

UNITED STATES DEPARTMENT OF LABOR

W. N. DOAK, Secretary

CHILDREN'S BUREAU

GRACE ABBOTT, Chief

EMPLOYED BOYS AND GIRLS  
IN MILWAUKEE

By

ALICE CHANNING



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## LETTER OF TRANSMITTAL

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UNITED STATES DEPARTMENT OF LABOR,  
CHILDREN'S BUREAU,  
*Washington, June 30, 1932.*

SIR: Herewith is transmitted a report on the Employed Boys and Girls in Milwaukee.

The investigation upon which this report was based was planned and carried out under the general supervision of Ellen Nathalie Matthews, formerly director of the industrial division of the Children's Bureau, and was one of several studies undertaken to find out the kinds of work open to boys and girls and the effect of age and education upon their occupations and the stability of their employment. Harriet A. Byrne was in charge of the field work, and Alice Channing has written the report.

Thanks are due to the officials of the Milwaukee Vocational School for their cooperation and the use of their records. Acknowledgment is also made of the help given by the public and parochial schools and the officials of the Milwaukee office of the Industrial Commission of Wisconsin.

Respectfully submitted.

GRACE ABBOTT, *Chief.*

Hon. W. N. DOAK,  
*Secretary of Labor.*

v

# EMPLOYED BOYS AND GIRLS IN MILWAUKEE

## INTRODUCTION

This study of employed minors in Milwaukee, Wis., is one of a series of studies of the employment histories of wage-earning boys and girls in different cities. The purpose of these studies is to find out what kinds of jobs are actually held by boys and girls who go to work before they are 18 years old, and the extent to which sex, age at beginning work, and amount and type of education affect their wages and the extent and stability of their employment. To obtain as large a basis for conclusions as possible a series of studies were made in Newark and Paterson (N. J.), and in Rochester and Utica (N. Y.), as well as in Milwaukee. These studies<sup>1</sup> present conditions during a normal period, having been made before the peak of the industrial expansion which antedated the present depression. Two earlier bureau studies of children under 16 employed on work certificates were made in Boston (Mass.), and in Connecticut.<sup>2</sup> Other studies of selected groups of young workers have been published, chiefly by State and local educational authorities.<sup>3</sup>

The city of Milwaukee with its diversified industries,<sup>4</sup> including iron and steel and other metal establishments, hosiery and knitting mills, men's clothing, glove, shoe, candy, paper-box, and other factories, offers a variety of occupational opportunities to minors. The number of employed minors in Milwaukee was sufficiently large to use as a basis for a study of young workers, although the number employed under 16 years of age decreased considerably between 1920 and 1925, the year the study was made, owing to the raising in 1920 and 1921 of the educational requirements of the child labor laws. In 1920 there were 4,617 employment certificates issued in Milwaukee by the State industrial commission to children of 14 and 15 years and 1,190 to children of 16 years who went to work during school hours for the first time;<sup>5</sup> corresponding figures for the 12 months ended December, 1924, show that 1,926 certificates were issued to children of 14 and 15 years and 1,080 to those of 16 years.<sup>6</sup>

<sup>1</sup> Child Labor in New Jersey—Part 3. The Working Children of Newark and Paterson, by Nettie P. McGill (U. S. Children's Bureau Publication No. 199, Washington, 1930); Employed Boys and Girls in Rochester and Utica, N. Y. (in preparation).

<sup>2</sup> The Working Children of Boston, a study of child labor under a modern system of legal regulation, by Helen Sumner Woodbury, Ph. D. (U. S. Children's Bureau Publication No. 89, Washington, 1922); Industrial Instability of Child Workers, a study of employment-certificate records in Connecticut, by Robert Morse Woodbury, Ph. D. (U. S. Children's Bureau Publication No. 74, Washington, 1920).

<sup>3</sup> For a list of these studies, see list of references, p. 70.

<sup>4</sup> Fourteenth Census of the United States, 1920, vol. 4, Population, Occupations, p. 171 (Washington, 1923), and vol. 9, Manufactures, Reports for States, p. 1626 (Washington, 1923).

<sup>5</sup> Child Labor in Wisconsin, 1917-1922, p. 6. Industrial Commission of Wisconsin, Madison, June 1, 1923.

<sup>6</sup> For figures for children of 14 and 15 years see Fourteenth Annual Report of the Chief of the Children's Bureau, 1926, p. 15. For children 16 years of age figures were furnished by the Industrial Commission of Wisconsin.

Wisconsin is one of the States in which the employment of children is regulated by relatively advanced legislation. As in many of the States, 14 is the minimum age at which a child may be regularly employed during the hours when school is in session, and since June, 1921, children between 14 and 16 years of age may be employed only when they have completed the eighth grade or have attended school nine years. Unlike the laws of most States which require children to attend school full time unless they are employed, the Wisconsin law allows a child who has reached 14, the legal age for employment, to drop out of the regular full-time day school if he has completed the eighth grade, even though he is not employed. On the other hand, the age up to which employed children in Wisconsin, except indentured apprentices and those employed in certain exempted occupations, as in agriculture, are required to have work certificates is higher than in most States. The requirements for continuation-school attendance in Wisconsin are also relatively high. It is one of the few States which require all boys and girls who are not attending full-time day school (except those who have graduated from high school) to attend continuation school at least eight hours a week up to the end of the term in which they become 18 years of age.<sup>7</sup> Apprentices, who under the apprenticeship law may be indentured between the ages of 16 and 21, must, like other employed minors, attend continuation school during the first two years of their apprenticeship, regardless of their age when indentured, but they attend only four hours a week.

An attempt was made to include in the present study all the employed minors under 18 in Milwaukee. This study includes all the minors who, at the time of the study, in conformity with the requirements of the Wisconsin continuation school law, were enrolled as part-time day-school pupils in the continuation school, locally called the Milwaukee Vocational School. In addition, high-school graduates under 18 who were or had been employed were located through the high schools they had last attended and were interviewed. An effort was made to find through the school census the boys and girls who were employed but were not attending continuation school as they were legally required to do; this, however, proved to be impracticable.

In order to find out to what extent nonworking eighth-grade graduates between 14 and 16 and unemployed minors between 16 and 18 were using their legal privilege of being excused from regular day-school attendance, information was also obtained concerning minors between the ages of 14 and 18 who had not been employed but had left regular school and who, as they were not high-school graduates, were required to attend continuation school.

In the present study information was sought concerning the ages of young workers at leaving the regular full-time school, the grades they had completed, the types of occupations in which they were employed when they first started to work and at the time the study was made, their wages, the number of positions they had held, the amount of their unemployment, and the relation of their education and their ages to the kinds of occupations they entered and to the wages they received.

<sup>7</sup> A law requiring half-time attendance at continuation school for children under 16 was passed in 1921 (to be fully operative in 1923) but had not been put into effect in Milwaukee at the time the study was made.

The vocational-school records furnished information regarding the school history of the young workers in both full-time and part-time schools, including the age and date at which they had left full-time school and entered part-time school, and also some information regarding their work histories, such as the date they had first started work and the kind of work in which they were employed. For those under 17 years of age this information was supplemented from records of the Milwaukee work-certificate office of the Wisconsin Industrial Commission. Since according to the law a minor is required to have an employment certificate for each job until he is 17, except in certain occupations such as farm work, these records furnished information about all the jobs for which work certificates were required and in which the child had been legally employed. This information included the date the certificate was issued and the date it was returned, the name of the occupation, and the wages received.

In some cases it was not possible to identify the names of the children at the work-certificate office, and in other cases the records from both sources, the vocational school and the work-certificate office, were incomplete or conflicting. In all cases in which the records were incomplete the young workers were interviewed, at the school, in their homes, or at their places of employment, except for a number who could not be found because they were no longer in attendance at the vocational school or because the address of their homes or places of employment could not be found. For the children who were interviewed information was obtained concerning the number of positions they had had, the duration of their first and last positions, and the extent of their unemployment, points on which it was not possible to get complete accounts from records. It is possible that, because a relatively large number of these individuals whose records from various sources were incomplete had held more than one position and had been unemployed between positions, the amount of their unemployment and the number of changes in their positions may be slightly greater than for the noninterviewed group.

The groups included in the study were as follows:

Total.....	10, 320
Boys and girls who had been employed.....	9, 207
Employed minors, vocational school.....	8, 930
Indentured apprentices, vocational school.....	231
High-school graduates.....	46
Boys and girls who had never been employed.....	1, 113

The group given the most intensive study comprised 9,207 boys and girls—231 apprentices and 8,930 other employed minors—who had been employed at some time since leaving regular school and who were enrolled in the vocational school,<sup>8</sup> and 46 high-school graduates. Of the 8,930 enrolled in the vocational school 760 (9 per cent) had recently passed their eighteenth birthdays and were attending part-time school until the end of the term. Of the 9,207 employed boys

<sup>8</sup> The Milwaukee Vocational School enrollment included besides the part-time day pupils, whose attendance was regulated by law, a number of voluntary pupils who were receiving full-time day instruction in commercial subjects or special vocational training not available at the regular schools, and apprentices up to the age of 21. Figures showing the total number of pupils enrolled in the school the week of the survey were not available; during the school year 1924-25 there were 16,355 day-school pupils and 10,747 night-school pupils enrolled.

and girls included in the study, bureau representatives interviewed 3,819. (Table 1.) The minors for whom records of employment could not be obtained and who were not interviewed because they could not be located (581 in number) have been excluded from all the following discussions on employment. Of the 1,113 minors who had left regular school but had never been employed 243 were boys and 870 were girls.

The 8,447 employed boys and girls under 18, including the apprentices and high-school graduates, are believed to constitute most of the employed minors under this age in the city at the time of the inquiry, although no doubt others were employed in violation of the law who were not enrolled at the vocational school. A general idea of the proportions of those of the various ages who were employed may be obtained by computing the percentage which the minors included in the study were of the minors of corresponding ages found through the school census to be resident in the city. The working children of 14 years included in the study were but 3 per cent of the total number of children of this age living in the city according to school-census figures, but working children constituted 17 per cent of the children 15 years of age. The employed minors of 16 and 17 years were 43 and 55 per cent, respectively, of the minors of these ages resident in the city.<sup>9</sup>

TABLE 1.—*Employed minors and indentured apprentices enrolled in the Milwaukee Vocational School January 31, 1925, and high-school graduates who had been employed at some time since leaving regular school*

Groups included in study, and sex	Total	Number inter- viewed	Number not inter- viewed	
			Work records obtained	Work records not obtained
Total.....	9,207	3,819	4,807	581
Employed minors, vocational school.....	8,930	3,613	4,736	581
Indentured apprentices, vocational school.....	231	160	71	
Employed high-school graduates.....	46	46		
Boys.....	4,479	2,117	2,003	359
Employed minors, vocational school.....	4,228	1,937	1,932	359
Indentured apprentices, vocational school.....	231	160	71	
Employed high-school graduates.....	20	20		
Girls.....	4,728	1,702	2,804	222
Employed minors, vocational school.....	4,702	1,676	2,804	222
Employed high-school graduates.....	26	26		

<sup>9</sup> The school-census figures are as of June, 1924, six months before the date of the study. For school-census figures see Sixty-fifth Annual Report of the Board of School Directors of the City of Milwaukee, Wis., 1924, p. 163.

## THE EMPLOYED MINORS OTHER THAN APPRENTICES

The 8,930 employed boys and girls enrolled in vocational school and the 46 high-school graduates included individuals of all ages from 14 to 18, inclusive. The length of the possible work histories (that is, the time between the date of beginning work and the date of the study) ranged from a few days for those who had just left school to four years for those who had left school at the age of 14 and were 18 at the time the inquiry was made.

The girls somewhat outnumbered the boys, partly because they left school at slightly earlier ages than the boys. The proportion of girls and boys among young workers varies considerably from city to city, to judge from studies which have been made in other cities and the number of employment certificates issued to those of each sex. No doubt this depends partly on local custom and partly on the opportunities for work for each sex.<sup>10</sup>

More than four-fifths of the young workers enrolled in the Milwaukee Vocational School were at least 16 years of age at the time of the inquiry. Three per cent of each sex were under 15 years of age. (Table 2.<sup>11</sup>) Practically none of those who had reached the age of 18 had passed his eighteenth birthday more than three months before the date of the study. With one exception the high-school graduates were 17 years of age.

TABLE 2.—Age January 31, 1925, of employed boys and girls enrolled in the Milwaukee Vocational School

Age Jan. 31, 1925	Total		Boys		Girls	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Total.....	8,930	100	4,228	100	4,702	100
Under 14 years.....	1	( <sup>1</sup> )	—	—	1	( <sup>1</sup> )
14 years.....	255	3	114	3	141	3
15 years.....	1,308	15	663	16	645	14
16 years.....	3,104	35	1,477	35	1,627	35
17 years.....	3,502	39	1,638	39	1,864	40
18 years and over.....	760	9	336	8	424	9

<sup>1</sup> Less than 1 per cent.

## TERMINATION OF REGULAR SCHOOLING AND BEGINNING OF WORK EXPERIENCE

### Age at leaving school.

More than four-fifths of the boys and girls enrolled in the vocational school for whom the age on leaving regular school was reported (82 per cent of the boys and 86 per cent of the girls) had left school before

<sup>10</sup> See especially the following studies: The Working Children of Newark and Paterson, pp. 16, 56; The Working Children of Boston, pp. 15-16; Part Time School and the Junior Worker in the City of Seattle, Wash., p. 13 (State Board for Vocational Education, Olympia, 1929); Robinson, Claude E.: Child Workers in Two Connecticut Towns, pp. 16-17 (National Child Labor Committee, New York, 1929); Sixteenth Annual Report of the Chief of the Children's Bureau, 1928, p. 21.

<sup>11</sup> The figures in Table 2 and the following tables do not include high-school graduates.

they were 16 years of age—36 per cent of the boys and 46 per cent of the girls at the age of 14 or before they were 14.<sup>12</sup> (Table 3.) The children who left school before they were 14 were for the most part within a few months of their fourteenth birthday. Many of them had left school in June and were 14 by the time school opened in the fall. All but five of the high-school graduates were either 16½ or 17 years of age when they left school.

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<sup>12</sup> The age at leaving regular school was not reported for 1,909 pupils enrolled in the vocational school, but there is no reason to suppose that it differed from that of the 7,021 pupils for whom the information was obtained.

THE EMPLOYED MINORS OTHER THAN APPRENTICES

TABLE 3.—Age at leaving regular school and last grade completed by employed boys and girls enrolled in the Milwaukee Vocational School

Last grade completed, and sex	Employed boys and girls												
	Total		Under 14 years				Age at leaving regular school				Age not reported		
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	
Boys.....	4,228		157		1,024		1,496		537		37	977	
Grade reported.....	4,203	100	157	100	1,023	100	1,488	100	530	100	36	969	100
Fifth grade or less.....	97	2	4	3	25	2	38	3	9	2		21	2
Sixth grade.....	322	8	6	4	76	7	129	9	25	5		84	6
Seventh grade.....	538	13	3	2	105	10	246	17	70	13	2	112	12
Eighth grade.....	2,045	49	134	85	687	67	662	44	174	27	12	408	42
Ninth grade.....	449	11	5	3	78	8	131	12	78	15	17	100	10
Tenth grade.....	246	6	1	1	3	(1)	71	5	13	2	11	40	4
Eleventh grade or higher.....	32	1					1	(1)	1	(1)	0	1	1
Commercial.....	113	3					155	10	70	13		113	12
Prevocational.....	350	8	4	3	46	5	5	(1)	2	(1)		73	8
Special class.....	11	(1)			1	(1)	8		7		1	3	(1)
Grade not reported.....	25				1						19	932	
Girls.....	4,702		296		1,438		1,505		512		18	926	
Grade reported.....	4,679	100	294	100	1,436	100	1,500	100	505	100	18	926	100
Fifth grade or less.....	79	2	5	2	36	3	21	1	6	1		11	1
Sixth grade.....	279	6	12	4	61	6	107	7	27	5		46	5
Seventh grade.....	553	12	16	5	141	10	245	16	71	14	1	84	9
Eighth grade.....	2,245	48	236	80	989	69	653	44	60	20	2	264	28
Ninth grade.....	230	5	7	2	84	6	98	7	50	10	2	19	2
Tenth grade.....	231	5			8	1	94	6	99	20	4	26	3
Eleventh grade or higher.....	21	(1)	1	(1)			3	(1)	7	1	4	315	34
Commercial.....	313	7					238	16	123	24	5	140	15
Trade school.....	636	14	15	5	114	8	38	3	20	4	4	14	1
Prevocational.....	78	2	2	1	1	(1)	6	(1)	3	1		14	2
Special class.....	12	(1)											
Grade not reported.....	23		2		2		5		7		1	6	

\* Less than 1 per cent.

1 Per cent distribution not shown because number of boys and number of girls was less than 50.

The tendency of girls to leave school at a slightly younger age than boys has been noted in several other studies of working children. In the Children's Bureau study made in Boston in 1918 the working girls were found to leave school somewhat earlier than the boys, and this was also the case in Newark and Paterson, N. J., in 1925. According to a study made by the National Child Labor Committee in two Connecticut towns, the same tendency existed there.<sup>13</sup> This tendency is due in part at least to the fact that girls tend to be a little more advanced in school than boys of the same ages and thus finish the educational requirements for leaving school at an earlier age.<sup>14</sup>

The requirement of an eighth-grade education for children who leave school before they are 16 tends to keep Milwaukee children in school, especially children who are overage for their grades, longer than would a lower grade requirement. The provision for eighth-grade graduation or nine years' school attendance in Wisconsin has been in effect since June 7, 1921, when it superseded a provision for seventh-grade completion or eight years' school attendance. The eighth-grade requirement was in effect during practically all the 4-year period when the children included in the study were leaving school. A much smaller proportion of Milwaukee children who left school while still under 16 left before they reached 15 than in other cities where the grade requirements were lower and where similar studies were made—44 per cent of the boys and 54 per cent of the girls in Milwaukee as compared with, for example, 80 per cent of the boys and 89 per cent of the girls in Newark and 95 per cent of the children in Boston.<sup>15</sup> A fifth-grade requirement was in effect in Newark and a sixth-grade requirement in Boston at the time those studies were made.

#### School attainment.

Information as to the grade completed at the time of leaving regular school was obtained for most of the boys and girls who had last attended the regular elementary grades of the public and parochial schools, for most of those who had last attended academic high schools, and for boys who had attended the technical high school. It was not, however, possible to obtain this information for girls who had last been in the Girls' Trade School nor for either boys or girls who had attended prevocational or business schools or commercial classes. The great majority, when they left school for work, were equipped with at least an eighth-grade education or some type of industrial or vocational training, or both. (Table 3.) Two-thirds (66 per cent) of the boys, including 11 per cent who had been in technical high schools, had completed the eighth or a higher grade; in addition, 3 per cent who had last attended commercial classes or business schools were probably eighth-grade graduates. Almost all the remaining number had last attended prevocational schools, which are especially organized to meet the needs of children who fail to adjust themselves to the school work of the regular grades, and these were probably not eighth-grade graduates. Among the girls 58 per cent had com-

<sup>13</sup> The Working Children of Newark and Paterson, p. 8; The Working Children of Boston, p. 105; Child Workers in Two Connecticut Towns, pp. 16-17.

<sup>14</sup> Figures published by the United States Bureau of Education for boys and girls of 900 city school systems show that the proportion of boys of 14, 15, and 16 years who are overage for their grades is somewhat greater than the proportion of girls of the same ages. Bureau of Education Statistical Circular No. 8 (May, 1927), Table 6.

<sup>15</sup> The Working Children of Newark and Paterson, p. 9; The Working Children of Boston, p. 104.

pleted the eighth or a higher grade, and an additional 7 per cent who had had training in business or commercial classes after they left regular school had also probably completed the eighth grade. A small proportion of the girls had last attended the Girls' Trade School. Many of these, as well as the girls who had been in prevocational and special classes, were probably not eighth-grade graduates.

A slightly larger proportion of the employed boys enrolled in continuation school than of the girls (20 per cent and 14 per cent respectively) had last attended academic high schools; 17 per cent of the boys as compared with 10 per cent of the girls for whom there was information concerning grade or type of school attended, had finished one or more years of academic high school. The greater tendency of boys to attend high schools was also found among children in Newark, N. J.<sup>16</sup> On the other hand, only 9 per cent of the boys but 14 per cent of the girls had attended trade or technical high schools.

For admission to both the Boys' Technical High School and the Girls' Trade School at the time of the study, completion of the sixth grade was necessary; the Boys' Technical High School gave courses through the twelfth grade, the Girls' Trade School through the tenth.<sup>17</sup> At the Boys' Technical High School trade instruction was given in machine work and tool making, drafting, plumbing, pattern making, electrical work, carpentry and cabinet making, and printing. The Girls' Trade School offered courses in domestic science, millinery, dressmaking, music, typewriting, and other commercial work. No information could be obtained concerning the number of years of training the boys and girls had had in these schools; 44 per cent of the employed boys from the technical high school had completed the eighth grade and in addition 38 per cent, the ninth or a higher grade. The children, many more of whom were boys than girls, who had attended the prevocational classes had also received instruction in hand or industrial work but no training which would be considered as preparation for any specific trade.

There appeared to be a tendency for the Milwaukee children who went to work under 18 to leave regular school as soon as they legally could. The proportion of those who remained in school after they were 16 was not large (16 per cent), and only a small proportion of those leaving school before they were 16 had completed a grade higher than the eighth. (Table 3.) Only 8 per cent of the girls and 13 per cent of the boys for whom age and grade information was obtained and who left school before they were 16 had completed one or more years of high school. On the other hand, 24 per cent of the boys and 21 per cent of the girls who left school before they were 16 had not graduated from the eighth grade. According to figures published by the Industrial Commission of Wisconsin concerning the school attainments of Milwaukee children under 16 to whom regular work permits were issued during the year ended June 30, 1924, 20 per cent had left school before finishing the eighth grade, but most of these had attended school for nine years.<sup>18</sup> Probably one reason why this proportion was slightly larger for children included in the present study is that some of them had left school before June, 1921, when

<sup>16</sup> The Working Children of Newark and Paterson, pp. 8-9.

