UM Libraries Depository

103244703018

This Thesis Has Been

MICROFILMED

Negative No. T-

419

Form 26

UNTRAINED CHILDREN IN INDUSTRY

by

RACHEL EDWARDS, A.B.

SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

in the

GRADUATE DEPARTMENT
(COLLEGE OF ARTS AND SCIENCE)

of the

UNIVERSITY OF MISSOURI

1910.

I. Character and Method of Investigation.

What becomes of the thousands of children who drop out of the St. Louis schools each year on reaching the age of fourteen when the compulsory education law no longer compels their attendance? They are just at the age when our present schools can not hold them without the compulsory attendance law or without adequate provisions for supplementing the literary training of the schools with training along industrial lines. Furthermore, since the few provisions existing in the city for industrial training are not available for the boy or girl in the grades, it appears that such children who refuse to continue in the elementary public schools beyond the age of fourteen must either become idlers, enter commercial or training schools of doubtful value or begin industrial careers as unskilled, untrained workers, and work for long hours, in undesirable occupations, with low wages and slight chance for advancement.

With a view to learning the actual conditions of the boys and girls who leave school before finishing the grades, and before they are sixteen years of age, an investigation was begun in the fall of 1908 under the auspices of the St. Louis School of Social Economy. To facilitate the work a schedule was made embodying the points of information to be obtained concerning the child. A copy of the schedule is herewith submitted. The principal points covered in the schedule are the following:

A. The child's school record, including his age at leaving, the grade completed, his reason for not continuing in school as well as the parent's reason for the same, and the attitude towards further education or practical training.

B. The home conditions of the child especially in relation to the necessity of his working and such relevant facts as nationality, number in family, number of workers, whether the father is living, together with the impressions of the investigator as to the family conditions from the outward appearance of the home.

C. The industrial history of the child including the number and kinds of occupations, how positions were secured, hours and wages, reasons for changing when changes were made, length of time spent in each position, and the time idle if changes were made.

On such points as the occupation and wages of the father only partial information was possible. This is also true of the wages of the remaining members of the family and other incidental facts.

The greater portion of the names of the children investigated were taken from the public school records but in some portions of the city, where the population is a shifting one they were obtained by a house to house canvas.

In addition to the investigation of the school children an attempt was made to study the work of a number of commercial training schools such as business colleges, and plumber's trade schools. The results obtained were so meagre, however, as not to warrant their inclusion in this report. To supplement the schedule investigation general information concerning the children of the city was obtained; such as the number enrolled in the different schools, both public and parochial, the distribution as to grades, ages when dropping out of school and the entire number in the city between certain age groups.

A total of 1085 schedules were secured for this investigation and the method of their selection and of the field work justify the belief that these cases are typical of the great army of untrained boys and girls who annually enter the ~~gainful~~ occupations before they have completed their elementary school education. The report therefore represents conditions which are widespread throughout the city of St. Louis, and as a comparison with other cities shows, are also found elsewhere.

II. The Problem.

The children who leave school and enter industry before finishing the grammar grades constitute a problem which is more serious than at first appears to the casual observer. Something of the gravity of the problem is shown by the following tables based upon the reports of the Board of Education for St. Louis.

Table I. following gives the distribution of children in the public schools in percentages by grades for the years 1904 to 1908 inclusive.

Table I. Distribution of children by grades (in percentages)

Year	* K.G.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.
1907-'08	10.8	13.3	15.1	13.9	14.1	11.7	8.3	7.2	5.2
1906-'07	10.9	13.8	15.3	13.9	13.9	11.8	8.2	6.5	4.9
1906-'06	10.9	13.8	15.2	14.1	15.4	11.	7.8	6.6	4.7
1904-'05	10 $\frac{1}{3}$	14.1	14.6	15.6	14.6	11.	8.7	5.7	5.
1903-'04	10.5	13.5	16.2	15.3	14.7	10.9	7.9	6.	4.7

In diagram A the same facts are more clearly shown. From the diagram it is seen that there is an annual increase in the attendance for the first three years of school life but after that the number begins to decrease. The decline is gradual in the second and third grades but in the fourth there is a decided drop in the

* K.G. = abbreviation for Kindergarten

Distribution of School Children by Grades.

line and a large percentage of decrease is ~~shown~~ for each successive grade. For the five years under consideration the average annual distribution of school children in the various grades was as follows: in the Kindergarten, 10.6%; in the second grade, 15.2%; in the fourth grade, 14.5% and 4.5% in the eighth grade. In other words for the last five years (these years are typical of general conditions) only a small proportion of the school children have passed into the eighth grade. Although the loss from mortality and other natural causes is hardly noticeable and the distribution of children throughout the nine years of elementary school life should be nearly uniform with a small decline for each successive year, we find that instead of one-ninth or one-tenth, only one-twentieth of the school population are in the eighth grade.

The checkered career of the school child can be illustrated in an even more forcible manner. It appears, for example, that the largest number of children in school at any time are found in the second grade. If we represent this number at 100 and indicate the proportions which the number of children in each higher grade make of this grade we have the following figures:

2nd grade	100.
3d grade	95.4
4th grade	94.1
5th grade	74.
6th grade	53.9
7th grade	42.1
8th grade	28.

There are 9043 children in the second grade but only 2550 in the eighth; ^{These facts show, if similar conditions regularly obtain,} that ~~is~~ of the children who reach the second grade, only 28% remain in school until the eighth grade, and many of these do not graduate.

It is significant that practically three-fourths of the children remain in school until they enter the fifth grade. The more remarkable decline in school attendance, as the table shows occurs during the last three grades. The drop from the fifth to the eighth grade is about 45 per cent. Only $\frac{1}{8}$ as many children are in the eighth grade as in the fifth. This indicates that precisely at the time when education can be assimilated and be made useful to the child, he drops out of school and enters the ranks of the wage-earners. The present school system seems to be sufficient for the child up to the fourth grade but radical changes are needed at that point if we are to succeed in holding the greater number of children after that time.

Table 2. shows the percentage by age groups of the entire number of children in the public schools of St. Louis from 1900 to 1908. #

Percentages by age groups of entire number of children in school 1900-1908. (Decimals omitted in Report.)

