ENTERED THE LABOR MARKET BEFORE 1926

This study of employment histories includes not only the occupational and industrial characteristics of workers attached to the radio industry in 1936, but also their previous employment and unemployment experience in the 10-year period from 1926 to 1935. For the purpose of this section, the individual work histories were used to compute the total number of months persons have been unemployed over a period of years irrespective of the dates of beginning or ending such employment periods. In addition, the length of the longest period of unemployment was obtained and the frequency of the occurrence of unemployment periods in the two 5-year periods, 1926 to 1930 and 1931 to 1935. The mobility of workers in the study has been measured by the number of separations from jobs and the number of employer shifts, industrial shifts, and occupational shifts experienced in the 10-year period. These data are presented only for individuals who became gainful workers prior to 1926.

NUMBER OF MONTHS UNEMPLOYED, 1926-35

Two facts are equally significant in the analysis of unemployment data: First, the number of persons who experience unemployment over a period of time, and, second, the number of months such persons are unemployed, irrespective of whether or not the unemployment is continuous. About a fifth of the men and a fourth of the women in the study who entered the labor market prior to 1926 reported no period of unemployment lasting 1 month or longer in the 10-year period (table 31). The proportion of persons reporting no periods of unemployment increases slightly with age in the case of men and is about the same for all age groups in the case of women. Among those who experienced unemployment during this period, the average number of months out of work was 22 for men and 20 for women. For men the number of months unemployed increases with age. Men 45 years of age and older were unemployed, on the average, 9 months more than men under 30. Among women workers this relationship to age is reversed. Younger women reported more months of unemployment (22.4) than older women (19.6).

NUMBER OF MONTHS UNEMPLOYED, 1926-30 AND 1931-35

The number of workers experiencing unemployment and the number of months that they were unemployed in each of the two 5-year periods summarize the incidence and extent of unemployment in two contrasting periods of general business activity. About a half of the men and women reported no unemployment lasting 1 month or longer during the first 5-year period, and almost a third reported no unemployment in the second 5-year period. During the latter period a higher proportion of women (37.0 percent) than of men (29.4 percent) reported no time out of work. As age increases, the proportion who reported no unemployment also increases for both men and women in the first 5-year period. The differences in age and the relative number who reported some unemployment in the second 5-year period are less marked for men than for women. A greater proportion of younger than of older women reported no unemployment in this period. See tables 32 and 33.

Not only did relatively fewer persons experience unemployment in the first 5 years than in the second 5 years, but the average number of months unemployed was considerably less, as might be expected. This is particularly true for men. Of those who experienced unemployment, men were unemployed, on the average, about twice as many months in the second 5 years (20.4) as in the first 5 years (10.3). Women were also unemployed more months in the second than in the first 5-year period, although the difference in the median months out of work is smaller for women than for men. (The median months of unemployment for women was 15.5 in the second 5 years as compared with 12.6 in the first 5 years.) It will be noted that women had a higher average number of months of unemployment in the first 5-year period than men. In the 10-year period and the second 5-year period, men, on the average, were unemployed longer than women. This reflects the fact that cyclical unemployment was more severe among men than women. In the case of men the number of months unemployed in the second 5 years tends to increase with age. There is, however, much less difference in the number of months unemployed according to age in the first 5-year period. Of those experiencing unemployment, younger women were unemployed slightly more months than older women in both 5-year periods, although more younger women reported no unemployment in the second 5-year period. See tables 32 and 33.

A considerably smaller proportion of persons reported that they were unemployed 50 percent or more of the time during the first

5-year period than during the second 5-year period. In fact the proportion of men who were unemployed 31 months or longer in the second 5 years was five times as great as the proportion in the first 5 years (18.8 and 3.7 percent respectively). The difference in the proportion of women who experienced this amount of unemployment in the two periods is not so marked. About 8 percent of the women reported 31 months or more of unemployment in the first 5 years and 15 percent in the second 5 years. The variations in the proportion of persons who experienced 31 months or more of unemployment according to age are not very great.

Men in skilled occupations in 1936 experienced, on the average, fewer months of unemployment than men in semiskilled occupations in both the 10-year period and the two 5-year periods. For example, in the 10-year period the median number of months of unemployment for those reporting unemployment was 18.3 months for skilled men and 24.4 months for semiskilled and unskilled men. It is also true that a smaller proportion of men in skilled than in semiskilled or unskilled occupations experienced one or more periods of unemployment lasting 1 month or longer during both the total period and the two 5-year periods. This difference between the unemployment experience of skilled and of semiskilled and unskilled men reflects the tendency of industry to employ skilled workers more regularly, since they may be assigned maintenance work and preparatory work during slack seasons.

LONGEST PERIOD OF UNEMPLOYMENT AND FREQUENCY OF UNEMPLOYMENT PERIODS, 1926-35

As has been indicated, the number of months of unemployment reported by workers in this study in the 10 years may or may not be continuous. One measure of the duration of a continuous period of unemployment is the length of the longest period of unemployment in the 10-year period. This period was defined as the longest period of unemployment preceded by some gainful work in the 10-year period. The median length of the longest single period of unemployment was considerably less than the median number of months unemployed in the entire 10-year period for both men and women (see tables 32, 33, 34); nevertheless, for almost half of the persons who entered the labor market prior to 1926 and who reported unemployment, the duration of the longest period of unemployment was more than a year. The length of this period of unemployment varies with sex and age in a manner similar to the

relationship for total number of months unemployed. Women were out of work for shorter periods than men. The length of the longest period of unemployment for men 45 years of age and over exceeded that of men under 45 years of age, on the average, by about 3½ months. The longest period of unemployment of younger women was longer than that of older women. It should also be noted that the year of beginning the longest period of unemployment for workers in this study is scattered throughout the 10-year period, although the modal year for beginning this unemployment period was 1932 in the case of men and 1935 in the case of women.

An analysis of the frequency of unemployment periods from 1926 to 1935 reveals that about one-half of the men and two-fifths of the women who became gainful workers prior to 1926 were unemployed more than once[1] (table 35). About a tenth of these workers, moreover, were unemployed as many as five times or more during the period under study. The frequency of unemployment periods does not appear to vary significantly with age for women. In the case of men age seems to have some relationship to this measure of unemployment. A higher proportion of men 45 years of age and older than of men under 45 years of age reported only one period of unemployment in the 10 years. Interestingly enough, relatively more of the oldest men also reported five or more periods of unemployment.

The significance of the frequency of unemployment periods is evident when this item is related to the number of months of unemployment. It is found that for men particularly there is a consistent relationship between these two measures of unemployment. As the number of periods of unemployment which a worker reported in the 10 years increases, the median number of months out of work also rises. Men who experienced five or more periods of unemployment were out of work for 50 months, on the average, whereas men who reported only one period of unemployment were out of work only 13 months. The median duration of the longest period of unemployment varies much less with the frequency of the unemployment periods. The length of the longest period of unemployment, on the average, is slightly lower for men who were unemployed five times or more than for men who were unemployed only once. See table 36. This is as might be expected, since

[1] In determining the number of unemployment periods which a worker experienced in the 10 years, any unemployment period not preceded by gainful work in the 10 years was excluded, that is, the first unemployment period in the 10 years was not counted in cases where the individual had no gainful work (within the 10-year period) prior to this unemployment.

as the number of times a worker is unemployed increases he has less chance to be unemployed for a long time. These data are not presented by age. It may be assumed, however, that the differences with regard to age are similar to those already noted. The fact that such a large proportion of workers reported several periods of unemployment reflects to some extent the periodicity of the operation of the radio industry. For instance, workers who were unemployed as many as 10 times in the 10-year period are individuals who reported recurring seasonal lay-offs from jobs in the radio industry. There is no doubt that the frequency of unemployment periods has been understated because of the definition of unemployment used. Furthermore, throughout this discussion no reference has been made to the extent of part-time employment which is also part-time unemployment.[2] If part-time employment and unemployment had been tabulated, the pattern of workers' unemployment would reflect the irregular operations of industry to an even greater degree.

FACTORS IN THE MOBILITY OF WORKERS

It is recognized that the mobility of a worker is dependent upon two important economic factors: first, the diversity of industries and employers offering employment in the labor market in which he lives or with which he has contact and, second, the activity of the industry to which he is attached in relation to that of other industries. Significant also is the inclination or disinclination of the worker himself to change his place of employment or type of pursuit. But if few jobs are available, it is more difficult for a worker to shift his employer, industry, or occupation.

Since Philadelphia is usually characterized as a center of diversified industries, it might be expected that workers in this area would have had opportunity to shift from one job to another. Many students of labor mobility are of the opinion that a worker tends to become attached to an occupation and rarely changes it. Is this true of radio workers? Is there a difference in the incidence of employer and industrial mobility in contrast to occupational mobility? Does a younger worker change his occupation or industry more readily than an older worker? Is there a difference in mobility between men and women?

[2] For discussion of part-time employment see Section IV of this report.

Does the worker attached to a skilled occupation shift more or less often than a worker attached to a semiskilled occupation?

In this study a job has been defined as continuous service at one occupational assignment with one employer for 1 month or longer. A job separation occurred each time a worker left one job for another or became unemployed. A change from one employer to another constituted an employer shift; a change from one occupation to another, an occupational shift; and a change from one industry to another, an industrial shift. Although this method of tabulation isolates types of shifts, it was found in a special analysis of one age group in the sample that a shift was more likely to be a composite shift, i. e., a worker shifted his employer and occupation or his employer, occupation, and industry at one time and less frequently only his occupation or his industry. The industrial-shift data for this sample are subject to a further qualification. An industrial shift without a job separation or an employer shift was experienced by 38 workers when the firms at which they were employed changed their major product to radios.

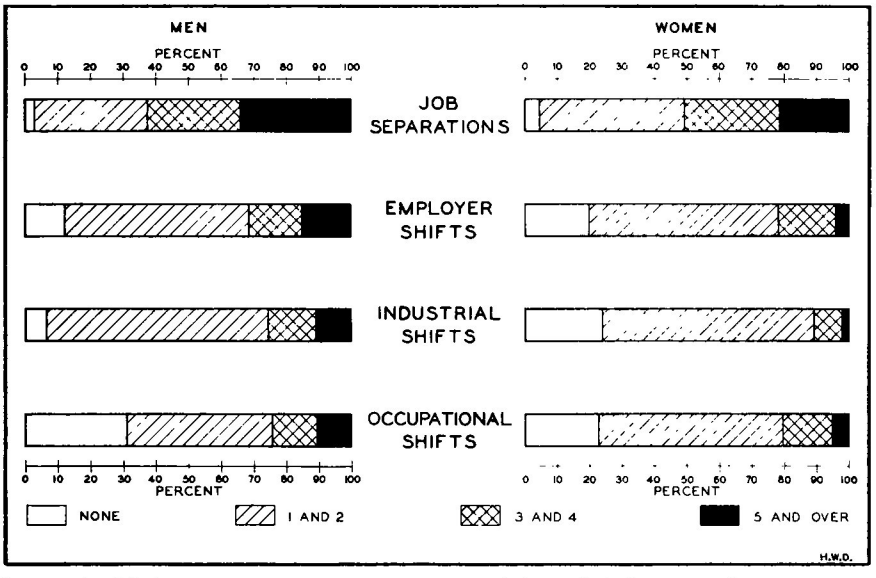
The number of separations and shifts per person which occurred in two 5-year periods, 1926 to 1930 and 1931 to 1935, have also been contrasted. The two 5-year periods, it will be noted, roughly coincide with a predepression period from 1926 to 1930 and a depression and recovery period from 1931 to 1935. The degree of occupational and industrial shifting reflects, to some extent, the detail provided for in the occupational and industrial codes used. The fact that there are only a few firms producing radio parts and assembling radio sets in the Philadelphia area has undoubtedly limited a worker's opportunities to shift employers within the radio industry. It should also be emphasized that a considerable part of the shifting reported by radio workers occurred prior to employment in the radio industry.

MOBILITY IN THE 10-YEAR PERIOD, 1926-35

One of the most important facts about these data on mobility for the 10-year period is that, although most of the individuals who entered the labor market prior to 1926 experienced one or more job separations, a considerably smaller proportion shifted their occupation. Although a smaller proportion of men reported employer and industrial shifts than job separations, more reported

employer or industrial shifts than occupational shifts. There is little difference in the proportion of women who reported the three types of shift. Nevertheless, slightly more women had employer shifts than had industrial or occupational shifts. Although a smaller proportion of women than of men reported employer and industrial shifts, a slightly higher proportion of women reported changes in occupation. This reflects the fact that for a greater number of women than of men entrance into the radio industry necessitated a shift into another occupation. See figure 10 and table 40.

FIGURE 10.- PERCENTAGE DISTRIBUTION OF PERSONS IN SAMPLE BY TYPE AND FREQUENCY OF SEPARATIONS
1926-35



See table 40 for data.

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A consistently larger proportion of the younger workers, irrespective of sex, experienced all types of shifts and particularly occupational shifts (table 37). This points to the fact that the younger worker is more mobile. Moreover, proportionately fewer men 45 years of age and over than men from 30 to 44 years of age shifted their employer, industry, and occupation. This difference is most marked with regard to the proportion who shifted occupation. About 70 percent of the men from 30 to 44

years of age reported occupational shifts and only 52 percent of the men 45 years of age and over. There appears to be no significant difference between the proportion of men in skilled and in semiskilled and unskilled occupations who reported either job separations or employer and industrial shifts. With respect to occupational shifts, however, the experience of these two occupational groups differed. Whereas about three-fourths of the men in semiskilled and unskilled occupations shifted occupations once or more in the 10 years, only a little over one-half of the men in skilled occupations did so. A higher proportion of men in semiskilled and unskilled than in skilled radio employment shifted their occupation.

Data with regard to the number of times a person shifted are also important. More workers reported one or two separations or shifts in the 10-year period than a higher number. A large number of job separations were reported by many more individuals than reported a large number of shifts, regardless of type. Especially in the case of men a greater proportion of the younger workers than of the older workers reported a high number of separations or shifts.

