UNITED STATES DEPARTMENT OF LABOR
FRANCES PERKINS, Secretary
CHILDREN'S BUREAU
GRACE ABBOTT, Chief

EMPLOYED BOYS AND GIRLS IN ROCHESTER AND UTICA NEW YORK

By
ALICE CHANNING

Bureau Publication No. 218

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1933

For sale by the Superintendent of Documents, Washington, D. C. - - - - - - - - - - - - - - - Price 10 cents

CONTENTS

161493—33

LETTER OF TRANSMITTAL

UNITED STATES DEPARTMENT OF LABOR,
CHILDREN'S BUREAU,
Washington, April 28, 1933.

MADAM: There is transmitted herewith a report on the Employed Boys and Girls in Rochester and Utica, New York. 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. The field work was directed by Alice Channing and Harriet A. Byrne, and Alice Channing has written the report.

Thanks are due to the officials of the Rochester and Utica continuation schools and to the employment-certificate officials for their cooperation and the use of their records. Acknowledgment is also made of the help given by Leila Martin, director of the child-study department of the Rochester Board of Education, in connection with the group intelligence tests of pupils attending the Rochester continuation schools.

Respectfully submitted.

GRACE ABBOTT, *Chief.*

HON. FRANCES PERKINS,
Secretary of Labor.

EMPLOYED BOYS AND GIRLS IN ROCHESTER AND UTICA, N. Y.

INTRODUCTION

This study of young workers in two cities of New York State is one of a series of studies of the employment histories of boys and girls who leave school for work at 14, 15, or 16 years of age. The purpose of these studies was to learn what vocational opportunities are open to such boys and girls, and to what extent their ages at beginning work, the type of school training received, and the grade attained affect the types of employment open to them, their earning power, and their stability as workers. To obtain this information the employment histories of the boys and girls at work in five industrial cities of three States have been studied. The earlier studies of this series were made in Newark and Paterson, N. J., and in Milwaukee, Wis.;[1] the present study was made in Rochester and Utica, N. Y. All these inquiries were made before the commencement of the general industrial depression that began in 1929, so that the facts obtained indicate the extent and nature of child employment under relatively prosperous business conditions.

The cities in which this series of inquiries was made were all communities in which under the laws of their respective States employed minors of certain ages were required to attend continuation or part-time school at least once a week. This requirement of attendance at part-time school made it practicable to locate and obtain records for all such employed children. The provisions of the continuation school law of New York State in effect in 1927, when the study in Rochester and Utica was made, required employed minors up to the age of 17 years to attend part-time school four hours a week, excepting only high-school graduates.[2] As the New York attendance and child labor laws permit a child of 14 to leave school on completion of the eighth grade and a child of 15 to leave school on completion of the sixth grade, the work experience of minors who attend part-time school until they are 17 may extend over two or three years, making it possible to include in this study boys and girls whose work histories had been sufficiently long to represent fairly their occupational experience and stability as workers.[3]

---

[1] Child Labor in New Jersey—pt. 3, The Working Children of Newark and Paterson (U. S. Children's Bureau Publication No. 199, Washington, 1930); Employed Boys and Girls in Milwaukee (U. S. Children's Bureau Publication No. 213, Washington, 1932).

[2] The New York continuation school law as passed in 1923 required attendance at part-time school of minors under 18 years of age but made the establishment of part-time classes for minors of 17 years optional up to September, 1928. On this date the establishment of such classes was to become compulsory. In March, 1928, however, the continuation school law was changed to apply only to minors under 17 years. (New York, Laws of 1923, sec. 601, amending Education Law, art. 22, and Laws of 1928, ch. 646, amending ch. 16, Consolidated Laws, art. 23, 622, A, B, C, F.)

[3] The continuation school laws of New Jersey require attendance of employed minors under 16 years only, so that the study made in that State related only to children of 14 and 15. In Milwaukee, on the other hand, attendance at the continuation school is required for minors under 18 years so that it was possible in the study made in that city to include working minors between 14 and 18 years of age.

Furthermore, the two New York cities offered certain other advantages for study of the employment histories of minors. They were both of a size that made it practicable to interview all the young workers under 17 years who were residents of the city and could be located. Each city afforded, besides mercantile and office employment, a variety of industrial opportunities for minors. Rochester is a center of the men's clothing industry; cameras, shoes, electrical supplies, foundry and machine-shop products, optical goods, instruments, buttons, paper boxes, and metal products are also manufactured. Utica is a center for knit-goods manufacture and, to a less extent, for the men's clothing industry. Other kinds of factories are present in smaller numbers.[4] The existence in Rochester of a well-developed vocational-training program in the junior[5] and senior high schools made possible a consideration of the relation of such training to the occupational experience of the working children in that city. Moreover, the cooperation of the child-study department of the Rochester Board of Education made available facts as to the mental ability of the continuation-school pupils.

Information was sought regarding all young persons between the ages of 14 and 17 who were not enrolled in the full-time day schools in Rochester during the last week of March, 1927, and in Utica during the last week of April, of the same year. All boys and girls who were enrolled in classes in the continuation or part-time schools of these two cities during these weeks were included, both those who were employed or had been employed since leaving regular full-time school and those who had left school but who had not yet been employed outside their homes. An effort was also made to locate boys and girls who had left the regular school but had not complied with the attendance law by registering at the part-time school. To this end, in Rochester the school census files were checked with the continuation-school enrollment files to obtain the names and addresses of young persons between the ages of 14 and 17 who were not enrolled either at regular school or at part-time school. A different method for finding these young persons was adopted in Utica, where school census records were inadequate. In that city the names of boys and girls between 14 and 17 who had left the public school and had not registered at the part-time school were obtained through the public-school transfer cards, which had been sent to the part-time school. In addition the names of the boys and girls of these ages who had left diocesan schools were obtained from these schools and were checked with the part-time school enrollment. The names of high-school graduates under 17, who are not required to attend part-time school, were obtained in both cities from the high schools. It is believed that practically all the Rochester boys and girls between 14 and 17 years at the date of the inquiry who had left full-time

[4] The total population of Rochester in 1927, the year of the study, as estimated by the U. S. Census Bureau, was 319,718; for Utica it was 100,455. (Unpublished data furnished by the U. S. Census Bureau.) See also Biennial Census of Manufactures, 1927, pp. 1480, 1482, and 1494 (U. S. Bureau of the Census, Washington, 1930).

[5] The Work of the Public Schools, Rochester, N. Y., 1928, pp. 386, 524, 538. Report of the Board of Education, Rochester, 1928. According to information received in February, 1933, from the Board of Education of the Rochester public schools, a change in policy in regard to these classes had been made about three years previously, eliminating the strictly vocational classes in the junior high school and reserving the intensified vocational training for the tenth, eleventh, and twelfth grades. It was found from experience that the age of the junior high school pupils was not such as to give a maximum return for this instruction. Work in junior high school was placed upon an industrial or practical arts basis.

day school were located. In Utica, however, probably a considerable number who were evading the school attendance laws were not found.

More complete information was obtained regarding the employed boys and girls of Rochester and Utica than was obtained in either of the two preceding studies in this series, as all those in the inquiry were interviewed by representatives of the Children's Bureau, whereas in the earlier studies information was obtained chiefly through questionnaires or records. Information regarding the boys and girls was first obtained in most cases from the records of the part-time schools, which contained data regarding the child's age, name of last school attended, grade attainment, date of enrollment at part-time school, name of first and sometimes of other employers, date of entering upon first and sometimes later jobs, and serial numbers of employment certificates. This was checked and supplemented by the records of the employment-certificate issuing office. If no record of a certificate was found, the school census files were consulted in order to eliminate possibilities of error due to differences in spelling of the names. Representatives of the Children's Bureau then questioned each young person concerning his employment history, the kinds of work he had done, the number and duration of his jobs, his earnings, and hours of work. Most of the boys and girls were interviewed at the continuation school, but those not enrolled in this school or habitually absent were visited in their homes. It was found necessary to make home visits in the case of 8 per cent of the Rochester and 14 per cent of the Utica boys and girls. Officials of factories and other places of employment were also consulted with reference to the occupations in which they employed junior workers.

As a contribution to this inquiry the child-study department of the Rochester Board of Education gave group intelligence tests to pupils attending the Rochester part-time school during the week of the inquiry. Workers on the staff of this department administered the tests and supervised the calculations of mental ages and intelligence quotients.

The Rochester study included 3,727 boys and girls between the ages of 14 and 17 years, of whom 3,416 (92 per cent) had been employed after leaving school. (Table 1.) Although the latter were not all working at the time of the study, they will be referred to in this report as the "employed boys and girls" or the "working group" to distinguish them from the 311 boys and girls who had not been employed at all since leaving school. Most of the latter group had completed the educational requirements of the child labor and compulsory school attendance laws, and the girls, who formed 90 per cent of the group, had in most instances been issued employment certificates for domestic work at home, so their absence from regular day school was not illegal. A boy or girl who was working for his or her parents at home was not considered as employed for the purpose of this study.

TABLE 1.—*Employment since leaving regular school and enrollment in part-time school*

Employment since leaving regular school and enrollment in part-time school	Rochester			Utica		
	Total	Boys	Girls	Total	Boys	Girls
Total	3,727	1,754	1,973	1,125	511	614
Employed	3,416	1,726	1,690	997	480	517
Enrolled in part-time school	3,362	1,693	1,669	925	443	482
Not enrolled in part-time school	54	33	21	72	37	35
Never employed	311	28	283	128	31	97
Enrolled in part-time school	291	26	265	78	10	68
Not enrolled in part-time school	20	2	18	50	21	29

The total number of Utica boys and girls included in the study was 1,125, of whom 997 (89 per cent) had been employed after leaving school. As in Rochester, girls were more numerous than boys among those who had not been employed, no doubt partly because of the fact that in this city as in Rochester permits for employment at domestic work in their own homes were not usually granted to boys.

In both cities almost all the young persons were registered at part-time school at the time of the inquiry. The 3,653 Rochester boys and girls who were enrolled in part-time school were 98 per cent of the total number included in the study, 98 per cent of the working group, and 94 per cent of those who had not been employed after leaving school, being enrolled. Five of those not enrolled were high-school graduates and, therefore, were not required to attend part-time school. The others not enrolled, 69, of whom 20 had not been employed after leaving regular day school, had not completed the high-school course and should have been attending either full-time or part-time school under the requirements of the law.

In Utica 1,003 boys and girls (89 per cent) were enrolled in the part-time school. As in Rochester, a larger proportion of the working than of the nonworking group (93 per cent as compared with 61 per cent) were so enrolled. None of the Utica boys and girls not enrolled in part-time school was legally exempt from such attendance as none was a high-school graduate.

THE WORKING GROUP

The working group in Rochester was made up of almost equal numbers of boys and girls. Nearly two-thirds were 16 years of age at the time of the study, one-third were 15, and only 3 per cent were 14; the girls were slightly younger than the boys. (Table 2.)

In Utica girls were more numerous than boys among the working group. Approximately three-fifths of the young workers were 16 years of age, 36 per cent were 15, and 4 per cent were 14. (Table 2.)

TABLE 2.—*Age at date of study of employed boys and girls*

Age at date of study	Rochester				Utica			
	Total		Boys	Girls	Total		Boys	Girls
	Number	Per cent distribution			Number	Per cent distribution		
Total	3,416	----------	1,726	1,690	997	----------	480	517
Age reported	3,416	100	1,726	1,690	996	100	480	516
14 years	113	3	46	67	37	4	14	23
15 years	1,080	32	536	544	354	36	172	182
16 years	2,223	65	1,144	1,079	605	61	294	311
Age not reported	----------	----------	--------	--------	1	----------	--------	1

The small proportion of boys and girls of 14 years of age who were at work in both Rochester and Utica probably is representative of the proportion of 14-year-old children among continuation-school pupils throughout the State. Similar proportions of employed children of 14 years were revealed in a study of more than 5,000 continuation-school pupils in eight up-State cities and in New York City conducted by the New York Child Labor Committee in 1928 and 1929. Four per cent of the pupils in up-State cities and about 5 per cent of those in New York City were 14 years of age, a proportion significant, the report of this study states, of the few calls by employers for the youngest children legally eligible for employment.[6] In a Children's Bureau study, made in 1925, of employed minors in Milwaukee, Wis., where, as in New York State, children of 14 years were required to have completed the eighth grade before they could be legally employed, 5 per cent of the working boys and girls under 17 were 14 years of age.[7]

Owing to the fact that the majority of children in each city had left school after reaching the age of 15 (see Table 3), most of them

[6] Employment of Continuation-School Pupils in New York State, p. 5. Investigation conducted by the New York Child Labor Committee, 1928–1929. New York. Mimeographed.

[7] Employed Boys and Girls in Milwaukee, p. 5.

had been employed less than two years prior to the time of this study. In Rochester, their complete work history (that is, the length of time between the date of entering the first job and the date of the study) was less than a year for 66 per cent and between one and two years for 30 per cent of the young workers. The few remaining Rochester boys and girls (that is, those who had left school at 14 and were nearly 17 of the date of the study) had work histories of between two and three years.

In Utica 62 per cent of the young workers had work histories of less than one year and 35 per cent had work histories of between one and two years; the remainder, of two years or longer.

TERMINATION OF SCHOOL LIFE

Under the New York State law all children under 16 must be either employed or in attendance at regular day school.[8] Upon proof of physical fitness, a child of 14, if he has completed the eighth grade, and a child of 15, if he has completed the sixth grade,[9] may obtain an employment certificate permitting him to leave school for work. It is the practice in Rochester and Utica to issue such certificates, informally called home permits, to girls, and occasionally to boys, to work in their own homes. For the usual type of employment certificate it is necessary to have the promise of a job, but when the child is to work at home a statement from the parent that the child's services are required is sufficient.

Age at leaving school.

Almost nine-tenths of the Rochester children had left school before they were 16, including 36 per cent who had left school while they were 14 or younger.[10] The children who left school before they were 14 usually had left in June or in January at the end of a school term and reached their fourteenth birthdays before school reopened, so that they had fulfilled the age requirement of the compulsory school attendance law. The girls left school at somewhat earlier ages than the boys, 31 per cent of the boys and 42 per cent of the girls leaving regular school while they were 14 years or younger. (Table 3.)

The Utica children were slightly younger when they left school than the Rochester children. As in Rochester, the Utica girls left at younger ages than the boys; 38 per cent of the boys and 48 per cent of the girls left before they were 15.

---

[8] N. Y., Labor Law, ch. 50, art. 4, secs. 130, 131; Education Law, secs. 631–635.

[9] Children were regarded as having finished the age-grade requirements if they had completed eight grades and were 14 or if they left school before they were 14 at the end of a school term but reached their fourteenth birthday before school reopened. Similarly, children who had completed the sixth grade and were 15 or who had left school before they were 15 but reached this age before school reopened were regarded as fulfilling the educational requirements of the law. Children who had completed eight academic grades or seven or six academic grades and in addition one or two years, respectively, in non-academic grades were also regarded as having completed the eighth grade.

[10] This difference between the proportion who were under 15 at the time of the study (3 per cent) and the proportion who left school while under 15 (36 per cent) appears to be due in part to the fact that about two-thirds of those who left school while still 14 years of age or less had left during the half year immediately before they became 15, and in part to the circumstance that the study was made late in the school year.

TABLE 3.—*Age at leaving regular school of employed boys and girls*

Age at leaving regular school	Rochester						Utica					
	Total		Boys		Girls		Total		Boys		Girls	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Total	3,416	------	1,726	------	1,690	------	997	------	480	------	517	------
Age reported	3,409	100	1,723	100	1,686	100	989	100	475	100	514	100
Under 14 years	155	5	45	3	110	7	51	5	14	3	37	7
14 years, under 14½	319	9	121	7	198	12	100	10	36	8	64	12
14½ years, under 15	741	22	354	21	387	23	277	28	127	27	150	29
15 years, under 15½	1,214	36	625	36	589	35	383	39	195	41	188	37
15½ years, under 16	615	18	348	20	267	16	128	13	75	16	53	10
16 years, under 16½	332	10	209	12	123	7	46	5	26	5	20	4
16½ years, under 17	33	1	21	1	12	1	4	(1)	2	(1)	2	(1)
Age not reported	7	------	3	------	4	------	8	------	5	------	3	------

[1] Less than 1 per cent.

In New York State, as a whole, according to figures published by the State department of education, the greatest number of children leave school immediately following the fourteenth and fifteenth birthdays.[11] The New York attendance law keeps children in school longer than in States where the grade requirement is lower. For example, in New Jersey, in 1925, when the Children's Bureau made a study there, children of 14 could leave school if they had completed the fifth grade; more than 80 per cent of the working children included in that study left school at this age.[12] In Milwaukee,[13] however, where the educational requirement for employment was the same for 14-year-old children as it was in New York State (completion of the eighth grade), 43 per cent of the 4,461 boys and girls under 17 included in that study had left school for work at 14. The slightly smaller proportions leaving school at 14 in Rochester than in Milwaukee suggest the importance of other factors, such as social and economic status and opportunities for employment.

The same tendency for girls to leave school earlier than boys has been shown in other Children's Bureau studies of working children.[14] Girls, as studies of the United States Office of Education show, are somewhat more likely than boys to be in school grades that are normal for their ages and so are more likely to complete the grade requirements for work certificates by the time they are 14.[15] The principal reason for the earlier ages at which the girls in Rochester

[11] See Vocational and Educational Guidance, prepared by George E. Hutcherson, p. 15. University of the State of New York Bulletin No. 963 (Jan. 1, 1931). Albany, N. Y.

[12] Child Labor in New Jersey—pt. 3, The Working Children of Newark and Paterson, p. 9.

[13] Unpublished figures, including only children for whom work records were obtained.

[14] The Working Children of Boston; a study of child labor under a modern system of legal regulation, by Helen Sumner Woodbury, p. 105 (U. S. Children's Bureau Publication No. 89, Washington, 1922); Child Labor in New Jersey—pt. 3, The Working Children of Newark and Paterson, p. 8; Employed Boys and Girls in Milwaukee, p. 8.

[15] An Age-Grade Study in 900 City School Systems, 1927, by Frank M. Phillips, pp. 2–4. U. S. Office of Education Statistical Circular No. 8. Washington, May, 1927.

and Utica left school as compared with the boys appears to be that the boys were more likely than the girls to remain in school to continue their education after they had completed the age and grade requirements for employment certificates. Their continued attendance does not necessarily mean that the boys were more interested in education than the girls, but that the boys were usually obliged to stay in school until they had the promise of regular employment, whereas the girls would more often obtain employment certificates for work in their own homes. (See p. 6.)

School grade completed.

Children who leave school for work on employment certificates are usually sixth, seventh, or eighth grade graduates.[16] More than two-thirds of the Rochester boys and girls had completed the seventh or higher grades in academic subjects before they left school; many of them had also completed one or more years of vocational training in industrial or commercial subjects or household arts. Work in commercial subjects in the public high schools had the same standing as work in academic subjects, but work in industrial subjects and household arts did not. On the completion of a 2-year course in industrial subjects or household arts the State department of education granted a special vocational diploma. But to transfer to the college-preparatory course a graduate of the ninth grade industrial or household arts course in the junior high school lost a year and was expected to begin the academic course in the ninth grade. Like graduates of eight academic grades, however, children who had completed the seventh grade and had satisfactorily finished one year in nonacademic grades, or who had completed the sixth and two years in nonacademic grades, were regarded as eligible for work certificates. Fifty-two per cent of the Rochester boys and 62 per cent of the girls had finished eight or more grades, either in academic subjects only or in academic and nonacademic subjects combined before they left school.

Table 4 shows the last academic grade completed by the boys and girls in the study. Many more of the girls than of the boys (58 per cent and 43 per cent, respectively) had finished eight or more academic grades, because so many girls had taken the commercial course, which had academic standing, whereas the boys took the industrial-arts course, which did not have the same standing. Four girls and one boy were high-school graduates.

Only 36 per cent of the Utica boys and 45 per cent of the girls had graduated from the elementary grades, a lower proportion than in Rochester even when the academic grade attainment in the latter city only is considered. Only 5 per cent of the Utica boys and 2 per cent of the girls, compared with 12 per cent of the Rochester boys and 17 per cent of the Rochester girls, had finished one year or more of high-school work. The number of Utica boys and girls who had had industrial training after they finished the seventh academic grade was negligible.

[16] See Nineteenth Annual Report of the Chief of the Children's Bureau, fiscal year ended June 30, 1931, pp. 26–27 (Washington, 1931).

TABLE 4.—*Attendance at academic and nonacademic classes in regular school and last academic grade completed by employed boys and girls*

Last academic grade completed, and sex	Rochester					Utica
	Total	Completing academic grade only [1]	Completing academic and nonacademic grades	Completing academic and short unit commercial course	Type of grade not reported	Total
Boys	1,726	1,252	454	9	11	480
Less than sixth	36	36				18
Sixth	445	272	173			176
Seventh	385	202	183			95
Eighth	535	441	85	9		147
Ninth or more	194	181	13			23
Special or ungraded [2]	113	113				14
Grade not reported	18	7			11	7
Girls	1,690	1,415	195	62	18	517
Less than sixth	33	33				20
Sixth	323	229	94			147
Seventh	291	211	80			107
Eighth	677	598	18	61		222
Ninth or more	277	274	2	1		12
Special or ungraded [2]	63	63				7
Grade not reported	26	7	1		18	2

[1] Includes commercial courses with equivalent standing.
[2] In Utica special classes only.

The grade attainment of the continuation-school children in neither city compares favorably with the grade attainment of these children in the State as a whole as reported in a study made by the New York State Department of Education of approximately 33,000 continuation-school pupils of 14, 15, 16, and 17 years of age attending part-time schools throughout the State in 1926. According to the data gathered for this study, approximately two-thirds of the young persons were graduates of the eighth or a higher grade.[17] The differences, at least for the Rochester boys and girls, may be due to the fact that in the present study all the information as to the last grade completed was verified from the school records, whereas in the New York State study the continuation-school pupils filled out questionnaires themselves and may have filled in the grade they had last attended instead of the grade in fact completed.

A larger proportion of the girls than of the boys were eighth-grade graduates, although the girls left school at younger ages than the boys. This has also been found to be true among 14 and 15 year old working children in the country as a whole, according to reports of a large number of employment certificating offices; 62 per cent of the girls as compared with 57 per cent of the boys receiving work certificates for the first time in 1930 were eighth-grade graduates.[18]

Completion of legal requirements for leaving school.

