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U. S. DEPARTMENT OF LABOR
JAMES J. DAVIS, Secretary
CHILDREN'S BUREAU
GRACE ABBOTT, Chief

CHILD LABOR AND THE WELFARE OF CHILDREN IN AN ANTHRACITE COAL-MINING DISTRICT

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LETTER OF TRANSMITTAL.

UNITED STATES DEPARTMENT OF LABOR,
CHILDREN'S BUREAU,
Washington, February 21, 1922.

SIR: There is transmitted herewith a study of Child Labor and the Welfare of Children in an Anthracite Coal-mining District. The investigation upon which the report is based was begun by the Industrial Division of the Children's Bureau while Emma Duke was its Director. Helen Wilson, a member of the staff of the division, was responsible for the details of the plan, supervising the investigation, and organizing the material on which the report is based.

In this anthracite district children suffer both from congestion of population and isolation; from inadequate educational and recreational opportunities; mortality rates are distressingly high; and at 13 and 14 years of age many of the children have taken their places as full-time wage earners. There is much that can be done to promote the well-being of children in even the most favored communities. This report shows clearly that in this coal-mining district there appears to be a peculiarly rewarding field for service.

Respectfully submitted.

GRACE ABBOTT, *Chief.*

Hon. JAMES J. DAVIS,
Secretary of Labor.

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CHILD LABOR AND THE WELFARE OF CHILDREN IN AN ANTHRACITE COAL-MINING DISTRICT.

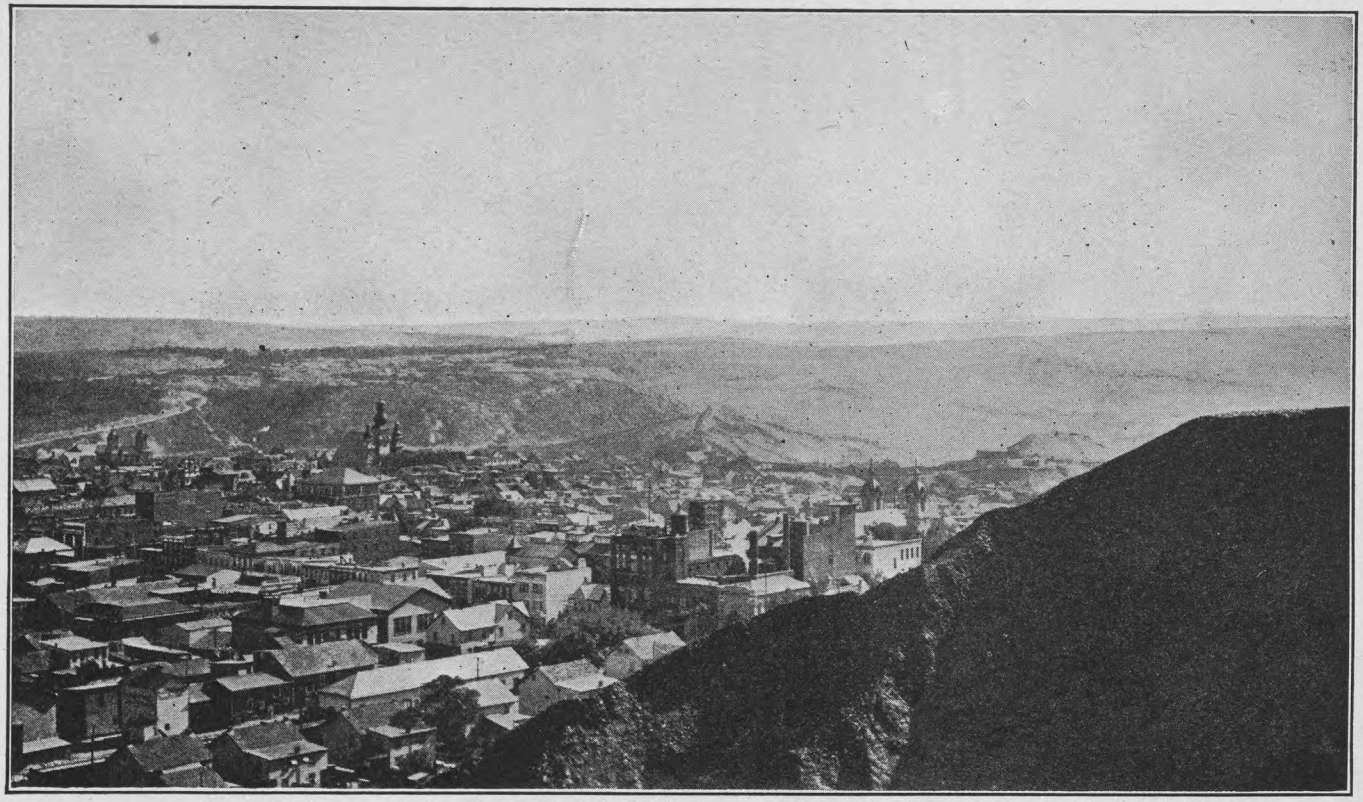
DISTRICT SELECTED FOR STUDY—SHENANDOAH.

Although unlike in many ways, the mining towns throughout the anthracite region bear the mark of the pit, and their general problems are similar. Everywhere the industry has wrought great changes in the face of the landscape. It is a black country dominated by the great breakers which rise above the towns. The streams are black with soot and there are black piles of refuse and culm, and the men returning from work wear masks of coal dust. Trees have been cut down for mine timber so that only stumps and scrubby bush, saplings, or misshaped trees are left. The earth mixed with the slate and coal dust is for the most part bare, and the few gardens, which demonstrate that the ground can still be cultivated, emphasize the general desolation. Throughout the region are fissures and cave-ins where the props in the mines have given way.

The district selected by the Children's Bureau in 1919 for a study of the problems of adolescent children lies in the central field in Schuylkill County, where the mountains cut the land into valleys and basins, narrow and irregular in outline. It includes the boroughs of Shenandoah, Gilberton, and Frackville and surrounding patches up to the boundary line of Mahanoy City on the east and Girardville on the west. The characteristics of the anthracite region seem especially prominent here. Shenandoah, the business and educational center of the district, is a congested town shut in by high hills. In its setting of culm heaps there is no touch of color or beauty, but from the hills above it long ranges of mountains may be seen and in the scrubby brush which covers the hills great masses of wild rhododendron blossom in the spring. The air is usually filled with the sulphurous dust which blows from the culm banks and the coal dust which comes from the breakers and the coal cars. The noise of the coal as it rushes down the breakers and of the chugging of the mine fans and other machinery is almost incessant.

For most of its length Gilberton Borough is a single row of houses along the trolley. Here much of the land has been undermined. A

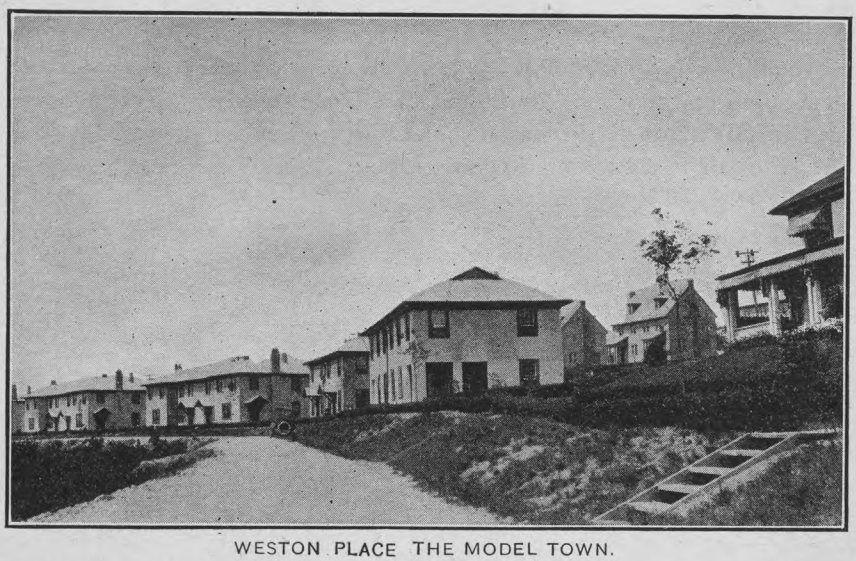
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SHENANDOAH FROM NORTH MAHANOY MOUNTAIN LOOKING OVER THE TOP OF A CULM BANK.

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small group of houses known as the island lies between the railroad embankment and Mahanoy Creek, which carries off the mine refuse and the sewage from the privies along its banks. Frackville is on a hill overlooking this valley; it has been recently settled by the more prosperous people who have moved out of Shenandoah and other near-by towns. The so-called patches are small settlements, sometimes only 4 or 5 houses, sometimes as many as 125. Twenty of these patches were included in the study, some of them along the car tracks and others back in the hills. For example, there is Ravens Run, a settlement of 36 double houses on one of the highest hills in Schuylkill County. Although a railroad passes through the settlement, few passenger trains stop, and these at such inconvenient hours that they



WESTON PLACE THE MODEL TOWN.

are little used. It is a 2½-mile walk by road to the nearest trolley. The settlement can be and is frequently reached by a hazardous footpath directly up the side of the mountain. Turkey Run, with over 60 houses, has neither railroad nor trolley service. The road makes a wide detour to reach the top of the hill on which it is situated, so that the people usually climb up through the colliery yard over the network of mine railways and along the rough paths which follow the ridges between the fissures. In winter and at night this is a dangerous path, and accidents to women and children were reported. But the main road, also, is unlighted, narrow, and deeply rutted, and in several places has sharp curves, so that it, too, is dangerous. Over the road or the path the men must go daily to their work in the mines, and the children who are above the sixth grade must go to Shenandoah to school. Weston Place, only about one-half mile from the trolley, is built high up on North Mahanoy Mountain, and is the

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model mining town of the district. The patches which are located conveniently along the railroad and trolley lines are set amidst great heaps of culm and refuse, while the isolated ones are surrounded by brush, which is green in summer.

In all these communities the life revolves around the mines. In Shenandoah at the time the study was made there were three overall, two cigar, and two shirt factories, and one mining-cap factory. These employed chiefly the wives and daughters of the mine workers. Two branch packing houses with their accompanying slaughterhouses and fertilizer plants, bottling works, and two lumber companies employed a larger proportion of men. As Shenandoah is the business center of the district, there were also retail stores, bakeries, and banks, as well as freight houses and railroad and building operations, which offered some opportunities for employment. In Frackville there were a nightdress and pajama factory and an overall factory dependent on the women and girls for a labor supply. In the patches and in Gilberton there was no possibility of employment except in the mines or in a few small retail stores.

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THE CHILDREN INCLUDED IN THE STUDY.

The earlier studies made by the Children's Bureau were especially concerned with the problems of infant mortality or the care of children of preschool age. In this study of an anthracite mining district and a number of others recently published attention was concentrated on the children of the adolescent period from 13 to 16 years of age, inclusive. In order to locate the children of these ages in the Shenandoah district a preliminary canvass was made of every house and apartment in the area studied, and the name and age of every child in the family, together with other identifying data, were noted. Because the birth records were incomplete, ages of all children discovered could not be verified. Birth records were found, however, for 582 of the children who had already been located and 3 overlooked in the canvass were discovered through this source. Altogether schedules were secured for 3,136 children between 13 and 16 years of age. Of this number 1,655 lived in Shenandoah, 424 in Frackville, 343 in Gilberton Borough, and 714 in the surrounding patches.

TABLE I.—*Age and sex; children 13 to 16 years of age.*[1]

Sex.	Children of specified age.					
	Total.	13 years.	14 years.	15 years.	16 years.	Not reported.
Total	3,136	844	716	794	779	3
Boys	1,564	376	321	421	444	2
Girls	1,572	468	395	373	335	1

[1] Inclusive of 16 in this and subsequent tables, except where otherwise noted.

The mine workers of the United States, as a rule, have been recruited from recently arrived immigrants; and at every period the nationalities which were coming to the country in the largest numbers have tended to displace the older miners. During this process of displacement the population usually is highly complex, with a concentration of particular nationalities in individual mining towns as there has been in individual industrial towns. Thus Poles have predominated in one, Lithuanians in another, Italians in a third, Slovaks in a fourth, and so on.

The Shenandoah region illustrates this process. The United States Immigration Commission found that before 1877 the mines in this region as in most other parts of the country were worked mainly by Irish, English, and Welsh immigrants. After 1877 Lithuanians and Poles began to replace the English-speaking miners, and 10 years

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later the Ruthenians and Slovaks were employed in large numbers.[1] The Germans were never, it seems, an important element in this region.

In 1919, when this study was made, the displacement of the older immigrants from northern and western Europe by those who came from eastern Europe had very generally but not completely taken place. Of 3,136 children in the group studied, only 172 were foreign born. Of these, 77 were by birth Poles, 41 Lithuanians, 13 Russian Jews, and the remaining 41 were distributed among 12 other nationalities. The degree of population changes is not indicated by the nationality of the children, as among the recent immigrants there is always a large percentage of young unmarried men, of men who have married here and whose children are American born, and of men whose families are still in Europe waiting until the money for their passage to America shall have been accumulated. The nativity of the fathers of the children is therefore a better index to the foreign-born character of the district.

Of the 3,130 children from whom information as to the birthplace of their fathers was secured, the fathers of 1,983, or 63.4 per cent, were foreign born. The nationality of these foreign-born fathers was as follows: Lithuanian, 738, or 37.2 per cent; Polish, 627, or 31.6 per cent; Ukrainian, 107, or 5.4 per cent; Irish, 56, or 2.8 per cent; the remaining 455 foreign-born fathers were divided among 21 other nationalities, only 1 of which was represented by more than 50 fathers.

TABLE II.—*Nationality of father and nativity of child; children 13 to 16 years of age.*

Nationality of father.	Children 13 to 16 years of age.					
	Total.		Native.		Foreign born.	
	Number.	Per cent distribution.[a]	Number.	Per cent distribution.[a]	Number.	Per cent distribution.[a]
Total	3,136	100.0	2,964	100.0	172	100.0
Native	1,147	36.6	1,147	38.8	.....	.....
Foreign born	1,983	63.4	1,811	61.2	172	100.0
Lithuanian	738	23.6	697	23.6	41	23.8
Polish	627	20.0	550	18.6	77	44.8
Irish, English, Welsh, and Scotch	160	5.1	156	5.3	4	2.3
Ukrainian	107	3.4	101	3.4	6	3.5
Other Slavic	107	3.4	99	3.3	8	4.7
Jewish	67	2.1	49	1.7	18	10.5
Italian	47	1.5	43	1.5	4	2.3
Greek	43	1.4	39	1.3	4	2.3
German	36	1.2	31	1.0	5	2.9
All other	23	.7	20	.7	3	1.7
Not reported	28	.9	26	.9	2	1.2
Not reported	6	.....	6	.....	.....	.....

[a] Based on total number reporting nativity of father.

[1] Reports of the Immigration Commission (S. Doc. No. 633, 61st Cong., 2d sess.), vol. 16, p. 659.

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It will be remembered that Shenandoah was the largest town in the district, that Frackville was a newer and more prosperous settlement, while Gilberton stretched along the trolley and included some of the least desirable flooded lands. The patches were most of them old settlements made at about the same time as Shenandoah. The percentage of foreign born in these settlements varied.[2] In Shenandoah Borough it was 76.4 per cent, in Frackville 35.6 per cent, in Gilberton 51.9 per cent, and in the patches 54.6 per cent. In Shenandoah the largest number of the foreign-born fathers were Poles, while those who were Lithuanians ranked second and Russian Jews were third. In all the other sections the Lithuanians led, and the Ukrainians were relatively more important than in Shenandoah. The majority of the children reporting Irish fathers lived in the patches.

In spite of its foreign-born population, the district as a whole was relatively stable, as Table III shows:

TABLE III.—*Length of residence in district, by nativity of father; families with children 13 to 16 years of age.*

Nativity of father.	Families with children 13 to 16 years of age.							
	Total.	Reporting residence in district for specified number of years.						
		Total.	Less than 5 years.		5 years, less than 10.		10 years, less than 15.	
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Total	2,341	2,294	192	8.4	199	8.7	241	10.5
Native	872	857	81	9.5	76	8.9	75	8.8
Foreign born	1,464	1,435	111	7.7	123	8.6	166	11.6
Not reported	5	2	.....	.....	.....	.....	.....	.....

Nativity of father.	Families with children 13 to 16 years of age.						
	Reporting residence in district for specified number of years.						Not reported.
	15 years, less than 20.		20 years, less than 25.		25 years and over.[a]		
	Number.	Per cent.[a]	Number.	Per cent.	Number.	Per cent.[b]	
Total	338	14.7	318	13.9	986	43.0	47
Native	87	10.2	73	8.5	445	51.9	15
Foreign born	250	17.4	245	17.1	540	37.6	29
Not reported	1	.....	.....	.....	1	.....	3

[a] Includes 20 native families living in the present district of residence throughout life.
[b] Not shown where base is less than 100.

[2] See Appendix IV, Table 1, p. 75.

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It will be noted that 37.6 per cent of the foreign-born fathers had lived in the district 25 years or more. The Irish, English, and Welsh, the old settlers of the region, showed the longest period of residence. Still many of the Poles and Lithuanians can not be called newcomers to the United States. Thus 53.8 per cent of the Lithuanians and 45.4 per cent of the Poles had been in the United States 25 years or more, while only 7 per cent of the Lithuanians and 13.7 per cent of the Poles had been in the country less than 15 years.

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THE CHILDREN AT WORK.

LEGAL REGULATIONS OF CHILD LABOR IN THE AREA.

By the time this study was begun, the Federal child-labor tax law was in effect.[3] This act does not prohibit the employment of children but places a 10 per cent tax on the net income of any mill, cannery, workshop, factory, or manufacturing establishment employing children under the age of 14, or children between 14 and 16 years of age more than eight hours a day or six day a week, or before 6 a. m. or after 7 p. m., and on any mine or quarry in which children under the age of 16 years are employed.[4]

Prior to 1909 Pennsylvania had prohibited the employment of children under 16 years of age in the mines, but the only kind of certificate or work permit required was the parent's affidavit, and experience proved that in Pennsylvania, as in other States, a law of this sort did not keep children under that age out of the mines. In 1909 this law was amended so as to require documentary proof of the child's age, but it is reported that "through an unfortunate error in drafting the bill,"[5] the minimum age was reduced to 14 years for employment inside the anthracite mines. This was amended in 1915, so that at the time the Federal law went into effect no minor under 16 years of age could be legally employed or permitted to work "in any anthracite or bituminous coal mine or in any other mine." While the Pennsylvania act provided for the enforcement of this and all other sections of the State child-labor law by the commissioner of labor and industry, the inspection of the mines, in practice, was left to the department of mines. The breaker boys in the anthracite coal region were not regarded as working in the mine within the meaning of the Pennsylvania law; and regular inspections of the breakers, with a view to the enforcement of the child-labor law, were not being made by either department[6] at the time this investigation was made.

Under the interpretation of the State law, followed by the State officials, children between 14 and 16 years of age were permitted to

[3] Revenue act of 1918, Title XII—declared unconstitutional on May 15, 1922.

[4] The language of the law, "in any mine or quarry," had been interpreted by the Commissioner of Internal Revenue to mean in or about any mine or quarry.

[5] Lovejoy, Owen R.: "The coal mines of Pennsylvania," in Uniform Child Labor Laws (Proceedings of the Seventh Annual Conference on Child Labor, 1911.) National Child Labor Committee, p. 135, New York, 1911.

[6] See discussion of this subject in "Administration of the First Federal Child-Labor Law," Children's Bureau Publication No. 78, pp. 83–85.

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work on breakers, but they could not be legally so employed unless regularly issued work permits were on file and not then for more than 51 hours in any one week, or more than 9 hours in any one day, or before 6 in the morning or after 8 in the evening.

In general the provisions of the Pennsylvania law with reference to the issuance of certificates of age were good. The law required certificates for all children between 14 and 16 years of age employed in any occupation except agriculture and domestic service. They were to be issued by the local school superintendent or some one authorized by him. The evidence of age required was: (*a*) Transcript of birth certificate, (*b*) baptismal certificate, (*c*) passport showing age, (*d*) any other documentary record of age other than school record, (*e*) physician's certificate of evidence of age.

This system, devised for the protection of young children, did not always function in the Shenandoah district.

Some children reported that they began work with no certificate other than a "work paper" bought from the "Squire" for 50 cents.[7] One child reported he had secured employment on a baptismal certificate when he was 12. Another boy said that when he first applied for a "working paper" it was refused because he was under 14; but one was finally granted him for vacation work, and he started in a newspaper office. Here he learned to set type and liked his work. When school started, however, the newspaper refused to keep him, as his employment certificate was for vacation only and he was not yet 14. He went to one of the mining companies, however, and was given work, though he still had no regular certificate.

The mother of one boy reported that although the superintendent of her school district would not give her boy a certificate because she refused to swear that he was 14, she was told to put him to work. Accordingly the boy went to work in the mines, and on his fourteenth birthday, some months later, he received the certificate.

It is only fair to state in this connection that many of the mine superintendents interviewed showed a sincere desire to comply with the law in regard to the employment of children. The actual hiring of the employees, however, was in the hands of various foremen, many of whom were either willing to take children below the legal age or careless as to whether the requirements of the law had been met. As responsibility for the enforcement of the law with reference to the employment of children in and about the mines had fallen between two State departments, the attention of the superintendents had not been called frequently, either through inspections or prosecutions, to the practices of these foremen.

[7] This was undoubtedly merely a charge for the parent's affidavit of age.

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NUMBER OF CHILDREN EMPLOYED.

The work done by the children included in this study is considered under three headings: First, "regular work," that is, full-time employment, the child having left school and begun his career in the industrial world; second, "vacation work," which is full-time employment during the vacation period; and third, "after-school work."

Of the 3,136 children between 13 and 16 years of age who were included in this study, 1,349 had left school for regular employment. At the time of the investigation, 1,332 were so employed, and 296 were employed at vacation or after-school work, or both; so that more than half, 51.9 per cent, of the children could be described as working children. Of these, 1,107 were boys and 521 girls.

AGES OF CHILDREN AT WORK.

The proportion of children employed was, as would be expected, much larger among the older children than among the younger, as Table IV shows. Thus 72 per cent of the 16-year-old children, 58.9 per cent of the 15-year-old, 31.6 per cent of the 14-year-old, and 10.8 per cent of the 13-year-old children had entered regular work. The total number of boys in the age groups studied was slightly less than the total number of girls; still, about twice as many boys as girls had entered regular work. Of the children who had entered regular employment, 896 (66.4 per cent) were boys, and 453 (33.6 per cent) were girls. Although there was a tendency among the younger boys to overstate their ages in order to secure employment, Table IV shows 64 boys and 27 girls doing full-time work who said they were 13.

TABLE IV.—*Employment in regular work, by sex and age; children 13 to 16 years of age.*

Age.	Children 13 to 16 years of age.								
	Both sexes.			Boys.			Girls.		
	Total.	Who had commenced regular work.		Total.	Who had commenced regular work.		Total.	Who had commenced regular work.	
		Number.	Per cent.[1]		Number.	Per cent.[1]		Number.	Per cent.[1]
Total	3,136	1,349	43.0	1,564	896	57.3	1,572	453	28.8
13	844	91	10.8	376	64	17.0	468	27	5.8
14	716	226	31.6	321	147	45.8	395	79	20.0
15	794	468	58.9	421	301	71.5	373	167	44.8
16	779	561	72.0	444	382	86.0	335	179	53.4
Not reported	3	3	.....	2	2	.....	1	1	.....

[1] Not shown where base is less than 50.