To relate these data regarding job separations to those regarding employer, industrial, and occupational shifts, the ratio of persons reporting one or more employer, industrial, and occupational shifts to persons reporting one or more job separations was computed.[3] These ratios reflect whether or not persons who had job separations also reported employer, occupational, or industrial shifts. High ratios indicate that radio workers who separated from jobs also tended to change either employer, occupation, or industry. Low ratios, on the other hand, indicate that persons tended, after leaving a job, to be unemployed until the end of the period or to be unemployed for a time and then return to their previous job. For the 10-year period it was found, with few exceptions, that persons who reported job separations also reported one or more employer, industrial, or occupational shifts. See table 37.

MOBILITY IN THE TWO 5-YEAR PERIODS, 1926-30 AND 1931-35

A greater proportion of men of all ages reported both job separations and employer, industrial, and occupational shifts

[3] The formula used to compute the ratios is as follows:

$$\text{Ratio} = \frac{\text{Number of persons reporting 1 or more shifts of specified type} \times 100}{\text{Number of persons reporting 1 or more job separations}}$$

during the first 5-year period, 1926 to 1930, than during the second 5-year period, 1931 to 1935, which may be an indication that labor turn-over tends to rise in periods of good business activity. In both periods more persons reported job separations than any type of shift. In the second 5-year period, however, the difference in the proportion of persons with employer, industrial, and occupational shifts in comparison to the proportion of persons reporting job separations is greater than in the first 5-year period. See table 39. The ratios of persons with each type of shift to persons with job separations were also much lower in the second 5-year period than in the first 5-year period (table 38). For example, in the first 5-year period 86.6 percent of persons with job separations reported industrial shifts, whereas in the second 5-year period, only 50.9 percent of those with job separations also reported industrial shifts. This is explained by the fact that, although fewer persons had job separations in the second 5-year period, many of them were still unemployed at the close of 1935 or else they separated to unemployment and later returned to the same job, in which case the employer, industry, and occupation remained the same.

In each period workers reported one or two separations or shifts more frequently than higher numbers. Fewer persons in the second 5-year period than in the first 5-year period made more than two separations or shifts. See table 39. The experience of women in the two 5-year periods with regard to these changes was little different from that of men, except that a smaller proportion of women than of men consistently reported both job separations and shifts.[4]

EMPLOYER SEPARATIONS, 1926-35

It is interesting to know not only how many persons have separated from jobs and have changed their occupation, industry, or employer over a given period and the frequency with which they did so, but also whether these changes became more frequent after entrance into the radio industry. An analysis of the number of persons reporting separations from employers in the radio industry and from employers in other industries reveals several interesting points concerning radio workers who entered the labor

[4]Data regarding mobility of women in the two 5-year periods are not presented in the Appendix but are in the files of the Philadelphia Labor Market Studies Section of the National Research Project of the Works Progress Administration.

market before 1926.[5] A smaller proportion of both men and women attached to the radio industry in May 1936 separated from employers who manufactured radios than from employers who manufactured other products (table 41). This is as might be expected, since attachment to the radio industry for a significant number of workers has been relatively recent. Most of the persons who experienced either type of employer separation reported only one or two separations.

A greater proportion of younger than of older workers reported separations from employers in industries other than radio. Older workers tended to enter the radio industry earlier than younger workers and, therefore, have had a longer period of time in which to separate from employers in the radio industry.

One of the most significant points regarding the data on employer separations is that a slightly higher proportion of women than of men reported separations from employers in the radio industry. This experience of women suggests that labor turn-over rates in this industry are higher for women than for men. As might be expected, the majority of separations from employers in the radio industry for a large number of men and women are due to short seasonal lay-offs. An inspection of the schedules indicates, however, that for a considerable number of women the separations represent temporary withdrawal from employment because of personal reasons. This is true of the separations of relatively few men. Separations to long-time unemployment in contrast to seasonal lay-offs and separations to another employer in both the radio and other industries are more frequent for men than for women.

[5] An employer separation has been defined as leaving 1 employer for service with another employer, or for a period of unemployment, or for a period of not seeking work. The industry of the employer whom the worker left determined whether the separation was from an employer in the radio industry or from an employer in another industry. When the industry of the employer changed in the course of 1 job, the industry at the time of separation determined whether or not the separation was from an employer in the radio industry.

SECTION VI

SUMMARY OF FINDINGS

When this study was made in 1936, the labor supply of the radio industry in Philadelphia was found to include a large number of workers who had been recruited to the industry during the depression and early recovery years. One-fifth of the total sample were new entrants to the labor market when they secured jobs in the industry. Only 34.6 percent had entered the industry prior to 1930. Experienced men for the skilled occupations were obtained from the major woodworking and metalworking industries in the city. Previously employed women workers, who were two-thirds of the total women, on the other hand, were secured for the most part from the textile industries. There is evidence that during the period of rapid expansion the radio industry obtained workers from industries of declining importance in the local area, although most of those so obtained were a selected group from the point of view of age, i. e., they were the younger workers in the declining industries.

The occupational and social characteristics of the workers attached to the radio industry in 1936 indicate that they were less specialized in background experience and that their sex and age distribution differed from that of many other industrial groups. These differences reflect primarily the character of the production methods in this relatively new industry and the personnel policy of the largest plant in the local labor market.

The majority of the workers studied were engaged at semiskilled occupations in 1936. A fourth of the men worked at skilled occupations. Women were engaged almost exclusively at semiskilled types of work in a narrower range of occupations than men at the same grade of work. Men, however, worked at practically all of the occupations at which women were employed. It is significant that the proportion of women employed in the radio industry in 1936 was higher than the average for all industries in the city.

Radio workers are young: the average worker in 1936 was 32.7 years old if a man and 24.3 years old if a woman. He or she was younger than the average employable person in all industries. Over half of the women and a fifth of the men were under 25 years of age. When age is examined in relation to occupation, it is

evident that among men there is a concentration of older workers in certain occupations and of younger workers in others. More of the older men work at the skilled occupations of tool making, die setting, machinists' work, skilled machine operating, cabinet-making, and cabinet work. More of the younger men work as assemblers, inspectors, examiners, and testers, i. e., occupations which for the most part require little or no previous training. There is, however, no concentration of women by age groups in particular occupations.

One-fifth of the total labor force in 1936 had had no gainful employment prior to work in the radio industry. This proportion was higher, however, for women than for men. Experienced workers recruited to the industry had been employed in a wide range of industries. Men had been engaged in such a diversity of industries that no one or two could be identified as the most important industrial sources of the labor supply of men. This is less true of women: it may be said that the textile and clothing industries have been the important sources of supply for experienced women workers. The greater diversity of experience reported by men is the result of the fact that men are normally employed in a wider range of industries than women, and that women from the textile industries were making a special effort to transfer to a new industry because of the decline in activity in many of the city's textile industries. The majority of workers attached to the radio industry in 1936 who had previous experience had been employed in the manufacturing industries. In the case of women, however, wholesale and retail trade also contributed a considerable group. A small number of the older men transferred into the radio industry when the companies employing them converted their plants to the manufacture of radio sets. They were continued in the employ of these plants, although some experienced a temporary lay-off during the reorganization period necessary to effect a shift in the product manufactured.

A comparison of the grade of skill of preradio employment relative to that of present or last employment in the radio industry reveals that over half of the workers were engaged in work of the same grade of skill on both jobs. Of those who changed their grade of skill, the majority either lowered it or transferred from a nonproduction occupation, such as clerical or sales work, to a production occupation. Men working in skilled occupations in 1936 had been employed on jobs of the same grade of skill

before transferring to the radio industry in larger proportions than women or than men working in unskilled or semiskilled occupations in 1936.

Machinists and tool makers transferred to the radio industry in relatively large numbers from a wide range of industries manufacturing metal products and machinery. Electricians also transferred to the industry to secure employment at radio installation, inspection, and other electrical work. Most of these skilled mechanics were younger than the average man in their occupations at the time of their transfer to the radio industry. The cabinet workers in the radio industry were recruited from the cabinetmakers and furniture workers in the local area, most of whom were of Italian birth or extraction. This group of men were older than men in other occupations and considerably older than any of the women attached to the industry in 1936. Coil winders, solderers, and assemblers were recruited to a large extent from former textile workers. The majority of this group were young.

Workers in the radio industry in 1936 had entered the industry throughout the period from January 1926 to May 1936. One-half of the women and two-fifths of the men, however, entered in the years from 1933 to 1936. This indicates that the industry's labor force in 1936 was composed to a considerable extent of recent recruits. Men engaged in skilled occupations in the radio industry in 1936 had entered the industry earlier than men in semiskilled and unskilled occupations. In general, the women in the study had entered more recently than men, many of them during the depression and early recovery years. In spite of this fact, considerably less than half the women who had had some employment prior to entering the radio industry were unemployed immediately preceding their employment in the radio industry. The same was true for men in skilled occupations. For men in semiskilled and unskilled occupations, on the other hand, radio employment was more likely to be preceded by a period of unemployment.

The length of service on the longest job and the total number of years employed at the usual occupation are relatively short for women because they were in the labor market for shorter periods than men. These two measures of the stability of a worker's employment indicate that men had a fairly long record of service on one job and at a particular occupation. This record was longer in the case of skilled than of semiskilled or unskilled workers and of course longer in the case of older than of younger workers.

The social characteristics of workers attached to the radio industry in 1936 show that they represent an average cross section of the working population of Philadelphia. Most of them had been born in the United States. Of the men the largest number of foreign-born workers were Italian. Partly because of age and partly because fewer women were foreign-born, a greater proportion of women than of men were lifetime residents of Philadelphia. Radio workers were relatively well-educated. A significant proportion of the total had completed more than a grammar-school education, and a few men attached to the industry in 1936 had had a college education. Younger workers had a better educational background than older workers and women reported more education than men. A relatively high proportion of the women in the study were single, although among women 30 years of age and over a considerable number were married. Most of the men studied were married.

At the time of study in May 1936 most of the workers were employed on a full-time schedule. Of those who were unemployed, a greater number were women, despite the fact that there were fewer women than men attached to the industry in May 1936. The average unemployed worker had lost his or her last job in the radio industry in the fall of 1935. Men, however, had been out of work for a longer period of time than women, and older workers for a longer period than younger workers. The existence of unemployment among radio workers in May 1936 may be explained by three factors: the permanent lay-off of workers when one radio firm discontinued radio production in 1936,[1] short lay-offs arising from the periodicity of operations in the industry, and the residual long-time unemployment of another group. Three-tenths of those unemployed in May 1936 were in the first group. Approximately the same proportion were out of work because of short lay-offs. The remainder had been unemployed for longer periods of time and for some of these, at any rate, the chances of being recalled to the radio industry appeared slight.

The work experience of workers in the study has been examined for the 10-year period from 1926 to 1935 and is summarized in terms of their employment status, month by month, and the average number of months spent at specified types of employment status. As reflected in these data, the radio industry has offered em-

[1] Although the firm did not completely stop operations until June 1936, it began to reduce its labor force in the latter half of 1935.

ployment to new recruits throughout the 10 years selected for study. This continuous acceptance of new workers reflects both a high rate of labor turn-over in the industry and continuous expansion of the labor force of one of the plants.

The heaviest concentration of unemployment for the group studied occurred in the second half of the 10-year period, from 1931 to 1935, particularly in the years 1932 and 1933. Despite relative recovery in the industry after 1933 the number out of work 1 month or longer is greater in the second half of the 10-year period than in the first half. Men in skilled occupations had better employment opportunity throughout this period than other workers.

Two-fifths of the workers reported that they had been employed on a part-time schedule 1 month or more within the 10-year period, although there is likelihood that this is an understatement of the total amount of part-time work. When the data for months of different types of employment status are reduced to averages, it is found that men were completely unemployed almost twice as many months as they were employed part-time. They spent about a fourth of the 10 years in unemployment and part-time employment. Whereas men were employed two-thirds of the entire period for which work-history data were obtained, women were employed only five-twelfths of the same period. This difference is accounted for by differences in time actually in the labor market and by the fact that a considerable number of the men were employed at maintenance rather than production work.

Most of the workers attached to the radio industry in 1936 who had entered the labor market before 1926, reported at least one period of unemployment lasting 1 month or longer during the years from 1926 to 1935. Although most persons who reported such periods of unemployment were out of a job for relatively short periods, a significant proportion were unemployed for a total of over 2 years in the 10-year period.

Of the workers in the study who had entered the labor market prior to 1926, women were unemployed less than men. Age was a factor in the unemployment of the men. Older men were unemployed longer than younger men. In the case of women, however, younger workers were unemployed longer than older workers. Among this group who entered the labor market before 1926 one-half reported no unemployment lasting 1 month or longer in the first half of the 10-year period and a third reported no such unemploy-

ment in the second half of the 10-year period. It was also found that the amount of time lost by each worker through unemployment was considerably longer in the second half of the period than in the first half. Unemployment for the workers of this study was a recurring experience and the frequency of unemployment periods increased with the total number of months workers were out of a job.

The adaptability or mobility of workers attached to the radio industry in 1936 is reflected in the number of job changes and of employer, occupational, and industrial shifts made by individuals. These have also been examined for workers who entered the labor market before 1926 for the period from 1926 to 1935. Most of the special group studied reported job changes, and many also reported employer shifts and occupational or industrial shifts. It should be noted that most of these changes occurred before or simultaneously with entrance to the radio industry. Younger workers changed jobs more frequently than older workers. The workers as a whole shifted their employer and industry more readily than their occupation. This tendency is most marked for older workers and for the men attached to skilled occupations in May 1936. The mobility of workers who were attached to the radio industry in May 1936 was greater during the prosperity period from 1926 to 1930 than during the depression and recovery period from 1931 to 1935. The experience of the workers in this regard reflects a general decline in job openings in the city during the latter 5 years. It is significant that the group for which these data are presented is probably the most stable of all workers who have ever been in the radio industry. They entered the labor market before 1926 and, although they entered the radio industry at different intervals, many of them stayed in the radio industry throughout the depression; other radio workers would probably have reported many more job changes and shifts.