The tendency for children who go to work under 16 to drop out of school soon after they legally can has been brought out in several

[17] Special Report of Grade Completed in Full-Time School by Boys and Girls Attending Part-Time Schools. University of the State of New York, State Department of Education, Division of Vocational and Extension Education. Mimeographed. Separate reports for boys and girls.
[18] Nineteenth Annual Report of the Chief of the Children's Bureau, fiscal year ended June 30, 1931, p. 26.

studies of children attending part-time schools in different parts of the country.[19] The present study showed that in Rochester 63 per cent of the boys and 54 per cent of the girls continued to attend school after completion of the age and grade requirements. On the other hand, in Utica, the tendency was somewhat in the other direction, as 49 per cent of the boys and 58 per cent of the girls left school as soon as the law allowed. To what extent the differences in the proportions of boys and girls continuing their education may have been due to inability to obtain employment can not of course be determined.

Probably many of the boys and girls who did not leave school at once on reaching the legal age continued to attend only until the end of a school year in order to graduate from the eighth grade or to obtain a promotion in high school. The majority of the Rochester boys and girls who stayed in school after completing the requirements left when 15, and so had not stayed in school much more than an additional year. The children who left school when 14 usually had left as soon as they completed the requirements. (Table 5.) Among the 119 Rochester boys and girls who left school before completing the age-grade requirements were 45 who left before they were 14. Possibly some of these boys and girls had excuses for non-attendance on account of sickness, but probably most of them were out of school illegally.

TABLE 5.—*Age at leaving regular school, completion of age and grade requirements, and attendance at school after completing these requirements by employed boys and girls*

Completion of age and grade requirements and attendance after completion	Rochester						Utica					
	Total	Age at leaving regular school					Total	Age at leaving regular school				
		Under 14 years	14 years	15 years	16 years	Not reported		Under 14 years	14 years	15 years	16 years	Not reported
Total	3,416	155	1,060	1,829	365	7	997	51	377	511	50	8
Requirements completed	3,072	102	989	1,688	293	------	856	15	320	472	49	------
Attended after completion	1,869	-------	317	1,270	282	------	341	-------	67	242	32	------
Not attending after completion	1,203	102	672	418	11	------	515	15	253	230	17	------
Requirements not completed	119	45	50	23	------	1	108	36	53	18	------	1
Not reported as to completion	49	8	15	12	8	6	12	-------	1	4	------	7
Attended special classes	176	-------	6	106	64	------	21	-------	3	17	1	------

The Utica boys and girls had left school at somewhat earlier ages than those in Rochester, and smaller proportions remained in school

[19] Pupil Personnel in Part-Time Schools, p. 13 (study made by part-time education subcommittee of vocational-education committee in the National Council of Education and presented July, 1926, at Philadelphia meeting of the National Education Association); The Part-time School and the Problem Child, by Emily G. Palmer and Irvin S. Noall, p. 17) (Division of Vocational Education of the University of California and of the State board of education, Part-Time Education Series, No. 4. Divisional Bulletin No. 18, Berkeley, 1923); Child Labor in New Jersey—pt. 3, The Working Children of Newark and Paterson, p. 8; Employed Boys and Girls in Milwaukee, p. 9.

after they could legally leave. Forty-one per cent of the Utica boys and 30 per cent of the girls for whom the information was obtained did not leave school at once, but they generally left at some time during the year they were 15. Only 16 per cent of those who had left school before they were 15, but 53 per cent of the boys and 45 per cent of the girls who left school during the year they were 15, had remained in school after completing the requirements. The percentage (11) of Utica boys and girls who left school before completing the educational requirements was larger than in Rochester. Among them were 36 who had left school before they were 14.

Kind of school training.

During the last 10 or 15 years the Rochester public schools have developed varied types of educational training suited to children of differing mental abilities and aptitudes, training that is being adapted to the needs of dull and over-age pupils as well as to the needs of pupils who are successful in the academic work of the ordinary school grades. Training in industrial and commercial subjects and household arts as well as in academic and college preparatory work is given in the junior and senior high schools. A trade or "shop" school gives intensive trade training for boys of 14 or over who are elementary or junior high school graduates. Vocational and technical courses are offered in the senior high schools. Since the first junior high school was opened, in 1915, these schools have been greatly developed; at the time of this inquiry Rochester had four junior high schools with an enrollment of 6,378 pupils for the term ended June, 1927, which offered courses in academic, industrial home making, and commercial subjects in the seventh, eighth, and ninth grades.[20] On entering junior high school the pupils were classified according to their relative abilities, which were partly determined by the group intelligence tests given the children before they left the sixth grade by the child-study department of the board of education. Through a system of school counseling the pupils were directed toward the kind of school work suited to their abilities. In the first year of the junior high school, considered a try-out period, all pupils usually followed the same general curriculum; in the second and third years they could specialize and elect academic, industrial, or commercial courses. Commercial courses in typing, stenography, bookkeeping, business arithmetic, office practice, and commercial art were open to both boys and girls. Boys could specialize in industrial courses in auto-mechanics, cabinetmaking, drafting, electrical construction, patternmaking, printing, machine shop, and sheet-metal work; girls in home-making courses, in cooking, sewing, and millinery. Industrial courses for boys which met the requirements of the Smith-Hughes Act for Federal aid for vocational education were open to those of 14 years. Half the school time was devoted to practical work in well-equipped school "shops"; the other half was given to related academic work. For over-age and dull children the public schools had organized special classes. Ungraded classes had been established for those who demonstrated their in-

[20] The Junior High Schools of Rochester, N. Y., p. 20 (report of Rochester Board of Education, Rochester, 1923); The Work of the Public Schools, Rochester, N. Y., 1928, p. 579.

ability to succeed in regular grades. Some of the older boys in these classes were enrolled in the so-called prevocational classes, in which they spent one-half of each day in industrial work.[21]

Two-fifths of the Rochester boys and girls included in the study had last attended the regular elementary grades of public or diocesan schools; about the same proportion had been enrolled in junior high schools, in which they had the opportunity to elect some type of vocational training; 4 per cent had been enrolled in the trade school; and 15 per cent had last attended senior high schools.

More than one-third (37 per cent) of the boys had taken vocational-training courses. Most of these had enrolled in the industrial-arts course in the junior high schools. (Table 6.) A small number had taken commercial courses in junior or senior public high schools or had enrolled in a commercial course given in one of the private schools. The most popular industrial courses were those in machine shop and sheet-metal work and in electrical construction. Forty per cent of the girls had attended vocational-training courses, of which business or commercial training was the most popular; 27 per cent had enrolled in commercial courses; and 12 per cent had enrolled in household-arts courses, which primarily prepared for home-making rather than for wage earning. Most of the girls who specialized in commercial subjects had been enrolled in junior or senior high school or in other public schools, but a small number had taken the commercial course offered eighth-grade graduates in one of the diocesan schools.

TABLE 6.—*Type of vocational training received by employed boys and girls; Rochester*

Type of vocational training	Total		Boys		Girls	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Total	3,416	100	1,726	100	1,690	100
Receiving vocational training	1,314	38	633	37	681	40
Commercial	519	15	67	4	452	27
Industrial	553	16	553	36		
Household arts	207	6			[1] 207	12
More than one kind	35	1	13	(2)	22	1
Not receiving vocational training	2,102	62	1,093	63	1,009	60

[1] Includes 1 girl in commercial-art class.
[2] Less than 1 per cent.

The majority of both boys and girls who had taken vocational work had spent at least one school year (10 months) in these courses. The training of only 15 per cent of the boys in industrial courses and of 34 per cent of the girls in commercial courses had extended over a period of two or more school years.

Most of the Utica boys and girls before leaving school for work had attended only the regular elementary grades in public or dioc-

[21] For a description of the vocational and special training that the Rochester public schools offer see The Work of the Public Schools, Rochester, N. Y., pp. 286–290, 352–363, 386–395, 471–478. See also footnote 5, p. 2.

esan schools; 13 per cent had attended high schools. The vocational training of the Utica working boys and girls was negligible. The only training of this kind that the Utica public schools offered was in such subjects as bricklaying, carpentry, printing, and applied electricity. These courses were given in the high-school building and were open to sixth-grade graduates. Only 26 of the boys (5 per cent) had taken advantage of this training, and only 9 had remained in the trade courses for as long as one school year. None of the girls had had commercial or other vocational training in regular school.

Training after leaving regular school.

Though the majority of the Rochester and Utica boys and girls, as was found to be true of the continuation-school children in the State as a whole,[22] had received no other formal instruction after leaving regular school, a considerable number (16 per cent in Rochester and 12 per cent in Utica) had taken advantage of educational opportunities offered by the public and other night schools. In Rochester most of the 553 boys and girls receiving other instruction either were eighth-grade graduates or had had industrial or commercial training. The majority of the 265 boys in this group had enrolled in the public night schools, but some of them had attended classes in drafting, mechanical drawing, sign painting, and other subjects offered by the Mechanics Institute, a private technical school. Some of the 84 boys who had had industrial training in regular school attended the public night schools. Sixty-five enrolled in industrial courses, 40 of them in the same subjects that they had taken in the junior high or in the "shop" school, and 8 in academic or commercial classes. Attendance at night school usually extended over a period of at least four months, rarely longer than eight months.

The 288 girls who had had some training after leaving regular school usually enrolled in night schools, public or private, but 53 of them had taken a commercial course in day schools. About three-fifths of the girls in night schools and nine-tenths of the girls in day commercial classes had attended for four months or more. Most of the girls in night schools, as well as those in day schools, studied commercial subjects—typing, shorthand, and bookkeeping. Many of them formerly had been enrolled in ordinary academic grades, but 65 of 87 girls who had taken commercial courses in regular schools continued their education in the same subject; 8 of the remainder attended sewing classes, and 4 attended classes in academic subjects.

In Utica 122 of those studied, including relatively more girls than boys, had enrolled in some class after leaving school, most of them in the public night-school classes; few were in private schools in either night or day classes. The Utica, like the Rochester, girls were usually eighth-grade graduates and had enrolled in typing, shorthand, and bookkeeping classes; the 36 boys who were enrolled in night-school classes as a rule took courses in industrial subjects—

[22] See Special Report as to Other Forms of Instruction Taken by Girls Attending Part-Time School, and Special Report as to Other Forms of Instruction Taken by Boys Attending Part-Time School. University of the State of New York, State Department of Education, Division of Vocational and Extension Education. Mimeographed.

as carpentry, electricity, printing, painting, and decorating. A few took courses in typing, shorthand, and bookkeeping.

Vocational training in the part-time school.

All the boys and girls who attended continuation school had some form of instruction for at least four hours weekly. Two hours were given to industrial, home-making, or commercial subjects and the remaining two hours to academic work. The training in practical work that the continuation schools offer is designed to give the young workers an opportunity to obtain occupational skills which may be useful to them later or helpful to them in the jobs they are holding.

The Rochester continuation school, housed in a building formerly used for a factory, has equipment for industrial work similar to that in the junior high school "shops." Most of the boys included in the study, both those who had previously taken vocational work in regular school and those who had not, were enrolled in industrial courses; that is, in machine shop, sheet-metal work, electrical work, printing, or drafting. The remainder were taking commercial art or retail selling, music, or bookkeeping, and other commercial subjects. The commercial classes usually accepted only pupils who either had completed the eighth grade or had had training in commercial subjects. One-half the girls were in the home-making classes, one-third were in the commercial classes, and most of the remainder had had both kinds of training. A few girls were enrolled in music and commercial-art classes.

Practically all the boys in Utica part-time school were also enrolled in industrial courses in subjects similar though not quite as varied as those given in the larger Rochester school, namely, in woodworking, machine shop, sheet metal, electricity, plumbing, and printing. Most of the Utica girls were in home-making classes. Only 10 boys and 5 girls, all but 1 of whom were eighth-grade graduates, were studying typing, stenography, or other commercial subjects.

School progress.

According to the conservative standards adopted by the United States Office of Education and used for purposes of this study, a child is not considered as over age for his grade (that is, as retarded) unless he fails to complete the seventh grade by the time he is 14 and the eighth grade by the time he is 15.[23] As the school standing of the Rochester boys and girls who had last attended industrial and household-arts classes was not equivalent to that of children in the academic grades, the figures for their school progress were based on the last grades they had completed in academic subjects, and their ages at the time of completion of these grades. Some of the boys and girls who had taken vocational training had finished their last academic grade at the age of 13 or 14, two or three years before they had left school, hence the figures for the school progress of those with vocational training are based on younger ages than in the case of those without vocational training. Older boys and girls are more likely to be retarded in school than younger, as figures

[23] For computing school progress the age of a child completing an academic grade in June was taken as of the following September; for a child completing an academic grade in January the age taken was as of the preceding September.

from the Office of Education show, so that comparisons for those with and without vocational training are valid only for the same age groups. In considering the school progress of these boys and girls, it should also be remembered that those who took vocational training were a selected group as far as their grade attainment was concerned, only those who had finished at least the sixth grade being eligible. The boys and girls without vocational training, on the other hand, ranged from those who had had less than a sixth-grade education to those who were accelerated and had completed high school.

Of the 825 boys without vocational training whose progress in regular school was based on their grades at 14 and 15 years of age, 43 per cent were retarded. Ten per cent of the boys of 14 and 15 years of age without vocational training had last been enrolled in special or ungraded classes and were probably over age for their grades. The 371 boys in the corresponding age group with vocational training were apparently but little more likely to be behind in their ordinary school work at the ages of 14 or 15 than the boys without vocational training; 46 per cent of those with training had been over age in their last academic grades. Evidently many of the boys who were unsuccessful in their school work remained in the regular school grades either because they were unable to reach the sixth grade or because they attended schools in districts in which no vocational training was available.

The retardation among the Rochester girls can not be compared readily with that among the boys because of the large number of girls in the group of those with vocational training who had taken the commercial course, a subject that apparently attracts girls who are successful in their school work. The girls with commercial or business training were seldom over age for their grades, not nearly so frequently as girls who had been enrolled last in the grades in ordinary academic subjects. The girls enrolled in the household-arts course were the most retarded. Eight per cent of the girls with commercial training whose school progress was calculated at the age of 14 or 15 were retarded in school, as compared with 70 per cent of those last enrolled in household-arts courses. Forty-one per cent of the girls with no vocational training were also over age for their grades at 14 and 15 years. Six per cent of the girls of these ages with no vocational training were last enrolled in special or ungraded classes and were also probably over age for their grades.

The number of Rochester boys and girls who had been advanced for their grades was small, both among those who had had and among those who had not had vocational training. Only 33 of the boys, and 70 of the girls, in the 14 and 15 year group had been advanced in their school work. The girls in this group had been enrolled last in the commercial course or in the regular academic grades; none in the household-arts course was accelerated in school work.

In Rochester retardation among the working children when 14 and 15 years of age, either with or without vocational training, did not appear to be unusual. This finding does not correspond with that of the Children's Bureau study in New Jersey, which indicated that working children, at least in Newark, were more retarded than

school children in general.[24] In Milwaukee the information obtained with regard to school progress was inconclusive. According to figures from the United States Office of Education 40 per cent of the 14 and 15 year old boys and 32 per cent of the girls of these ages in 900 city school systems throughout the country were retarded.[25] This proportion for the boys is little smaller than the proportion of Rochester working boys who were retarded (44 per cent) at the same ages (combining the boys with and without vocational training), and for the girls also it is slightly smaller than for all the Rochester girls combined (34 per cent).

The Utica boys and girls, however, were considerably more retarded than regular school children in the country as a whole. The progress in school of most of the Utica boys and girls was based on their grades at 14 or 15 years of age; 60 per cent of the boys in this age group and 50 per cent of the girls were over age for their grades. More of the boys and girls whose school progress was computed when they were 15 were retarded than those in the younger age group. The number of boys and girls in special classes in Utica was small, only 2 per cent; apparently most of those who were over age were enrolled in the regular grades. Only 5 Utica children were advanced in their school work when 14 or 15. Thirty-nine of the 74 children whose progress in school was calculated before they were 14 were in advanced grades for their ages.

Intelligence levels.

As a result of studies of the intelligence of working children that boards of education and other organizations have made, it is generally agreed that on the whole the intelligence of children who leave school for work does not compare favorably with that of children who continue in school. The range of intelligence among children of both groups is wide, however, and a considerable number of children of superior mentality are found among the working as well as among the school groups.[26]

The results of the group tests [27] given the working boys and girls attending the Rochester continuation school, as compared with the results of those given children attending the sixth grade of the regular schools of the city, also indicate, so far as mental ability can be measured by such methods, that the mental ability of working boys and girls as a group does not compare favorably with the mental ability of the public-school population. Although the findings of group tests do not serve as a wholly reliable measure of the intelligence of the individual, they can be used to show the relative intelligence of groups of children. They are also closely correlated with

[24] Child Labor in New Jersey—pt. 3, The Working Children of Newark and Paterson, pp. 11 and 51.

[25] Calculated from An Age-Grade Study in 900 City School Systems, p. 2.

[26] Woolley, Helen Thompson: An Experimental Study of Children at Work and in School Between the Ages of 14 and 18 Years, p. 328 (Macmillan Co., New York, 1926); Hopkins, L. Thomas: The Intelligence of Continuation-School Children in Massachusetts, pp. 117–119 (Harvard University Press, 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 of Vocational Education, Columbus, 1927); Palmer, Emily G.: Pupils Who Leave School, pp. 42–45, 68 (Division of Vocational Education of the University of California and of the State Department of Education, Berkeley, 1930); Plenzke, O. H.: A Study of the Abilities of Vocational School Pupils (Journal of Educational Research, vol. 10, No. 1 (June, 1924), pp. 42–48); Sudweeks, Joseph: Intelligence of Continuation-School Pupils of Wisconsin (Journal of Educational Psychology, vol. 18, No. 9 (December, 1927), pp. 601–611); Beeley, Arthur L.: Boys and Girls in Salt Lake City, pp. 55–56 (University of Utah, Salt Lake City, 1929).

[27] The Terman group tests of mental ability.

the child's capacity to do school work and with his progress in school, and are used by the schools as a basis for classification of children of different mental abilities.

Test results were available for 2,800 of the 3,362 working boys and girls enrolled in the Rochester continuation school the week the tests were given, and were representative of the whole working group included in the study, so far as ages at leaving school, school grades, and progress in school are concerned. The results of similar group tests, which were given to 1,438 children in grade 6A of the regular public schools in June, 1927, were also available for comparisons.[28] These sixth-grade children comprised a group of children too young to leave school and not a selected group, such as would be found in a senior high-school class or in the continuation school. Except for children of decidedly inferior mentality who can not do the regular school work, all the children of the community are required by law to complete the work of the sixth grade.

The intelligence quotients [29] of the working boys and girls as well as those of the sixth-grade children varied greatly, ranging from less than 75 to 130 and more.[30] On the whole, however, the intelligence quotients of the working boys and girls were considerably below those of the regular school children, 66 per cent of the former and 51 per cent of the latter having intelligence quotients of less than 100. Five per cent of the working boys and girls and 10 per cent of the school children had intelligence quotients of 120 or more. Only 15 working boys and girls (less than 1 per cent) and 60 school children (4 per cent) had intelligence quotients of 130 or more. (Table 7.)

TABLE 7.—*Intelligence quotient, based on 14 years as an adult age, of employed boys and girls*[a] *and of boys and girls enrolled in Grade–A*,[b] *Rochester*

Intelligence quotient based on 14 years as an adult age	Employed boys and girls		Boys and girls in Grade 6–A	
	Number	Per cent distribution	Number	Per cent distribution
Total	3,416		1,438	
Intelligence quotient reported	2,800	100	1,438	100
Less than 80	268	10	37	3
80, less than 90	756	27	298	21
90, less than 100	823	29	398	28
100, less than 110	503	18	339	24
110, less than 120	312	11	219	15
120, less than 130	123	4	87	6
130 and more	15	1	60	4
Intelligence quotient not reported	616			

[a] Given Terman group test in continuation school.
[b] Given Terman group test in public school.

[28] Unpublished material.

[29] In order to facilitate comparisons with other data compiled by the Rochester child-study department, intelligence quotients (that is, the ratio between mental and chronological ages) were calculated by using the age of 14 as the adult age level for children who were beyond this age, in accordance with the practice of this department. In a study of the intelligence of continuation-school children in Massachusetts Doctor Hopkins used 14½ years as the adult age for calculating intelligence quotients. (See Intelligence of Continuation-School Children in Massachusetts, pp. 19–20.) Because the age at which mental growth ceases is unknown, psychologists differ as to the adult age level to be used as a basis for calculating intelligence quotients for individuals beyond the age of 14. (See Mental Tests, by Frank Freeman, p. 358 (Houghton Mifflin Co., Cambridge, 1926), and Intelligence Tests, by Walter Dearborn, pp. 290–306 (Houghton Mifflin Co., Cambridge, 1928).)

[30] The children whose intelligence quotients were less than 75 on the basis of a 14-year adult age level are regarded as too low grade mentally to test by the Terman group test.

The reliability of these test results for the Rochester part-time school pupils is supported by a comparison with the results of similar tests given to such pupils by the Rochester child-study department three years earlier. The intelligence quotients of the pupils enrolled in continuation school in 1924 and 1927 were very similar, although in 1927 a slightly larger proportion had intelligence quotients of less than 80 than in 1924, 11 per cent in 1927 and 7 per cent in 1924. This slight difference was, in the opinion of the Rochester Board of Education, probably due to the more strict enforcement of the compulsory school attendance law in 1927 as compared with 1924.[31]

The working children who had attended the Rochester vocational training classes, as their grade attainment and the amount of retardation among them indicate, were not dull. Boys and girls of the higher intelligence levels—those with intelligence quotients of 110 or more—were just as likely to be found among the boys and girls who had taken vocational training as among those without such training, with the exception of the girls in the home-making classes who were, on the whole, on the lower intelligence level. On the other hand, practically all those whose intelligence quotients were less than 80 had last attended either the regular academic grades or special ungraded classes.

Reasons for leaving school.