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In many parts of the country where the employment of children under 16 years greatly increased during the war period, it declined shortly after the armistice and later increased up to the time of the business depression of 1920. In some States where munitions and other war supplies were manufactured for the Allies the increase began in 1915, in others not until after the United States had entered the war.[8] This increased employment of children was due to the fact that opportunities for young children at relatively high wages were many, while the mounting cost of living led many parents to send their children to work when under other circumstances they would have kept them in school. The employment of children appears to have increased during this period in the Shenandoah district. Of the 844 children who were 13 years of age when this investigation was made (1919) 7.3 per cent had begun regular work and 15.8 per cent had done regular or part-time work before their thirteenth birthdays, while of the 779 children in the district who were 16 years of age only 1.3 per cent were in regular work and only 2.3 per cent had done any kind of work before their thirteenth birthdays. Of the children who were 14 years of age at the time the study was made, 31.6 per cent were doing regular work, and 32.3 per cent had done work of some kind before their fourteenth birthdays, while of the children who were 16 years of age only 9.6 per cent had done work of some kind, and only 7.8 per cent had done regular work before they were 14.[9] Of the boys 13 years of age at the time the investigation was made 12.8 per cent and of those 14 years of age 32.1 per cent had begun work before their thirteenth and fourteenth birthdays, respectively, while of the 16-year-old boys only 1.6 per cent began when they were under 13 and only 9.7 per cent before they were 14 years of age.

While the war resulted in a more striking increase in the employment of boys than of girls, even in this region, where opportunities of employment for the girls were so few, there had been a distinct increase in their employment. Thus, 3 per cent of the girls 13 years old at the time of the investigation began full-time work before they were 13, while of the 16-year-old girls only 0.9 per cent had begun full-time work so young.

Of the girls 14 years of age at the time of the study 10.6 per cent had commenced full-time work when under 14 years of age, as compared with only 5.4 per cent of the girls 16 years of age at the time of the investigation who had begun full-time work when under 14 years of age.

[8] McGill, Nettie P.: Trend of child labor in the United States, 1913–1920, Monthly Labor Review, Vol. XII, No. 4, April, 1921, pp. 717–730.

[9] See Apepndix IV, Tables 2 and 4, pp. 75, 76.

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EMPLOYMENT OF THE CHILDREN AND THE NATIVITY OF THE FATHERS.

Inquiry as to the place of birth of the fathers of the working children showed that 1,000 (50.4 per cent) of the children with foreign-born fathers were doing regular work, as compared with 346 (30.2 per cent) of children with native fathers. Of the boys with foreign-born fathers 64.5 per cent, as compared with only 44.3 per cent of boys with native fathers, had commenced full-time work. This difference is even more marked in the case of the girls, for, as Table V shows, over twice as large a proportion of girls with foreign-born fathers as of girls with native fathers had commenced regular work.

TABLE V.—*Employment in regular work, by nativity of father and sex; children 13 to 16 years of age.*

Nativity of father.	Children 13 to 16 years of age.								
	Both sexes.			Boys.			Girls.		
	Total.	Who had commenced regular work.		Total.	Who had commenced regular work.		Total.	Who had commenced regular work.	
		Number.	Per cent.[1]		Number.	Per cent.[1]		Number.	Per cent.[1]
Total	3,136	1,349	43.0	1,564	896	57.3	1,572	453	28.8
Native	1,147	346	30.2	558	247	44.3	589	99	16.8
Foreign born	1,983	1,000	50.4	1,005	648	64.5	978	342	35.0
Not reported	6	3	.....	1	1	.....	5	2	.....

[1] Not shown where base is less than 100.

The proportion of the younger children who became wage earners was larger among those having foreign-born fathers than among those having native fathers.

In every age group the percentage of children who went to work before their thirteenth birthdays was smaller among the children of native fathers than among children of foreign-born fathers. Similarly, the per cent of children who went to work before their fourteenth birthdays was larger among the children of foreign-born fathers; among those 14 years of age at the time of the study, 10.5 per cent of the children of native fathers, as compared with 25.9 per cent of the children of foreign-born fathers, had already commenced regular work.

Among the children doing after-school or vacation work, it was also the children of foreign-born fathers who predominated, though relatively in not such large numbers. In this type of employment, also, the proportion having foreign-born fathers, as compared with

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those having native fathers, was larger among the younger children than among the older. At 16 the proportion of children of native fathers doing vacation or after-school work was larger than the proportion having foreign-born fathers.

TABLE VI.—*Employment in regular work, by nationality of father; children 13 to 16 years of age.*

Nationality of father.	Children 13 to 16 years of age.			Nationality of father.	Children 13 to 16 years of age.		
	Total.	Who had commenced regular work.			Total.	Who had commenced regular work.	
		Number.	Per cent.[1]			Number.	Per cent.[1]
Total	3,136	1,349	43.0	Foreign born—Continued.			
				Ukrainian	107	63	58.9
Native	1,147	346	30.2	Other Slavic	107	47	43.9
Foreign born	1,983	1,000	50.4	Jewish	67	3	4.5
Lithuanian	738	411	55.7	All other	[2] 149	[3] 87	49.2
Polish	627	333	53.1	Not reported	28	.....	.....
Irish, English, Welsh, and Scotch	160	42	26.2	Not reported	6	3	.....

[1] Not shown where base is less than 50.
[2] Includes Italian 47, Greek 43, German 36, Assyrian and Syrian 16, Dutch 2, Rumanian 2, French 1, Magyar 1, Australian 1, not reported 28.
[3] Includes Italian 24, Greek 28, other and not reported 35.

TABLE VII.—*Employment in regular work, by nativity of father, sex and age of child; children 13 to 16 years of age.*

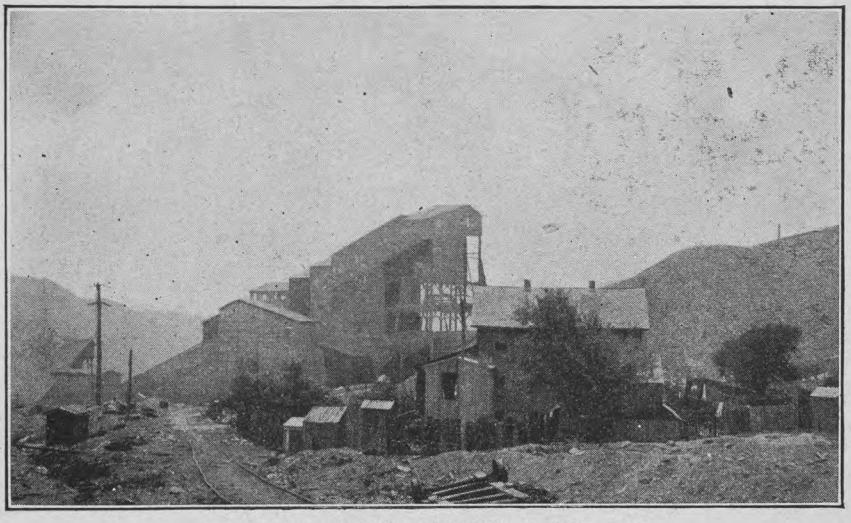
Age of child and nativity of father.	Children 13 to 16 years of age.								
	Both sexes.			Boys.			Girls.		
	Total.	Who had commenced regular work.		Total.	Who had commenced regular work.		Total.	Who had commenced regular work.	
		Number.	Per cent.[1]		Number.	Per cent.[1]		Number.	Per cent.[1]
Native fathers:									
Total children	1,147	346	30.2	558	247	44.3	589	99	16.8
13	324	12	3.7	154	10	6.5	170	2	1.2
14	259	51	19.7	120	40	33.3	139	11	7.9
15	278	122	43.9	138	86	62.3	140	36	25.7
16	286	161	56.3	146	111	76.0	140	50	35.7
Foreign-born fathers:									
Total children	1,983	1,000	50.4	1,005	648	64.5	978	352	36.0
13	519	79	15.2	222	54	24.3	297	25	8.4
14	455	175	38.5	201	107	53.2	254	68	26.8
15	516	346	67.1	283	215	76.0	233	131	56.2
16	490	397	81.0	297	270	90.9	193	127	65.9
Not reported	3	3	.....	2	2	.....	1	1	.....
Not reported	6	[2] 3	.....	1	1	.....	5	2	.....

[1] Not shown where base is less than 100.
[2] Includes 1 boy and 2 girls 16 years of age.

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OCCUPATIONS OF THE CHILDREN.

The kind of work these children did was largely determined by the industrial character of the district. The life of the district revolves around the mines and for the boys more than for their fathers their place of employment was the mines. The canvass made by the Children's Bureau showed that for the district as a whole 90.4 per cent of the boys doing full-time work were in mining as compared with 78 per cent of their fathers. A larger per cent of the boys with native fathers (16.6) than of the boys with foreign-born fathers (6.8 per cent) were able to find some place other than the mines in which to begin work. The fact that the breakers offered opportunities for profitable employment of young boys is the explanation of



GIRARD MAMMOTH BREAKER, RAVEN RUN.

the large number of boys employed in connection with the mining of anthracite coal. It also accounts for the poorer pay and the current opinion that the breakers should be reserved for the young boys or men who had long since passed their maximum working capacity. Of the 810 boys whose first regular work was in the mines, 723 (89 per cent) began as breaker boys, 422 were in this classification at the time the investigation was made.

These breakers which tower above the town of Shenandoah to the east and the south and the west are great barn-like structures filled with chutes, sliding belts, and great crushing and sorting machines. Around these machines a scaffolding was built on which the workers stand or sit. The coal is raised from the mine to the top of the breaker and dumped down the chute into a crushing machine, which breaks it into somewhat smaller lumps. These are carried along a

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moving belt or gravity incline on each side of which men and boys stand or sit picking out pieces of slate and any coal which has slate mixed with it. The latter is carried into another crusher, where it is broken again and then carried down chutes to be sorted further by slate pickers or by sorting machines. After the coal has been broken and cleaned of slate or other alien materials it is sorted by being shaken through a series of screens.

The work in the breakers might be described as disagreeable but much less hazardous than underground mining. As it is not heavy and does not require skill young boys or the older men are employed. "If you don't die you wind up in the breakers," one man said. An-



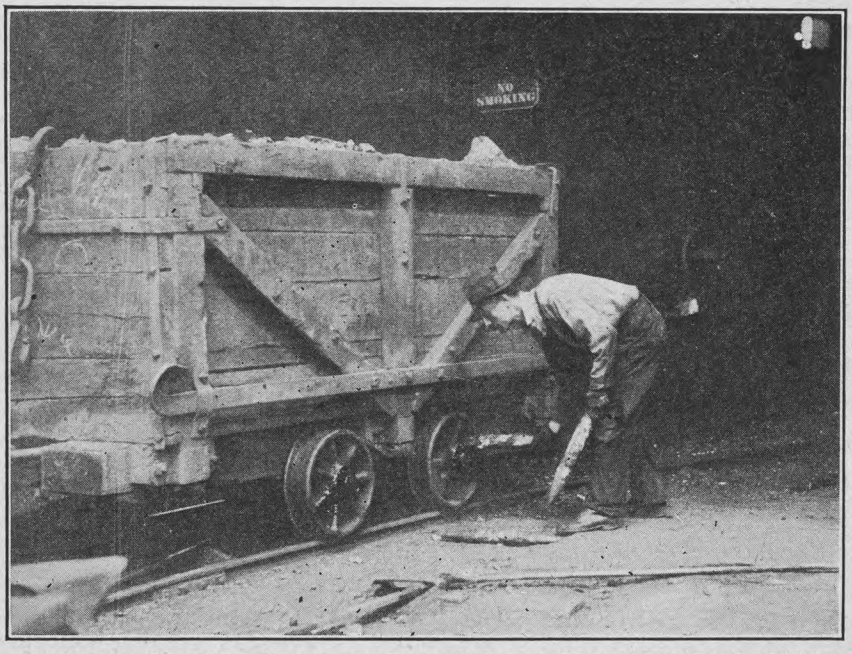
BOYS RETURNING FROM A DAY'S WORK IN THE BREAKERS.

other remarked, "You begin at the breaker and you end at the breaker, broken yourself." These older men and boys worked in the constant roar which the coal makes as it rushes down the chute, is broken in the crushing machines, or sorted in the shakers. Black coal dust is everywhere, covering the windows and filling the air and the lungs of the workers. The slate is sharp so that the slate pickers often cut or bruise their hands; the coal is carried down the chute in water and this means sore and swollen hands for the pickers. The first few weeks after a boy begins work his fingers bleed almost continuously and are called red tops by the other boys. Slate picking is not itself dangerous; the slate picker is, however, sometimes set at cleaning-up jobs, which require him to clean out shakers, the chute, or other machinery.

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Sixty-three of the breaker boys included in this study were jig runners. In other words, they operated a jig machine which has a series of sliding pans, in which the coal is shaken up and down and back and forth in water so that the lighter slate is gradually shaken to the top and can be cleared from the pan so that only the coal will remain. It is a more dangerous job than slate picking and few boys are assigned to it as a first job. Usually the foreman promotes quick, bright slate pickers to be jig runners. However, four boys were included in this study who had begun at this work.

There were 33 boys employed as scraper line tenders and 33 as shaker watchers; none of the boys began at the former and only 6 at the latter occupation. The shaker watcher tends the sets of screens



SPRAGGING IS ONE OF THE MOST DANGEROUS OCCUPATIONS AT WHICH BOYS WERE WORKING.

through which the coal is sorted and the scraper line tender operates the scrapers which carry the coal from one process to another. Of the others who were at work in the breakers, 13 were oilers; 5 were repair boys; 8, known as patchers, worked on the coal cars as coupler, switchman, etc.; 28 were spraggers, a highly dangerous occupation, requiring them to thrust heavy wooden sticks in between the iron spokes of the wheels of the coal cars in order to stop them; 24 other boys were known as laborers and were assigned to do various kinds of unskilled work. There were 6 who worked above ground, although not in the breakers, driving mules where the work of ex-

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cavating or stripping was being done as well as 59 other boys who were outside workers.

Whatever the hazards and dangers of the breakers are, underground work is much more undesirable for young boys. In addition to isolation and darkness much more intense than that which the coal dust makes in the breakers, the underground miner sometimes works in mud and water, sometimes stripped to the waist because of the heat, sometimes in suffocating gas and smoke.

Young boys were working daily underground at the time this investigation was made. Of those employed underground, 9 were spraggers, 18 were patchers, 34 were drivers, 47 were trapper boys, 1 was a fan turner, 3 were oilers, and 18 were laborers.

TABLE VIII.—*Age at beginning underground work, by first underground occupation; boys who worked underground at any time.*

First underground occupation.	Boys who worked underground at any time.						
	Total.	Age at beginning underground work.					
		12	13	14	15	16	Not reported.
Total	163	4	21	49	63	21	5
Door boy (trapper, etc.)	92	3	17	31	28	9	4
Driver	14	.....	1	2	10	1	.....
Patcher (conductor coupler, etc.)	19	.....	1	4	8	5	1
Sprager	9	.....	1	5	3	.....	.....
Turning fan	12	1	1	4	6	.....	.....
Other or not reported	17	.....	.....	3	8	6	.....

Of the 163 boys who had been underground workers, 92 began as trapper boys, which means they sat or stood in darkness or semi-darkness by a door which led from one mine chamber to another and opened and closed the door to allow the coal cars as they came to pass through. Of the trapper boys, 17 were only 13 and 3 were only 12 years old when they began to do regular full-day duty at this work. An automatic contrivance which makes unnecessary the employment of either men or boys for this work is now available and has been introduced in many mines.

The boys who turned by hand the ventilating fans frequently worked on the dangerous robbing sections where the last remaining coal is being cut away from pillars and walls and where, in consequence, the roof sometimes falls in or the section is filled with a waste material known as slush. The men interviewed told of the nervous strain they experienced when they worked at robbing. Turning the fans for these workers was the first underground work for 12 boys included in this study; of that number 1 began when he was 12 years old, 1 at 13, 4 at 14, and 6 at 15 years of age. A few other boys were

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employed underground, as oilers and as laborers doing a variety of work.

It is unnecessary to point out the dangers of underground work. Where electric cars are operated, where dynamiting is done, where supports give way and cave-ins and squeezes occur, and rock and coal fall, serious accidents and sudden death, more terrible to endure because of the victim's isolation and consequent distance from relief of any kind, are incidents of the occupation.

There are more fatalities in the anthracite than in the bituminous coal fields of Pennsylvania. For the three years preceding the one in which the study was made by the Children's Bureau fatal accidents in connection with the mining of anthracite coal in Pennsylvania were 551 in 1918, 582 in 1917, and 555 in 1916.[10] The number of serious and minor injuries was of course very much higher. While most of the accidents occur in the mines rather than on the surface where the largest numbers of young children are employed, the surface work is also hazardous. It was therefore to be expected that all kinds of injuries were reported by the boys—to the head, to internal organs, to eyes, to hands, arms, legs, back, hips, shoulders.

Accidents that had occurred to boys in the breakers as well as underground were recounted to the Children's Bureau agents. One boy told of a friend who had dropped a new cap in the rollers and how in trying to pull it out his arm was caught, crushed, and twisted. The older brother of another boy, a jig runner, slipped while at work and his arm was caught in the jig and mashed. One boy told of the death of another while watching the dam beneath the breaker. He and some of the other breaker boys had helped to extricate the mutilated body from the wheels in which their companion was caught; he himself had held the bag into which the recovered parts of the dead body were put.

As reported by the boys, 42 per cent of these accidents kept them from work less than 2 weeks; 1 boy was incapacitated for a year, 18 for less than a year but more than 10 weeks, while 25 accidents were reported to have kept the boys from work 6 but less than 10 weeks. According to the reports made to the Children's Bureau no compensation was paid 44[11] boys who were incapacitated for a period of two weeks or more as the result of injuries received while they were employed in the mines, although the Pennsylvania compensation law[12] entitled them to receive it. Of those who received compensation, 11 boys reported that they were paid in all less than

[10] Coal-mine Fatalities in the United States, 1919. Department of the Interior, Bureau of Mines, Bulletin 196, p. 47. The number killed in the anthracite mines of Pennsylvania per 1,000 persons employed was 3.75 in 1918, 3.77 in 1917, and 3.47 in 1916. (Ibid., p. 41.) In the bituminous mines the rates were 2.82, 2.85, 2.57. (Ibid., p. 40.)

[11] Four of these did not apply for compensation.

[12] In this connection see p. 31. See also Appendix I, pp. 69 to 71.

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$5; 9 that they received from $5 to $10; 23, from $10 to $25; 12 received between $25 and $50; 4, between $50 and $75; 5, between $75 and $100; while 3 reported that they received $100 or more.

As these accidents occurred during the working life of the boys and the total number of hours the boys had worked in mining could not be learned, an accident rate could not be computed. The accident rate is, however, not as important in the case of children as in the case of adults. Dangerous work must be done, and the important question in the case of adults is whether progress is being made in reducing the hazards. Children, on the other hand, regardless of the progress that is being made in the prevention of accidents, ought not to do dangerous work at any age when they are too young to assume responsibility for their own acts. Of the 978 boys who at the time of the inquiry had been employed in the mining industry for a longer or shorter time in regular or in vacation or part-time jobs, 178 had suffered accidents.

It would be superfluous to point out that, in view of the hazards of mining, young boys should not be employed in the mines or around the breakers. Public opinion had already prohibited underground work in Pennsylvania and in most other States, and the Federal Government had imposed a penalty in the form of a tax if children under 16 were employed in or about a mine. The real problem here, as in many other parts of the country, was how to secure the enforcement of the child-labor laws that had been enacted.

In spite of the fact that the evil effects are swifter and more dramatic than in most other occupations in which children are employed, less public attention has been given to the problem of enforcement of child-labor laws in mining than in industrial districts. This may perhaps be due to the isolation of the mines, which means that fewer people see the children as they go down in the cage in the morning and come up again at night or hear of accidents and occasional deaths among child workers in or about the mines. The fact that there is in most States divided responsibility in the enforcement of the laws regulating the employment of children in mining is doubtless also a factor.

At any rate, although the intent of the Pennsylvania law was that children should be permitted to do factory and other work two years before they were allowed to enter the mines, it was in the mines that the youngest children most readily found employment in this section. Among the boys included in this study who had been employed in full-time work, 92.5 per cent of those under 13 years of age and 93.7 per cent of those 13 years old at the time of entering regular employment had engaged in mining, while of those 14 and 15 years

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of age the percentages entering mining occupations were 89.1 and 89, respectively.[13]

Of the 453 girls in this district who were employed at full-time work, 265 did factory work and 157 were in domestic or personal service. The factories employing the largest number were the clothing and the cigar factories. Nineteen were working in retail stores and five, all girls with foreign-born fathers, were doing farm work. Of the girls who had entered full-time employment, a larger proportion of those with foreign than of those with native fathers were employed in domestic service and in cigar factories, and a smaller proportion of the former than of the latter were machine operators in clothing factories.

TABLE IX.—*Industry of first regular work, girls who had commenced regular work, by nativity of father.*

Industry of first regular work.	Girls who had commenced regular work.						
	Total.		Nativity of father.				
			Native.		Foreign born.		Not reported.
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	
Total	453	100.0	99	100.0	352	100.0	2
Manufacturing industries	265	58.5	63	63.6	201	57.1	1
Clothing	160	35.3	45	45.5	114	32.4	1
Cigar	86	19.0	13	13.1	73	20.7	.....
Other and not reported	19	4.2	5	5.1	14	4.0	.....
Domestic service	157	34.7	26	26.3	130	36.9	1
All other	29	6.4	10	10.1	19	5.4	.....
Not reported	2	0.4	.....	.....	2	0.6	.....

CHANGES IN OCCUPATIONS.

The majority of the children who were doing regular work had had more than one occupation, often within the same industry. Thus, 333 of the children had worked at two different occupations, 219 at three, and 161 at four or more. Generally speaking, it is the children who had worked the longest who had made the most changes, but 117 children who had been employed at two and 75 who had worked at three or more different occupations had been at work less than a year. One child who had been at work less than five months had made six changes. On the other hand, 78 children had been at work two years or longer and 278 one year or longer, with no change in occupation.

As the possibilities of changes for the girls were very much fewer than for the boys, it is not surprising to find that they had not changed occupations as frequently as the boys.

[13] See Apepndix IV, Table 12, p. 81.

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TABLE X.—*Duration of first regular occupation, by age at commencing regular work; children who had begun regular work.*[1]

Duration of first regular occupation.	Per cent distribution: First regular occupation commenced at specified age.[2]			Duration of first regular occupation.	Per cent distribution: First regular occupation commenced at specified age.[2]		
	Under 14 years.	14 years.	15 years.		Under 14 years.	14 years.	15 years.
Total	100.0	100.0	100.0	6 months, less than 9	10.2	11.7	11.3
				9 months, less than 12	6.5	9.6	7.5
Less than 6 months	33.3	33.6	44.3	12 months, less than 18	15.9	16.0	[3] 37.0
Less than 1 month	6.7	7.4	12.4	Not terminated at 18 months	34.3	29.1	
1 month, less than 3	9.4	11.6	18.6				
3 months, less than 6	17.2	14.6	13.3				

[1] Percentages were calculated from figures showing the duration of first occupation. In the calculations allowance was made for a small number of cases in which the children were still following their first occupations at the time the schedules were taken.
[2] Percentages for 16 years not shown because base was less than 100.
[3] Not terminated at 12 months.

Table X presents some interesting facts with reference to the variation in the length of time the child spent at his first regular occupation, according to the age at which he began work. In this region approximately 33 per cent of the children under 14 worked less than six months at what might be called their first regular occupation as compared with 44 per cent of the children who began at 15 years of age. Apparently the older group of children tended to change quite promptly from the occupation which they first entered either because they knew their minds better or because a much wider range of occupation was open to them.

HOURS OF WORK.

The mines in this district were, generally speaking, on an eight-hour basis, so that the regular working day for 97.3 per cent of the boys employed in mining was 8 hours, and for 2.2 per cent it was less than 8 hours. In other occupations the boys worked longer hours—30.8 per cent from 9 to 10 hours and 12.8 per cent from 10 to 11 hours.

Among the girls the nominal daily and weekly hours were longer than with the boys.[14] In the cigar factories 84.8 per cent of the girls worked regularly from 9 to 10 hours a day and 11.6 per cent from 10 to 11 hours a day. In the clothing factories 75.9 per cent worked from 9 to 10 hours a day and 15 per cent from 10 to 11 hours. Most of the girls in domestic service, particularly those doing housework, did not report their hours, but nine of the girls in this kind of work were employed 12 or more hours a day.