To a large extent the shifts in employer, occupation, and industry reported by this special group of radio workers were made prior to or concurrent with transfer into the radio industry. Evidence of this is revealed in the fact that a higher proportion of men and women separated from employers in industries other than radio than from employers in radio, and that, for men, the frequency of the former type of employer separation was higher than for women. Job separations for women in the radio industry appear to represent labor turn-over rather than shifts to another

industry or occupation. A higher proportion of women than of men separated from employers in the radio industry one or more times.

This study of the occupational characteristics and previous experience of the labor force of the radio industry in 1936 has answered certain questions and failed to answer others. We know that the 1936 labor supply was composed of a group of young and relatively mobile workers, recruited from a wide range of occupations and industries and from new entrants to the labor market. The majority entered the industry recently, and a significant proportion had not been previously employed when they secured jobs in plants manufacturing radios. Radio workers in 1936 had a great variety of background experience and were more mobile than many other groups of workers who were studied in the Philadelphia labor market. This study would have to be supplemented by studies of company pay-roll and personnel records before a complete picture of labor turn-over in the radio industry and the relationship between the 1936 labor supply and the labor supply in earlier years would be available.

APPENDIX A

TABLES

The sample on which these tables (except table 1) are based is described in the "Introduction", pp. 5-8.

The occupation and industry codes used in classifying the work-history material are adaptations of Bulletin No. 3, Occupation Code, and Bulletin No. 4, Industry Code, Works Progress Administration, National Research Project in cooperation with the Industrial Research Department of the University of Pennsylvania (mimeo., April 1936). The revisions provided for the identification of additional occupations and industries which have been subjects of special studies.

For definitions of terms used in tables, see appendix B.

Table 1.- INDEX OF PAY ROLLS IN THE MANUFACTURE OF RADIO AND MUSICAL INSTRUMENTS IN THE PHILADELPHIA FEDERAL RESERVE DISTRICT, JANUARY 1926-MAY 1936[a]

(May 1936 = 100)

Month	Year										
	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
January	109.5	146.6	179.7	122.1	126.1	126.7	80.8	39.7	95.8	95.8	89.9
February	115.4	139.8	176.0	140.4	101.0	108.7	82.9	47.8	81.4	88.9	84.6
March	118.3	135.5	143.4	115.5	90.3	84.3	60.1	48.2	84.3	102.9	78.0
April	117.0	134.3	129.1	130.5	89.1	103.1	51.5	55.4	77.6	77.1	84.1
May	113.0	125.4	123.5	197.6	96.9	86.3	54.1	69.8	85.2	59.0	100.0
June	120.7	126.3	147.5	201.6	100.0	78.3	53.8	62.9	86.8	58.6	113.6
July	133.3	138.5	181.7	251.0	153.4	84.7	54.5	50.2	91.9	67.1	100.5
August	126.3	142.3	204.0	322.4	250.1	94.6	52.4	48.3	111.4	91.0	114.8
September	129.8	153.6	229.5	289.2	360.0	96.2	60.4	58.3	116.4	116.4	109.7
October	176.8	145.4	234.9	264.4	415.4	127.6	63.0	115.5	134.1	131.1	121.5
November	192.0	157.6	225.5	152.4	259.4	122.1	54.1	141.1	122.9	148.8	118.4
December	163.3	194.3	180.7	155.5	151.8	70.0	51.6	134.3	119.6	105.5	124.3

[a]These data were converted from an index compiled by the Department of Research and Statistics, Federal Reserve Bank of Philadelphia. Jan. 1926-Nov. 1931 figures (1923-25 = 100) were published in A Supplement to the Business Review (Jan. 1932); and Dec. 1931-Dec. 1936 figures (1923-25 = 100) were obtained from the Department of Research and Statistics, Federal Reserve Bank of Philadelphia.

Table 2.- EMPLOYMENT STATUS IN MAY 1936 BY SEX AND AGE

Employment status	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total[a]	420	100.0	176	100.0	169	100.0	75	100.0	265	100.0	211	100.0	51	100.0	3	#
Employed	361	86.0	147	83.5	151	89.3	63	84.0	198	74.7	163	77.3	33	64.7	2	#
Full time	289	68.8	118	67.0	123	72.8	48	64.0	170	64.1	141	66.9	27	52.9	2	#
Part time	72	17.2	29	16.5	28	16.5	15	20.0	28	10.6	22	10.4	6	11.8	0	-
Unemployed	59	14.0	29	16.5	18	10.7	12	16.0	67	25.3	48	22.7	18	35.3	1	#

[a]Excludes 1 man who did not report employment status. #Base too small for calculation.

Table 3.- PLANT OF PRESENT OR LAST JOB IN MAY 1936 BY SEX AND EMPLOYMENT STATUS

Plant	Men and women						Men						Women					
	Total		Employed		Unemployed		Total		Employed		Unemployed		Total		Employed		Unemployed	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total	686	100.0	560	81.6	126	18.4	421	100.0	362	86.0	59	14.0	265	100.0	198	74.7	67	25.3
Plant No. 1[a]	53	100.0	15	28.3	38	71.7	27	100.0	10	37.0	17	63.0	26	100.0	5	19.2	21	80.8
Plant No. 2	469	100.0	432	92.1	37	7.9	293	100.0	271	92.5	22	7.5	176	100.0	161	91.5	15	8.5
Plant No. 3	128	100.0	89	69.5	39	30.5	94	100.0	74	78.7	20	21.3	34	100.0	15	44.1	19	55.9
All other plants	36	100.0	24	66.7	12	33.3	7	#	7	#	0	-	29	100.0	17	58.6	12	41.4

[a]Plant No. 1 went out of business in June 1936. #Base too small for calculation.

Table 4.- DURATION OF UNEMPLOYMENT SINCE LAST JOB FOR THOSE UNEMPLOYED IN MAY 1936 BY SEX AND AGE

Duration of unemployment in months	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	59	100.0	29	100.0	18	100.0	12	#	67	100.0	48	100.0	18	100.0	1	#
Less than 3	5	8.5	4	13.8	1	5.6	0	-	13	19.4	10	20.8	2	11.1	1	#
3- 5	17	28.8	10	34.5	6	33.3	1	#	23	34.3	17	35.4	6	33.3	0	-
6-11	10	16.9	3	10.3	4	22.2	3	#	9	13.4	6	12.5	3	16.6	0	-
12-23	5	8.5	3	10.3	0	-	2	#	13	19.4	9	18.7	4	22.2	0	-
24-35	4	6.8	3	10.3	1	5.6	0	-	0	-	0	-	0	-	0	-
36-47	5	8.5	1	3.5	3	16.6	1	#	4	6.0	3	6.3	1	5.6	0	-
48-59	7	11.8	3	10.4	1	5.6	3	#	4	6.0	3	6.3	1	5.6	0	-
60 and over	6	10.2	2	6.9	2	11.1	2	#	1	1.5	0	-	1	5.6	0	-
Median duration[a]	8.4		7.0		7.9		#		5.7		5.6		7.5		#	

[a]Medians computed from a more detailed break-down. #Base too small for calculation.

Table 5.- EMPLOYMENT STATUS IN SEPTEMBER 1936 OF WORKERS UNEMPLOYED IN MAY 1936 BY SEX AND AGE

Employment status in September 1936	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	59	100.0	29	100.0	18	100.0	12	#	67	100.0	48	100.0	18	100.0	1	#
Unemployed	39	66.1	15	51.7	14	77.8	10	#	38	56.7	23	47.9	14	77.8	1	#
Employed	20	33.9	14	48.3	4	22.2	2	#	29	43.3	25	52.1	4	22.2	0	-
By former firm	14	23.7	10	34.5	3	16.7	1	#	19	28.3	16	33.3	3	16.7	0	-
By some other radio firm	0	-	0	-	0	-	0	-	4	6.0	3	6.3	1	5.5	0	-
By firm not in radio industry	6	10.2	4	13.8	1	5.5	1	#	6	9.0	6	12.5	0	-	0	-

#Base too small for calculation.

Table 6.- OCCUPATION OF PRESENT OR LAST JOB BY SEX

Occupation	Men		Women	
	Number	Percent	Number	Percent
Total	421	100.0	265	100.0
Skilled occupations	118	28.0	3	1.1
Cabinetmakers	34	8.1	0	-
Instrument makers (scientific)	1	0.2	0	-
Lathe operators, engine and turret	1	0.2	0	-
Machinists	8	1.9	0	-
Milling-machine operators	1	0.2	0	-
Millwrights	1	0.2	0	-
Tool makers and die setters	18	4.3	0	-
Radio repairmen and installation men	24	5.7	2	0.7
Foremen	17	4.1	1	0.4
Carpenters and joiners	1	0.2	0	-
Electricians	3	0.8	0	-
Plumbers and pipe, gas, and steam fitters	1	0.2	0	-
Casters, molders, and foundrymen	2	0.5	0	-
Mechanics, other	1	0.2	0	-
Sheet-metal workers	1	0.2	0	-
Engravers and lithographers	2	0.5	0	-
Sawyers	2	0.5	0	-
Semiskilled occupations	291	69.2	262	98.9
Cabinet workers	57	13.6	0	-
Finishers	1	0.2	0	-
Varnishers and painters (factory)	5	1.2	0	-
Veneer workers	2	0.5	0	-
Buffers and polishers (metal)	1	0.2	0	-
Drill-press operators	9	2.2	1	0.4
Filers and grinders (metal)	1	0.2	0	-
Punch-press operators and press operators, n.o.s.[a]	16	3.8	6	2.3
Screw-machine operators	1	0.2	0	-
Threading-machine operators	0	-	1	0.4
Coil winders, armature winders, coil makers, condensers, and cable splicers (except for storage batteries)	5	1.2	53	20.0
Solderers (except for storage batteries)	5	1.2	43	16.2
Welders	4	1.0	1	0.4
Wirers and wire operators	6	1.4	18	6.8
Assemblers	43	10.2	86	32.5
Inspectors and examiners	59	14.0	29	10.9
Testers	32	7.6	2	0.7
Operatives, n.e.c.[b]	25	6.0	17	6.4
Platers and enamelers	5	1.2	1	0.4
Storage-battery workers	3	0.7	0	-
Apprentices to skilled trades	1	0.2	0	-
Apprentices and helpers, n.e.c.[b]	1	0.2	0	-
Labelers, pasters and packers	7	1.7	4	1.5
Oilers of machinery	2	0.5	0	-
Unskilled occupations	12	2.8	0	-
Handymen	1	0.2	0	-
Laborers, manufacturing	9	2.2	0	-
Watchmen and guards	1	0.2	0	-
Janitors	1	0.2	0	-

[a] N.o.s. means not otherwise specified. [b] N.e.c. means not elsewhere classified.

Table 7.- AGE OF WORKERS IN THE RADIO INDUSTRY AND OF ALL EMPLOYABLE PERSONS IN PHILADELPHIA IN MAY 1936

Age in years	Workers in the radio industry				Employable persons in all industries[a]			
	Men		Women		Men		Women	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	421	100.0	265	100.0	55,044	100.0	25,055	100.0
16-19	19	4.5	44	16.6	3,914	7.1	3,872	15.5
20-24	69	16.4	104	39.3	7,080	12.9	5,763	23.0
25-29	89	21.1	63	23.8	7,014	12.8	3,923	15.6
30-34	62	14.7	29	10.9	6,192	11.2	2,728	10.9
35-39	51	12.1	15	5.7	6,654	12.1	2,516	10.0
40-44	56	13.3	7	2.6	6,371	11.6	2,088	8.3
45-49	34	8.1	3	1.1	5,611	10.2	1,519	6.1
50-54	20	4.8	0	-	4,591	8.3	1,114	4.4
55-59	9	2.1	0	-	3,180	5.8	665	2.7
60-64	7	1.7	0	-	2,382	4.3	498	2.0
65 and over	5	1.2	0	-	2,055	3.7	369	1.5
Median age	32.7		24.3		37.5		28.7	

[a]Gladys L. Palmer, Recent Trends in Employment and Unemployment in Philadelphia (Works Progress Administration, National Research Project in cooperation with Industrial Research Department, University of Pennsylvania, Report No. P-1, Dec. 1937), pp. 50, 55.

Table 8.- MEDIAN AGE OF RADIO WORKERS BY SEX AND OCCUPATION OF PRESENT OR LAST JOB

Occupation	Median age in years	
	Men	Women
All workers	32.7	24.3
Skilled occupations	35.1	-
Cabinetmakers	40.3	-
Tool makers, die setters, machinists, and skilled machine operators[a]	39.1	-
Radio repair men and installation men	25.5	-
Foremen	29.4	-
Other[b]	#	-
Semiskilled occupations	31.8	24.3
Cabinet workers, finishers, varnishers, painters (factory), and veneer workers	43.3	-
Semiskilled machine operators[c]	36.8	#
Coil winders, armature winders, coil makers, condensers, and cable splicers (except for storage batteries)	#	24.8
Solderers (except for storage batteries) and welders	#	25.9
Wirers and wire operators	#	21.8
Assemblers	26.2	25.1
Inspectors and examiners	29.9	23.2
Testers	28.3	#
Operatives, n.e.c.[d]	32.5	25.6
Other[e]	34.2	#
Unskilled occupations[f]	#	-

[a]Includes scientific instrument makers, millwrights, engine- and turret-lathe operators, and milling machine operators.
[b]Includes carpenters, joiners, electricians, plumbers, pipe, gas, and steam fitters, casters, molders, foundrymen, other mechanics, sheet metal workers, engravers, lithographers, and sawyers.
[c]Includes metal buffers and polishers, drill press operators, metal filers and grinders, punch-press operators, press operators, n.o.s., screw machine operators, and threading machine operators.
[d]N.e.c. is an abbreviation for "not elsewhere classified."
[e]Includes apprentices to skilled trades, apprentices and helpers, n.e.c., labelers, pasters, packers, oilers of machinery, platers, enamelers, storage-battery workers, and women as foremen and radio repair men and installation men.
[f]Includes handymen, manufacturing laborers, watchmen, guards, and janitors.
#Base too small for calculation.