Year	Ages											
	6	7	8	9	10	11	12	13	14	15	16	& over
1900-01	11	14	12	12	12	10	9	8	6	3	3	
1901-02	11	14	12	12	11	10	10	8	6	3	3	
1902-03	10	13	12	12	12	10	10	8	6	4	3	
1903-04	10	12	12	12	11	10	10	9	6	4	4	
1904-05	9	12	11	12	12	11	10	9	6	4	4	
1905-06	10	11	11	11	11	11	11	9	7	4	4	
1906-07	7	11	11	11	11	11	11	10	8	5	4	
1907-08	8	11	10	10	11	11	11	10	8	5	5	

Report of Board of Education of St. Louis, 1908.

This table shows that the number in each age group is fairly uniform up to the thirteenth year; then there is a decided decrease in the number until at the age of sixteen, when very few are left. If we represent the percentage enrolled at the age of nine as 100 and indicate the ~~proportion~~ ^{successive age} which the percentage of children in each make of this percentage we have the following figures, which represent the decline in a more graphic form.

Age (years)	Percentage
9	100.
10	98.8
11	90.1
12	89.
13	77.
14	57.
15	34.
16 and over	32.

From the two foregoing tables it is seen that the children begin leaving the public schools rapidly at the age of thirteen and that the percentage remaining at sixteen, is very small, being less than one-third of the number in school at the age of nine. Between the ages of thirteen and fourteen there is a loss of 20 per cent. from the total attendance at the age of nine. One-fifth of the children who are thirteen years old drop out of school during this year. The greatest breakdown in the education of the child, however, occurs at fourteen when regardless of the grade of advancement, children drop out of school, so that the number of school children at fifteen years is only 60 per cent. of the number at fourteen. This decline is due in part to graduation from the elementary schools, but as the preceding tables show is

is more largely due to other causes. The schedules of the one thousand and eighty-five children who were investigated show that many of them stopped school from two weeks to a month and a half before they were fourteen, thinking that they could evade the truant officer for that length of time. Many of them stopped in the middle of the term, remained at home until they were fourteen when they could get their age certificate and go to work. Would it not be better to increase the number of attendance officers so that more efficient work could be done towards keeping the children in school until they are fourteen years old, and so that more attention could be paid to the clause of ^{the} compulsory school law requiring that the children between the ages of fourteen and sixteen either continue in school or engage in work for at least six hours a day? The clause just stated should not be considered of less importance than that portion of the law which requires attendance up to the age of fourteen. The children ordinarily do not leave school before the age of twelve so that the compulsory fourteen year limit only operates to keep the child in school two years. These two years, from twelve to fourteen, can scarcely be rated as of more importance than the years from fourteen to sixteen. Should we not, therefore, exert more of our efforts in behalf of the child of fourteen years and over?

III. Schedule Study.

A classification of the one thousand and eighty-five schedules resulting from this investigation shows that four hundred and sixteen of these are records of girls and six hundred and sixty-nine of boys. Since the questions of dropping out of school and entering industry are very much the same for both boys and girls, this distribution seems desirable for studying the conditions of the work.

ing children. The numbers in attendance at school begin declining at the same time and with almost equal rapidity for both sexes and the positions which they fill are of the same character; they each go to work without training and enter the unskilled occupations largely.

The families investigated were mainly of foreign descent, about one-half of them being foreign born. We would expect a considerable proportion of foreign families, if those investigated were typical of the whole city, for according to the census of 1900 there were 539,385 white inhabitants in the city, 189,307 of these were of native parentage and 350,078 of foreign. The families investigated were distributed as follows as to nationalities:

German born	485
American	308
German-American	128
Irish	30
Jewish	30
Irish-American	20
German-Irish	13
Miscellaneous-natives of foreign parents or foreign born	71

The families taken were thoroughly representative of the districts in which they lived no effort being made in any case to select special classes or races. The majority of the children were of German extraction; as might be expected from the presence of a large German element in the city. While there is a sprinkling of children among the other nationalities, a study of a school in the Jewish district revealed the fact that very few Jewish

children were prematurely dropping out of school.

Table 3 shows the age distributions of these one thousand and eighty-five children at the time of their entering industry.

Table 3 Age Distribution at the time of entering industry.

Age	Percentage
13 or under	25.2
14	37.8
15	20.2
16	10.9
17 and above	5.6

Since ~~few~~ opportunities for industrial training have ~~not~~ been opened to the child under sixteen the foregoing figures prove that at least four-fifths of the entire number must have begun to work with no training and must have entered unskilled occupations, and the remainder may have begun under similar conditions. The small amount of public school training which these children have received is shown by the following figures:

Table 4 Public School training of children investigated.

Percentage leaving	in grade
33.7%	5th grade or under
27.6%	6th grade
26.4%	7th grade
12.1%	8th grade (before graduation)

The last two tables show not only that the children enter the gainful occupations at an early age and without special training, but that they have not taken advantages of the opportunities offered them in our public schools. Seventy-five percent of them were fourteen or older at the time when they went to work, but

sixty per cent. of the entire number had not passed beyond the sixth grade, and more than one-third left school before finishing the work of the fifth grade. Even such a low educational requirement for working children as the completion of the fifth grade would have excluded one-third of these children from gainful occupations until they had acquired some additional education. It is little wonder that so few of these children later on took advantage of the training which was open to them when over one-third of them had not finished the fifth grade, over one-half had not finished the sixth, five-sixths had not finished the seventh and none of them had finished the eighth grade.

An effort was made to find out why so large a number of children left school each year. According to the answers of more than one thousand mothers it is evident that they leave largely because they do not see the necessity of further education. In only ninety-one cases did the parents try to influence the child to continue in school; the others either were indifferent or encouraged the children to quit.

Various reasons were given for leaving but in most instances they were such that no one could believe they would have interfered with the continuation of the child in school if he had felt that additional education would be valuable.

Three hundred and seven or nearly one-third of the reasons given were that the children were "tired of school" or "did not like it" and "did not want to go." Another reason given was trouble with the teacher, (the mothers feel deeply on this subject and often encourage the children to stop when they think the teacher does not treat them fairly) others left because they were not promoted

when their classmates were; some on reaching the fifth grade thought they were sufficiently advanced to justify stopping, while others because they had finished the parochial school and found the public school so different would not continue. Two hundred and forty-five quit because they wanted to work. They usually wanted to work "because the other boys were working and they wanted to earn money too," or as the mother often said, "we couldn't afford to buy her fine clothes such as the other girls had; so she wanted to go to work and make money for herself." Very often, after they had been trying for sometime to earn money for fine clothes at the rate of from two dollars and a half to five dollars a week, the wish was expressed that they had continued in school.