How far lack of mental ability, retardation, and maladjustment in school and how far economic pressure cause early school leaving are questions that have been discussed widely in studies of children who leave school for work. Some studies have emphasized the child's dislike of school and the close relationship of mental ability and school progress with the age of leaving school, and other studies have brought out the influence of economic need. On the basis of the experience of earlier investigations, the boys and girls in this series of studies were not asked why they had left school, because the reasons for leaving school have been found to be so complex that the child himself can not be expected to analyze them and give the true causes.[32] Indirectly, however, the information obtained as to the intelligence levels of the boys and girls and the ages and grades at which they left school throw some light on this question.

The effect of the provisions of the New York State education law on the ages at which children leave school somewhat obscures the relation between the age of leaving school and the child's mental ability. The law holds dull and over-age pupils in school until they are 15 and very dull children who have not completed the sixth grade in school until they are 16, but allows children of normal or superior mentality who have completed the eighth grade to leave school at 14. Consequently a larger proportion of the Rochester children who left school at 14 had relatively higher intelligence quotients than those who left school at 15. A greater tendency on the part of brighter children to remain in school after they could legally leave is indicated, however, by a comparison of the proportion of the children with the higher intelligence quotients who left school at 15 with the proportion leaving at 16; 28 per cent of those leaving

[31] The Work of the Public Schools, Rochester, N. Y., pp. 460–461.
[32] Child Labor in New Jersey—pt. 3, The Working Children of Newark and Paterson, p. 12.

school at 15 and 42 per cent of those leaving at 16 had intelligence quotients of 100 or more.

A correlation of the working boys' and girls' school progress and attendance after completing the age and grade requirements reveals that a slightly larger proportion of those in normal or advanced grades for their ages than of those who were retarded remained in school after they could legally leave. For example, of the Rochester boys and girls who had completed the educational requirements and had some form of vocational training, 79 per cent (about equal proportions of each sex) in normal or advanced grades for their ages, and 66 per cent in over-age grades, continued to attend school after they had fulfilled the educational requirements.

In Utica, where children on the whole did not remain in school so long as in Rochester, 48 per cent of the boys and girls in normal or advanced grades for their ages, compared with 33 per cent of the retarded boys and girls, remained in school after completing the requirements.

Financial pressure is an important cause of early school leaving. Although no specific information was obtained as to the economic status of the families of the boys and girls included in the present study, this may be indicated indirectly by information obtained regarding the occupations of the fathers or other male heads of families.

In Rochester information was obtained for the heads of households of 2,780 employed minors. Sixty-seven per cent were employed in manufacturing and mechanical occupations, as compared with a considerably smaller proportion—58 per cent in 1920 and 50 per cent in 1930—of the employed adult male population of the city as a whole.[33] Thirty-seven per cent of these were classified as semiskilled workers or as unskilled laborers in manufacturing and mechanical industries; 28 per cent were regarded as "skilled" workers. The latter were carpenters, plumbers, painters, or other skilled workers, and a few (2 per cent) were proprietors or officials. Ten per cent of all the fathers were engaged in the occupations classified as trade and 10 per cent in transportation, and 3 per cent, compared with 12 per cent of the adult males employed in the city, were in clerical or professional occupations.

In Utica information was obtained for the fathers or other male heads of household of 801 employed minors. Sixty-two per cent were engaged in manufacturing and mechanical occupations, including 40 per cent who were semiskilled workers or laborers, 20 per cent who were skilled industrial workers, and 2 per cent who were proprietors or officials. In the city as a whole 54 per cent of the employed males were engaged in manufacturing and mechanical occupations.[34] The remaining fathers of the employed minors were distributed in other occupations in trade or transportation and in domestic and personal service. Two per cent, compared with 11 per cent of all the employed men in the city, were clerical or professional workers.

---

[33] Fourteenth Census of the United States, vol. 4, Population, Occupations, pp. 1212–1214 (Washington, 1923); Fifteenth Census of the United States, Occupations, New York, p. 71 (Washington, 1932).

[34] Fourteenth Census of the United States, vol. 4, Population, Occupations, pp. 325–329.

Economic necessity due to the loss of the father by death or other cause did not appear to be an important factor in the early withdrawals from school of the young workers in the two New York cities. Four-fifths of the Rochester boys and girls lived in families in which their own father was present, most of these with both their own parents. Five per cent lived in families in which the father's place had been taken by a stepfather or some other male breadwinner, and 14 per cent lived in families in which there was no father and no one taking the father's place. The latter boys and girls had not gone to work at appreciably younger ages than those living with their own fathers.

The same proportion (about four-fifths) of the Utica as of the Rochester boys and girls lived in families in which their own father was present; 14 per cent also were living in families in which no father or other male breadwinner was present, and 4 per cent were living with stepfather or other male breadwinner. The great majority were with both their own parents. Twenty-seven per cent of the boys and girls living with their own fathers or with step or foster fathers, and only 21 per cent of the children from families in which there was no father and no one taking his place, began work when they were 14 years or before, the reverse of what might be expected.

Differences in social customs and educational standards among families of different economic groups and of different nationalities are other factors believed likely to influence the age of leaving school. For example, among certain groups of the wage-earning population graduation from elementary schools is still, though decreasingly, regarded as an adequate education. Early withdrawals from school are also sometimes influenced by the nationalities of the children's families. Almost nine-tenths of the boys and girls in Rochester were native born, but the fathers of 64 per cent were foreign born. Thirty-two per cent of the fathers were born in Italy; the others who were foreign born came from many different countries, including Germany, Poland, Russia, Great Britain, and Canada. The children whose fathers were Italian were little more likely than the children of the native born to leave school during the year they were 14, but many more of the children whose fathers were German or Polish left school earlier than children of the native born. The number in each other nationality group was small.

Ninety-four per cent of the Utica boys and girls were native born, but 78 per cent had foreign-born fathers, including nearly one-half whose fathers were from Italy. Most of the remaining foreign-born fathers were born in Poland. As in Rochester, the boys and girls whose fathers were born in Italy showed no more tendency to leave school at 14 than the boys and girls whose fathers were native born. Both boys and girls in Polish families, however, were somewhat more likely to leave school earlier than children whose fathers were Italian.

The nationality of the father appeared to have a direct bearing on the children's school attainment and so indirectly influenced the age at which they left school. In each city the group whose fathers were foreign born, particularly those whose fathers were born in Italy, showed a much lower proportion of eighth-grade graduates than the group whose fathers were native born. The reason, there-

fore, that children from Italian families did not leave school earlier than children of the native born was doubtless in many instances because they were obliged to remain in school at least until they were 15 years of age in order to fulfill the legal grade requirements.

Difficulty in getting work is another important factor in keeping children in school after the completion of the educational requirements of the law. But differences in the employment situation in Rochester and Utica during the 2-year period in which the children included in the study were leaving school and going to work do not explain the relatively early withdrawals from the Utica schools. The Utica textile industry, as has been said, had been undergoing a period of depression, and probably for this reason the Utica boys and girls had more unemployment, both at the date of the study and during their working lives, than the Rochester boys and girls. This situation should have tended to keep them in school longer than in Rochester rather than the reverse.

The school training in vocational subjects available for Rochester boys and girls was no doubt one reason why the continuation-school pupils who had left school early for work did not leave immediately after they had fulfilled the educational requirements of the compulsory school law. It should be noted, however, that in Rochester, as elsewhere, a very large part of the child population between 14 and 17 does not leave school for work, but continues in school; the number of children of these ages enrolled in secondary and higher schools in 1928 was larger than the number enrolled in continuation school.[35] The facts obtained for the group of Rochester boys and girls who left school before they were 17 show that more of those enrolled in vocational courses (75 per cent) than of those in academic courses (58 per cent) stayed in school after completing the legal requirements.

BEGINNING OF WAGE EARNING

Vacation employment.

Considerable numbers of the boys and girls had been employed in school vacations before leaving school for regular employment. Six hundred and eighty-three (40 per cent) of the Rochester boys and 216 (13 per cent) of the girls had been so employed. One-half of the boys reporting vacation work had begun before they were 14 years of age, including more than one-fourth who had begun work at 12 or earlier. A great many of the boys and some of the girls had worked on farms in summer vacations harvesting vegetables and fruits, especially picking cherries, strawberries, beans, and peas. Others, both boys and girls, had done errand or messenger work. Some of the boys had been caddies on golf courses, and some of the girls had been domestic workers in private families or in restaurants. Employment in factories was not usual, chiefly no doubt because the child labor law forbade employment of children under 14 in manufacturing establishments.

In Utica 35 per cent of the boys and 17 per cent of the girls included in the study also had been employed in school vacations before leaving full-time school. They started vacation work at younger

[35] The Work of the Public Schools, Rochester, N. Y. Report of Rochester Board of Education, pp. 569–580.

ages than the Rochester boys and girls; more than two-thirds of each sex reporting vacation work had first been employed before they were 14 years, including about two-fifths who had been employed at the age of 12 or earlier. A considerable proportion had worked in vacations for two years or more. They reported much the same kind of work as the Rochester children. More than half, a larger proportion of the girls than of the boys, who had worked during vacations had been employed on farms in their last vacation job.

Age at beginning regular work.

More than four-fifths of the Rochester group had left school and begun regular work before they were 16. Although the girls left school at slightly younger ages than the boys, they lost more time between school and work than the boys and so entered regular employment when not much younger. Twenty-four per cent of the boys and 28 per cent of the girls started work either during or before the year they were 14.

About nine-tenths of the Utica group began work before they were 16. On leaving school the Utica boys and girls were slightly younger than those in Rochester, but they lost more time between school and work. For this reason they were not much younger than the Rochester boys and girls when they went to work. Twenty-three per cent of the boys and 30 per cent of the girls started work when under 15 years.

Interval between leaving regular school and beginning work and entering part-time school.

The Rochester boys and girls, especially the boys, went to work almost as soon as they left school, in compliance with the legal requirement that while school is in session children under 16 should be either in school or legally employed. In New York State school authorities issue the employment certificates, and in Rochester the regular school principals, the employment-certificate office, and the continuation-school officials all cooperate closely, so that at least the children who leave school during the school term obtain their employment certificates and enroll at the continuation school with little delay. Delays between the time of leaving school and the time of beginning work occur more frequently, therefore, when a child goes to work during the school vacation or when he comes from an out-of-town school. Delays occur also when a child from the Rochester schools has left school for work but has been temporarily refused a certificate because of his physical condition.

Two-thirds of the Rochester boys and girls entered regular employment during the school year and the remaining third during the summer vacation. Very likely many children who leave school in June can not find or do not wish to find work in the summer, but get it in September after school opens. According to the records of the Rochester employment-certificate office for several years preceding the date of the study more first regular certificates are issued in September and in October than in any other month.[36]

More of the Rochester boys than of the girls went to work immediately on leaving school. Eighty-one per cent of the boys who first entered regular employment during the school year and 55 per cent

[36] Unpublished figures.

of the girls began work within two school weeks of the date when they left school (not counting vacation periods). (See table 8.) The practice of temporarily refusing children an employment certificate until they had their tonsils or adenoids removed or necessary dental work done but of allowing them to register at part-time school during the period in which these physical defects were being corrected, accounts for the time that some of these children lost between school and work.

TABLE 8.—*Interval during school period between leaving regular school and beginning first regular job by employed boys and girls*

Interval during school period between leaving regular school and beginning first regular job, and sex	Rochester					Utica				
	Total		Beginning first regular job during school period	Beginning first regular job during vacation	Period not reported	Total		Beginning first regular job during school period	Beginning first regular job during vacation	Period not reported
	Number	Per cent distribution				Number	Per cent distribution			
Boys	1,726		1,118	607	1	480		312	158	10
Interval reported	1,723	100	1,116	607		467	100	309	158	
No interval	1,026	60	511	515		216	46	77	139	
Less than 2 weeks	465	27	393	72		115	25	113	2	
2 weeks, less than 1 month	114	7	107	7		34	7	30	4	
1 month, less than 2	66	4	61	5		46	10	42	4	
2 months, less than 4	27	2	27			25	5	22	3	
4 months, less than 6	12	1	9	3		15	3	12	3	
6 months or more	13	1	8	5		16	3	13	3	
Interval not reported	3		2		1	13		3		10
Girls	1,690		1,138	551	1	517		355	153	9
Interval reported	1,685	100	1,134	551		507	100	354	153	
No interval	694	41	275	419		179	35	49	130	
Less than 2 weeks	428	25	349	79		81	16	81		
2 weeks, less than 1 month	143	8	135	8		65	13	60	5	
1 month, less than 2	147	9	140	7		52	10	50	2	
2 months, less than 4	125	7	117	8		55	11	53	2	
4 months, less than 6	69	4	61	8		34	7	26	8	
6 months or more	79	5	57	22		41	8	35	6	
Interval not reported	5		4		1	10		1		9

Two-thirds of the Utica boys and girls, the same proportion as in Rochester, went to work during the school year, and the remaining third went to work in the summer vacation. The proportions of children going to work during the school year who entered employment within two weeks after leaving full-time school (62 per cent of the boys and 37 per cent of the girls) was smaller than in Rochester.

Enrollment at the Rochester part-time school is a matter of routine for young persons obtaining employment certificates. A large number of both the boys and the girls from the city schools, both public and diocesan, had enrolled at the part-time school within two school weeks (not counting vacation periods) after leaving full-time regular school.[37] Fifty-seven (2 per cent) of the part-time school pupils

[37] The sessions of the part-time school and regular school correspond; in calculating the time elapsing between leaving regular school and enrolling at part-time school, vacation periods have been omitted.

(exclusive of children who last attended regular school out of the city) had not enrolled at this school for six or more school months after leaving the full-time schools. In addition, 54 (2 per cent) had not enrolled up to the date of the study. Most of the latter group had obtained work within a few weeks after leaving school or in the summer vacation, but some of them (24 of the 54) had begun work at least six months before the date of the study and at the end of that time had not complied with the part-time school law.

Only 28 per cent of the 884 Utica part-time school pupils last attending regular school for whom the information was reported had enrolled in part-time school within two weeks after leaving full-time school; the majority, however, were in school before two months of the school session had elapsed. Some Utica boys and girls (5 per cent) delayed for six months or more before entering the part-time school. In addition, 72 who had left full-time school and gone to work had not registered at part-time school up to the date of the study and were apparently violating the school attendance law. Among the group who had not registered were 29 who had begun work at least six months before the date of the inquiry.

Certification for employment.

A system of employment certification, such as the New York labor and education laws provide (see p. 6), is essential if the requirements that a child must meet as a prerequisite to going to work and the legal regulations that affect him while at work are to be properly enforced. Such a system is also an aid to inspection for violations. The extent to which the young workers in this study obtained employment certificates for work, therefore, is significant. A search of the Rochester employment-certificate files showed that among the 1,118 boys who went to work during the school year, 145 (13 per cent) had no employment certificates for their first regular jobs. (Table 9.) Similarly, 278 (24 per cent) of the 1,138 girls going to work during the school year had no employment certificates for their first regular jobs, although 167 of these had previously received certificates allowing them to work at home. Under the child labor law in effect from 1925 to 1927, when the children included in this study first went to work, minors between 14 (the minimum age for work) and 17 years of age were required to have regular employment certificates for employment during the school session and to obtain new certificates for each job,[38] so that all those without certificates were employed in violation of the law.

[38] New York Labor Law, 1921, ch. 50, art. 4, pars. 130, 131; also Compulsory Education Law, art. 23, par. 626, as amended by Laws of 1921, ch. 386. In 1928 the work-certificate regulations exempted minors of 16 years of age in farm service and limited the exemptions allowed during vacation to farm and certain other outdoor work performed by children of 12 or over for their own parents (Laws of 1928, ch. 646).

TABLE 9.—*Period of beginning and issuance of certificates for first regular job; employed boys and girls of Rochester*

Period of beginning first regular job, and sex	Employed boys and girls				
	Total	Certificate issued for first regular job		Certificate not issued for first regular job	
		Number	Per cent	Number	Per cent
Boys	1,726	1,340	78	386	22
During school year	1,118	973	87	145	13
During summer vacation	607	367	60	240	40
Not reported	1			1	
Girls	1,690	1,263	75	427	25
During school year	1,138	860	76	278	24
During summer vacation	551	403	73	148	27
Not reported	1			1	

While school is not in session boys and girls under 17 in factories are required to have regular employment certificates, and those employed in connection with mercantile establishments, business offices, and many other specified establishments[39] are required to have vacation certificates. Boys and girls in domestic service in private families and in agricultural work were exempted from the vacation work certificate requirements at the time the study was made. Of the 607 boys and 551 girls who went to work in the summer vacation 240 boys (40 per cent) and 148 girls (27 per cent) had no employment certificates. More than half of the boys starting regular work without certificates in the summer vacation (that is, those who were employed as factory operatives, laborers, or errand boys in factories or in other manufacturing and mechanical occupations; as sales, stock, or errand boys in stores; as telegraph messengers or other messengers; as drivers or helpers to drivers; as clerical workers; or as hotel or institution employees) were also doubtless employed in violation of the employment certificate law. About one-third of the boys without certificates entering regular employment in summer vacation were employed in outdoor work, chiefly on farms but a few as caddy boys; these were legally employed, as the minimum age for such employment was 12 years of age[40] and certificates were not required.[41] Of the 148 girls who went to work during summer vacation without certificates only 19 were employed in domestic service in private families and 4 in agricultural work (that is, in occupations for which certificates were not required); the majority, who were in factories, laundries, stores, hotels, or restaurants, had not complied with the employment certificate law.

[39] The establishments specified in the labor law are as follows: Factories, mercantile establishments, business offices, telegraph offices, restaurants, hotel or apartment houses, theaters or other places of amusement, bowling alleys, barber shops, shoe-polishing establishments, or the distribution or transmission of merchandise, articles, or messages or the sale of articles.

[40] All these boys were over 12 years of age.

[41] All outdoor work not connected with the establishments specified in the labor law (see footnote 38, p. 24) was exempted from the certificate requirement at the time the children included in this study went to work; by an amendment passed in 1928 (N. Y., Laws of 1928, ch. 676) this exemption was limited to work for parents.

Most of the boys and girls who had no employment certificates for their first jobs had in fact reached the legal age and fulfilled the grade requirements for such certificates, but a small number were under age or had not finished the required grades. Of the 54 not registered at continuation school, 29 had no certificates for their first jobs.

The files of the Utica employment-certificating office were also searched. Information was obtained as to whether or not the child had an employment certificate for some job during his work history, but it did not always prove possible to find out whether the child had been issued a certificate for his first regular job. About four-fifths of the Utica boys and girls who had been employed had been issued at least one certificate; this number included girls to whom certificates for work at home had been issued. But 100 boys (21 per cent) and 83 girls (16 per cent) who had been employed, a much larger proportion than in Rochester, had not had an employment certificate for any job nor a certificate allowing the child to leave school for work at home. Only 9 boys and 15 girls who had been employed without certificates had left school before completing the educational requirements. Fifty-five of the boys and girls without certificates had not registered at part-time school and possibly for that reason had not come to the attention of the employment-certificate officials.

Method of obtaining employment.

All but a small number of the Rochester boys and girls stated that they had obtained their first jobs through their own efforts or the efforts of their friends or relatives without the assistance of an organized employment service, in spite of the fact that a juvenile-placement branch of the State public employment office in Rochester had been organized some years before the children included in the study left school. At the time of the study the worker in charge of juvenile placement had office hours at the continuation school and advised and helped pupils who wanted work. The State employment office, however, had placed relatively few in their first jobs. Ninety-three boys and girls (3 per cent) said that they had obtained their first jobs through this office; a few others stated that other employment offices had placed them. The number of boys and girls whom the State employment office had placed in the jobs held at the time of the study was about as small as the number placed in their first jobs.

Utica had no special juvenile-placement office, and only one child in that city, a girl, had been placed in her first job through an employment office. According to figures from the New Jersey Council of Education for cities in that State, young workers generally state that they have found their first jobs without the advice or aid of placement offices.[42]

OCCUPATIONS

The Rochester boys and girls under 17 years of age, like the boys and girls of the same ages in other cities in which the Children's Bureau and other organizations have made similar studies, were employed chiefly in errand work, simple clerical work, or unskilled

[42] Child Labor in New Jersey—pt. 3, The Working Children in Newark and Paterson, pp. 17 and 94.

work in factories and stores. Studies of working children have repeatedly shown that as a rule children are employed in a great variety of jobs that have no educational value and require little skill or training.[43]

First jobs.

The occupational distribution of boys and girls in any city is, of course, chiefly dependent on the kinds of manufacturing industries and other business establishments that are located in the cities in which they live. When they began work, 30 per cent of the Rochester boys of 14 and under, 36 per cent of the boys of 15, and 44 per cent of the boys of 16 were employed in various occupations (including those classed by the census as operatives—both machine and hand work—and laborers and helpers) in manufacturing and mechanical industries; most of them were factory operatives. (Table 10.) Only 5 per cent of the boys under 16 and 9 per cent of the older boys entered occupations that seemed to offer the opportunity of learning a skilled trade (see p. 30). The boys were chiefly employed in shoe, metal-products, and furniture factories; the boys of 15 and 16, but rarely those of 14, were also employed in the manufacture of optical goods and electrical supplies. For the boys employed in nonmanufacturing occupations, errand and messenger work, including delivering telegrams, was most important, especially for boys who began work before they were 16. The remaining boys in nonmanufacturing occupations, including both those who went to work before they were 16 and those who went to work at 16, were chiefly stock and salesboys in stores, helpers to deliverymen and to truck drivers, helpers to peddlers and hucksters, or helpers in restaurants, hotels, barber shops, and shoe-shine stands. Some of the boys who began work at 14 and a few of the older boys started employment in farm work.

For the Rochester girls between 14 and 17 the factories also offered opportunities for employment. On beginning work more than one-third of the girls, about the same proportion in each age group, were employed in manufacturing industries, chiefly in shoe, clothing, paper-box, and button factories. Fourteen per cent of the girls under 16 and 6 per cent of those of 16 started work as messenger and errand girls, usually bundle and cash girls in department stores. The remainder in each age group were sales or stock girls or clerical workers in stores, factories, or other places, domestic workers in private families, or waitresses in restaurants. Forty-one (2 per cent) were telephone operators; most of these did not start work until they were 16.

---

[43] For a review of such studies see Child Labor; Report of the Subcommittee on Child Labor of the White House Conference on Child Health and Protection, pp. 34–36 (Century Co., New York, 1932); Type of Jobs Held by a Group of Continuation-School Children (Industrial Bulletin, issued by the Industrial Commission of New York State, vol. 11, No. 3 (December, 1931), p. 70). See also List of References, p. 73.