The hours per week were 51 or more for 69.5 per cent of the girls, while only 3.6 per cent of the boys worked as many hours a week.

[14] See Appendix IV, Table 14, p. 82.

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TABLE XI.—*Regular hours per week, by sex; children in regular or vacation work.*

Sex.	Children in regular or vacation work.												
	Total.	Reporting specified regular hours per week.											Hours not reported.
		Total.	Less than 36.		36, less than 48.		48, less than 51.		51, less than 60.		60 and over.		
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	1,561	1,387	14	1.0	48	3.5	1,039	74.9	232	16.7	54	3.9	174
Boys	1,059	1,029	6	0.6	28	2.7	958	93.1	25	2.4	12	1.2	30
Girls	502	358	8	2.2	20	5.6	81	22.6	207	57.8	42	11.7	144

While the girls worked longer hours regularly than did the boys, the burden of overtime work fell more heavily on the boys. Thus 55.1 per cent of the boys and 6.9 per cent of the girls[15] reported overtime work, either from time to time throughout the year or at some particular season. Of the 445 boys who reported the frequency of their overtime, 214 said they worked overtime six days a week, 18, five days a week, 32, four days a week, and 65, three days a week. Not only was overtime work frequently required of the boys, but the duration of overtime was long—241 boys averaged two or more but less than four hours in overtime at a stretch, while 161 averaged less than two hours.

In the mining industry it was the boys who worked above ground who were most frequently called upon to do overtime work, although 32.3 of those who worked in the mines had done such work during the year preceding the time the schedules were taken. The jig runners—who had, it will be remembered, one of the most hazardous occupations in which boys worked—were most frequently asked to work overtime.

With the youngest group of children overtime was, unfortunately, most frequent. Thus of all the regular workers who were 13 years of age 51.7 per cent did overtime as compared with 36.5 per cent of those 14, 37.1 per cent of those 15, and 40.8 per cent of those 16 years of age. The amount of overtime worked at a stretch was, however, less for the youngest than for the older groups.

[15] These percentages are based on the boys and girls doing regular work or full-time work during the vacation season.

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TABLE XII.—*Overtime work, by industry of employment at time of interview, and sex; children in regular work.*

Industry of employment, at time of interview, and sex.	Children in regular work.						
	Total.	Reporting on overtime work.					Not reported.
		Total.	Doing overtime work.		Doing no overtime work.		
			Number.	Per cent.	Number.	Per cent.	
Total	1,332	1,307	517	39.6	790	60.4	25
Boys	891	886	488	55.1	398	44.9	5
Mining industry	824	822	476	57.9	346	42.1	2
Above ground	694	692	434	62.7	258	37.3	2
Underground	130	130	42	32.3	88	67.7	.....
Other industries	67	64	12	.....	52	.....	3
Girls	441	421	29	6.9	392	93.1	20
Manufacturing industries	249	243	22	9.1	221	90.9	6
Clothing	124	120	7	5.8	113	94.2	4
Cigar	102	100	12	12.0	88	88.0	2
All other and not reported	23	23	3	.....	20	.....	.....
Domestic service	151	140	5	3.6	135	96.4	11
All other	40	38	2	.....	36	.....	2
Not reported	1	.....	.....	.....	.....	.....	1

Occasionally the boys worked incredibly long hours. Thus during the influenza epidemic a 16-year-old boy reported that he worked on one occasion from 5 a. m. Saturday morning until 1.30 p. m. Sunday. He also reported working three shifts—24 hours—at a stretch on several occasions during the winter. Another boy 15 years old reported that during the period of one month he had worked 24 hours at a stretch three times a week, sleeping a shift of 8 hours between periods of work. While working these long shifts he did his regular work—spragging—the first 8 hours and scooped coal for the boiler men for the following 16 hours.

The installation of new machinery was the explanation of the employment of another 15-year-old boy from 7 a. m. to 6 a. m. the following day, with only one hour off at midnight and one-half hour off at the end of the first 8-hour shift. Another boy 14 years old reported that on one day he worked 24 hours at a stretch and frequently worked from 8 a. m. to 9 p. m. with one-half hour each for dinner and supper. One 13-year-old slate picker reported working several times from 7 a. m. to 11 p. m. Another boy 16 years old, a driver underground, reported doing overtime work at the time the study was made to the extent of a double shift every other day, making, during the week, three workdays of 16 hours and three of 8 hours, a weekly total of 72 hours.

Of the 426 boys reporting the maximum number of hours worked at a stretch including overtime, 62.4 per cent had worked 12 or more hours while 36.8 per cent had worked 14 or more, 11.5 per cent 18 or more, and 21 boys (4.9 per cent) had worked 22 or more

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hours at a stretch.[16] None of the youngest group of children had worked "the clock around," no 13-year-old child had worked as long as 18 hours, and no 14-year-old child as long as 20 hours—more than that can not be said.

It seems unnecessary to point out that most of this overtime work was illegal. As the employment of children under 16 in underground work and of children under 14 in factories, workshops, etc., went on in spite of the Pennsylvania child-labor law, so many of the children under 16 years of age worked more than 9 hours a day or 51 hours a week in spite of the fact that the State law prohibited it.

Alternating with periods when overtime work is required are frequent periods of enforced idleness in all mining communities.

IRREGULARITY OF WORK.

Shutdowns and periods when work was short occurred during the time this study was made although there was a public clamor for increased production of coal. Of the boys regularly employed, 73.8 per cent reported one or more periods of idleness because of shutdowns as compared with 39 per cent who lost time because of sickness due to accidents or ill health, while 19.1 per cent were absent from work at some time during the year because of other causes. Of the boys who lost time because of industrial causes, 50 per cent lost a month or more and 5.2 per cent four or more months. Of the boys who were out on account of ill health, only 2 per cent were out four months or more.

It will be remembered that a relatively smaller per cent of the girls than of the boys in this district were employed. Of those who did regular work the time lost during the working years was much longer than among the boys. While only 26.7 per cent of the girls reported loss of time because of industrial causes, 59.3 per cent of those who did lost a month or more and 14.9 per cent four or more months. Altogether 27.2 per cent of the girls were absent on account of sickness; 27.6 per cent of these lost a month or more and 5.1 per cent were out four months or longer. Of the 42.9 per cent of the girls who were absent for other causes, 40.4 per cent were away from work four months or more.

Perhaps it was for the reason that the girls earned much less than the boys, because of the value of their work in the home as well as because some prejudice against their employment outside the home still existed, that they were sent to work in smaller numbers and were kept at home on slighter pretexts and for longer periods than were the boys.

[16] See Appendix IV, Table 15, p. 83.

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REASONS FOR GOING TO WORK.

An answer to the question why these children had left school to go to work was sought from both the children and their parents, although it was recognized that the final cause is not usually discovered in this way. The replies are of value because they indicate what seemed to the family, at least, a valid explanation for the withdrawal of the children from school.

Of the 1,621 working children from whom information on this point was secured, the reasons assigned by 95.6 per cent fell under six general heads,[17] as follows: "Family need" was given by 55 per cent of the children; "wanted to work," an altogether indefinite reply, by 14.7 per cent; the desire to have spending money accounted for 13.4 per cent; dissatisfaction with school, for 11.6 per cent; "old enough to go to work" was the reason of 0.7 per cent, and the desire to learn a trade and get started in business was the reason given by 0.2 per cent of the children.

The reason which was given by 892 children, that their earnings were necessary for the family support, needs special consideration.

TABLE XIII.—*Reason for going to work, by sex; children who had commenced work.*

Sex.	Children who had commenced work.							
	Total.	Reporting specified reasons for going to work.						
		Total.	Family need.		Wanted spending money.		Old enough to work.	
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Total	1,652	1,621	892	55.0	217	13.4	11	0.7
Boys	1,115	1,098	585	53.3	141	12.8	10	.9
Girls	537	523	307	58.7	76	14.5	1	.2

Sex.	Children who had commenced work.								
	Reporting specified reasons for going to work.								Reason not reported.
	Wanted to work (no other reason given).		Dissatisfied with school.		Wanted to learn a trade and get into business.		All other reasons.		
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	239	14.7	188	11.6	4	0.2	70	4.3	31
Boys	167	15.2	151	13.8	2	.2	42	3.8	17
Girls	72	13.8	37	7.1	2	.4	28	5.4	14

[17] When more than one reason was given, the reason assigned as the major one was used in the classification.

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Table XIII shows that family need was more frequently given for sending the girls to work than it was for the boys. It also figured more prominently as the cause for children entering full-time employment than for children who worked out of school hours only. Poverty was more frequently the explanation of the employment of the younger children. Thus, according to Table XIV, 58 per cent of the children who started to work under 13 years of age and 51.1 per cent of those who began at 15 gave family need as the cause.

TABLE XIV.—*Reason for going to work, by age at commencing; children who had commenced work.*

Age at commencing work.	Children who had commenced work.							
	Total.	Reporting specified reasons for going to work.						
		Total.	Family need.		Wanted spending money.		Old enough to work.	
			Number.	Per cent.[1]	Number.	Per cent.[1]	Number.	Per cent.[1]
Total	1,652	1,621	892	55.0	217	13.4	11	0.7
Under 13	234	226	131	58.0	32	14.2	.....	.....
13	395	388	218	56.2	48	12.4	1	.3
14	689	678	376	55.5	76	11.2	6	.9
15	283	280	143	51.1	47	16.8	3	1.1
16	36	35	15	.....	10	.....	1	.....
Not reported	15	14	9	.....	4	.....	.....	.....

Age at commencing work.	Children who had commenced work.								
	Reporting specified reasons for going to work.								Reason not reported.
	Wanted to work (no other reason given).		Dissatisfied with school.		Wanted to learn a trade and get into business.		All other reasons.		
	Number.	Per cent.[1]	Number.	Per cent.[1]	Number.	Per cent.[1]	Number.	Per cent.[1]	
Total	239	14.7	188	11.6	4	0.2	70	4.3	31
Under 13	36	15.9	16	7.1	1	.4	10	4.4	8
13	63	16.2	44	11.3	.....	.....	14	3.6	7
14	95	14.0	94	13.9	1	.1	30	4.4	11
15	42	15.0	28	10.0	2	.7	15	5.4	3
16	3	.....	5	.....	.....	.....	1	.....	1
Not reported	.....	.....	1	.....	.....	.....	.....	.....	1

[1] Not shown where base is less than 100.

To determine whether in fact the children's earnings were really necessary for the support of the families would require detailed facts as to the cost of living in the locality, what the family income was, the number who were dependent upon it, whether sickness or other misfortune had created a temporary emergency, and whether there

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was organized and adequate public or private relief for cases of extreme need. And, finally, some standard as to the degree of sacrifice that should be made to keep the children in school would also have to be agreed upon. In this investigation no attempt was made to fix such a standard or to determine whether in the case of the individual child some plan to meet the family's real or imagined need could not have been worked out other than the one adopted of sending the child to work. Certain general facts were secured which bear on this question.

At the time this study was made the miners were working under a contract which their union had made with the coal operators in May, 1916, increased by two awards made by the Fuel Administration to meet in a measure the great increase in the cost of living which had come after the United States entered the war.

The maximum daily wage of the majority of the fathers employed in mining was between $4 and $5, but 24.6 per cent of those for whom reports were secured received less than $4 per day, and 23.2 per cent were paid at a rate higher than $5 per day. The rate for the underground workers was as a rule higher than for the surface workers. Thus, the rate for 50.8 per cent of the fathers included in this study who worked above ground was less than $4 per day, while only 5.5 per cent of the underground workers were paid so little. More than a fifth (20.8 per cent) of the underground workers received $6 or more, while only 3 per cent of those who worked above ground received as much.

It is not possible on the basis of the daily wage, however, to calculate the yearly earnings of the father. In the anthracite field periods of idleness, usually caused by fluctuations of the market, sometimes by inability to get cars, alternate with overtime work as the demand increases, so that day wages or piece rates give little indication of the monthly or yearly income. Because of the unprecedented demand for coal there was less idleness on account of shutdowns during the years just previous to the time when this study was made than there was before the war. Most of the miners worked on an eight-hour basis, but approximately half reported either regular or occasional overtime.

Of the 1,986 men from whom information was secured, 1,507 were employed in or about the mines, 1,086 underground. While there was considerable loss of time among these men on account of sickness and accidents and some unnecessary absenteeism, shutdowns or slack work caused much more lost time. Thus among those employed in the mines as underground workers the percentage who reported time lost on account of industrial conditions was 65.7 as compared with 48.1 for the surface workers.

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The number of days of lay-off and the amount of overtime varied at different collieries and for different occupations in the same colliery. Although the men knew their maximum and minimum earnings and the general duration of periods of idleness, most of them could not state exactly what they had received during a year. No pay-roll study was made, but detailed figures were secured from the men and their wives for the different periods of the year, and from these figures yearly earnings were estimated. It is believed the information secured is sufficiently accurate for the purposes for which it has been used.

Altogether 95.6 per cent of the mine workers estimated that they received less than $1,850 [18] during the year just preceding the investigation,[19] 63 per cent received less than $1,250 and 16.6 per cent less than $850.[20]

In the lower wage groups there was more unemployment; 91.8 per cent of those who earned less than $850, 83.9 per cent of those who earned more than $850 and less than $1,250, 55.7 per cent of those who were in the group earning more than $1,250 and less than $1,850, and 27.9 per cent of the highest wage-earning group—$1,850 or over—reported unemployment.

Of the 483 children whose fathers earned less than $850 a year 238—almost one-half—had left school for full-time employment, while of the 183 children whose fathers earned $1,850 or more a year only 11.5 per cent were so employed.[21]

When the father's earnings were low, it was the boys who were usually called on first to contribute to the family income. In these anthracite towns 65 per cent of the boys whose fathers reported that they earned less than $850 were employed at regular work, as compared with only 12 per cent of the boys whose fathers earned $1,850 and over. Among the girls 31.7 per cent of those whose fathers reported their yearly earnings to be less than $850 had entered regular work, while in the highest wage group the percentage of girls at work was practically the same as the percentage of boys. As Table XV shows 57.5 per cent of the working children whose fathers reported an income of less than $850 per year gave family need as the reason for going to work, so that almost as large a number whose fathers were in the same wage group went to work for some other reason than family necessity. At the other extreme

[18] Three of the fathers who reported that they worked aboveground and earned $1,850 or more per annum were superintendents, eight were foremen, two were blacksmiths, and one an engineer.

[19] June 1, 1918, to May 31, 1919.

[20] See Appendix IV, Tables 18 and 19, pp. 85, 86.

[21] The figures here shown for earnings represent the earnings for the year June 1, 1918–May 31, 1919, a period later than that at which many of the children may have started to work.

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21.2 per cent of the working children whose fathers reported an income of $1,850 or more gave family need as the reason for going to work. Of 1,652 working children the fathers of 289 were either dead or had deserted their families, and of this number 223 gave family need as the reason why they went to work.[22]

TABLE XV.—*Reason for going to work, by earnings of father; children who had commenced work.*

Earnings of father.	Children who had commenced work.							
	Total.	Reporting specified reasons for going to work.						
		Total.	Family need.		Wanted spending money.		Old enough to work.	
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Total	1,652	1,621	892	55.0	217	13.4	11	0.7
Less than $850	273	268	154	57.5	31	11.6	2	.7
$850, less than $1,250	565	557	299	53.7	75	13.5	5	.9
$1,250, less than $1,850	336	326	134	41.1	55	16.9	3	.9
$1,850, and over	52	52	11	21.2	16	30.8	.....	.....
Father dead or deserted	289	285	223	78.2	26	9.1	.....	.....
Earnings not reported	137	133	71	53.4	14	10.5	1	.8

Earnings of father.	Children who had commenced work.								
	Reporting specified reasons for going to work.								Reason not reported.
	Wanted to work (no other reason given).		Dissatisfied with school.		Wanted to learn a trade and get into business.		All other reasons.		
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	239	14.7	188	11.6	4	0.2	70	4.3	31
Less than $850	36	13.4	31	11.6	1	.4	13	4.9	5
$850, less than $1,250	80	14.4	69	12.4	1	.2	28	5.0	8
$1,250, less than $1,850	65	19.9	54	16.6	1	.3	14	4.3	10
$1,850, and over	13	25.0	6	11.5	1	1.9	5	9.6	.....
Father dead or deserted	20	7.0	12	4.2	.....	.....	4	1.4	4
Earnings not reported	25	18.8	16	12.0	.....	.....	6	4.5	4

A hundred years ago it would have been a matter of general satisfaction that the children of the men killed or who had died from natural causes, or children whose fathers did not make a living wage, were able to find employment and so keep the family from being charges upon public or private charity. But our system of social accounting has undergone great changes in that time. It is now generally agreed that the old theory was not only unjust to the individual child but that it was, from the standpoint of the welfare of the State, in the long run a very costly way to care for widows

[22] In some of these cases, the children entered employment prior to the death or desertion of the fathers.

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and orphans. Recent legislative expressions of the new theory as to the proper distribution of this burden in Pennsylvania are found in its mothers' pensions and workmen's compensation acts.

Relation to dependency.

It was not until 1915 that the State of Pennsylvania attacked the problem of making the cost of the large number of fatal and nonfatal accidents which occur in industry, in part at least, a regular charge upon the industry. Prior to that time the employer's liability, with its doctrine of immunity from responsibility on the part of the employer if there had been contributory negligence on the part of the injured employee or of a fellow servant, had made the matter of compensation altogether uncertain.

The Pennsylvania law which became effective January 1, 1916, has been strengthened by subsequent amendments. At the time this study was made it was not compulsory on all employers and permitted direct settlements between employer and employee.[23] The referee system, now regarded as a special protection to the employees, had not been developed[24] so successfully as subsequently. The amounts of compensation fixed by the law were extremely low in view of the then current cost of living and wage rates. Thus at the time the study was made the basic weekly wage of which the widow of a man killed in an industrial accident was to receive 40 per cent for 300 weeks or of which the workman who suffered a complete or partial disability received 50 per cent for a fixed period was not more than $20 nor less than $10 a week.

It is not the purpose of this study to discuss the defects or merits of the compensation law, but it is necessary to point out that the frequency of accidents, and the resulting loss of time coupled with these rates of payment, affected the economic status of the families and in consequence all the family problems connected with child care. The annual report of the State department of mines gives for each year the number of wives made widows and the number of children made orphans, by districts. The nonfatal accidents leaving the wage earner to be cared for in the family sometimes create more difficult economic problems. The Pennsylvania law contemplated a waiting period in nonfatal accidents of 14 days for which no payment was to be made and then for a specified period of weeks 50 per cent of an amount usually considerably less than the then current rate of wages. In the course of the inquiry fathers reported injuries for which this payment had not been received, either because witnesses were lacking or because they believed, rightly or wrongly, that the company

[23] See Appendix I for summaries of laws of 1915 and 1919, United States Bureau of Labor Statistics, Bulletins Nos. 185, 272.

[24] Monthly Labor Review, Vol. XII, No. 2, pp. 161, 162.

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discriminated against a man in future employment if an appeal was made from the company's decision as to the amount due him.

The father was not the only wage earner exposed to these accidents. Thus in 214 of the families included in the study, one or more members other than the father had suffered death or was disabled by an accident in the mining industry so recently and of such a nature that the family earnings within the year preceding the investigation were affected. In 50 instances this occurred in a family where the father or chief wage earner had also been killed or disabled. In the 57 families in which the chief wage earner had been killed,[25] 1 other wage earner had also been killed and 11 others had been disabled during the year. In the 235 families in which the chief wage earner had been disabled, either totally or partially, for all or part of the year, 3 other wage earners had been killed and 35 had been disabled during all or part of a year.

Pennsylvania passed a mothers' assistance act in 1913,[26] which was radically amended in 1915 and in 1919.[27] According to the 1913 statute, "indigent, widowed, or abandoned mothers" were to be given "partial support." In 1915 assistance was limited to women with children under 16 years of age "whose husbands are dead or permanently confined in institutions for the insane, when such women are * * * poor and dependent on their own efforts."[28]

One-half the cost of the assistance to mothers is borne by the State and one-half by the county. The combined maximum amount which could be paid a mother under the 1915 act was $12 per month if she had one child, $20 a month if she had two children, $26 for three, and $5 per month for each additional child. In 1919 the amounts were raised to $20 for the first child and $10 per month for each additional child.

The law was administered by county boards of trustees, five or seven women in each county, appointed by the governor.

A State supervisor on the staff of the State board of education served in an advisory capacity.[29]

Only mothers of "proved character and ability" could receive a pension. The interpretation of the statute, the State supervisor points out, necessarily differed in the urban counties and in the mining districts. For example, in the cities the policy was not to give aid or to withdraw aid if the mother kept a man lodger, while the report of the State supervisor pointed out:

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[25] In 90 families the father had been killed but in some of these he had since been replaced as chief wage earner by a stepfather or foster father.

[26] Laws 1913, No. 80.

[27] Laws 1915, No. 439; Laws 1919, No. 354.

[28] Laws 1915, No. 439, sec. 1.

[29] The State supervisor is now under the department of public welfare.

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When this question is considered in relation to families who live in mining and rural counties, certain economic and social problems arise which contrast sharply with those of city families. In the city it is almost always possible for a mother to find part-time work to supplement the assistance granted her. Racial lines are not closely drawn and the foreign-born mother has an opportunity to learn English. If her work or her home is outside the group to which she belongs, cheap and easy transportation makes companionship and social life possible.

In the mining districts it is not uncommon to find mothers who speak no English and have never left the village during the whole of their life in America. In such villages, where the children are accustomed to look after themselves from babyhood and the home life is very simple, most of the household activities center around the breadwinner and cease at his death. Assistance fully adequate to the needs of the family places the mother in a position of comparative leisure, in contrast to the other mothers of the community. If it is desirable that she supplement the assistance by work, only two activities may lie open to her; cleaning the "company store"—a much coveted task that pays about $10 a month—or keeping men lodgers. Sometimes the company has given house and rent and a winter's coal free to the widow of a miner, but has insisted that she board and lodge some of the unmarried men of the village. If it seems wisest for the mother to supplement the assistance by her own earnings and no suitable occupation is available, there is a third difficulty involved in moving the family into another community where work is plentiful. Such a change to the mother is really like moving into a foreign country, and means the breaking of every tie she has formed in America.

"In a few such instances, the practical difficulties involved in insisting on the application of the ruling about men lodgers have thus far been insurmountable." [30]

The maximum payments permitted under the statute were low in view of the high cost of living at the time of this study and yet inadequate appropriations reduced the amounts actually received far below the legal maximum.

The trustees of Schuylkill County, in which the Shenandoah district is situated, reported [31] that 60 of 196 grants made in that county in 1916 were to widows of men whose deaths were caused by industrial accidents. The trustees expressed confidence that the compensation law which had just been enacted would make it unnecessary in the future to support or aid this group of widows from the mothers' assistance fund. Experience proved, however, that the need for assistance did not entirely end with the passage of this law. From October, 1916, to December 1, 1919, 13 grants were made in this district to families of fathers killed in industrial accidents; the average sum granted was $6 per month, with no special regard to the apportionment according to the number of children.[32]

For 56 families carried on the pay roll of the fund in this district in October, 1919, the average allotment for each family was about

[30] Report of the mothers' assistance fund, 1916, p. 12.

[31] Commonwealth of Pennsylvania, State Board of Education, Report of the Mothers' Assistance Fund, 1916, pp. 51 and 52, Harrisburg, Pa., 1918.

[32] Information furnished by the State supervisor of the mothers' assistance fund.

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$14.30 a month; the average for each child was $4 a month.[33] The obvious insufficiency of these amounts at once suggests the question of whether they were supplemented by some other form of public or private relief.

The county poor relief given in Schuylkill County was usually a grocery order every three months equivalent to $1.50 or $3, depending upon the size of the family. The overseer in charge of the Shenandoah district reported that it was his habit, if a family was large and the expense of maintaining it even for a short time would be considerable, to insist on the family's going to the county poor farm. Also, if the need, although small, promised to be continuous and there was no way of supplementing the county funds, outdoor relief was not given and the family was sent to the poor farm.[34]

Certain churches did some occasional relief work and the home service section of the Red Cross did emergency relief work during the influenza epidemics, but there was no organized private relief agency to supplement the inadequate public relief in this area.