<sup>17</sup> Sixty-fifth Annual Report of the Board of School Directors of the City of Milwaukee, Wis., 1924, p. 27.

<sup>18</sup> Wisconsin Labor Statistics, vol. 4, Nos. 1 and 2 (January and February, 1926), p. 4, Table VI. Industrial Commission of Wisconsin, Madison.

the present educational requirements went into effect; another reason is that some of them were at least 15½ years when they left school in June and reached their sixteenth birthday before school opened in the fall.

Since grade information could not be obtained for children in pre-vocational and trade classes and grade or age information for many other employed children was lacking (no information being obtained on one or both of these points for 2,799 children), it is not possible to give representative figures for the amount of retardation among employed minors attending the vocational school, nor can the comparative amount of retardation among employed and full-time school children of the city be learned. Studies which have been made concerning the intelligence of school and working children, including one study of the intelligence of continuation-school pupils in Wisconsin, have demonstrated that although on the whole the intelligence quotients of working children average lower than those of school children of corresponding ages, there is a wide range of mental ability among the working group and that a considerable proportion of children of superior mentality are included among them.<sup>19</sup>

In Milwaukee, as in other places where it is the custom for large numbers of children to leave school for work as soon as it is legally possible, the operation of a relatively low age and high grade requirement of the school and child labor laws allows the brighter children who are able to complete the eighth grade by the time they are 14 to leave school and go to work at earlier ages than the children who are backward in school. According to the information available with regard to progress in school for 2,629 boys and 2,908 girls who had last attended regular grades, only 10 per cent of the boys and 8 per cent of the girls who went to work at 14 were overage for their grades. On the other hand, 26 per cent of the boys and 24 per cent of the girls who entered employment at 15 years and 47 per cent of each sex who started work at 16 were retarded in school.<sup>20</sup> Relatively more of the children of each sex who began work at 14 were in advanced grades for their ages than the children who were 15 or 16 when they left school.

#### Interval between regular school and work.

On the whole the boys and girls in the present study did not lose a great deal of time between school and work; that is, during the time school was in session. The interval between the date they left school and the date they went to work, not including the school vacation period, was less than one month for 79 per cent of the boys and for 67 per cent of the girls for whom this information was obtained. For a considerable number, including all those who had last attended commercial classes, the date of leaving school was not learned and

<sup>19</sup> Woolley, Helen Thompson, Ph. D: *An Experimental Study of Children*, pp. 313, 330 (New York, 1926); Hopkins, L. Thomas: *The Intelligence of Continuation-School Children in Massachusetts*, pp. 117-119 (Cambridge, 1924); Stine, J. Ray: *A Comparative Study of Part-time and Full-time Students in the Public Schools of Toledo, Lima, and Fremont, Ohio*, pp. 44-45 (Ohio State Board for Vocational Education, Columbus, 1927); Meeredy, Mary: *Continuation Education for Employed Minors in California, California Part-time Youth*, pp. 6, 7 (Los Angeles, 1928); Clark, Ruth Swan: *The Continuation School* (Survey, vol. 45 (January 8, 1921), pp. 541-542); Sudweeks, Joseph: *Intelligence of Continuation-School Pupils in Wisconsin* (Journal of Educational Psychology, vol. 18 (December, 1927), pp. 601-611).

<sup>20</sup> Retardation has been calculated according to the standards of the United States Office of Education; that is, children of 6 and 7 are expected to enter the first grade, children of 7 and 8 the second grade, etc. They are normally expected to complete one grade each year. Children are therefore considered overage for their grades if they have not entered the sixth grade at the age of 12, the seventh grade at the age of 13, and the eighth grade at the age of 14.

therefore the time elapsing between school and work could not be calculated. There is no reason to suppose, however, that those children lost either more or less time than the others.

The interval between leaving regular school and going to work was on the whole somewhat shorter for the boys and the girls who went to work before they were 16 than for those who began at a later age. This may be because the younger children attended school until they actually found work, whereas many children who became 16 during the school year left school as soon as they reached their sixteenth birthday but did not at once get employment; it is unlikely that it was easier for the younger children to find employment than for the older ones. There were, however, a considerable number of children under 16—209 boys (12 per cent) and 430 girls (20 per cent)—who were neither at school nor at work for at least two months during the time school was in session; a small number let a whole school year elapse (that is, nine or more months) before finally going to work. No doubt one of the reasons why so many children under 16 were neither at school nor at work was the fact that, as was previously noted, those who had completed the eighth grade were not legally required to be attending regular school even though not employed. According to a Children's Bureau study made in 1918 of working children under 16 in Boston, where the child labor law requires children of this age to be in school unless they are employed, the interval between school and work was somewhat shorter than it was for children in the present study. Fifteen per cent of the Boston children as compared with 26 per cent of the Milwaukee children lost as much as a month's school time between leaving school and going to work.<sup>21</sup>

#### Age at beginning regular work.

Nearly one-third of the working minors whose work records were obtained<sup>22</sup> (28 per cent of the boys and 33 per cent of the girls) entered regular employment after leaving school at the age of 14, the minimum age at which children may go to work on employment certificates during the school term. (Table 4.) A small number of boys and girls started work before they were 14. Most of these were within a few months of their fourteenth birthday; some of them started work in the summer vacation and were 14 by the time school opened in the fall. Before reaching the age of 16 three-fourths of the children, the same proportions of the two sexes, were at work. Practically all the graduates of high school were at least 16 years and 6 months of age when they entered employment. The slightly larger proportion of girls beginning work at 14 is partly due to the somewhat earlier age at which girls complete the grade requirements for leaving school, as has been noted, and is due also, no doubt, to the greater opportunities for work open to them in Milwaukee.

Some of the boys and girls had done part-time work while they were attending school or had worked during summer vacations before leaving school. Twenty-four per cent of the boys and 21 per cent of the girls who were interviewed had been employed at some time before leaving school, usually during the summer vacation. Reliable information on this point was not available for the group of children who were not interviewed.

<sup>21</sup> The Working Children of Boston, p. 106.

<sup>22</sup> Excluding 581 minors whose work records were not obtained.

TABLE 4.—Time of year and age at beginning regular work of employed boys and girls whose work records were obtained and who were enrolled in the Milwaukee Vocational School

Age at beginning regular work, and sex	Employed boys and girls whose work records were obtained						Not reported
	Total		Time of year at beginning regular work				
	Number	Per cent distribution	June to August		September to May		
			Number	Per cent distribution	Number	Per cent distribution	
Boys.....	3,869		1,415		2,405		49
Age reported.....	3,812	100	1,407	100	2,402	100	3
Under 14 years.....	16	( <sup>1</sup> )	7	( <sup>1</sup> )	9	( <sup>1</sup> )	
14 years.....	1,080	28	474	34	612	25	
15 years.....	1,685	44	664	47	1,020	42	1
16 years.....	945	25	251	18	694	29	
17 years and over.....	80	2	11	1	67	3	2
Age not reported.....	57		8		3		46
Girls.....	4,480		1,763		2,676		41
Age reported.....	4,431	100	1,761	100	2,669	100	1
Under 14 years.....	12	( <sup>1</sup> )	6	( <sup>1</sup> )	6	( <sup>1</sup> )	
14 years.....	1,456	33	693	39	763	29	
15 years.....	1,808	41	753	43	1,055	40	
16 years.....	1,092	25	299	17	792	30	1
17 years and over.....	63	1	10	1	53	2	
Age not reported.....	49		2		7		40

<sup>1</sup> Less than 1 per cent.

The great decrease in the number of Milwaukee children going to work at 14 is shown by comparing these findings of 1925 with those of a survey of Milwaukee Vocational School pupils made in 1918 by the school-attendance department. Seventy per cent of the 6,388 pupils enrolled in the vocational school in 1918 who reported on this subject had begun work at the age of 14, more than twice the percentage of those included in the present study.<sup>23</sup> No doubt the large number of children who started work at 14, according to the survey of 1918, was partly a result of war conditions, but the marked decrease in this group throughout the State since 1921 is also due to the raising of the grade requirement.<sup>24</sup>

More than three-fifths of the boys and of the girls entered regular employment for the first time during the months when school was in session, from September through May; the remainder in June, July, or August. Many children who leave school in June apparently do not go to work immediately but wait until school vacation is over, as is indicated by figures of the Industrial Commission of Wisconsin for

<sup>23</sup> Annual Report of the Attendance Department. Fifty-ninth Annual Report of the Board of School Directors of the City of Milwaukee, Wis., 1918, p. 92.

<sup>24</sup> Child Labor in Wisconsin, 1917-1922, p. 14. Since 1925 there has been another decrease. Among children in the present study who went to work before they were 16 years of age, 42 per cent began work at the age of 14 as compared with 23 per cent in 1928, according to reports made by the Industrial Commission of Wisconsin to the Children's Bureau regarding the number of permits issued to children under 16 who were going to work for the first time. First Regular Employment Certificates Issued to Working Children in 1928, p. 10 (reprint from Seventeenth Annual Report of the Chief of the Children's Bureau, 1929).

work permits issued in 1925, for example. A larger number of first regular permits were issued in September than in any other month during the year; the next largest numbers were issued in October and August.<sup>25</sup>

#### Work certificates.

Almost all the boys and girls in Milwaukee for whom work certificates were required under the provisions of the child labor law obtained them for their first position, to judge from the information available for the 3,613 children who were interviewed. Four per cent, however (159 children), who were employed in occupations for which work certificates were required, had failed to get them for their first positions. Of these only a negligible number (4) were under 14 years of age. In this connection it may be noted that most of the children received certificates, as required under the law, for all the positions they held during their work history. A small proportion, however (14 per cent of those interviewed), had failed to get work certificates for one or more of the positions they had held.

Not all the children under 16 who had received work certificates when they first went to work had graduated from the elementary grades; 527 (24 per cent of those under 16 for whom work certificates were required) had not completed this grade. These children had either left school before June, 1921, when lower educational requirements were in effect, or in all probability had fulfilled the legal requirements for a work certificate by nine years' school attendance.

### OCCUPATIONS

#### First occupation.

In the cities in which studies of the employment of young workers have been made, it has been found that the boys and girls were employed chiefly in factories or in various kinds of errand, messenger, delivery, and clerical work. The proportions in these occupational groups vary from city to city depending on the relative importance of the manufacturing, mercantile, and other industrial groups of the several cities, on the kinds of goods produced there, and to some extent also on the ages of the young workers included in the studies.<sup>26</sup> According to the study made by the Children's Bureau in Boston the proportion of boys under 16 entering factories and other occupations classified as mechanical was only 21 per cent, in Newark it was 48 per cent, and in the present study 60 per cent. The proportion of girls under 16 entering factories and other mechanical occupations was 50 per cent in Boston, 82 per cent in Newark, and 73 per cent in Milwaukee.<sup>27</sup> In these and other cities most of the children not in factories were in errand, messenger, delivery, sales, and clerical work; relatively few were in domestic service. A marked variation in the proportions of children entering manufacturing, mercantile, and other occupational groups in different cities is also shown by figures which give the occupations of children to whom work certificates were issued in cities of 50,000 or more population throughout the country.<sup>28</sup>

<sup>25</sup> Wisconsin Labor Statistics, vol. 4, Nos. 1 and 2 (January and February, 1926), p. 2.

<sup>26</sup> For a list of these studies see list of references, p. 70.

<sup>27</sup> The Working Children of Boston, pp. 225-229; The Working Children of Newark and Paterson, p. 16.

<sup>28</sup> First Regular Employment Certificates Issued to Working Children in 1927, p. 17 (reprint from Sixteenth Annual Report of the Chief of the Children's Bureau, 1928); First Regular Employment Certificates Issued to Working Children in 1928, p. 17 (reprint from Seventeenth Annual Report of the Chief of the Children's Bureau, 1929); First Regular Employment Certificates Issued to Working Children in 1929, p. 17 (reprint from Eighteenth Annual Report of the Chief of the Children's Bureau, 1930.)

TABLE 5.—Occupation and industry of first regular position and age at beginning regular work of employed boys and girls whose work records were obtained and who were enrolled in the Milwaukee Vocational School

Occupation and industry of first regular position	Boys and girls whose work records were obtained											
	Boys						Girls					
	Age at beginning regular work						Age at beginning regular work					
	Under 16 years		16 years and over		Total	Age not reported	Under 16 years		16 years and over		Total	Age not reported
Number	Percent distribution	Number	Percent distribution	Number			Percent distribution	Number	Percent distribution			
Total.....	3,869	2,787	1,025	57	4,480	3,276	1,155	49				
Industry reported.....	3,638	2,618	966	100	4,302	3,133	1,120	100	49			
Manufacturing and mechanical industries.....	2,140	1,560	557	60	2,881	2,286	586	52	9			
Semiskilled operatives.....	1,824	1,363	446	52	2,863	2,273	582	52	8			
Candy.....	162	126	36	5	824	708	116	10				
Clothing.....	76	61	14	2	354	240	98	9	4			
Electrical equipment.....	102	66	33	4	324	20	93	1	4			
Metals.....	451	312	136	14	515	34	17	2	1			
Lumber and furniture.....	113	82	30	3	15	1	(1)	(1)				
Paper box.....	333	101	12	1	176	147	32	3				
Shoes.....	333	101	4	1	256	197	6	5	2			
Textiles.....	70	56	14	1	932	738	193	17	2			
Other manufacturing and mechanical industries.....	468	307	89	9	221	171	50	4				
Laborers.....	157	105	4	5	5	5	(1)	(1)				
Others.....	189	92	61	6	13	8	(1)	(1)				
Transportation, trade, and clerical.....	1,348	965	367	38	1,633	592	418	37	23			
Sales and stock boys and girls and other clerks in stores.....	193	129	63	7	288	179	100	9	9			
Telephone operators.....	2	1	1	(1)	106	17	86	8	3			
Telegraph messengers and special delivery mail carriers.....	135	116	19	2	68	51	16	1	3			
Messenger, errand, office, bundle, and cash boys and girls.....	445	343	97	10	5	237	99	6	3			
Stenographers and typists.....	13	7	6	1	63	40	22	2	1			
Bookkeepers and cashiers.....	10	3	7	1	63	40	22	2	1			

Other clerical.....	285	7	87	9	3	232	142	5	85	8	5
Drivers and helpers.....	95	2	41	4	3	27	20	1	6	1	1
Others.....	137	4	37	4	4	12	8	(1)	4	(1)	1
Occupation not reported.....	33	1	9	1	---	---	---	---	---	---	---
Domestic and personal service.....	87	2	21	2	7	370	245	8	109	10	16
Professional and semiprofessional pursuits.....	28	1	14	1	---	18	10	(1)	7	1	1
Other industries.....	35	1	7	1	8	---	---	---	---	---	---
Industry not reported.....	231	---	59	---	3	178	143	---	35	---	---

<sup>1</sup> Less than 1 per cent.

The occupational distribution of the Milwaukee children in the present study is very similar to that reported by the census of 1920 for Milwaukee children of the same ages. According to these figures, 59 per cent of the employed boys of 14, 15, and 16 years of age and 67 per cent of the girls of the same ages were in manufacturing and mechanical industries; 24 per cent of the boys and 17 per cent of the girls were in messenger, errand, and clerical work; and the remainder were scattered through various other occupational groups.<sup>29</sup>

The proportions of the boys under 16 and 16 years of age and over in the present study who began work in manufacturing and mechanical industries were similar (60 per cent and 58 per cent), but more of the girls under 16 than 16 and over entered manufacturing and mechanical industries (73 per cent and 52 per cent, respectively). The great majority of the boys and nearly all the girls in the manufacturing and mechanical occupations were factory operatives; some of the boys were laborers or were helpers to skilled mechanics. (Table 5.)

The first occupations in which the young workers were employed represented practically all the important manufacturing industries of the city. The boys were employed in the metal-working industries, in factories manufacturing electrical supplies, in shoe, furniture, and paper-box factories. The girls were concentrated in the textile, clothing, and candy factories, in which boys were likewise employed, and to a considerably smaller extent in the shoe, paper-box, metal, and electrical industries and in printing establishments. Girls and boys under 16, as well as those who were older, found employment in all these industries when they started work.

Numerically the most important occupations for the boys who began work in nonmanufacturing and nonmechanical occupations were errand and messenger work, miscellaneous clerical work, sales and stock work in stores, and delivering telegrams and special-delivery messages. Less important numerically were the boys employed as drivers' helpers on trucks and wagons. A small number of the boys were laundry operatives, caddy boys, bootblacks, and workers in other occupations classified according to the Bureau of the Census as domestic and personal. About the same proportions of the boys under 16 as of the older boys (13 per cent and 10 per cent, respectively, of the total number employed) were errand and messenger boys; likewise there was but little difference in the proportions of boys of the different ages who were employed as clerical workers, as sales or stock boys, or as helpers to drivers.

The girls in nonmanufacturing industries were chiefly sales and stock girls in stores, clerical workers, typists, stenographers, or miscellaneous clerical workers, were telephone operators, or were domestic workers. The girls under 16 were not so likely as the older girls to be typists, stenographers, or other clerical workers, and few girls under 16 were telephone operators. About the same proportions of the girls under 16 as of the older girls were domestic workers; usually these were employed in private families or in laundries.

#### Occupation at the time of inquiry.

The occupational distribution of the boys and girls employed at the time of the study was very similar to that at the time they began work. Indeed, the last positions of about one-half of the young workers

<sup>29</sup> Fourteenth Census of the United States, 1920, vol. 4, Population, Occupations, pp. 633-634.

were the same ones in which they had found employment when they started work.

*Manufacturing and mechanical occupations.*—Fifty-two per cent of the boys under 16 and 59 per cent of those 16 and over were in factory and other mechanical occupations; 74 per cent of the girls under 16 and 60 per cent of those 16 and over were likewise in factory work. As in their first positions, both sexes were engaged in a great variety of occupations in different manufacturing industries at the time of the study. (Table 6.) No doubt the Wisconsin laws prohibiting the employment of minors under 16 or under 18 on or in connection with certain machinery<sup>30</sup> excluded a number of these children from factory work, particularly machine work. Employment on machines of minors—particularly those under 16—was, no doubt, lessened, even in occupations not specifically prohibited, by the so-called blanket clause prohibiting the employment of minors in “any place of employment or any employment dangerous or prejudicial to life, health, safety, or welfare.”

TABLE 6.—*Occupation and industry of last position and age January 31, 1925, of boys and girls employed on that date whose work records were obtained and who were enrolled in the Milwaukee Vocational School*

Occupation and industry of last position	Boys and girls employed Jan. 31, 1925, whose work records were obtained					
	Boys			Girls		
	Total	Age Jan. 31, 1925		Total	Age Jan. 31, 1925	
		Under 16 years	16 years and over		Under 16 years	16 years and over
Total.....	3, 280	622	2, 658	3, 814	627	3, 187
Manufacturing and mechanical industries.....	1, 855	319	1, 536	2, 364	457	1, 907
Semiskilled operatives.....	1, 550	282	1, 268	2, 340	452	1, 888
Chemicals and allied industries.....	25	6	19	12	4	8
Glove factories.....	37	4	33	78	12	66
Garment workers.....	25	5	20	107	14	93
Sewing.....	4	1	3	46	3	43
Other processes.....	16	4	12	53	10	43
Process not reported.....	5		5	8	1	7
Millinery and hat manufacturers.....	4	2	2	88	9	79
Other clothing industries.....				24	2	22
Electrical equipment.....	107	9	98	35	4	31
Bench work, assembling, and finishing.....	54	5	49	18	1	17
Machine work.....	9	1	8	4		4
Other processes.....	30	2	28	12	3	9
Process not reported.....	14	1	13	1		1
Candy factories.....	84	15	69	514	164	350
Dipping.....				90	19	71
Wrapping, packing, and labeling.....	7	2	5	319	100	219
Other processes.....	71	13	58	89	38	51
Process not reported.....	6		6	16	7	9

<sup>30</sup> The chief prohibitions affecting the children under 16 included in this study are employment on cylinder, boring, or drill presses, stamping machines in sheet-metal and tinware manufacturing, on emory or polishing wheels, and on burnishing machines in leather manufacturing.