161493°—33——8

TABLE 10.—*Industry and occupation of first regular job and age at beginning this job of employed boys and girls; Rochester*

Industry and occupation	Boys					Girls				
	Total	Age at beginning first regular job				Total	Age at beginning first regular job			
		14 years and under	15 years	16 years	Not reported		14 years and under	15 years	16 years	Not reported
Total	1,726	403	1,018	303	2	1,690	469	950	270	1
Agriculture	115	50	52	12	1	4	----	3	1	----
Manufacturing and mechanical	622	121	369	132	----	624	172	356	96	----
Learners	109	18	65	26	----	18	3	12	3	----
Helpers and laborers	103	15	71	17	----	6	2	2	2	----
Operatives (except floor boys and girls)	358	72	206	80	----	572	154	328	90	----
Floor boys and girls	51	16	27	8	----	28	13	14	1	----
Other occupation	1	----	----	1	----	----	----	----	----	----
Professional service	21	3	15	3	----	13	3	7	3	----
Domestic and personal service	84	15	56	13	----	236	63	147	26	----
Other industries and occupations	873	209	522	141	1	809	229	437	142	1
Sales and stock boys and girls	157	29	90	38	----	311	76	187	47	1
Teamsters, drivers, and helpers	88	11	56	21	----	----	----	----	----	----
Telegraph messengers	140	38	92	10	----	----	----	----	----	----
Telephone operators	1	----	1	----	----	41	1	8	32	----
Messenger and errand boys and girls	339	100	196	43	----	211	87	109	15	----
Typists, stenographers, cashiers, and bookkeepers	8	1	5	2	----	113	32	56	25	----
Other clerical workers	76	15	43	17	1	118	32	67	19	----
Others	64	15	39	10	----	15	1	10	4	----
Industry and occupation not reported [1]	11	5	4	2	----	4	2	----	2	----

[1] Includes 3 boys and 2 girls whose first job was out of the country.

The opportunity for young workers in Utica, especially for children starting work at 14, appeared more limited than in Rochester. More than one-fourth of the Utica boys under 16 (23 per cent of the boys of 14 and under and 32 per cent of the boys of 15) worked in the manufacturing and mechanical industries. (Table 11.) Only 11 per cent of the 14-year-old boys and 20 per cent of the 15-year-old boys in these industries were factory operatives; the remainder were helpers and laborers or were learners in the building and other skilled trades. The number of Utica boys who started work at 16 (43) was too small to indicate the kind of work open to boys starting work at this age. The knitting mills did not employ many boys, but some were employed in cutlery, automobile-cushion, and trunk and bag factories. The boys in nonmanufacturing occupations did a variety of kinds of work. Some were employed in stores and restaurants; others were errand boys, delivery boys, pin boys in bowling alleys, or bootblacks. A small proportion of the 14-year-old boys started in farm work as their first regular employment.

TABLE 11.—*Industry and occupation of first regular job and age at beginning this job of employed boys and girls; Utica*

Industry and occupation	Boys					Girls				
		Age at beginning first regular job					Age at beginning first regular job			
	Total	14 years and under	15 years	16 years	Not reported	Total	14 years and under	15 years	16 years	Not reported
Total	480	106	321	43	10	517	151	308	51	7
Agriculture	37	17	14	3	3	19	14	5	------	------
Manufacturing and mechanical	151	24	102	22	3	292	67	191	33	1
Learners	26	4	19	3	------	4	2	2	------	------
Operatives	89	12	61	14	2	278	58	187	32	1
Others	36	8	22	5	1	10	7	2	1	------
Professional service	3	2	1	------	------	3	1	2	------	------
Domestic and personal service	60	10	43	4	3	74	27	38	4	5
Other industries and occupations	225	53	158	14	------	128	42	71	14	1
Sales and stock boys and girls in stores	48	7	38	3	------	92	27	54	11	------
Teamsters, drivers, and helpers	24	8	16	------	------	------	------	------	------	------
Telegraph messengers	21	5	16	------	------	------	------	------	------	------
Messenger and errand boys and girls	80	19	56	5	------	25	9	13	2	1
Other clerical workers	10	3	6	1	------	7	4	2	1	------
Others	42	11	26	5	------	4	2	2	------	------
Industry and occupation not reported	4	------	3	------	1	1	------	1	------	------

The Utica girls, much more frequently than the boys, entered manufacturing industries, especially the knitting mills. About half the girls beginning work at less than 16 years of age (38 per cent of the girls beginning work at 14 or under and 61 per cent beginning at 15) were factory operatives. The remainder were employed chiefly in nonmanufacturing industries, in stores, errand work, or in domestic service in private families, in restaurants, or in laundries. Only 2 per cent, as compared with 13 per cent of the girls under 16 in Rochester, did clerical work.

All jobs.[a]

The Rochester boys and girls usually had been employed in more than one occupation in the part of their working lives covered by the study, a period that for most of them was at least six months and for one-third was at least one year. Those who had changed their occupations had been employed on an average of three different jobs during their work history. About one-third (31 per cent of the boys and 39 per cent of the girls), however, had had only one job.

The Utica boys and girls also had usually been employed in more than one occupation during their work histories, only about one-third (31 per cent of the boys and 38 per cent of the girls) having been in but one. The average number of jobs of those who had changed their occupations during their work histories was three, the same as in Rochester. The length of their work histories was also about the same as that of the Rochester boys and girls.

[a] A "job" in this report is defined as continuous employment at one occupation with one employer. A child may thus have several jobs in succession with a single employer.

In Rochester about two-fifths of all the jobs that the boys and the girls had begun before they were 16 years of age, and one-half of all the jobs of the older boys and girls, were in manufacturing and mechanical occupations. Most of the boys' jobs and practically all the girls' jobs in this occupational group were as factory operatives. A small proportion of the boys' jobs, however, were as laborers or helpers. Almost three-fifth of the jobs of the children under 16, and one-half of those of the boys and girls of 16, were in nonmanufacturing occupations, such as sales and stock clerks in stores, messenger and errand work, clerical work, and domestic and personal service, and other miscellaneous work. (Table I, p. 69.)

In Utica a smaller proportion of the boys' jobs, both first and subsequent jobs, than of the girls' were in manufacturing and mechanical occupations. Thirty-seven per cent of the jobs in which the boys reported employment before they were 16, but 65 per cent of the jobs of girls in this age group, were in manufacturing and mechanical occupations. At 16 years of age 48 per cent of the boys' jobs, compared with 73 per cent of the girls' jobs, were in this occupational group. The remaining girls' jobs were chiefly in messenger and errand, store, and domestic and personal service occupations. (See Table II, p. 71.)

Learning a trade.

Opportunities for boys and girls under 18 to enter occupations in which they may learn a trade and acquire valuable skill are greatly restricted, on the one hand by present-day industrial methods and on the other hand by trade customs and rules. In Rochester, in the printing and sheet-metal trades, boys of 16 were accepted as apprentices, but the usual minimum age in trades having apprenticeship regulations was 17 or 18.

Few Rochester boys, either in their first or later jobs, claimed that they were regular apprentices; others, however, who were working for skilled mechanics and were performing several processes peculiar to the trade, have been classified as learners to distinguish them from boys who merely acted as helpers or laborers. The chance to find a learner's job seemed to be little greater for boys of 16 than for the younger boys; 5 per cent of the jobs that the boys entered at 14 years, 6 per cent of those begun at 15 years, and 8 per cent of those begun at 16 years were classified as learners' jobs in the manufacturing and mechanical group. More than half of these were in connection with the building trades, helping carpenters, bricklayers, painters, plumbers, and electricians; the remainder were in miscellaneous trades, including sheet-metal and tinsmith work, tool making, auto repairing, shoe repairing, printing, baking, engraving, and upholstering. The number of girls' jobs as learners in the manufacturing and mercantile industries was very small. The chief openings were in the dressmaking and millinery trades. (See Table I, p. 69.)

A few additional boys' occupations, classified as learners' jobs, were in barber, florist, and butcher shops or in connection with window trimming or cooking (in restaurants). A few girls were learning floral decorating, cooking, and hairdressing. Still other children were working in drafting rooms, detailing or tracing, or in photog-

raphers' establishments, developing and printing. One boy played a saxaphone in a band; a few girls reported work as teachers' helpers, and one girl said she was an exhibition dancer and also a dancing teacher. All these jobs classified as learners in nonmechanical occupations combined, however, did not amount to more than 1 per cent of the total number of the boys' jobs, and even less of the girls' jobs.

The proportion of Rochester boys, 10 per cent, who might be regarded as learning a trade in their last job was smaller than that reported in a study of continuation-school boys in the State as a whole, made by the State department of education in 1926. No definition of what constituted an " apprentice " is given in the report, however, and a difference in definition may be the reason for the higher proportion of apprentices in the state-wide study than in the Rochester study. In spite of the waning of the apprenticeship system due to changing methods, the report states, more than one-fifth of the 18,335 part-time school boys were apprenticed in more than 50 trades, including barbers, butchers, and florists as well as building and other mechanical trades.

The proportion of jobs held by the Utica boys as learners or apprentices was about as small as in Rochester. Some of the Utica local unions had agreements with the employers relating to apprentices. In the carpenters', plumbers', and printing trades, boys as young as 16 could become apprentices. The opportunities, however, for learning these trades were limited. According to statements of union officials there were but five union apprentice carpenters under 17 in the city at the time of the study, and one apprentice plumber. No printer's apprentice was as young as 17; one mason's apprentice was not yet 18. However, several boys under 17 included in this study had at some time had jobs in connection with these trades and were classified as learners. Others were employed in connection with the electrician, painter, toolmaker, auto mechanic, and other trades. In addition to the trades classified as mechanical and manufacturing, a few boys were learning the barbers' trade. The number of girls who were learning any kind of a trade was negligible. (Table II, p. 71.)

Factory employment.

One-third of all the boys' and two-fifths of the girls' jobs in Rochester were as factory operatives. The children under 16 were generally employed in simple hand occupations and infrequently on power machines, except in the shoe and clothing factories; the boys of 16 more commonly than the younger boys were engaged in machine operations. Twenty-seven per cent of the jobs as factory operatives that the boys began before they were 16 and 38 per cent of those that they began at 16 years were in connection with power machines; the corresponding percentages for the girls were 16 and 18. The provisions of the New York child labor law, which prohibit the employment of minors under 16 on many types of power machines,[45] no doubt lessened the number of children of these ages employed in connection with such machines, not only on those in which their employment is specifically prohibited but on other power machines as well.

[45] N. Y., Labor Law, art. 4, par. 146, amended to Aug. 1, 1927.

In Utica the proportion of girls who were factory operatives was larger than that of the boys (66 per cent as compared with 39 per cent), chiefly because of the opportunity offered girls for work in the knitting mills. As in Rochester, the young workers were employed in both hand and machine work. About 20 per cent of the jobs the boys reported before they were 16 and also at 16, were on power machines; 20 per cent and 49 per cent, respectively, of the jobs in which girls of corresponding ages were employed were machine operations.

Shoe factories (*Rochester*).—The highly subdivided processes of work in the Rochester shoe factories offered numerous jobs for children of 14 and 15 as well as for those of 16. About one-fourth of the jobs that the boys and girls had as factory operatives were in shoe factories, although this industry was not so important from the point of view of the total number of wage earners in the city as the men's clothing industry or as the foundry, machine shop, and other metal industries.[46] So varied was the children's work in shoe factories that it is not possible to describe in detail all the operations in which they were engaged, but as a rule they performed simple repetitive operations which required little training.

The majority of the boys' jobs in shoe factories were hand operations. The cementing, pasting, and the parts of the lasting and finishing processes which they did were usually simple, though some of the assembling, sorting, and stamping processes in which they were engaged required care. A few of the boys' jobs were to cut linings or small leather parts, work that might lead to learning something of the shoe-cutters' trade; but these were not classified as apprenticeships or learning jobs, as they consisted of but one small operation. More than one-third of the jobs that boys reported beginning before they were 16 in shoe factories and more than two-fifths of the jobs they began at 16 were power-machine operations. Some boys were employed in machine-lasting processes, such as pulling tacks from the soles and trimming linings, in machine-finishing processes, brushing, dusting, or smoothing soles or heels, stamping by machine, and in other machine processes, including feeding nails to the heeling machine, cementing, or operating channeling machines. Some of the machine operations enumerated, such as tack pulling and feeding the heeler, according to the factory officials who were interviewed, were beginners' jobs and required practically no time to learn; others required more care and training.

More than four-fifths of the shoe-factory occupations that the girls reported during their work histories were hand operations. Usually both the girls under 16 and over this age did various kinds of "table work," cementing and reinforcing (that is, pasting together parts of leather or linings), trimming threads after the shoe was stitched, fancy marking (that is, tracing patterns on the leather for perforating or stitching), and various finishing processes, such as inking soles and heels, buttoning and lacing shoes, and sewing on bows and buckles. Some were employed to sort and assemble parts of the shoes for the stitchers or to stamp sizes on the soles and linings. Fifteen per cent of the girls' jobs, about the same proportion that

[46] Biennial Census of Manufactures, 1927, p. 1480. United States Bureau of the Census. Washington, 1930.

they entered before they were 16 and while 16, were machine operations, such as stitching linings, sewing the tongues onto the shoes, folding bindings, rubbing and flattening seams, and numerous other simple machine processes, which, however, possibly offered chances for promotion to more skilled stitching and other machine operations.

Metal-manufacturing industry (*Rochester*).—The Rochester iron, steel, and other metal industries, making such widely different articles as locks and keys, ash cans, tools, machinery, and jewelry, and the foundries, together employed more boys than any other group of manufacturing industries except the shoe industry. Although much of the work in metal manufacturing is suited only to adults and employment of children under 16 on some types of metal-working machines is prohibited by law, boys under 16 as well as older boys were employed. More than one-tenth of all the factory occupations that the boys under 16 entered, and about the same proportion that the boys began at 16, were in some type of metal manufacturing. The boys reported a great variety of hand operations, the most common of which were assembling, soldering, riveting, packing, wrapping, and labeling, core pasting, and core making. One-fourth of the jobs of boys under 16 in this industry, and one-half of those of the 16-year-old boys, were on machines. Six of the jobs that boys began under 16 were on punch and drill presses and six others on polishing and buffing machines, the latter usually the polishing of small pieces of metal in jewlery, auto accessories, and other metal products, work that may have been in violation of the labor law. Girls were not often employed in these industries, and none reported machine work.

Clothing factories (*Rochester*).—The highly specialized and minute subdivisions of work in the Rochester men's clothing factories offered employment to many of the girls of 14 and 15 as well as to the older girls. Jobs in clothing factories comprised 25 per cent of the factory occupations that girls began under 16 and 17 per cent of those that they began at 16. A small additional number of jobs in clothing factories were in the manufacture of cotton dresses and other women's wear. The majority of the occupations that the girls reported were hand processes. Numerically the most important operations were hand sewing, pulling bastings and trimming threads, and matching and marking parts of garments—operations that generally required little time to learn.

According to statements of some factory officials, 16 years was the usual age for beginning work on power sewing machines in the clothing industry. However, about one-fourth of the jobs in this industry that the girls reported beginning before they were 16 and about the same proportion of the jobs reported at 16 were on machines. Many of the machine operations, such as tacking belt loops, sewing tickets, serging (that is overcasting), sewing linings, and sewing on buttons, were said to require several weeks or a month to learn, and to offer opportunity to progress to more skilled power sewing.

The boys did not work to any extent as clothing operatives, although a few reported jobs at pressing, both by hand and by machine, and others reported matching and marking and miscellaneous jobs. Seven boys at the time of the study were employed in minor

cutting operations and although not said to be learning the cutter's trade, probably had some chance to advance to more skilled cutting operations.

Other manufacturing industries (Rochester).—Electrical-supply manufacture, one of the most important industries in Rochester, employed relatively few junior workers. The boys and girls were seldom employed in this industry before they were 15, and infrequently on machines before they were 16. Usually they did hand work; that is, assembling parts or insulating, soldering, and wedging—operations connected with coil and armature winding. More than one-fourth of the girls' jobs were machine operations, including coil winding. About two-fifths of the boys' occupations were also machine jobs, on drill presses, kick presses, and other machines. Six boys reported burring, or polishing metal parts by machine.

The manufacture of cameras, eyeglasses, and other optical goods employed a small number of young workers of 15 and 16, but few children of 14. Both boys and girls did assembly work; they also cleaned and inspected lenses. Only 3 of the girls but 18 boys of 15 and 16 did machine work, such as pressing, grinding, and polishing lenses on machines, the latter operation one that requires considerable training.

The paper-box industry employed more girls of part-time school age than any other manufacturing industry except clothing and shoe manufacturing. About one-tenth of the factory jobs that girls began both before and while they were 16 were in this industry. Usually the girls did the simple hand processes of bending in or turning the edges of pasteboard boxes after men had cut and scored them; "closing" (putting on covers), tying boxes in bundles, pasting labels, and packing were other common operations. Few of the girls had machine jobs. One paper-box factory superintendent said that 18 was the minimum age for machine operating in that establishment.

Button manufacturing likewise employed a number of girls, both 16 years of age and under, but practically no boys. Most of the girls in this industry carded buttons (sewed them on cards) or shaded them (matched buttons of varying shades), easy work to learn, or laid buttons on boards ready to be sprayed, another hand operation for which, however, experience was required to acquire speed.

Chair and other furniture manufacturing employed boys of each age group but few girls. The boys were chiefly working in finishing processes, sandpapering, staining or varnishing, assembling, and glueing, or in simple upholstery processes, such as placing springs in the webbing of chair seats. Only four boys under 16 were employed on any kind of woodworking machines. (The labor law prohibits employment of children under 16 on many types of woodworking machinery.)

Bakeries, canneries, candy, printing, trunk and bag, thermometer, textile, mattress, art-glass, belt and buckle, cigar, and bottling establishments all employed some children.

The principal manufacturing industries usually employed some junior workers between 14 and 17 in "floor" work; that is, in carrying supplies to and from the operatives. In the shoe factories "back shoe boys" carried defective shoes to the operators for repairs; in

the clothing factories girls and in the optical-goods factories boys were employed to distribute work to the operatives. Work of this kind, it was said, frequently led to transfers or promotions to better-paid factory occupations.

Textile mills (Utica).—The Utica knitting mills that manufacture cotton and rayon underwear furnished employment for girls, but less commonly for boys. The other textile mills of this city, which manufacture cotton, woolen, and silk goods, offered little employment for junior workers. Less than one-fourth of the jobs as factory operatives that the boys reported during their work histories, but three-fourths of the girls' jobs, were in the knitting mills. Boys seldom started work in the knitting mills or in other factories until they were at least 15, but the girls frequently began at 14 in the knitting mills.

The most common occupation open to the girls in the knitting mills, to those of 14 as well as to the older ones, was inspecting finished garments for imperfections, buttoning and folding them and cutting threads, work that one of the factory officials said could be learned in a day. The girls also performed other simple hand processes, such as cutting labels, stringing elastic in the tops and bottoms of garments, laying them out for marking pockets, "papering" them (that is, folding the garments over heavy cardboards for packing), and marking and stamping sizes. The girls of 14 seldom operated power machines; about one-fourth of the jobs that the girls began at 15 and almost one-half of the jobs that the 16-year-old girls began were in machine processes. They varied from relatively simple operations like stitching on tape, to which buttons are sewed later, to the more difficult work of seaming together parts of the garments. Occasionally, also, the girls were cone and bobbin winders and operators of the cuff and collarette cutting machines.

Boys in the knitting mills were employed, as a rule, at simple hand jobs. Some of them were "turners" (that is, they turned knitted tubing right side out), packers, labelers, or stampers, or needle boys (that is, they put broken needles in molds and poured hot lead over them to repair them), a job that required but a few days to learn. A few were engaged in simple machine operations on box tieing, eyeleting, and other machines; two operated knitting machines, a skilled operation.

In addition to jobs as operatives, both boys and girls were employed in so-called "floor work," carrying supplies to and from the operatives. The "mending carriers," usually girls, did lighter work, taking imperfect garments from the inspectors to the menders. Sometimes the same girl inspected and carried mending alternately.

Other manufacturing industries (Utica).—The other factory industries of Utica—cutlery, automobile seats and cushions, men's clothing, trunks and bags, and other products—furnished employment to workers of 15 and 16, seldom to those of 14. The boys did various kinds of work in connection with cutlery manufacturing, such as assembling parts of knives and stringing knife blades on wire ready for heating and polishing. They were also employed in automobile-seat manufacturing and in trunk and bag manufacturing in various hand and machine operations. Four boys of 15 operated punch and drill presses. The girls of 15 and 16 inspected, packed,

and wrapped knives and worked in other occupations in the cutlery industry. They also assembled and sewed springs for automobile seats and were employed in the boys' clothing industry in occupations similar to those that the Rochester girls reported in clothing factories. Girls of 15 and 16 occasionally reported machine work in the cutlery and automobile-seat factories. One girl of 15 operated a drill press and another a buffing machine.

Nonfactory employment.

In Rochester the most numerous jobs for the boys in the nonmanufacturing group of occupations were jobs in errand and messenger service, which were chiefly available for the younger boys. Running errands for factories, both inside and outside the plants, bundle and wrapping work for stores, outside errands, and delivering telegrams were the most common kinds of errand jobs. A relatively small number of the jobs were as office or mail boys in factories, occupations that involved some clerical work and possibly offered a chance for promotion. Twenty-seven per cent of the jobs that boys began before they were 16 years and 14 per cent of those that they entered at 16 years were in some kind of errand or messenger work (including delivering telegrams). Another important kind of work, both for the younger and older boys, was sales and stock work in stores. Jobs as drivers' helpers on delivery trucks or wagons were also common; they were supposed to lead to jobs as truck drivers and teamsters. A number of boys, including some under 16, said that they themselves did the driving, although such work has not been legal for boys under 18, under the motor vehicle licensing law of New York, since 1925. Clerical occupations, including shipping-room work, filing, answering the telephone, and general office work were not numerically important for boys, constituting only 5 per cent of all the jobs that boys had before they were 16, and 6 per cent of their jobs at 16. Most of the boys in clerical work were employed in factory offices. About 5 per cent of all the jobs the boys reported were classified as domestic and personal occupations, and included work in hotels and restaurants.