Table 9.- NUMBER OF YEARS OF CONTINUOUS RESIDENCE IN PHILADELPHIA BY SEX AND AGE

Number of years	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total[a]	421	100.0	177	100.0	169	100.0	75	100.0	264	100.0	211	100.0	51	100.0	2	#
Less than 5 yr., 6 mo.	13	3.1	5	2.8	8	4.7	0	-	6	2.3	6	2.9	0	-	0	-
5 yr., 6 mo. to 10 yr., 5 mo.	27	6.4	5	2.8	21	12.4	1	1.3	16	6.0	10	4.7	6	11.8	0	-
10 yr., 6 mo. to 15 yr., 5 mo.	29	6.9	11	6.2	17	10.1	1	1.3	15	5.7	10	4.7	4	7.8	1	#
15 yr., 6 mo. to 20 yr., 5 mo.	36	8.6	9	5.1	18	10.7	9	12.0	5	1.9	5	2.4	0	-	0	-
20 yr., 6 mo. and over	91	21.6	10	5.7	39	23.1	42	56.0	14	5.3	5	2.4	9	17.6	0	-
Since birth	225	53.4	137	77.4	66	39.0	22	29.4	208	78.8	175	82.9	32	62.8	1	#

[a]Excludes 1 woman who did not report number of years of residence. #Base too small for calculation.

Table 10.- COUNTRY OF BIRTH BY SEX AND AGE

Country	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	421	100.0	177	100.0	169	100.0	75	100.0	265	100.0	211	100.0	51	100.0	3	#
United States	301	71.5	164	92.6	101	59.8	36	48.0	241	90.9	197	93.4	42	82.3	2	#
British Isles	28	6.6	5	2.8	12	7.1	11	14.7	17	6.4	10	4.7	6	11.8	1	#
Italy	64	15.2	4	2.3	43	25.4	17	22.7	0	-	0	-	0	-	0	-
Russia[a]	5	1.2	0	-	1	0.6	4	5.3	2	0.8	1	0.5	1	2.0	0	-
Others in Europe	19	4.5	4	2.3	9	5.3	6	8.0	5	1.9	3	1.4	2	3.9	0	-
Other countries	4	1.0	0	-	3	1.8	1	1.3	0	-	0	-	0	-	0	-

[a]Includes Poland. #Base too small for calculation.

Table 11.- SCHOOL GRADE COMPLETED BY SEX AND AGE

School grade completed	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total[a]	420	100.0	176	100.0	169	100.0	75	100.0	262	100.0	209	100.0	50	100.0	3	#
No formal schooling	10	2.4	0	-	2	1.2	8	10.7	0	-	0	-	0	-	0	-
Elementary school																
Not graduate	132	31.4	18	10.2	81	47.9	33	44.0	57	21.8	39	18.7	17	34.0	1	#
Graduate	119	28.3	51	29.0	49	29.0	19	25.3	86	32.8	60	28.7	26	52.0	0	-
High school																
Not graduate	97	23.1	64	36.4	24	14.2	9	12.0	86	32.8	80	38.3	5	10.0	1	#
Graduate	52	12.4	38	21.6	8	4.7	6	8.0	33	12.6	30	14.3	2	4.0	1	#
College																
Not graduate	8	1.9	3	1.7	5	3.0	0	-	0	-	0	-	0	-	0	-
Graduate and postgraduate	2	0.5	2	1.1	0	-	0	-	0	-	0	-	0	-	0	-
Median school grade	8.6		9.9		8.0		7.4		8.9		9.2		8.3		#	

[a]Excludes 1 man and 3 women who did not report school grade completed. #Base too small for calculation.

Table 12.- MARITAL STATUS BY SEX AND AGE

Marital status	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	421	100.0	177	100.0	169	100.0	75	100.0	265	100.0	211	100.0	51	100.0	3	#
Single	138	32.8	106	59.9	26	15.4	6	8.0	153	57.7	144	68.3	8	15.7	1	#
Married	272	64.6	70	39.5	139	82.2	63	84.0	84	31.7	54	25.6	29	56.9	1	#
Widowed and divorced	11	2.6	1	0.6	4	2.4	6	8.0	28	10.6	13	6.1	14	27.4	1	#

#Base too small for calculation.

Table 13.- YEAR OF BEGINNING EMPLOYMENT IN THE RADIO INDUSTRY BY SEX AND AGE

Year	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	421	100.0	177	100.0	169	100.0	75	100.0	265	100.0	211	100.0	51	100.0	3	#
Before 1926	22	5.2	2	1.1	9	5.3	11	14.6	11	4.2	5	2.4	6	11.8	0	-
1926	16	3.8	3	1.7	8	4.7	5	6.7	8	3.0	3	1.4	5	9.8	0	-
1927	13	3.1	3	1.7	5	3.0	5	6.7	8	3.0	3	1.4	4	7.8	1	#
1928	35	8.3	12	6.8	16	9.5	7	9.3	24	9.0	19	9.0	4	7.8	1	#
1929	81	19.3	21	11.9	39	23.1	21	28.0	19	7.2	13	6.2	6	11.8	0	-
1930	41	9.7	19	10.7	17	10.1	5	6.7	30	11.3	24	11.4	6	11.8	0	-
1931	25	5.9	10	5.6	10	5.9	5	6.7	19	7.2	14	6.6	5	9.8	0	-
1932	29	6.9	15	8.5	10	5.9	4	5.3	15	5.7	12	5.7	2	3.9	1	#
1933	87	20.7	43	24.3	35	20.7	9	12.0	46	17.3	39	18.5	7	13.8	0	-
1934	27	6.4	17	9.6	9	5.3	1	1.3	27	10.2	25	11.8	2	3.9	0	-
1935	37	8.8	28	15.8	7	4.1	2	2.7	54	20.4	52	24.7	2	3.9	0	-
January-May 1936	8	1.9	4	2.3	4	2.4	0	-	4	1.5	2	0.9	2	3.9	0	-

#Base too small for calculation.

Table 14.- INDUSTRIAL GROUP OF LAST JOB PRECEDING EMPLOYMENT IN THE RADIO INDUSTRY BY SEX AND AGE

Industrial group	Men					Women				
	Total		Age in years			Total		Age in years		
			16-29	30-44	45 and over			16-29	30-44	45 and over
	Number	Percent	Number	Number	Number	Number	Percent	Number	Number	Number
Total[a]	420	100.0	177	168	75	265	100.0	211	51	3
Manufacturing	262	62.4	70	124	68	125	47.1	82	43	0
Food products	8	1.9	4	4	0	11	4.1	9	2	0
Textile and clothing	34	8.1	13	13	8	70	26.4	47	23	0
Metal products	17	4.0	5	8	4	2	0.8	2	0	0
Lumber and timber products	30	7.1	6	16	8	0	-	0	0	0
Leather products	3	0.7	2	1	0	1	0.4	0	1	0
Rubber products	0	-	0	0	0	0	-	0	0	0
Paper and printing	10	2.4	5	3	2	7	2.6	7	0	0
Chemicals	6	1.4	1	5	0	5	1.9	4	1	0
Tobacco products	1	0.2	0	1	0	3	1.1	1	2	0
Stone, clay, and glass products	2	0.5	1	1	0	0	-	0	0	0
Machinery (including electrical machinery and apparatus)	54	12.9	16	24	14	15	5.7	8	7	0
Musical instruments	51	12.2	4	28	19	4	1.5	1	3	0
Transportation equipment	36	8.6	8	16	12	4	1.5	2	2	0
Other manufacturing	10	2.4	5	4	1	3	1.1	1	2	0
Building and construction	23	5.5	6	14	3	0	-	0	0	0
Wholesale and retail trade	25	6.0	14	9	2	29	10.9	26	2	1
Public utilities	14	3.3	9	5	0	2	0.8	1	1	0
Government agencies	5	1.2	3	2	0	1	0.4	1	0	0
Insurance, finance, and business and professional offices	1	0.2	0	1	0	6	2.2	6	0	0
Institutions	1	0.2	0	1	0	2	0.8	2	0	0
Service industries	4	1.0	2	2	0	10	3.8	8	1	1
Miscellaneous industries	32	7.6	20	10	2	9	3.4	5	3	1
No previous job	53	12.6	53	0	0	81	30.6	80	1	0

[a]Excludes 1 man who did not report industry of last job.

Table 15.- OCCUPATIONAL GROUP OF LAST JOB PRECEDING EMPLOYMENT IN THE RADIO INDUSTRY BY SEX AND AGE

Occupational group	Men					Women				
	Total		Age in years			Total		Age in years		
			16-29	30-44	45 and over			16-29	30-44	45 and over
	Number	Percent	Number	Number	Number	Number	Percent	Number	Number	Number
Total	421	100.0	177	169	75	265	100.0	211	51	3
Skilled and semiskilled occupations in manufacturing and mechanical industries	280	66.5	71	138	71	116	43.8	74	42	0
Building and construction	60	14.3	7	39	14	0	-	0	0	0
Metal products, machinery, and electrical goods	88	20.9	21	44	23	12	4.5	8	4	0
Printing and publishing	6	1.4	6	0	0	0	-	0	0	0
Textile and clothing	25	5.9	10	8	7	55	20.8	34	21	0
Other	101	24.0	27	47	27	49	18.5	32	17	0
Unskilled labor	10	2.4	4	6	0	1	0.4	1	0	0
Clerical work	28	6.7	19	8	1	29	10.9	25	4	0
Transportation and trade pursuits	25	5.9	16	9	0	18	6.8	16	1	1
Domestic and personal service	15	3.6	10	4	1	20	7.5	15	3	2
Executive, professional, and semiprofessional occupations	9	2.1	3	4	2	0	-	0	0	0
Public service	1	0.2	1	0	0	0	-	0	0	0
All other occupations	0	-	0	0	0	0	-	0	0	0
No previous job	53	12.6	53	0	0	81	30.6	80	1	0

Table 16.- GRADE OF SKILL OF PRESENT OR LAST JOB COMPARED WITH GRADE OF SKILL OF LAST JOB PRECEDING EMPLOYMENT IN THE RADIO INDUSTRY, BY SEX AND AGE[a]

Relative grade of skill of present or last job	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total[b]	368	100.0	124	100.0	169	100.0	75	100.0	184	100.0	131	100.0	50	100.0	3	#
Same	226	61.4	62	50.0	106	62.7	58	77.4	109	59.2	75	57.2	34	68.0	0	-
Higher	18	4.9	6	4.8	11	6.5	1	1.3	3	1.6	3	2.3	0	-	0	-
Lower	57	15.5	14	11.3	30	17.8	13	17.3	11	6.0	3	2.3	8	16.0	0	-
Not comparable[c]	67	18.2	42	33.9	22	13.0	3	4.0	61	33.2	50	38.2	8	16.0	3	#

[a]A refinement of the Occupation Code, based on Alba M. Edwards' socioeconomic classification for Census occupational returns, was used in determining grade of skill. "A Social-Economic Grouping of the Gainful Workers of the United States," Journal of the American Statistical Association, XXVIII, No. 184 (Dec. 1933), 377-87.
[b]Excludes 53 men and 81 women whose first and only job was in the radio industry.
[c]Includes former nonproduction occupations in the following socioeconomic groups: clerical and kindred; domestic and personal service; professional and semiprofessional; and proprietors, managers, and officials.
#Base too small for calculation.

Table 17.- OCCUPATION OF PRESENT OR LAST JOB COMPARED WITH OCCUPATION OF LAST JOB PRECEDING EMPLOYMENT IN THE RADIO INDUSTRY, BY SEX AND AGE

Occupation	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total[a]	368	100.0	124	100.0	169	100.0	75	100.0	184	100.0	131	100.0	50	100.0	3	#
Same as preradio	122	33.2	16	12.9	69	40.8	37	49.3	12	6.5	5	3.8	7	14.0	0	-
Different from preradio	246	66.8	108	87.1	100	59.2	38	50.7	172	93.5	126	96.2	43	86.0	3	#

[a]Excludes 53 men and 81 women whose first job was in the radio industry. #Base too small for calculation.

Table 18.- GRADE OF SKILL OF PRESENT OR LAST JOB COMPARED WITH GRADE OF SKILL OF LAST JOB PRECEDING EMPLOYMENT IN THE RADIO INDUSTRY BY SEX, AGE, AND TIME OF BEGINNING EMPLOYMENT IN THE RADIO INDUSTRY[a]

Relative grade of skill of present or last job	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
	Workers entering radio prior to or in 1930															
Total[b]	192	100.0	44	100.0	94	100.0	54	100.0	80	100.0	48	100.0	30	100.0	2	100.0
Same	135	70.3	24	54.5	68	72.4	43	79.6	56	70.0	33	68.7	23	76.6	0	-
Higher	11	5.7	3	6.8	7	7.4	1	1.9	1	1.3	1	2.1	0	-	0	-
Lower	24	12.5	5	11.4	9	9.6	10	18.5	5	6.2	3	6.3	2	6.7	0	-
Not comparable[c]	22	11.5	12	27.3	10	10.6	0	-	18	22.5	11	22.9	5	16.7	2	100.0
	Workers entering radio in 1931-36															
Total[d]	176	100.0	80	100.0	75	100.0	21	100.0	104	100.0	83	100.0	20	100.0	1	100.0
Same	91	51.7	38	47.5	38	50.7	15	71.4	53	51.0	42	50.6	11	55.0	0	-
Higher	7	4.0	3	3.8	4	5.3	0	-	2	1.9	2	2.4	0	-	0	-
Lower	33	18.7	9	11.2	21	28.0	3	14.3	6	5.8	0	-	6	30.0	0	-
Not comparable[c]	45	25.6	30	37.5	12	16.0	3	14.3	43	41.3	39	47.0	3	15.0	1	100.0

[a]A refinement of the Occupation Code, based on Alba M. Edwards' socioeconomic classification for Census occupational returns, was used in determining grade of skill. "A Social-Economic Grouping of the Gainful Workers of the United States," Journal of the American Statistical Association, XXVIII, No. 184 (Dec. 1933), 377-87.