The most important additional reason for leaving school was that the family needed the wages of the child. Two hundred and two mothers gave that as the reason for their children having stopped, but judging from such circumstances as the number of workers in the family and the small wages of the child, there is some doubt as to the validity of their statements.

Of these two hundred and two cases the father was living in one hundred and forty-four instances and dead in fifty-eight. It is interesting to note the size of the families to which these children belong and the number of wage earners in them as these facts throw light on the reasonableness of the claim that the child left school because his wages were needed. Tables 5 and 6 show the number and size of the families and the number of workers including children in each family for the two hundred and two cases.

Families needing the child's help when father is living.

Table 5		Number of families in which number of workers are:										
No. of Members	No. of Families	1	2	3	4	5	6	7	8	9	10	11
3	13	2	10	1								
4	12		5	7								
5	22		8	8	6							
6	22		7	9	3	3						
7	21	1	1	14	3	2						
8	25		3	9	9	2	1	1				
9	18		1	10	2	3	2					
10	4		1	2		1						
11	7			1	4	2						
Total	144	3	36	61	27	13	3	1				

Families needing the child's help when father is dead.

Table 6		Number of families in which number of workers are:								
No. of Members	No. of Families	1	2	3	4	5	6	7	8	9
2	6	3	3							
3	10		9							
4	11		4	7						
5	10		1	6	3					
6	10	1	1	3	2	3				
7	5		3	2						
8	2					2				
9	4				2	2				
Total	58	4	21	19	7	7				

In sixty-eight cases where the father was living half the family were wage earners and fifty-seven had more than half the entire number in gainful occupations. Forty-five of the families in which the father is dead have half of the members as wage earners and in twenty-six more than half are wage earners. If it had been possible to obtain more information as to the other wage earners in the family the impression as to the family income would have been more definite, but with over one-half the entire family earning wages it would seem that the child could have continued in school until the grades were finished especially if the family appreciated what it would mean to the child.

The reasons for leaving school given by the other children are distributed among the following:

Sickness of child or member of family

Physical defect i.e. bad eyes

Overgrown

Graduated at parochial school

Made first communion

Mischievous

Couldn't learn

Wouldn't study

Discouraged in school

To go to business college

To go to German school

To study music

To learn a trade

To go on stage

Influence of associates

Changed districts

Good position available.

As said above these reasons seem to show indifference on the part of both parents and child rather than any real cause for the child's failing to continue his education. The question certainly cannot be called an economic one when only one-fifth of the families made any pretense of needing the wages of the child. Twenty-one of the schedules were taken of children not living at home and it seemed necessary that they work to help support themselves.

In many cases the wages of the child added absolutely nothing to the family income. The mothers often complained that the children were not earning enough to pay for the extra shoes and clothing which the maintenance of their positions required of them. More than one mother said the reason her daughter quit working as a "saleslady" and became a sorter or ironer in a laundry was because she could not earn enough to dress herself the way she was expected to dress in the former place. The girls who continue to work in the stores for from three dollars and a half to five dollars a week, (they seldom get over five dollars) and who are required to dress respectably every day cannot add anything of consequence to the family income.

In 83% of the cases investigated the father was living and in most cases was an able-bodied wage-earner. Table 7 shows the number in the family and the proportion of wage earners in 868 typical families.

Table 7

No. of Members	No. of Families	Number of families in which Number of workers are									
		1	2	3	4	5	6	7	8	9	10
2	6	1	5								
3	61	3	55	3							
4	135	1	61	71	2						
5	165		41	82	40	2					
6	169		36	83	37	13					
7	135	1	23	43	49	19					
8	100		12	29	32	22	3				
9	54	1	4	19	17	9	4				
10	28		2	8	8	6	1		2		
11	13			2	7	2	1				1
12	2						2				
Total	868	7	239	340	192	73	11		2		1

In 610 or two-thirds of the cases half the entire number in the family were wage earners and in 410 or 45%, more than half the entire number were working. If mere numbers tell anything the question here is not one of large families with no support save the father who is probably nothing more than a day laborer making from \$1.75 to \$2.50 a day. It is rather a story of good sized families in which each child becomes a wage earner as soon as he is barely old enough. The facts as to the ages of all the children in each family indicate that in few cases were there any over fourteen who were not working. These observations show that each child is responsible for his share of the family income and must assume the responsibility. The family is considered as a whole and no one individual is to be given advantages over the others.

The greater portion or two-thirds of the children investigated went to work without age certificates; but when we consider the fact that almost half of them, or 46.2% started to work before 1907, the year in which our child labor law requiring age certificates for children working between the ages of fourteen and sixteen went into effect, the probability of the law's having been violated does not seem so great. Taking those who began to work after the law went into effect we find that 171 had certificates before starting to work while only 63 did not. ~~have~~. Of those who started without certificates many worked in places where certificates were not required by law.

The statement that the children in many instances were anxious to stop school and go to work is borne out by the large number who obtained their positions alone. If they had not been willing and even eager to work the story as to how they obtained their positions would not have been told by the word "self" so often, but rather by "father" or "mother".

Table 8 as given below shows the distribution in percentages of those obtaining their different positions alone, or with help from some member of their family, or with help from some person outside the family.

Table 8. Showing how position was obtained.

Positions	Alone	Member of Family	Outside of Family
1st	69.0	10.5	20.5
2nd	66.5	12.8	20.4
3d	69.	10.5	20.5
4th	62.3	12.2	25.4
5th	66.8	18.2	14.7

An average of two-thirds of them obtained all of their positions alone. Nearly one-eighth with help from some member of the family and one-fifth with help from some one outside of the family. Combining the number who secured their positions alone and the number who obtained them through the influence of some person outside of their own family we have more than 86 % of the wage earning children. There is no doubt that this entire group of children either wanted to or were willing to work; for no person other than a member of the child's family would be likely to obtain a position for them if they had not expressed their desire to obtain it. The 14 per cent who were helped by some member of their family in obtaining their positions were not necessarily driven to work; on the contrary, many of them were as anxious to work as the ones who secured their positions alone but they happened to have some member of their family whose influence could help them obtain their positions. On the whole it seems that the children are anxious to escape from school and go to work. The most discouraging thing about this condition is that many children work willingly for a year or two, then they grow tired of working and begin a career of idleness. After they have been out of school for sometime the thought of returning is out of the question and if they decide not to continue to work, no position can be found sufficiently attractive for them. The following record given by a seventeen year old boy who began to work at the age of twelve will serve as an illustration.