No attempt was made in the course of this investigation to locate the poorer families that under the county poor-relief system were broken up and scattered but some who had just escaped this penalty were encountered in the canvass.

One mother was left with four young children in 1915, when an explosion in the mine killed her husband. She secured work as a janitress in a school and received $17.50 a month for nine months in the year; she usually earned from $60 to $70 during a year doing cleaning, washing, and similar work. The oldest child, a girl of 12, was doing housework, for which she was receiving $2.25 a week. The family received $10 a month from the mothers' assistance fund, which brought the total yearly income for a family of five up to $456.

Another woman was left with six children, all under 12 years of age, when her husband was killed in the mines by a falling stone. Two months after his death she gave birth to twins, both of whom subsequently died. Over a period of 15 weeks the family received an equivalent of $19 in relief from the county. The mother secured work cleaning for the railroad company and each of the boys as he became 12 years of age was sent to work. The mother felt that it was only through the help of these young boys that she had been able to keep the family together.

A fall of coal killed another man, and his wife was left with four children to support. The family received $12 a week compensation, of which, at the time of the investigation, $1.50 a week was being spent on doctor's bills by the widow, who was suffering from Bright's disease.

Of the accidents which were not fatal, those resulting in blindness were perhaps the most serious. These blind men, reduced to begging,

[33] Information furnished by the State supervisor of the mothers' assistance fund.

[34] This overseer reported that his method of investigating applicants for relief was to visit the family and their neighbors. He considered the neighbors the best source of information, especially if they were not on good terms with the family. Having made a first investigation in this way, he usually relied upon the grocer with whom the food order was placed to keep him informed as to subsequent changes in the family fortunes.

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can usually be seen on pay day waiting for alms from their fellow employees who are still able to work.

One man lost his sight in an explosion. He received no compensation but did get $5.25 a week for 6 months from a private benefit society of which he was a member. At the time the investigation was made he was getting from $3 to $6 a week begging. His wife did washing, earning about $6 a week. The oldest child, a girl of 12, did housework after school and on Saturdays for $1 a week, and she helped her father by leading him to his station near the mine and often stood with him for hours at a time waiting for alms.

Another man, after suffering two accidents from falls of coal, for which he received no compensation, finally lost the sight of both eyes in an explosion. All his savings were spent for treatment and operations that he hoped would restore his sight. The compensation in this case, the man reported, amounted to $16.50 every 2 weeks for a period of 250 weeks. The compensation, he said, would be paid up at the end of the year in which the investigation was made. The man's children would then be 8, 6, and 3 years of age, respectively. The only source of income was a small grocery store the earnings of which were entirely inadequate to meet the family expenses.

What the children could bring in was carefully calculated in such families. In mining, the wages of the boys were sufficiently high to make their employment seem of very great importance.

THE WAGES OF THE WORKING CHILDREN.

The boys as well as the men were members of the Miners' Union[35] so that their wages, like those of their fathers, were fixed by the 1916 agreement and the two awards subsequently made by the Fuel Administration. All of the boys were paid on a time basis. The maximum rate per day was less than $2 for only 16.8 per cent of them, while 20 per cent had received as high as $3 or more a day. Although there were a few underground boys whose maximum pay had never reached $1 a day, 18.9 per cent of them had received as much as $4 to $5 per day. As Table XVI shows, the percentage in the higher wage group was larger among the boys employed inside the mines than among the boys who worked above ground.

[35] Of those included in the study, 420 had joined the union and all but 21 had kept up their dues.

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TABLE XVI.—*Maximum pay per day, by occupation and industry; boys in regular work.*

Occupation and industry.	Boys in regular work.							
	Total.	Reporting specified maximum pay per day.						
		Total.	Less than $1.		$1, less than $1.50.		$1.50, less than $2.	
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Total	891	860	11	1.3	60	7.0	87	10.1
Mining industry	824	802	8	1.0	50	6.2	77	9.6
Aboveground	694	675	4	.6	42	6.2	69	10.2
Breaker boy	422	408	4	1.0	36	8.8	43	10.5
Jig runner	63	61	.....	.....	.....	.....	8	.....
Others	209	206	.....	.....	6	2.9	18	8.7
Underground	130	127	4	3.1	8	6.3	8	6.3
Other industries	67	58	3	.....	10	.....	10	.....

Occupation and industry.	Boys in regular work.								
	Reporting specified maximum pay per day.								Not reported.
	$2, less than $2.50.		$2.50, less than $3.		$3, less than $4.		$4, less than $5.		
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	225	26.2	310	36.0	138	16.0	29	3.4	31
Mining industry	210	26.2	297	37 0	132	16.5	28	3.5	22
Aboveground	191	28.3	260	38.5	105	15.6	4	.6	19
Breaker boy	162	39.7	147	36.0	15	3.7	1	.2	14
Jig runner	9	.....	39	.....	5	.....	.....	.....	2
Others	20	9.7	74	35.9	85	41.3	3	1.5	3
Underground	19	15.0	37	29.1	27	21.3	24	18.9	3
Other industries	15	.....	13	.....	6	.....	1	.....	9

It will be remembered that most of the boys began as breaker boys and the wages reflect this fact. Thus one-fifth of the breaker boys received as a maximum less than $2 per day, three-fifths less than $2.50, and only 4 per cent had ever been paid as much as $3 a day.[35a] The boys who tended the jig machines and who were also employed above ground in the breakers were better paid—two-thirds had received $2.50 or more per day, but less than one-tenth had received as much as $3.

According to Table XVI, the small group of boys (67 in all) who were in work other than mining were paid at about the same rate as the breaker boys.

In all mining districts it is hard for the daughters of the miners to get work. With little competition for their services the wages of the girls are usually low. The maximum pay which 52.7 per

[35a] During the year covered by the study.

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cent of the girls in the cigar industry and 45.5 per cent of the girls in the clothing industry had received during this period of generally high wages was less than $1 per day, and in the Shenandoah district only a fraction over 1 per cent had reached the $3 mark. Of the girls employed in domestic service 92.4 per cent received less than $1 a day, as Table XVII shows:

TABLE XVII.—*Maximum pay per day, by industry; girls in regular work.*

Industry.	Girls in regular work.							
	Total.	Reporting specified maximum pay per day.						
		Total.	Less than $1.		$1, less than $1.50.		$1.50, less than $2.	
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Total	441	337	219	65.0	61	18.1	32	9.5
Manufacturing industries	249	169	79	46.7	44	26.0	25	14.8
Clothing	124	77	35	45.5	21	27.3	12	15.6
Cigar	102	74	39	52.7	22	29.7	8	10.8
Other, and not reported	23	18	5	.....	1	.....	5	.....
Domestic service	151	132	122	92.4	7	5.3	2	1.5
All other	40	36	18	.....	10	.....	5	.....
Not reported	1	.....	.....	.....	.....	.....	.....	.....

Industry.	Girls in regular work.								
	Reporting specified maximum pay per day.								Not reported.[1]
	$2, less than $2.50.		$2.50, less than $3.		$3, less than $4.		$5, less than $6.		
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	15	4.5	5	1.5	3	0.9	2	0.6	104
Manufacturing industries	14	8.3	4	2.4	3	1.8	.....	.....	80
Clothing	6	7.8	2	2.6	1	1.3	.....	.....	47
Cigar	4	5.4	.....	.....	1	1.4	.....	.....	28
Other, and not reported	4	.....	2	.....	1	.....	.....	.....	5
Domestic service	.....	.....	.....	.....	.....	.....	1	.8	19
All other	1	.....	1	.....	.....	.....	1	.....	4
Not reported	.....	.....	.....	.....	.....	.....	.....	.....	1

[1] Includes also "Inapplicable, worked on own account."

The amount of the day's wage earned by these children varies somewhat with their age. Among the girls this variation is more clearly marked. Of the 13-year-old girls at regular work reporting maximum day's pay over four-fifths earned less than $1 a day. Among the 14-year-old girls the proportion earning less than $1 is reduced to three-fourths; among the 15-year-old girls it is slightly less than two-thirds (65 per cent), while among those 16 years old it becomes 57.7

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per cent. Among the 13-year-old boys over a fifth were in the group whose maximum earnings were from $1.50 to less than $2, while among the 14-year-old boys the proportion in this group was only 10.7 per cent, among the 15-year-old boys 10.1 per cent, and among the 16-year-old boys 8.1 per cent. The proportion of boys who earned $2.50 or more a day is small among the younger boys and becomes larger with each higher age group.

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THE EDUCATION OF THE CHILDREN.

A report on schools in the bituminous coal regions of the Appalachian Mountains[36] recently made by the Bureau of Education was confined to the best districts in the bituminous field of western Pennsylvania. It showed that 19 per cent of the children who entered school continued to the eighth grade, that the amount of retardation was greatest in the third, fourth, fifth, and sixth grades,[37] that of 180 elementary teachers in one mining district in western Pennsylvania only 15 per cent had attended school more than four years after completion of the eighth grade,[38] and that about one-fourth of the teachers were teaching their first term and about one-half were occupying for the first time the position they held at the time the study was made.[39] The course of study in that district was found to be bookish and not related to the life of the mining town; play as a part of the school work received no attention except in a few towns.[40] The kindergarten, although especially needed, was not found anywhere in the Appalachian region outside of Jefferson County, Ala., and Ellsworth, Pa.[41]

There was no State organization to insure anything better in the anthracite district. Here, too, the educational opportunities were finally determined by the local community, and, unlike the bituminous district to which reference has been made, the Shenandoah district could not be described as one of the best in the anthracite region. Its schools were all under either borough or township administration. In five of the patches there were no schools of any kind; six had only six grades; two patches, about 20 minutes' walk apart, had the third and fourth grade in one patch and the first, second, fifth, and sixth grades in the other. To continue school after the sixth grade required a long walk and a change of schools for many of these patches, so that a larger percentage of children undoubtedly quit at the sixth grade than would have left if the local school had had eight grades. In Turkey Run, to which reference has already been made and which was reached by a long, circuitous road or by a hazardous footpath

[36] Bulletin, 1920, No. 21.
[37] Ibid., p. 9.
[38] Ibid., p. 10.
[39] Ibid., p. 11.
[40] Ibid., p. 11.
[41] Ibid., p. 12.

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which wound among the fissures, practically none of the children went to school after they completed the sixth grade. The town of Shenandoah had a four-year and Gilberton a three-year high-school course.

Unfortunately the teaching in the first six grades was often deficient. In one of the patches there was only one teacher for six grades; one school was entirely ungraded; three had two teachers for a school with six grades.

For the most part the school buildings of the district were like the houses, small wooden buildings—often unpainted, in bad repair, and sometimes inadequately heated. Cave-ins had occurred near several of the buildings. None of them had playgrounds. Shenandoah's new and modern high-school building had a gymnasium, but no playground.

With the passage of the vocational education act of 1913 the State began the practice of subsidizing vocational education through a system of reimbursement of the local district or union of districts for a part of their outlay. The Shenandoah High School offered training in commercial subjects, including stenography and typewriting and some domestic science; Mahanoy Township High School, which was attended by some of the children in the Shenandoah district, offered some manual training, woodwork, wood turning, cabinetmaking, etc., as well as domestic science and a more complete business course than the one offered in the Shenandoah High School.

Very few children included in the study ever attended any of these classes, however, as so large a percentage of the children left school before they reached high school. Altogether 331 had attended vocational classes; of that number 215 had attended only classes in cooking and sewing. Instruction in cooking usually amounted to little more than copying recipes in a note book, as the schools had no laboratories or kitchens where practical experience in cooking could be gained.

Forty-nine children had attended business classes—15 for less than a school year, 25 for one school year, 5 for two school years, and 1 for three.[42] Sixty-five children had attended manual training classes—the majority for a year or more.

A continuation-school law enacted in Pennsylvania required children between 14 and 16 years of age who were at work to attend school eight hours a week. Continuation-school classes had been organized in accordance with this law in Shenandoah, Frackville, and Gilberton, as well as in the neighboring town of West Mahanoy. Gilberton had discontinued its classes in 1917, and the others were given up in 1918. Of the 1,220 children who began regular work

[42] For three the period of attendance was not reported.

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before they were 16 years of age and who were required by law to attend the continuation school, only 146 had ever attended. Eighty-three of these had attended for from six months to two years or more; up to the time of the investigation 44 had attended during a period of less than three months. The equipment and money available for these schools was meager; the employers made a practice of deducting the time spent at the school from the wages of the children, so there was general dissatisfaction. The classes were in consequence abandoned before a real test had been made of the educational value of the plan.

A majority of the children in this district—75.4 per cent of those with native-born fathers and 59.1 per cent of those with foreign-born fathers—began school at 6 years of age.[43] Most of the others began at 5 and 7, but 146 waited until they were 8. In spite of the fact that the compulsory-education law required attendance at 8 there were 63 children, two of whom had native fathers, who had not started school until they were 9 years of age or over. Eight children—two who were 13, three who were 14, and three who were 16 years of age—had never been to school at all. The education of many of these children, 1,742 of the total of 3,136 children from 13 to 16 years of age, had been completed at the time the study was made. Of the 640 children who were 16 years of age, 561 were employed, while 79 were apparently neither at school nor at work. Of 1,510 children between 14 and 16 years of age, and therefore subject to the compulsory-education law—which requires children of these ages to be either at school or at work—921 had left school; 694 of these were employed, while 227 were apparently neither in school nor at work. Of the 844 children 13 years of age, 178 had left school, of whom 91 were employed—illegally—at full-time work. A total of 393 children were thus, in spite of the compulsory-education law, neither at school nor at work.

It was the children of foreign-born fathers who had left school in largest numbers. Information secured as to the nativity of the fathers indicated that the fathers of 57.7 per cent of the children included in the study were not American born; 74.2 per cent of those who had left school had foreign-born fathers. This was perhaps to be expected. A larger per cent of these immigrant fathers belonged to the lower wage groups; many had themselves had meager or no education[44] and testimony is general that these parents, when unaided by schools and compulsory-attendance officers, find it much more difficult to keep their children in school during the restless period of adolescence.

With children of native and of foreign-born fathers, the earnings reported by the fathers seem to have been a factor in determining

[43] See Appendix IV, Table 23, p. 88.

[44] Of the foreign-born fathers 37.4 per cent were illiterate.

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whether they continued in school. Thus 66.7 per cent of the children whose fathers were dead or who had deserted their families had left school and 62.2 per cent of those whose fathers reported that their yearly earnings were less than $850, as compared with 20.9 per cent of those whose fathers reported their annual incomes as $1,850 or more, who were not in school.

TABLE XVIII.—*School attendance, by earnings of father; children 13 to 16 years of age.*

Earnings of father.	Children 13 to 16 years of age.						
	Total.	Who reported school attendance.					
		Total.	Still in school.		Not attending school.		Never attended school.
			Number.	Per cent.	Number.	Per cent.	
Total	3,136	3,128	1,386	44.3	1,742	55.7	8
No earnings or under $850	483	481	182	37.8	299	62.2	2
$850, less than $1,250	1,019	1,015	411	40.5	604	59.5	4
$1,250 less than $1,850	759	759	415	54.7	344	45.3	.....
$1,850 and over	183	182	144	79.1	38	20.9	1
Father dead or deserted	451	450	150	33.3	300	66.7	1
Earnings not reported	241	241	84	34.9	157	65.1	.....

The reasons the children gave for leaving school were classified under approximately the same headings as were the explanations given for their going to work. There were some interesting differences in what were such closely related questions, even when the generally inconclusive character of such testimony is kept in mind. Thus only 36.4 per cent of the children gave family need as the reason for leaving school as compared with 55 per cent who assigned this as the cause of their going to work; 30.7 per cent said they had left because they were dissatisfied with school, while only 11.6 per cent of the working children assigned this as the reason for their going to work.[45]

The grade reached by the children who had left school and by those who remained in school reflects the denial of opportunity from which these groups of children suffered. In the course of the investigation, 30 children were found who could neither read nor write, 3 who could read but were unable to write, and 1 who could write a little but could not read at all. Eight of these illiterate children were 13 years old, 13 were 14, 8 were 15, and 5 were 16 years of age.

Of the entire 1,742 children who had gone to work and who were, it will be remembered, from 13 to 16 years of age, inclusive, 58.6 per cent had gone beyond the fifth grade in school; of these

[45] See Appendix IV, Tables 21 and 25, pp. 87, 89.

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working children 27.1 per cent had completed the sixth grade and 14.1 per cent the seventh, while 17.4 per cent had completed the eighth or a higher grade. Of the 1,386 children who were still in school 75.8 per cent had passed the fifth grade, and 37.9 per cent had completed the eighth or a higher grade.

TABLE XIX.—*Grade completed, by nativity of father; children who had left school and children still in school, 13 to 16 years of age.*

Nativity of father.	Children 13 to 16 years of age.							
	Total.	Reporting specified grade completed.						
		Total.	Second and under.		Third.		Fourth.	
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
CHILDREN WHO HAD LEFT SCHOOL.								
Total	1,742	1,714	25	1.5	102	6.0	260	15.2
Native	447	444	4	.9	13	2.9	24	5.4
Foreign born	1,292	1,267	21	1.7	89	7.0	235	18.5
Not reported	3	3					1	
CHILDREN STILL IN SCHOOL.								
Total	1,386	1,374	9	.7	39	2.8	101	7.4
Native	698	697	1	.1	101	1.4	21	3.0
Foreign born	685	674	8	1.2	29	4.3	80	11.9
Not reported	3	3						

Nativity of father.	Children 13 to 16 years of age.								
	Reporting specified grade completed.								Grade not reported.
	Fifth.		Sixth.		Seventh.		Eighth and over.		
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
CHILDREN WHO HAD LEFT SCHOOL.									
Total	321	18.7	465	27.1	242	14.1	299	17.4	28
Native	52	11.7	115	25.9	100	22.5	136	30.6	3
Foreign born	269	21.2	349	27.5	142	11.2	162	12.8	25
Not reported			1				1		
CHILDREN STILL IN SCHOOL.									
Total	184	13.4	244	17.8	276	20.1	521	37.9	12
Native	66	9.5	106	15.2	143	20.5	350	50.2	1
Foreign born	118	17.5	136	20.2	133	19.7	170	25.2	11
Not reported			2				1		

A larger percentage of the children whose fathers were native born were in the more advanced grades than of the children with foreign-born fathers. Of the children with native fathers who were still in school 23.9 per cent of those 13 years of age, 55.4 per cent of

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those 14, 78.3 per cent of those 15, and 86.5 per cent of those 16 years of age had completed the eighth or a higher grade. Of the children with foreign-born fathers a smaller number and a much smaller per cent of the 15- and 16-year-old children had remained in school. Of those who were 13 years of age the percentage with foreign-born fathers who had completed the sixth grade was practically the same as those with native-born fathers, but below the sixth grade the percentages were larger and above the sixth grade smaller when the children had foreign-born fathers. Thus of the children who were 14 years of age and were still in school 55.4 per cent of those with native-born fathers had completed the eighth or a higher grade as compared with 25.7 per cent of those with foreign-born fathers.[46]

There was a smaller percentage of children in the higher grades among those whose fathers belonged to the lower wage groups or were dead or had deserted them than among the others, as Table XX shows.

TABLE XX.—*Grade completed, by father's earnings; children who had left school.*

Earnings of father.	Children who had left school.							
	Total.	Reporting specified grade completed.						
		Total.	Second and under.		Third.		Fourth.	
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Total	1,742	1,714	25	1.5	102	6.0	260	15.2
No earnings or less than $850	299	294	8	2.7	19	6.5	53	18.0
$850, less than $1,250	604	599	6	1.0	34	5.7	85	14.2
$1,250, less than $1,850	344	339	5	1.5	15	4.4	41	12.1
$1,850 and over	38	38	.....	.....	.....	.....	5	.....
Father dead or deserting	300	292	4	1.4	25	8.6	52	17.8
Earnings not reported	157	152	2	1.3	9	5.9	24	15.8

Earnings of father.	Children who had left school.								
	Reporting specified grade completed.								Grade not reported.
	Fifth.		Sixth.		Seventh.		Eighth and over.		
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	321	18.7	465	27.1	242	14.1	299	17.4	28
No earnings or less than $850	58	19.7	82	27.9	34	11.6	40	13.6	5
$850, less than $1,250	118	19.7	187	31.2	82	13.7	87	14.5	5
$1,250, less than $1,850	45	13.3	80	23.6	69	20.4	84	24.8	5
$1,850 and over	10	.....	5	.....	7	.....	11	.....	.....
Father dead or deserting	65	22.3	60	20.5	32	11.0	54	18.5	3
Earnings not reported	25	16.4	51	33.6	18	11.8	23	15.1	5

[46] See Appendix IV, Table 26, p. 90.

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Thus, of the children whose fathers belonged in the higher wage groups, the percentages in the seventh grade or above were larger than among the children whose fathers belonged in the lower wage groups.

Retardation among children who work before or after school or all day Saturday and Sunday and continue to go to school is to be expected. In the Shenandoah district the fathers of such children, it will be remembered, belonged more frequently to the lower than to the higher wage groups. The hours of many of these part-time children were so irregular that it was impossible to estimate how many hours they usually worked a week. Of 27 boys reporting weekly hours, 1 reported he never worked more than 4 hours a week, 6 reported working between 8 and 16 hours a week, 10 reported 20 to 24 hours, and 10 gave 30 hours or more as the regular hours worked during a week. Four boys and 21 girls had worked as many as 51 hours a week while attending school.

Attention has already been called to the fact that a considerable number of children of compulsory-school age were at work. It is of special importance to know whether the school attendance was improving in the district. So far as the particular four years for which information was secured in the course of this study, the per cent leaving school before they were 12, 13, 14, and 15 years of age was found to have increased.[47] For example, of the 16-year-old children, 3.1 per cent had left school before their thirteenth birthday. Of those 15 years old, 4.7 per cent; of those 14 years of age, 6.7 per cent; and of those 13 years of age, 11.1 per cent had left school before their thirteenth birthdays. It will be remembered that this period was abnormal, for the reasons given in the discussion of the causes that led children to go to work in larger numbers. There is no information at hand to show whether the educational loss these children suffered as a result of premature employment was made up by a return to school when the period of industrial depression began in 1920.

[47] See Appendix IV, Table 27, p. 91.

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MEDICAL EXAMINATIONS OF SCHOOL CHILDREN.

Medical examinations of the school children were made in Shenandoah, Frackville, and Gilberton from 1915 to 1918, and discontinued thereafter by vote of the school directors taken in accordance with the State law. The superintendents of the schools reported that during the years they were made the examinations were usually confined to the eyes, ears, nose, teeth, and throat and that usually from three to five minutes were spent in the examination of each child. There was no follow-up system so that the importance of having defects corrected was not explained to the parents nor was there any place where free treatment could be secured for those who were unable to pay. However, even under these circumstances evidence of the value of the examinations was collected in the course of the investigation.

Some children reported they had been examined twice, some several times, and some not at all. Of the 3,136 children included in the study 2,695 reported examinations of the eyes, 2,475 of the ears, 2,701 of the throat, and 1,737 of the chest. The extent to which defects that were discovered had been corrected was difficult to determine, as mothers could not always remember whether a defect had or had not been reported to them by their children. Altogether in 1,382 instances the parents did remember that a defect had been reported and 45.7 per cent of these had arranged for treatment or attention for the child with a view to correcting the defect; tonsils had been removed in 29 per cent of the cases in which removal was said to have been recommended, adenoids in 40.2 per cent, and of the children who were reported to have defective teeth 59.3 per cent were cared for; less attention, however, was paid to defects of sight and hearing which might have been corrected.

Treatment was more frequently given if the father belonged to one of the higher wage earning groups; thus in 39 per cent of the cases the defect was attended to when the father's reported earnings were less than $850, 49 per cent when more than $1,250 and less than $1,850, and when the father's earnings were $1,850 or more, 61.5 per cent of the defects were attended to. As the earnings of the foreign-born fathers were relatively lower than of the native born, this may explain the smaller percentage of the foreign born who took care that their children received the attention they needed.