TABLE 6.—Occupation and industry of last position and age January 31, 1925, of boys and girls employed on that date whose work records were obtained and who were enrolled in the Milwaukee Vocational School—Continued

Occupation and industry of last position	Boys and girls employed Jan. 31, 1925, whose work records were obtained					
	Boys			Girls		
	Total	Age Jan. 31, 1925		Total	Age Jan. 31, 1925	
		Under 16 years	16 years and over		Under 16 years	16 years and over
<b>Manufacturing and mechanical industries—Contd.</b>						
<b>Semiskilled operatives—Continued.</b>						
Other food industries.....	59	16	43	17	3	14
Metal industries.....	373	82	291	51	6	45
Assembling and bench work.....	82	32	50	7	1	6
Core making.....	23	1	22	1	1	2
Machine work.....	83	10	73	7	1	7
Wrapping, packing, and labeling.....	30	8	22	13	2	11
Other processes.....	79	19	60	14	1	13
Process not reported.....	76	12	64	9	1	8
Lumber and furniture industries.....	136	25	111	15	3	12
Paper-box manufacturing.....	60	12	48	135	31	104
Printing and publishing.....	92	10	82	66	16	50
Shoe manufacturing.....	327	55	272	264	53	211
Cutting (hand or machine).....	61	8	53	4	1	3
Stitching.....	2	1	2	39	2	37
Other machine work.....	46	10	36	30	6	24
Other processes.....	199	34	165	174	41	133
Process not reported.....	19	3	16	17	3	14
Textile industries.....	78	11	67	850	115	735
Coning, knitting, looping, ribbing, spooling, topping.....	11	2	9	330	55	275
Mating and inspecting.....	2	1	2	49	3	46
Packing, wrapping, and labeling.....	4	1	3	87	7	80
Other processes.....	53	7	46	362	48	314
Process not reported.....	8	1	7	22	2	20
Other manufacturing and mechanical industries.....	143	30	113	84	16	68
<b>Laborers.....</b>	111	18	93	4	2	2
<b>Others.....</b>	194	19	175	20	3	17
<b>Transportation, trade, and clerical.....</b>	1,256	275	981	1,151	86	1,065
Sales and stock boys and girls and other clerks in stores.....	176	28	148	236	37	199
Telephone operators.....	3	1	2	200	1	200
Telegraph messengers and special delivery mail carriers.....	60	31	29			
Messenger, errand, office, bundle, and cash boys and girls.....	325	102	223	52	12	40
Stenographers and typists.....	18	1	17	265	7	258
Bookkeepers, cashiers, and accountants.....	29	1	29	99	4	95
Other clerical workers.....	367	53	334	263	22	241
Drivers and drivers' helpers.....	100	25	75			
Others.....	135	29	106	29	3	26
Occupation not reported.....	23	5	18	7	1	6
<b>Domestic and personal service.....</b>	54	13	41	241	73	168
Nursemaids and housework (not otherwise specified).....				165	57	108
Others.....	54	13	41	74	16	58
Occupation not reported.....				2		2
<b>Professional and semiprofessional pursuits.....</b>	47	1	46	23	2	21
<b>Other industries.....</b>	11	2	9			
<b>Industry not reported.....</b>	87	12	45	35	9	26

*Metal industries.*—In the machine shops and foundries, stove and machinery factories, and the tinware and other metal trades of the city, 373 boys (about one-fourth of the boys who were factory operatives) were employed. Twenty-two per cent of these boys in the metal industries (practically the same proportion as of all the boys employed at the time of the study) were under 16 years of age. The work of many of the boys under 16 in the metal industries was in connection with the assembling of parts, such as gas cocks, faucets, valves, and chains, and in other hand operations. Few of the younger boys (10) were employed in machine processes. A number of the older boys were engaged in core making, and a considerable number (73) were employed in machine operations, feeding the tack machine and working on drill presses, milling, riveting, and other metal-working machines. (Table 6.) Relatively few girls were employed in the metal industries, and practically all of these were at least 16 years of age.

*Electrical-supply factories.*—About 100 boys and a small number of girls, nearly all of both sexes at least 16, worked in factories manufacturing electrical and radio supplies, assembling parts, inspecting, testing, and in other hand work; a few of them were employed on machines.

*Shoe industry.*—Shoe factories<sup>31</sup> employed 327 boys and 264 girls (one-fifth of all the boys and about one-tenth of the girls classified as semiskilled operatives). There appeared to be considerable opportunity for both boys and girls under 16 in shoe factories, as 17 per cent of the boys and 20 per cent of the girls of continuation-school age employed in this industry were in that age group. Children under 16 were employed in many of the varied hand operations common to shoe factories but were not employed to any extent on the machines. The boys of all ages did such hand work as cementing (gluing or pasting), assembling, sorting and inspecting, and floor work (carrying supplies to the workers). Eighty of the 272 boys of 16 and over were employed on machines, including the heeling, tack pulling, buffing, burnishing, polishing, and other machines. A number of boys, chiefly those of 16 years or over, were employed in cutting trimmings and linings, and in other cutting processes; although not apprenticed, they no doubt had a chance to pick up a knowledge of shoe-cutting work, a relatively skilled occupation in which a number of boys were indentured as apprentices. (See p. 60.) The girls of all ages also were employed in numerous simple hand operations, such as cementing, trimming, putting laces in shoes, marking sizes, packing and wrapping; a considerable number of the older girls (80) were employed on machines; some of these did stitching operations which require a certain degree of skill.

*Textile industries.*—The textile mills, chiefly hosiery, underwear, and other knitting mills, furnished employment to 850 girls (36 per cent of the girls employed as factory operatives) and to a relatively small number of boys (78). The employment of girls under 16 in the textile mills appeared to be less common than in some of the other industries employing girls of continuation-school age; only 14 per cent were under 16. Three hundred and thirty of the girls, including 55 under 16 years of age, were employed in connection with the

<sup>31</sup> For an account of the opportunities in the shoe industry in Milwaukee see The Shoe Industry in the series entitled "My Life Work." Milwaukee Vocational School, Milwaukee.

coning, knitting, looping, ribbing, spooling, and topping machines. A number, practically all of whom were at least 16 years of age, were employed on machines in the silk-throwing department of one of the hosiery mills in such work as winding and twisting. Power sewing and cutting out knit garments, also mating and inspecting, operations usually regarded as requiring considerable experience, were reported by a number of the older girls. Some of the older as well as the younger girls did relatively simple hand operations, such as clipping and trimming threads, marking, packing, wrapping, and labeling.

*Candy industry.*—In the candy factories there were 514 girls, of whom an unusually large proportion (32 per cent) were under 16. Only a small number of boys (84) were in candy factories. The occupations of more than three-fifths of the girls were packing, wrapping, and labeling. Hand dipping, an occupation which requires considerable judgment, furnished employment to about one-fifth of the older girls but to few of the younger ones. The remaining girls and the boys were employed in other processes connected with the making of candy or in floor work, taking around trays of candy and supplies to and from the workers, and in other miscellaneous work.

*Clothing industries.*—Two hundred and ninety-seven girls, but few boys, also worked in the glove factories, in men's clothing establishments, and in millinery and hat manufacturing. Only 12 per cent of the girls in these industries were under 16. Many girls of 16 and over were engaged in various sewing operations, both hand and machine. The others in this age group and most of those under 16 did a variety of miscellaneous work, including such simple hand operations as pulling bastings, clipping threads, and carrying work to the operatives.

*Paper-box industry.*—Paper-box manufacturing was the only other industry in which a considerable number of girls (135), of whom 23 per cent were under 16, were employed. This industry offers a variety of simple hand work, such as closing (putting covers on boxes), nesting (stacking the covers or bottoms of boxes), pasting, gluing, and bending or folding the sides of boxes. A few girls, all of them 16 or over, were employed in machine work. Only a small number of boys were employed in this industry.

*Miscellaneous manufacturing industries.*—The lumber and furniture industries employed a considerable number of boys (136), especially boys of 16 years and over, in woodworking, upholstering, and other processes. A number of boys (92), chiefly those of 16 years and over, were in the printing and publishing industries. A few of these, although not legally apprenticed, were working as helpers to compositors and typesetters and may have had a chance to learn something of the printing trade. The number of girls in these industries, especially in the manufacture of furniture, was small.

*Other occupational groups.*—Forty-eight per cent of the boys under 16 and 41 per cent of those 16 years and older were employed in occupational groups other than manufacturing and mechanical. One of the important occupations numerically was errand and messenger work for factories, stores, and offices, occupations open primarily to juvenile workers. Twice as many of the younger as of the older boys (17 per cent and 9 per cent of the total number employed) were engaged in this type of work. A small additional proportion of both

the younger and the older boys were telegraph messengers. Another numerically important group were the boys who did clerical work (9 per cent of the boys under 16, and 15 per cent of the older boys)—work which included filing, billing, and helping in the shipping rooms. A number of the older boys but practically none of those under 16 were bookkeepers, cashiers, or typists. Small proportions of the boys in each age group were sales or stock boys, "jumpers" or helpers to drivers of trucks and wagons. Only 2 per cent of the boys (about the same percentage of the older and of the younger boys) were employed in occupations classified as domestic and personal, in laundries, restaurants, helping janitors, or running elevators; a few were employed in barber shops, where they might have had a chance of learning a trade. A few boys also were employed in blueprinting concerns and in photographic studios—work which, according to the census, was classified as professional or semiprofessional.

About 25 per cent of the girls under 16 as compared with 40 per cent of those 16 and over were in nonmanufacturing occupations. The majority of these girls were in clerical work or were employed in stores or as telephone operators. Occupations as stenographers, typists, bookkeepers, or cashiers were reported by a negligible number of the younger girls but by 353 (11 per cent) of the girls of 16 years and older. Girls under 16 were not eligible as telephone operators; 200 or 6 per cent of the girls 16 and over were engaged in this work. About the same proportion of each age group were sales, stock, transfer, or bundle girls or general clerical workers in stores. Domestic and personal service furnished employment to 6 per cent of the girls at the time of the inquiry, about the same proportion of the older and of the younger children. For the most part the girls worked in private families, but there were a few in steam laundries. Practically none were in hotels or restaurants, work which is prohibited for girls under 17 by ruling of the industrial commission. A few girls were employed in hairdressing and beauty parlors. A small number of the girls, most of whom were at least 16 years of age, worked in photographic places, as assistants in dentists' offices, or as ushers in theaters, or in other occupations classified in the professional group. On the whole, as might be expected, the girls of 16 and over appeared to have a wider range of employment in clerical and mercantile occupations than the younger girls.

#### **Change in occupation.**

Among the employed boys and girls for whom satisfactory information as to work history was obtained and who were interviewed were 619 boys and 561 girls who had reached the age of 17 at the time the inquiry was made. A comparison of the first occupations of the boys in this group with the occupations in which they were employed at the time of the study shows that some occupational change had taken place in the interval since they had entered industry, especially in the case of clerical workers and errand and messenger boys. Of the group of boys of 17 years who were under 16 when they began work, 53 per cent were employed in their first jobs as factory operatives and 47 per cent at the time of the interview. On beginning work 9 per cent of the boys and at the time of the study 20 per cent were in clerical work; 12 per cent were in errand and messenger work in their first jobs and only 4 per cent at the time of the study. The girls who began their working

lives in factories tended to leave factories for clerical and other positions when they became older, as is indicated by a comparison of the first and last occupations of the girls who were 17 years of age at the time they were interviewed and had begun work before they were 16. A larger proportion of this group were in factories when they began work than at the time of the study (69 per cent and 56 per cent, respectively), while a correspondingly smaller percentage were clerical workers and telephone operators in their first than in their last positions (22 per cent and 36 per cent, respectively).

There was apparently a much greater tendency for both boys and girls to make minor changes in occupations—that is, to change from hand work to machine work in the same kind of factory or to change from one kind of factory to another—than there was for them to go from one general type of occupation to another, as from factories into offices. Information concerning such minor changes in occupation was obtained for the group of boys and girls interviewed who were between the ages of 15 and 18 at the time of the study and who had had more than one job. Most of them (93 per cent of the boys and 86 per cent of the girls) had made some minor change in occupation. The girls who were in clerical work at the time of the study reported the least change. Twenty-five per cent of these as compared with 10 per cent of girls in factories had done the same kind of work in their first and last occupations.

#### Relation of school attainment to occupation.

The amount of education of the young workers was of great importance in relation to the kind of work they did. It was the boys and girls who had failed to complete the elementary grades and who had been in prevocational classes who were employed in factory work in great numbers, in both their first and last positions; individuals with more education, especially those who had high-school or commercial training, were much more likely to do clerical or mercantile work. This same influence of schooling on the kind of work has been found true in studies of young workers made in other cities. In a Cincinnati study of working children between the ages of 14 and 18, factory work occupied a larger proportion of children of both sexes from the lower than from the upper grades, and office work a much larger proportion of children from the upper than from the lower grades.<sup>32</sup> According to the findings of the study of employed boys of 16, 17, and 18 years of age made in New York State in 1918 for the military training commission, the more education the boys had the more likely they were to go into professional, clerical, and retail business occupations and the less likely they were to go into factories.<sup>33</sup> A correlation between grade completed and type of occupation entered was found in an earlier bureau study made of working children under 16 in Boston and also to some extent in the case of working children under 16 in Newark and Paterson, N. J., according to the more recent study made there.<sup>34</sup> The influence of school attainment on occupation was much more marked for the Milwaukee children than for working children in these two other Children's Bureau studies, doubtless because an older group, including boys between 16 and 18, was

<sup>32</sup> An Experimental Study of Children, p. 603.

<sup>33</sup> Burdge, Howard G.: Our Boys, a study of the 245,000, 16, 17, and 18 year old employed boys of the State of New York, p. 231. Military Training Commission, Bureau of Vocational Training, Albany, 1921.

<sup>34</sup> The Working Children of Boston, p. 246; The Working Children of Newark and Paterson, p. 20.

studied in Milwaukee, and in consequence a considerable number had had high-school or some kind of special training.

There was a marked tendency for the boys with a low grade accomplishment to be employed in factory and other mechanical occupations. Of the boys who had not graduated from the eighth grade or had last been in prevocational classes, 60 per cent were employed as factory operatives at the date of the inquiry, as compared with only 31 per cent of the high-school boys and 23 per cent of those who had had business training. Correspondingly smaller proportions of boys from the lower grades and larger proportions of boys from high-school grades and commercial classes were employed in some kind of clerical, messenger, or store work. (Table 7.) Boys with varying amounts of education were employed to some extent in both their first and last positions in the different manufacturing industries; but those who had not completed the elementary school appeared to be less in demand in some industries than in others, at least in occupations classified as semiskilled. In the printing establishments and in factories making electrical supplies boys from prevocational classes and those with less than an eighth-grade education formed less than 23 per cent and 26 per cent, respectively, of the boys of continuation-school age at work in these industries; on the other hand, at the time of the study these boys represented 34 per cent of the boys employed in the shoe factories and 45 per cent of those employed in the metal industries.

The extent to which boys made use of training received in wood-working, machine-shop work, printing, and other courses given in the boys' technical high school is not known, as the kind of work they had done in school and the length of their training could not be learned. About the same proportions of the 281 boys who had attended this school as of all the boys attending continuation school were in the manufacturing and mechanical, clerical, and the other main industry groups in their last positions. A little over one-third of the technical high school boys who were employed as factory operatives—about the same proportion as of all the boys in this group—were in the metal, furniture, and printing industries, yet it might be supposed that in these industries they could find occupations in which they had had some instruction.

The advantage of the boys' commercial training is indicated by the fact that 32 per cent of those with such training compared with 13 per cent without commercial training were clerical workers, bookkeepers, cashiers, typists, stenographers, or other office workers, or were in other work classified as clerical, such as stock and shipping room work in factories. Ten per cent were sales or other store clerks; the remainder who were not in manufacturing and mechanical industries were mostly delivery, errand, or messenger boys.

EMPLOYED BOYS AND GIRLS IN MILWAUKEE

TABLE 7.—Occupation and industry of last position and last grade completed by boys and girls employed January 31, 1925, whose work records were obtained and who were enrolled in the Milwaukee Vocational School

Occupation and industry of last position, and sex	Boys and girls employed Jan. 31, 1925, whose work records were obtained													
	Last grade completed													
	Less than eighth		Eighth		Ninth or higher		Commercial		Girls' Trade School		Prevocational school		Special class (number) <sup>1</sup>	Not reported
Total	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Boys.....	680	100	1,640	100	604	100	103	100	230	100	3	20		
Industry reported.....	667	100	1,614	100	595	100	102	100	222	100	3	20		
Manufacturing and mechanical industries.....	479	72	918	57	233	39	31	30	173	78	3	18		
Semiskilled operatives.....	399	60	780	48	187	31	23	23	144	65	2	15		
Laborers.....	31	5	49	3	13	2	1	1	16	7	1	3		
Others.....	47	7	87	5	33	6	7	7	13	6				
Occupation not reported.....	2	(?)	2	(?)										
Transportation, trade, and clerical.....	160	24	643	40	339	57	70	69	43	19				
Sales and stock boys and other clerks in stores.....	17	3	91	6	55	9	10	10	3	1				
Telephone operators.....	1	(?)	1	(?)										
Telegraph messengers and special delivery mail carriers.....	60	10	1	42	3	5	1	1	2	1				
Messenger, errand, office, bundle, and cash boys.....	325	39	167	10	89	15	18	18	12	5				
Stenographers and typists.....	18		3	(?)	5	1	10	10						
Bookkeepers and cashiers.....	29		7	(?)	14	2	5	5						
Other clerical.....	387	43	191	12	126	21	17	17	10	5				
Drivers and helpers.....	100	19	56	3	17	3	3	3	5	2				
Others.....	135	25	71	4	23	4	5	5	11	5				
Occupation not reported.....	23	4	14	1	5	1								
Domestic and personal service.....	54	20	26	2	6	1			2	1				
Professional and semiprofessional pursuits.....	47	7	1	22	15	3			2	2				
Other industries.....	11	(?)	5	(?)					1	1				
Industry not reported.....	57		26		9				8					

THE EMPLOYED MINORS OTHER THAN APPRENTICES

	3,814	670	1,868	402	272	513	59	10	20
Girls.....	3,779	661	1,853	398	269	509	59	10	20
Industry reported.....	2,364	524	1,333	107	38	294	46	8	14
Manufacturing and mechanical industries.....	2,340	520	1,319	103	38	292	46	8	14
Semiskilled operatives.....	4	4	3	1	(?)	2	(?)		
Laborers.....	20	4	11	3	1				
Others.....									
Occupation not reported.....	1,151	78	389	268	67	181	36	10	4
Transportation, trade, and clerical.....	236	23	101	49	12	48	9	1	1
Sales and stock girls and other clerks in stores.....	200	25	85	41	10	31	6	2	
Telephone operators.....									
Telegraph messengers and special delivery mail carriers.....	52	4	23	6	2	14	3	1	2
Messenger, errand, office, bundle, and cash girls.....	265	3	30	77	19	19	4	1	2
Stenographers and typists.....	90	3	39	28	7	12	3	1	2
Bookkeepers and cashiers.....	263	15	97	62	16	48	9	1	1
Other clerical.....	29	6	11	4	1	5	1	2	
Others.....	7	2	3	1	(?)				
Occupation not reported.....	241	57	119	21	5	29	6	7	2
Domestic and personal service.....	23	2	12	2	1	5	1	1	
Professional and semiprofessional pursuits.....									
Other industries.....									
Industry not reported.....	85	9	15	4	3	4			

\* Less than 1 per cent.

† Per cent distribution not shown because number of boys and number of girls was less than 50.

Even more noticeable among the girls than among the boys was the employment in factories of those from the elementary-school grades and the employment in stores and offices of those who had had the advantage of one or more years in academic high-school or business-school training. Seventy-nine per cent of the girls with less than an eighth-grade education were employed in factories in their last positions, as compared with only 26 per cent of the girls who had finished at least one year of high school. Only 7 per cent of those who had failed to graduate from the eighth grade, as compared with 54 per cent of the high-school girls, were clerical workers or telephone operators; 4 per cent of the former and 14 per cent of the latter were employed in various capacities in stores. The occupational distribution of the eighth-grade graduates was more like that of the girls who had not graduated from elementary school than like that of girls with high-school or special training. (Table 7.) The influence of education on the girls' occupations was more evident in their occupations at the time the inquiry was made than in their first occupations, no doubt because some occupations open to the older girls were not open to younger ones with the same training.

That the girls utilized the commercial training which they had is shown by the fact that the great majority (71 per cent) with this kind of training were employed in some kind of clerical work in their last positions, 51 per cent of them as stenographers or typists. The Girls' Trade School gave commercial training as well as courses in millinery and dressmaking and instruction in domestic science. However, information was not available as to what kind of instruction the girls had had. Not quite three-fifths (57 per cent) of them, a smaller proportion than of eighth-grade graduates, were factory operatives at the time the study was made; one-fifth were engaged in typing, stenography, and other clerical work; the rest were in store work or were telephone operators or in domestic service. More than one-tenth of the employed girls had last attended trade school. The proportions of girls of continuation-school age who had had this kind of training varied from 8 per cent in paper-box factories to 15 per cent in the clothing trades exclusive of the millinery establishments. Forty-five of the 88 continuation-school girls employed in millinery and hat-making establishments had been trained at the Girls' Trade School.

The effect of education and training in the case of the girls is most striking when a study is made of the occupations which those of 17 held at the time of the inquiry. (Table 8.) For example, the proportion of girls who were employed in factories ranged from 79 per cent for those with less than an eighth-grade education to 6 per cent for those with training in commercial work; the proportion employed in clerical work ranged from 4 per cent for those with less than an eighth-grade education to 85 per cent for those with business training. Like the girls, the boys with a low grade attainment tended to go into factories, those who were eighth or ninth grade graduates into clerical occupations, or into stores or other occupations classified under the heading "Trade, transportation, or clerical."

The occupations of the 46 graduates of high schools, not included in these figures, were also significant in this connection. Only 2, 1 boy and 1 girl, were in factories; all the rest were in clerical, mercantile, or other nonfactory occupations. Seventeen of the girls were stenographers and two were teachers.