The Rochester girls not in factories reported chiefly sales or stock work in stores, domestic and personal service, errand work, and clerical work. A small percentage were telephone operators. Telephone workers were generally 16 years of age. Jobs as salesgirls were about as likely to be held at the ages of 14 and 15 as at the age of 16. Of all the jobs that the girls had held, 15 per cent of those that they had begun before they were 16 years and 14 per cent of those they began at 16 years were as sales or stock persons. Bundle and cash and check work in stores, in which some of the girls under 16, but not many of the older girls, were employed, was said to lead to promotions to stock and sales work. Of the jobs in which the girls were employed before they were 16, 15 per cent, and of the jobs in which they were employed at 16 years, 18 per cent, were in some kind of clerical work, such as typing, stenography, billing, filing, operating office machines, and other miscellaneous work. Employment in clerical or sales work does not, of course, necessarily mean that the girl had obtained a type of work in which there were opportunities for advancement. In a study of working children in Philadelphia, it was shown that 80 per cent of the chil-

dren in commercial occupations included in that study had opportunities for training but no more than half of these had opportunities for advancement.[47]

About one-tenth of all the jobs the Rochester girls had held (13 per cent of the jobs that they began under 16 and 10 per cent of those they began at 16 years) were in domestic and personal service, either in private families or in restaurants, hotels, or hospitals. A small number of the girls' jobs were in power laundries. The jobs in the so-called professional group, other than as learners (see p. 30), were chiefly as attendants in doctors and dentists' offices or as theater ushers.

Most of the Utica boys in nonmanufacturing occupations did the same kinds of work as the Rochester boys—errand work, sales work, and helping drivers and hucksters. Perhaps because of the lack of openings in factories, domestic and personal service furnished employment to relatively more of the Utica than of the Rochester boys, comprising 14 per cent of the jobs the Utica boys reported during their work histories. These jobs—bus boys, dishwashing, and other restaurant and hotel work, pin boys in bowling alleys, and shoe shining—afforded no opportunity for learning a skilled occupation and were frequently undesirable for other reasons.

In Utica, the girls' jobs outside of factories were principally mercantile, errand, and domestic occupations. No girl had been a telephone operator. Only 2 per cent of the jobs that the Utica girls had at 16 were clerical as compared with 17 per cent of those in Rochester. The lack of employment in clerical work in Utica is not in agreement with the findings of studies of working girls in other cities. On the other hand, the proportion of Rochester girls of 16 years of age who were clerical workers in their last jobs (25 per cent) was higher than that in Milwaukee (14 per cent).[48]

Occupational change.

As boys and girls grow older and have a longer work experience they tend to drift out of errand and messenger work and into factory work. The second and third and later jobs that the Rochester boys and girls reported were more likely to be in factory and less likely to be in errand work than their first jobs. When the boys and girls changed jobs the new occupation was generally somewhat different from the previous, both when they were transferred or promoted to another job in the same establishment and when they changed from one employer to another.

A comparison of the boys' and girls' occupational distribution on beginning work and on the date of the study reveals some changes. More pronounced changes would be evident no doubt had their work experience been longer. On beginning work 36 per cent of the Rochester boys, most of whom were under 16, compared with 52 per cent of those employed at the time of the study, the majority of whom were 16, were in factories or in other work classified as manufacturing or mechanical. (Table 12.) Twenty-eight per cent were errand boys and telegraph messengers on beginning work, but only 17 per cent were so employed at the date of the study. The

[47] Griscom, Anna Bassett: The Working Children of Philadelphia, p. 11. The White-Williams Foundation and the Junior Employment Service of the Board of Education, Philadelphia, Bulletin Series No. 3 (September, 1924).
[48] Unpublished material.

proportion who were sales or stock boys in stores in their first jobs and at the date of the study was about the same. Five per cent in their first jobs and 8 per cent in their last jobs did some kind of clerical work, including shipping room occupations.

TABLE 12.—*Industry and occupation of first and last regular jobs of boys and girls employed on date of study*

Industry and occupation and sex	Rochester				Utica			
	First regular job		Last regular job		First regular job		Last regular job	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Boys	1,525		1,525		356		356	
Industry and occupation reported	1,516	100	1,521	100	354	100	354	100
Agriculture	95	6	13	1	27	8	13	4
Manufacturing and mechanical	544	36	786	52	114	32	164	46
Learners	103	7	155	10	25	7	34	10
Helpers and laborers	86	6	80	5	23	6	28	8
Operatives (except floor boys)	305	20	489	32	64	18	99	28
Floor boys	49	3	59	4	2	1	3	1
Others	1	(1)	3	(1)				
Professional service	18	1	20	1	3	1	1	(1)
Domestic and personal service	76	5	52	3	39	11	39	11
Other industries and occupations	783	52	650	43	171	48	137	39
Sales and stock boys	153	10	153	10	37	10	29	8
Teamsters, drivers, and helpers	75	5	61	4	20	6	13	4
Telegraph messengers	118	8	41	3	16	5	12	3
Messenger and errand boys	310	20	215	14	61	17	42	12
Other clerical workers	67	4	120	8	7	2	18	5
Others	60	4	60	4	30	8	23	6
Industry and occupation not reported	[2] 9		4		2		2	
Girls	1,365		1,365		409		409	
Industry and occupation reported	1,362	100	1,365	100	409	100	409	100
Agriculture	2	(1)			13	3		
Manufacturing and mechanical	507	37	581	43	240	59	304	74
Learners	14	1	9	1	4	1	1	(1)
Operatives (except floor girls)	461	34	545	40	227	56	283	69
Helpers and laborers and floor girls	30	2	27	2	9	2	20	5
Others	2	(1)						
Professional service	9	1	17	1	3	1	3	1
Domestic and personal service	177	13	139	10	61	15	46	11
Other industries and occupations	667	49	628	46	92	22	56	14
Sales and stock girls	247	18	207	15	62	15	36	9
Messenger and errand girls	181	13	85	6	19	5	12	3
Typists, stenographers, cashiers, and bookkeepers	100	7	134	10	2	(1)	1	(1)
Telephone operators	36	3	67	5				
Other clerical workers	88	6	118	9	3	1	3	1
Others	15	1	17	1	6	1	4	1
Industry and occupation not reported	[2] 3							

[1] Less than 1 per cent.
[2] Includes 2 boys and 2 girls whose first job was out of the country.

The difference in the occupational distribution of the Rochester girls on beginning work and on the date of the study was not so great as in the case of the boys. Although more girls, as well as more

boys, were employed as factory operatives in their last jobs than in their first, the percentage difference was less than that of the boys. Sixteen per cent in their first jobs and 23 per cent in their last jobs were clerical or telephone workers.

Except that a smaller proportion of the Utica boys were employed as clerical workers in both their first and their last jobs, and a larger proportion were employed in domestic and personal service, the differences in their first and last jobs were similar to those noted for the Rochester boys. The proportion of the Utica girls employed in factories was considerably smaller on beginning work than on the date of the study, 59 per cent and 74 per cent, respectively, and the proportion of girls in store, errand, and domestic work was correspondingly larger on beginning work than on the date of the study.

Special training and occupations.

The value of industrial training for the school child who does not become adjusted to the work of the ordinary academic grades is generally recognized. How far it is possible for the pupil to make direct use of such training after he goes to work is difficult to determine. The more training he has in the use of machines and in the handling of tools, however, the better fitted he should be to meet the requirements of any mechanical jobs in which he may afterwards find employment even if he does not take up the kind of work for which he received specific training. On the other hand, the industrial training that the schools offered boys (p. 11) was principally for the various building trades or for skilled occupations in the metal-manufacturing industries, such as tool making, pattern making, and drafting, in which workers under 17 were seldom employed. No doubt chiefly for this reason, only a small number of the Rochester boys and girls who had taken industrial courses actually found employment, during that brief part of their working lives that is covered in the present study, in the kind of work for which they had been trained, in any of the jobs in which they were employed.

Of the 471 boys employed at the date of the study who had taken industrial training in regular school, only 10 per cent were learners in some skilled trade in manufacturing and mechanical industries, 38 per cent were factory operatives, 5 per cent were laborers, and the remainder were employed in errand work and other nonmanufacturing and nonmechanical occupations. Approximately the same proportions of boys without industrial training were learners in skilled trades in manufacturing and mechanical industries, were factory operatives, or were in nonmanufacturing occupations. Few had found, while still under 17, jobs in occupations in which they had had instruction. For example, of 117 boys employed on the date of interview who had some training in machine-shop and pattern-making courses, 2 were learning the toolmaker's trade at the time of the study and 5 others who were operatives in metal-manufacturing establishments may have found their training useful; of 56 boys who had taken the sheet-metal work course, 4 were reported to be learning the trade and 5 others were employed in other kinds of metal-manufacturing operations; and of 32 boys who had studied printing, 5 were apprenticed in the trade and 4 others were press feeders or other operatives in printing establishments.

Included in the group of boys with industrial training were 71 boys who had attended the Rochester Shop School (the boys' trade school conducted by the board of education), 67 of whom were employed at the time the study was made. Although some of the boys had previously had industrial training in other schools, none of them had completed the three years' training in the shop school and only 19 had finished as much as one year's work.[49] Only 4 boys among those with this trade training had held any job in a skilled occupation similar to that for which they had taken some training. Six others had occupations in which their training might have been useful.

On the other hand, the commercial training that the Rochester girls had had in regular school often prepared them directly for the work which they undertook later, although by no means had all the girls who took commercial courses been able to make use of their school training. Forty-one per cent of them entered clerical occupations when they first went to work; the same percentage of the girls with this type of training had clerical jobs at the time of the study. The demand for girls under 17 for typing, stenographic, and bookkeeping work is doubtless insufficient to absorb all the girls who take courses in these subjects and who regard clerical as preferable to factory work in social standing and working conditions. About one-fourth of the girls with commercial training, however, obtained sales, stock, or errand work in stores, and in telephone exchanges; approximately one-fourth of them were factory operatives, and the remainder were employed in a variety of miscellaneous jobs.

A considerable number of the girls who did clerical work had not taken a commercial course in regular school. About one-third of the 134 girls employed as bookkeepers, stenographers, typists, or cashiers at the time of the study and about three-fifths of the girls in miscellaneous clerical work had had no commercial training before they left regular school.

Training in household arts had no especial relation to the work the Rochester girls did afterwards. About one-seventh of the domestic workers and about the same proportion of the factory workers, but smaller proportions of the store and clerical workers, had been enrolled in household-arts courses in school. Two of 10 girls who were learning the dressmaking or millinery trade had taken the household-arts course, which offers some practice in home dressmaking and millinery.

Few of the Utica boys and girls included in the study had had vocational training in regular school (p. 13). The negligible number of Utica girls in clerical occupations is doubtless partly due to the lack of facilities for commercial training in the schools as well as to the relatively low grade accomplishment of the Utica children, but it may be partly due to lack of opportunity in the city for office work for such young persons.

[49] Doubtless the boys who do not go to work until they are 17 or 18 and who stay in this school long enough to complete the 3-year course are able to make more use of their training. According to a report of the New York State Education Department nearly three-fourths of the 2,360 graduates in 1929 from day trade schools in the State as a whole entered the trades for which they had received instruction. Trade School Students Cling Closely to Trades Studied in School. New York State Education Department. (Mimeographed.)

The officials of the continuation schools in both cities try as far as possible to make the special training offered in the school fit the needs of the individual child, either by giving him trade preparatory work that may be useful to him later or by coordinating the practical work in the school with the actual work the child is doing. Of course, intensive trade training in the two hours a week available for vocational work is not possible.

The Rochester continuation school offers industrial courses in much the same subjects as the regular schools, and coordination between the boys' work and these industrial training courses is difficult because so much of the work available for junior workers is of a kind for which little training is needed.

In 1928 it was reported that considerable proportions of the boys enrolled in the continuation school in the retail selling, commercial, sheet-metal, machine-shop, and cabinet-making courses, smaller proportions enrolled in masonry, printing, electrical, and commercial-art courses, and a very small proportion enrolled in drafting were actually employed in related occupations.[50] Most of the boys included in this study were enrolled in the industrial courses, but 121 were enrolled in commercial courses at the time they were interviewed; nearly half of these were employed in related occupations—31 in some kind of clerical work, 24 in sales and stock work, and the remainder chiefly in errand or messenger work or in factories.

Coordination between the training in the part-time school and the actual job is easier to work out for girls who do clerical or store work. Nearly three-fifths of the Rochester girls who were employed in some kind of clerical work at the time of the study and more than two-fifths of the sales and stock girls were enrolled in commercial courses, including the retail-selling course. One-fifth of the factory workers were also enrolled in these courses. For the large number of girls who were operatives in men's clothing, shoe, paper-box, button, electrical-supply, and other factories, the vocational classes, most of which train for homemaking only, offered little related training, except possibly for girls in the clothing factories.

The industrial training for boys in the Utica part-time school is chiefly for trades in which, as in Rochester, few of the boys included in the study were employed as learners. For girls the only vocational classes are those in homemaking subjects, so that for the great majority of girls who are operatives in textile mills and other factories, the part-time school classes are not closely related to the work in which they are employed. Only a dozen pupils of either sex in the Utica continuation school were studying or had studied commercial subjects in continuation school; three of these, all boys, were employed in clerical work.

Grade attainment and occupations.

There appeared to be no minimum educational standard, other than that set by the labor law, in either city for the occupations entered by children under 16, except for clerical work for which an eighth-grade education at least was usual and for telephone work for which completion of the eighth grade was usually required. In

[50] The Work of the Public Schools, Rochester, N. Y., 1928, p. 422.

only one of the manufacturing establishments visited (in the camera-manufacturing industry) was an eighth-grade education said to be regarded as desirable for work in the production department. Boys or girls who had no more than a sixth-grade education or who had come from special or ungraded classes reported employment in each of the principal manufacturing industries. Similarly, children under 16 with no more than a sixth-grade education were employed in sales and stock work, errand and messenger work for factories, stores, and telegraph companies, and other miscellaneous work.

On beginning work the relationship between the school attainment of the Rochester boys and girls and the type of occupation, especially for the boys, was not as marked as it was in connection with later jobs. The effect of school attainment on occupation was most evident in the last jobs held by young workers who had reached 16 years, no doubt because some occupations are open to the older boys and girls that are not available for the younger children. The boys of 16 who were employed on the date of the inquiry and had had one, two, or more years' work in academic high schools were more likely than the boys from the elementary grades to be clerical workers, salespersons, or errand or office boys in factories, and not so likely to be factory operatives or laborers. The proportion of boys of 16 years with high-school training who were learning a trade (9 per cent) was nearly as large as that of the boys (11 per cent) from the elementary-school grades.

The Rochester girls from grades lower than the eighth more commonly entered factories and domestic and personal service than girls from the upper grades, especially those who had completed one or more years of high-school work. Contrasted with 54 per cent of the girls of 16 years from grades lower than the eighth and 57 per cent from nonacademic grades, only 19 per cent of the girls from the ninth and higher grades were in manufacturing and mechanical industries at the time of the inquiry. The girls from the high-school grades were clerical workers, telephone operators, salesgirls, and errand girls. Considerable numbers of eighth-grade graduates of 16 also were clerical workers and telephone operators although not as frequently as girls from the ninth and higher grades. The girls from the seventh and lower grades seldom did any kind of clerical work; only two were typists at the time the study was made. Those not in factories were usually employed in domestic service or in errand and sales work.

In Utica, where but few boys and girls had finished as much as a year of high-school work and where the opportunities in offices and stores appeared limited, factory, mechanical, and domestic and personal occupations absorbed the majority of the eighth-grade graduates as well as the boys and girls from the lower grades. Little association was found between school accomplishment and type of work undertaken.

According to the findings of other studies of working children, the kind of employment that young workers get is at least partly dependent on their school attainment. The study of New York working boys made in 1919 showed that the boys with high-school training were more likely than boys with an elementary-school education to be employed in office and commercial occupations as distinguished

from manual occupations.[51] Similarly, the Cincinnati study of working and school children,[52] as well as the several former studies of the Children's Bureau,[53] have shown that, as in Rochester, children from the higher school grades tend to go into office work and children from the lower grades into factories.

Mental ability and occupations.

A definite relationship was found between the mental ability of the Rochester boys and girls and the type of work they did, a relationship that was more marked for the girls than for the boys. The girls in clerical work, especially those who did stenography, typing, or bookkeeping, were much more likely to be of higher intelligence than those in factories, sales, and domestic work. In their last jobs 68 per cent of the bookkeepers, cashiers, typists, and stenographers, 48 per cent of the miscellaneous clerical workers, 27 per cent of the salesgirls, 23 per cent of the factory operatives, and 22 per cent of the domestic workers had intelligence quotients of 100 or more. The simple repetitive work that young girls do in factories does not require a high level of intelligence, and probably for this reason little difference was noted in the intelligence levels of the girls employed in the different kinds of manufacturing establishments.

The boys in factory occupations were of somewhat lower intelligence than the boys in clerical and errand jobs. The Rochester boys who were classified as learners were not much above the factory operatives in mental ability; 40 per cent of the boys employed as learners in skilled trades in their last jobs and 31 per cent of the factory operatives, but 45 per cent of the errand workers and 69 per cent of the clerical workers, had intelligence quotients of 100 or more.

The relation of mental ability and the occupations of the Rochester boys and girls corresponds on the whole to the findings of the intensive study of Cincinnati school and working children previously mentioned. Approximately 750 working children, whose employment histories covered a 4-year period and who were given a series of mental tests, were included in that study. The mentally superior girls were employed far more frequently than the inferior in clerical positions, and the mentally inferior predominated in factory work. The boys of good mental status tended to get employment in the superior trades and in the better types of factory work and also in office work.[54]

In Utica, where comparable information was not available as to the mental ability of the boys and girls studied, some idea of the relation between this factor and the kind of work they did may be obtained from a study of their school progress in relation to occupation. Contrary to the findings of the studies in Newark and Paterson and in Boston,[55] school progress did not appear to be related to any extent to the kind of work the Utica children did. This lack of association between their school progress and occupations supports

[51] Our Boys; a study of the 245,000 16, 17, and 18 year old employed boys of the State of New York, p. 231.
[52] An Experimental Study of Children, p. 733.
[53] Child Labor in New Jersey—pt. 3, The Working Children of Newark and Paterson, p. 71; the Working Children of Boston, p. 246; Employed Boys and Girls in Milwaukee, p. 26.
[54] An Experimental Study of Children, pp. 645, 658.
[55] Child Labor in New Jersey—pt. 3, The Working Children in Newark and Paterson, p. 71; The Working Children of Boston, p. 245.

the conclusion that their grade accomplishment made little difference in their occupations.

WAGES

Beginners' wages.

The young persons for whom information was obtained in this study first went to work in 1923 and 1924. On beginning work the earnings of the Rochester boys under 16 varied widely; wages reported [56] varying from less than $5 a week to $32 a week. Of those receiving cash wages only, the median wage was $10.29 weekly for boys of 14 years and under, $10.92 for boys of 15, and $12.26 for boys of 16. The girls' wages also covered a wide range, from less than $5 a week to $20.77. Their median wage was $9.59 for the 14 and under group, $10.12 for the 15-year-old group, and $11.65 for the 16-year-old group.

In addition to the boys and girls who earned cash wages, 5 per cent of the boys and 11 per cent of the girls also received some form of maintenance. Most of these children worked in restaurants, hotels, or private families. An additional 4 per cent of the boys and 3 per cent of the girls received no wage. Most of these helped their parents in work other than housework, and are not included among those for whom median cash wages are given.

The beginning wages of the Utica children under 16 years, especially those of the girls, were somewhat lower than those of the Rochester children. For the boys of 14 and under the median weekly wage was $10 and for boys of 15 even less, $9. The median wage for the girls of 14 and 15 years was the same, about $7. Nine per cent of the boys under 16 and 18 per cent of the girls who reported cash wages only earned less than $5 a week as compared with only about 2 per cent of the Rochester workers of each sex. Many of the Utica girls who earned less than $5 a week were knitting-mill workers who were paid on a piece basis. The number of boys and girls who began work at 16 years in Utica was too small to serve as a satisfactory basis for comparisons of their wages with those of the younger children.

Wages at date of inquiry.

Both the ages of the boys and girls and the length of time since they had started work were important factors in determining the amount of wages that they were receiving at the time of the study. For the Rochester boys of 15 years who had begun work less than a year before the date of the study the median wage was $12, as compared with $13 for the boys of 16 whose work experience was of the same length. The median wage of the girls of 15 whose work history was less than a year was $11, about $1 less than that of girls a year older whose work histories were of corresponding length.

The importance of work experience as a factor in wages may be shown by comparing the wages of the Rochester boys and girls of 16 whose employment histories were less than one year with the wages of those whose employment histories were longer. The median wage of the boys of 16 years with an employment history of less than

[56] The information concerning wages was based on the boys' and girls' statement. Most of the Rochester boys and girls were paid on a time basis and reported their weekly wage rate; those children who were paid on a piece basis estimated their usual weekly earnings.

one year was $2 below that of boys of the same age with a longer work experience. Wages of at least $16 weekly were reported for 23 per cent of the boys of 16 with the shorter work histories and for 38 per cent of the boys with the longer work histories. (Table 13.) The length of the girls' work experience also influenced their wages, but the effect was not as marked as for the boys.