Position	Time worked	Time idle	Wages	Reason for leaving
1 Wagon boy-Transfer Co.	3 yrs.	1 wk.	\$3.00 wk.	Got too cold
2 Errand boy-Printing Co.	1 mo.	2 mo.	4.50 wk.	"Fired" for being late
3 Wagon boy-Dept.Store	1 wk.	3 wk.	5.00 wk.	To Get new position
4.Making stove pipes	8 mo.	2 wk.	10.00 wk.	Laid off
5 Feeding heeler-Shoe F.	3 mo.	2 wk.	5.50 wk.	Didn't like place
6 Plugging pipe	4 mo.	8 mo.	7.50 wk.	Laid off
7 Skiving counters-Shoe F.	2 wk.	1 wk.	6.00 wk.	Cut hand
8 Elevator boy-Box F.	1 day	3 wk.	.90 day	Didn't like place
9 Labeling-Bread Co.	1 wk.		6.60 wk.	

This record shows that the boy has been working over five years and that he has held nine different positions during this time. Eight of the positions were obtained within the last two years and a half. One year and one month of this time was spent in idleness. The average length of time spent in a position for the last two and one half years then is three and three-fourths months and the average time idle after each position is nearly two months. This is a record typical of many boys. Only too often the investigators were forced to discard schedules, left incomplete because mothers were absolutely unable to remember the various positions which the child occupied, and the time spent in each.

The fact that so large a proportion of the children investigated obtained their positions alone, probably accounts, in some measure, for the number who started in unskilled occupations and remained there. The children, having no capable person to advise them, when they decide to go to work, take the first position they

can find, and stay there for a few weeks until they secure a "better place." The "better place" often consists of longer hours and more injurious work with perhaps an additional wage ranging from twenty-five cents to a dollar and a half per week. Sometimes, however, the change really does mean better wages, shorter hours, and more agreeable forms of work; but the most important consideration for this type of child, if he works at all, seems to be the amount of money received at the end of the week, and he apparently disregards long hours, dust and unhealthy conditions. In the schedules of the investigation the wages were given with great accuracy, and the records show that the number of children entering unskilled occupations was about thirty times that of those entering the skilled trades. When they begin in an unskilled position they frequently change to other occupations of the same grade, and they seldom enter ~~some~~^a skilled position later on. The reason for this seems to be that they earned more money in the unskilled occupations than they get for several years as an apprentice for some trade or as a beginner in a skilled occupation. To them a "bird in the hand is worth two in the bush." They are not able to look three years ahead and calculate what the present smaller wages with the added earning capacity would mean in that length of time. For some the present necessity of earning money makes it impossible ~~for them~~ to learn a trade or take any position in which the wages are very low or no compensation is paid, but the majority, if they had the necessary judgment and foresight, could manage to take two or three years of training.

The small number of children who said they would like to learn a trade or had ever thought of learning one shows their attitude of unconcern and thoughtlessness as to their welfare. Out of 941 cases, 216 said they would like to learn a trade but the others were either satisfied with what they were doing or wanted to get into an occupation in which they could make "good money" immediately. In answer to the question as to whether they had an opportunity to learn a trade if they desired one, 353 said they had.

The greater number of these families seemed to be in such circumstances that they could allow their children to become apprentices for a trade or enter a trade school and pay tuition, but the provisions for giving trade training being so few they did not know where the desired trade could be acquired. The two hundred and sixteen who said they would like to learn a trade or take some industrial or business training are distributed as to their inclinations among the following occupations:

Stenographer	26	Electrician	24
Book-keeper	8	Plumber	15
Dressmaker	27	Carpenter	12
Milliner	18	Printer	16
Machinist	17	Shoe worker	9
Engineer	9	Miscellaneous	35

In actual practice out of the nearly 1100 children dropping out of the public schools the records show that only 132 of these have finally succeeded in establishing themselves in some definite trade or skilled occupation. 36 children became apprentices

at once or took some business or trade training, before entering industry. In addition to these there were 96 who began in an unskilled position but later worked themselves up to a skilled occupation or became apprentices for some trade. 44 of this number had only one unskilled position before entering the skilled/trades or becoming an apprentice, 32 had two unskilled, 15 had three, 4 had four, and 1 had six unskilled positions before they felt the necessity of, or found an opening for, entering some skilled trade.

The shiftlessness, discontent and inefficiency among the working children is indicated by the number of different positions they have had. Table 7 shows the number of changes in positions and the number of children making each change.

Table 7.

No. of changes in position	No. of children
0	295
1	355
2	248
3	105
4	56
5	14
6	6
7	2
8	2
9	2

Slightly more than one-fifth of the total number investigated had had only one position, almost one-third had had two, over one-fourth had had three, nearly one-tenth had had four positions, while 7.6% had had more than four, some having had from eight to ten different positions ^{with} in a period of 6 years. The cards taken of children who entered the gainful occupations in 1904 show a distribution into number of positions as follows:

Positions	1	2	3	4	5
No. Children	28	24	33	12	10

This table considers only those children who have been in industry four years or more, while the preceding table includes those entering recently. In the latter, a very large percentage of the children are reported as having had only one or two positions but this is due chiefly to the number of children who have worked less than two years and who have not had time to make extensive changes. Over half of the records for 1904 show that three or more positions were occupied and ^{fact is} ~~these are~~ a further indication of the tendency to change the position ~~astener~~ as the child grows older and has worked a greater number of years.

The number of changes in positions is very significant in connection with the length of time worked. Table 10 shows the length of time spent in each position by months and years.

Table 10. Time spent in different positions.