TABLE 8.—Occupation and industry of last position and last grade completed by interviewed boys and girls 17 years of age, employed January 31, 1925, who were enrolled in the Milwaukee Vocational School

Occupation and industry of last position, and sex	Interviewed boys and girls 17 years of age												
	Total	Less than eighth						Last grade completed					
		Eighth		Ninth or higher		Commercial		Girl's Trade School		Pre- vocational school (num-ber) <sup>1</sup>	Special class (num-ber) <sup>1</sup>	Not re-ported	
		Num-ber	Per cent distri-bution	Num-ber	Per cent distri-bution	Num-ber	Per cent distri-bution	Num-ber	Per cent distri-bution				
Boys.....	619	152		280		143		16		25	1	2	
Industry reported.....	612	149	100	277	100	143	100	16	( <sup>2</sup> )	24	1	2	
Manufacturing and mechanical industries.....	334	107	72	150	54	50	35	4		21	1	1	
Semiskilled operatives.....	275	88	59	126	45	38	27	3		18	1	1	
Laborers.....	13	6	4	3	1	2	1			2			
Others.....	45	13	9	20	7	10	7	1		1			
Occupation not reported.....	1			1	( <sup>3</sup> )								
Transportation, trade, and clerical.....	252	37	25	116	42	85	59	12		2			
Sales and stock boys and other clerks in stores.....	31	2	1	14	5	14	10	1					
Messenger, errand, office, bundle, and cash boys.....	38	5	3	17	6	16	11						
Other clerical workers.....	121	14	9	57	21	42	29	8					
Telephone operators.....													
Others.....	60	16	11	26	9	13	9	3		2			
Occupation not reported.....	2			2	1								
Domestic and personal service.....	12	4	3	4	1	3	2			1		1	
Other industries.....	14	1	1	7	3	5	3						
Industry not reported.....	7	3		3						1			

<sup>1</sup> Per cent distribution not shown because number of boys and number of girls was less than 50.

<sup>2</sup> Not shown because number of boys was less than 50.

<sup>3</sup> Less than 1 per cent.

EMPLOYED BOYS AND GIRLS IN MILWAUKEE

TABLE 8.—Occupation and industry of last position and last grade completed by interviewed boys and girls 17 years of age, employed January 31, 1925, who were enrolled in the Milwaukee Vocational School—Continued

Occupation and industry of last position, and sex	Interviewed boys and girls 17 years of age													
	Total	Less than eighth						Last grade completed						
		Num-ber	Per cent distri-bution	Num-ber	Per cent distri-bution	Eighth	Per cent distri-bution	Ninth or higher	Per cent distri-bution	Commercial	Per cent distri-bution	Girls Trade School	Prevo-cation-school (num-ber)	Spe-cial class (num-ber)
Girls.....	561	103	226	74	71	79	4	4	4	4	4	4	4	4
Industry reported.....	557	101	225	73	71	79	100	100	100	100	100	4	4	4
Manufacturing and mechanical industries.....	287	80	140	15	4	42	21	6	6	53	4	4	4	2
Semiskilled operatives.....	283	79	138	61	4	42	19	6	6	53	4	4	4	2
Laborers.....	4	1	2	1	1	1	1	1	1	1	1	1	1	1
Others.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Occupation not reported.....	242	15	73	32	66	31	77	93	93	39	1	1	1	1
Transportation, trade, and clerical.....	39	4	17	8	1	8	14	1	1	10	1	1	1	1
Sales and stock girls and other clerks in stores.....	3	1	1	1	1	1	1	1	1	1	1	1	1	1
Messenger, errand, office, bundle, and cash girls.....	155	4	33	15	60	15	58	85	7	19	1	1	1	1
Other clerical workers.....	40	5	21	9	5	7	3	7	5	9	1	1	1	1
Telephone operators.....	4	1	1	1	1	1	1	1	1	1	1	1	1	1
Others.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Occupation not reported.....	24	5	11	5	1	5	3	1	1	6	1	1	1	1
Domestic and personal service.....	4	1	1	1	1	1	1	1	1	1	1	1	1	1
Other industries.....	4	2	1	1	1	1	1	1	1	1	1	1	1	1
Industry not reported.....	4	2	1	1	1	1	1	1	1	1	1	1	1	1

<sup>3</sup> Less than 1 per cent.

WAGES

First wage.

Various factors may influence the wages of young workers on beginning work, especially their ages, their occupations, and their school attainment. The earning capacity of the Milwaukee children depended at least partly on their ages. The median beginning wage for boys 14 years and under when they began work was \$9.50 a week; for boys of 15 years, \$10; and for boys of 16 years and over, \$12. The girls' median wage was \$9 for those 14 and under; \$9.50 for those of 15; and \$11, for those of 16 and over. (Table 11.)

TABLE 9.—Age at beginning regular work and first regular weekly wage of employed boys and girls whose work records were obtained and who were enrolled in the Milwaukee Vocational School

First regular weekly wage, and sex	Employed boys and girls whose work records were obtained									
	Total	Age at beginning regular work								Age not reported
		Under 15 years		15 years		16 years		17 years and over		
		Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	
Boys.....	3,869	1,102	-----	1,685	-----	945	-----	80	-----	57
Wage reported.....	3,519	1,002	100	1,537	100	860	100	74	100	46
Cash wage only.....	3,446	983	98	1,509	98	844	98	72	97	38
Less than \$6.....	102	45	4	34	2	17	2	4	5	2
\$6, less than \$8.....	554	234	23	252	16	55	6	6	8	7
\$8, less than \$10.....	945	331	33	442	29	161	19	7	9	4
\$10, less than \$12.....	831	222	22	372	24	219	25	10	14	8
\$12, less than \$14.....	535	96	10	216	14	200	23	17	23	6
\$14, less than \$16.....	283	31	3	123	8	107	12	16	22	6
\$16, less than \$18.....	87	14	1	36	2	34	4	1	1	2
\$18 and more.....	109	10	1	34	2	51	6	11	15	3
Cash plus other.....	47	13	1	17	1	11	1	1	1	5
Other only.....	15	3	(1)	5	(1)	3	(1)	1	1	3
No wage.....	11	3	(1)	6	(1)	2	(1)	-----	-----	-----
Wage not reported.....	350	100	-----	148	-----	85	-----	6	-----	11
Girls.....	4,480	1,468	-----	1,808	-----	1,092	-----	63	-----	49
Wage reported.....	4,162	1,357	100	1,671	100	1,031	100	60	100	43
Cash wage only.....	4,040	1,322	97	1,618	97	1,006	98	58	97	36
Less than \$6.....	228	89	7	88	5	42	4	3	5	6
\$6, less than \$8.....	904	380	28	370	22	142	14	5	8	7
\$8, less than \$10.....	1,254	478	35	557	33	216	21	2	3	1
\$10, less than \$12.....	802	234	17	303	18	245	24	15	25	5
\$12, less than \$14.....	599	102	8	210	13	254	25	22	37	11
\$14, less than \$16.....	189	25	2	70	4	84	8	6	10	4
\$16, less than \$18.....	49	10	1	16	1	17	2	5	8	1
\$18 and more.....	15	4	(1)	4	(1)	6	1	-----	-----	1
Cash plus other.....	83	27	2	36	2	16	2	1	2	3
Other only.....	15	4	(1)	6	(1)	3	(1)	-----	-----	2
No wage.....	24	4	(1)	11	1	6	1	1	2	2
Wage not reported.....	318	111	-----	137	-----	61	-----	3	-----	6

<sup>1</sup> Less than 1 per cent.

Under the Wisconsin minimum wage law the industrial commission has the power to issue orders fixing the minimum-wage rate for minors.<sup>35</sup> The rate in effect during most of the 4-year period when the minors of the present study were entering employment was 16 cents an hour for inexperienced employees in all occupations.<sup>36</sup> On the basis of a 48-hour week this would be equivalent to a wage rate of \$7.60 a week, a rate lower than the median wage of both boys and girls in this study. The great majority of the children who were paid in cash reported wages of at least \$8 a week (77 per cent of the boys and 68 per cent of the girls under 16 and 91 per cent of the boys and 82 per cent of the girls of 16 or older). The cash wages of only a small proportion were less than \$6 a week (3 per cent of the boys of all ages and 6 per cent of the girls). In addition to those who were paid entirely in cash there were 2 per cent who received some form of maintenance as part or all of their compensation. (Table 9.) It should be borne in mind that the initial wages of these Milwaukee boys and girls do not represent the wages of any one year. The children entered employment at different dates over a 4-year period, and during this period, as a result of the business depression of 1921 to 1922, there was considerable fluctuation in wages.<sup>37</sup>

**Wage at the time of inquiry.**

The wages of the boys and girls at the time of the inquiry also depended to a large extent on their ages and to a lesser extent on the length of time they had been at work. The boys' wages varied from less than \$5 to \$36 a week; the girls' wages, from less than \$5 to \$45. The median weekly wages for the boys who were paid in cash ranged from \$9 a week for those of 14 years to \$15 for those of 18 years. As is generally the case, the girls' wages averaged less than those of boys of the same ages, the median ranging from \$8.50 for those of 14 years to \$13.50 for those of 18.

The majority of the young workers of 16 and 17 years were earning a wage higher than that set by the minimum-wage scale for experienced workers which on the basis of 20 cents an hour for a 48-hour week for minors of 16 and of 25 cents an hour for minors of 17 would be \$9.60 and \$12, respectively. (See footnote 36, below.) Sixty-four per cent of the boys of 16 and 17 years and 52 per cent of the girls of these ages received weekly wages of \$12 or more, including 19 per cent of the boys and 10 per cent of the girls whose wages were at least \$16. (Table 10.)

<sup>35</sup> Wisconsin Stat. 1927, sec. 104.01-104.12.

<sup>36</sup> Order No. 1, Revised Aug. 1, 1921. This order, which was in effect during most of the period when the children included in this study were employed, provided for the following hourly wage rates (these applied to all occupations, except for special orders for work in fruit and vegetable canneries, in which few of the minors in this study were engaged; see Minimum Wage, pp. 1, 2, bulletin of the Industrial Commission of Wisconsin, 1924.): Minors of 14 and 15 years—not less than 16 cents an hour the first year and not less than 20 cents an hour the succeeding year; minors of 16 years—not less than 16 cents an hour the first 6 months and not less than 20 cents an hour after the first 6 months; minors of 17 and 18 years—not less than 16 cents an hour the first 3 months, not less than 20 cents an hour the second 3 months, and not less than 25 cents an hour thereafter.

<sup>37</sup> For the fluctuation in wages and number of employees in Wisconsin factories see Wisconsin Labor Market, published by the Industrial Commission of Wisconsin, vol. 3, No. 11 (November, 1923), chart, p. 3.

TABLE 10.—Age and weekly wage January 31, 1925, of boys and girls employed on that date whose work records were obtained and who were enrolled in the Milwaukee Vocational School

Weekly wage Jan. 31, 1925, and sex	Boys and girls employed Jan. 31, 1925, whose work records were obtained										
	Total	Age Jan. 31, 1925									
		Under 15 years		15 years		16 years		17 years		18 years and over	
		Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Boys.....	3,280	94	528	1,156	1,252	250					
Wage reported.....	3,168	89	100	507	100	1,125	100	1,210	100	237	
Cash wages only.....	3,104	88	99	494	97	1,108	98	1,183	98	231	
Less than \$6.....	30	1	1	12	2	12	1	4	(1)	1	
\$6, less than \$8.....	152	21	24	66	13	41	4	24	2		
\$8, less than \$10.....	444	36	40	156	31	173	15	67	6	12	
\$10, less than \$12.....	698	18	20	146	29	325	29	182	15	27	
\$12, less than \$14.....	715	8	9	62	12	282	25	313	26	50	
\$14, less than \$16.....	510	2	2	38	7	147	13	275	23	48	
\$16, less than \$18.....	221			7	1	57	5	124	10	33	
\$18 and more.....	334	2	2	7	1	71	6	194	16	60	
Cash plus other.....	41	1	1	11	2	10	1	15	1	4	
Other only.....	18			1	(1)	5	(1)	11	1	1	
No wage.....	5			1	(1)	2	(1)	1	(1)	(1)	
Wage not reported.....	112	5		21		31		42		13	
Girls.....	3,814	116	511	1,326	1,528	333					
Wage reported.....	3,700	105	100	490	100	1,278	100	1,501	100	326	
Cash wages only.....	3,626	100	95	474	97	1,245	97	1,485	99	322	
Less than \$6.....	80	12	11	20	4	33	3	13	1	2	
\$6, less than \$8.....	309	29	28	124	25	110	9	43	3	3	
\$8, less than \$10.....	651	40	38	165	34	295	23	128	9	23	
\$10, less than \$12.....	862	13	12	92	19	345	27	357	24	55	
\$12, less than \$14.....	844	6	6	50	10	258	20	436	29	94	
\$14, less than \$16.....	540			12	2	138	11	302	20	88	
\$16, less than \$18.....	205			4	1	38	3	129	9	34	
\$18 and more.....	135			7	1	28	2	77	5	23	
Cash plus other.....	52	4	4	10	2	26	2	9	1	3	
Other only.....	13	1	1	3	1	1	(1)	7	(1)	1	
No wage.....	9			3	1	6	(1)			(1)	
Wage not reported.....	114	11		21		48		27		7	

<sup>1</sup> Less than 1 per cent.

The importance of age as a factor in determining earnings is shown by the last wages of the boys and girls who started work at different ages but whose work histories were of the same duration. For example, the median wage of boys whose work histories were between one and two years was \$11 for boys starting work at 14 years, \$12.50 for those starting work at 15, and \$13.50 for those starting work at 16. Similarly, the median wages of the girls with work histories of between one and two years ranged from \$10.50 for those beginning work at 14 to \$12.50 for those beginning work at 16. (Table 11.)

The boys and girls who had started work between two and three years before the study were earning higher wages than those of the same ages who had just started work. The median wage in the last job of boys with a work history of between two and three years who had started work at 14 and were 16 at the time of the study was \$14 as compared with \$12, the median wage of boys starting work at 16 who had been at work less than a year. The effect of a long work history on wage is shown perhaps more clearly by the wages of the group of boys who were 17 years old at the time of the study. The boy of 17 with a work history of two or three years was likely to earn more than a boy of the same age who had just gone to work. Of the group of 17-year-old boys who were interviewed and whose work histories were of two or more years' duration, 54 per cent as compared with 39 per cent of those who had started work less than two years before the study were earning \$15 or more a week. Likewise, the girls of 17 who had been in industry two or more years reported higher wages than those of the same age group who had been in industry less than one year. However, a long work history in itself did not mean a high wage; the age of the workers appears to be the more important factor.

TABLE 11.—Median weekly cash wage in first regular position, median weekly cash wage in last regular position by length of work history, and age at beginning regular work of employed boys and girls whose work records were obtained and who were enrolled in the Milwaukee Vocational School

Age at beginning regular work, and sex	Median wage in first regular position	Median wage <sup>1</sup> in last regular position of boys and girls who had worked—			
		Less than 1 year	1 year, less than 2	2 years, less than 3	3 years and more
BOYS					
14 years and under.....	\$9.50	\$9.50	\$11.00	\$14.00	\$16.50
15 years.....	10.00	10.50	12.50	15.00	-----
16 years and over.....	12.00	12.00	13.50	-----	-----
GIRLS					
14 years and under.....	9.00	8.50	10.50	12.50	14.00
15 years.....	9.50	9.00	11.50	13.00	-----
16 years and over.....	11.00	10.50	12.50	-----	-----

<sup>1</sup> Not shown where number of children was less than 50.

#### Difference between first and last wage.

Most of the individuals who had been in industry at least a year had had increases in pay varying from less than \$1 to \$10 a week or more. The increases in wage were no doubt due partly to the fact that the individuals were older at the time of the study than when they started work, and partly to the length of their work experience. The median increase in the weekly wage, from the first to the last position, was between \$3 and \$4 for both boys and girls. The longer the possible work history, the greater the increase in wage. The wages of only 25 per cent of the boys who had been between one and two years in industry, but of 57 per cent of those who had been in industry two years or longer, had increased \$5 or more a week. Similarly, only 21 per cent of the girls with the shorter work histories

but 48 per cent of those with work histories of two or more years were earning as much as \$5 a week more in their last positions than at the beginning of their work histories. (Table 12.) The wages of Cincinnati boys and girls 18 years of age who had been four years in industry—that is, for a longer period than the boys and girls included in the present study—had more than doubled since they began work, according to the Cincinnati study made during the period between 1911 and 1916 before wages were affected by the war.<sup>38</sup>

TABLE 12.—Change between first and last wage and length of work history of interviewed boys and girls employed one year or more who were enrolled in the Milwaukee Vocational School

Change between first and last wage, and sex	Interviewed boys and girls employed 1 year or more							
	Total		Length of work history					
			1 year, less than 2		2 years, less than 3		3 years or more	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Boys.....	1,264		861		366		37	
Change reported.....	1,156	100	794	100	331	100	31	( <sup>1</sup> )
Increase.....	859	74	528	66	300	91	21	
Less than \$1.....	52	4	44	6	7	2	1	
\$1, less than \$2.....	95	8	78	10	15	5	2	
\$2, less than \$3.....	109	9	84	11	24	7	1	
\$3, less than \$4.....	92	8	58	7	33	10	1	
\$4, less than \$5.....	104	9	63	8	40	12	1	
\$5, less than \$10.....	293	25	164	21	117	35	12	
\$10 and more.....	114	10	37	5	64	19	13	
Decrease.....	150	13	139	18	11	3		
No change.....	147	13	127	16	20	6		
Change not reported.....	108		67		35		6	
Girls.....	1,122		647		385		90	
Change reported.....	1,022	100	591	100	353	100	78	100
Increase.....	771	75	391	66	308	87	72	92
Less than \$1.....	55	5	36	6	15	4	4	5
\$1, less than \$2.....	86	8	59	10	25	7	2	3
\$2, less than \$3.....	116	11	73	12	37	10	6	8
\$3, less than \$4.....	99	10	57	10	38	11	4	5
\$4, less than \$5.....	82	8	40	7	33	9	9	12
\$5, less than \$10.....	258	25	110	19	119	34	29	37
\$10 and more.....	75	7	16	3	41	12	18	23
Decrease.....	114	11	90	15	20	6	4	5
No change.....	137	13	110	19	25	7	2	3
Change not reported.....	100		56		32		12	

<sup>1</sup> Not shown because number of boys was less than 50.

#### Relation of occupation to wage.

There were practically no differences, in either the first or the last positions of the boys in this study, between the wages of those who worked in factories and those who worked in stores and in clerical

<sup>38</sup> An Experimental Study of Children, pp. 552, 602.

occupations (not including errand or messenger boys).<sup>39</sup> (Tables 13 and 14.) As compared with 30 per cent of the boys of the present study who were factory operatives, 32 per cent of the sales and other store clerks, and 31 per cent of the clerical workers received \$15 or more in their last positions. The wages of laborers and errand and messenger boys were somewhat lower; only 6 per cent of the errand and messenger boys (including telegraph messengers, who were seldom over 16 years of age) and 18 per cent of the laborers received as much as \$15 a week. The wages of the factory operatives varied but little in the different manufacturing industries, although wages in the electrical-supply industry appeared to be slightly higher on the whole than wages in the shoe, metal, and other manufacturing industries. A number of boys (59) received some form of maintenance as part of their compensation; in many instances these boys helped their parents in stores or in other occupations.

The similarity of wages in factory, store, and clerical occupations is clearly shown in the case of boys who were interviewed and were 17 years of age when the inquiry was made. (Table 15.) More than four-fifths of the clerical workers (other than errand boys) and about the same proportion of the factory operatives reported wages of at least \$12 in their last positions; more than one-third—about the same proportions of clerical and factory operatives—had wages of \$16 or more.

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<sup>39</sup> According to figures for the wages of minors published in 1923 by the Industrial Commission of Wisconsin, the wages of minors in the mercantile establishments reporting were lower than those in factories. Wisconsin Labor Statistics, vol. 1, Nos. 5 and 6 (May and June, 1923), p. 4.

TABLE 13.—Occupation, industry, and weekly cash wage in first regular position of employed boys and girls whose work records were obtained, who reported cash wages only, and who were enrolled in the Milwaukee Vocational School

Occupation and industry of first regular position, and sex	Weekly cash wage in first regular position											
	Less than \$8		\$8, less than \$10		\$10, less than \$12		\$12, less than \$15		\$15 and more		Total	
	Number	Per cent <sup>1</sup>	Number	Per cent <sup>1</sup>	Number	Per cent <sup>1</sup>	Number	Per cent <sup>1</sup>	Number	Per cent <sup>1</sup>		
Boys.....	3,446		945	27	831	24	641	19	373	11		
Industry reported.....	3,407		936	27	818	24	634	19	369	11		
Manufacturing and mechanical industries.....	2,029		569	28	439	22	377	10	241	12		
Semiskilled operatives.....	1,742		499	29	372	21	325	19	191	11		
Candy.....	154	64	44	29	20	13	19	12	7	5		
Clothing.....	172	18	23	32	19	22	8	11	7	10		
Electrical equipment.....	100	10	30	30	27	27	22	22	11	11		
Metals.....	424	70	106	25	101	24	84	20	64	15		
Lumber and furniture.....	111	22	30	35	32	29	18	14	14	13		
Paper box.....	111	32	29	41	17	15	8	7	9	8		
Shoes.....	323	64	17	29	65	20	81	25	29	9		
Textiles.....	67	6	9	40	10	15	20	30	4	6		
Other manufacturing and mechanical industries.....	380	79	96	25	91	24	68	18	46	12		
Laborers.....	144	24	41	28	32	22	26	18	21	15		
Others.....	143	24	17	29	20	35	24	18	29	20		
Transportation, trade, and clerical.....	1,262	214	350	28	357	28	230	18	111	9		
Sales and stock boys and other clerks in stores.....	175	27	15	44	25	33	19	49	28	13		
Telephone operators.....	1											
Telegraph messengers and special delivery mail carriers.....	128	14	42	33	40	31	27	21	5	4		
Messenger, errand, office, bundle, and cash boys.....	435	95	22	146	34	136	31	47	11	3		
Stenographers and typists.....	12				6							
Bookkeepers and cashiers.....	10				3							
Other clerical.....	279	18	73	26	93	33	62	22	33	12		
Drivers and helpers.....	76	21	28	17	22	16	10	13	12	16		
Others.....	123	35	25	20	29	20	18	15	20	16		
Occupation not reported.....	23	4	3		5		5		0	0		

<sup>1</sup> Not shown where number of boys and number of girls was less than 50.