TABLE 13.—*Weekly wage of last regular job and length of work history of boys and girls 16 years of age who were employed on date of study*

Weekly wage of last regular job and sex	Rochester						Utica					
	Total	Length of work history					Total	Length of work history				
		Less than 1 year		1 year or more		Not reported		Less than 1 year		1 year or more		Not reported
		Number	Per cent distribution	Number	Per cent distribution			Number	Per cent distribution	Number	Per cent distribution	
Boys	986	557	------	427	------	2	216	100	------	114	------	2
Cash wage only	929	527	------	400	------	2	182	85	------	96	------	1
Amount reported	914	516	100	396	100	2	181	84	100	96	100	1
Less than $8	17	12	2	5	1	------	14	11	13	2	2	1
$8, less than $10	40	35	7	5	1	------	22	11	13	11	11	------
$10, less than $12	173	123	24	50	13	------	33	22	26	11	11	------
$12, less than $14	218	132	26	85	21	1	49	18	21	31	32	------
$14, less than $16	197	96	19	101	26	------	29	12	14	17	18	------
$16, less than $18	101	46	9	55	14	------	12	6	7	6	6	------
$18, less than $20	64	25	5	39	10	------	11	1	1	10	10	------
$20 or more	104	47	9	56	14	1	11	3	4	8	8	------
Amount not reported	15	11	------	4	------	------	1	1	------	------	------	------
Cash plus other or other only	28	12	------	16	------	------	22	7	------	15	------	------
No wage	29	18	------	11	------	------	11	8	------	3	------	------
Wage not reported	------	------	------	------	------	------	1	------	------	------	------	1
Girls	885	444	------	441	------	------	249	85	------	161	------	3
Cash wage only	805	400	------	405	------	------	224	73	------	150	------	1
Amount reported	798	398	100	400	100	------	216	71	100	144	100	1
Less than $8	30	23	6	7	2	------	31	16	22	15	10	------
$8, less than $10	83	48	12	35	9	------	51	22	31	29	20	------
$10, less than $12	219	112	28	107	27	------	54	12	17	42	29	------
$12, less than $14	211	108	27	103	26	------	45	13	18	31	22	1
$14, less than $16	173	78	20	95	24	------	22	5	7	17	12	------
$16, less than $18	43	20	5	23	6	------	9	1	1	8	6	------
$18, less than $20	21	4	1	17	4	------	3	1	1	2	1	------
$20 or more	18	5	2	13	4	------	1	1	1	------	------	------
Amount not reported	7	2	------	5	------	------	8	2	------	6	------	------
Cash plus other or other only	62	31	------	31	------	------	19	9	------	9	------	1
No wage	16	12	------	4	------	------	6	3	------	2	------	1
Wage not reported	2	1	------	1	------	------	------	------	------	------	------	------

For the great majority of the Rochester boys and girls employed at the time of the study, the earnings reported were for a full working week; that is, for 40 hours or more, not counting the 4 hours spent at continuation school. A minority of the children, 215 boys (15 per cent) and 209 girls (17 per cent) receiving cash wages,

however, had been employed less than 40 hours in the week for which wages were reported. Short hours partly accounted for the unusually low wages of some children; 16 of 85 girls and 14 of 41 boys who had wages of less than $8 a week had been employed for less than 40 hours.

The wages of 85 per cent of the boys and 80 per cent of the girls in Rochester receiving cash wages only who were 16 years of age at the date of the inquiry and had had at least one year's employment history had been increased since they began work. Of the 352 Rochester boys of this age reporting cash wage increases, more than one-half were earning at least $5 a week more at the time of the study than they had earned on beginning work a year or more earlier. The wage increases since beginning work of two-fifths of the 332 girls in this group also amounted to at least $5 a week.

The wages of the Utica boys and girls also depended both on their age and on their work experience. The boys and girls of 15 years earned considerably less than those of 16 years who had employment histories of corresponding length, as the median wages for each group shows. The median wage of the boys of 16 who had begun work less than one year prior to the date of the study was $11.65, compared with $13.35 for the boys with longer work experience. The girls, whose wages were unusually low on beginning work, were still low at the time of the study; the median wage for the girls of 16 whose employment history was less than one year was only $9.80. For the girls of the same age, however, who had been employed longer, wages were considerably higher. The median wage was $11, about $2 less than that of the Rochester girls with the same length of work experience. Wages of $14 or more a week were reported by 16 per cent of the Utica girls of 16 and by 32 per cent of the Rochester girls of the same age.

For all but 45 (15 per cent) of the Utica boys the cash earnings reported were for a working week of 40 hours or more. On the other hand, the Utica girls, many of whom were in the knitting mills on less than full time, had been employed shorter hours; 129 (36 per cent) had worked less than 40 hours in the week for which they reported earnings. Low earnings on the part of the Utica boys can not be accounted for to any extent by short hours of work. But one-half of the Utica girls whose wages were less than $10 had worked less than a 40-hour week, as compared with 22 per cent of the girls whose wages were more than this.

The Utica boys and girls of 16 who had started work at least one year prior to the date of the study, like the Rochester boys and girls, frequently had had substantial wage increases since beginning work. The wages of 84 per cent of the boys and of 78 per cent of the girls receiving cash wages only had been increased. Nearly two-thirds of the 86 boys who reported increases in cash wage and almost one-half of the 115 girls were earning at least $5 a week more at the date of the inquiry than they had received on beginning work.

The wages of the Rochester boys and girls in their last regular jobs corresponded fairly closely to those of young persons of the same ages in other localities. The median wage of the Rochester boys of 15 years of age was approximately the same ($12) as that of the Newark boys who were of the same age, according to

the study made in that city two years before; for the girls the median was slightly higher in Rochester ($11) than in Newark ($10.50).[57] In Milwaukee the median wages of the boys and girls of 15 included in that study in 1925 were lower than in Newark and in Rochester. The median wages of the 16-year-olds included in the Milwaukee study were also slightly lower than the wages of the Rochester minors of this age—for the Milwaukee boys of 16 at work less than one year it was $12, compared with $14 for the Rochester boys; for the Milwaukee girls of 16 the median wage was $11, compared with $12.50 for the Rochester girls.[58]

In Rochester the boys employed in manufacturing and mechanical occupations tended to get higher wages than those employed in other occupations, both when they began work and at the time of the study. In the jobs held at the time of the study the median weekly wages of the boys of 16 who were factory operatives and learners in skilled trades was about the same, $14.80 and $14.90, respectively; for clerical workers the median was $14.20; for salesboys, $13.60; for errand boys, $11.75. The boys of 16 years employed as operatives in the manufacture of optical goods, electrical supplies, and metal products reported especially high wages; 44 per cent of the boys in these three industries, 27 per cent of the boys in shoe factories, and 28 per cent of the clerical workers (including shipping clerks), but practically none of the errand boys, were earning $16 or more a week.

The girls who were factory operatives and office workers had better wages than girls in other occupations, in both first and last jobs. Among girls of 16 the median wage for telephone operators was $15.20; for bookkeepers, cashiers, typists, and stenographers, $13.60; for miscellaneous clerical workers, $12.30; for factory workers, $12.70; and for sales and stock workers in stores only $11.25; few girls of this age were bundle and cash workers. Wages in the shoe factories were lower than in the clothing factories; only 16 per cent of the shoe-factory operatives, compared with 43 per cent of the clothing-factory operatives, were earning $14 or more a week.

Similarly, in Utica the boys and girls in factories received higher wages than the children in errand and store work. The wage level of the Utica girls who began work when less than 16 was low both in the textile mills and in the stores, which together employed the great majority of the girls in this city who reported cash wages. Wages were especially low in the knitting mills. Of 66 Utica girls whose weekly earnings were less than $5 on beginning work, 47 were employed in these mills, generally as inspectors paid on a piece basis. Many of them reported weekly earnings of $3 or less. No information was obtained as to the amount of part-time employment. At the time of the study the wages of the girls of 16 in the textile mills had increased considerably; only a small proportion were earning less than $8; 60 per cent were earning $10 or more weekly.

Education and mental ability and wages.

To what extent the wages of young workers are influenced by the amount and kind of education that they have received is a question on which the evidence obtained in this and other studies is inconclusive. According to the Cincinnati study of working children, a

[57] Child Labor in New Jersey—Part 3, The Working Children of Newark and Paterson, p. 30.
[58] Employed Boys and Girls in Milwaukee, p. 31.

difference in educational attainment of three school grades made no difference in earning capacity during the first four years of their working lives.[59] On the other hand, the Children's Bureau study of working children in Newark indicated that to some extent at least the children's wages did depend on the amount of education which they had had. In Milwaukee the girls with the higher educational attainment received the higher wages, but education apparently had no influence on the boys' wages.[60] Similarly, in Rochester the girls from the eighth or high-school grades who were employed on the date of the study reported higher wages than girls who had not completed the elementary grades and girls from the nonacademic or vocational grades. The boys, however, from the eighth and high-school grades earned no more than the boys from the lower grades. In Utica little relationship was found between education and wages for either sex.

One reason for the lack of a definite and consistent relationship between the education and the wages of young workers is of course the fact that differences are slight in the educational attainments of boys and girls who go to work between the ages of 14 and 17. Few in Rochester and still fewer in Utica had completed more than one year of high school. Practically all the rest had at least finished the sixth grade. No doubt if the wages of children who had gone no further than the eighth grade could be compared with the wages of high-school graduates of the same ages after both groups had been at work for several years, the advantage of additional schooling would be more evident. Another reason that studies of working children in different cities do not show a consistent relationship between education and wages is because of the varying wages paid workers for work in factories, offices, and stores. In some cities children's wages are higher in factories than in offices and stores; in other cities the reverse has been found to be true.

The special training of the Rochester boys in industrial and other vocational subjects in school had apparently not affected their wages up to the time of the study. (See p. 11.) Very low wages—less than $10 a week—and relatively high wages—$16 or more a week—were about as usual for boys of 16 years with industrial training as for boys of the same age with no industrial or other vocational training.

The girls in Rochester, however, who had commercial training did receive slightly higher wages than the girls with home-making training or with only academic training. The reason that special training influenced the girls' wages was no doubt because the girls with commercial training were much more likely than the other girls to be employed as clerical workers and telephone operators, occupations in which the compensation for girls was relatively high. The relation of commercial training to wages was evident in the initial wages of the girls who began work before they were 16 and somewhat more evident in the wages of the girls of 16 who were employed at the time of the inquiry. Wages of $14 or more were reported by 39 per cent of the girls of 16 with commercial training, by 29 per cent of the girls with academic training only, and by 30 per cent of the girls with training in household arts.

---

[59] An Experimental Study of Children, p. 735.
[60] Child Labor in New Jersey—Part 3, The Working Children of Newark and Paterson, p. 72; Employed Boys and Girls in Milwaukee, p. 42.

In Utica the differences in the wages of retarded and nonretarded boys and girls were slight and were not consistently maintained throughout the period of the child's employment. That school retardation appeared not to have an unfavorable effect on wages of employed children under 16 was the conclusion reached also in the study of Newark and Paterson children.[61]

Mental ability, as measured by the group intelligence tests given the Rochester boys and girls, apparently made little difference in the wages received by the boys on the date of the inquiry, but did affect the wages received by the girls. As has been shown, the girls whose intelligence quotients were relatively high, who were at least eighth-grade graduates, and who had had some kind of special training for the job entered clerical occupations, which in Rochester were relatively well paid.

Part-time school attendance and wages.

One of the drawbacks to part-time school attendance for the young worker is the loss in wages due to the loss in working time. The New York part-time school law requires employers in cities in which part-time schools have been established to permit their employees under 17 to attend school four hours a week between 8 a. m. and 5 p. m. on school days or between 8 a. m. and 12 noon on Saturdays.[62] The girls in the Rochester telephone exchanges and the boys and girls who had part-time jobs were able to attend continuation school outside their working hours. A small proportion of the young workers also were paid on a piecework basis, so of course received no compensation for the time they spent in school. The great majority, however, were paid on a time basis, by the hour, day, or week, and were attending school during the hours they would otherwise have been at work. These boys and girls were asked if the employers deducted from their wages payment for the four hours they spent in continuation school. Half of the 1,085 boys and of the 804 girls so employed in Rochester at the time of the interview, and half of the 192 boys and about one-third of the 128 girls in Utica reported that they received compensation for the time they attended school.

HOURS OF WORK

According to the law in effect in New York State in 1927 the hours of work of children under 16 were restricted to 44 a week [63] in a comprehensive list of establishments,[64] including factories, stores, and restaurants. No legal limitation, however, was placed on hours of work in domestic service in private families or in farm work.

---

[61] Child Labor in New Jersey—Part 3, The Working Children of Newark and Paterson, p. 72.

[62] N. Y., Education Law, sec. 622, pars. D and E.

[63] According to an opinion of the attorney general of New York State given in 1929 (after this study was made) part-time instruction hours do not count as a part of the legal 44-hour work week for children under 16; in other words the 4 hours' attendance may be additional to the 44 hours of actual employment. This differs from the provisions of the continuation school laws in many States where the hours of attendance must be included in the legal working hours. If the hours at continuation school are added to the hours at work, weekly hours for children in excess of 48 would be illegal in the occupation specified in the law. If the hour law for minors between 16 and 18 is interpreted in the same way, total weekly hours in excess of 58 would have been illegal for them at the time the inquiry was made. (Annual Report of the Industrial Commission for 1930. New York State Department of Labor, p. 142, Albany, 1931.)

[64] In or in connection with factories, mercantile establishments, business offices, telegraph offices, restaurants, hotels, apartment houses, theaters or other places of amusement, bowling alleys, barber shops, shoe-polishing establishments, or in the distribution of merchandise, articles, or messages, or in the sale of articles.

Boys between 16 and 18 were limited to 54 hours' work a week in factories and stores and in the distribution of merchandise or articles; girls between 16 and 18, to 54 hours a week in factories, stores, and restaurants.[65]

The boys and girls who were employed at the time of the study were questioned concerning the number of hours they had worked the preceding week. In Rochester regular weekly hours of boys and girls employed in factories not operating full time were reported; in Utica, however, where some of the textile mills had been operating on short time for a considerable period, the usual weekly hours the boys and girls worked were given.

One-half of the Rochester boys and girls under 16 reported hours of 44 or less a week, including both the hours at regular work and at continuation school; nearly three-fourths had total hours of 48 or less. (Table 14.) The remainder (28 per cent) had a working week in excess of 48 hours. Thirty-one boys (6 per cent) and 29 girls (5 per cent) had worked 54 hours a week or more.

TABLE 14.—*Weekly hours of last regular job (including 4 hours in part-time school) of boys and girls employed on date of study*

Weekly hours of last regular job	Rochester					Utica				
	Total	Age at date of study				Total	Age at date of study			
		Under 16 years		16 years			Under 16 years		16 years	
		Number	Per cent distribution	Number	Per cent distribution		Number	Per cent distribution	Number	Per cent distribution
Total	2,890	1,019	-------	1,871	-------	765	300	-------	465	-------
Hours reported	2,832	998	100	1,834	100	730	282	100	448	100
Less than 44	470	218	22	252	14	188	115	41	73	16
44 even	587	283	28	304	17	94	44	16	50	11
More than 44, less than 48	767	169	17	598	33	136	34	12	102	23
48 even	160	49	5	111	6	58	12	4	46	10
More than 48, less than 50	473	164	16	309	17	77	14	5	63	14
50, less than 54	190	55	6	135	7	76	20	7	56	13
54, less than 58	92	29	3	63	3	46	21	7	25	6
58, less than 62	29	10	1	19	1	23	8	3	15	3
62 or more	64	21	2	43	2	32	14	5	18	4
Irregular hours	39	16	2	23	1	25	13	5	12	3
Hours not reported	19	5	-------	14	-------	10	5	-------	5	-------

In many of the Rochester factories at the time of the inquiry, continuation-school hours were regarded as part of the 44-hour week for children under 16. Seventy-one per cent of the children under 16 reporting regular hours who were employed as factory operatives had a work week of 44 hours or less, including continuation-school hours; 16 (10 per cent) of the boys and 9 (5 per cent) of the girls employed as factory operatives, however, had a work week of more than 48 hours, including 1 girl and 1 boy of this age who had worked 58 hours or more a week. Store hours were much longer than factory hours for children under 16, the 4 hours' attendance at continuation school not being regarded as a part of the work week in the mercantile establishments in which the children were employed. Only

[65] N. Y., Labor Law, arts. 171, 172, 180, amended by ch. 622, Session Laws 1925, arts. 180a, 181, 182. A law reducing hours for females over 16 to 48 and 49½ a week was passed in 1927 but did not take effect until January, 1928. (Session Laws 1927, ch. 453.)

a small number of the children in this age group employed as sales, stock, or errand workers in stores had had a 44-hour week or less; 69 per cent reported total weekly hours of more than 48. In the large department stores of the city the actual hours of employment were usually between 45 and 46 and the total hours (including continuation-school hours) between 49 and 50. Sixteen (9 per cent) of the children in stores had worked 58 hours or more a week. Boys employed in miscellaneous kinds of errand work (other than in factories and stores and in delivering telegrams) also frequently worked more than 48 hours. (Table 15.)

TABLE 15.—*Industry and occupation and weekly hours of last regular job (including 4 hours in part-time school) of boys and girls under 16 years of age on date of study who were employed on that date*

Industry and occupation, and sex	Rochester					Utica				
	Total	Weekly hours of last job				Total	Weekly hours of last job			
		48 or less	More than 48	Irregular	Not reported		48 or less	More than 48	Irregular	Not reported
Boys	539	398	132	7	2	140	77	57	3	3
Agriculture	3	----	2	1	----	6	2	3	----	1
Manufacturing and mechanical industries	244	216	24	4	----	59	43	13	1	2
Operatives	168	152	16	----	----	38	27	9	1	1
Others	76	64	8	4	----	21	16	4	----	1
Professional service	10	8	2	----	----	1	----	1	----	----
Domestic and personal service	16	6	9	----	1	18	4	14	----	----
Other industries and occupations	263	165	95	2	1	55	27	26	2	----
Sales and stock boys in stores	46	15	31	----	----	11	2	9	----	----
Messenger and errand boys in stores	15	4	11	----	----	2	2	----	----	----
Messenger, errand, and stock boys in factories	60	54	6	----	----	9	5	4	----	----
Telegraph messengers	29	18	11	----	----	4	2	2	----	----
Other messenger and errand boys	37	20	17	----	----	10	2	7	1	----
Teamsters, drivers, and helpers	16	10	5	1	----	4	3	1	----	----
Typists, stenographers, cashiers, and bookkeepers	3	2	----	----	1	1	----	1	----	----
Others	57	42	14	1	----	14	11	2	1	----
Not reported	3	3	----	----	----	1	1	----	----	----
Girls	480	321	147	9	3	160	128	20	10	2
Manufacturing and mechanical industries	205	191	13	1	----	107	106	1	----	----
Operatives	199	189	9	1	----	107	106	1	----	----
Others	6	2	4	----	----	----	----	----	----	----
Professional service	7	6	1	----	----	3	3	----	----	----
Domestic and personal service	60	25	28	5	2	21	8	7	4	2
Private families	40	14	19	5	2	13	4	6	2	1
Other	20	11	9	----	----	8	4	1	2	1
Other industries and occupations	208	99	105	3	1	29	11	12	6	----
Sales and stock girls in stores	82	32	47	2	1	18	5	7	6	----
Messenger and errand girls in stores	38	4	34	----	----	7	3	4	----	----
Messenger, errand, and stock girls in factories	11	9	2	----	----	----	----	----	----	----
Typists, stenographers, cashiers, and bookkeepers	35	31	3	1	----	1	1	----	----	----
Others	42	23	19	----	----	3	2	1	----	----

Most of the Rochester children under 16 whose total hours exceeded 48 a week were employed in violation of the State law in occupations to which the hours law applied, that is, in stores, factories, business offices, restaurants, hotels, institutions, and in messenger and delivery service. Of the 147 girls under 16 who reported hours exceeding 48, only 19 were domestic workers in private families, an occupation not covered by the law relating to hours of labor.

About two-thirds of the Rochester boys and girls of 16 years had a work week of 48 hours or less. The proportion who had been employed for more than 48 hours was but little greater than that of the younger children; 29 per cent of the boys and 34 per cent of the girls reporting worked more than 48 hours. Forty-one (4 per cent) of the boys and 21 (2 per cent) of the girls of this age had been employed for a 58-hour week or longer; that is, for as much as the 54-hour legal maximum plus 4 hours at part-time school. For the boys and girls of 16, as well as for the younger children, store hours were much longer than factory hours, 77 per cent of those employed as sales, stock, and errand workers in stores having a work week in excess of 48 hours as compared with only 17 per cent of those employed as factory operatives. Among the 26 boys of 16 years who had worked 58 hours or more the week before the study were 7 salesboys and 6 hotel or restaurant workers, the remainder being in scattered occupations. Of the 11 girls who had worked 58 hours or more 8 were domestic workers in private families and 3 were store or restaurant workers.

The hours of the Utica girls under 16, but not of the boys in this age group, were considerably shorter than the hours of the Rochester children under 16. Forty-one per cent of the boys under 16 and 70 per cent of the girls had a work week of 44 hours or less; 42 per cent of the boys and 14 per cent of the girls had worked more than 48 hours in the week before they were interviewed, including 12 boys (9 per cent) and 10 girls (7 per cent) who had been employed for 58 hours or more.

The reason for the shorter hours of Utica girls as compared with boys was due to the fact that relatively more of the girls were employed in factories in which hours were generally shorter than in other occupations. For children under 16 in factories the work week was usually 44 hours, including the 4 hours spent in continuation school. Of the 143 boys and girls who were factory operatives and reported their hours, 82 per cent had a work week of 44 hours or less; 7 per cent, however, had been employed in excess of 48 hours. The hours in nonfactory occupations were likely to be much longer. Of 119 boys and girls reporting hours who were store or errand workers or employed in other nonmanufacturing and nonmechanical occupations, only 27 per cent had a work week of 44 hours or less; 55 per cent worked at least 48 hours, and 53 per cent worked more than 48 hours.

Most of the Utica boys and girls whose weekly hours exceeded 48 were employed in violation of the hour law. Among 57 boys under 16 who had worked more than 48 hours, 13 were in manufacturing and mechanical occupations; 14 were employed in various kinds of personal service, in hotels, in bowling alleys, and at shoe-shine stands (occupations specifically mentioned in the law); the others were

store workers, telegraph messenger and errand boys, a driver's helper, and a clerical worker. Three were farm workers to whom the law did not apply. Among the 20 girls under 16 who had worked more than 48 hours, 6 were in domestic service in private families so that the law did not apply to them, 11 were sales and errand girls in stores, 1 was a factory worker, 1 a waitress in a restaurant, and 1 a learner in a store, all occupations covered by the hours of labor law.

The Utica boys and girls of 16 reported considerably longer hours than the younger children; 51 per cent of the boys and 30 per cent of the girls had worked more than 48 hours, but only 24 boys and 9 girls of this age had been employed for 58 hours or more.

The great majority of the boys and girls of 16 in Utica factories, as in other occupations, were employed for more than 44 hours a week. The factory workers frequently reported between 44 and 48 hours. Twenty-nine per cent of the 259 employed as factory operatives for whom hours were reported and 62 per cent of the 146 in nonmanufacturing and nonmechanical occupations had a working week of more than 48 hours the week preceding the date they were interviewed. Fourteen of the 24 boys of 16 years who had worked for 58 hours or more were either employed in stores or in hotels or restaurants; 6 of the 9 girls were domestic workers in private families and were, therefore, not covered by the hour law.