Positions																	
Posi- tions	Months											Years					
	1	2	3	4	5	6	7	8	9	10	11	1yr.	2	3	4	5	6
	Number of children.																
1st.	48	49	74	37	17	75	12	18	21	9	4	185	92	45	21	12	3
2nd.	28	38	24	20	17	38	3	11	11	3	3	107	50	20	8	8	1
3rd.	9	15	19	10	7	15	3	3	7	2	0	120	16	8	1	2	2
4th.	6	4	8	2	2	3	0	2	0	4	0	11	4	1			

Those who have had only one position and are still in it are not included in table 10, neither are the last positions of those having had two, three, four, or five positions. The table, then, shows the actual time spent in one position before changing to another. In making the classification, employment for one month or less and under two months was classed as one month, over two months and under three months, as two months, over three and under four as three and so ~~forth~~ on through the classification. The proportions in the different time periods are shown by percentages in the following table:

Table 11. Length of Stay in Positions.

Posi- tions	Months		Years		
	1 - 6	6-12	1-2	2-4	4 &
1st	41.43	8.83	38.12	9.53	2.07
2nd	42.30	7.94	40.25	7.17	2.30
3rd	31.38	6.27	56.90	3.76	1.67
4th	53.19	12.78	31.90	2.12	----

No tendency towards settling down to a steady position is apparent from the foregoing facts, but quite the contrary seems to be shown. It is significant that over one-half of the children stayed less than one year in their first position, one-half less than one year in their second, three-eighths held their third position less than one year and nearly two-thirds remained in their fourth less than one year. There seems to be a tendency to stay longer in the third position than in any other up to the two year limit then the per cent is greater for the first and second positions. It would seem then that after a child once contracts the changing habit he had a tendency to stay a shorter time in each succeeding position.

Table 12. Showing Idleness between Positions.

Posi- tions	Months										
	1	2	3	4	5	6	7	8	9	10	11
	Number of Children.										
1st	88	59	34	19	10	25	4	10	2	7	1
2nd	49	22	15	10	8	14	1	6		4	
3rd	18	9	9	2		5			2		
4th	3	2	3	3		3				1	

(cont'd.)

Posi- tions	years			
	1	2	3	4
1st	23	6	1	4
2nd	23	4	2	1
3rd			1	1

The same plan for making this table was used as for making table 11 showing the time spent in various positions, the time from one week to two months being classed as one month and so on. The tendency to remain idle seems to decrease as the child grows older. There are fewer cases of idleness and the periods are not so long after each successive position. This is shown more clearly by the following percentages.

Table 13. Showing Idleness in percentages.

Posi- tions	Months				
	1 - 2	3 - 4	5 - 6	7-11	12 &
1st	50.6	18.3	12.	18.3	10.8
2nd	44.6	15.7	13.8	16.9	18.8
3rd	58.7	23.9	10.8	4.3	2.1
4th	33.3	40.	20.	6.6	0

The last two tables taken together seem to show a tendency to change the positions oftener as the child grows older but there seems to be less idleness between ~~each~~ positions. They seem to ac-

quire proficiency in obtaining positions as they grow older. This is largely due to the greater inefficiency of the younger, smaller applicant. Employers are glad to employ an older boy in preference to a younger when he knows nothing of the efficiency of either. The fact of decrease in idleness shown by this table does not disprove the statement made above that many children work for a few years and then stay idle the greater part of the time. Many times, as said before, it was impossible for the mother to remember the many different positions the children^{had} had, with the time worked and the time idle. The mothers often said that the boys would only work for a short time at a place, then stay idle for a long time because they could not find a position that suited them.

The reasons given for changing positions are interesting because of the insight they give ^{into} ~~of~~ the importance to the child of regular or irregular employment. On the whole they seem to show that the object was to obtain a more desirable position whether from the standpoint of money or other advantages.

The following table shows the reasons given and the number of times a given reason occurred.

Table 14--Reasons for leaving positions.

Better place, obtained or wanted	282
Wages too low.....	180
Dismissed.....	140
Laid off.....	130
Didn't like work.....	95
Sickness of self.....	82
Work too hard.....	66
No steady work.....	57

Firm dissolved.....	53
Trouble with employer.....	46
To learn trade.....	41
Strike.....	36
Hours too long.....	31
Hurt by machinery.....	30
Tired of work.....	27
Too hard on health.....	24
To go back to school.....	22
Wanted to try other work.....	19
To work with father.....	15
Sickness of family.....	14
Trouble with other employees.....	11
Work dangerous.....	9
To help mother at home.....	9
Didn't like employer.....	9
Didn't like associates.....	8
Received no wages.....	8
Work too dirty.....	7
Couldn't do night work.....	7
Mistreated by employer.....	6
No overtime pay.....	3
Besides these reasons a considerable number of Miscellaneous ones were given.	

Changes were made 282 times because the child wanted, a ~~"better place"~~ or had found, a "better place". Often the "better place" meant shorter hours, higher wages, ^{more congenial} ~~better liked~~ employers, work more fitted to their liking, work nearer home, or some

other such consideration, but sometimes it merely meant more money. Too often the nature of the succeeding position indicated that the child was not successful in finding a better place. In his next position he sometimes had longer hours or more unhealthful conditions with the same or sometimes lower wages. On the other hand, the "better place" often required longer hours and more injurious work but with an increase in wages. The mother usually expressed the opinion that the child had bettered himself under the latter conditions. In most cases the mother disregarded the length of the day and the physical conditions. As for the moral conditions it appears that they rarely enter into the estimate of what constitutes a good or bad position. In the districts where nearly all the young children entering the gainful occupations are employed in the breweries, objection to their working on the ground that the moral influences were bad, was rarely heard, yet by far the greater proportion of girls and boys in these localities start their industrial careers in these establishments. Occasionally, however, parents were found who had secured other positions for their children because they objected to the bad influences of the brewery, but the wet floors and the danger of injury from broken bottles were more often given as the reasons for leaving in the case of dissatisfaction with conditions.

By taking the following four causes for changes- "laid off," "work stopped," "no steady work" and "firm dissolved", we have 287 cases of changes which were practically forced upon the children through no fault of their own. Of the 140 who were

"dismissed" a large proportion likewise were dropped because of slack work. The mothers exhibited no hesitancy in telling when the children were "fired" for some misconduct on their part. In most of the cases when they were "laid off" they had been taken on in a rush season with the understanding, often, that their position was only temporary. The shoe and glass factories seem to lay off their workers oftener than ^{do} the other industries. "Laid off" in these instances means that they are not needed regularly but may return later when there is more work for them, while "dismissed" means that they will not be taken back, usually because of some misconduct on the part of the child.