[b]Excludes 16 men and 20 women whose first job was in the radio industry.

[c]Includes former nonproduction occupations in the following socioeconomic groups: clerical and kindred; domestic and personal service; professional and semiprofessional; and proprietors, managers, and officials.

[d]Excludes 37 men and 61 women whose first job was in the radio industry.

Table 19.- INDUSTRIAL GROUP OF LONGEST JOB[a] FOR WORKERS WHOSE LONGEST JOB WAS NOT IN THE RADIO INDUSTRY, BY SEX AND AGE

Industrial group	Men					Women				
	Total		Age in years			Total		Age in years		
			16-29	30-44	45 and over			16-29	30-44	45 and over
	Number	Percent	Number	Number	Number	Number	Percent	Number	Number	Number
Total[b]	297	100.0	78	152	67	115	100.0	68	45	2
Manufacturing	200	67.4	45	106	49	80	69.6	44	34	2
Food products	3	1.0	2	1	0	5	4.3	3	2	0
Textile and clothing	34	11.5	14	13	7	52	45.3	28	22	2
Metal products	23	7.7	3	13	7	3	2.6	2	1	0
Lumber and timber products	32	10.8	5	23	4	0	-	0	0	0
Leather products	4	1.3	2	1	1	2	1.7	2	0	0
Rubber products	0	-	0	0	0	0	-	0	0	0
Paper and printing	8	2.7	3	3	2	6	5.2	5	1	0
Chemicals	2	0.7	0	2	0	1	0.9	1	0	0
Tobacco products	0	-	0	0	0	1	0.9	0	1	0
Stone, clay, and glass products	3	1.0	1	2	0	0	-	0	0	0
Machinery (including electrical machinery and apparatus)	34	11.5	10	17	7	6	5.2	2	4	0
Musical instruments	26	8.8	1	13	12	0	-	0	0	0
Transportation equipment	23	7.7	3	12	8	1	0.9	0	1	0
Other manufacturing	8	2.7	1	6	1	3	2.6	1	2	0
Building and construction	23	7.7	6	14	3	0	-	0	0	0
Wholesale and retail trade	19	6.4	5	11	3	20	17.4	15	5	0
Public utilities	16	5.4	6	8	2	3	2.6	1	2	0
Government agencies	9	3.0	3	4	2	0	-	0	0	0
Insurance, finance, and business and professional offices	4	1.4	3	1	0	1	0.9	1	0	0
Institutions	1	0.3	1	0	0	2	1.7	2	0	0
Service industries	1	0.3	0	0	1	4	3.5	3	1	0
Miscellaneous industries	24	8.1	9	8	7	5	4.3	2	3	0

[a]For definition of longest job, see appendix B, p. 99.
[b]Excludes 1 man whose industry of longest job was unknown but which could not possibly have been radio.

Table 20.- OCCUPATIONAL GROUP OF LONGEST JOB[a] FOR WORKERS WHOSE LONGEST JOB WAS NOT IN THE RADIO INDUSTRY, BY SEX AND AGE

Occupational group	Men					Women				
	Total		Age in years			Total		Age in years		
			16-29	30-44	45 and over			16-29	30-44	45 and over
	Number	Percent	Number	Number	Number	Number	Percent	Number	Number	Number
Total[b]	297	100.0	78	152	67	115	100.0	68	46	2
Skilled and semiskilled occupations in manufacturing and mechanical industries	220	74.1	49	115	56	79	68.7	43	34	2
Building and construction	47	15.8	6	30	11	0	-	0	0	0
Metal products, machinery, and electrical goods	63	21.2	8	35	20	3	2.6	1	2	0
Printing and publishing	1	0.3	1	0	0	1	0.9	1	0	0
Textile and clothing	26	8.8	13	7	6	47	40.9	24	21	2
Other	83	28.0	21	43	19	28	24.3	17	11	0
Unskilled labor	16	5.4	2	9	5	-	-	0	0	0
Clerical work	26	8.8	13	12	1	16	13.9	10	6	0
Transportation and trade pursuits	16	5.4	7	8	1	10	8.7	9	1	0
Domestic and personal service	7	2.3	4	2	1	10	8.7	6	4	0
Executive, professional, and semi-professional occupations	7	2.3	2	3	2	0	-	0	0	0
Public service	5	1.7	1	3	1	0	-	0	0	0
All other occupations	0	-	0	0	0	0	-	0	0	0

[a] For definition of longest job, see appendix B, p. 99.
[b] Excludes 1 man whose industry of longest job was unknown but which could not possibly have been radio.

Table 21.- LENGTH OF SERVICE ON LONGEST JOB[a] BY SEX AND AGE

Length of service in years	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total[b]	420	100.0	177	100.0	168	100.0	75	100.0	265	100.0	211	100.0	51	100.0	3	#
Less than 1	39	9.3	35	19.8	4	2.4	0	-	63	23.8	61	28.9	2	3.9	0	-
1-4	189	45.0	118	66.7	65	38.7	6	8.0	169	63.8	136	64.4	31	60.8	2	#
5-9	122	29.1	24	13.5	69	41.0	29	38.7	31	11.7	13	6.2	17	33.3	1	#
10-14	48	11.4	0	-	26	15.5	22	29.3	2	0.7	1	0.5	1	2.0	0	-
15-19	9	2.1	0	-	3	1.8	6	8.0	0	-	0	-	0	-	0	-
20 and over	13	3.1	0	-	1	0.6	12	16.0	0	-	0	-	0	-	0	-
Median length	4.6		2.8		6.1		10.7		2.7		2.3		4.1		#	

[a]For definition of longest job, see appendix B, p. 99. [b]Excludes 1 man who did not report length of service on longest job.
#Base too small for calculation.

Table 22.- NUMBER OF YEARS EMPLOYED AT USUAL OCCUPATION BY SEX AND AGE

Number of years	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total[a]	421	100.0	177	100.0	169	100.0	75	100.0	264	100.0	210	100.0	51	100.0	3	#
Less than 4 yr., 6 mo.	159	37.8	125	70.6	29	17.1	5	6.7	197	74.6	172	81.9	23	45.1	2	#
4 yr., 6 mo. to 9 yr., 5 mo.	110	26.1	48	27.1	50	29.6	12	16.0	61	23.1	36	17.1	24	47.0	1	#
9 yr., 6 mo. to 14 yr., 5 mo.	65	15.5	3	1.7	48	28.4	14	18.7	4	1.5	2	1.0	2	3.9	0	-
14 yr., 6 mo. to 19 yr., 5 mo.	38	9.0	1	0.6	25	14.8	12	16.0	1	0.4	0	-	1	2.0	0	-
19 yr., 6 mo. to 24 yr., 5 mo.	24	5.7	0	-	14	8.3	10	13.3	0	-	0	-	0	-	0	-
24 yr., 6 mo. and over	25	5.9	0	-	3	1.8	22	29.3	1	0.4	0	-	1	2.0	0	-
Median number of years	6.9		3.3		10.1		17.4		3.1		2.8		5.1		#	

[a]Excludes 1 woman who did not report number of years employed at her usual occupation. #Base too small for calculation.

Table 23.- EMPLOYMENT STATUS BY MONTHS, 1926-35, OF 118 MEN WHO IN MAY 1936 WERE ATTACHED TO THE RADIO INDUSTRY IN SKILLED OCCUPATIONS[a]

Month	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
	1926				1927				1928				1929				1930			
January	4	81	6	27	9	82	3	24	11	80	5	22	27	61	10	20	41	48	14	15
February	5	77	10	26	10	79	6	23	11	81	4	22	27	62	11	18	38	49	16	15
March	5	78	9	26	10	79	6	23	11	79	6	22	27	60	13	18	40	48	15	15
April	5	78	9	26	10	80	6	22	12	79	5	22	28	61	10	19	40	48	15	15
May	5	78	9	26	10	79	7	22	12	80	4	22	29	60	10	19	41	50	12	15
June	5	82	5	26	10	83	3	22	12	81	4	21	28	62	10	18	41	49	13	15
July	9	81	3	25	10	83	3	22	18	76	4	20	36	53	12	17	45	46	13	14
August	9	81	3	25	11	82	3	22	19	74	5	20	40	54	8	16	49	46	11	12
September	9	84	1	24	11	81	4	22	18	76	3	21	41	55	8	14	49	44	13	12
October	9	83	2	24	11	80	5	22	18	76	3	21	41	54	9	14	50	43	13	12
November	9	84	1	24	11	80	5	22	18	75	4	21	44	49	10	15	50	42	15	11
December	9	84	1	24	11	81	4	22	19	72	7	20	43	48	12	15	50	42	16	10
	1931				1932				1933				1934				1935			
January	48	38	22	10	46	32	31	9	54	16	41	7	82	16	18	2	92	12	13	1
February	43	39	26	10	47	30	33	8	56	15	41	6	75	17	24	2	87	12	17	2
March	43	38	26	11	47	30	33	8	56	15	42	5	79	16	21	2	86	12	18	2
April	42	38	27	11	47	29	34	8	55	16	42	5	76	18	22	2	90	11	16	1
May	43	37	27	11	49	26	35	8	63	16	34	5	78	15	23	2	90	11	17	-
June	47	36	25	10	48	29	34	7	65	19	29	5	81	16	18	3	93	10	15	-
July	51	35	23	9	54	24	33	7	69	19	26	4	87	15	14	2	99	7	12	-
August	50	35	24	9	57	24	30	7	78	16	19	5	89	15	12	2	102	7	9	-
September	55	35	20	8	62	21	28	7	85	14	15	4	95	13	9	1	107	6	5	-
October	55	31	23	9	62	19	30	7	89	15	11	3	97	12	8	1	109	4	4	1
November	56	32	21	9	62	18	31	7	89	16	11	2	96	12	8	2	110	4	3	1
December	53	31	24	10	61	18	32	7	85	16	15	2	97	12	7	2	110	4	3	1

[a]A denotes "employed in the radio industry"; B, "employed in other industries"; C, "unemployed"; D, "not seeking work."

Table 24.- EMPLOYMENT STATUS BY MONTHS, 1926-35, OF 303 MEN WHO IN MAY 1936 WERE ATTACHED TO THE RADIO INDUSTRY IN SEMISKILLED AND UNSKILLED OCCUPATIONS[a]

Month	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
	1926				1927				1928				1929				1930			
January	12	177	18	96	20	173	27	83	27	188	15	73	67	132	40	64	88	117	47	51
February	12	170	25	96	21	166	33	83	27	184	19	73	64	137	40	62	71	114	68	50
March	13	169	23	98	22	166	33	82	27	178	25	73	64	130	46	63	73	115	66	49
April	15	165	26	97	26	170	26	81	32	177	21	73	63	131	46	63	76	107	70	50
May	16	170	22	95	28	166	28	81	34	174	22	73	69	128	44	62	83	103	67	50
June	19	177	15	92	30	176	18	79	36	176	20	71	74	129	43	57	85	100	70	48
July	22	176	18	87	29	182	15	77	49	168	17	69	97	125	29	52	91	100	65	47
August	22	179	17	85	28	185	13	77	51	166	18	68	97	128	27	51	105	98	54	46
September	22	180	15	86	30	186	9	78	53	167	15	68	96	126	30	51	114	96	49	44
October	25	176	16	86	30	190	6	77	54	164	20	65	95	121	36	51	114	97	49	43
November	25	176	17	85	29	190	8	76	54	166	18	65	94	119	39	51	111	93	56	43
December	21	175	22	85	28	192	9	74	52	163	23	65	94	116	42	51	108	91	61	43
	1931				1932				1933				1934				1935			
January	104	83	75	41	99	65	100	39	123	47	97	36	187	22	77	17	217	10	66	10
February	92	82	88	41	95	62	107	39	120	46	103	34	172	21	95	15	203	9	82	9
March	88	84	90	41	94	63	107	39	121	47	103	32	172	19	96	16	208	9	77	9
April	94	85	83	41	96	63	104	40	118	45	108	32	178	17	92	16	208	10	76	9
May	94	81	88	40	97	63	103	40	127	40	104	32	181	16	91	15	211	11	72	9
June	102	82	79	40	99	61	107	36	127	36	110	30	192	16	82	13	216	7	73	7
July	119	74	71	39	116	56	94	37	149	31	97	26	211	15	66	11	238	4	55	6
August	121	73	69	40	121	52	93	37	172	32	75	24	219	14	59	11	249	4	44	6
September	127	71	64	41	121	52	92	38	193	28	62	20	224	13	56	10	261	3	37	2
October	121	72	69	41	126	51	88	38	202	24	59	18	226	12	55	10	258	2	41	2
November	121	72	69	41	126	50	90	37	202	24	60	17	225	12	56	10	259	1	40	3
December	116	69	78	40	124	50	92	37	196	23	67	17	219	12	62	10	248	2	50	3

[a]A denotes "employed in the radio industry"; B, "employed in other industries"; C, "unemployed"; D, "not seeking work."