REGULARITY OF EMPLOYMENT

To find out to what extent the boys and girls included in this study were stable workers, an attempt was made to measure stability by the amount of time the children had been unemployed, by the duration of the positions they had held, and by the number of times they had changed positions after they left school for work.

Only the first year or two of the industrial lives of most of these young workers, as has been explained, was covered by the present study. About one-fourth of the Rochester boys and girls had worked less than six months, and about one-third had worked one year or longer. Only 3 per cent of the boys and 5 per cent of the girls had worked two years. The median length of their work histories was 9½ months for the boys and about 9 months for the girls. The children who had begun work at 14, of course, had had an opportunity to work longer than those who had begun work at 15 or 16.

The work histories of the Utica boys and girls were little longer than those of the Rochester boys and girls, although the latter had started work at slightly earlier ages. The median length of their work histories was 10 months for both boys and girls. About one-half of the Utica children of each sex who had started work at 14 and about two-fifths who had started at 15 had work histories of at least a year.

Amount of unemployment.

According to the findings of the Children's Bureau in Newark and Paterson, N. J., and in Milwaukee, as well as in the earlier studies in Boston and Connecticut, young city workers have fairly steady employment during periods of ordinary business activity.[66] The

[66] Child Labor in New Jersey—Part 3, The Working Children of Newark and Paterson, p. 37; Employed Boys and Girls in Milwaukee, p. 45; The Working Children of Boston, p. 42; Industrial Instability of Child Workers in Connecticut, p. 34.

contrary idea sometimes expressed that beginners have long periods of idleness has not been confirmed either by these studies or by similar studies made by other agencies. Little unemployment was found among working children either in the Cincinnati study made during the four years following 1911[67] or in a more recent study (1927) made by the National Child Labor Committee of working children in two Connecticut cities.[68] The findings of the Rochester and Utica studies present additional evidence that children who enter industry before they are 16 work most of the time, though not necessarily in the same jobs, at least during the early part of their working lives.

The boys and girls included in the present study had been employed in the year or two prior to the spring of 1927, when the inquiry was made, before the period of general business depression. In Rochester the total number of factory employees in April, 1927, was greater than in the same month of the preceding year; in Utica at this time, however, the textile mills, the principal manufacturing industry of the city, had not been running to full capacity for some months.[69]

Eighty-five per cent of the Rochester boys and girls were employed on the date the inquiry was made. Most of the unemployment of the young workers included in this study was no doubt temporary; nearly three-fourths of the Rochester boys and nearly three-fifths of the girls who were not working at the time of the study had been unemployed less than three months. No doubt because of the situation in the Utica textile industry a larger proportion of the boys and girls in that city than of those in Rochester (26 per cent of the boys and 21 per cent of the girls) were temporarily out of work at the date of the inquiry.

The proportion of boys and girls in Rochester and even in Utica who were out of work when the study was made was not dissimilar to that reported in other cities. In Milwaukee, about four-fifths of the young workers between 14 and 18 were employed in January, 1925.[70] In three Ohio cities about three-fourths of 3,710 minors between 14 and 18 years of age who had left school for work were employed in 1929 before the present industrial depression became marked.[71]

In order to measure the length of time that the boys and girls had been out of work, the percentage of unemployed time was calculated for those whose employment history was a year or more in length, all of whom were under 16 when they began work. Figures for the unemployment of boys and girls whose work histories were less than a year would have been of less significance as they had had so short a time to work and to change their jobs.

The Rochester boys and girls, whether or not they were working on the exact date the inquiry was made, had been employed most of the time covered by the inquiry. (Table 16.) Twenty-nine per cent of the boys and 32 per cent of the girls had had no unemploy-

[67] An Experimental Study of Children, p. 562.
[68] Robinson, Claude E.: Child Workers in Two Connecticut Towns, New Britain and Norwich, p. 33. National Child Labor Committee. New York, 1929.
[69] Industrial Bulletin, vol. 6, no. 5 (February, 1927), pp. 134 and 136, and vol. 6, no. 8 (May, 1927), pp. 222–224.
[70] Employed Boys and Girls in Milwaukee, p. 45.
[71] Gibbons, Charles E., and Chester T. Stansbury: Administration of the Child Labor Law in Ohio; a study of children employed in Middletown, Toledo, and Youngstown, p. 18. National Child Labor Committee. New York, 1931.

ment since beginning work. Many of these workers had held the same positions throughout their work histories, but some of them had changed one or more times and had lost no time between ending one job and beginning the next. The boys who had been out of work for one or more weeks of their work histories had been unemployed for 11 per cent, and the girls for 14 per cent, of their employment histories. This percentage of unemployment is like that reported for the working children of Boston in the earlier study made by the Children's Bureau in that city.[72]

TABLE 16.—*Percentage of time unemployed during work history of boys and girls who began work under 16 years of age and who were employed one year or more*

Percentage of time unemployed during work history and sex	Rochester				Utica			
	Boys		Girls		Boys		Girls	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Total	546	-------	599	-------	164	-------	211	-------
Unemployment reported	541	100	599	100	156	100	207	100
None	156	29	193	32	25	16	65	31
Less than 5 per cent	127	23	113	19	27	17	29	14
5 per cent, less than 10	67	12	63	11	16	10	21	10
10 per cent, less than 20	78	14	85	14	23	15	25	12
20 per cent, less than 30	50	9	47	8	20	13	16	8
30 per cent, less than 40	23	4	26	4	17	11	13	6
40 per cent, less than 50	11	2	21	4	11	7	13	6
50 per cent or more	29	5	51	9	17	11	25	12
Unemployment not reported	5	-------	-------	-------	8	-------	4	-------

About one-fourth of the Utica workers (16 per cent of the boys and 31 per cent of the girls) whose work histories were at least one year in length had been employed for the whole of the period covered by the study. Most of those who had had no unemployment had had but one position. For the boys reporting at least one week of unemployment, the percentage of unemployed time during their work histories was 19, and for the girls it was 17. How much of the young workers' unemployment in this or indeed in any city is due to the difficulty of getting work and how much to personal causes, such as their family situation or to their own personalities, can not be estimated. Doubtless, however, the depression in the textile industry and the apparently limited opportunities for work for boys contributed to the relatively greater amount of unemployment in Utica as compared with Rochester.

The continuity of the work of most of these Rochester boys and girls is also clearly shown by the fact that nearly two-thirds of the Rochester boys and nearly as large a proportion of the girls had been out of work either not at all or less than 10 per cent of their work histories; only slightly more than one-tenth of the boys and about one-sixth of the girls had been out of work 30 per cent or

[72] The Working Children of Boston, p. 191.

more, and few had been out of work as much as 50 per cent of the time.

In Utica, however, less than half the boys and more than half the girls either had had no unemployment or had been out of work less than 10 per cent of the time since they first started work. Twenty-nine per cent of the boys and 24 per cent of the girls had been out of work for at least 30 per cent and about one-tenth of each sex for 50 per cent or more of the time.

Data are available for Newark and Milwaukee children who began work before they were 16 and whose employment histories were somewhat shorter; that is, between one and two years as compared to between one and three years for the New York children.[73] Seventy per cent of the Newark boys, 62 per cent of the Milwaukee boys, 64 per cent of the Rochester boys, but only 43 per cent of the Utica boys, had been out of work less than one-tenth of their work histories. Corresponding figures for the girls were 67 per cent in Newark, 58 per cent in Milwaukee, 62 per cent in Rochester, and 55 per cent in Utica.

In other cities in which studies have been made girls were unemployed either more than the boys or for about the same amount of time. In New York State, as a whole, according to the study of the continuation-school pupils made by the State department of education in 1926, the girls were employed much more irregularly than the boys.[74] It would be expected in New York that girls would not be employed outside the home so steadily as boys and that a larger amount of their unemployment would be voluntary, as work permits are issued to them for work in their own homes. Thus a much larger proportion of girls than of boys in both cities who had left regular school and registered at continuation school had never been employed except in their own homes. (See p. 64.) No doubt other girls who had given up or lost their first or other positions also remained at home for a while to help with the housework or for other reasons and did not try to get work outside.

Age and unemployment.

No evidence was obtained in this study that the boy or girl who begins work at 14 has more unemployment than the boy or girl who begins at 15 or 16. Sixty-nine per cent of the Rochester boys employed one year or more who started work at 14 or under and 62 per cent who started work at 15 were unemployed less than one-tenth of their working periods, not an appreciable difference where relatively small numbers are concerned. Similarly about the same proportions of boys of 14 as of 15 had been out of work the longer periods. The girls starting in industry at 14 likewise were out of work about the same percentage of the time since beginning work as girls starting work at 15, except that the latter were more likely than the younger girls to report the longer periods of unemployment; 18 per cent of the girls beginning work at 14 and 29 per cent of those beginning at 15 had been out of work one-fifth or more of the time, the reverse of what might be expected.

---

[73] Child Labor in New Jersey—Part 3, The Working Children of Newark and Paterson, p. 83; Employed Boys and Girls in Milwaukee, p. 47.

[74] Special Report on Unemployment Among Boys Attending Part-Time School, p. 2, and Special Report as to Number of Weeks Girls Attending Part-Time School Have Been Without Employment, p. 2.

No significant differences in the amount of unemployment of Utica children beginning work at 14 and at 15 were apparent, but the number of children starting work at the age of 14 was too small to be a basis for definite conclusions.

Education and unemployment.

It might be expected that boys and girls from the upper grades would be more successful in the work they undertake than those whose school accomplishment is low, and that, therefore, they would have less unemployment. Some evidence has been presented in other Children's Bureau studies of this series and in the Cincinnati study of working children indicating that children who have completed the eighth or higher grades have somewhat less unemployment than children from the lower grades.[75] In none of these studies, however, was the difference in the amount of unemployment appreciable.

In Rochester 75 per cent of the boys beginning work under 16 from the eighth and higher academic grades employed 1 year or more compared with 60 per cent of those from the lower academic grades had been out of work less than one-tenth of the time. Correspondingly smaller percentages of boys from the eighth and higher grades than from the lower grades had been out of work the longer periods. The boys from the nonacademic grades reported proportions of unemployment similar to those of the boys from academic grades below the eighth. The grade completed, however, did not appear to affect the percentage of time the Rochester girls had been out of work, those from the eighth and higher academic grades having had about the same amount of unemployment as those from the lower and from the nonacademic grades. The lack of association between school grade and unemployment for the girls may be due to the difference in the kind of work that the girls from the upper and lower grades enter. The girls from the eighth and high-school grades preferred clerical to factory work, and apparently the demand for clerical workers was less than for factory workers, so that they had more difficulty in getting clerical work and, therefore, had more unemployment.

In Utica the number of boys and girls with employment histories of at least a year was too small to permit of detailed analysis with reference to the influence of educational attainment on unemployment for each sex. Considering the young workers of both sexes together, it appeared that those who had completed the eighth and higher school grades tended to have less unemployment than the young workers from the lower grades, 59 per cent of the former as compared with 46 per cent of the latter having been out of work less than one-tenth of the time or not at all; and 23 per cent of the former and 30 per cent of the latter had been out of work three-tenths or more of their time.

The Utica boys and girls who were retarded in school had a little more unemployment than children who had made average or better school progress, a tendency that supports the conclusion reached with reference to the Rochester boys and girls that school grade was associated with unemployment. Forty-three per cent of the Utica boys

[75] Child Labor in New Jersey—Part 3, The Working Children of Newark and Paterson, p. 73; Employed Boys and Girls in Milwaukee, p. 47; An Experimental Study of Children, p. 602.

and girls with work histories of at least a year who were retarded in school compared with 59 per cent who were not retarded had been out of work either not at all or less than one-tenth of the time; correspondingly larger percentages of the retarded than of the non-retarded boys and girls had been out of work larger proportions of the time.

Mental ability and unemployment.

Mental ability as measured by the group intelligence tests given the Rochester boys and girls was found to be related to the percentage of time the boys had been out of work, but apparently it was not related to the girls' unemployment. Although the boys employed for one year or more whose intelligence quotients were less than 100 had been employed for a large part of their employment histories, they had been out of work to a somewhat greater extent than the boys whose intelligence quotients were higher. Thirteen per cent of the boys with intelligence quotients of less than 100 and only 4 per cent of those with intelligence quotients of 100 or more had been out of work 30 per cent or more of the time; on the other hand, 63 per cent of the boys with intelligence quotients of less than 100 and 73 per cent of those with intelligence quotients of at least 100 had been out of work either not at all or less than one-tenth of their work histories. Little association was found between the mental ability of the girls and their unemployment.

The findings of the Cincinnati study of working children whose mental ability was intensively studied were similar to those of the Rochester study; the mentally superior boys of Cincinnati were employed a somewhat greater proportion of the year than the mentally inferior, a fact not true of the girls.[76] The results of a Children's Bureau study of the employment histories of young workers of subnormal mentality are also of interest in this connection. The boys included in that study, although employed a large part of their working lives and considerably more than the girls, experienced relatively more unemployment than the boys included in the Rochester and Utica studies or than boys of unselected mentality included in the Milwaukee study.[77]

Duration of positions.

The children included in the present study kept their first positions [78] but a short time, frequently less than one month. Two-thirds of the Rochester boys and girls beginning work under 16 had ended their first positions before the date of the present inquiry. (Table 17.) Thirty per cent of these had held them less than one month and 65 per cent less than three months. The length of the position of boys and girls was about the same. The boys and girls in this age group who were still in their first positions at the date of the study, however, had been holding them for considerable periods of time, 66

[76] An Experimental Study of Children, p. 659.
[77] Employment of Mentally Deficient Boys and Girls, p. 18; Employed Boys and Girls in Milwaukee, p. 46.
[78] For convenience in this discussion the term "position" has been used to indicate the period the child worked continuously with one employer as distinguished from the term "job," the period in which he was employed in one occupation with the same employer. A very small percentage of the boys and girls whose first positions were ended had been employed in more than one occupation or kind of work for their first employer, so that the length of their first jobs was almost always the same as that of their first positions.

per cent of them for six months or more. Because of the unequal lengths of the employment histories of the workers of different ages included in this study it was impossible to determine whether boys and girls who begin work at 16 hold their positions longer than those who start work younger.

TABLE 17.—*Duration of first terminated position held by employed boys and girls beginning work under 16 years of age*

Duration of first terminated position	Rochester		Utica	
	Number	Per cent distribution	Number	Per cent distribution
Total	2,840		886	
Position terminated	1,886		651	
Duration reported	1,881	100	638	100
Less than 1 month	571	30	224	35
1 month, less than 2	370	20	132	21
2 months, less than 3	281	15	96	15
3 months, less than 6	357	19	101	16
6 months, less than 12	217	12	66	10
12 months or more	85	5	19	3
Duration not reported	5		13	
Position not terminated	954		235	

In Utica almost three-fourths of the boys and girls beginning work under 16 had ended their first positions at the time of the inquiry. Of these, 35 per cent had held them less than one month and 71 per cent less than three months. The proportion of boys holding their positions for six months or longer (14 per cent) was about the same as in Rochester, but the proportion of Utica girls (12 per cent) with positions lasting six months or longer was smaller than in Rochester. As in Rochester, the boys and girls who were still employed in their first position at the time of the study had held them for considerable lengths of time.

The length of time that the Rochester and Utica children under 16 whose first positions were ended at the time of the study had held them corresponds on the whole with the findings of other studies of young workers. The Children's Bureau studies in Newark and Paterson and in Milwaukee and the earlier studies made in Boston and Connecticut have also shown that beginners in industry do not hold their first positions for more than a few months.[79] A recent study made by the division of women in industry of the New York Department of Labor included a selected group of 100 children under 16 who had had at least two jobs and had received work certificates in 1928 and 1929 before the general business depression. More than one-third of these children had received second work certificates in less than one month after the issuance of the first work certificates, and less than 10 per cent received second certificates six months or

[79] Child Labor in New Jersey—Part 3, The Working Children of Newark and Paterson, p. 39; Employed Boys and Girls in Milwaukee, p. 49; The Working Children of Boston, p. 263; Industrial Instability of Child Workers, p. 18.

more after the first one.[80] The duration of the first positions of about the same proportion of these New York City children as of the Rochester and Utica children had been less than one month.

The positions in which the young workers in both cities were employed on the date of the inquiry had lasted much longer than the terminated first positions. The comparatively long duration of the positions that the boys and girls were holding when the study was made indicates that when children have had some time to make adjustments to working life they tend to remain steadily in one position. Fifty-seven per cent of the Rochester boys and 62 per cent of the girls who had begun work in these positions before they were 16 had held them for six months or more at the time of the study. The boys and girls who started work in their positions at the age of 16 had not held them as long as the younger children because their employment histories had been comparatively short.

Relation of occupation to duration of position.

The duration of the child's position depended somewhat on the kind of work he did. In the group that at the time of the study had terminated their first jobs, which in general had lasted less than three months, the Rochester boys who were telegraph messengers and those who were employed in restaurants and in other forms of domestic and personal service had stayed in their first occupations an even shorter time than boys employed in miscellaneous kinds of errand work or in factories. Similarly, a duration of six months in the first occupation, although unusual for any of this group, was least common for telegraph messengers and domestic workers. Girls employed in sales, domestic, and clerical work kept their first occupations a somewhat shorter time than girls employed as bundle and cash workers in stores or as factory operatives. Apparently a great many of the jobs offered young girls in sales work are very temporary (that is, for some special sale or for the Christmas or other busy seasons), whereas the jobs of bundle and cash girls in department stores are more permanent.

Changes in position.

It is often said that the turnover of positions among young workers is high. It should be remembered, however, that some positions offered young workers, such as certain kinds of sales and office work, are known in advance to be only temporary. Short-time positions and changes in position do not necessarily mean that the child is an unstable worker. Long periods of work in one position and infrequent or no changing may mean merely lack of initiative or opportunity, whereas changing may mean getting a better-paid position or one in which the chances of advancement are better or one better suited to the special abilities or tastes of the individual. Only when shifting from position to position is repeated and involves excessive unemployment should it be assumed that the young worker is unstable.

The number of positions that the Rochester boys reported ranged from 1 to 14; no girls reported more than 9 positions. Only 8 per cent of the boys and 4 per cent of the girls held as many as 5 positions. The number of positions held depended largely on the length of the period in which employment was possible.

[80] Industrial Bulletin, vol. 11, no. 3 (December, 1931), p. 71.

The employment histories of boys and girls who had begun work less than one year before the date of the study were too short to permit many changes in position, and the changes that they did make within such a short period would not necessarily indicate their steadiness as workers, so that the following analysis of stability of employment has been based on the children who began work under 16 whose work histories were one or more years in length; most of these children had worked between one and two years, as few children with employment histories of more than two years were included in the study. Because of the variations in the length of time worked by individual children selected, a classification was made for the purpose of relating the number of positions to the number of months of possible employment since beginning work. The children were grouped, therefore, according to the average number of positions they held in 12 months of their employment histories, a classification also used in the other studies in this series.[81]

Fifty-nine per cent of the boys were in Classes A or B, 35 per cent were in Class C, and 6 per cent were in Class D. (Table 18.) The girls had made fewer changes than the boys, 76 per cent of them having made no change or only one change within 12 months. Few girls had changed as frequently as four times in a year.

TABLE 18.—*Average number of positions per year during work history for boys and girls who began work under 16 years of age and who were employed one year or more*

Average number of positions per year	Boys and girls who began work under 16 years of age employed 1 year or more							
	Rochester				Utica			
	Boys		Girls		Boys		Girls	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Total	546	100	599	100	164	100	211	100
Class A, less than 1 position per year	115	21	208	35	28	17	66	31
Class B, 1, less than 2 per year	208	38	245	41	59	36	85	40
Class C, 2, less than 4 per year	190	35	132	22	66	40	59	28
Class D, 4 or more per year	33	6	14	2	11	7	1	(1)

[1] Less than 1 per cent.

The Utica children had shifted positions but little more than the Rochester children of corresponding sex, 53 per cent of the boys and 72 per cent of the girls having made no change or only one change within a 12-month period; only 7 per cent of the boys and only 1 girl had averaged four or more changes within 12 months.

The children who changed positions infrequently also had little unemployment. Infrequent changes in position do not necessarily mean that the child has worked steadily, however, for he may have

[81] Employed Boys and Girls in Milwaukee, p. 54; Child Labor in New Jersey—Part 3, The Working Children of Newark and Paterson, p. 40; Working Children of Boston, pp. 186–187; Industrial Instability of Child Workers in Connecticut, p. 25.

held but one position for a few days or weeks only and have been unemployed the rest of the time. The Rochester boys in Class A had been out of work only 2 per cent and the girls in Class A only 7 per cent of the time.[82] The boys in Class B can also be regarded as fairly steady workers, for they had been out of work only 8 per cent of their work histories. The boys in this group evidently had lost little time between ending one position and beginning the next. The girls in Class B had not worked as steadily as the boys; they had been unemployed for 17 per cent of their work histories, about as much as the girls and boys who had made more frequent changes in position.

The Utica boys in Class A had been unemployed 8 per cent and the girls 11 per cent of their time. The majority of the Utica children, however, had made some change in position within a 12-month period, and these children, both boys and girls, whether their changes had been frequent or infrequent, had experienced more unemployment than the Rochester children. Apparently once they lost or gave up their first or succeeding positions they were idle for considerably longer periods than the Rochester children before obtaining new positions. (See p. 55.) For example, the Utica boys in Class B had been out of work 17 per cent of the time as compared with 24 and 25 per cent of the time out of work reported by the boys in Classes C and D.

The children included in the Children's Bureau study in Newark who had employment histories of at least a year and the children included in the earlier Connecticut study, all of whom had work histories of between 21 and 24 months (that is, working periods comparable to those of children in the present study), had changed positions a little less frequently than either the Rochester or the Utica children.[83] The shifting in positions among the boys included in the Milwaukee study whose work histories were between one and two years in length, was about the same as among the Rochester boys and a little less than among the Utica boys.[84]

In each of these cities (Milwaukee, Rochester, and Utica) the girls had shifted positions somewhat less than the boys. That girls change positions less than boys has also been shown in other studies of young workers, including the Children's Bureau studies in Newark and Paterson, N. J., the earlier study made in Connecticut, and in several other studies of young workers made by other agencies.[85]

A tendency for children to become steadier workers the longer they remain in industry was noted in the Milwaukee study, which included a group of boys and girls with work histories of as long as two and three years; the same tendency was revealed in the study of working children made in Cincinnati, all of whom had work histories of exactly four years.[86] The work histories of the Rochester and Utica children were too short to be significant in this connection.