Almost eight hundred changes were made because of discontent with ~~some~~ circumstances connected with the occupation. Nearly five hundred of these were made on account of wages, one hundred and fifty because the work was too hard, dangerous, or undesirable from a physical standpoint, and the other one hundred and fifty for various reasons, such as long hours, strikes, difficulties with employer and so forth. The cases in which changes were made because of too long hours were few, numbering only thirty one in all. The following table gives a list of the hours objected to:

Table 15, *Unreasonable Length of Day.*

<u>Number of Children.</u>	<u>Daily hours.</u>
5.....	9
6	10
7	11
7	12
6	14

In most of these cases the child was employed as a clerk in some store, usually a grocery where the hours seem to be longer than in any other place where children work. The children objecting to a nine hour day are few indeed when compared to the number working nine hours. Many of them work ten hours a day without thinking it too long.

Among reasons for changing occupations was the attitude of the child towards the work he was doing or the presence of some outside influence such as sickness of himself, or of some member of the family.

The most important facts brought out by the reasons given for making changes in positions are the following:

1st: The child does not realize the advantage of steady employment.

2nd: He is willing to change his occupation for the most minor causes.

3rd: He is always seeking a position which seems immediately the most desirable, whether in regard to wages, hours or character of occupation.

4th: He hardly considers the prospect of a permanent occupation or trade.

After ascertaining the number of times working children change positions and the time spent in each position, together with the time idle, it becomes important to consider the kind of occupations held, the hours worked per day and the wages received in the different kinds of employment. As stated above, the great majority enter unskilled or low grade skilled industries. Over nine hundred of the ten hundred and eighty-five

~~cases~~ ^{children} entered an occupation which required the constant repetition of a single simple operation. In a short time this becomes so mechanical that all mental effort practically is eliminated.

In the group of the unskilled occupations (judging from a comparison of the first position entered and the last one held when the schedules were taken) the changes in positions were , for the most part, simply changes in the nature of the occupation; that is the changes occurred within the different occupations of an industry.

The following list gives a classification of the unskilled positions held and the number of children who had their first and last position in each group.

	<u>First position.</u>	<u>Last position.</u>
Factory	341	381
Mercantile Establishment	222	214
Brewery	79	62
Office boy or girl	61	51
Errand boy	52	27
Delivery boy	43	36
Domestic service	37	23
Clerical work	20	40
Laundry	17	21
Messenger boy	11	10
Telephone operator	10	12
News boy	7	8
Elevator boy	1	5
Unclassified	49	67

The factory group includes workers in shoe, shirt, underwear, carriage, basket, box, bag, tobacco, candy, ^{and} biscuit and ~~other~~ ^{besides others} factories, in which the number of workers was too small to deserve special mention. The mercantile establishments include all stores, both retail and wholesale. The factory workers include all grades of employment in the different establishments from the most elementary tasks to those which require more or less ability and skill such as operating machines. The majority of children working in the mercantile establishments were cash boys and girls, "salesladies" and clerks. Most of the children found in the breweries were in the bottling and labeling departments. The laundry workers, all of which were girls, were mostly ^sorters and ironers. The small number of newsboys included in the investigation is accounted for by the fact that ^{most} news boys are still in school and sell their papers before and after school hours. The majority whose records were secured had charge of paper routes or of stations where the papers were given out to small newsboys.

A study of the hours worked per day for the total number of positions occupied shows the following percentages:

Table 16,--Hours worked per day.

Less than 8	8	9	10	11 and above
2.5%	22.%	49.7%	23.4%	5.4%

Nearly one fourth of all the establishments require not more than eight hours of work per day. Slightly less than one half require nine hours and over one fourth require ten hours or more. Long hours are partly accounted for by the long days of the grocery. In addition many were employed during certain

rush seasons such as the Christmas season, when the hours are unusually long, and were dismissed after the rush was over. The breweries are responsible in large measure for the eight hour days, while the mercantile establishments (other than the grocery store) have nine hour days and the factories have either nine or ten hours per day.

While the grocery stores are responsible for many of the longest hours per day they are also responsible for some of the lowest wages. The boys who work in groceries, even though they work from five or six o'clock in the morning until nine or ten at night, except Saturday when they work until twelve or one, do not earn ^{so} high wages as most of the workers do in the factories, breweries and many other occupations. The shoe and tobacco factories and breweries furnish the best opportunities for advancement from the standpoint of wages.

The following table gives the ^{distribution} numbers in percentages of those who received certain wages at the beginning and at the end of each separate position up to the fifth.

Table 17.

Beginning wages by positions in percentages.

Posi- tions.	Weekly Wages.(in dollars)										
	0-1.99	2.	3.	4.	5.	6.	7.	8.	9.	10.	11+
<u>1st:</u>	4.1	16.6	37.2	22.7	8.8	5.6	2.0	1.1	.4	.6	
<u>2nd:</u>	1.7	4.	20.4	23.6	17.4	15.3	5.6	2.3	3.7	2.1	2.7
<u>3rd:</u>		3.	10.4	17.6	18.1	16.1	9.6	6.8	8.6	2.7	6.3
<u>4th:</u>		1.6	5.8	18.6	10.1	17.7	13.5	6.7	4.2	7.6	13.1
<u>5th:</u>		2.6	2.6	10.5	7.8	23.6	13.1	7.8	15.7	5.2	10.4

Table 18.

Ending wages by positions in percentages.

Posi- tions.	Weekly Wages.(in dollars)										
	0.1-99	2	3	4	5	6	7	8	9	10	11
<u>1st:</u>	1.6	7.8	24.3	18.6	13.3	12.7	7.7	4.2	2.7	2.4	3.7
<u>2nd:</u>	.9	1.9	10.4	17.5	20.2	16.4	11.3	6.2	5.2	2.9	5.6
<u>3rd:</u>		1.2	6.4	13.1	15.4	14.8	13.5	9.6	8.7	4.8	11.6
<u>4th:</u>			4.1	10.0	10.1	20.3	12.7	7.6	3.3	8.4	23.5
<u>5th:</u>		2.6	2.6	10.5	7.8	15.7	10.5	7.8	15.7	15.7	10.4

These tables show a general rise in wages as the positions change and the workers grow older. One fifth of all children began working with a wage of less than three dollars per week but only two per cent. were in that group in their fifth position. Three fifths began with wages ^{varying} between three and five dollars and less than one fifth began with more than five dollars, while at the beginning of the fifth position three fourths ^{children} of them were earning over five dollars. There is a gradual decrease in the number beginning in each group as the positions change, up to the five dollar ^{wage} group, then as the number of positions increases the number earning the higher wages ^{also} increases. This is also true for the wages at the end of the various positions. More depends upon the age in the first position, than would at first be attributed to it. The following table, based upon 391 cases showing the average first wage of the children who enter industry at the ages of twelve, thirteen, fourteen, fifteen and sixteen, makes possible a comparison of the earning

Diagram B
Difference in Wages at successive ages of
children with and without training

capacity among children of different ages;

Table 19.