Table 25.- EMPLOYMENT STATUS BY MONTHS, 1926-35, OF 265 WOMEN WHO IN MAY 1936 WERE ATTACHED TO THE RADIO INDUSTRY IN SEMISKILLED OCCUPATIONS[a]

Month	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
	1926				1927				1928				1929				1930			
January	9	52	9	195	12	55	16	182	19	57	15	174	33	57	23	152	40	50	33	142
February	9	53	9	194	12	55	17	181	19	56	16	174	32	59	23	151	38	49	36	142
March	10	53	9	193	13	55	17	180	22	58	13	172	35	56	23	151	40	52	32	141
April	10	51	12	192	13	54	18	180	20	62	14	169	37	53	23	152	38	54	34	139
May	10	47	13	195	16	56	14	179	23	62	13	167	42	52	23	148	42	50	33	140
June	10	51	15	189	17	58	11	179	28	63	15	159	44	52	20	149	47	50	31	137
July	11	56	12	186	21	60	11	173	35	58	19	153	49	51	25	140	52	51	34	128
August	12	57	12	184	20	60	12	173	38	57	19	151	49	52	24	140	56	47	34	128
September	15	57	11	182	21	59	11	174	38	60	18	149	50	53	22	140	66	43	31	125
October	16	55	12	182	21	57	12	175	36	59	21	149	50	52	22	141	67	40	34	124
November	13	59	11	182	18	58	15	174	34	60	21	150	45	52	26	142	63	39	40	123
December	12	56	15	182	19	55	16	175	31	61	21	152	43	51	28	143	57	35	48	125
	1931				1932				1933				1934				1935			
January	55	32	54	124	65	34	64	102	66	30	87	82	108	22	79	56	155	10	69	31
February	50	32	59	124	63	35	66	101	66	28	90	81	107	20	84	54	147	11	76	31
March	55	31	55	124	69	39	57	100	70	28	85	82	114	15	83	53	147	13	75	30
April	61	32	52	120	69	36	59	101	69	27	88	81	119	18	76	53	152	11	73	29
May	68	35	42	120	78	33	54	100	82	25	77	81	124	20	68	53	157	8	70	30
June	70	40	43	112	82	30	56	97	87	24	79	75	129	23	64	49	165	7	67	26
July	78	37	44	106	88	28	62	87	94	24	82	65	144	20	58	43	178	7	58	22
August	83	38	39	105	87	28	63	87	122	23	59	61	152	21	53	39	194	5	52	14
September	86	38	40	101	88	30	63	84	131	20	55	59	159	20	50	36	213	4	38	10
October	80	36	48	101	85	35	62	83	136	20	51	58	161	16	53	35	216	4	38	7
November	77	36	51	101	81	37	64	83	133	22	54	56	159	18	54	34	213	2	43	7
December	69	34	60	102	75	32	75	83	119	24	64	58	156	16	60	33	199	2	56	8

[a]A denotes "employed in the radio industry"; B, "employed in other industries"; C, "unemployed"; D, "not seeking work." 3 women whose occupations are classed as skilled (see table 6) are included.

Table 26.- NUMBER OF MONTHS EMPLOYED IN THE RADIO INDUSTRY, 1926-35, BY SEX AND AGE

Number of months	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total	421	100.0	177	100.0	169	100.0	75	100.0	265	100.0	211	100.0	51	100.0	3	#
None[a]	9	2.1	4	2.3	5	3.0	0	-	4	1.5	2	0.9	2	3.9	0	-
1-12	51	12.1	35	19.8	11	6.5	5	6.7	71	26.8	63	29.9	8	15.7	0	-
13-24	64	15.2	30	17.0	28	16.6	6	8.0	40	15.1	34	16.1	4	7.8	2	#
25-36	86	20.4	45	25.4	31	18.3	10	13.3	56	21.1	48	22.8	8	15.7	0	-
37-48	49	11.7	19	10.7	17	10.1	13	17.3	32	12.1	23	10.9	9	17.7	0	-
49-60	34	8.1	11	6.2	18	10.6	5	6.7	20	7.6	14	6.6	6	11.8	0	-
61-72	44	10.5	15	8.5	22	13.0	7	9.3	14	5.3	11	5.2	3	5.9	0	-
73-84	41	9.7	10	5.6	18	10.6	13	17.3	16	6.0	9	4.3	7	13.7	0	-
85-96	25	5.9	6	3.4	11	6.5	8	10.7	6	2.3	4	1.9	2	3.9	0	-
97-108	7	1.7	2	1.1	2	1.2	3	4.0	3	1.1	2	0.9	0	-	1	#
109-120	11	2.6	0	-	6	3.6	5	6.7	3	1.1	1	0.5	2	3.9	0	-
Median number of months																
Total	37.2		30.3		44.1		58.6		28.9		26.8		42.3		#	
Those reporting 1 and more months	38.3		30.9		45.8		58.6		29.3		27.0		43.7		#	

[a]Includes 8 men who did not begin employment in the radio industry until 1936 (table 13) and 1 man who worked in the industry in 1925 and 1936 but not during the period 1926-35.

#Base too small for calculation.

Table 27.- NUMBER OF MONTHS EMPLOYED IN INDUSTRIES OTHER THAN RADIO, 1926-35, BY SEX AND AGE

Number of months	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total	421	100.0	177	100.0	169	100.0	75	100.0	265	100.0	211	100.0	51	100.0	3	#
None	62	14.7	47	26.6	6	3.6	9	12.0	91	34.3	76	36.0	15	29.4	0	-
1-12	40	9.5	26	14.7	12	7.1	2	2.7	57	21.5	49	23.2	7	13.7	1	#
13-24	41	9.7	13	7.3	14	8.3	14	18.7	44	16.6	33	15.6	11	21.6	0	-
25-36	71	16.9	20	11.3	32	18.9	19	25.3	23	8.7	18	8.5	4	7.8	1	#
37-48	50	11.9	23	13.0	20	11.8	7	9.3	19	7.2	16	7.6	3	5.9	0	-
49-60	49	11.6	13	7.3	28	16.5	8	10.7	14	5.3	8	3.8	5	9.8	1	#
61-72	37	8.8	12	6.8	16	9.5	9	12.0	7	2.7	5	2.4	2	3.9	0	-
73-84	25	5.9	7	4.0	15	8.9	3	4.0	3	1.1	2	1.0	1	2.0	0	-
85-96	31	7.4	11	6.2	16	9.5	4	5.3	4	1.5	1	0.5	3	5.9	0	-
97-108	10	2.4	3	1.7	7	4.1	0	-	3	1.1	3	1.4	0	-	0	-
109-120	5	1.2	2	1.1	3	1.8	0	-	0	-	0	-	0	-	0	-
Median number of months																
Total	36.5		26.8		49.4		33.2		9.8		8.3		17.4		#	
Those reporting 1 and more months	43.7		40.4		50.7		36.1		21.3		19.9		26.5		#	

#Base too small for calculation.

Table 28.- NUMBER OF MONTHS EMPLOYED FULL TIME, 1926-35, BY SEX AND AGE

Number of months	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total[a]	416	100.0	173	100.0	168	100.0	75	100.0	262	100.0	210	100.0	49	100.0	3	#
None	7	1.7	4	2.3	2	1.2	1	1.3	4	1.5	2	1.0	2	4.1	0	-
1-12	25	6.0	22	12.7	1	0.6	2	2.7	55	21.0	48	22.8	7	14.3	0	-
13-24	20	4.8	11	6.4	5	3.0	4	5.3	49	18.7	42	20.0	7	14.3	0	-
25-36	40	9.6	23	13.3	12	7.1	5	6.7	36	13.8	31	14.8	5	10.2	0	-
37-48	27	6.5	17	9.8	9	5.4	1	1.3	27	10.3	23	11.0	3	6.1	1	#
49-60	40	9.6	16	9.2	22	13.1	2	2.7	20	7.6	15	7.1	5	10.2	0	-
61-72	49	11.8	20	11.6	17	10.1	12	16.0	22	8.4	16	7.6	6	12.2	0	-
73-84	42	10.1	16	9.2	21	12.5	5	6.7	20	7.6	13	6.2	6	12.2	1	#
85-96	46	11.1	14	8.1	19	11.3	13	17.3	13	5.0	11	5.2	2	4.1	0	-
97-108	51	12.2	12	7.0	26	15.5	13	17.3	9	3.4	4	1.9	4	8.2	1	#
109-120	69	16.6	18	10.4	34	20.2	17	22.7	7	2.7	5	2.4	2	4.1	0	-
Median number of months																
Total	73.1		56.5		82.4		90.5		32.8		30.2		51.4		#	
Those reporting 1 and more months	74.1		58.0		83.0		91.0		33.5		30.6		53.8		#	

[a]Excludes 5 men and 3 women who did not report number of months employed full time.
#Base too small for calculation.

Table 29.- NUMBER OF MONTHS EMPLOYED PART TIME,[a] 1926-35, BY SEX AND AGE

Number of months	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total[b]	416	100.0	173	100.0	168	100.0	75	100.0	262	100.0	210	100.0	49	100.0	3	#
None	255	61.3	110	63.6	93	55.3	52	69.3	155	59.2	127	60.5	25	51.0	3	#
1-12	58	14.0	31	17.9	22	13.1	5	6.7	48	18.3	41	19.5	7	14.3	0	-
13-24	29	7.0	15	8.7	10	6.0	4	5.3	20	7.6	17	8.1	3	6.1	0	-
25-36	28	6.7	10	5.8	15	8.9	3	4.0	9	3.4	9	4.3	0	-	0	-
37-48	11	2.7	1	0.6	8	4.7	2	2.7	10	3.8	6	2.9	4	8.2	0	-
49-60	15	3.6	2	1.1	10	6.0	3	4.0	8	3.1	4	1.9	4	8.2	0	-
61-72	6	1.4	1	0.6	3	1.8	2	2.7	6	2.3	3	1.4	3	6.1	0	-
73-84	8	1.9	3	1.7	5	3.0	0	-	4	1.5	3	1.4	1	2.0	0	-
85-96	1	0.2	0	-	0	-	1	1.3	2	0.8	0	-	2	4.1	0	-
97-108	5	1.2	0	-	2	1.2	3	4.0	0	-	0	-	0	-	0	-
109-120	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Median number of months																
Total	0.8		0.8		0.9		0.7		0.8		0.8		0.9		#	
Those reporting 1 and more months	22.5		13.8		29.8		36.9		16.6		13.7		44.5		#	

[a]Includes months employed both full and part time.
[b]Excludes 5 men and 3 women who did not report number of months employed part time.
#Base too small for calculation.

Table 30.- AVERAGE NUMBER OF MONTHS OF SPECIFIED TYPE OF EMPLOYMENT EXPERIENCE, 1926-35, BY SEX AND AGE[a]

Type of employment experience	Men				Women			
	Age in years				Age in years			
	All ages	16-29	30-44	45 and over	All ages	16-29	30-44	45 and over
Total number of months	120.0	120.0	120.0	120.0	120.0	120.0	120.0	#
Employed	82.0	63.4	95.7	95.9	50.0	45.3	68.6	#
Full time	70.7	56.4	80.7	82.6	39.8	37.1	49.3	#
Part time	11.3	7.0	15.0	13.3	10.2	8.2	19.3	#
Unemployed	20.7	17.7	23.0	23.0	18.6	18.2	20.7	#
Not seeking work	17.3	38.9	1.3	1.1	51.4	56.5	30.7	#
Before entering the labor market	16.4	38.4	#	#	40.8	50.9	#	#
After entering the labor market	0.9	0.5	1.3	1.1	10.6	5.6	30.7	#

[a]The average used is the arithmetic mean.
#Base too small for calculation.

Table 31.- NUMBER OF MONTHS UNEMPLOYED, 1926-35, FOR WORKERS WHO ENTERED THE LABOR MARKET BEFORE 1926, BY SEX AND AGE

Number of months	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	293	100.0	51	100.0	167	100.0	75	100.0	92	100.0	39	100.0	50	100.0	3	100.0
None	58	19.8	8	15.7	32	19.2	18	24.0	26	28.3	11	28.2	14	28.0	1	#
1-12	81	27.7	19	37.2	44	26.3	18	24.0	23	25.0	9	23.1	13	26.0	1	#
13-24	48	16.4	7	13.7	32	19.2	9	12.0	18	19.6	7	17.9	10	20.0	1	#
25-36	36	12.3	3	5.9	20	11.9	13	17.3	5	5.4	4	10.3	1	2.0	0	-
37-48	25	8.5	6	11.8	14	8.4	5	6.7	9	9.8	3	7.7	6	12.0	0	-
49-60	23	7.8	5	9.8	11	6.6	7	9.3	3	3.2	1	2.5	2	4.0	0	-
61 and over	22	7.5	3	5.9	14	8.4	5	6.7	8	8.7	4	10.3	4	8.0	0	-
Median number of months																
Total	15.0		12.4		16.0		15.7		11.7		12.9		11.6		#	
Those reporting 1 and more months	22.3		18.1		22.0		26.8		20.0		22.4		19.6		#	

#Base too small for calculation.

Table 32.- NUMBER OF MONTHS UNEMPLOYED, 1926-30, FOR WORKERS WHO ENTERED THE LABOR MARKET BEFORE 1926, BY SEX AND AGE

Number of months	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total	293	100.0	51	100.0	167	100.0	75	100.0	92	100.0	39	100.0	50	100.0	3	#
None	144	49.1	21	41.2	82	49.1	41	54.7	48	52.2	15	38.5	31	62.0	2	#
1-6	60	20.5	13	25.5	33	19.7	14	18.7	15	16.3	8	20.5	7	14.0	0	-
7-12	28	9.6	7	13.7	15	9.0	6	8.0	8	8.7	4	10.3	3	6.0	1	#
13-18	22	7.5	5	9.8	14	8.4	3	4.0	6	6.5	3	7.7	3	6.0	0	-
19-24	14	4.8	3	5.9	10	6.0	1	1.3	2	2.2	2	5.1	0	-	0	-
25-30	14	4.8	2	3.9	5	3.0	7	9.3	6	6.5	4	10.3	2	4.0	0	-
31-36	7	2.4	0	-	5	3.0	2	2.7	2	2.2	1	2.5	1	2.0	0	-
37-48	3	1.0	0	-	2	1.2	1	1.3	3	3.2	2	5.1	1	2.0	0	-
49-60	1	0.3	0	-	1	0.6	0	-	2	2.2	0	-	2	4.0	0	-
Median number of months																
Total	1.3		3.3		1.4		0.9		0.9		4.8		0.8		#	
Those reporting 1 and more months	10.3		9.1		11.0		10.5		12.6		14.0		12.9		#	

#Base too small for calculation.