---

[82] Children who were out of work less than a week in all during their work histories were not counted as unemployed for this computation.

[83] Child Labor in New Jersey—Part 3, The Working Children of Newark and Paterson, p. 42; Industrial Instability of Child Workers, p. 25.

[84] Employed Boys and Girls in Milwaukee, p. 53.

[85] Child Labor in New Jersey—Part 3, The Working Children of Newark and Paterson, p. 41; Industrial Instability of Child Workers, p. 25; An Experimental Study of Children, p. 603; The Product of the Minneapolis Public Schools, Report of Superintendent of Schools to the Board of Education, January, 1931, p. 25.

[86] An Experimental Study of Children, pp. 565 and 568.

The findings of the Cincinnati study, and also of the Children's Bureau study in Milwaukee,[87] revealed that the boys and girls from the upper school grades had a somewhat better record for steadiness of employment than the children from the lower grades. Similarly, in Rochester the boys and girls from the eighth and higher academic grades had made somewhat fewer changes in position than those from the lower academic grades and nonacademic grades and vocational classes. Twenty-nine per cent of the boys from the eighth and higher grades, compared with 18 per cent of the boys from grades lower than the eighth and 16 per cent from nonacademic grades, had changed positions less than once within a 12-month period. On the other hand, 27 per cent of the boys from the upper grades, compared with 49 per cent from the lower academic grades and 50 per cent of those from nonacademic grades, had changed positions two or more times a year. The girls also from the higher grades changed positions less often than those from the lower grades, showing a relationship between grade attainment and stability that might not be expected in view of the fact that the grade accomplishment of the girls and the amount of time they had been out of work were not related.

The group of Utica boys and girls with work histories of one or more years was too small to make a satisfactory analysis of the relation of their grade accomplishment to the average number of changes in their positions. The figures available show the same tendency as in Rochester; that is, that children who were eighth-grade graduates averaged fewer changes in position than children who had not completed the elementary school grades.

[87] An Experimental Study of Children, pp. 602, 603; Employed Boys and Girls in Milwaukee, p. 56.

THE NONWORKING GROUP

Among the boys and girls between 14 and 17 years of age who had left regular school, and so were included in the study, were a small number, principally girls, who had not been employed outside their own homes—in Rochester 311 (8 per cent) and in Utica 128 (11 per cent). Included in this nonworking group in Rochester were 283 girls and 28 boys. The predominance of girls was due no doubt to the fact that girls who desired to leave school were able to get employment certificates for domestic work at home, whereas only in exceptional cases were certificates for such work issued to boys. Most of these young persons, both boys and girls, had completed the legal age and grade requirements for leaving school for work; more than four-fifths of the girls but only 6 of the 28 boys had received employment certificates. In general, this group of young persons, both boys and girls, had been out of school a sufficiently long time prior to the date of the study to have had an opportunity to find regular employment if they had made an effort to do so; about one-half of them had left school at least six months before the date of the study. They differed little from the working boys and girls in the ages at which they had left school, in their school training, and in their grade attainment.

The Utica boys and girls who had not been employed included 97 girls and 31 boys. Most of them had completed the required age and grade before leaving school and so were eligible for work certificates when they obtained the promise of a job. But nearly three-fourths (69 of the 97 girls and 25 of the 31 boys) were without employment certificates or permits for work at home. Like the Rochester boys and girls, they had been out of school a considerable period, nearly one-half at least six months, so that they had had time to look for work. Like the nonworking group in Rochester, they were not appreciably different from the working boys and girls in the ages at which they had left school, in grade attainment, and in school progress.

SUMMARY AND CONCLUSIONS

The 3,416 employed boys and girls in Rochester, N. Y., and the 997 in Utica, between the ages of 14 and 17, included in the study are believed to constitute most of the minors of these ages in each city in the spring of 1927 who had been employed since leaving the regular day schools. This number includes all the boys and girls who were enrolled in the part-time schools of the two cities on the date the study was made and also a small number who had left full-time day schools but had not enrolled in the part-time schools in compliance with the school attendance laws. In addition to the employed boys and girls, the study included 311 Rochester and 128 Utica young persons, chiefly girls, who had left the regular full-time schools but had not been employed outside their own homes.

About two-thirds of the employed boys and girls in Rochester and three-fifths in Utica were 16 years of age on the date the study was made; most of the remainder were 15 years; only 3 per cent in Rochester and 4 per cent in Utica were 14 years of age.

The legal regulations of New York State were one of the principal factors in the school-leaving age of the working boys and girls of Rochester and Utica, but they were by no means the only factors, as the differences in the ages at leaving school of the boys and girls in the two cities indicate. Differences in the nationalities of the families, in the opportunities for employment, and in the educational facilities for vocational training available were among the other factors involved. More than one-third of the Rochester boys and girls and more than two-fifths of those in Utica had left school at the age of 14 or earlier, and most of the remainder in each city had left at 15. (See footnote 10, p. 6.) Among the working boys and girls in both cities were many, especially in Rochester, who had continued to attend school after they had completed the age and grade requirements for work certificates.

The grade attainment of the Rochester boys and girls can not be readily compared with that of the Utica boys and girls, as about two-fifths of the former had had vocational work in industrial and commercial subjects in addition to work in academic subjects. In Utica very few had been enrolled in vocational training classes. Fifty-two per cent of the Rochester boys and 62 per cent of the girls had completed eight grades either in academic work only or in academic and vocational work. Thirty-six per cent of the Utica boys and 45 per cent of the girls had finished eight grades in academic subjects.

The amount of school retardation found among the working boys and girls of Rochester at the ages of 14 and 15 did not appear to be unusual, either among children with or without vocational training, compared with that among children of the same ages throughout the country as a whole.

A relatively large proportion of the Utica working children, 60 per cent of the boys and 50 per cent of the girls of 14 and 15, were re-

tarded as compared with 40 per cent of the boys and 32 per cent of the girls of the same ages attending schools in the country. This retardation may be due in part to the large proportion of Utica boys and girls who came from families in which the father at least was foreign born.

The group intelligence tests given the employed boys and girls in Rochester showed that their mental ability did not equal that of the children of the sixth grade of the public schools of the city. These findings concerning the relative mental ability of working and of school boys and girls correspond with those of other studies. Such studies have also shown, as does this one, that mentally superior children are to be found among the working children as among the general school population, although they are fewer in proportion to the total number concerned.

The length of time that the boys and girls had had an opportunity to work (that is, the length of time between beginning work and the date of the study) varied from a few days to nearly three years; the average period was about 10 months in each city.

The occupations of the boys and girls in these two cities when all jobs are considered were chiefly factory, store, and errand occupations, for which little skill or special training is generally required, as in other cities where studies of working children have been made. About two-fifths of the jobs that the Rochester boys and girls entered before they were 16 and about one-half of the jobs entered by those of 16 were in manufacturing and mechanical industries, chiefly as factory operatives. Only a small percentage of the boys' jobs were as learners or apprentices in a skilled trade. The boys in nonmanufacturing industries were chiefly errand workers or salesboys and helpers in restaurants; the girls were bundle and cash workers in stores, salesgirls, telephone, clerical, or domestic workers. The kinds of work the Utica boys and girls did was much the same as in Rochester, except that many more of the girls were factory operatives and very few were clerical workers.

On the whole, as would be expected, the boys and girls of 16 in each city had a wider and better choice of work than the younger children. Factory occupations, which were more common for the boys and girls of 16 years in each city, frequently offer an opportunity for advancement to better-paid work. Errand work, on the other hand, in which relatively fewer of the older than of the younger children were employed, offers little opportunity.

The school work in industrial subjects that the Rochester boys had in regular school apparently did not influence the kind of work in which they actually found employment, doubtless chiefly because they had too short a period of training or because they had gone to work too young to enter the occupations to which their courses were related. The girls who had had commercial training, on the other hand, often succeeded in getting clerical work.

The young persons' wages depended partly on their ages and on the length of time they had been at work and were slightly higher in Rochester than in Utica. The wages varied in each city with the kind of work the children did, especially in the case of boys and girls of 16 years. In Rochester the wages of the boys of 16 employed as factory operatives and clerical workers at the time of

the study were higher than in other occupations; the wages of the girls who were telephone operators and clerical workers were highest, the wages of factory workers somewhat lower, and the wages of sales and errand girls lowest of all. In Utica factory operatives of both sexes received better wages than store and errand workers. In Rochester the wages that the boys received were about the same for those with or without vocational training; the girls, however, with commercial training received, on the whole, somewhat higher wages than the girls without such training.

That boys and girls who begin work under 16 have little unemployment was found to be true of the working children included in the Children's Bureau studies in Newark, Paterson, and Milwaukee as well as in other studies of young workers. The boys and girls of both New York cities also had been employed for the greater part of the time since they first began work, the Rochester workers somewhat more continuously than those in Utica. A depression in the Utica textile industry no doubt accounted for part of the unemployment of boys and girls in that city. The Rochester boys with work histories of at least a year had been unemployed for 11 per cent and the girls for 14 per cent of the time since beginning work. The Utica boys had been unemployed for 19 per cent and the girls for 17 per cent of the time.

The number of different positions that the children had held ranged from 1 to 14, depending on the length of their work histories. About two-thirds of the children in each city had been employed in two or more positions. The majority of those who began work under 16 and had worked 1 year or more had made few changes in position within a 12-month period; 59 per cent of the Rochester boys and 76 per cent of the girls had made no change or only one change in position in the year. Most of the Rochester boys and girls who had seldom changed positions had also been unemployed but little, so they may be considered stable workers. A small group in each city had changed positions repeatedly and had also experienced a great deal of unemployment.

School attainment was associated to some extent with the amount of unemployment the young workers reported. The Rochester boys and the Utica boys and girls who had completed eight grades or more tended to have a little less unemployment than those from the lower grades. Grade attainment and superior mental ability was definitely related to the kind of work of the Rochester boys and girls. Those from high-school grades and with relatively good mental ability (intelligence quotients of 100 or more) were likely to be employed in clerical work rather than in factory and store work. In Utica, where the young workers were seldom from grades higher than the eighth and had not had commercial training, school progress and grade attainment did not appear to influence the children's occupations. In neither city was there a clear relationship between school progress and grade attainment and wages.

One of the recommendations of the recent White House Conference on Child Health and Protection, held in Washington in November, 1930, as of the Child Welfare Conference of 1919, was an age minimum of 16 years for regular employment. In connection with this recommendation and with the proposals that have been

made to raise the age minimum for employment in New York State, certain facts brought out in this study of the working boys and girls of Rochester and Utica should again be noted; such as the small proportion of the employed children who were 14 years of age and the tendency, at least in Rochester, for even those children who utlimately go to work before they are 17 to remain in school longer than is required under the law. The lack of educational content in much of the work in which the children under 16 years of age were employed indicates that employment before that age is of little value to the children industrially. Furthermore, the lack of relationship between the vocational training received while in regular school by the Rochester boys and girls and the kinds of work available to them when they entered industry suggests the need for a resurvey of the vocational courses offered, in the light of the opportunities for future employment for boys and girls. A recognition of this need by the Rochester school authorities is indicated by changes that have been made in vocational training since the time of this study. The intensive vocational courses are now limited to the senior high schools and the work in the junior high schools has been placed upon an industrial and practical arts basis, giving the younger student work with a variety of materials and a broader experience in different individual processes.

Appendix A.—TABLES SHOWING ALL OCCUPATIONS

TABLE I.—*Industry and occupation of each regular job and age at beginning each job; Rochester*

Industry and occupation of each regular job	Regular jobs					
	Total		Age at beginning each job			
	Number	Per cent distribution	14 years and under	15 years	16 years	Not reported
Boys	4,365	-------	645	2,523	1,182	15
Industry and occupation reported	4,346	100	640	2,512	1,179	15
Agriculture	194	4	57	96	40	1
Manufacturing and mechanical	1,980	46	214	1,102	655	9
Learners	271	6	29	147	92	3
Helpers and laborers	274	6	29	166	78	1
Operatives (except floor boys)	1,279	29	129	703	442	5
Button factories	7	(1)	-------	6	1	-------
Clothing factories, men's	63	1	10	31	22	-------
Electrical-supply factories	146	3	3	60	83	-------
Iron, steel, and metal factories	167	4	22	94	50	1
Furniture and woodworking factories	110	3	9	63	37	1
Optical-supply factories	74	2	5	28	41	-------
Paper-box factories	20	(1)	1	14	5	-------
Shoe factories	387	9	54	232	101	-------
Other factories	305	7	25	175	102	3
Floor boys	150	3	26	84	40	-------
Other occupations	6	(1)	1	2	3	-------
Professional service	37	1	6	24	6	1
Learners	7	(1)	-------	4	3	-------
Other occupations	30	1	6	20	3	1
Domestic and personal service	198	5	26	129	43	-------
Learners and skilled occupations	33	1	2	26	5	-------
Waiters and servants in restaurants and hotels	89	2	15	58	16	-------
Other occupations	76	2	9	45	22	-------
Other industries or occupations	1,937	45	337	1,161	435	4
Learners	11	(1)	2	5	4	-------
Sales and stock boys in stores	302	7	44	174	83	1
Stock boys in factories	32	1	5	20	7	-------
Teamsters, drivers, and helpers	173	4	15	100	58	-------
Telegraph messengers	268	6	54	175	38	1
Messenger and errand boys	744	17	168	447	129	-------
Office and mail boys in factories	61	1	11	33	17	-------
Other	683	16	157	414	112	-------
Shipping clerks	67	2	10	40	16	1
Typists, stenographers, cashiers, and bookkeepers	16	(1)	1	9	6	-------
Other clerical workers	159	4	17	92	49	1
Others	165	4	21	99	45	-------
Industry and occupation not reported	19	-------	5	11	3	-------

[1] Less than 1 per cent.

TABLE I.—*Industry and occupation of each regular job and age at beginning each job; Rochester*—Continued

Industry and occupation of each regular job	Regular jobs					
	Total		Age at beginning each job			
	Number	Per cent distribution	14 years and under	15 years	16 years	Not reported
Girls	3,591		706	1,957	924	4
Industry and occupation reported	3,586	100	704	1,956	922	4
Agriculture	8	(1)	3	4	1	
Manufacturing and mechanical	1,502	42	266	836	400	
Learners	23	1	4	15	4	
Helpers and laborers	14	(1)	2	8	4	
Operatives (except floor girls)	1,404	39	243	777	384	
Button factories	103	3	31	55	17	
Clothing factories, men's	327	9	60	200	67	
Electrical-supply factories	91	3	9	21	61	
Iron, steel, and metal factories	34	1	9	12	13	
Furniture and woodworking factories	19	1	7	9	3	
Optical-supply factories	37	1		16	21	
Paper-box factories	140	4	22	75	43	
Shoe factories	340	9	66	197	77	
Other factories	313	9	39	192	82	
Floor girls	55	2	17	32	6	
Other occupations	36	(1)		4	2	
Professional service	37	1	11	18	8	
Learners	4	(1)		4		
Other occupations	33	1	11	14	8	
Domestic and personal service	434	12	101	240	90	3
Learners in skilled occupations	10	(1)	1	7	2	
Servants in private families	275	8	74	149	49	3
Waiters and servants in restaurants and hotels	88	2	17	45	26	
Other occupations	61	2	9	39	13	
Other industries or occupations	1,605	45	323	858	423	1
Learners	4	(1)		2	2	
Sales and stock girls in stores	539	15	103	309	126	1
Stock girls in factories	25	1	4	12	9	
Telephone operators	99	3	1	23	75	
Messenger and errand girls	341	10	113	189	39	
Office and mail girls in factories	24	1	6	9	9	
Other	317	9	107	180	30	
Shipping clerks	2	(1)		1	1	
Typists, stenographers, cashiers, and bookkeepers	262	7	47	135	80	
Other clerical workers	309	9	53	174	82	
Others	24	1	2	13	9	
Industry and occupation not reported	5		2	1	2	

[1] Less than 1 per cent.

TABLE II.—*Industry and occupation of each regular job and age at beginning each job; Utica*

Industry and occupation of each regular job	Regular jobs					
	Total		Age at beginning each job			
	Number	Per cent distribution	14 years and under	15 years	16 years	Not reported
Boys	1,174	-------	148	749	244	33
Industry and occupation reported	1,166	100	148	744	244	30
Agriculture	83	7	18	44	14	7
Manufacturing and mechanical	453	39	43	283	118	9
Learners	65	6	6	43	16	-------
Helpers and laborers (except alley boys)	43	4	4	26	13	-------
Alley boys	46	4	6	29	10	1
Operatives (except floor boys)	291	25	27	179	78	7
Knitting mills	77	7	6	48	23	-------
Other textile mills	9	1	-------	6	3	-------
Clothing factories, men's	15	1	1	10	1	3
Iron, steel, and metal factories	56	5	4	35	16	1
Furniture and woodworking factories	45	4	6	24	13	2
Other factories	89	8	10	56	22	1
Floor boys	8	1	-------	6	1	1
Professional service	6	1	2	2	2	-------
Learners	3	(1)	-------	1	2	-------
Other occupations	3	(1)	2	1	-------	-------
Domestic and personal service	169	14	16	104	38	11
Learners in skilled occupations	13	1	1	7	5	-------
Waiters and servants in restaurants and hotels	83	7	6	51	19	7
Other occupations	73	6	9	46	14	4
Other industries or occupations	455	39	69	311	72	3
Learners	4	(1)	1	3	-------	-------
Sales and stock boys in stores	83	7	9	58	15	1
Stock boys in factories	4	(1)	1	3	-------	-------
Teamsters, drivers, and helpers	52	4	10	35	7	-------
Telegraph messengers	46	4	7	35	3	1
Messenger and errand boys	145	12	23	97	24	1
Office and mail boys in factories	3	(1)	-------	3	-------	-------
Other	142	12	23	94	24	1
Shipping clerks	7	1	2	4	1	-------
Typists, stenographers, cashiers, and bookkeepers	1	(1)	-------	1	-------	-------
Other clerical workers	21	2	2	13	6	-------
Others	92	8	14	62	16	-------
Industry and occupation not reported	8	-------	-------	5	-------	3

[1] Less than 1 per cent.

TABLE II.—*Industry and occupation of each regular job and age at beginning each job; Utica*—Continued

Industry and occupation of each regular job	Regular jobs					
	Total		Age at beginning each job			
	Number	Per cent distribution	14 years and under	15 years	16 years	Not reported
Girls	1,148		220	698	212	18
Industry and occupation reported	1,147	100	220	697	212	18
Agriculture	26	2	15	11		
Manufacturing and mechanical	754	66	117	476	155	6
Learners	5	(1)	3	2		
Alley girls	2	(1)	1	1		
Operatives (except floor girls)	706	62	102	452	146	6
Knitting mills	537	47	86	343	103	5
Other textile mills	19	2	3	7	9	
Clothing factories, men's	61	5	5	46	10	
Iron, steel, and metal factories	40	3	3	23	13	1
Furniture and woodworking factories	23	2	2	15	6	
Other factories	26	2	3	18	5	
Floor girls	41	4	11	21	9	
Professional service	4	(1)	1	3		
Learners	1	(1)		1		
Other occupations	3	(1)	1	2		
Domestic and personal service	146	13	32	83	21	10
Learners in skilled occupations	3	(1)		2	1	
Servants in private families	102	9	28	53	15	6
Waiters and servants in restaurants and hotels	24	2	2	18	2	2
Other occupations	17	1	2	10	3	2
Other industries or occupations	217	19	55	124	36	2
Learners	3	(1)	1		2	
Sales and stock girls in stores	145	13	35	86	23	1
Messenger and errand girls	46	4	12	28	5	1
Shipping clerks	2	(1)		1	1	
Typists, stenographers, cashiers, and bookkeepers	4	(1)	1	2	1	
Other clerical workers	9	1	3	3	3	
Others	8	1	3	4	1	
Industry and occupation not reported	1			1		

[1] Less than 1 per cent.

Appendix B.—LIST OF REFERENCES

The following is a list, arranged chronologically, of studies and articles that take up the industrial histories of boys and girls of continuation-school age.

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.

Occupations of Junior Workers in Detroit. Vocational Education Department, School of Education, University of Michigan, Special Studies No. 1. Ann Arbor, 1923. 76 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.

Hopkins, L. Thomas: The Intelligence of Continuation-School Children in Massachusetts. Harvard University Press, Cambridge, 1924. 132 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.

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.

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 Extension Education. (Mimeographed.)

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.

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.

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.

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.

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.

Fourteen and Fifteen Year Old Children in Industry. Pennsylvania State Department of Labor and Industry Special Bulletin No. 21. Harrisburg, 1927. 29 pp.

Mecredy, Mary: California Part-Time Youth. Part I of Continuation Education for Employed Minors in California. Los Angeles, 1927.

National Child Labor Committee: School or Work in Indiana, by Charles E. Gibbons, assisted by Harvey N. Tuttle. New York, 1927. 30 pp.

Opportunities and Conditions of Work for Minors under 18 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.

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.

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.

National Child Labor Committee:

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.

Report 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 conducted by New York Child Labor Committee, June, 1928–October, 1929. (Mimeographed.)

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 4, Trade and Industrial Series No. 2. Olympia, 1929. 50 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.)

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.

Trumbull, Frederick M.: Guidance and Education of Prospective Junior Wage Earners. John Wiley & Sons (Inc.), New York, 1929. 298 pp.

London Advisory Council for Juvenile Employment: The Work of Juvenile Advisory Committees in London. Sixth Annual Report, 1929, pp. 10–23 (London, 1930); Seventh Annual Report, 1930, pp. 14–31 (London, 1931); and Eighth Annual Report, 1931, pp. 6–9 (London, 1932).

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.

Child Labor in New Jersey—Part 3, The Working Children of Newark and Paterson. U. S. Children's Bureau Publication No. 199. Washington, 1931. 94 pp.

Earle, F. M.: Methods of Choosing a Career. G. G. Harrap & Co., London, 1931. 333 pp.

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.

The Product of the Minneapolis Public Schools. Report of the Superintendent of Schools to the Board of Education, Minneapolis, January, 1931. 49 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.

Employed Boys and Girls in Milwaukee. U. S. Children's Bureau Publication No. 213. Washington, 1932. 71 pp.

○