Average weekly wages of children of different ages.

Years.	Average. Wages.
12 years.	3.10
13 "	3.45
14 "	3.80
15 "	4.10
16 "	4.22

The sixteen year old child earns one dollar and twelve cents more from the ~~beginning~~^{does} than the twelve year old child, seventy seven cents more than the thirteen year old, forty-two cents more than the fourteen year old, and twelve cents more than the fifteen year old. From the facts it would seem that the child of twelve years is considerably handicapped as to wages without considering the physical, mental, and moral handicaps involved when he begins working at such an early age. The fourteen year old child is in advance of the child of twelve and but little behind the child of sixteen. Judging from these facts there seems to be little incentive from the standpoint of increased earning capacity for the child to continue in school after he is fourteen years of age.

Diagram B. on the opposite page indicates a comparison of the average wage by ages of two classes of children: first, the class which took some training before going to work or which began as apprentices to some trade, and second, the one which went to work in unskilled occupations. The advantage of the

training is apparent in every age group. There is no age at which the child with training does not receive considerably more than the child who begins in the undesirable occupations without training of any sort, and as the children grow older the difference in wages seem to increase in favor of the trained person.

The important points regarding the children who enter industry between the ages of twelve and sixteen as brought out by a study of their occupations, are,

1st: That the great majority of them enter the unskilled occupations;

2nd: That they change from one unskilled position to another of the same rank, in very few cases advancing into a skilled industry or learning a trade;

3rd: That they usually change positions with a view to obtaining more wages;

4th: That the wages at the beginning are usually small but advance as the child grows older and is better able to perform the work, or has more ability to secure better paid positions;

5th: That the child who takes some industrial training receives much better wages than the child who has no training;

6th: That the great majority of the children are working nine hours or more per day.

When we see the advantage of the trained over the untrained workman we are compelled to ask the question , why do not more children undertake some form of industrial or trade training. Some of the reasons for the disinclination of children to do so have already been indicated in the foregoing pages. In addition, a study of the provisions for trade instruction in St. Louis will throw some light on the question as to why many children are working without preparation for any special kind of work, and consequently drifting into the undesirable positions which require long hours and afford but little remuneration. The problem is not a simple one. While parents and children must bear their share of the blame, the meager facilities for industrial training offered by the city of St. Louis is also partly responsible. What the city is doing to meet these demands is set forth in the following section.

IV Provisions for Trade Instruction in St. Louis.

The provisions for trade instruction in St. Louis are few. With the exception of our public High Schools all of which have a department of manual training, no provision for industrial training is made, except in a very limited way by private enterprise. It is not possible for the children to take advantage of the High School training unless they have finished the eighth grade. Furthermore, the training which is given is not intended for the rank and file of workers. The manual training department is only one of the agents for imparting general education, and a particular operation is discontinued at the point where it becomes mechanical and ceases to stimulate thinking. The effort to impart skill in performing the various tasks is not sought, and since the acquiring of skill and accuracy is one of the most necessary adjuncts of the apprentice for a trade, it is seen that our High Schools are not giving trade training, especially in the sense of preparing a person to follow a certain trade. Among private attempts at furnishing trade or industrial training are plumber's trade schools, electricians' schools, millinery, dressmaking and tailoring schools and business colleges. Besides these there is a School of Mechanical Trades which is the most successful institution for imparting trade instruction in the city. This is a privately endowed institution and its especial purpose is to train and fit boys and men for the mechanical or manual trades and occupations. The founder especially stipulates that the instruction given must always be practical, "having in mind the need of the community and the State for practical workers in mechanical trades, who shall be skilled in their respective trades and occupations and have such education

as will best fit them to serve the community and the state in such occupations." The school opened September, 1909 in a new building built especially for the purpose, which is fitted with the most modern equipment; and an efficient body of instructors have been employed. There are both day and night sessions, which makes it possible for those engaged in work at the present to take advantage of the instruction in the school. The courses offered for the first year in the day classes are limited to carpentry, bricklaying, plumbing and painting. The night classes offer carpentry, pattern making, bricklaying, plan reading and estimating, painting plumbing and drafting, with special courses for trade subjects for which there may be sufficient demand.

The school is open to men and boys over sixteen years of age who have completed the seventh grade in school or its equivalent, unless they have had some experience in a trade in which case they may be admitted with less education. In exceptional cases boys who show special aptitude and physical development are taken between 14 and 16 if they have completed the seventh grade. These are given special preparatory training. The course usually covers a period of two years but some persons may finish in a shorter time. The tuition charges are thirty dollars a year for the day work and the same or less, if fewer classes are attended, for the night work. The thirty dollars is the only expense of the student, all materials and tools being furnished by the school. The greater part of each course is devoted to the practical handling of the tools of the trade under the eye of the instructor. The remainder of the time is given to lectures and class work in mathematics, drawing, applied sciences and building construction, but only so

much of this supplementary instruction is given as will be of practical use to the student in his subsequent career as a skilled workman. Practical work is emphasized throughout and wherever possible is provided in the shop by the instructor in charge.

The following outline of the course in plumbing shows the method of instruction:

Shopwork

Names and uses of tools.

Wiping joints.

Practice on seams and joints; lead, iron, and brass pipe.

Pipe cutting and threading.

Study and installation of cocks, flanges, and nipples, traps, pumps, tanks, fixtures, meters.

Installation and testing of a complete plumbing outfit.

Making solder.

Lead burning.

Gas fitting.

Supplementary Instruction

Mathematics - Special problems dealing with quantities and weights of pipe, capacity of pipes and boilers, cubic contents of tanks and cisterns, estimating cost, etc.