EMPLOYED BOYS AND GIRLS IN MILWAUKEE

TABLE 13.—Occupation, industry, and weekly cash wage in first regular position of employed boys and girls whose work records were obtained, who reported cash wages only, and who were enrolled in the Milwaukee Vocational School—Continued

Occupation and industry of first regular position, and sex	Employed boys and girls who reported cash wages only and whose work records were obtained											
	Less than \$8		\$8, less than \$10		\$10, less than \$12		\$12, less than \$15		\$15 and more			
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
<b>Total</b>	70	20	29	20	14	20	14	20	16	23	6	9
Boys—Continued	26	7	1	1	7	7	6	6	5	5	5	5
Industries reported—Continued	20	6	2	2	1	1	5	5	6	6	6	6
Domestic and personal service	39	6	9	9	13	13	7	7	4	4	4	4
Professional and semiprofessional pursuits	4,040	1,132	28	1,254	31	802	20	685	17	167	4	4
Other industries	4,002	1,121	28	1,240	31	794	20	682	17	165	4	4
Industry not reported	2,754	748	27	1,045	38	554	20	332	12	75	3	3
Girls	2,740	745	27	1,042	38	550	20	328	12	75	3	3
Industry reported	780	281	36	330	42	128	16	36	5	5	1	1
Manufacturing and mechanical industries	328	111	34	102	31	70	21	37	11	8	2	2
Semiskilled operatives	33	3	9	9	10	8	8	8	3	3	3	3
Candy	50	10	20	14	28	16	32	7	14	3	6	6
Clothing	15	3	5	5	3	3	3	3	3	1	1	1
Electrical equipment	173	49	28	80	46	26	15	16	9	2	2	2
Metals	248	69	28	77	31	60	24	38	15	4	4	4
Lumber and furniture	902	182	17	362	40	190	21	155	17	43	5	5
Paper box	211	67	32	63	30	47	22	28	13	6	3	3
Shoes												
Textiles												
Other manufacturing and mechanical industries												
Laborers	4	1		3	3	3	3	3	4	4	4	4
Others	10	2		3	1	1	1	1	1	1	1	1

THE EMPLOYED MINORS OTHER THAN APPRENTICES

	963	159	17	155	16	227	24	333	35	89	9
Transportation, trade, and clerical.....	248	75	30	44	18	49	20	65	26	15	6
Sales and stock girls and other clerks in stores.....	106	19	29	27	41	14	13	73	69	19	18
Telephone operators.....	66	14	6	22	10	14	21	5	8	1	2
Messenger, errand, office, bundle, and cash girls.....	229	6	10	12	19	62	27	95	41	36	16
Stenographers and typists.....	62	6	3	10	19	16	26	24	39	4	6
Bookkeepers and cashiers.....	222	38	17	42	19	65	20	63	28	14	6
Other clerical.....	25	6	1	5	5	7	2	7	2	1	6
Others.....	5	1	1	3	1	7	1	1	1	1	1
Occupations not reported.....	5	1	1	3	1	7	1	1	1	1	1
Domestic and personal service.....	267	208	78	37	14	8	3	13	5	1	(*)
Professional and semiprofessional pursuits.....	18	6	1	3	1	5	1	4	1	1	1
Industry not reported.....	38	11	1	14	1	8	1	3	1	2	1

\* Less than 1 per cent.

EMPLOYED BOYS AND GIRLS IN MILWAUKEE

TABLE 14.—Occupation, industry, and weekly cash wage in last position of boys and girls employed January 31, 1925, whose work records were obtained, who reported cash wages only, and who were enrolled in the Milwaukee Vocational School

Occupation and industry of last position, and sex	Boys and girls employed Jan. 31, 1925, who reported cash wages only and whose work records were obtained											
	Less than \$8		\$8, less than \$10		\$10, less than \$12		\$12, less than \$15		\$15 and more		Weekly cash wage in last position	
											Number	Percent <sup>1</sup>
Total	182	6	444	14	698	22	903	29	877	28	24	
Boys.....	182	6	444	14	698	22	903	29	877	28	24	
Industry reported.....	182	6	438	14	690	22	894	29	869	28	25	
Manufacturing and mechanical industries.....	106	6	246	14	360	20	531	30	541	30	20	
Semiskilled operatives.....	82	5	207	14	307	20	461	31	449	30	20	
Candy.....	10	12	8	10	19	23	25	30	20	24		
Clothing.....	64	2	16	25	14	22	17	27	16	25		
Electrical equipment.....	107	5	9	8	18	17	38	36	37	35		
Metals.....	388	18	58	16	71	20	97	27	114	32		
Lumber and furniture.....	185	5	17	13	27	20	37	28	46	35		
Paper box.....	37	4	11	19	9	16	17	30	16	28		
Shoes.....	37	6	42	13	60	19	97	30	101	32		
Textiles.....	77	3	7	9	17	22	31	40	20	26		
Other manufacturing and mechanical industries.....	309	17	39	13	72	23	102	33	79	26		
Laborers.....	101	8	25	25	28	28	22	22	18	18		
Others.....	177	10	9	14	8	25	14	48	27	42		
Transportation, trade, and clerical.....	1,103	65	5	184	15	314	26	339	28	24		
Sales and stock boys and other clerks in stores.....	161	8	18	11	33	20	50	31	62	32		
Telephone operators.....	2						1		1			
Telegraph messengers and special delivery mail carriers.....	46	2	16	27	24	41	14	24	3	5		
Messenger, errand, office, bundle, and cash boys.....	322	30	82	25	112	35	78	24	20	6		
Stenographers and typists.....	46				6		2		8			
Bookkeepers and cashiers.....	29				5		11		13			
Other clerical.....	381	6	42	11	89	23	131	34	113	30		
Drivers and helpers.....	382	8	11	10	15	18	17	21	31	38		
Others.....	123	8	13	11	26	21	32	26	44	36		
Occupation not reported.....	18	2	7	3	4	4	3	3	6	6		

THE EMPLOYED MINORS OTHER THAN APPRENTICES

	43	7	6	10	9	11
Domestic and personal service.....	43	7	6	10	9	11
Professional and semiprofessional pursuits.....	45	4	2	6	14	19
Other industries.....	8				1	7
Industry not reported.....	31		6	8	9	8
<b>Girls.....</b>	<b>3,626</b>	<b>389</b>	<b>651</b>	<b>862</b>	<b>1,076</b>	<b>648</b>
Industry reported.....	3,608	385	647	858	1,072	646
Manufacturing and mechanical industries.....	2,209	230	525	615	587	342
Semiskilled operatives.....	2,279	229	524	611	581	334
Candy.....	491	80	164	150	82	25
Clothing.....	284	40	69	60	76	39
Electrical equipment.....	34	1	2	10	11	14
Metals.....	50	1	14	18	13	10
Lumber and furniture.....	15	1	3	3	5	22
Paper box.....	132	16	30	41	30	6
Shoes.....	261	17	39	74	70	16
Textiles.....	535	57	131	194	248	43
Other manufacturing and mechanical industries.....	174	17	41	61	46	22
Laborers.....	4		1	2		9
Others.....	16	1		2	6	7
Transportation, trade, and clerical.....	1,107	47	93	223	458	286
Sales and stock girls and other clerks in stores.....	207	27	27	51	25	11
Telephone operators.....	198		13	7	96	48
Messenger, errand, office, bundle, and cash girls.....	32	1	40	19	10	94
Stenographers and typists.....	261	3	21	48	37	19
Bookkeepers and cashiers.....	89	3	1	18	105	40
Other clerical.....	261	9	5	18	53	95
Others.....	25	4	10	70	64	20
Occupation not reported.....	4		2	10	106	50
Domestic and personal service.....	180	102	29	17	19	13
Professional and semiprofessional pursuits.....	22	6		3	8	5
Industry not reported.....	18	4	4	4	4	2

1 Not shown where number of boys and number of girls was less than 50.

The girls who worked in factories received lower wages than those who were in store or clerical work in both their first and their last positions. In the last positions, wages of \$12 or more were reported for 40 per cent of the factory operatives, 46 per cent of the sales and other store clerks, 65 per cent of the clerical workers, and practically all the telephone operators. Low wages were paid to girls employed in the candy and paper-box industries, approximately three-fourths of whom received less than \$12 a week. In the textile industries, which employed more of the older girls, wages were somewhat better, but in this industry also many were earning low wages, nearly one-half receiving less than \$12 a week. The girls who earned the lowest wages did housework in private families, most of them being paid less than \$10 a week. However, their wages were undoubtedly supplemented in many cases by meals or some form of maintenance, although this fact did not appear on the records from which the information was obtained.

The tendency of girls to receive better wages in clerical than in factory work is shown more clearly by the wages of the interviewed girls who were 17 years of age when the study was made. The wages of 65 per cent of the factory workers and 80 per cent of the clerical workers were \$12 or more a week. Low wages were more common in factory than in clerical work; 13 per cent of the girls of 17 in factories but only 1 per cent of those in clerical work were earning less than \$10 a week. However, about the same proportion (21 and 20 per cent, respectively) were earning \$16 and more. (Table 15.)

TABLE 15.—Occupation, industry, and weekly wage in last position of interviewed boys and girls 17 years of age employed January 31, 1925, who were enrolled in the Milwaukee Vocational School

Occupation and industry of last position, and sex	Interviewed employed boys and girls 17 years of age										
	Total	Weekly wage in last position									
		Less than \$10	\$10, less than \$12	\$12, less than \$14	\$14, less than \$16	\$16, less than \$18	\$18, less than \$20	\$20 or more	Cash plus other only	No wage reported	Wage not reported
<b>Boys</b> .....	619	41	87	143	142	60	48	65	18	1	14
Manufacturing and mechanical industries.....	334	25	38	74	79	34	27	42	8		7
Semiskilled operatives.....	275	18	28	61	69	31	26	33	3		6
Laborers.....	13	3	3	2	2			1	1		1
Others.....	45	4	7	10	8	3	1	8	4		
Occupation not reported.....	1			1							
<b>Transportation, trade, and clerical</b> .....	252	13	45	62	58	22	17	22	7	1	5
Sales and stock boys and other clerks in stores.....	31	3	4	5	10	5		2	2		
Messenger and errand boys.....	38	4	13	12	9						
Other clerical workers.....	121	2	19	34	27	16	11	10			2
Others.....	60	4	9	11	12	1	5	10	5	1	2
Occupation not reported.....	2										1
<b>Domestic and personal service</b> .....	12	1	1	1	2	2	1	1	3		
Other industries.....	14	1	2	4	1	2	3				1
Industry not reported.....	7	1	1	2	2						1
<b>Girls</b> .....	561	53	102	149	118	66	25	27	13		8
Manufacturing and mechanical industries.....	287	36	64	61	62	25	14	20	1		4
Semiskilled operatives.....	283	35	63	61	61	24	14	20	1		4
Others.....	4	1	1	1	1	1					
<b>Transportation, trade, and clerical</b> .....	242	10	33	83	51	40	10	6	6		3
Sales and stock girls and other clerks in stores.....	39	7	3	17	2	2			6		2
Telephone operators.....	40		1	6	11	20		1			1
Clerical workers.....	158	2	28	69	36	18	8	6			
Others.....	4	1	1	1	1	1					
Occupation not reported.....	1			1	1						
<b>Domestic and personal service</b> .....	24	7	4	2	3	1	1		6		
Other industries.....	4			2	2						
Industry not reported.....	4		1	1				1			1

**Relation of school attainment to wage.**

There is no definite evidence that the amount of education the boys had had affected their wages during the first years of their working lives. The boys with some high-school training were older than the eighth-grade graduates when they began work, and probably, chiefly for this reason, they received somewhat better wages in both their first and last positions. Moreover, the wages of the group of boys of 17 years of age who were interviewed did not vary with their school attainment; that is, there was almost no difference in wage in the last positions between those with some high-school or commercial training and those with only the elementary schooling. Wages of less than \$12 a week were reported by 23 per cent of the ninth-grade graduates and commercial-school boys and by 28 per cent of the boys who had not completed the eighth grade or had last attended prevocational classes. Wages of \$16 or more a week were reported by 25 per cent of those who had completed the ninth grade and the same percentage of the boys from a grade lower than the eighth. (Table 16.) The wages of all but 2 of the 20 boys who had graduated from high school were at least \$16; 2 of them were earning as much as \$30 a week.

TABLE 16.—*Last grade completed and weekly cash wage in last position of interviewed boys and girls, 17 years of age, employed January 31, 1925, receiving cash wage only who were enrolled in the Milwaukee Vocational School*

Weekly cash wage in last position, and sex	Boys and girls 17 years of age employed Jan. 31, 1925								
	Total	Last grade completed							Not reported
		Less than eighth	Eighth	Ninth and higher	Commercial	Girls' Trade School	Prevocational	Other	
Boys.....	586	145	264	135	14	.....	25	1	2
Less than \$10.....	41	13	15	11	.....	.....	2	.....	.....
\$10, less than \$12.....	87	28	31	21	3	.....	4	.....	.....
\$12, less than \$14.....	143	27	76	31	2	.....	5	1	1
\$14, less than \$16.....	142	40	54	38	2	.....	7	.....	1
\$16, less than \$18.....	60	8	33	16	2	.....	1	.....	.....
\$18, less than \$20.....	48	13	22	8	3	.....	2	.....	.....
\$20 and more.....	65	16	33	10	2	.....	4	.....	.....
Girls.....	540	100	212	71	71	79	4	.....	3
Less than \$10.....	53	17	19	4	.....	8	3	.....	2
\$10, less than \$12.....	102	26	36	11	10	17	1	.....	1
\$12, less than \$14.....	149	11	64	23	22	29	.....	.....	.....
\$14, less than \$16.....	118	28	40	17	22	11	.....	.....	.....
\$16, less than \$18.....	66	10	30	9	11	6	.....	.....	.....
\$18, less than \$20.....	25	4	9	5	3	4	.....	.....	.....
\$20 and more.....	27	4	14	2	3	4	.....	.....	.....

The girls' wages, on the contrary, appear to have been materially affected by their school attainment. There was a considerable difference between both the beginning and the last wages of girls from the ninth and higher grades and from commercial schools and those of girls from the elementary grades and the trade school. No doubt this was partly due to the fact that the girls who had attended high schools were older when they began work than were the eighth-grade graduates. The better earning capacity of the girls with the higher

school attainment is shown conclusively by the wages of the girls who were 17 years of age at the time they were interviewed. (Table 16.) Only 3 per cent of the ninth-grade and commercial-class girls, as compared with 14 per cent of those who had not graduated from the eighth grade or who had been in trade school, reported wages of less than \$10 in their last positions. The wages of 82 per cent of the girls from the higher grades, as compared with 57 per cent of those from grades lower than the eighth, were \$12 weekly. The wages of the eighth-grade graduates were higher than those of girls who had failed to graduate, but not so high as those of girls who had been to high school. Eighteen of the 26 girls who had graduated from high school were earning between \$15 and \$25 a week at the time they were interviewed or in their last positions.

The explanation of the difference in the effect of school accomplishment on the wages of girls and boys lies no doubt in the difference in the wages paid the two sexes for factory and for store or clerical work. Both boys and girls with some high-school and commercial training tended to go into clerical and store work, but the wages for boys in offices and stores were no better than in factories, whereas for girls wages in offices and stores tended to be higher than in factories. If inquiry could be made 5 or 10 years after all the boys and girls had started work, the relation of educational advantages to wages might be more evident in the case of boys as well as girls.

The evidence brought out in other studies concerning the advantage of educational attainment in the matter of wages is conflicting. In Newark completion of the eighth or a higher grade meant a somewhat better wage than was received by children with a lower school accomplishment.<sup>40</sup> In Cincinnati there was no relation between wages and school attainment during the first four years of a child's working life; boys and girls in that study who had completed only the fifth grade at 14 had as good an earning capacity as those who had completed the eighth grade. The Cincinnati study, however, did not include children who had gone further than the eighth grade. In Cincinnati it was found that wages paid boys who went into office work were but slightly better than those for factory work. For girls wages in stores and offices were somewhat less than in factories. Children from the upper grades in Cincinnati as well as in Milwaukee tended to enter stores and offices rather than factories.<sup>41</sup>

#### REGULARITY OF EMPLOYMENT

The regularity of a child's employment is affected, of course, not only by his own temperament and desires but by circumstances over which he has no control, such as a general industrial depression or seasonal employment. It should be remembered that some individuals in the present study had begun work as early as 1921 and may have been affected by the unemployment situation in Wisconsin caused by the industrial depression of 1921-22. Information concerning the amount of time unemployed, the duration of positions and number of changes was obtained through interviews for 1,937 of the boys and 1,676 of the girls included in the study.

<sup>40</sup>The Working Children of Newark and Paterson, p. 32.  
<sup>41</sup>An Experimental Study of Children, pp. 602-603, 735.

**Length of work history.**

The median length of the possible work history for the interviewed group—that is, the period between the date of beginning work and the date of the inquiry—was between 15 and 18 months for the boys and between 18 and 21 months for the girls, or about the same as for the group which was not interviewed. The length of the possible work histories of about one-third was less than one year for both boys and girls, and a very small proportion (2 per cent of the boys and 5 per cent of the girls) had possible work histories of three or more years. The work histories of the boys and girls who were 16 and 17 years of age at the time of the study were naturally longer than those of the younger children, but a considerable proportion of these, too, who had not begun work until they were 16, had work histories of less than a year. (Table 17.)

TABLE 17.—Length of work history and age January 31, 1925, of interviewed employed boys and girls who were enrolled in the Milwaukee Vocational School

Length of work history, and sex	Interviewed employed boys and girls										
	Total		Age Jan. 31, 1925								
			Under 15 years (num- ber) <sup>1</sup>	15 years		16 years		17 years		18 years and over	
	Num- ber	Per cent distrib- ution		Num- ber	Per cent distrib- ution	Num- ber	Per cent distrib- ution	Num- ber	Per cent distrib- ution	Num- ber	Per cent distrib- ution
Boys.....	1,937		37	299		717		777		107	
Length of work history reported.....	1,909	100	36	293	100	713	100	760	100	107	100
Less than 3 months.....	84	4	8	25	9	42	6	9	1		
3 months, less than 6.....	264	14	19	86	29	126	18	31	4	2	2
6 months, less than 9.....	135	7	4	40	14	62	9	28	4	1	1
9 months, less than 12.....	162	8	4	40	14	89	12	27	4	2	2
12 months, less than 18.....	326	17	1	55	19	129	18	132	17	9	8
18 months, less than 24.....	535	28		47	16	197	28	266	35	25	23
24 months, less than 36.....	366	19				68	10	243	32	55	51
36 months, less than 48.....	35	2						24	3	11	10
48 months and more.....	2	(?)								2	2
Length of work history not reported.....	28		1	6		4		17			
Girls.....	1,676		33	211		655		672		105	
Length of work history reported.....	1,664	100	33	208	100	654	100	666	100	103	100
Less than 3 months.....	83	5	12	22	11	41	6	8	1		
3 months, less than 6.....	219	13	14	76	37	104	16	24	4	1	1
6 months, less than 9.....	136	8	6	36	17	69	11	25	4		
9 months, less than 12.....	104	6	1	13	6	60	9	30	5		
12 months, less than 18.....	230	14		38	18	82	13	102	15	8	8
18 months, less than 24.....	417	25		22	11	203	31	173	26	19	18
24 months, less than 36.....	385	23		1	(?)	95	15	237	36	52	50
36 months, less than 48.....	84	5						67	10	17	17
48 months and more.....	6	(?)								6	6
Length of work history not reported.....	12			3		1		6		2	

<sup>1</sup> Per cent distribution not shown because number of boys and number of girls was less than 50.

<sup>2</sup> Less than 1 per cent.

**Unemployment.**

The great majority of the individuals of the present study were actually employed on the date the study was made (the last week of January, 1925). About one-fifth, however, were temporarily out of work. It is probable that the number unemployed in January was somewhat larger than it would have been at some other time of the year since the total number of persons at work in Milwaukee manufacturing industries in January, 1925, was smaller than in the other months of the same year.<sup>42</sup> Many of those unemployed at the time of the study had not been out of work for more than one or two months; about 3 per cent of the total number had been unemployed for six months or more.

That young workers have but little unemployment during the first years of their work experience has been indicated in several recent studies as well as in earlier studies of employed children in various cities. Working children of Newark and Paterson, N. J., according to the Children's Bureau study made in 1925, had been employed for most of the first year or two of their working lives. This is true of employed children in New Britain and Norwich, Conn., as is shown in a study made by the National Child Labor Committee in 1928. The New York State Department of Education found that boys attending continuation schools in 1926 were employed most of the time but that this was not true of the girls. Earlier studies also, both the one made in Connecticut and that made in Boston, show but little unemployment among either boys or girls. The study of Cincinnati children begun in 1911 is especially significant in this connection because it covered the first four years of the child's working life, a longer period than that included in any of the other studies mentioned. Three-fourths of the Cincinnati children were found to have been employed in each of the four years for 50 or more weeks out of the 52.<sup>43</sup> The present study of employed Milwaukee minors confirms the conclusion that both boys and girls who leave school before they are 16 are employed during the greater part of the first years of their working lives.

For the boys and girls with work histories of a year or more, the great majority of whom were at least 16 years of age at the time they were interviewed, the percentage of time they had been out of work was calculated. Children who had a work history of less than a year were not included in this calculation because many of them had such short work histories that they had little chance to be unemployed. Sixty-three per cent of both the boys and the girls for whom the information was obtained had been unemployed less than one-tenth of their work histories. Only a small proportion (8 per cent of the boys and 11 per cent of the girls) had been unemployed for one-half or more of the time they might have worked. (Table 18.)