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MORTALITY RATES AMONG CHILDREN.

The infant mortality for the entire birth-registration area of the United States was 94 in 1917; for that year the rate for Shenandoah was 187—one of the highest in the country.[48]

The average annual death rate from diarrhea and enteritis among children under 2 years of age was also distressingly high—365.8 per 100,000, as compared with 104.8 for Pennsylvania as a whole and 71.4 per cent for the entire registration area of the country. The rates for diphtheria and croup were more than four times and for scarlet fever twelve times as high for Shenandoah as for the United States registration area.[49]

At the time this study was made there was a State tuberculosis dispensary, but there were no other free clinics. There was no visiting nurse association. A nurse was, however, at work on a plan for a child-welfare league, and the summer following the investigation a child-health center was established by the State department of health, which did educational work in child care and employed a physician who gave prenatal advice to the mothers. Thus, a beginning of a much needed public-health service for Shenandoah has since been made.

TABLE XXI.—*Average annual mortality rates from specified causes of death per 100,000 population, in specified areas, 1910 to 1917, inclusive.*

Area.	Average annual death rates from specified cause per 100,000 population.						
	Diarrhea and enteritis (under 2 years).	Diphtheria and croup.	Scarlet fever.	Bronchitis.	Pneumonia (all forms).	Other respiratory.	Tuberculosis of the lungs.
Shenandoah, Pa.	365.8	81.7	77.8	61.1	223.0	40.1	77.4
Philadelphia, Pa.	104.1	24.0	6.7	24.4	165.9	19.0	173.7
Pittsburgh, Pa.	126.5	27.4	14.9	33.3	285.0	23.5	110.7
New York, N. Y.	80.5	25.6	9.7	20.3	201.2	11.2	175.9
Chicago, Ill.	133.2	37.0	18.7	11.5	192.8	10.8	144.2
Pennsylvania as a whole.	104.8	24.3	7.6	20.9	159.4	18.6	113.3
United States registration area.	71.4	17.6	6.4	18.2	136.6	13.5	130.0

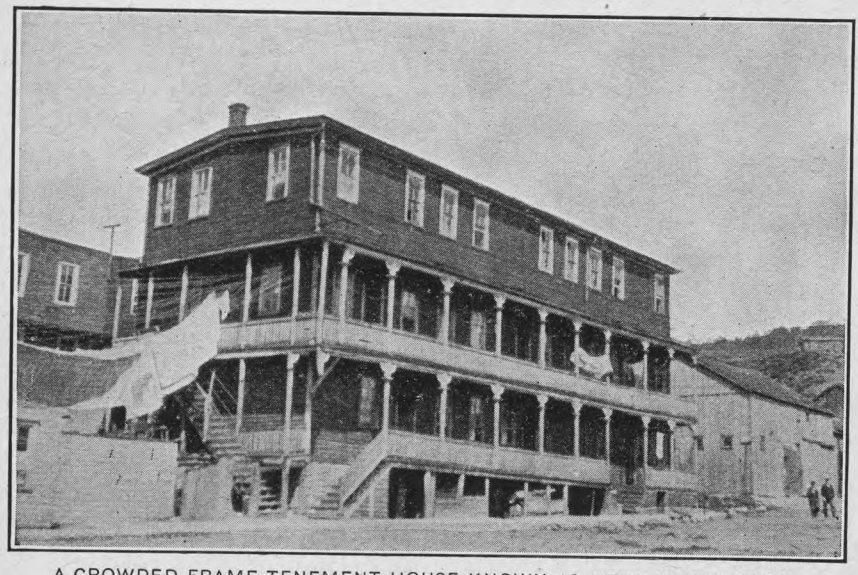
[48] Birth Statistics, U. S. Bureau of the Census, 1917, pp. 23 and 30.

[49] The rates are all for an eight-year period, from 1910 to 1917.

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THE HOMES OF THE CHILDREN.

In the course of the general investigation considerable information about housing conditions was secured but the question of whether the children were growing up protected by at least minimum standards of privacy, light, air, and general sanitary arrangements in and around their homes was considered so important that an intensive study of certain typical sections was made. In Shenandoah, a block on the western edge of the settlement, one on the eastern edge, another in the extreme southern apex on rocky ground sloping



A CROWDED FRAME TENEMENT HOUSE KNOWN AS "THE INCUBATOR."

to the railroad tracks, another in the northeast nearer the center of the town, two rows of houses in the extreme northwest, and a three-story tenement 78 feet long and 29 feet wide, which is locally known as the incubator, were selected for intensive study. These sections did not contain the worst houses in the town but were representative of the general housing difficulties under which the people of the town lived.

Housing standards are generally lower in mining towns than in industrial cities and towns; frontier conditions are tolerated long

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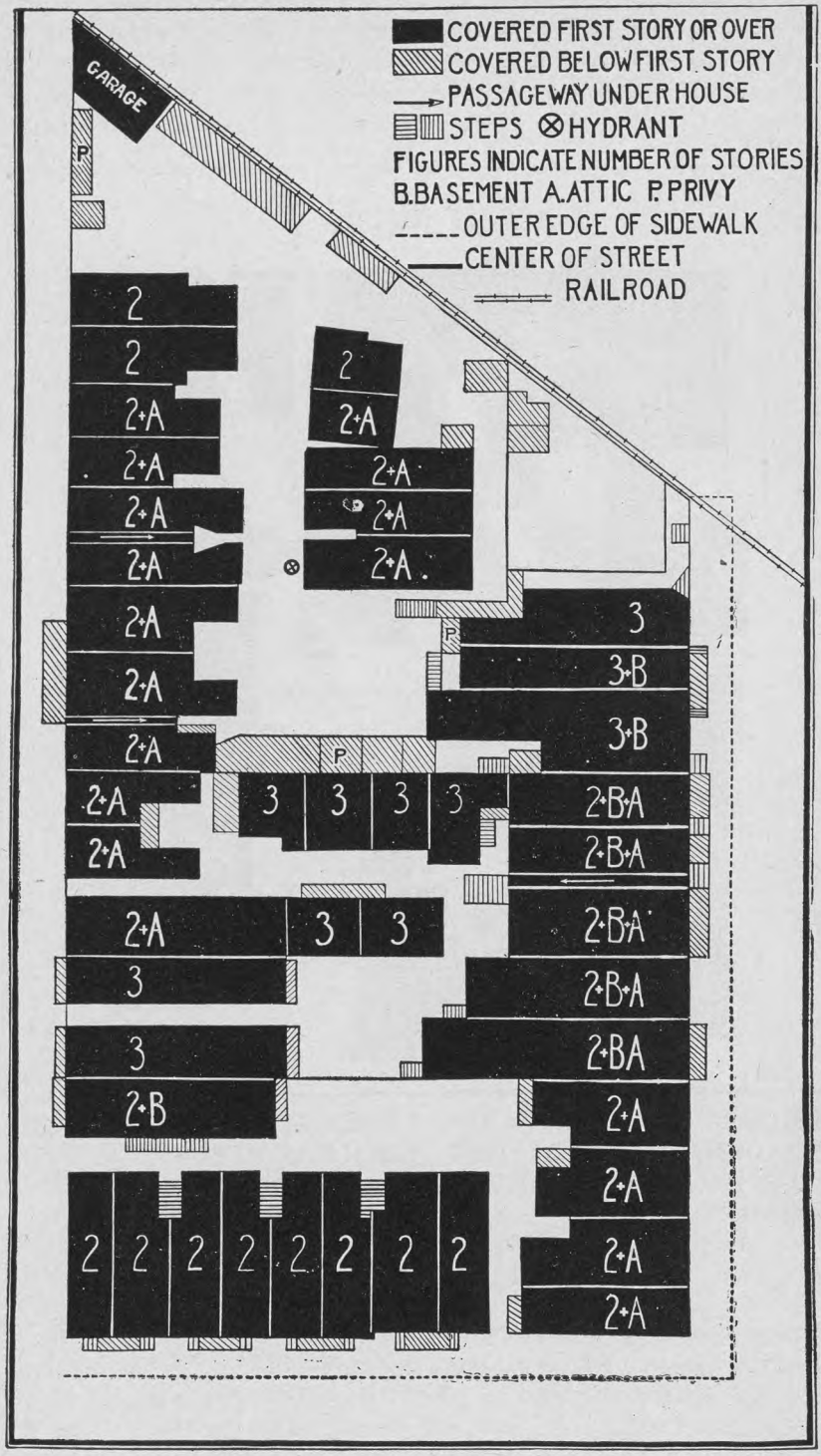


CHART I.—BLOCK (2) IN THE EASTERN PART OF TOWN; AREA 36,256 FEET; POPULATION, 332.

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after camps have become towns and cities in the size of their population. This is in part because certain difficulties in connection with water supply and sewerage are accepted by everyone as insuperable and in part because there is usually not that diversity of occupation,

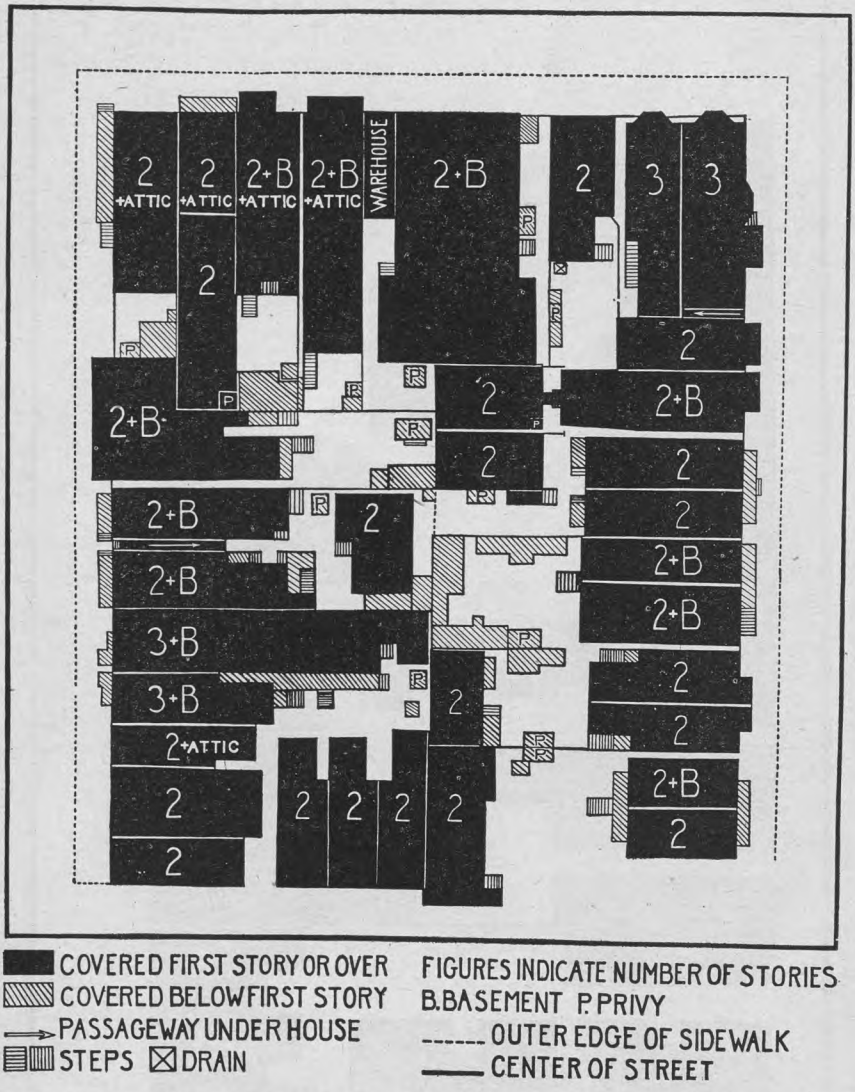


CHART II.—BLOCK (3) AT THE EXTREME SOUTHERN APEX OF THE TOWN; AREA 28,574 SQUARE FEET; POPULATION, 270.

of land ownership, and of general business interests which makes for the development of typical American community life.

In this district the land on which the settlements, with the exception of Frackville, were built was owned either by the mining corporations or by two large estates. In Shenandoah, Gilberton, and

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the patches 348 of the families included in the investigation were tenants of these companies and 58, of the estates; while 46 others who owned their homes paid ground rent to the mining companies. In addition to the 58 who rented houses from the two estates, 287 who owned their homes rented ground from them. Nine families rented houses belonging to the first estate and 137 paid this estate ground rent for houses they themselves owned. Forty-nine rented homes from the second estate and 150 rented ground for the houses which they had built or purchased from that estate.

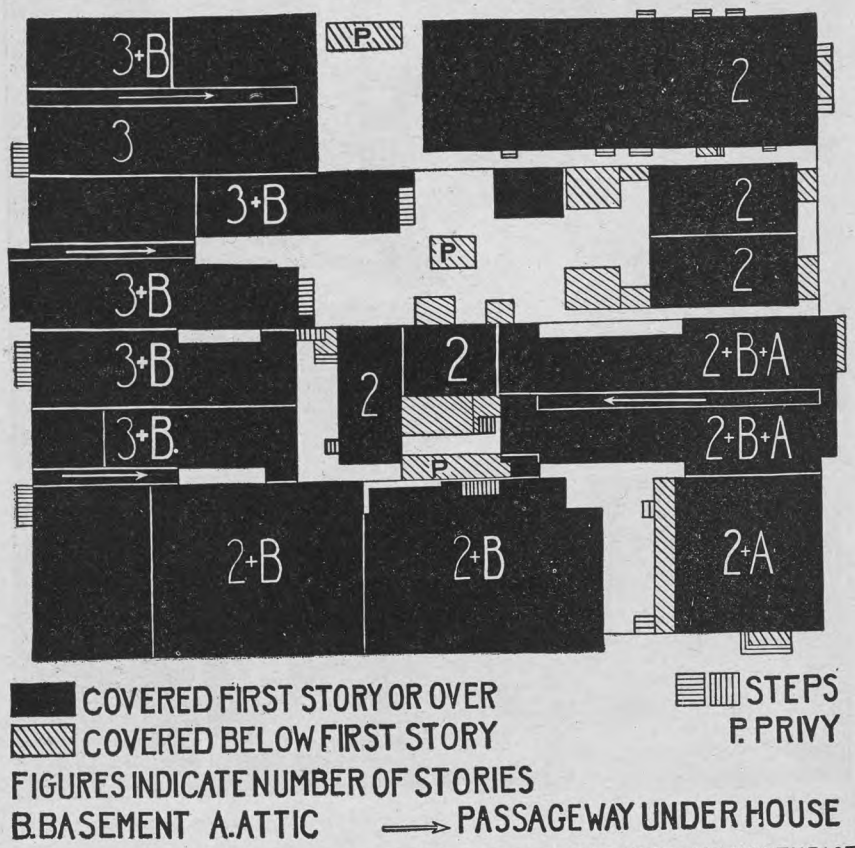


CHART III.—FOUR CROWDED LOTS AT ONE END OF BLOCK (4) IN THE NORTHEAST SECTION OF THE TOWN; AREA 18,133 SQUARE FEET; POPULATION, 189.

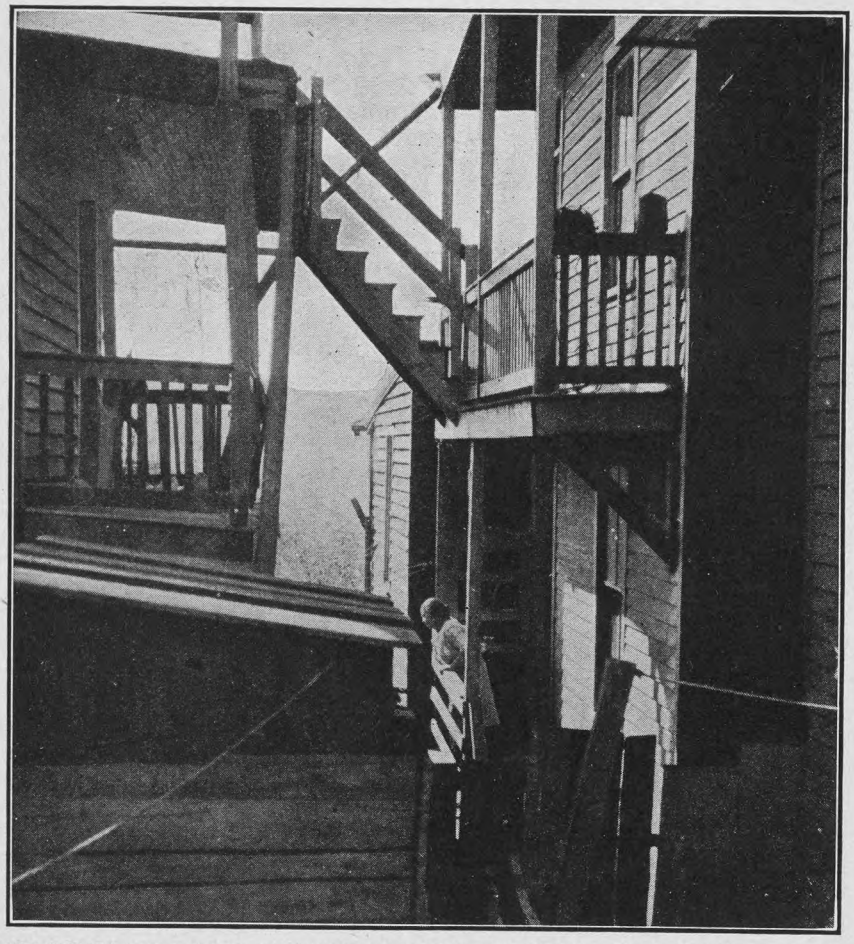
CONGESTION.

The town of Shenandoah is so hemmed in by mine properties on every side that expansion to meet the needs of its growing population has been impossible. As a result, when more people came, in response to the demand for more and more mine workers, rear houses were built until the alleys were turned into narrow streets; then houses were added between those in the front and the rear until by 1920

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there were 24,726 persons living on an area a little more than one-half of a square mile.[50]

The houses were generally small, one-, two-, and some three-story dwellings. Eighty per cent had from four to seven rooms, 4.7 per cent had less than four rooms, while 14.7 per cent had eight or more.[51]



THE STAIRCASE SHOWS DISTANCE BETWEEN FRONT AND REAR HOUSE ON LOT.

In the general housing canvass that was made in Shenandoah, 13,592 persons were found living with more than one person per room, 3,045 with two or more per room, and 379 with three or more per room. Some examples of extreme congestion were encountered. In 84 instances 7 people were occupying two rooms, in fifty instances 10 people were occupying three rooms, and in forty instances 10 people were occupying two rooms.

[50] This is a density in round numbers of 43,000 per square mile. The density in New York was 19,000 and in Chicago 14,000 in 1920.

[51] Among families who owned their own homes, the houses were larger; only 1.3 per cent had fewer than four rooms, while 26.6 per cent had eight or more.

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In the patches[52] and in Gilberton and Frackville room congestion was generally not so serious, still in one settlement (Raven Run) only 13.4 per cent had one room per person, while 27.2 had two or more persons per room.

In the anthracite fields, as in other mining and industrial districts, there are large numbers of single men who must find a place to live either with families or in nonfamily groups. Many of the miners' wives felt compelled by economic necessity to supplement their husbands' earnings by taking lodgers. According to the supervisor of the assistance to mothers' law widowed mothers were sometimes given a house and a winter's coal free by the mine management on condition that they lodged some of the single men[53] who were employed in the mine.

The presence of lodgers very seriously complicates all the problems of congested living, particularly for the age group which is under special consideration. In this district in about 15 per cent (447) of the families the children 13 to 16 years of age were exposed to the disadvantages which come with keeping lodgers. In one instance there were nine lodgers in a family in which there were six children under 17 years of age; five families with eight children and two with nine children under 17 years also had lodgers. Of necessity this meant congested sleeping quarters. According to Table XXII in the areas selected for intensive study of housing conditions 68 per cent of the people were sleeping with three or more persons in a room, and 36 per cent with four or more. Of the people living in one of the blocks in Shenandoah 77.8 per cent and of those living in the two blocks canvassed in Gilberton 75 per cent were sleeping three or more persons in a room. In the tenement locally known as the incubator 53.5 per cent of the people slept with four or more persons in their sleeping rooms.

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[52] The general canvass secured complete figures as to the number of rooms and the number of persons in 13 patches of various sizes and in different parts of the district, in two blocks of Gilberton, and in the greater part of Frackville.

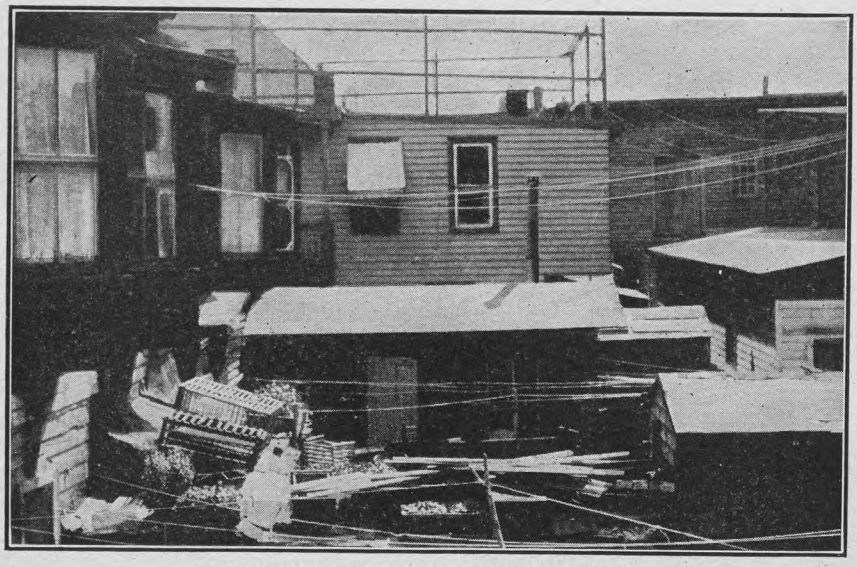
[53] See p. 33.

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TABLE XXII.—*Number of occupants of bedrooms, by block or other area, persons living in blocks or other areas intensively studied.*

Block or other area.	Persons living in blocks or other areas intensively studied.						
	Total persons.	Sleeping in bedrooms with specified number of occupants.					
		2 or more persons.		3 or more persons.		4 or more persons.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
All selected blocks in Shenandoah	1,435	1,354	94.4	976	68.0	517	36.0
Block 1	330	314	95.2	242	73.3	107	32.4
Block 2	332	316	95.2	202	60.8	115	34.6
Block 3	270	264	97.8	210	77.8	96	35.6
Block 4	189	164	86.8	98	51.9	68	36.0
Block 5	243	228	93.8	174	71.6	93	38.3
"Incubator"	71	68	95.8	50	70.4	38	53.5
Gilberton	225	207	92.0	169	75.1	103	45.8

The fact that the rooms in which so many persons slept were usually small added to the discomforts and the dangers. In the blocks



SHENANDOAH—CROWDED BACK YARDS.

in Shenandoah which were included in the intensive housing study, 269 persons were sleeping with four or more and 145 persons with five or more persons in a room in rooms the floor area of which was less than 150 square feet.

The cubic air space was also entirely inadequate.[54] A commonly accepted standard which is regarded as reasonably possible of attain-

[54] Veiller, Lawrence, A Model Housing Law, revised edition, p. 229, par. 110, Russell Sage Foundation, New York, 1920.

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ment at the present time requires a minimum of 600 cubic feet of air space for each adult and 400 cubic feet for each child.[55] In the area studied[56] in Shenandoah 73 per cent of the adults and 75 per cent of the children had less than this minimum amount of air space, while over 200 persons were sleeping with less than half the cubic air space that is generally held to be necessary by students of the subject.

While there were not many windowless rooms in the district, they were not unknown. Thus 52 families with children 13 to 16 years of age reported rooms with no windows, in three instances a family reported two and in one instance four such rooms in one dwelling. In a basement in a rear house visited by an agent of the Children's Bureau a mother and three children had two rooms. The bedroom in which they all slept was entirely dark. In another basement six persons lived in two rooms, the mother and two children slept in the kitchen and three other children slept in an inside room.