Drawing - Special emphasis on plans and details of plumbing systems, fixtures, traps, pumps, etc.

Applied Science - Special emphasis on such parts of physics as have to do with water pressure; effect of heat on lead, tin brass, and iron; freezing; water hammer; pumps; siphons, etc.; and on such parts of chemistry as deal with heat, air, water, lead, tin, brass, red lead, white lead, litharge, cements, fluxes, lead burning, sewer gas, septic tanks, water contamination, and the like.

Building Construction - Special phases of ventilation, water supply, drainage, and sanitation. Floors and partitions. Plumbing regulations of Saint Louis and vicinity.

The St. Louis branch of the National Metal Trades Association has entered into co-operation with this school and has begun an apprenticeship course by agreeing to enroll apprentices in its establishment and giving them rates of wages commensurate with modern shop conditions, but also permitting them to attend the School of Mechanical Trades seven hours a week, during the regular shop hours. The boys receive wages while taking their school-work and also have their instruction paid for by the employer. The boy starts with a wage of 8 cents an hour for the first six months which gradually increases to 21 cents an hour for the last six months. The boy must sign an agreement to fulfil certain requirements of good character, obedience, application to work, etc. He must pay for his tools and for the drawing materials used in the school but has no other expenses. At the end of his apprenticeship the boy receives \$100.00 in cash from the employer in addition to \$50.00 of his wages which have been retained by the company until the apprentice has carried out the provisions of the contract. This is the only company in the city with a system of co-operation with the school but the advantages offered by the school will without doubt gain in popularity.

There are two plumber's schools both of which are short-course schools claiming to teach the trade in six months or less. These schools have no standing with regular trade school advocates and boys who have taken their training receive no recognition as trained workmen from trades people. The men from these schools do not tell where they received their training and often return

to the country where it is easier for them to obtain positions than in the city where the plumber's unions control ^{The} trade. No educational requirements for admission are made except ability to read and write. Children never attend these schools, as instruction is not sufficient and the work is physically too difficult.

The School of Practical Engineering teaches engineering and architecture after the same plan that the plumber's schools use. Besides these schools mentioned there are tailoring colleges, millinery and dressmaking schools which take people especially interested in their line of work as apprentices paying about one dollar a week for the first year and gradually increasing the wages as efficiency increases. In addition to these schools there are machine, electrical, printing, plumbing, carpentry and other companies which still have systems of apprenticeship for training workers.

There are 8 private business and commercial colleges in the city. Some of them require an eighth grade school record before admission to their work, while others take children who have ~~only~~ finished the fifth grade ^{only.} They have no fixed time for the completion of any of the courses. The students stay ~~from~~ from two months to a year according to their ability and interest in the work. Then they leave the institution and accept positions ranging in salary from four and a half to twelve dollars a week. The average wages of stenographers, judging from the limited number of records, is six dollars and seventy cents a week. We would not expect them to have a degree of efficiency which would demand a large wage, considering the small amount of education they have when they enter and the short length of time spent in further training.

V . Needs and Suggestions.

In view of the foregoing facts there are evidently but few provisions for furnishing industrial training to the boys and girls in whom we are most interested, namely those who drop out of school before finishing the grades and enter industry before sixteen years of age. Our secondary schools are inadequate to meet the present needs for industrial or technical training. In view of the fact that seventy-five per cent of the children who enter school never graduate from the grades our provisions for industrial training to be of benefit to the greatest number, must be placed within the reach of the child before he leaves the grammar school. Unless we give the child some definite vocational interest before he has reached the age of fourteen when the compulsory attendance law releases him from school, he leaves school without training or appreciation of any of the considerations which enable him to make a successful choice of a vocation or cause him to exert himself to obtain training along industrial or vocational lines. Our educators should cease to consider the training suitable for children who are to enter the professions as also adequate and sufficient for those who are to enter the commercial and industrial world. The advocates of industrial training are not taking cultural education from the ^{young} child; they merely advocate giving him as worthy a substitute as possible, when he refuses to accept the education given along cultural lines. The introduction ^{into each elementary school} of a manual training department organized from a vo-

cational standpoint, so that it would bear a direct relation to the industrial life of the child after his leaving school and always aiming to promote industrial efficiency, would operate to hold many children in school from two to four years longer. If the majority of children are to be benefited, they must enter such a manual training department not later than their twelfth year. Cultural training should not be entirely absent in this department but it should be accompanied by practical manual training to such an extent that the child may be made to realize that he is receiving instruction in processes and principles which underlie the industrial work in which he expects to engage after leaving school. Elementary instruction of this kind should be furnished the child from the time he reaches the twelfth year until he ^{has} finished the grammar school then there should be provided public trade schools, where the child may go, and follow out the inclinations he has received from his elementary instructions, and learn the trade or vocation which he may desire. These schools should be open to all children between the ages of fourteen and sixteen regardless of whether they have graduated from the grade school ^{or no} provided their physical and mental conditions are normal. The instruction given should provide thorough preparation for all trades and departments of industry with a course of sufficient length to occupy the child until eighteen years of age or older; for the boy who is ready to fill the position of a skilled workman before the age of eighteen is seldom found even if they are able to acquire the principles underlying the trade before that time they ^{has} not sufficient physical strength to enable them

to do a full day's work. A two years' course should be provided, however, so that it would be possible for some for whom two years is sufficient preparation, to enter industry at the end of that time.

A study of the conditions surrounding more than 1000 children who have dropped out of school to enter industry, clearly establishes the following conclusions:

1st: That the great majority of children who enter industry below the age of sixteen enter undesirable occupations, for which no training is required, and in which they work long hours with low wages and slight chance for advancement.

2nd: That very few of these children have an opportunity to take any form of industrial training owing to the insufficient provisions in the City of St. Louis for furnishing instruction along industrial or vocational lines.

3rd: That changes should be made in the public schools both in the grammar grades and high schools so as to include manual training courses, organized along vocational lines, in the upper elementary grades, and such training should be followed by definite trade instruction for the children over fourteen years of age.

4th: Finally it is evident that parents need to be enlightened in regard to the necessity of training their children. Facilities for training must be supplemented by the desire to learn.

[illegible]

378.7M71
XE d98

010-100721300

RECEIVED
JUL 7 1910
UNIV. OF MO.

~~This thesis is never to leave this room.~~
~~Neither is it to be checked out overnight.~~