Because Milwaukee boys and girls were somewhat older and had longer work histories than young workers in other studies made by the Children's Bureau, the information with regard to unemployment in the different studies is not exactly comparable. Nevertheless, the

<sup>42</sup> Wisconsin Labor Market, vol. 6, No. 11 (November, 1926), p. 1.  
<sup>43</sup> The Working Children of Newark and Paterson, p. 37; Child Workers in Two Connecticut Towns, p. 33; Statements of New York State Department of Education released Feb. 18, 1929 (boys), and July 8, 1929 (girls); The Working Children of Boston, p. 191; Industrial Instability of Child Workers, p. 34; An Experimental Study of Children, p. 55.

proportion that had been out of work one-fifth or more of the time was almost the same in Milwaukee and in Newark for children who had gone to work before they were 16 and whose work histories were from one to two years. This percentage was 24 for Newark and 29 for Milwaukee. However, very short periods of unemployment were more common and very long periods of unemployment somewhat less common in Newark than in Milwaukee.<sup>44</sup>

Unlike many State child labor laws, the Wisconsin law does not require that children under 16 at work on employment certificates shall attend school on full time when they are temporarily unemployed. No doubt this is one explanation of the fact that some children were unemployed and out of school not only for a large percentage of their work histories but for considerable periods of time between positions. About 10 per cent of the Milwaukee minors—almost the same percentage of boys and of girls—had been out of work as long as six months at a time between positions.

The girls in Milwaukee reported little if any more unemployment than the boys.<sup>45</sup> In Newark it was found that there was little difference between boys and girls in the matter of unemployed time. In Boston and likewise in Cincinnati, however, girls were found to have considerably more unemployment than boys. A great deal more unemployment for girls than for boys, among the children attending continuation schools, was reported by the New York State Department of Education.<sup>46</sup>

The study of employed children between 14 and 18 in Cincinnati, all of whom had a work history of at least four years, showed a striking increase in steadiness of employment from year to year.<sup>47</sup> In the study of Connecticut children under 16 who had work histories of less than two years it was also found that unemployment decreased as the children remained longer in industry.<sup>48</sup> Among the Milwaukee boys and girls who were interviewed there was the same tendency for those who had longer work histories to have relatively less unemployment than those with shorter work histories. For example, 22 per cent of the boys with a work history of between one and two years as compared with 12 per cent of those with a work history of two or more years had been out of work for 30 per cent of the time, a difference in percentages large enough to be significant. Likewise 23 per cent of the girls with the shorter work histories as compared with 14 per cent of those with work histories of two years or longer had been unemployed 30 per cent or more of the time. (Table 18.)

<sup>44</sup> The Working Children of Newark and Paterson, p. 37.

<sup>45</sup> However, the number of girls who were enrolled at the vocational school but had never been employed exceeded that of boys. (See p. 64.) These minors are not included in any of the above figures.

<sup>46</sup> The Working Children of Newark and Paterson, p. 36; The Working Children of Boston, p. 191; An Experimental Study of Children, p. 603; statement of New York State Department of Education released July 8, 1929.

<sup>47</sup> The proportion of children who were employed 52 weeks each year was 56 per cent the first year, 64 per cent the second year, and 77 per cent the third year. The children were employed somewhat less steadily the fourth year than the third, but according to the report this was probably because of disturbed industrial conditions. An Experimental Study of Children, p. 559.

<sup>48</sup> Industrial Instability of Child Workers, p. 31.

TABLE 18.—Length of work history and percentage of time unemployed of interviewed boys and girls employed one year or more who were enrolled in the Milwaukee Vocational School

Percentage of time unemployed, and sex	Interviewed boys and girls employed one year or more							
	Total		Length of work history					
			1 year, under 2		2 years, under 3		3 years and over	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Boys.....	1,264		861		366		37	
Unemployment reported.....	941	100	648	100	264	100	29	(1)
None.....	288	31	207	32	78	30	3	
Less than 5 per cent.....	197	21	115	18	71	27	11	
5 per cent, less than 10.....	105	11	75	12	25	9	5	
10 per cent, less than 20.....	109	12	70	11	35	13	4	
20 per cent, less than 30.....	64	7	38	6	23	9	3	
30 per cent, less than 40.....	57	6	40	6	17	6		
40 per cent, less than 50.....	42	4	34	5	6	2	2	
50 per cent and more.....	79	8	69	11	9	3	1	
Unemployment not reported.....	323		213		102		8	
Girls.....	1,122		647		385		90	
Unemployment reported.....	948	100	563	100	318	100	67	100
None.....	290	31	171	30	102	32	17	25
Less than 5 per cent.....	211	22	100	18	96	30	15	22
5 per cent, less than 10.....	94	10	55	10	25	8	14	21
10 per cent, less than 20.....	110	12	65	12	33	10	12	18
20 per cent, less than 30.....	58	6	40	7	15	5	3	4
30 per cent, less than 40.....	52	5	37	7	14	4	1	1
40 per cent, less than 50.....	27	3	15	3	12	4		
50 per cent and more.....	106	11	80	14	21	7	5	7
Unemployment not reported.....	174		84		67		23	

<sup>1</sup> Not shown because number of boys was less than 50.

The age at which the children began work was found to have no relation to the amount of their unemployment, provided the length of their work histories is taken into consideration. The children with work histories of the same lengths who started work at 14, 15, and 16 years of age had about the same percentages of unemployment.

The boys with the higher school attainment tended to have less unemployment than boys from the lower school grades; the school attainment of the girls did not appear to be related to the amount of their unemployment. Among the boys 52 per cent of those with less than an eighth-grade education, 67 per cent of those who had graduated from the eighth grade, and 70 per cent of those who had finished one or more years of high school or had had commercial-school training had been out of work less than one-tenth of their possible work histories. Correspondingly smaller proportions of those from the upper than from the lower grades had been unemployed for long periods. (Table 19.) The girls, however, who had graduated from the eighth grade or from high-school grades or had had commercial-school training appeared to have about as much unemployment as those who had failed to graduate from elementary school. Perhaps this was because girls from high schools and commercial schools

entered clerical and store occupations and girls from the lower grades entered factories where the demand for their work was greater than in offices and stores. Since the graduates of high school all had work histories of less than one year their experience is not significant in this connection.

TABLE 19.—Percentage of time unemployed and last grade completed by interviewed boys and girls employed one year or more who were enrolled in the Milwaukee Vocational School

Last grade completed, and sex	Interviewed boys and girls employed 1 year or more												
	Percentage of time unemployed												Not reported
	Total	Total reported	Less than 5 per cent		5 per cent, less than 10		10 per cent, less than 20		20 per cent, less than 30		30 per cent and more		
			Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	
Boys.....			1,264	941	485	52	105	11	109	12	64	7	
Less than eighth.....	344	251	103	41	27	11	27	11	22	9	72	29	93
Eighth.....	649	489	269	55	57	12	66	13	30	6	67	14	160
Ninth or higher.....	168	128	74	58	15	12	10	8	5	4	24	19	40
Commercial.....	36	24	16	-----	2	-----	1	-----	1	-----	4	-----	12
Prevocational.....	61	45	21	-----	4	-----	4	-----	6	-----	10	-----	16
Other.....	2	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Not reported.....	4	3	1	-----	-----	-----	1	-----	-----	-----	1	-----	1
Girls.....	1,122	948	501	53	94	10	110	12	58	6	185	20	174
Less than eighth.....	212	183	89	49	19	10	26	14	9	5	40	22	29
Eighth.....	542	466	258	55	44	9	56	12	28	6	80	17	76
Ninth or higher.....	110	88	42	48	8	9	5	6	7	7	27	31	22
Commercial.....	104	85	46	54	9	11	11	13	4	5	15	18	19
Trade school.....	141	117	64	55	13	11	12	10	8	7	20	17	24
Prevocational.....	3	3	1	-----	-----	-----	-----	-----	-----	-----	2	-----	2
Not reported.....	10	6	1	-----	1	-----	-----	-----	3	-----	1	-----	4

<sup>1</sup> Not shown where number of boys and number of girls was less than 50.

School attainment has been found to be related to unemployment in several other studies, children from the upper grades having a somewhat better record with regard to unemployment during their first years at work than those from the lower grades. According to the Cincinnati study there was less unemployment among both boys and girls who had completed the eighth grade than among those who had completed only the fifth grade. The Newark study also showed that there was somewhat less unemployment among the boys who had completed the eighth grade than among those from the lower grades.<sup>49</sup>

It might be expected that unemployment would have a detrimental effect on wages, but there was no marked relation between wages and unemployment, possibly because the number of individuals who had been unemployed for a great deal of time was small and a little unemployment would not be likely to affect wages. Among the boys there was no association of unemployment with low wages; neither did unemployment affect the extent to which wages had increased since the boys started work. Among the girls, however, there was a slight indication that those who earned very low wages and those who re-

<sup>49</sup> An Experimental Study of Children, p. 602; The Working Children of Newark and Paterson, p. 38.

ceived the smaller wage increases since starting work had had more unemployment than those whose wages were higher. For example, 25 per cent of the girls who received less than \$10 in their last positions, as compared with only 11 per cent of those who earned between \$10 and \$12 a week and 9 per cent of those who received \$12 and more a week, had been out of work for the relatively large proportion of 30 per cent or more of their work histories.

**Duration of first position.**

At the time of the inquiry the first positions of most of the individuals who were interviewed were ended; only 19 per cent, about the same proportion of boys and of girls, were still working for their first employer.<sup>50</sup> In Milwaukee, as in other cities where the employment of young workers has been studied, most of the boys and girls had held their first positions but a short time. Sixty-two per cent of the boys whose first positions were ended and 59 per cent of the girls had kept them for less than three months; 27 per cent of the boys and 23 per cent of the girls, less than one month. A considerable proportion, however (20 per cent of the boys and 22 per cent of the girls), had kept their first positions for six months or longer. (Table 20.)

The Milwaukee children who went to work before they were 16 kept their first positions, which had terminated by the date of the inquiry, an even shorter time than children who went to work at the same ages in Newark, N. J. According to the Children's Bureau study made there, 48 per cent of both boys and girls as compared with 60 per cent of the boys and 56 per cent of the girls of Milwaukee stayed in their first positions less than three months. The duration of the first positions of working children of Boston, all of whom had likewise started work before they were 16, was somewhat similar to the duration of the first positions of Milwaukee children, the positions of 49 per cent of the boys and 60 per cent of the girls in Boston having lasted less than three months. Little difference in the duration of the first positions of boys and girls was found either in Milwaukee or in Newark; in Boston, however, the girls kept their positions a shorter time than the boys.<sup>51</sup>

No conclusions, however, could be reached in this study as to whether or not children who began work before they were 16 kept their first positions a longer or a shorter time than those who began work when they were older. A smaller proportion of the Milwaukee children who started work before they were 16 than of those who began after they had reached this age were still employed in their first positions at the time the study was made (14 per cent as compared with 33 per cent). This comparison, of course, must be considered in the light of the fact that the children who were under 16 on starting work had had a longer opportunity to work than the children who were 16 and 17 years old on beginning work.

<sup>50</sup> The duration of a position is defined as the length of time the child stayed with 1 employer irrespective of the number of different occupations in which the child was employed.

<sup>51</sup> The Working Children of Newark and Paterson, p. 39; The Working Children of Boston, p. 361.

TABLE 20.—Age at beginning regular work and duration of first regular position of interviewed employed boys and girls who were enrolled in the Milwaukee Vocational School

Duration of first regular position, and sex	Interviewed employed boys and girls								Age not reported
	Total		Age at beginning regular work						
			14 years and under		15 years		16 years and over		
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	
Boys.....	1,937		563		874		474		26
Terminated positions.....	1,564		509		718		317		20
Duration reported.....	1,380	100	440	100	659	100	278	100	3
Less than 2 weeks.....	159	12	42	10	70	11	45	16	2
2 weeks, less than 1 month.....	213	15	66	15	95	14	52	19	
1 month, less than 3.....	478	35	139	32	244	37	95	34	
3 months, less than 6.....	256	19	88	20	115	17	53	19	
6 months, less than 9.....	110	8	32	7	63	10	15	5	
9 months, less than 1 year.....	81	6	34	8	37	6	10	4	
1 year and more.....	83	6	39	9	35	5	8	3	1
Duration not reported.....	184		69		59		39		17
Position not terminated.....	356		51		151		150		4
Termination not reported.....	17		3		5		7		2
Girls.....	1,676		576		681		401		18
Terminated positions.....	1,358		528		557		261		12
Duration reported.....	1,238	100	485	100	511	100	236	100	6
Less than 2 weeks.....	135	11	56	12	45	9	30	13	4
2 weeks, less than 1 month.....	155	13	59	12	57	11	39	17	
1 month, less than 3.....	435	35	139	29	207	41	88	37	2
3 months, less than 6.....	238	19	97	20	89	17	52	22	
6 months, less than 9.....	109	9	41	8	51	10	17	7	
9 months, less than 1 year.....	72	6	38	8	31	6	3	1	
1 year and more.....	93	8	55	11	31	6	7	3	
Duration not reported.....	120		43		46		25		6
Position not terminated.....	308		48		123		134		3
Termination not reported.....	10				1		6		3

The school attainment of the child appeared to make little difference in the length of time he kept his first position, either among the whole group of boys and girls or among those who had started work when under 16 and had in most cases left their first positions before the date of the study. Among boys who went to work before they were 16 and whose first positions were terminated, 63 per cent of those with less than an eighth-grade education and 55 per cent of those who had had some high-school or commercial training had stayed with their first employer less than three months. Correspondingly smaller proportions of those from the lower than from the upper grades had kept their first positions six months or more, but statistical analysis shows that the differences in proportions are not large enough to be conclusive. There was no relation between the last grade completed by the girls who went to work under 16 and the duration of their first positions. (Table 21.)

TABLE 21.—Duration of first terminated regular position and last grade completed by interviewed employed boys and girls beginning work under 16 years of age who were enrolled in the Milwaukee Vocational School

Duration of first terminated regular position, and sex	Employed boys and girls beginning regular work under 16 years of age												Not reported	
	Total	Last grade completed						Trade school	Other	Per cent distribution	Number	Per cent distribution		
		Less than eighth		Eighth		Ninth, tenth, and eleventh								Commercial
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Boys.....	1,437	356		797		146		39		95		4		
Terminated positions.....	1,227	302		698		114		35		75		3		
Duration reported.....	1,099	277	100	619	100	97	100	32	(1)	71	100	3		
Less than 1 month.....	273	83	30	148	24	21	22	5		15	21	1		
1 month, less than 3.....	383	92	33	212	34	36	37	9		34	48	1		
3 months, less than 6.....	203	54	19	115	19	16	16	11		12	17	1		
6 months, less than 1 year.....	166	38	14	92	15	15	13	2		9	13	1		
1 year and more.....	74	10	4	52	8	9	9			1	1			
Duration not reported.....	128	25		79		17		3		4				
Position not terminated.....	202	52		95		32		4		18		1		
Termination not reported.....	8	2		4						2				
Girls.....	1,257	219		681		87		104		14		2		
Terminated positions.....	1,085	202		583		72		94		6		2		
Duration reported.....	996	188	100	542	100	64	100	84	100	112	100	6	(1)	
Less than 1 month.....	217	43	23	123	23	16	25	15	18	17	15			
1 month, less than 3.....	346	66	35	177	33	25	39	24	26	51	46	3		
3 months, less than 6.....	186	37	20	104	19	11	17	22	26	12	11			
6 months, less than 1 year.....	161	28	15	86	16	10	16	19	23	18	16			
1 year and more.....	86	14	7	52	10	2	3	4	5	14	13			
Duration not reported.....	89	14		41		8		10		14		2		
Position not terminated.....	171	17		98		15		10		23				
Termination not reported.....	1									1				

(1) Not shown because number was less than 50.

The kind of occupations which the boys and girls entered when they first began work appeared to make but little difference in the length of time they remained with their first employers, although the duration of the first positions of the individuals in the principal occupational divisions varied slightly. The boys who entered factories as operatives tended to remain a somewhat shorter time than those who went into clerical, errand, sales, or stock work. For example, 63 per cent of the boys who were factory operatives, as compared with 51 per cent of those who did clerical, errand, sales, or stock work, kept their first positions less than three months. Eighteen per cent of those in factories as compared with 29 per cent of those in the other types of work enumerated stayed in their first positions for the relatively long periods of six or more months. Among the boys whose first positions lasted an especially short time were boys who carried messages for the telegraph companies. The girls who were factory workers remained in their first positions about the same length of time as girls who were clerical workers. Some of the girls in sales, stock, or other store work remained but a very short time; 24 of 74 reporting duration in this type of work stayed less than one month, no doubt because they had taken temporary jobs during busy weeks in department stores. Domestic workers were also inclined to hold their first positions but a short time.

#### **Duration of last position.**

After boys and girls have been some time in industry they apparently settle down to steady work in one position, to judge from the fact that the duration of the positions in which the Milwaukee children were employed at the time of the inquiry was much longer than the duration of their first terminated positions. The length of time they had been employed in their present position up to the time of the study depended largely on the length of the time they had had an opportunity to work since leaving school. A small group of boys and girls had been employed for the whole of their work history, usually a short one, in one position, and were still employed at the time of the study. There were 1,124 boys and 1,016 girls who had had two or more positions, were employed in January, 1925, and reported the duration of the positions they were holding. Of this number over half, 53 per cent of the boys and 57 per cent of the girls, had held their present positions six or more months, including 33 per cent and 39 per cent, respectively, who had been in their present positions for at least one year and were still employed.

#### **Changes in position.**

The number of times an individual changes positions is one indication of his stability or lack of stability as a worker, at least when the length of his possible work history is also taken into consideration. Several changes in positions during the first few years of a child's working life may be an indication of initiative and ability to progress, since he may change from an inferior position to another in which the wage or the chance of promotion is better. That some changing may, indeed, be desirable is indicated by the fact that the boys and girls of this study who had changed positions several times had greater increases in wages between the time of beginning work and the time of the study than those who had had but one or two positions. It is when a child changes his positions repeatedly and when the changing

is accompanied by unemployment that he should be regarded as unstable.

The number of positions which the boys and girls had held since leaving school, as might be expected, depended to a large extent on the length of time they had had an opportunity to work prior to the date of the inquiry. (Table 22.) About one-fourth of the minors who were interviewed (26 per cent of the boys and 27 per cent of the girls) had held but one position; a very few (8 boys and 2 girls) had held as many as 10 positions. For boys who had work histories of less than one year the average number of positions held was 1.6, but it was 2.9 for those with work histories of between one and two years and 3.9 for those with work histories of two or more years. For girls the average number of positions was 1.6, 2.7, and 3.4, respectively, for corresponding groups. As has been explained (p. 3), the number of positions which this group of interviewed boys and girls had held may be slightly higher than for the whole group of employed children on account of the method used in selecting the interviewed group.

TABLE 22.—Length of work history and number of positions held by interviewed employed boys and girls who were enrolled in the Milwaukee Vocational School

Number of positions held, and sex	Interviewed employed boys and girls									Length not reported
	Length of work history									
	Total	Under 1 year		1 year, under <sub>2</sub>		2 years, under <sub>3</sub>		3 years and over		
		Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	
Boys.....	1,937	645	100	861	100	366	100	37	( <sup>1</sup> )	28
1.....	501	341	53	123	14	28	8	1	-----	8
2.....	584	226	35	279	32	65	18	5	-----	9
3.....	380	50	8	229	27	86	23	11	-----	4
4.....	214	23	4	116	13	66	18	6	-----	3
5.....	122	2	( <sup>2</sup> )	60	7	51	14	5	-----	4
6.....	72	2	( <sup>2</sup> )	36	4	29	8	5	-----	-----
7.....	30	1	( <sup>2</sup> )	7	1	20	5	2	-----	-----
8.....	17	-----	-----	4	( <sup>2</sup> )	11	3	2	-----	-----
9.....	9	-----	-----	2	( <sup>2</sup> )	7	2	-----	-----	-----
10 or more.....	8	-----	-----	5	1	3	1	-----	-----	-----
Girls.....	1,676	542	100	647	100	385	100	90	100	12
1.....	449	306	56	110	17	25	6	3	3	5
2.....	532	174	32	232	36	104	27	18	20	4
3.....	352	53	10	164	25	105	27	30	33	-----
4.....	178	7	1	80	12	72	19	17	19	2
5.....	90	2	( <sup>2</sup> )	37	6	41	11	9	10	1
6.....	47	-----	-----	19	3	22	6	6	7	-----
7.....	17	-----	-----	4	1	10	3	3	3	-----
8.....	5	-----	-----	1	( <sup>2</sup> )	3	1	1	1	-----
9.....	4	-----	-----	-----	-----	2	1	2	2	-----
10 or more.....	2	-----	-----	-----	-----	1	( <sup>2</sup> )	1	1	-----

<sup>1</sup> Not shown because number of boys was less than 50.  
<sup>2</sup> Less than 1 per cent.

Since the number of positions depends largely on the length of the possible work history, a classification was made in order to relate the number of positions to the number of years of possible work history. Boys and girls whose work history was less than one year in length are

excluded from the discussion of stability because many of them had started work but a few months before the inquiry was made and their experience during the first few months of work, when adjustments must often be made, would not necessarily be an indication of their stability as workers. Individuals who changed positions less often than once in each 12 months of their work history are classified in class A; those who changed positions once but not twice in each 12 months of work history are classified in class B; and those who changed positions two or more times in each 12 months are classified in class C.<sup>52</sup>

The group of individuals who changed positions less often than once a year (class A)—that is, those who shifted positions relatively seldom—comprised 18 per cent of the boys and 26 per cent of the girls. The largest number of individuals were in class B, the group of those who changed positions on the average of once for each year of work history (48 per cent of the boys and 51 per cent of the girls). A considerable proportion shifted more often. (Table 23.)