The standard previously referred to fixes 12 square feet as the minimum window space and provides that in no case shall the window area be less than one-seventh of the floor area. Of the 534 bedrooms in the blocks studied, 208 had less than 12 square feet of window area and in 331 the window area was less than one-seventh of the floor area. In the 61 rooms, 11 per cent of all the bedrooms included in the intensive study, in which the window area was less than one-half of the accepted standard, 175 people slept. These conditions, bad enough in themselves, were rendered worse by the crowding of houses on the lots, by their general disrepair, and by the almost entire lack of proper sanitary arrangements.

THE PULL OF THE MINES AND THE PROBLEM OF PROPER HOMES.

The general explanation given of the disrepair of the houses of this district is the pull of the mines. In a large part of the town of Shenandoah the old workings have been filled in with slush, but in many places no such precautions have been taken and the ground has given way and fissures and cave-ins have resulted.

One family reported having had to move because of a cave-in directly under the house in which they were living. The ground under the kitchen and dining room disappeared, taking with it the coal and other things stored beneath. The kitchen floor broke under the weight of the furniture and the stove was rescued just as it was slipping in.

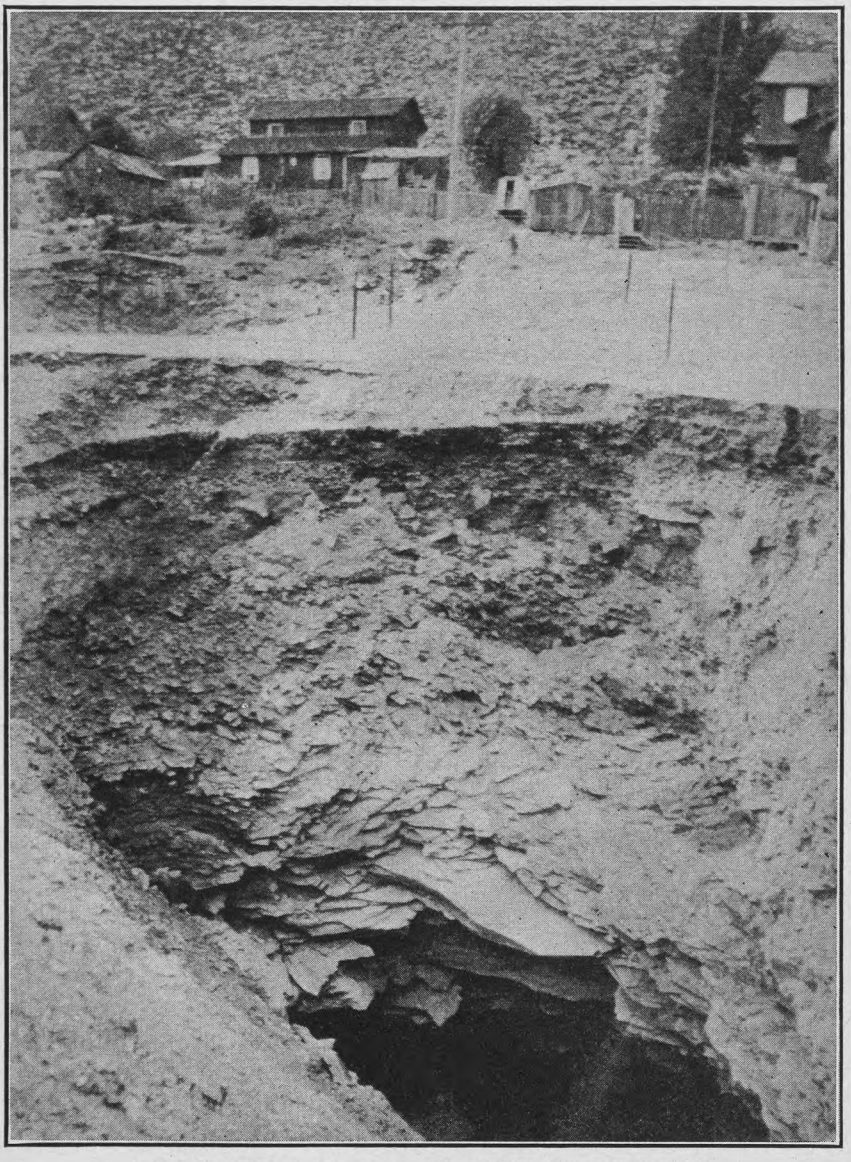
Another family stated that the pull of the mines had made large cracks between the baseboard and the plastered walls, so that the

[55] According to this standard a child over 12 is allotted the same amount of air space as an adult. In the present study those under 17 are classed as children.

[56] See Appendix IV, Table 30, p. 94.

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mother was afraid to clean the walls lest they also fall. The plaster in rooms on the second floor of this home had fallen five years before and had never been replaced.



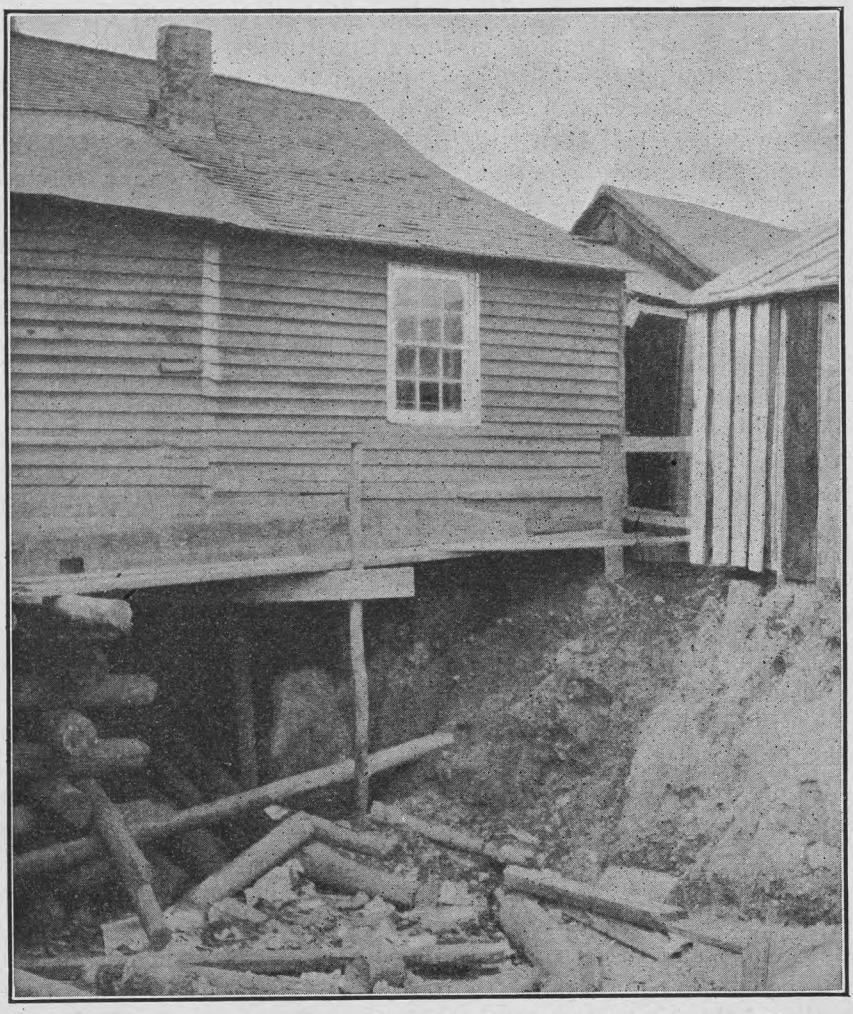
A DANGEROUS CAVE-IN IN THE VILLAGE OF GILBERTON.

The father of one of the children had bought a house for $1,800 and put into it $1,000 in repairs—all his savings—five years before this inquiry was made. Subsequently a break occurred at the rear of the house; the house sank so that the basement, which the family

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had been renting, was vacated because it was completely below ground. This house was still sinking at the time of the inquiry and the father expected that within two years it would have to be torn down.

Another man had paid $2,850 on a $3,850 house, which presently started to sink. In the hope of saving it he had spent an additional



THE GROUND UNDER ONE WING OF THIS HOUSE CAVED IN ONE NIGHT.

$1,500 to build a cellar. He spoke bitterly of the conditions, saying that even when the estates or mining companies served notice on their tenants to move because the ground was undermined there was no place to which they could go. As there is no more ground for lease in Shenandoah, the people felt, he said, that there was nothing for

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them to do but wait for their houses to cave in. "Then," he said, "after it's gone under you can go in and get what lumber is left."

From almost every part of the area came reports of damage of one sort or another due to this cause. One family whose roof allowed rain to leak into every room reported this to be the result of a cave-in which occurred at 11 o'clock at night in the middle of the winter preceding the study. At that time half the house sank 2 or 3 feet. The hole made underneath the house was so deep that although partly filled in it was at least 12 feet deep at the time it was inspected by the Children's Bureau agents. Over it a narrow bridge had been built so that the family might reach the toilet. The mining company which owned the house had not, up to the time of the investigation, either repaired the roof or filled in the hole. The home of another of the children for whom a schedule was secured was perched on the edge of a breach which had opened after it was built. Six years before the kitchen had fallen into the breach and at the time of the study one side of the house seemed dangerously near the edge.

The two estates and the mining companies who were the landlords of the district protected themselves by their leases from liability for any damage to property or to life and limb resulting from the caving of land due to mining operations, even though these mining operations were "negligently, unskillfully, and improperly" carried on and "without leaving any support whatever for the surface." [57]

In some cases there was a difference of opinion as to whether the condition of a house was due to the pull of the mines or to cheap and faulty construction. As the owners were released from the responsibility for making good the former, it was currently believed that they relied on that explanation too frequently.

Many of the houses rented from the mining companies had fallen into a state of extreme disrepair because the companies had either refused or neglected to attend to them. In one such rented by the family of a child included in the study the beams had given way under the kitchen floor, leaving it unstable and the walls warped. The cellar and the parlor were flooded when it rained and damp all the time. The chimneys were bad. The roof leaked. The plank walks in the yard were rotted and broken. The company had made no repairs in this house for two years.

In another company house the roof leaked badly. No plastering was left on walls or ceilings and the family had tacked bagging and oilcloth over the walls and papered over this. Another family reported that there were 18 inches of water in the cellar, while the roof, with holes so large "you can stick your hand through," leaked

[57] See typical lease, Appendix II, p. 72.

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badly. The residents said that numerous complaints had been made to the company without avail. In another dilapidated house in which, as the mother reported, "the whole house leaks and hardly a crumb of plaster is left on the walls," the company had promised for three years to make repairs but had made none.

Complaints were less frequent among families who did not live in the company houses, but among these, too, bad conditions were described. One family reported that the landlord would make no repairs although four rooms on the third floor could not be used, the plaster had fallen, the windows did not open, the floor was uneven and broken, the stairs leading to the third floor had fallen, and large cracks in the walls of the second floor were stuffed with rags. Another family reported the whole roof to be "rotten," the ceiling "leaking with every rain" and remaining wet for several days; in this house the kitchen walls and floor had sagged apart, the wall under the chimney was broken and the floor, which was sinking, had to be supported by blocks.

These examples were reported to be typical. They indicate, if not indifference to the necessity for decent, healthful home conditions for parents and children, at least an acceptance of a standard of living that is sure to bring its chain of social disasters. The neglect has, doubtless, been due in part to the real difficulty of keeping the houses repaired because of the pull of the mines. The very fact that the landlord was also so frequently the employer, might well be said to have created a special obligation to protect the children of their employees from the demoralizing effect of living in houses such as those just described.

SEWAGE AND GARBAGE DISPOSAL.

Under the congested conditions which have been described sewage and garbage disposal were of primary importance. For about two-thirds of the residential part of Shenandoah sewers were provided; for the rest of this city and the other parts of the district studied there were no sewers. The Shenandoah sewers were not installed as part of a comprehensive plan, so that for the district they covered they were inadequate. They emptied into Shenandoah Creek, which separated the homes of the workers from the collieries on the east and south. In addition to the sewage from the town, this stream was relied upon to carry off the culm and the sewage and other refuse from the mines. It was shallow and the current not swift, so that the openings of the sewers were clogged and sometimes completely closed and the sewage was forced back into the houses in consequence.

The settling of the land made the sewage system in Shenandoah difficult to keep in proper condition. For example, Line Street at the time the sewers were laid was higher than the street to the

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south of it, but at the time this study was in progress it was considerably lower. The sewer on Line Street carried not only domestic sewage but a large amount of mine waste. After the settling of the street it was blocked. A cesspool for one of the patches which was located on the side of the mountain at the northern edge of the borough drained down the side of the mountains into an open sewer which flowed under the principal street in that part of Shenandoah and then continued along side streets until it emptied into Kohinoor Creek. At the point where it was supposed to flow under the principal street it was blocked for some months before and during the time this study was being made. As a result the sewage was turned back along the north side of the street, creating a most objectionable condition. In the course of the investigation many complaints were made to the agents of the Children's Bureau of the overflow of sewers flushed by rain or blocked by refuse, and of the odors of the creeks into which they emptied.

In the sections of Shenandoah and the rest of the district where there were no sewers water from the kitchen sinks was generally carried out of the houses in drains which emptied into the yard, whence it flowed into the ditches along the road or stood in stagnant, ill-smelling pools.

What has already been said about the damp or wet cellars of the district indicates the lack of adequate provision for surface drainage. Among the patches near the collieries such drains as existed were frequently blocked by slush from the mines.

In Gilberton the situation was especially bad. Most of the houses were built along the strip of ground lying between the main road and the railroad embankment. Across the embankment was a creek into which slush and culm were dumped. Extensive excavations had been made under the houses and the land had been settling steadily for a period of years. The railroad embankment and the highway, with the trolley tracks on it, had been filled in from time to time. Because of the swelling of the stream and the subsidence of the land on which the houses stood, the level of water in the creek was some 10 feet above the ground on the other side of the embankment. The result was that the ground between the highway and the railroad was usually flooded and water into which sewage, garbage, and refuse of all sorts had been dumped, stood in the yards and seeped into the cellars. Sometimes the water reached above the first-floor level of the houses. In two blocks in Gilberton there were three houses which had been abandoned on this account. Three others, in which there had been similar conditions, had been raised and the cellars filled with ashes and cement. Of the 39 remaining houses in the two blocks, 37 had water standing in the

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cellars. In three cases it was reported that the water reached up to the boards of the floor and these were rotting so that it was feared they might give way at any time. The cellars had been closed lest some of the children fall in and be drowned. In some of the houses ducks were found swimming in the cellars.

In times of storm the water often flooded the dwelling parts of the houses. In the rooms in one house marks were seen a foot above the mopboard, to which the water had reached the previous spring. Some families had put their furniture up on props and throughout the neighborhood it was generally impossible to use carpets.

When the land in this neighborhood first began to settle the people had tried to jack up their houses on old railroad ties and rough embankments in order to keep them above the water level,[58] but they had finally abandoned these efforts. A pump operated by the coal company which made the excavations under Gilberton had also not been adequate to afford protection.

Another very serious problem was the types of toilets which were commonly used in this section. In Shenandoah the connection of the houses with such sewer system as the city had provided was at the option of the owner. The result was that no connection had been made with many houses and for others a toilet of the pit-privy type had been placed over an opening of a sewer pipe. There was no flushing arrangement and often not sufficient water in the pipe to carry off the sewage. While this was objectionable, still water could be poured down the shaft to clear the pipe from time to time. It was reported that in one case a hose was used two or three times a year for this purpose.

In Frackville and in certain of the patches, families had water-closets connected with cesspools, but for the most part the dry pit was used in the area outside Shenandoah; in Gilberton they were placed over the creek which flowed behind the houses. Altogether, throughout the district 1,153 of the families included in the study were compelled to use dry privies, 724 families had the privy placed above a sewer in the manner described above; 457 had sanitary toilets with flushing arrangements, 59 of these being located in the yards.

Frequently the outside toilets were crowded together in very small yards or courts closed in on every side by dwellings. One mother called attention to the fact that her front door opened upon a row of 10 outhouses, from which the odor was very offensive, although they were cleaned once a week. Many others were not so frequently cleaned and in the wet weather some overflowed. Some families complained of cesspools within 3 or 4 feet of the kitchen door.

[58] Report of State bureau of housing on "Housing and sanitary conditions in the towns in the anthracite coal region of Pennsylvania," October, 1918. Unpub. MS., p. 71.

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In the area outside Shenandoah some of the crudest types of outhouses, neglected and offensive, were found. Complaints came from the patches in every part of the district that the landlords made little effort to keep them in proper condition.

The majority of families included in the study had their own toilet or outhouse. Four hundred and fifty-eight, however, reported that two or more families used the same toilet. In one instance as many as 10 families were reported to be using a toilet which had no flushing connections but was merely placed over an opening in a sewer pipe.

Throughout the greater part of Shenandoah the garbage was collected by the borough once a week; in one of the patches it was collected also once a week by the mining corporation owning the patch, but for over half the families included in the study no garbage col-



A CROWDED YARD IN WHICH A MIDDLE HOUSE FACES A ROW OF SIX PRIVIES.

lections were made. In areas where it was not collected all that was not fed to chickens and other animals was generally dumped with other refuse in the breaches caused by the mines, or was piled on vacant land. The people living on the edge of town in Shenandoah, where collections were very infrequent, threw their garbage, dead animals, and other refuse across the borough boundary line on the north of the town or into the creek, already overflowing, or on vacant land not suitable for building purposes. Families complained bitterly of the offensiveness of these "dumps."

In the section in Shenandoah where the garbage was collected there was no supervision of the type of can used, so that every sort of re-

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ceptacle—old baskets or boxes, dishpans, or pails—were pressed into service almost always without any covering and often not large enough to hold the garbage that accumulated in a week.[59] As a result garbage was often found scattered about the crowded courts. Some families living outside the borough made a practice of sending their children into Shenandoah regularly to collect the garbage, which they fed to their pigs and other animals. These children, sometimes 6 or 7 years of age, and known throughout the borough as the slop girls, picked over the garbage, carried home in large pails what they thought the pigs would eat, and left the rest scattered about on the grounds.

In Shenandoah itself there was no prohibition against keeping animals. In some crowded courtyards there were pigs, goats, and cows. Almost every yard had chicken coops. In one yard, 12 by 25 feet, an agent of the Children's Bureau counted 11 toilets, and 25 hens, besides dogs and cats. Added to all the odors which came from these sources, the people of Shenandoah endured the stench which came from slaughterhouses and fertilizer plants connected with the packing houses, and from a brewery.

THE WATER SUPPLY.

In the borough of Shenandoah about two-thirds of the people were supplied with the water brought by the borough from reservoirs in the mountains to the north and northeast. This spring water was piped down to the reservoirs, a distance of 6 miles. The distributing reservoirs were kept small so that there might be a constant flow of fresh water; it was guarded from pollution and tested frequently. This water was considered good. The water distributed to the rest of Shenandoah[60] by a company established long before the borough water department was created was also good.

The difficulty in Shenandoah was not with the quality of the water but with the amount and its availability. For two-fifths (40.2 per cent) of the families interviewed, the only hydrant was outside the house. In many such cases a number of families used a single hydrant which stood in the middle of the small court or yard. In one instance 20 families were reported to be dependent upon the same hydrant, in another 9 families, in another 6, in another 8, and in another 10 families carried all their water from the same hydrant. In the winter this hydrant often froze and then all the families dependent on it had to go some distance for water. One woman reported that all the water for her family had to be carried 125 feet over an uneven road, while another reported she

[59] Only 27 out of 2,341 families reported that their garbage was collected oftener than once a week.

[60] Out of the 1,228 families from whom information was secured only the two who had wells did not get their water either from the borough or from this company.

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had to go 150 feet down a rocky slope for all she used. It was therefore easy to agree with another who remarked, "It's hard to get at keeping clean when you're tired out from carrying the water."

All these difficulties were greatly increased during the summer when the borough was put on water rations and water could be used only during certain hours. During the winter, unless it was exceptionally mild, the water was turned off every night at 10 o'clock to prevent freezing.

In the patches difficulties similar to these were the rule. Turkey Run, a part of Shenandoah Borough, although supplied by the borough water department still had a serious problem. In summer throughout the patch, water could be obtained usually only from 5 to 6 a. m. and occasionally from 7 to 8 p. m. The western half of the patch sometimes received none at all for weeks at a stretch, and water had to be carried up the rocky mountain path from Gilberton, over one-fourth of a mile away. In winter the water was even more scarce in the patch than in summer and the inhabitants were sometimes thankful if they had snow which they could melt for the family washing.

Many explanations were offered for this shortage of water—the water line could not be kept in repair because of the constant occurrence of cave-ins; the pipes froze readily because they were laid on or near the surface of the ground; and the water was required, during the working day, almost entirely by the near-by colliery breakers and washeries. Complaints were said to have been made to the Shenandoah authorities but without avail, and the people of Turkey Run, unable to afford a private system, had nothing to do but accept a situation which left them in discomfort and added enormously to the difficulties of keeping their houses in sanitary condition.

Most of the patches were supplied with water by one of three companies. These companies all piped the water from reservoirs and it was tested from time to time. Only in two very small patches was the water carried from springs. In Raven Run, though company water was piped into the patch, it was said not to be good, and water for drinking purposes was carried from a spring 100 yards away from some of the houses and one-fourth of a mile from others. On account of the distance some of the people drank the cistern water in winter. From the patches, as in Shenandoah, came frequent complaints of pipes which froze and burst. From Frackville, where all but a very few families were supplied by artesian wells, there were no complaints.

In Gilberton and the patches as in Shenandoah the distance to the hydrant was often great and the number of families using it many.

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RECREATION FOR THE CHILDREN.

Few places offer so little opportunity for education through play as did the town of Shenandoah. The houses set flush with the sidewalks were crowded on the lots so that there was hardly a yard in the city. There had once been a playground on the northern edge of the town at the foot of the mountain. But the tennis courts were not kept up, the wading pool for the little children was dry, and the drains became stopped up. There was opposition to the playground on the part of some of the neighbors because it was popular with the children and the noise they made was disturbing. It was not properly supervised or cared for and at the time this study was made it was in a sadly neglected state. The town had no parks. The new high school had an auditorium, where lectures and entertainments were sometimes held, and a gymnasium, but no ground or athletic field of any kind. Most of the children left school before they reached the high school and no playgrounds had been provided for these children.

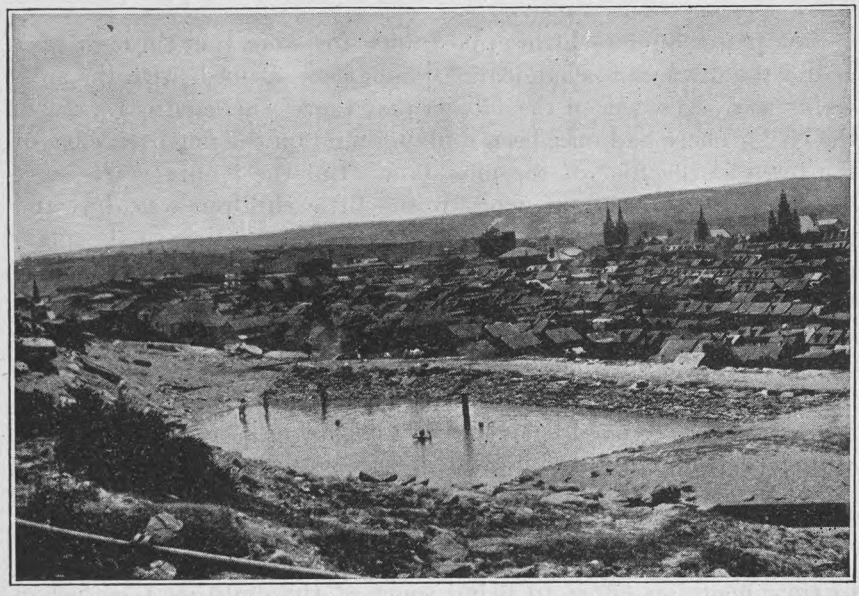
Pastors of a few of the churches reported that they had from time to time made an effort to bring some of the children together in semireligious, semisocial clubs. But none of these had been successful. Only a very few children 13 to 16 years old in Shenandoah had belonged to these clubs, and a few more in Frackville and in the patches.