Table 33.- NUMBER OF MONTHS UNEMPLOYED, 1931-35, FOR WORKERS WHO ENTERED THE LABOR MARKET BEFORE 1926, BY SEX AND AGE

Number of months	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total	293	100.0	51	100.0	167	100.0	75	100.0	92	100.0	39	100.0	50	100.0	3	#
None	86	29.4	15	29.4	46	27.5	25	33.4	34	37.0	18	46.1	14	28.0	2	#
1-6	42	14.3	11	21.6	23	13.8	8	10.7	9	9.8	3	7.7	6	12.0	0	-
7-12	37	12.6	6	11.8	24	14.3	7	9.3	15	16.3	4	10.3	11	22.0	0	-
13-18	20	6.8	2	3.9	12	7.2	6	8.0	13	14.2	7	17.9	6	12.0	0	-
19-24	22	7.5	1	2.0	14	8.4	7	9.3	4	4.3	1	2.6	2	4.0	1	#
25-30	31	10.6	4	7.8	17	10.2	10	13.3	3	3.3	1	2.6	2	4.0	0	-
31-36	12	4.1	4	7.8	6	3.6	2	2.7	4	4.3	1	2.6	3	6.0	0	-
37-48	27	9.2	6	11.8	17	10.2	4	5.3	5	5.4	2	5.1	3	6.0	0	-
49-60	16	5.5	2	3.9	8	4.8	6	8.0	5	5.4	2	5.1	3	6.0	0	-
Median number of months																
Total	10.1		6.99		10.8		11.3		8.4		5.0		10.0		#	
Those reporting 1 and more months	20.4		17.5		19.9		22.9		15.5		16.4		14.5		#	

#Base too small for calculation.

Table 34.- LENGTH OF LONGEST PERIOD OF UNEMPLOYMENT, 1926-35, FOR WORKERS WHO ENTERED THE LABOR MARKET BEFORE 1926, BY SEX AND AGE

Length of longest period in months[a]	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	293	100.0	51	100.0	167	100.0	75	100.0	92	100.0	39	100.0	50	100.0	3	#
None	61	20.8	10	19.6	33	19.7	18	24.0	27	29.4	12	30.8	14	28.0	1	#
1-12	117	39.9	22	43.1	69	41.3	26	34.6	37	40.2	13	33.3	23	46.0	1	#
13-24	46	15.7	6	11.8	28	16.8	12	16.0	13	14.1	7	17.9	5	10.0	1	#
25-36	30	10.2	5	9.8	17	10.2	8	10.7	5	5.4	3	7.7	2	4.0	0	-
37-48	23	7.9	7	13.7	10	6.0	6	8.0	6	6.5	3	7.7	3	6.0	0	-
49-60	9	3.1	1	2.0	5	3.0	3	4.0	2	2.2	1	2.6	1	2.0	0	-
61 and over	7	2.4	0	-	5	3.0	2	2.7	2	2.2	0	-	2	4.0	0	-
Median number of months																
Total	9.8		9.7		9.9		10.2		7.3		8.4		7.0		#	
Those reporting 1 and more periods	12.9		12.5		12.7		16.0		11.7		14.7		10.7		#	

[a]Excludes any period of unemployment not preceded by gainful work. #Base too small for calculation.

Table 35.- NUMBER OF UNEMPLOYMENT PERIODS, 1926-35, FOR WORKERS WHO ENTERED THE LABOR MARKET BEFORE 1926, BY SEX AND AGE

Number of unemployment periods[a]	Men								Women							
	Total		Age in years						Total		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	293	100.0	51	100.0	167	100.0	75	100.0	92	100.0	39	100.0	50	100.0	3	#
None	61	20.8	10	19.6	33	19.8	18	24.0	27	29.3	12	30.8	14	28.0	1	#
1 and more	232	79.2	41	80.4	134	80.2	57	76.0	65	70.7	27	69.2	36	72.0	2	#
1	91	31.1	13	25.5	47	28.1	31	41.3	25	27.2	10	25.7	13	26.0	2	#
2	53	18.1	15	29.4	30	18.0	8	10.7	19	20.7	7	17.9	12	24.0	0	-
3 and 4	53	18.1	11	21.6	37	22.1	5	6.7	12	13.0	7	17.9	5	10.0	0	-
5 and over[b]	35	11.9	2	3.9	20	12.0	13	17.3	9	9.8	3	7.7	6	12.0	0	-

[a]Excludes any period of unemployment not preceded by gainful work.

[b]Includes 4 men and 2 women who reported 10 and 9 periods, respectively.

#Base too small for calculation.

Table 36.- MEDIAN NUMBER OF MONTHS OF UNEMPLOYMENT AND MEDIAN LENGTH OF LONGEST PERIOD OF UNEMPLOYMENT, 1926-35, FOR WORKERS WHO ENTERED THE LABOR MARKET BEFORE 1926, BY THE NUMBER OF UNEMPLOYMENT PERIODS[a]

Number of unemployment periods[b]	Median number of months of unemployment		Median length of longest period of unemployment in months[b]	
	Men	Women	Men	Women
All workers	22.3	20.0	12.9	11.7
1	12.9	12.1	12.5	11.4
2	17.0	24.9	11.8	19.0
3 and 4	29.8	#	19.0	#
5 and over	50.3	#	11.8	#

[a]Derived from data for 293 men and 92 women.
[b]Excludes any period of unemployment not preceded by gainful work.
#Base too small for calculation.

Table 37.- WORKERS REPORTING ONE OR MORE EMPLOYER, INDUSTRIAL, AND OCCUPATIONAL SHIFTS AS A PERCENTAGE OF WORKERS REPORTING ONE OR MORE JOB SEPARATIONS, 1926-35, FOR WORKERS WHO ENTERED THE LABOR MARKET BEFORE 1926, BY SEX AND AGE

Type of shift	Men				Women			
	Age in years				Age in years			
	All ages	16-29	30-44	45 and over	All ages	16-29	30-44	45 and over
Employer	89.8	98.0	89.6	84.3	83.0	89.5	76.6	#
Industrial	96.1	98.0	96.9	92.9	79.5	84.2	74.5	#
Occupational	71.1	92.2	71.2	55.7	80.7	86.8	74.5	#

#Base too small for calculation.

Table 38.- MEN REPORTING ONE OR MORE EMPLOYER, INDUSTRIAL, AND OCCUPATIONAL SHIFTS AS A PERCENTAGE OF MEN REPORTING JOB SEPARATIONS, 1926-30 AND 1931-35, FOR MEN WHO ENTERED THE LABOR MARKET BEFORE 1926, BY AGE

Type of shift	1926-30				1931-35			
	Age in years				Age in years			
	All ages	16-29	30-44	45 and over	All ages	16-29	30-44	45 and over
Employer	80.3	91.3	80.9	69.6	61.0	67.5	59.4	60.0
Industrial	86.6	87.0	86.0	87.5	50.9	60.0	50.0	46.0
Occupational	62.6	89.1	61.0	44.6	55.5	65.0	57.0	44.0

Table 39.- NUMBER OF JOB SEPARATIONS AND EMPLOYER, INDUSTRIAL, AND OCCUPATIONAL SHIFTS, 1926-30 AND 1931-35, FOR MEN WHO ENTERED THE LABOR MARKET BEFORE 1926, BY AGE

Period and number of separations or shifts	Total		Age in years						Total[a]		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
1926-30	Job separations								Employer shifts							
Total	293	100.0	51	100.0	167	100.0	75	100.0	291	100.0	50	100.0	166	100.0	75	100.0
None	55	18.8	5	9.8	31	18.6	19	25.3	100	34.4	8	16.0	56	33.7	36	48.0
1 and more	238	81.2	46	90.2	136	81.4	56	74.7	191	65.6	42	84.0	110	66.3	39	52.0
1 and 2	149	50.9	26	51.0	84	50.3	39	52.0	144	49.5	29	58.0	81	48.8	34	45.4
3 and 4	61	20.8	15	29.4	33	19.7	13	17.4	31	10.6	9	18.0	18	10.9	4	5.3
5 and 6	20	6.8	2	3.9	14	8.4	4	5.3	10	3.4	2	4.0	7	4.2	1	1.3
7 and over	8	2.7	3	5.9	5	3.0	0	-	6	2.1	2	4.0	4	2.4	0	-
1931-35																
Total	293	100.0	51	100.0	167	100.0	75	100.0	293	100.0	51	100.0	167	100.0	75	100.0
None	75	25.6	11	21.6	39	23.4	25	33.3	160	54.6	24	47.1	91	54.5	45	60.0
1 and more	218	74.4	40	78.4	128	76.6	50	66.7	133	45.4	27	52.9	76	45.5	30	40.0
1 and 2	138	47.1	23	45.1	81	48.5	34	45.4	106	36.2	17	33.3	64	38.3	25	33.3
3 and 4	47	16.0	10	19.6	28	16.7	9	12.0	17	5.8	6	11.8	6	3.6	5	6.7
5 and 6	29	9.9	7	13.7	15	9.0	7	9.3	8	2.7	4	7.8	4	2.4	0	-
7 and over	4	1.4	0	-	4	2.4	0	-	2	0.7	0	-	2	1.2	0	-

1926-30	Industrial shifts								Occupational shifts							
Total	293	100.0	51	100.0	167	100.0	75	100.0	293	100.0	51	100.0	167	100.0	75	100.0
None	87	29.7	11	21.6	50	29.9	26	34.7	144	49.1	10	19.6	84	50.3	50	66.7
1 and more	206	70.3	40	78.4	117	70.1	49	65.3	149	50.9	41	80.4	83	49.7	25	33.3
1 and 2	165	56.3	30	58.8	91	54.5	44	58.7	118	40.3	28	54.9	66	39.5	24	32.0
3 and 4	29	9.9	7	13.7	18	10.8	4	5.3	20	6.8	9	17.7	10	6.0	1	1.3
5 and 6	8	2.7	1	2.0	6	3.6	1	1.3	7	2.4	2	3.9	5	3.0	0	-
7 and over	4	1.4	2	3.9	2	1.2	0	-	4	1.4	2	3.9	2	1.2	0	-
1931-35																
Total	293	100.0	51	100.0	167	100.0	75	100.0	293	100.0	51	100.0	167	100.0	75	100.0
None	182	62.1	27	52.9	103	61.7	52	69.3	172	58.7	25	49.0	94	56.3	53	70.7
1 and more	111	37.9	24	47.1	64	38.3	23	30.7	121	41.3	26	51.0	73	43.7	22	29.3
1 and 2	91	31.1	14	27.5	56	33.5	21	28.0	96	32.8	15	29.4	60	35.9	21	28.0
3 and 4	12	4.1	6	11.8	4	2.4	2	2.7	16	5.5	6	11.8	9	5.4	1	1.3
5 and 6	6	2.0	4	7.8	2	1.2	0	-	6	2.0	5	9.8	1	0.6	0	-
7 and over	2	0.7	0	-	2	1.2	0	-	3	1.0	0	-	3	1.8	0	-

[a]Excludes 2 men who did not report number of employer shifts.
#Base too small for calculation.

Table 40.- NUMBER OF JOB SEPARATIONS AND EMPLOYER, INDUSTRIAL, AND OCCUPATIONAL SHIFTS, 1926-35, FOR WORKERS WHO ENTERED THE LABOR MARKET BEFORE 1926, BY SEX AND AGE

Sex and number of separations or shifts	Total		Age in years						Total[a]		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
	Job separations								Employer shifts							
Total, men	293	100.0	51	100.0	167	100.0	75	100.0	291	100.0	50	100.0	166	100.0	75	100.0
None	9	3.1	0	-	4	2.4	5	6.7	36	12.4	0	-	20	12.0	16	21.3
1 and more	284	96.9	51	100.0	163	97.6	70	93.3	255	87.6	50	100.0	146	88.0	59	78.7
1 and 2	102	34.8	16	31.4	50	29.9	36	48.0	164	56.3	27	54.0	93	56.1	44	58.7
3 and 4	83	28.3	10	19.6	58	34.7	15	20.0	47	16.2	7	14.0	32	19.3	8	10.7
5 and 6	47	16.0	12	23.5	27	16.2	8	10.7	26	8.9	8	16.0	12	7.2	6	8.0
7 and over	52	17.8	13	25.5	28	16.8	11	14.6	18	6.2	8	16.0	9	5.4	1	1.3
Total, women	92	100.0	39	100.0	50	100.0	3	#	91	100.0	39	100.0	49	100.0	3	#
None	4	4.3	1	2.6	3	6.0	0	-	18	19.8	5	12.8	13	26.5	0	-
1 and more	88	95.7	38	97.4	47	94.0	3	#	73	80.2	34	87.2	36	73.5	3	#
1 and 2	41	44.6	18	46.1	21	42.0	2	#	53	58.2	21	53.9	30	61.2	2	#
3 and 4	27	29.3	12	30.8	14	28.0	1	#	16	17.6	11	28.2	4	8.2	1	#
4 and 5	9	9.8	5	12.8	4	8.0	0	-	2	2.2	2	5.1	0	-	0	-
5 and 6	11	12.0	3	7.7	8	16.0	0	-	2	2.2	0	-	2	4.1	0	-

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	Industrial shifts								Occupational shifts							
Total, men	293	100.0	51	100.0	167	100.0	75	100.0	293	100.0	51	100.0	167	100.0	75	100.0
None	20	6.8	1	2.0	9	5.4	10	13.3	91	31.1	4	7.8	51	30.5	36	48.0
1 and more	273	93.2	50	98.0	158	94.6	65	86.7	202	68.9	47	92.2	116	69.5	39	52.0
1 and 2	198	67.6	30	58.8	117	70.0	51	68.0	131	44.7	21	41.2	79	47.3	31	41.4
3 and 4	43	14.7	7	13.7	26	15.6	10	13.4	40	13.6	10	19.6	23	13.8	7	9.3
5 and 6	18	6.1	6	11.8	9	5.4	3	4.0	17	5.8	8	15.7	8	4.8	1	1.3
7 and over	14	4.8	7	13.7	6	3.6	1	1.3	14	4.8	8	15.7	6	3.6	0	-
Total, women	92	100.0	39	100.0	50	100.0	3	#	92	100.0	39	100.0	50	100.0	3	#
None	22	23.9	7	17.9	15	30.0	0	-	21	22.8	6	15.4	15	30.0	0	-
1 and more	70	76.1	32	82.1	35	70.0	3	#	71	77.2	33	84.6	35	70.0	3	#
1 and 2	60	65.2	25	64.1	32	64.0	3	#	52	56.5	22	56.4	27	54.0	3	#
3 and 4	8	8.7	7	18.0	1	2.0	0	-	14	15.2	8	20.5	6	12.0	0	-
4 and 5	1	1.1	0	-	1	2.0	0	-	4	4.4	3	7.7	1	2.0	0	-
5 and 6	1	1.1	0	-	1	2.0	0	-	1	1.1	0	-	1	2.0	0	-

[a]Excludes 2 men and 1 woman who did not report frequency of employer shifts.
#Base too small for calculation.