TABLE 23.—Average number of positions per year during work history and length of work history for interviewed boys and girls employed 1 year or more who were enrolled in the Milwaukee Vocational School

Average number of positions per year, and sex	Interviewed boys and girls employed 1 year or more						
	Total	Length of work history					
		1 year, less than 2		2 years, less than 3		3 years and more	
		Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Boys.....	1,264	861	100	366	100	37	(1)
Class A, less than 1 position.....	233	123	14	93	25	17	-----
Class B, 1 position, less than 2.....	609	420	49	172	47	17	-----
Class C, 2 or more positions.....	422	318	37	101	28	3	-----
Girls.....	1,122	647	100	385	100	90	100
Class A, less than 1 position.....	291	110	17	129	34	52	58
Class B, 1 position, less than 2.....	568	337	52	199	52	32	36
Class C, 2 or more positions.....	263	200	31	57	15	6	7

<sup>1</sup> Not shown because number of boys was less than 50.

The individuals who change positions seldom may not necessarily work steadily throughout their work histories, as they may hold their positions but a few weeks and be unemployed the rest of the time. On the other hand, individuals who frequently change positions may work fairly steadily, as they may begin work in their new positions immediately on ending their old positions. The Milwaukee boys and girls, however, who had seldom changed positions had, on the whole, little unemployment in comparison with those who shifted positions more frequently. Eighty-one per cent of the boys who changed positions less than once in each year (class A) but only 42 per cent of those who changed positions two or more times a year (class C) had been unemployed less than one-tenth of their possible work histories. On

<sup>52</sup> A similar classification was made in *The Working Children of Boston* (see p. 194 of that study) and also in *The Working Children of Newark and Paterson* (p. 40 of that study).

the other hand, 11 per cent of the boys who seldom changed positions (class A) as compared with 32 per cent of those who changed positions frequently (class C) had been out of work 30 per cent or more of the time. Among the girls there was also a marked association of unemployment and shifting of positions. (Table 24.)

TABLE 24.—Average number of positions per year during work history and percentage of time unemployed for interviewed boys and girls employed one year or more who were enrolled in the Milwaukee Vocational School

Average number of positions per year, and sex	Interviewed boys and girls employed 1 year or more													
	Total	Percentage of time unemployed												
		Total reported		Less than 5		5, less than 10		10, less than 20		20, less than 30		30 or more		Not reported
		Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	
Boys.....	1,264	941	485	52	105	11	109	12	64	7	178	19	323	
Class A, less than 1 position.....	233	216	171	79	4	2	10	5	8	4	23	11	17	
Class B, 1 position, less than 2.....	609	451	250	55	51	11	54	12	30	7	66	15	158	
Class C, 2 or more positions.....	422	274	64	23	50	18	45	16	26	9	89	32	148	
Girls.....	1,122	948	501	53	94	10	110	12	58	6	185	20	174	
Class A, less than 1 position.....	291	268	191	71	13	5	16	6	7	3	41	15	23	
Class B, 1 position, less than 2.....	568	478	247	52	53	11	56	12	29	6	93	19	90	
Class C, 2 or more positions.....	263	202	63	31	28	14	38	19	22	11	51	25	61	

According to the findings of the study made in Cincinnati, there was a tendency for children to become steadier workers the longer they remained in industry.<sup>53</sup> Milwaukee children also appeared to become more steady with their longer work experiences, those with the longer opportunities to work having relatively fewer changes in positions than those with the shorter possible work periods. For example, 14 per cent of the boys with work histories of between one and two years as compared with 27 per cent of those with work histories of two or more years were in the group of those who changed positions least often (class A). Similarly 37 per cent of those with work histories of between one and two years but only 26 per cent of those with longer work histories were in the group of those who changed positions the most often (class C). This tendency was even more marked among the girls than among the boys. (Table 23.)

Whether Milwaukee boys and girls change positions more or less often than working children in other cities in which the Children's Bureau has made studies is not clear because longer work histories were obtained for the children in Milwaukee than for those in the other cities, and children with the longer work histories tended to change positions less often than those who had been at work a shorter time. The children who were employed on work certificates in Con-

<sup>53</sup> According to this study the average number of positions held by boys in the 4 successive years of their work histories was 2.2 positions the first year, 1.9 the second year, 1.7 the third year, and 1.5 the fourth year. For girls there was a similar decrease according to the consecutive year of work history. An Experimental Study of Children, pp. 565, 568.

necticut are more nearly comparable with the Milwaukee children than those in the other studies, because all the Connecticut children for whom figures on shifting of positions are given had work histories of 21 to 24 months in length. Thirty-one per cent of the Connecticut boys, as compared with 18 per cent of the Milwaukee boys, changed positions less than once in each year (that is, were in the group of those who changed positions least often). However, nearly as large a proportion of Connecticut as of Milwaukee boys changed positions repeatedly (that is two or more times a year)—27 per cent and 33 per cent, respectively. The industrial situation in Connecticut before the war when the study was made and that in Milwaukee between 1921 and 1925 may not have been similar, and may have affected the amount of shifting in positions of the individuals included in the two studies. Girls were found to change positions somewhat less frequently than boys in both Milwaukee and Connecticut.<sup>54</sup>

The children who had a relatively high school attainment had some advantage in the matter of stability at work over those who had a lower school attainment. (Table 25.) The boys who had less than an eighth-grade education or had last attended prevocational school were somewhat more likely to be in the group who changed positions repeatedly than were those who were eighth-grade graduates or had been to high school; 46 per cent of the former as compared with 28 per cent of the latter had changed positions on the average of at least twice a year (class C). Similarly, among the girls 34 per cent of those who had not graduated from the eighth grade as compared with 23 per cent of those who had been to trade school, 21 per cent of those who had graduated from the eighth or a higher grade, and 16 per cent of those who had had commercial training were in the group of those who had changed positions two or more times a year (class C). These findings correspond with those of the Cincinnati study, in which it was also revealed that the upper-grade children had a somewhat better record for steadiness of employment than the lower-grade children, the number of shifts in position being somewhat greater for fifth-grade than for eighth-grade children.<sup>55</sup>

<sup>54</sup> Industrial Instability of Child Workers, p. 23.

<sup>55</sup> An Experimental Study of Children, pp. 602-603.

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TABLE 25.—Average number of positions per year during work history and last grade completed by interviewed boys and girls employed one year or more who were enrolled in the Milwaukee Vocational School

Last grade completed, and sex	Interviewed boys and girls employed one year or more						
	Total	Average number of positions per year					
		Class A, less than 1 position		Class B, 1 position, less than 2		Class C, 2 or more positions	
		Number	Per cent <sup>1</sup>	Number	Per cent <sup>1</sup>	Number	Per cent <sup>1</sup>
Boys.....	1,264	233	18	609	48	422	33
Less than eighth grade.....	333	54	16	124	37	155	47
Eighth grade.....	636	117	18	341	54	178	28
Ninth grade or higher.....	167	37	22	86	51	44	26
Commercial.....	36	9		19		8	
Prevocational.....	61	10	16	25	41	26	43
Other.....	2			2			
Not reported.....	29	6		12		11	
Girls.....	1,122	291	26	568	51	263	23
Less than eighth grade.....	204	36	18	98	48	70	34
Eighth grade.....	533	149	28	273	51	111	21
Ninth grade or higher.....	109	35	32	50	46	24	22
Commercial.....	104	26	25	61	59	17	16
Trade school.....	141	40	28	68	48	33	23
Prevocational.....	3	1		2			
Other.....							
Not reported.....	28	4		16		8	

<sup>1</sup> Not shown where number of boys and number of girls was less than 50.

## THE APPRENTICES

The apprenticeship law in Wisconsin is an attempt to adapt the old apprenticeship system to modern industrial conditions and to make it possible for minors to get adequate training in skilled trades. Under the provisions of the law, minors between 16 and 21 may be trained in certain trades or businesses under a written contract or indenture.<sup>56</sup> The period of training varies with the trade and is from one to five years. The industrial commission has the duty of investigating and declaring what occupations and industries should come under the terms of the law and has the power to issue rules and regulations to carry it out.<sup>57</sup> The apprenticeship agreement must state the number of hours to be spent in work and the number of hours to be spent in instruction. During the first two years the period of instruction must be at least four hours per week; and if the apprenticeship is for a period longer than two years, the total hours of instruction must be not less than 400.<sup>58</sup>

The 231 apprentices included in the study were boys between the ages of 16 and 18, an older group than the main group of boys in attendance at the vocational school, since under the law no boy may be apprenticed until he reaches the age of 16. Many apprentices over 18 attended the vocational school but were not covered by the present study.<sup>59</sup> No apprenticed girls under 18 were enrolled at the vocational school. There is nothing in the law to prevent the apprenticeship of girls, but at the time of the study the industrial commission had not worked out apprenticeship requirements for any of the trades which girls generally enter except dressmaking and millinery.

### TERMINATION OF REGULAR SCHOOLING AND BEGINNING OF WORK EXPERIENCE

The majority of the boys who were indentured as apprentices at the time the study was made had left school before they were old enough to become apprentices and had entered other kinds of employment first. Sixty-two per cent left school before they were 16, including 18 per cent who left before they were 15. The proportion of apprentices leaving school under 16, however, was smaller than of the main group of boys, 81 per cent of whom had left school when under this age. (Table 24.)

<sup>56</sup> "The term apprentice shall mean any minor, 16 years of age or over, who shall enter into any contract of service express or implied, whereby he is to receive from or through his employer in consideration for his services \* \* \* instruction in any trade, craft, or business. Every contract or agreement entered into by an apprentice with his employer shall be known as an indenture \* \* \* and shall be in writing \* \* \*." Wisconsin Stat. 1927, sec. 106.01.

<sup>57</sup> Wisconsin Stat. 1927, sec. 106.01. See also Administration of Child Labor Laws, Part 4—Employment-Certificate System, Wisconsin (U. S. Children's Bureau Publication No. 85), pp. 74-76.

<sup>58</sup> Wisconsin Stat. 1927, sec. 106.01.

<sup>59</sup> The number of apprentices included in the study constitute but a small proportion of the number indentured in Milwaukee or in the State. During the school year 1924-25 the total number of apprentices of all ages enrolled in the Milwaukee Vocational School was 1,097. In June, 1924, the Industrial Commission of Wisconsin reported 2,050 indenture agreements in force throughout the State. During the 2 years ended June 30, 1924, 1,414 new indentures had been entered into and 339 apprentices had been graduated; during the 2 years ended June 30, 1926, 1,683 new indentures had been entered into and 430 apprentices graduated. Biennial Report, Industrial Commission of Wisconsin, 1922-1924, p. 51 (Madison, 1925); 1924-1926, p. 47 (Madison, 1926).

As compared with three-fourths of the main group of boys in attendance at the vocational school, one-half of the apprentice group started their working lives before they reached the age of 16. Only 12 per cent of the apprentices as compared with 29 per cent of the other boys went to work at 14 or under.

In school attainment the boys who became apprentices were somewhat superior to the other boys attending the vocational school under the requirements of the compulsory part-time school law. Only 19 per cent of those in the apprentice group were from prevocational classes or had left school before they had graduated from the elementary grades, as compared with 31 per cent of the other boys for whom either the grade or type of school last attended was reported. (Table 26.) At least one year's high-school or business training was reported by 35 per cent of the apprentices as compared with 20 per cent of the other boys. More than three-fourths of the apprentices are known to have finished at least the eighth grade before leaving school. Relatively few of the apprentices had been to business schools; 9 per cent compared with 16 per cent of the other boys had last attended the technical high school which gave instruction in connection with some of the trades to which the boys were afterward indentured.

TABLE 26.—Age at leaving regular school and last grade completed by indentured apprentices enrolled in the Milwaukee Vocational School

Last grade completed	Indentured apprentices					
	Total	Age at leaving regular school				
		Under 15 years	15 years	16 years	17 years and over	Age not reported
Total (boys).....	231	38	91	71	7	24
Less than seventh.....	4		3	1		
Seventh.....	38	2	16	17		3
Eighth.....	96	27	36	22	2	9
Ninth.....	36	6	17	7	1	5
Tenth.....	35		14	18	3	
Eleventh or higher.....	3	1		1		1
Commercial.....	4	1				3
Prevocational.....	4		2		1	1
Not reported.....	11	1	3	5		2

The interval between the time of leaving regular school and entering employment was about the same for the boys in the apprentice group as for the other boys. Neither were they more prompt than the other boys in entering vocational school. (See p. 10.) Twenty-four per cent of the boys who were apprenticed at the time the inquiry was made had lost at least a month's school time between leaving school and going to work; 57 per cent lost at least a month's school time between leaving regular school and entering vocational school. The boys in this group who were not apprenticed on beginning work were, like the other boys, subject to the work-certificate provisions of the law and thus automatically came to the attention of the vocational-school officials when they obtained their work permits. Boys who begin their working lives as apprentices are not required to have work certificates; however, they are required to register at the vocational school at the time the indenture papers are made out.

## OCCUPATIONS

Because of the minimum-age requirement of the apprenticeship law few boys who began work before they were 16 were apprenticed in their first positions; 84 of the 117 boys who began work after they reached the age of 16, however, started their working lives as apprentices. The occupations which the apprenticed boys entered were very similar to those reported for the main group of boys. Of the 96 boys who later became apprentices and for whom industry was reported, 49 were employed in their first positions in factory and other mechanical occupations, chiefly as factory operatives; 30 were in clerical, store, delivery, or errand work; and the remainder were in miscellaneous occupations.

The majority of the boys who were apprenticed when the inquiry was made were indentured as soon as they reached the age of 16; 177 (76 per cent) were indentured at 16 years and 23 (10 per cent) before they reached their sixteenth birthday, in spite of the provisions of the law. The remaining 31 (13 per cent) were indentured after they had reached their seventeenth birthday.

The trades which the boys were learning at the time of the inquiry were varied. The largest numbers of the boys had been apprenticed to machinists or to mechanics in the building trades such as plumbers, plasterers, electricians, carpenters, or cabinetmakers, or sheet-metal workers. Among other trades represented were pattern makers, and moulders, bakers, printers and lithographers, shoe cutters, glove cutters, meat cutters, and stone cutters. (Table 27.) A small proportion of the boys (5 per cent) who were apprenticed were employed by relatives. A few boys had been apprenticed in more than one trade. Several (6) who were reported as apprentices in their first positions had dropped out before the study was made and before their apprenticeships were completed; these are not included in the group of 231 who were indentured at the time the study was made.

TABLE 27.—Occupation to which apprenticed and age January 31, 1925, of indentured apprentices enrolled in the Milwaukee Vocational School

Occupation to which apprenticed	Indentured apprentices			
	Total	Age Jan. 31, 1925		
		16 years, under 17	17 years	18 years and over
Total (boys).....	231	76	151	4
Plumber.....	44	13	31	—
Sheet-metal worker.....	6	2	4	—
Electrician.....	4	—	4	—
Cabinetmaker.....	3	2	1	—
Others in building and hand trades.....	8	1	7	—
Machinist.....	51	20	29	2
Shoemaker and shoe cutter.....	29	17	12	—
Pattern maker.....	23	9	13	1
Draftsman.....	14	1	13	—
Baker.....	8	3	5	—
Knitting-machine adjuster.....	5	1	4	—
Moulder.....	4	1	3	—
Glove cutter.....	5	1	4	—
Commercial artist.....	4	1	3	—
Jeweler.....	3	—	3	—
Meat cutter.....	3	1	2	—
Other occupations.....	16	3	12	1
Occupation not reported.....	1	—	1	—

The school attainment of the apprentices was somewhat higher than that of the other boys who were employed in manufacturing and mechanical occupations. The proportion of boys apprenticed at the time of the study who had had at least one year's high-school or some business-school training was larger than that of the other boys who were employed in factory and other mechanical occupations at the time of the study. The proportion of apprentices with this amount of training was not, however, so large as that of the other vocational-school boys who were employed in clerical work (other than messenger).

## WAGES

Apprentices are paid according to a wage scale which varies with each trade, which is part of the written contract between the apprentice and the employer, and which is approved by the industrial commission.<sup>60</sup> Apprentices' wages are exempted from the provisions of the minimum wage law. At the time of the study most of the boys were in the first year of their apprenticeship, only one-third of them having served for as long as 12 months. Their wages, as would be expected, were relatively low in comparison with the wages of the boys 16 and 17 years of age in other employment. (See p. 29.) However, most of the apprentices (90 per cent) whose wages were reported at the time of the study received \$8 or more a week; that is, more than would be required for beginners 16 and 17 years of age in other work at the rate of 16 cents an hour for a 48-hour week. (See footnote 36, p. 30.) Only 23 per cent of the apprentices received as much as \$12 a week, which on the basis of 25 cents an hour for a 48-hour week would be required under the minimum wage law for minors of 17 after the first six months. The wages reported varied somewhat with the trade, wages being somewhat higher for machinists and pattern makers than for those in the building trades.<sup>61</sup> (Table 28.)

TABLE 28.—Occupation and weekly wage in last position of indentured apprentices enrolled in the Milwaukee Vocational School

Occupation to which apprenticed	Indentured apprentices											
	Total	Weekly wage in last position									Cash plus other or other only	Wage not reported
		Less than \$8	\$8, less than \$9	\$9, less than \$10	\$10, less than \$11	\$11, less than \$12	\$12, less than \$13	\$13, less than \$14	\$14 and more			
Total (boys).....	231	18	33	38	27	25	20	10	11	2	47	
Machinist.....	51			14	1	14	10	6	1		5	
Plumber.....	44	10	16	7	7		1		1		2	
Others in building and hand trades.....	21			2		3		2			14	
Shoemaker and shoe cutter.....	29		12	6	10						1	
Pattern maker.....	23	1	3	2	1	7	2	1			6	
Draftsman.....	14			2	5	1	5				1	
Knitting-machine adjuster.....	5						1	1	1		2	
Other trades.....	43	7	2	4	3		1		8	2	16	
Occupation not reported.....	1			1								

<sup>60</sup> The Apprenticeship Law with Explanations. Industrial Commission of Wisconsin, Oct. 1, 1928, pp. 29, 39, 41.

<sup>61</sup> In 1926 the industrial commission reported that the average wage paid apprentices during their first year was 27 cents an hour, the second year 32 cents, the third year 40 cents, the fourth year 45 cents, and the fifth year 50 cents an hour. Biennial Report, Industrial Commission of Wisconsin, 1924-1926, p. 47.

The initial wages of the apprentices who were not indentured in their first positions were higher than the wages of boys who were indentured on beginning work in spite of the fact that the boys who were learning a trade were considerably older than the others. Only 4 of the 73 boys who were apprenticed on beginning work and whose cash wages were reported, as compared with 50 of the 90 in other occupations, received as much as \$10 a week in their first positions; 21 of the apprentices, but 17 of the other boys also, had initial wages of less than \$8 a week. Some of the boys made considerable sacrifice in wage when they started to learn a trade, and were earning less at the time of the study than on beginning work. Of the 98 apprentices who were interviewed and whose work histories were at least a year in length, 29 were earning less at the date of the inquiry than when they started work, although the wages of some of them had no doubt increased since the beginning of their apprenticeship period.

#### REGULARITY OF EMPLOYMENT

The length of the possible work history of the 160 boys who were apprenticed at the date of the study and who were interviewed was about the same as that of the main group of boys in attendance at the vocational school. Although the boys in the apprentice group were in general older than the other boys when the inquiry was made, they had also left school later and had begun work later. The length of their work histories ranged from less than a month to three years, the median being between 15 and 18 months. About three-fifths (99) had held two or more positions since beginning work, including 25 boys who had had four or more different positions. Only three had been apprenticed more than once. About two-fifths of the boys apprenticed at the time of the study had been employed all their working time as apprentices. The possible work history in the case of these boys was somewhat shorter than in the case of the boys who had held other types of jobs before being apprenticed, and they were older on beginning work.

The length of time that the boys had been indentured when the inquiry was made varied from two weeks to two years. One-third had been apprenticed to their present employer less than six months; another third between six months and a year, and the remaining third between one and two years. (Table 29.) The duration of the apprenticeships of boys who had never done any other kind of work was somewhat longer than the duration of the apprenticeship positions of the boys who had been otherwise employed before they were indentured. None of the boys, however, had completed his term of apprenticeship up to the time the study was made, the term required varying with the trade from one to five years.

TABLE 29.—Duration of present position and number of positions held by interviewed indentured apprentices enrolled in the Milwaukee Vocational School

Duration of present position	Interviewed indentured apprentices				
	Total	Number of positions during work history			
		1	2	3	3 or more
Total (boys).....	160	61	59	15	25
2 weeks, less than 1 month.....	5	2	1	-----	2
1 month, less than 3.....	14	2	8	1	3
3 months, less than 6.....	35	14	13	4	4
6 months, less than 9.....	25	14	6	2	3
9 months, less than 1 year.....	28	10	11	2	5
1 year and more.....	53	19	20	6	8

The majority of the boys in the apprentice group had been in other types of work before they were apprenticed and had changed their positions at least once. Among the group who were interviewed there was a considerable amount of shifting, although not so much as among the main group of boys enrolled in the vocational school in conformity with the requirements of the continuation school law. Of the apprentice group with a work history of at least one year, 31 per cent as compared with 18 per cent of the main group of boys had changed positions less than once for each year (class A). Fifty per cent of the apprentices and 48 per cent of the other boys had changed positions at least once but less than twice for each year of their work history (class B), and 19 per cent of the apprentices, as compared with 33 per cent of the others, two or more times a year (class C).

Unemployment among the boys who were apprenticed when the study was made was less common than among the main group of boys, but there were a number of apprentices who had been out of work before they were indentured. After they were indentured they were not considered for purposes of this study as unemployed if they were kept on the employer's pay roll, even if they were laid off from time to time on account of slack work.<sup>62</sup> More than four-fifths of the apprentices, as compared with about three-fifths of the main group of boys whose work history was as long as a year, had been out of work less than 10 per cent of the time. One-fourth of the other boys but less than one-tenth of the apprentices had been out of work as long as 20 per cent of the time. Many of those who entered miscellaneous types of employment on beginning work kept their first positions but a short time. Among 85 boys who were not apprenticed in their first jobs, 30 reported that they left their positions within three months and 55 within six months after beginning work.