But, as everywhere, the children of Shenandoah managed to play whether the places where they played were either suitable or safe. The smaller boys seemed to choose the railroad tracks; a football team practiced regularly in the city street; a basket for basket ball was attached to a telegraph pole in a street where trolley cars and vehicles interrupted the game. One small boy, a member of a baseball team, said the only place the team had to practice was the street; they could play there "till the cop comes." The little children went wading in the black stream which flowed along two sides of the borough and received the sewage and refuse of the mines. The older boys found that Hooky Dam, which closes two breaches in the side of the mountain and catches the water which drains down the mountain, could be used as a swimming hole. Children played on the dumps of refuse and garbage and climbed to the tops of the moun-

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tains of culm. Everywhere the larger boys loitered on street corners and gangs of smaller boys swarmed the streets. The girls, equally unprovided with proper recreation, were kept busy doing housework or caring for the younger children, so that fewer of them loitered about the streets.

In contrast with Shenandoah, a company-owned patch on the north and one on the south had a playground—one well equipped—for the



THE SWIMMING HOLE BELOW WESTON PLACE. THE ROOFS OF SHENANDOAH SHOW IN THE DISTANCE.

smaller children and the young people; a third had a small clubhouse for men and boys. But these were available for very few children. Only 51 of the 714 children who lived in the patches had ever been to a playground.

Gilberton had provided benches at intervals, facing the car tracks on Main Street. A tree had been planted near each bench, but these trees had not prospered. There was no grass anywhere, only cinders and the stagnant water of Lake Stoddard. Altogether Gilberton showed the most serious lack of parks and playgrounds.

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APPENDIXES.

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APPENDIX I.

SUMMARIES OF PENNSYLVANIA WORKMEN'S COMPENSATION ACTS OF 1915 AND 1919.[1]

1915 ACT.

Date of enactment.—June 2, 1915; in effect January 1, 1916.

Injuries compensated.—Personal injury by accident in the course of employment, causing disability for more than 14 days or death in 300 weeks, not intentionally self-inflicted or due to the intentional act of a third person for reasons not connected with the employment.

Industries covered.—All, unless employer makes election to the contrary. (Agricultural and domestic employees are excluded by a separate act.)

Persons compensated.—Private employment: All persons rendering service to another for a valuable consideration, casual employees and those working on material given out to be made up, repaired, etc., on premises not under the control of the employer excepted. Public employment: All employees.

Burden of payment.—All on employer.

Compensation for death.—(*a*) One hundred dollars funeral expenses.

(*b*) Forty per cent of weekly wages to widow or dependent widower, 5 per cent additional for each child, total not to exceed 60 per cent; if no parent, 25 per cent if 1 or 2 children, 10 per cent additional for each child in excess of 2, total not to exceed 60 per cent; if no consort or child under 16, but dependent parent, brothers, or sisters, 15 to 25 per cent of wages.

(*c*) Payments cease on death, remarriage of widow or widower, cessation of dependence of widower, or child, brother, or sister attaining the age of 16, not to continue beyond 300 weeks, unless for children under 16, when 15 per cent will be paid for 1 and 10 per cent additional for each additional child, total not to exceed 50 per cent. Basic wages are not less than $10 nor more than $20 weekly.

Compensation for disability.—(*a*) Reasonable medical, surgical, and hospital expenses for first 14 days after disability begins, cost not to exceed $25, unless major surgical operation is necessary, when $75 is the maximum.

(*b*) For total disability, 50 per cent of weekly wages for 500 weeks, $5 minimum, $10 maximum, total not to exceed $4,000; if wages less than $5, full wages will be paid.

(*c*) For partial disability, 50 per cent of weekly wage loss, $10 maximum, for not over 300 weeks; fixed periods for specified injuries, $5 minimum, $10 maximum, full wages if less than $5.

Payments may be commuted to a lump sum.

Revision of benefits.—Agreements and awards may be reviewed by the board at any time for proper cause.

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[1] United States Bureau of Labor Statistics, Bulletin No. 185, Compensation Legislation of 1914 and 1915, p. 26, Washington, 1915; United States Bureau of Labor Statistics, Bulletin No. 272, Workmen's Compensation Legislation of the United States and Canada, p. 54, Washington, 1921.

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Insurance.—Employers must insure in the State fund, a stock or mutual Company, or give proof of financial ability.

Security of payments.—Agreements or claims may be filed with a prothonotary, who enters them as a judgment, and if approved by the board they become a lien on the property of the employer. A separate act provides for direct payments from insurance companies to the beneficiaries, in case of the employer's failure to make payment of benefits.

Settlement of disputes.—Disputes are settled by a workmen's compensation board, with appeal to courts.

1919 ACT.

Date of enactment.—June 2, 1915; in effect January 1, 1916; amended, acts Nos. 57, 359, 395, acts of 1917; acts Nos. 277, 306, 310, 441, 455, acts of 1919.

Injuries compensated.—Personal injury by accident in the course of employment, causing disability for more than 10 days or death in 300 weeks, not intentionally self-inflicted or due to the intentional act of a third person for reasons not connected with the employment.

Industries covered.—All, unless employer makes election to the contrary. A supplemental act (No. 359, acts of 1917) requires all contracts with the State or any municipality to contain a provision that the contractor shall accept the provisions of the compensation law. (Agricultural and domestic employees are excluded by a separate act.)

Persons compensated.—Private employment: All persons rendering service to another for a valuable consideration, casual employees whose work is not in the regular course of the employer's business, and outworkers excepted. Public employment: All employees.

Burden of payment.—All on employer.

Compensation for death.—(*a*) $100 funeral expenses.

(*b*) Forty per cent of weekly wages to widow or dependent widower, 10 per cent additional for each child, total not to exceed 60 per cent; if no parent, 30 per cent if one or two children, 10 per cent additional for each child in excess of two, total not to exceed 60 per cent; if no consort or child under 16, but dependent parent, brothers, or sisters, 15 to 25 per cent of wages.

(*c*) Payments cease on death, remarriage of widow or widower, cessation of dependence of widower, or when a child, brother, or sister attains the age of 16; not to continue beyond 300 weeks, unless for children under 16, when 15 per cent of wages will be paid for one and 10 per cent additional for each additional child, total not to exceed 50 per cent. Basic wages are not less than $10 nor more than $20 weekly.

Upon remarriage a widow is to receive the then value of the compensation for one-third of the unpaid period.

Compensation for disability.—(*a*) Reasonable medical and surgical expenses for first 30 days after disability begins, cost not to exceed $100; in addition, hospital treatment for 30 days at prevailing costs.

(*b*) For total disability, 60 per cent of weekly wages for 500 weeks, $6 minimum, $12 maximum, total not to exceed $5,000, if wages less than $6 full wages will be paid.

(*c*) For partial disability, 60 per cent of weekly wage loss, $12 maximum, for not over 300 weeks; fixed periods for specified injuries, in lieu of other payments, $6 minimum, $12 maximum, full wages if less than $6.

Payments may be commuted to a lump sum.

Revision of benefits.—Agreements and awards may be reviewed by the board at any time for proper cause.

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Insurance.—Employers must insure in the State fund, a stock or mutual company, or give proof of financial ability.

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Settlement of disputes.—Disputes are settled by a workmen's compensation board with appeal to courts.

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APPENDIX II.

SECTIONS OF LEASES OF ESTATES.

The following is a section of a lease made by the city of Philadelphia as trustee of * * * estate:

"XI. IT IS EXPRESSLY AGREED that this lease is taken and held by the said lessee subject to the right of the City of Philadelphia, trustee, as aforesaid, its successors, and assigns, and its and their tenants and lessees, under any lease now made, or that may hereafter be made, to mine out all the coal in the veins at, near or under the surface of the lot of ground hereby demised, or under the surface of any adjoining property by the said lessor, *without leaving any support whatever for the surface or of the said mineworkings;* that the said, the City of Philadelphia, trustee as aforesaid, its successors and assigns, and its and their tenants and lessees shall have the perfect and absolute right, undiminished by this lease, *to dig, work, remove and mine the whole and every part of the said coal, whether or not by so doing the surface of the aforementioned lot subsides or is broken or thrown down, or the improvements thereon impaired, or rendered unsafe for occupations, or destroyed, and without compensation to the party of the second part herein,* either from the tenants or lessees under mining leases, or from the lessor herein, or its or their successors or assigns, for coal so mined, or for injuries to or destruction of the surface, or any improvement or building thereon, thereby occasioned, and *without provision for the support of the surface or of the mineworkings, even though such mining and working should be negligently, unskillfully and improperly done;* that the said *lessee hereby releases all claims for damages of every kind and nature, for injury to the surface of the demised premises, buildings, improvements, and the person of the said lessee,* that may be occasioned by the mining aforesaid; and nothing herein contained shall be construed to give to the said lessee any right to interfere with, or to restrain by any proceedings at law or in equity the action of the City of Philadelphia, trustee as aforesaid, its successors and assigns, and its and their tenants and lessees, in mining and removing the coal as aforesaid."

Following is a similar section of the lease of another estate:

"16. IT IS EXPRESSLY AGREED by the said lessee that this lease is taken and held by the lessee subject to the right of the said lessors, their heirs, successors, and assigns, and their tenants and lessees, under any lease now made, or that hereafter may be made, to mine out all the coal in the beds or veins, at, near, or under the surface of the lot or lots of ground hereby demised, or under the surface of any adjoining or other property owned, leased, or operated by the lessors, their heirs, successors, and assigns, and their tenants and lessees under mining leases, without leaving any support whatever, either vertical or lateral for the surface of the said lot or lots, or of the mine workings; that the lessors, their heirs, successors, and assigns, and their tenants and lessees under mining leases, shall have the perfect and absolute right, undiminished by this lease, to dig, work, mine, and remove the whole and every part of said coal, although by so doing the surface of the demised premises subsides or is broken or thrown down, or destroyed, or the improvements thereon are impaired, or rendered unsafe for occupation, or destroyed, without compensation to the lessee herein, either from

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the tenants or lessees under mining leases or from the lessors herein, or their heirs, executors, administrators, successors, or assigns, for coal so mined or for injuries to or destruction of the surface, or any improvement or building thereon, or to any person or persons, thereby occasioned, even though such mining and working should be negligently, unskillfully, and improperly done, and without provision for the support of the surface of the demised premises or of the mine workings; that the lessee hereby releases the said lessors, and each of them, their heirs, successors, and assigns, and their tenants and lessees under any mining lease now made or that hereafter may be made, and each of them, and the said Borough of Shenandoah. Following is a copy of the section relieving the lessors from responsibility for any damage due to discharge of culm into the stream, etc. For section relating to the caving in of surfaces, see footnotes, p. 380.

"X. It is hereby further expressly agreed by said lessees that this lease is taken and held subject to the right of the said lessors, and each of them, their heirs, successors, and assigns, and their tenants and lessees, under any lease now made, or that hereafter may be made, *to deposit and discharge into the Shenandoah Creek, and its tributaries, mine water, culm, coal dirt, slate and refuse material generally, from any collieries, washeries and culm banks, now or hereafter* owned, leased or operated by the said lessors, or either of them, their heirs, successors and assigns, and their tenants and lessees, or either of them, or by any firm or corporation in which the said lessors, or either of them, may be interested, by owning stock or capital or as lessor, lessee or otherwise; or from any colleries, washeries and culm banks now or hereafter located upon lands owned or leased by the lessors, or either of them, their heirs, successors or assigns, or upon land owned or leased by any of the firm or corporation in which the lessors, their heirs or assigns, or either of them, may be interested by owning stock, capital or otherwise, or be in any way interested, along or near the said Shenandoah Creek, or any tributaries thereof; and for the purpose aforesaid the said lessee hereby remises, releases, quit-claims and forever discharges the said lessors, and each of them, their heirs, successors and assigns, and their tenants and lessees under any lease now made, or that hereafter may be made, and each of them, of and from all suits, claims, demands, and damages whatsoever arising out of the use now or heretofore of the aforesaid and the future maintenance and operation of the same and of others, and for, upon or by reason of any such deposit or discharge, or of any other deposit or discharge, or of any other deposit or discharge generally that has been or may at any time be discharged and deposited in said stream or on the above-described lot, or land adjacent thereto; and of and from all suits, claims, demands and damages whatsoever, for, upon or by reason of any and every use of the said land, and of the said Shenandoah Creek and its tributaries, as aforesaid. Of and from all claims for damages of every kind and nature, for injury to the surface of the demised premises, and the buildings and improvements thereon and to the person and persons of the lessee, that may be occasioned by the mining aforesaid, or by the disposition of the coal or of the rock, culm, waste, washings from breaker, or mine water from minings, colliery or washery operations, and nothing herein contained shall be construed to give to the lessee any right to interfere with, or to restrain by any proceedings at law or in equity the action of the lessors, their heirs, successors and assigns, and their tenants, in mining, removing and preparing said coal, or in the disposition of the coal, rock, culm, waste, washings from breaker, or mine water from the said mining, colliery, or washery operations."

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APPENDIX III.

EXCERPT FROM AN UNPUBLISHED REPORT OF THE CHIEF OF PENNSYLVANIA STATE BUREAU OF HOUSING TO THE COMMISSIONER OF HEALTH, APRIL 9, 1919, REGARDING LAND OWNERSHIP AND RELIEF OF CONGESTION IN SHENANDOAH.

"The land is owned by three corporations, as follows: The * * * estate to the north of * * * Street; the * * * and * * * estate to the south of * * * Street and west of * * * Street; the * * * company to the south of * * * Street and east of * * * Street; and no land is offered for sale or lease. The congestion is due to the fact that there is no place for the people to build homes, unless these corporations place upon the market their available vacant land.

"The * * * estate owns very little land within the borough limits and this land would not be safe to build upon; the houses on the north side of * * * Street that are built upon land leased from them are mostly in a bad condition, due to settlement of the ground. Farther up the side of the mountain to the north and outside of the borough limits and above the line of mine breaches they are considering offering for sale some six or seven hundred lots, provided that the borough extends its limits to take in these lots and supplies them with water and street lights. The estate offers to grade and pave streets and sidewalks, install curbs and sewers.

"This operation would be a very desirable one and would, of course, be a great improvement to the borough, but it would be a very expensive proposition for the borough to pump the water up to the required level, and as the financial condition of the borough is very poor the authorities do not desire to install the water supply for these lots."

"The * * * estate apparently does not own any ground that would either be available or safe for building purposes and within convenient access to Shenandoah. Their collieries, with their culm heaps, breakers, etc., take up all their available land area, except at Turkey Run, which is not considered safe for further building purposes. The few houses there are in bad condition, due to settlement.

"The * * * company possesses the only land that if opened up and placed upon the market would relieve conditions in the borough proper. The land is convenient and accessible to the collieries and to the town. It is situated on the south side of the road to * * * and on both sides of the road to * * *. It has a gentle slope, so that the grading would not be expensive, and yet with sufficient slope to give good natural drainage; it could be sewered easily to Shenandoah Creek, which is only a short distance away, and the water supply could be taken from the present reservoir as the elevation is not much higher than the central portion of Shenandoah. The ground is underlaid with about two hundred feet of solid rock above the coal veins and is therefore considered safe from settlement.

"If this ground were opened up and placed on the market at a reasonable price it would relieve conditions of overcrowding and congestion, by providing a convenient location that would meet the needs of the workmen and enable them to build neat and comfortable homes and have sufficient breathing space for themselves and their families."

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APPENDIX IV—TABLES.

TABLE 1.—*Nativity of child and of father, by district of residence; children 13 to 16 years of age.*

Nativity of child and of father.	Children 13 to 16 years of age living in specified district of residence.									
	Total.		Shenandoah.		Frackville.		Gilberton.		Surrounding patches.	
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.
Total	3,136	100.0	1,655	100.0	424	100.0	343	100.0	714	100.0
Native	2,964	94.5	1,529	92.4	411	96.9	331	96.5	693	97.1
Native fathers	1,147	36.6	387	23.4	273	64.4	165	48.1	322	45.1
Foreign-born fathers	1,811	57.7	1,138	68.8	138	32.5	166	48.4	369	51.7
Father's nativity not reported	6	.....	4	.....	.....	.....	.....	.....	2	.....
Foreign born	172	5.5	126	7.6	13	3.1	12	3.5	21	2.9

TABLE 2.—*Children who began regular work at specified prior age, by age at time of inquiry and sex.*

Age at time of inquiry and sex.	Children 13 to 16 years of age.										
	Total.	Who having passed specified birthday had commenced regular work before specified birthday.									
		Who had commenced regular work.		Thirteenth.		Fourteenth.		Fifteenth.		Sixteenth.		Not reported.
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
TOTAL.												
13	844	91	10.8	62	7.3	.....	.....	.....	.....	.....	.....	4
14	716	226	31.6	24	3.4	145	20.3	.....	.....	.....	.....	3
15	794	468	58.9	20	2.5	125	15.7	390	49.1	.....	.....	1
16	779	561	72.0	10	1.3	61	7.8	329	42.2	526	67.5	1
Not reported	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
BOYS.												
13	376	64	17.0	48	12.8	.....	.....	.....	.....	.....	.....	3
14	321	147	45.8	22	6.9	103	32.1	.....	.....	.....	.....	1
15	421	301	71.5	16	3.8	92	21.9	264	62.7	.....	.....	1
16	444	382	86.0	7	1.6	43	9.7	249	56.1	368	82.9	.....
Not reported	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
GIRLS.												
13	468	27	5.8	14	3.0	.....	.....	.....	.....	.....	.....	1
14	395	79	20.0	2	0.5	42	10.6	.....	.....	.....	.....	2
15	373	167	44.8	4	1.1	33	8.8	126	33.9	.....	.....	.....
16	335	179	53.4	3	0.9	18	5.4	80	23.9	158	47.2	1
Not reported	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1

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TABLE 3.—*Employment in regular work, by age and sex; children who had passed specified ages.*

Birthday.	Children who had passed specified birthday.			Birthday.	Children who had passed specified birthday.		
	Total.[1]	Who began regular work before specified birthday.			Total.[1]	Who began regular work before specified birthday.	
		Number.	Per cent.			Number.	Per cent.
TOTAL.				BOYS—continued.			
Thirteenth	3,136	116	3.7	Fifteenth	867	513	59.2
Fourteenth	2,292	331	14.4	Sixteenth	446	368	82.5
Fifteenth	1,576	719	45.6	GIRLS.			
Sixteenth	782	526	67.3				
BOYS.				Thirteenth	1,572	23	1.5
				Fourteenth	1,104	93	8.4
Thirteenth	1,564	93	5.9	Fifteenth	709	206	29.1
Fourteenth	1,188	238	20.0	Sixteenth	336	158	47.0

[1] The three cases of age at time of inquiry and age at going to work not reported have been assumed for this comparison to have passed the sixteenth birthday but not to have commenced regular work before the sixteenth birthday, since this procedure gives the most conservative percentages.

TABLE 4.—*Children who began work of any kind at specified prior age, by age at time of inquiry and sex of child.*

Age at time of inquiry and sex.	Children of specified age.													
	Total.	Who began work of any kind before specified birthday.[1]												
		Total.		Thirteenth.		Fourteenth.		Fifteenth.		Sixteenth.		Seventeenth.		Not reported.
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
TOTAL.														
13	844	171	20.3	133	15.8	.....	.....	.....	.....	.....	.....	.....	.....	4
14	716	316	44.1	44	6.1	231	32.3	.....	.....	.....	.....	.....	.....	3
15	794	549	69.1	39	4.9	156	19.6	473	59.6	.....	.....	.....	.....	2
16	779	613	78.7	18	2.3	75	9.6	365	46.9	574	73.7	610	78.3	3
Not reported	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
BOYS.														
13	376	123	32.7	100	26.6	.....	.....	.....	.....	.....	.....	.....	.....	3
14	321	209	65.1	39	12.1	168	52.3	.....	.....	.....	.....	.....	.....	1
15	421	360	85.5	30	7.1	113	26.8	323	76.7	.....	.....	.....	.....	2
16	444	421	94.8	14	3.2	55	12.4	282	63.5	406	91.4	419	94.4	2
Not reported	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
GIRLS.														
13	468	48	10.3	33	7.1	.....	.....	.....	.....	.....	.....	.....	.....	1
14	395	107	27.1	5	1.3	63	15.9	.....	.....	.....	.....	.....	.....	2
15	373	189	50.7	9	2.4	43	11.5	150	40.2	.....	.....	.....	.....	.....
16	335	192	57.3	4	1.2	20	6.0	83	24.8	168	50.1	191	57.0	1
Not reported	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1

[1] Per cent shown only for birthdays reached in the group considered.

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TABLE 5.—*Number and per cent of children who had commenced work of any kind at specified ages.*

Birthday.	Children who had passed specified birthday.			Birthday.	Children who had passed specified birthday.		
	Total.[1]	Who began work of any kind before specified birthday.			Total.[1]	Who began work of any kind before specified birthday.	
		Number.	Per cent.			Number.	Per cent.
TOTAL.				BOYS—continued			
Thirteenth	3,136	234	7.5	Fifteenth	867	605	69.8
Fourteenth	2,292	462	20.2	Sixteenth	446	406	91.0
Fifteenth	1,576	838	53.2				
Sixteenth	782	574	73.4	GIRLS.			
BOYS.				Thirteenth	1,572	51	3.2
				Fourteenth	1,104	126	11.4
Thirteenth	1,564	183	11.7	Fifteenth	709	233	32.9
Fourteenth	1,188	336	28.3	Sixteenth	336	168	50.0

[1] The three cases of age at time of inquiry and age at going to work not reported have been assumed for this comparison to have passed the sixteenth birthday but not to have commenced work before the sixteenth birthday, since this procedure gives the most conservative percentages.

TABLE 6.—*Employment in regular work, by age at time of inquiry, nativity of father, and sex; children who had passed specified ages.*

Age of child at time of inquiry, nativity of father, and sex of child.	Children 13 to 16 years of age.[1]								
	Total.	Who having passed specified birthday had commenced regular work before passing specified birthday.							
		Thirteenth.		Fourteenth.		Fifteenth.		Sixteenth.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
	Total.								
Native fathers:									
13	324	10	3.1						
14	259	2	0.8	25	9.7				
15	278	3	1.1	15	5.4	85	30.6		
16	286	1	0.3	10	3.5	78	27.3	59	20.6
Foreign-born fathers:									
13	519	52	10.0						
14	455	22	4.8	96	21.1				
15	516	17	3.3	90	17.4	180	34.9		
16	490	9	1.8	40	8.2	189	38.6	137	28.0
	Boys.								
Native fathers:									
13	154	8	5.2						
14	120	2	1.7	21	17.5				
15	138	3	2.2	12	8.7	60	43.5		
16	146	1	0.7	6	4.1	63	42.2	36	24.7
Foreign-born fathers:									
13	222	40	18.0						
14	201	20	10.0	60	29.9				
15	283	13	4.6	64	22.6	112	39.6		
16	297	6	2.0	30	10.1	142	47.8	83	27.9
	Girls.								
Native fathers:									
13	170	2	1.2						
14	139			4	2.9				
15	140			3	2.1	25	17.9		
16	140			4	2.9	14	10.0	23	16.4
Foreign-born fathers:									
13	297	12	4.0						
14	254	2	0.8	36	14.2				
15	233	4	1.7	26	11.2	68	29.2		
16	193	3	1.6	10	5.2	47	24.4	54	28.0

[1] Three cases of age not reported and six of nativity not reported are omitted from this table.