Table 41.- NUMBER OF SEPARATIONS FROM EMPLOYERS IN THE RADIO INDUSTRY AND FROM EMPLOYERS IN OTHER INDUSTRIES, 1926-35, FOR WORKERS WHO ENTERED THE LABOR MARKET BEFORE 1926, BY SEX AND AGE

Sex and number of separations	Separations from employers in -															
	The radio industry								Other industries							
	Total		Age in years						Total[a]		Age in years					
			16-29		30-44		45 and over				16-29		30-44		45 and over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total, men	293	100.0	51	100.0	167	100.0	75	100.0	292	100.0	50	100.0	167	100.0	75	100.0
None	116	39.6	27	52.9	62	37.1	27	36.0	36	12.3	1	2.0	18	10.8	17	22.7
1 and more	177	60.4	24	47.1	105	62.9	48	64.0	256	87.7	49	98.0	149	89.2	58	77.3
1 and 2	121	41.3	18	35.3	71	42.5	32	42.7	159	54.5	25	50.0	91	54.5	43	57.3
3 and 4	37	12.6	6	11.8	25	15.0	6	8.0	61	20.9	8	16.0	40	23.9	13	17.3
5 and over	19	6.5	0	-	9	5.4	10	13.3	36	12.3	16	32.0	18	10.8	2	2.7
Total, women	92	100.0	39	100.0	50	100.0	3	#	91	100.0	39	100.0	49	100.0	3	#
None	30	32.6	16	41.0	13	26.0	1	#	21	23.1	6	15.4	15	30.6	0	-
1 and more	62	67.4	23	59.0	37	74.0	2	#	70	76.9	33	84.6	34	69.4	3	#
1 and 2	42	45.7	17	43.6	23	46.0	2	#	52	57.1	22	56.4	28	57.2	2	#
3 and 4	12	13.0	6	15.4	6	12.0	0	-	16	17.6	10	25.6	5	10.2	1	#
5 and over	8	8.7	0	-	8	16.0	0	-	2	2.2	1	2.6	1	2.0	0	-

[a]Excludes 1 man and 1 woman who did not report number of separations from employers in other industries.
#Base too small for calculation.

APPENDIX B

SCHEDULE AND DEFINITIONS OF TERMS USED

WPA FORM #20

OCCUPATIONAL HISTORY SCHEDULE

I.	NAME	ENUMERATOR	DATE	CLEARANCE DATA
	ADDRESS	SCHEDULE NO.		

II.	AGE (A)	SEX (B)	RACE (C)	PLACE OF BIRTH / YEARS IN CITY / YEARS IN U. S. A. (D)	MARITAL STATUS (E)	SCHOOL GRADE COMPLETED (F)	AGE LEAVING SCHOOL / AGE BEGAN WORK (G)	H-1 USUAL OCCUPATION / H-2 USUAL INDUSTRY / H-3 YEARS AT USUAL	PRESENT EMPLOYMENT STATUS (I)

II.	TOTAL TIME UNEMPLOYED (J)	TOTAL SEPARATIONS (K)	TOTAL EMPLOYER SHIFTS (L)	TOTAL OCCUPATIONAL SHIFTS (M)	TOTAL INDUSTRY SHIFTS (N)	AVERAGE LENGTH OF SERVICE PER JOB (O)	AVERAGE LENGTH OF SERVICE PER EMPLOYER (P)

EMPLOYMENT HISTORY PRIOR TO 1926

IVa.	PERIOD: BEGINNING MO. (Q)	BEGINNING YR. (Q)	ENDING MO. (Q)	ENDING YR. (Q)	JOBS (OR UNEMPLOYMENT) OF MORE THAN ONE MONTH'S DURATION: OCCUPATION (R)	INDUSTRY (S)	NAME AND LOCATION OF EMPLOYER (T)	REASON FOR CHANGE (U)	CHARACTER OF EMPLOYMENT (V)
					FIRST JOB				
					LONGEST JOB				

EMPLOYMENT AND UNEMPLOYMENT HISTORY 1926-1936

IVb.	Q	R	S	T	U	V

WORKS PROGRESS ADMINISTRATION NATIONAL RESEARCH PROJECT

Note.- The reverse of the schedule provides for continuing the 1926-36 work history.

DEFINITIONS OF TERMS USED

Age: The person's age on his last birthday prior to the date of the interview was recorded.

Place of Birth: The country of birth was recorded for foreign-born persons; the State of birth, for native-born persons; and Philadelphia, for persons born in this city. The country of birth was recorded according to the national boundary lines at the time of the person's birth.

Years in City: The number of years in the city was defined as the length in years of the most recent period of continuous residence in Philadelphia, disregarding absences of less than 1 year.

Years in the United States: The number of years in the United States was defined as the number of years of residence in the United States since the date of last entry into the country. (This item was recorded for foreign-born persons only.)

School Grade Completed: The number of grades completed, which led directly to a grammar-school certificate or a high-school or college diploma, were counted as the school grade completed. Returns for foreign-born workers were converted to the terms in use in the present system in Philadelphia.

Age Leaving School: The age on leaving school was defined as the person's age on his last birthday prior to the date of his first leaving school for a consecutive period of more than 1 year.

Age Began Work: The age of beginning work was defined as the person's age on his last birthday prior to the date of his beginning his first full-time job[1] after leaving school.

Date of Entering the Labor Market: No specific question regarding the date of entering the labor market was asked, but when there was sufficient information on the schedule, calculations were made to determine this date. However, when there was a difference in the person's age between the time he had left school and the time he began work and when there was no record of the intervening period, the year in which he had left school was considered to be the date he entered the labor market.

Usual Occupation: The usual occupation was defined as the occupation which the person considered his usual or customary oc-

[1] See p. 99 for the definition of first job.

cupation. In cases of doubt, the occupation at which the person had worked longest was considered his usual occupation. Of two work experiences of equal length, the more recent was considered the usual.

Usual Industry: The usual industry was defined as the industry in which the person was normally employed. If he had been employed at his usual occupation in two or more industries, the industry at which he had worked longest was considered the usual one.

Years at the Usual Occupation: The number of years employed at the usual occupation was defined as the individual's estimate of the number of years he actually worked at what he considered to be his usual occupation. Years spent as a paid apprentice or helper were included, but years spent as an unpaid apprentice or as a foreman were not included.

Present Employment Status: As of May 1, 1936 the individual was classified as "employed" or "unemployed."

(a) *Employed persons* were defined as those who had a job[2] on May 1, 1936. Employment was considered full-time or part-time, according to the practice of the industry in May 1936.

(b) *Unemployed persons* were defined as those who did not have a job on May 1, 1936 but who were able and willing to work. Persons employed on Government emergency work and persons temporarily out of the labor market were included in this group.

Emergency work was used as an all-inclusive term to cover employment on work relief, Public Works projects, or Works Program projects whether financed by the city, the State, the Federal Emergency Relief Administration, the National Recovery Act of 1933, or the Emergency Relief Appropriation Act of 1935.

Persons who had been sick for less than 1 year but who were not permanently disabled were classified as temporarily out of the labor market.[3]

Job: A job was defined as continuous paid service at one occupational assignment for one employer for 1 month or more. (Employment on emergency work did not constitute a job, since emergency work employment was classified as unemployment.)

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[2] See below for the definition of a job.

[3] Women who were occupied with household duties and not seeking work on May 1, 1936 but who had reentered the labor market and were seeking work at the time of the interview were classified as temporarily out of the labor market and therefore have been included in the study.

When persons were working on their own account for 1 or more months, they were considered to have jobs. Persons who had casual work, such as longshoremen, truck drivers, and day workers, were considered to have jobs if they worked at the occupation for 1 month or more even though the work was for more than one employer. When persons were on sick leave with pay or vacation with pay, they were considered to have jobs.

(a) *First Job:* The first job was defined as the first full-time paid job after leaving school permanently. Summer jobs between school sessions and any jobs held while the individual was out of school for a period of only 1 year or less were not counted as the first job.

(b) *Longest Job:* The longest job was defined as the longest job beginning prior to 1926 for persons who had entered the labor market before that time. For persons who had entered the labor market during or after 1926, it was the longest job they had ever held. Of two jobs of equally long duration, the more recent one was considered the longest job.

(c) *Last Job:* The last job was defined as the last job beginning on or prior to May 1, 1936.

Time Elapsed Between Jobs: Periods of 1 month or more of unemployment or of time not seeking work between January 1926 and the time of interview were recorded on the schedule.

Unemployment periods included any time during which the individual was employed on emergency work, as well as time during which he did not have a job but was able and willing to work.

Time not seeking work included periods during which the individual was out of the labor market because he was sick (and not receiving pay), on strike, attending school, retired and living on income, or for personal reasons such as household duties.

Duration of Unemployment Since Last Job: The duration of unemployment since the last job was defined as the time unemployed (including time employed on emergency work) between the date of leaving the last job and May 1, 1936. This of course has application only to those who were unemployed on May 1, 1936.

Occupation: In recording occupations, the kind of work done on each job was stated as exactly as possible. The occupations were coded according to an adaptation of Bulletin No. 3, Occupation Code, Works Progress Administration, National Research Proj-

ect in cooperation with Industrial Research Department of the University of Pennsylvania (mimeo., April 1936).

Persons who owned an establishment and also worked in it were classified as owners. The term "factory laborer" was used only for persons who fetch and carry materials to and from the production workers or clean up after them. The occupations of production workers or factory hands were classified in accordance with the process or operation on which the workers were engaged.

Industry: In recording industries, the exact type of business or product made was specified, and general terms were avoided as much as possible. Industries were coded according to an adaptation of Bulletin No. 4, Industry Code, Works Progress Administration, National Research Project in cooperation with Industrial Research Department of the University of Pennsylvania (mimeo., April 1936).

Reason for Change in Job: In entering the reason for leaving a job, the exact statement of the respondent was recorded as nearly as possible.

Character of Employment: Employment was classified either as full-time or part-time according to the practice of the industry during the time for which the information was obtained. In instances when employment with a firm had been both full-time and part-time but the respondent could not recall the exact dates of change, the character of employment was designated as combined full-time and part-time employment. When persons were working on their own account, the employment was classified as "self-employment."[4]

Both full- and part-time employment were further classified as "regular", "casual", or "intermittent." Casual employment was defined as work for one or more employers contracted for by the hour or by the day, as in the case of day workers in domestic service or laborers at odd jobs or by the load handled, as in the case of longshoremen and jobbing truck drivers. The term "intermittent" was used to identify the employment of workers who constitute a labor reserve in industries in which employment is usually not of a casual nature. The work of spare hands and contingent crews on call for a particular employer or of extra crews hired to complete orders in the rush season was classified

[4]The amount of self-employment was very small; so it was distributed proportionately between full-time and part-time employment in determining the average number of months at each type of employment experience.

as intermittent. Regular employment included all work arising from paid service with one employer except that of a casual or intermittent nature.

Time Employed at the Usual Occupation: The time employed at the usual occupation from 1926 to 1935 included only the time the person was employed at occupations which had been assigned the same code number as that of the usual occupation.

Time Employed at Other Than the Usual Occupation: The time employed at occupations other than the usual one included the time the person was employed at all occupations which had been assigned code numbers different from that of the usual occupation.

Time Employed in the Usual Industry: The time employed in the usual industry from 1926 to 1935 included only the time the person was employed in industries which had been assigned the same code number as that of the usual industry.

Time Employed in Other Than the Usual Industry: The time employed in industries other than the usual one included the time the person was employed in all industries which had been assigned code numbers different from that of the usual industry.

Average Length of Service per Job at the Usual Occupation: In computing the average length of service per job at the usual occupation, only employment between January 1926 and December 1935 was included. Only jobs assigned the same occupational code number as that of the usual occupation were considered to be at the usual occupation.

Average Length of Unemployment Periods: In computing the average length of unemployment periods, only unemployment between January 1926 and December 1935 was included. Employment at emergency work was considered to be unemployment.

Separations From Jobs: Leaving one job to go to another, to become unemployed, or to experience a period of not seeking work was counted as separation from a job. Because of the definition of a job, a change from one occupation to another during continuous employment with one firm was counted as a job separation. On the other hand, a change in character of employment or in industry during continuous employment at one occupational assignment for one employer was not counted as a job separation.

Employer Shifts: An employer shift was defined as a change from one firm name to another,[5] whether or not a period without work intervened. A change in location of the plant alone was not considered to be an employer shift; neither was a shift by the worker from one plant to another plant operated by the same firm. For casual work, "odd jobs" or "various employers" was sometimes recorded instead of an employer's name. These entries were treated as one employer, and the number of employer shifts determined accordingly.

Occupational Shift: An occupational shift was defined as a change from one occupation to another, whether or not a period without work intervened. These shifts were determined on the basis of the occupational code numbers.

Industrial Shift: An industrial shift was defined as a change from one industry to another, whether or not a period without work intervened. These shifts were determined on the basis of the industrial code numbers.

Separations From Employers: A separation from an employer was defined as the act of leaving one employer to go to another, to become unemployed, or to experience a period of not seeking work.

[5]The change from Victor Talking Machine Company to R C A and the change from Philadelphia Storage Battery to Philco Radio was not counted as an employer shift because the local management remained the same even though the firm name and the product manufactured changed.