<sup>62</sup> Some indentures especially provide for the seasonal nature of the trade. For example, the clause used in the standard schedule of training for the bricklayer's trade provides that the term of apprenticeship shall be 4 years, each year to consist of the building season. The Apprenticeship Law with Explanations, Industrial Commission of Wisconsin, Oct. 1, 1928, p. 52.

## THE UNEMPLOYED MINORS

Children who have reached 14 and who have completed the eighth grade are permitted in Wisconsin to leave the regular full-time day schools even if they have not obtained employment. (See p. 2.) Until they are 18 years of age, however, they are subject to the same continuation-school requirements as employed minors. Among the boys and girls from 14 to 18 years, inclusive, enrolled in the compulsory continuation-school classes of the Milwaukee Vocational School were 1,113, about one-tenth of the total number, who had not been employed since leaving regular school. About three-fourths of them were girls, many of whom, no doubt, were making no effort to find a paid occupation but were helping with the housework at home. These children who had left regular school and had never been employed, however, formed but a very small proportion of the children of corresponding ages living in the city. Those included in the study were but 2 per cent of the boys and girls of 14 years, 5 per cent of those of 15 and 16 years, and 4 per cent of those of 17 years, found according to school-census figures to be resident in the city.<sup>63</sup>

Both the boys and the girls who had not been employed since leaving regular school were a much younger group than those who had entered industry; this fact probably indicates that within a year or so after leaving school these children, especially the boys, seek employment. About one-half the unemployed children, as compared with less than one-fifth of the employed (approximately the same proportions of each sex), were under 16 at the time the inquiry was made. Sixteen per cent of the boys and girls who had not been employed, as compared with 3 per cent of the employed group, were 14 years of age or younger. (Table 30.)

TABLE 30.—Age January 31, 1925, and period between leaving school and that date for boys and girls never employed who were enrolled in the Milwaukee Vocational School

Period between leaving school and Jan. 31, 1925	Boys and girls never employed					
	Total	Age Jan. 31, 1925				
		Under 14 years	14 years	15 years	16 years	17 years and over
Boys.....	243	1	39	85	77	41
Less than 3 months.....	10		1	3	6	
3 months, less than 6.....	14		2	4	6	2
6 months, less than 12.....	127	1	30	46	36	14
12 months, less than 18.....	15			6	4	5
18 months, less than 24.....	5			2	3	
24 months and more.....	4				2	2
Period not reported.....	68		6	24	20	18
Girls.....	870	4	131	282	263	190
Less than 3 months.....	13		4	4	5	
3 months, less than 6.....	49		19	15	13	2
6 months, less than 12.....	387	2	71	166	105	43
12 months, less than 18.....	88		8	27	28	25
18 months, less than 24.....	74		2	18	31	23
24 months and more.....	86		1	2	22	61
Period not reported.....	173	2	26	50	59	36

<sup>a</sup> Includes 1 still in school.

<sup>63</sup> Percentages computed from school-census figures. Sixty-fifth Annual Report of the Board of School Directors of the City of Milwaukee, Wis., 1924, p. 163.

Most of the children who had never been employed had left school at least six months before the study was made. The girls had been out of school longer than the boys. Three-fourths of the boys and more than one-half of the girls had been out of school between six months and a year. Fourteen per cent of the boys as compared with 36 per cent of the girls had been out of school for a year or longer before the time of the study. Among the 337 girls who had left school when they were 14 years of age or younger were 98 who had been out of school and unemployed for at least 18 months. No doubt many of the boys and girls who had not been employed up to the time of the study were intending to get work later, like the boys and girls who had found employment before the date of the study but had been unemployed for many months after leaving school.

The children who left school and did not go to work were more dilatory about entering the vocational school than the working children, although the children who went to work frequently let at least a month's school time pass between leaving regular school and entering vocational school. The boys who did not get employment were apparently less interested in attending part-time school than the girls; at least they lost more time than the girls before they entered the vocational school. Seventy-six per cent of the boys as compared with 49 per cent of the girls lost at least two months of the school year after leaving regular school and before entering vocational school; 32 per cent of the girls and 34 per cent of the boys let at least three months of school time pass before entering vocational school. These figures show that it is difficult to get children to vocational school promptly when they do not come to the attention of the official issuing work certificates. The school-attendance officers who have the duty of enforcing the continuation school law are notified by the regular-school authorities when the children leave regular school, but it requires considerable time to follow up those children who are not employed on work certificates and are not attending any school. How many minors under 18 years were not at work and not attending part-time school is, of course, not known, but in 1920, when a study of the Wisconsin employment-certificate system was made by the Children's Bureau, school-attendance officials stated that they believed there was a considerable number of children whom they did not succeed in locating.<sup>64</sup>

The boys and girls who had never been employed had left school at about the same ages as the other regular pupils at the vocational school who had gone to work, about four-fifths of those reporting age, before they were 16. As in the case of the employed children, relatively more girls than boys left school at the age of 14 or when still younger. (Table 31.) The school attainment of the nonemployed children when leaving school compared favorably with that of those who entered industry. Relatively more of the nonworking boys than of the working boys had had at least an eighth-grade education and about the same proportions had completed at least one year of academic high school or had commercial training. The proportion of boys who had left school before completing the eighth grade was somewhat smaller among the nonworking than among the working boys. About the same proportions of nonworking as of working girls

<sup>64</sup> Administration of Child Labor Laws, Part 4—Employment-Certificate System, Wisconsin, p. 86.

had completed the eighth grade or one or more years of high school, or had been to the Girls' Trade School. The proportions of nonworking and working girls who left school before completing the eighth grade were also the same. The difference in school attainment between boys and girls in the nonworking group may have been due to the fact that the girls drop out of school to help at home, while the boys do not leave school as a rule until they have either completed the eighth grade or found work. According to the available grade information, a smaller proportion of unemployed boys than of employed boys of 14 and 15 years were retarded (13 per cent and 22 per cent, respectively), but about the same proportions of employed and unemployed girls of 14 and 15 were average for their grades. The reason, therefore, that they did not go to work as the other children did within a few weeks or months after they left school is obviously not because of their educational accomplishment or general intelligence.

TABLE 31.—Age at leaving regular school and last grade completed by boys and girls never employed who were enrolled in the Milwaukee Vocational School

Last grade completed, and sex	Boys and girls never employed							
	Total		Age at leaving regular school					Age not reported
	Number	Percent distribution	Under 14 years	14 years	15 years	16 years	17 years and over	
Boys.....	243	-----	19	48	66	31	7	72
Grade reported.....	234	100	19	47	65	31	5	67
Fifth grade or less.....	2	1	-----	-----	-----	-----	1	1
Sixth grade.....	9	4	1	-----	5	-----	-----	3
Seventh grade.....	19	8	-----	-----	8	5	1	5
Eighth grade.....	133	57	15	39	33	11	-----	35
Ninth grade.....	21	9	1	4	5	4	-----	7
Tenth grade.....	17	7	-----	1	6	5	1	4
Eleventh grade or higher.....	2	1	-----	-----	1	1	-----	-----
Commercial.....	2	1	-----	-----	-----	-----	-----	2
Prevocational.....	25	11	2	3	6	3	2	9
Special class.....	4	2	-----	-----	1	2	-----	1
Grade not reported.....	9	-----	-----	1	1	-----	2	5
Girls.....	870	-----	99	238	234	102	17	180
Grade reported.....	841	100	96	234	230	99	17	165
Fifth grade or less.....	27	3	4	6	9	4	-----	4
Sixth grade.....	52	6	8	16	15	5	-----	8
Seventh grade.....	88	10	8	26	31	4	-----	19
Eighth grade.....	425	51	74	144	105	28	3	71
Ninth grade.....	39	5	-----	10	11	12	-----	6
Tenth grade.....	49	6	-----	4	19	15	5	6
Eleventh grade or higher.....	8	1	-----	-----	-----	1	-----	2
Commercial.....	18	2	-----	-----	1	-----	-----	17
Trade school.....	109	13	2	24	33	21	4	25
Prevocational.....	19	2	-----	3	5	5	-----	6
Special class.....	7	1	-----	1	1	4	-----	1
Grade not reported.....	29	-----	3	4	4	3	-----	15

## SUMMARY AND CONCLUSIONS

The 8,447 employed boys and girls between 14 and 18 included in the present study are believed to embrace most of the minors of these ages in the city of Milwaukee in January, 1925, who were employed or had been employed since leaving regular school. Information was obtained for all the employed boys and girls enrolled in compliance with the law in the Milwaukee Vocational School, as the continuation school is called locally (including those who had recently passed their eighteenth birthdays and were attending part-time school until the end of the term), and all the apprenticed boys under 18. All the employed high-school graduates under this age who could be found were also included in the survey. More than four-fifths of the main group of employed minors, all the apprentices, and all the graduates of high school were 16 years of age or older at the time the inquiry was made.

The operation of the Wisconsin law, which requires completion of the eighth grade or nine years' school attendance before a child can be employed, tends to keep children in school longer in Milwaukee than in cities where similar studies have been made in which the grade requirements are lower. The tendency, however, of the employed children in Milwaukee appeared to be to leave school for work as soon as they could legally. More than one-third of the boys and nearly one-half the girls had left school before they were 15 and more than four-fifths of each sex before they were 16. About one-fourth of those who left school before they were 16 and who reported the grade completed had not even graduated from the eighth grade. Most of these children presumably had left school prior to the date the eighth-grade requirement went into effect, or had attended school nine years. However, there was a noteworthy proportion of each sex who had achieved an education above that of the eighth grade; 14 per cent had finished at least one year of academic high school. In addition, 16 per cent of the children had received some kind of special training in trade, technical, or commercial classes, though they were not all eighth-grade graduates. Most of the children began work soon after leaving school; about one-fourth, however, had lost one or more months of the school term between the date they left school and the date they started work.

As in other cities for which similar information is available, the occupations which the majority of boys and girls entered when they began work were in the manufacturing and mechanical industries, chiefly as factory operatives; a considerable proportion did clerical, errand, messenger or delivery work, or sales and stock work in stores. The occupational distribution of the boys and girls at the time the inquiry was made was similar to that at the time when they began work; however, individuals who were 16 years of age and older appeared to have a greater choice of occupations in both their first and last positions than the younger children. More than one-half the

boys who were under 16 at the time the study was made and nearly three-fifths of those who were 16 and over were in factory and other mechanical occupations; about three-fourths of the girls under 16 and three-fifths of those who had reached the age of 16 were factory workers. Both boys and girls under 16 were more restricted than those who were older as to the kind of occupations in which they were employed in factories, partly on account of the legal regulations prohibiting the employment of children under 16 from work on many of the machines. A larger proportion of the older than of the younger boys were clerical workers, and more than twice as many of the older as of the younger girls were clerical or store workers or telephone operators.

The wages of the young workers depended both on their ages and on the length of time they had been at work. When the study was made, the median weekly wage ranged from \$9 for boys of 14 years to \$15 for boys of 18, and from \$8.50 for girls of 14 to \$13.50 for girls of 18. Both at the time of beginning work and at the time of the inquiry their wages were, on the whole, higher than those which would be required under the minimum-wage regulations for a 48-hour week. However, there was a small proportion of both boys and girls whose wages were very low; that is, less than \$8 a week.

The length of time they had had an opportunity to work (that is, the time between the date of beginning work and the date of the study) ranged from a few days to four years. For the interviewed group the median was between 15 and 18 months for the boys and between 18 and 21 months for the girls. The average number of positions for the boys with work histories of between one and two years was 2.9 and for the girls 2.7; for those whose work histories were two or more years the number of positions was 3.9 for the boys and 3.4 for the girls.

Most of these Milwaukee boys and girls, like the young workers in other cities, had been employed for the greater part of their working lives up to the time the inquiry was made; nearly two-thirds of those with possible work histories of a year or longer had been out of work less than 10 per cent of the time. About one-tenth of both boys and girls, however, had been out of work 50 per cent or more of their possible working time. There was a slight tendency for the boys and girls with the longer work histories to work more steadily than those whose work histories were shorter; that is, the boys and girls with a work history of between one and two years were unemployed a somewhat greater percentage of the time and shifted positions relatively more often than individuals whose work histories were two years or longer. This tendency toward increased stability as the period of employment becomes longer corresponds to the findings of the study of children employed on work certificates in Connecticut, and of the study of Cincinnati children whose work histories were all at least four years in length. That young workers keep their first positions but a short time was demonstrated in this as well as in other studies. The present study also indicates that after a few changes young workers tend to settle down to steady work in one position.

Much larger proportions of both boys and girls with some high-school or business training than of those with only an elementary-school education were employed in clerical and store positions. The individuals with less than an eighth-grade education and also those who

had graduated from elementary school were concentrated in the manufacturing and mechanical industries, chiefly as factory operatives in both their first and last positions. Education, however, had little effect on the wages of the boys (that is, when their ages are taken into consideration); the girls with high-school or commercial training had somewhat better wages than those with a lower school accomplishment. The explanation of the difference between the boys and girls in this respect is that the wages paid boys in factories were at least equal to those paid for clerical or store work, whereas the wages of the girls who were clerical workers were a little higher than for those who were factory workers. The relation of school attainment to stability of employment was not very clear, although boys, at least, with the higher school accomplishment appeared to work somewhat more steadily and shift positions less than those with an inferior education. On the whole, the advantage of an education for workers who enter industry early, as these children did, is indicated by an ability of the individual with a superior or specialized training to select his occupation, such as clerical in preference to factory work, rather than by ability to earn higher wages or by stability of employment, at least during the first years of his working life.

Up to the time they became indentured the work experience of the apprentices did not differ to any extent from that of the other employed boys. They were slightly older on starting work and slightly higher in school attainment. The majority were not apprenticed on beginning work and were employed in much the same types of occupation as the other boys. Like the main group of boys, they held their first positions but a short time and were subject to a certain amount of unemployment. After they were indentured they had the advantage of steady employment and a potentially large earning capacity, although their wages at the time of the inquiry were low. The proportion who completed their apprenticeships—an important factor in the value of the apprenticeship system—is not known, since most of them had been indentured little more than a year.

One of the facts brought out by this study is that a large group of children, 1,113 in January, 1925, had left full-time school but had never been employed, owing largely to the fact that the law permits a child who has reached 14 and completed the eighth grade to leave school even though not employed. One-half of these children were under 16 at the date of the inquiry; three-fifths of them had left school at least 12 months before. This large group of unemployed children, as well as the considerable number of other children who had worked part of the time since leaving school but reported long periods of unemployment, indicates the value of the laws in other States which require children, if not employed, to attend school full time, and suggests the need of a better coordination in this respect between the school laws and the child labor laws of Wisconsin. The situation in regard to these unemployed children has been improved since this study was made. All children between 14 and 16 who have left regular day school (whether employed or unemployed) must now attend continuation school half time instead of only 8 hours a week.<sup>65</sup>

<sup>65</sup> The law requiring half-time attendance was passed in 1921 (Wis., acts of 1921, chs. 414, 513) to be fully operative in 1923, but it had not been put into effect in Milwaukee at the time the study was made.

## LIST OF REFERENCES

- Beeley, Arthur L.:** *Boys and Girls in Salt Lake City.* University of Utah, Department of Sociology and Social Technology. Salt Lake City, July, 1929. 220 pp.
- Children Attending Part-Time School in the State of New York, 1926.** University of the State of New York, State Department of Education, Division of Vocational and Extension Education. (Mimeographed.)
- A Comparative Study of Part-Time and Full-Time Students in the Public Schools of Toledo, Lima, and Fremont, Ohio,** by J. Ray Stine. Ohio State Board for Vocational Education. Columbus, 1927. 84 pp.
- Employment of Continuation-School Pupils in New York State;** a study in selected schools in New York City and upstate with particular reference to observance of child labor laws. Investigation by New York Child Labor Committee, June, 1928—October, 1929. 25 pp. (Mimeographed.)
- Fourteen and Fifteen Year Old Children in Industry.** Pennsylvania State Department of Labor and Industry Special Bulletin No. 21. Harrisburg, 1927. 29 pp.
- The Health of the Working Child.** New York State Department of Labor Special Bulletin No. 134, prepared by Bureau of Women in Industry. Albany, 1924. 91 pp.
- Heck, Arch O.:** *A Study of the Ohio Compulsory Education and Child Labor Law.* Ohio State University Studies, Bureau of Educational Research Monographs No. 9. Columbus, 1931. 210 pp.
- Hopkins, L. Thomas:** *The Intelligence of Continuation-School Children in Massachusetts.* Harvard University Press, Cambridge, 1924. 132 pp.
- London Advisory Council for Juvenile Employment: The Work of Juvenile Advisory Committees in London.** Sixth Annual Report, 1929, pp. 10-23 (London, 1930), and Seventh Annual Report, 1930, pp. 14-31 (London, 1931).
- McCreedy, Mary:** *California Part-Time Youth.* Part I of Continuation Education for Employed Minors in California. Los Angeles, 1927.
- National Child Labor Committee:**
- Administration of the Child Labor Law in Ohio,** by Charles E. Gibbons, assisted by Chester T. Stansbury. New York, 1931. 66 pp.
  - Child Workers in Oklahoma,** by Charles E. Gibbons, assisted by Chester T. Stansbury. New York, 1929. 35 pp.
  - Child Workers in Tulsa,** by Charles E. Gibbons, assisted by Chester T. Stansbury. New York, 1929. 36 pp.
  - Child Workers in Two Connecticut Towns, New Britain and Norwich,** by Claude E. Robinson. New York, 1929. 44 pp.
  - School or Work in Indiana,** by Charles E. Gibbons, assisted by Harvey N. Tuttle. New York, 1927. 30 pp.
- Occupations of Junior Workers in Detroit.** Vocational Education Department, School of Education, University of Michigan, Special Studies No. 1. Ann Arbor, 1923. 76 pp.
- 1,358 Child Laborers in Four Manufacturing Cities;** a survey made by the Consumers League of Connecticut in 1927. Pamphlet No. 17. Hartford, January, 1929. 49 pp.
- Opportunities and Conditions of Work for Minors under Eighteen in the Glassware Industry.** Pennsylvania State Department of Labor and Industry Special Bulletin No. 18. Harrisburg, 1927. 43 pp.
- Ormsbee, Hazel Grant:** *The Young Employed Girl.* Woman's Press, New York, 1927. 124 pp.
- Our Boys;** a study of 245,000 sixteen, seventeen, and eighteen year old employed boys of the State of New York, by Howard C. Burdge. State of New York Military Training Commission, Bureau of Vocational Training. Albany, 1921. 345 pp.
- The Part-Time School and the Problem Child,** by Emily G. Palmer and Irvin S. Noall. Division of Vocational Education of the University of California and of the State Board of Education, Part-Time Education Series No. 14, Division Bulletin No. 18. Berkeley, 1926. 72 pp.

- The Product of the Minneapolis Public Schools.** Report of the Superintendent of Schools to the Board of Education, Minneapolis, January, 1931. 49 pp.
- Pupil Personnel in Part-Time Schools;** a study of the social composition, educational status, and current working conditions of part-time school pupils. Made by the part time education subcommittee of vocational-education committee in the National Council of Education. Presented July, 1926, at Philadelphia meeting of the National Education Association. 48 pp.
- Pupils Who Leave School,** by Emily G. Palmer. Division of Vocational Education of the University of California and of the State Department of Education, Part-Time Education Series No. 17, Division Bulletin No. 24. Berkeley, January, 1930. 142 pp.
- Report on an Enquiry into the Personal Circumstances and Industrial History of 3,331 Boys and 2,701 Girls Registered for Employment at Employment Exchanges and Juvenile Employment Bureaux.** Ministry of Labour Report, Great Britain. London, 1926. 80 pp.
- Special Investigation of Children in Industry Attending Part-Time School,** by Ellen M. Rourke. Bureau of Labor, State of Iowa, Bulletin No. 17. Des Moines, 1926. 77 pp.
- Special Investigation of the Part-Time School and Junior Worker in the City of Seattle,** by Calvin F. Schmid. Washington State Board for Vocational Education Bulletin No. 4, Trade and Industrial Series No. 2. Olympia, 1929. 50 pp.
- A Study of Five Hundred Employed Pupils,** by Helen M. McClure and Margaret G. Woodside. Pittsburgh Public Schools, Department of Vocational Guidance. Pittsburgh, 1925. 12 pp.
- A Study of Work Experiences of Boys and the Effect of Employment Experiences on Present Job Status.** Akron Continuation School, Akron, 1929. 14 pp. (Mimeographed.)
- Survey of the Boys of Newark, N. J.,** conducted by the Boys' Work Committee of the Newark Rotary Club, Newark. [Survey made in 1927.] 89 pp.
- Trumbull, Frederick M.: Guidance and Education of Prospective Junior Wage Earners.** John Wiley & Sons (Inc.), New York, 1929. 298 pp.
- Type of Jobs Held by a Group of Continuation-School Children.** Industrial Bulletin (Industrial Commission of New York State, Albany), December, 1931, p. 70.
- Woolley, Helen Thompson: An Experimental Study of Children at Work and in School between the Ages of Fourteen and Eighteen Years.** Macmillan Co., New York, 1926. 762 pp.
- The Working Children of Philadelphia;** a survey of the work and working conditions of 3,300 continuation-school children, by Anna Bassett Griscom. White-Williams Foundation, and the Junior Employment Service of the Board of Public Education, Philadelphia, Bulletin Series No. 3, September, 1924. 45 pp.