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TABLE 7.—*Employment in regular work, by age, nativity of father, and sex; children who had passed specified ages.*

Birthday, nativity of father, and sex of child.	Children who had passed specified birthday.		
	Total.[1]	Who began regular work before specified birthday.	
		Number.	Per cent.
	Total.		
Native fathers:			
13	1,147	16	1.4
14	823	50	6.1
15	564	165	29.3
16	286	59	20.6
Foreign fathers:			
13	1,983	100	5.0
14	1,464	226	15.4
15	1,009	369	36.6
16	493	137	27.8
	Boys.		
Native fathers:			
13	558	14	2.5
14	404	39	9.7
15	284	123	43.3
16	146	36	24.7
Foreign fathers:			
13	1,005	79	7.9
14	783	154	19.7
15	582	254	43.6
16	299	83	27.8
	Girls.		
Native fathers:			
13	589	2	0.3
14	419	11	2.6
15	280	39	13.9
16	140	23	16.4
Foreign fathers:			
13	978	21	2.1
14	681	72	10.6
15	427	115	26.9
16	194	54	27.8

[1] Three cases of age not reported are assumed to have passed sixteenth birthday, but not to have commenced work before sixteenth birthday.

TABLE 8.—*Employment in any kind of work, by age, nativity of father, and sex; children who had passed specified ages.*

Age of child at time of inquiry, nativity of father, and sex of child.	Children 13 to 16.											
	Total.	Who had commenced work of any kind.		Who having passed specified birthday had commenced work before specified birthday.								
				Thirteenth.		Fourteenth.		Fifteenth.		Sixteenth.		
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
	Total.											
Native fathers:												
13	324	46	14.2	39	12.0	.....	.....	.....	.....	.....	.....	
14	259	94	36.3	11	4.2	55	21.2	.....	.....	.....	.....	
15	278	161	57.9	6	0.2	23	8.3	110	39.6	.....	.....	
16	286	195	68.2	5	1.7	14	4.9	87	30.4	69	24.1	
Foreign fathers:												
13	519	125	24.1	94	18.1	.....	.....	.....	.....	.....	.....	
14	455	222	48.8	33	7.3	132	29.0	.....	.....	.....	.....	
15	516	388	75.2	33	6.4	94	18.2	207	40.1	.....	.....	
16	490	415	84.7	13	2.7	42	8.6	202	41.2	139	28.4	
Not reported	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Nativity not reported	6	[1] 3	.....	.....	.....	1	.....	1	.....	1	.....	

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TABLE 8.—*Employment in any kind of work, by age, nativity of father, and sex; children who had passed specified ages*—Continued.

Age of child at time of inquiry, nativity of father, and sex of child.	Children 13 to 16.											
	Total.	Who had commenced work of any kind.		Who having passed specified birthday had commenced work before specified birthday.							
				Thirteenth.		Fourteenth.		Fifteenth.		Sixteenth.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Num. ber.	Per cent.
	Boys.										
Native fathers:											
13	154	41	26.6	35	22.7	.....	.....	.....	.....	.....	.....
14	120	72	60.0	9	7.5	45	37.5	.....	.....	.....	.....
15	138	115	83.4	6	4.4	18	14.1	79	57.2	.....	.....
16	146	137	93.8	5	3.4	9	6.2	72	49.3	42	28.7
Foreign fathers:											
13	222	82	36.9	65	29.3	.....	.....	.....	.....	.....	.....
14	201	137	68.2	30	14.9	84	41.8	.....	.....	.....	.....
15	283	245	86.6	24	8.5	65	23.0	131	46.3	.....	.....
16	297	283	95.3	9	3.0	32	10.8	154	51.9	82	27.6
Not reported	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nativity not reported	1	1	.....	.....	.....	.....	.....	1	.....	.....	.....
	Girls.										
Native fathers:											
13	170	5	2.9	4	2.4	.....	.....	.....	.....	.....	.....
14	139	22	15.8	2	1.4	10	7.2	.....	.....	.....	.....
15	140	46	32.9	.....	.....	5	3.6	31	22.1	.....	.....
16	140	58	41.4	.....	.....	5	3.6	15	10.7	27	19.3
Foreign fathers:											
13	297	43	14.5	29	9.8	.....	.....	.....	.....	.....	.....
14	254	85	33.5	3	1.2	48	18.9	.....	.....	.....	.....
15	233	143	61.4	9	3.9	29	12.4	76	32.6	.....	.....
16	193	132	68.4	4	2.1	10	5.2	48	24.9	57	29.5
Not reported	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nativity not reported	5	2	.....	.....	.....	1	.....	.....	.....	1	.....

[1] One boy, two girls, 16 years old.

TABLE 9.—*Employment in any kind of work, by age, nativity of father, and sex; children who had passed specified ages.*

Birthday, nativity of father, and sex of child.	Children who had passed specified birthday.		
	Total.[1]	Who began first work before specified birthday.	
		Number.	Per cent.
	Total.		
Native fathers:			
Thirteenth	1,147	61	5.3
Fourteenth	823	92	11.2
Fifteenth	564	197	34.9
Sixteenth	286	69	24.1
Foreign fathers:			
Thirteenth	1,983	173	8.7
Fourteenth	1,464	268	18.3
Fifteenth	1,009	409	40.5
Sixteenth	493	139	28.2
	Boys.		
Native fathers:			
Thirteenth	558	55	9.9
Fourteenth	404	72	17.8
Fifteenth	284	151	53.2
Sixteenth	146	42	28.8

Birthday, nativity of father, and sex of child.	Children who had passed specified birthday.		
	Total.[1]	Who began first work before specified birthday.	
		Number.	Per cent.
	Boys—Continued.		
Foreign fathers:			
Thirteenth	1,005	128	12.7
Fourteenth	783	181	23.1
Fifteenth	582	285	49.0
Sixteenth	299	82	27.4
	Girls.		
Native fathers:			
Thirteenth	589	6	1.0
Fourteenth	419	20	4.8
Fifteenth	280	46	16.4
Sixteenth	140	27	19.3
Foreign fathers:			
Thirteenth	978	45	4.6
Fourteenth	681	87	12.8
Fifteenth	427	124	29.0
Sixteenth	194	57	29.4

[1] Three cases of age not reported are assumed to have passed sixteenth birthday, but not to have commenced work before sixteenth birthday.

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TABLE 10.—*Employment in regular work, by age of child and earnings of father; children 13 to 16 years.*[1]

Earnings of father.	Children of specified age.											
	13			14			15			16		
	Total.	Who had commenced regular employment.		Total.	Who had commenced regular employment.		Total.	Who had commenced regular employment.		Total.	Who had commenced regular employment.	
		Number.	Per cent.		Number.	Per cent.		Number.	Per cent.		Number.	Per cent.
Total	844	91	10.8	716	226	31.6	794	468	58.9	779	561	72.0
No earnings or less than $850	125	9	7.2	120	46	38.3	112	84	75.0	125	98	78.4
$850 to $1,249	271	31	11.4	236	79	33.5	275	175	63.6	237	194	81.9
$1,250 to $1,849	226	13	5.8	177	39	22.0	174	88	50.6	182	112	61.5
$1,850 and over	54	1	.....	44	5	.....	46	7	.....	39	8	.....
Father dead or deserting	104	22	21.2	94	45	.....	126	75	59.5	126	101	80.1
Earnings not reported	64	15	.....	45	12	.....	61	39	.....	70	48	.....

[1] Three children were excluded from the table, whose ages were not reported, who had entered regular employment and whose fathers' earnings were as follows: One less than $850; one father dead or deserting; one father with earnings not reported.

TABLE 11.—*Industry of first regular work, by nativity of father; boys who had commenced regular work.*

Industry of first regular work.	Boys who had commenced regular work.						
	Total.		Nativity of father.				
			Native.		Foreign born.		Not reported.
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	
Total	896	100.0	247	100.0	648	100.0	1
Mining industry	810	90.4	205	83.0	604	93.2	1
Other industry	85	9.5	41	16.6	44	6.8	.....
Not reported	1	0.1	1	0.4	.....	.....	.....

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TABLE 12.—*Industry of first regular work, by age of child at beginning regular work; boys who had commenced regular work.*

Industry of first regular work.	Boys who had commenced regular work at specified age.										
	Total.		Under 13.	13		14		15		16	Age not reported.[1]
	Number.	Per cent distribution.	Number.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	
Total	896	100.0	93	206	100.0	421	100.0	155	100.0	14	7
Mining industry	810	90.4	86	193	93.7	375	89.1	138	89.0	13	5
Above ground	774	86.4	85	186	90.3	363	86.2	127	81.9	10	3
Underground	36	4.0	1	7	3.4	12	2.9	11	7.1	3	2
Other industries	85	9.5	7	13	6.3	46	10.9	17	11.0	1	1

[1] Includes one case industry and age not reported.

TABLE 13.—*Regular hours per day, by sex; children in regular or vacation work.*

Sex.	Children in regular or vacation work.														
	Total.	Reporting specified regular hours per day.													Not reported.
		Total.	Less than 8 hours.		8 hours, less than 9.		9 hours, less than 10.		10 hours, less than 11.		11 hours, less than 12.		12 hours and over.		
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	1,561	1,393	41	2.9	1,007	72.3	254	18.2	61	4.4	18	1.3	12	0.9	168
Boys	1,059	1,031	27	2.6	962	93.3	29	2.8	10	1.0	2	0.2	1	0.1	28
Girls	502	362	14	3.9	45	12.4	225	62.2	51	14.1	16	4.4	11	3.0	140

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TABLE 14.—*Regular hours per day, by industry and sex; children in regular or vacation work.*

Industry.	Children in regular or vacation work.														
	Total.	Reporting specified regular hours per day.													Not reported.
		Total.	Less than 8 hours.		8 hours, less than 9.		9 hours, less than 10.		10 hours, less than 11.		11 hours, less than 12.		12 hours and over.		
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
	Boys.														
Total	1,059	1,031	27	2.6	962	93.3	29	2.8	10	1.0	2	0.2	1	0.1	28
Mining	953	953	21	2.2	927	97.3	5	0.5	.....	.....	.....	.....	.....	.....	.....
Other	106	78	6	7.7	35	44.9	24	30.8	10	12.8	2	2.6	1	1.3	28
	Girls.														
Total	502	362	14	3.9	45	12.4	225	62.2	51	14.1	16	4.4	11	3.0	140
Manufacturing industries	273	264	4	1.5	20	7.6	203	76.9	36	13.6	1	.4	.....	.....	9
Clothing	137	133	1	.8	10	7.5	101	75.9	20	15.0	1	.8	.....	.....	4
Cigar	113	112	1	.9	3	2.7	95	84.8	13	11.6	.....	.....	.....	.....	1
Other and not reported	23	19	2	.....	7	.....	7	.....	3	.....	.....	.....	.....	.....	4
Domestic service	173	57	9	.....	10	.....	8	.....	12	.....	9	.....	9	.....	116
All other	55	41	1	.....	15	.....	14	.....	3	.....	6	.....	2	.....	14
Not reported	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1

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TABLE 15.—*Maximum hours per day, by age and sex; children in regular work who did overtime work.*

Age and sex.	Children in regular work who did overtime work.																	
	Total.	Reporting specified maximum hours per day.																Not reported.
		Total.	Less than 10 hours.		10, less than 12.		12, less than 14.		14, less than 16.		16, less than 18.		18, less than 20.		20, less than 22.		22 and over.	
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	517	451	38	8.4	133	29.5	122	27.1	36	8.0	89	19.7	9	2.0	3	0.7	21	4.7	66
Boys	488	426	37	8.7	123	28.9	109	25.6	35	8.2	89	20.9	9	2.1	3	0.7	21	4.9	62
13	44	39	2	.....	13	.....	17	.....	3	.....	4	.....	.....	.....	.....	.....	.....	.....	5
14	75	60	7	.....	21	.....	13	.....	5	.....	13	.....	1	.....	.....	.....	.....	.....	15
15	155	135	15	11.1	40	29.6	32	23.7	12	8.9	23	17.0	6	4.4	1	0.7	6	4.4	20
16	213	191	13	6.8	49	25.7	47	24.6	14	7.3	49	25.7	2	1.0	2	1.0	15	7.9	22
Not reported	1	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Girls	29	25	1	.....	10	.....	13	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
13	1	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	6	5	.....	.....	1	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
15	12	12	.....	.....	6	.....	5	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	10	7	1	.....	2	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3

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TABLE 16.—*Maximum hours per day, by industry; boys in regular work who did overtime work.*

Industry.	Boys in regular work who did overtime work.																	
	Total.	Reporting specified maximum hours per day.																
		Total.	Less than 10 hours.		10, less than 12.		12, less than 14.		14, less than 16.		16, less than 18.		18, less than 20.		20, less than 22.		22 and over.		Not reported.
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	488	426	37	8.7	123	28.9	109	25.6	35	8.2	89	20.9	9	2.1	3	0.7	21	4.9	62
Mining industry	476	417	35	8.4	122	29.3	105	25.2	34	8.2	88	21.1	9	2.2	3	0.7	21	5.0	59
Other industries	12	9	2	.....	1	.....	4	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	3

TABLE 17.—*Total hours per week, by age; children in regular work who did overtime work.*

Age.	Children in regular work who did overtime work.										
	Total.	Reporting specified total hours per week.									
		Total.	Less than 48.		48 to 51 even.		More than 51, but less than 60.		60 and over.		Not reported.
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	521	434	2	0.5	82	18.9	179	41.2	171	39.4	87
13	45	42	.....	.....	8	.....	14	.....	20	.....	3
14	82	65	.....	.....	18	.....	31	.....	16	.....	17
15	168	141	2	1.4	31	22.0	50	35.5	58	41.1	27
16	225	186	.....	.....	25	13.4	84	45.2	77	41.4	39
Not reported	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1

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TABLE 18.—*Nonemployment, by industry; fathers for whom reports of earnings covered year period.*[1]

Industry at time of inquiry.	Fathers for whom reports of earnings covered year period.						
	Total.	Reporting on nonemployment during year period.					Not reported.
		Total.	With nonemployment.		Without nonemployment.		
			Number.	Per cent.	Number.	Per cent.	
Total	1,986	1,916	1,386	72.3	530	27.7	70
Mining industry	1,507	1,502	1,190	79.2	312	20.8	5
Aboveground	420	418	307	73.4	111	26.6	2
Underground	1,086	1,084	883	81.5	201	18.5	2
Not reported	1						1
Other industries	435	370	152	41.1	218	58.9	65
No present occupation	44	44	44				

[1] From this total are omitted fathers who died or deserted during the year period for whom for other reasons earnings were not reported.

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TABLE 19.— *Yearly earnings, by industry fathers for whom reports of earnings covered year period.*

Industry.	Fathers for whom reports of earnings covered year period.																
	Total.	Yearly earnings reported.															
		Total.	No earnings or less than $850.		$850, less than $1,050.		$1,050, less than $1,250.		$1,250, less than $1,450.		$1,450, less than $1,850.		$1,850, less than $2,850.		$2,850 and over.		Not reported.
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	1,986	1,802	346	19.2	361	20.0	381	21.1	310	17.2	263	14.6	119	6.6	22	1.2	184
Mining industry	1,507	1,390	231	16.6	312	22.4	339	24.4	246	17.7	202	14.5	55	4.0	5	0.4	117
Above ground	420	400	102	25.5	88	22.0	79	19.8	71	17.7	46	11.5	12	3.0	2	0.5	20
Under ground	1,086	990	129	13.0	224	22.6	260	26.3	175	17.7	156	15.8	43	4.3	3	0.3	96
Not reported	1																1
Other industries	435	368	71	19.3	49	13.3	42	11.4	64	17.4	61	16.6	64	17.4	17	4.6	67
No present occupation	44	44	44														

TABLE 20.—*Nonemployment, by sex; children in regular work during year period.*[1]

Sex.	Children in regular work during year period.														
	Total.	With no nonemployment.		With nonemployment.		Reporting specified amount of nonemployment.									Amount not reported.
						Total.	Less than 2 months.		2, less than 4 months.		4, less than 6 months.		6 months and over.		
		Number.	Per cent.	Number.	Per cent.		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	878	117	13.3	761	86.7	726	459	63.2	143	19.7	69	9.5	55	7.6	35
Boys	661	73	11.0	588	89.0	564	394	69.9	106	18.8	47	8.3	17	3.0	24
Girls	217	44	20.3	173	79.7	162	65	40.1	37	22.8	22	13.6	38	23.5	11

[1] Including only children working throughout period of year June 1, 1918–May 31, 1919, inclusive.

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TABLE 21.—*Reason for going to work, by nativity of father and child; children who had commenced work.*

Nativity of father and child.	Children who had commenced work.																
	Total.	Reporting specified reason for going to work.															Reason not reported.
		Total.	Family need.		Wanted spending money.		Old enough to work.		Wanted to work (no other reason given).		Dissatisfied with school.		Wanted to learn trade and get into business.		All other reasons.		
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	1,632	1,621	892	55.0	217	13.4	11	0.7	239	14.7	188	11.6	4	0.2	70	4.3	31
Child native	1,540	1,512	824	54.5	205	13.6	9	0.6	226	14.9	176	11.6	4	0.3	68	4.5	28
Father native	496	491	221	45.0	88	17.9	3	0.6	74	15.1	71	14.5	1	0.2	33	6.7	5
Father foreign-born	1,041	1,018	602	59.1	117	11.5	6	0.6	151	14.8	105	10.3	3	0.3	34	3.3	23
Nativity not reported	3	3	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....
Child foreign born	112	109	68	62.4	12	11.0	2	1.9	13	11.9	12	11.0	.....	.....	2	1.8	3

TABLE 22.—*Annual earnings, by sex; children in regular work.*

Sex.	Children in regular work during year.[1]														
	Total.	Earnings during year reported.													Not reported.
		Total.	Less than $200.		$200, less than $450.		$450, less than $650.		$650, less than $850.		$850, less than $1,250		$1,250 and over.		
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	878	842	112	13.3	200	23.8	281	33.4	169	20.1	76	9.0	4	0.5	36
Boys	661	639	10	1.6	110	17.2	274	42.9	166	26.0	75	11.7	4	0.6	22
Girls	217	203	102	50.2	90	44.3	7	3.4	3	1.5	1	0.5	.....	.....	14

[1] Including only those children at regular work throughout the year period June 1, 1918–May 31, 1919, inclusive.

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TABLE 23.—*Age of child at beginning school, by nativity of father; children aged 13 to 16 years.*

Nativity of father.	Children aged 13 to 16 years.																
	Total.	Reporting specified age at beginning school.															Not reported.
		Total.	5 years or under.		6 years.		7 years.		8 years.		9 years.		10 years.		11 or over.		
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	3,128	3,075	213	6.9	2,003	65.1	650	21.1	146	4.7	48	1.6	8	0.3	7	0.2	53
Native	1,145	1,142	99	8.7	861	75.4	156	13.7	24	2.1	1	0.1	1	0.1	.....	.....	3
Foreign born	1,977	1,927	112	5.8	1,139	59.1	493	25.6	122	6.3	47	2.4	7	0.4	7	0.4	50
Not reported	6	6	2	.....	3	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE 24.—*School attendance and present age; children who reported school attendance.*

School attendance.	Children of specified age who reported school attendance.										
	Total.		13 years.		14 years.		15 years.		16 years.		Age not reported.
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	
Total	[1] 3,128	100.0	842	100.0	713	100.0	794	100.0	776	100.0	3
tin school	1,742	55.7	178	21.1	338	47.4	583	73.4	640	82.5	3
school	1,386	44.3	664	78.9	375	52.6	211	26.6	136	17.5	.....

[1] Does not include eight children who never attended school.

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TABLE 25.—*Reason for leaving school, by father's nativity; children who had left school.*

Nativity of father.	Children who had left school.																				
	Total.	Reporting specified reason for leaving school.																			
		Total.	Family need.		Needed at home, or in father's business.		Old enough to work.		Wanted to work.		Dissatisfied with school.		Completed grade school.		Ill health.		Wanted to learn a trade.		All other reasons.		Reason not reported.
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	1,742	1,715	625	36.4	269	15.7	8	0.5	140	8.2	526	30.7	26	1.5	65	3.8	6	0.3	50	2.9	27
Native	447	443	138	31.2	36	8.1	3	.7	41	9.3	165	37.2	9	2.0	29	6.6	1	.2	21	4.7	4
Foreign born	1,292	1,269	487	38.4	233	18.4	5	.4	98	7.7	360	28.4	17	1.3	36	2.8	5	.4	28	2.2	23
Not reported	3	3	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....

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TABLE 26.—*Grade completed, by age of child and nativity of father; children still in school.*

Nativity of father and age of child.	Children still in school.															
	Total.	Reporting specified grade completed.														Grade not reported.
		Total.	Second and under.		Third.		Fourth.		Fifth.		Sixth.		Seventh.		Eighth and over.		
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total	1,386	1,374	9	0.7	39	2.8	101	7.4	184	13.4	244	17.8	276	20.1	521	37.9	12
Native fathers	698	697	1	.1	10	1.4	21	3.0	66	9.5	106	15.2	143	20.5	350	50.2	1
Age of child:																	
13	297	297	1	.3	7	2.4	14	4.7	48	16.2	70	23.6	86	29.0	71	23.9	.....
14	184	184	.....	.....	3	1.6	6	3.3	10	5.4	24	13.0	39	21.2	102	55.4	.....
15	120	120	.....	.....	.....	.....	1	.8	3	2.5	9	7.5	13	10.8	94	78.3	.....
16	97	96	.....	.....	.....	.....	.....	.....	5	.....	3	.....	5	.....	83	.....	1
Foreign-born fathers	685	674	8	1.2	29	4.3	80	11.9	118	17.5	136	20.1	133	19.7	170	25.2	11
Age of child:																	
13	366	354	7	1.5	21	5.8	62	17.3	78	21.7	83	23.1	75	20.9	33	9.2	7
14	189	187	.....	.....	6	3.2	16	8.6	30	16.0	45	24.1	42	22.5	48	25.7	2
15	91	90	.....	.....	2	.....	2	.....	9	.....	7	.....	16	.....	54	.....	1
16	39	38	1	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	35	.....	1
Nativity not reported	3	3	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	1	.....	.....

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TABLE 27.—*Proportion of children leaving school prior to specified ages, by age at time of inquiry, and father's nativity; children 13 to 16 years of age.*

Birthday and age at time of inquiry.	Children who had passed specified birthday.								
	Total.[1]	Who left school prior to specified birthday.		Nativity of father.					
				Native.			Foreign born.		
				Total.	Who left school prior to specified birthday.		Total.	Who left school prior to specified birthday.	
		Number.	Per cent.		Number.	Per cent.		Number.	Per cent.
Twelfth	3,136	28	0.9	1,147	6	0.5	1,983	22	1.1
13 years	844	11	1.3	324	2	0.6	519	9	1.7
14 years	716	5	0.7	259	2	0.8	455	3	0.7
15 years	794	5	0.6	278	1	0.4	516	4	0.8
16 years	[2] 782	7	0.9	286	1	0.3	493	6	1.2
Thirteenth	3,136	204	6.5	1,147	31	2.7	1,983	173	8.7
13 years	844	94	11.1	324	14	4.3	519	80	15.4
14 years	716	49	6.8	259	7	2.7	455	42	9.2
15 years	794	37	4.7	278	5	1.8	516	32	6.2
16 years	782	24	3.1	286	5	1.7	493	19	3.9
Fourteenth	2,292	549	24.0	823	103	12.5	1,464	445	30.4
14 years	716	230	32.1	259	44	17.0	455	186	40.9
15 years	794	208	26.2	278	38	13.7	516	170	32.9
16 years	782	111	14.2	286	21	7.3	493	89	18.1
Fifteenth	1,576	883	56.0	564	226	40.1	1,009	654	64.8
15 years	794	491	61.8	278	127	45.7	516	364	70.5
16 years	782	392	50.1	286	99	34.6	493	290	58.8
Sixteenth	782	599	76.6	286	169	59.1	493	427	86.6

[1] Total includes three cases father's nativity not reported.
[2] Includes three cases age not reported.

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TABLE 28.—*Age at which children left school, by age of child at time of inquiry and earnings of father.*

Earnings of father and age of child at time of inquiry.	Children.								
	Total.	Who left school at specified age.							
		Total.	Under 12.	12	13	14	15	16	Not reported.
Total	3,136	1,742	28	176	519	671	291	40	17
None or less than $850	483	299	3	26	92	120	48	6	4
13	125	22	1	8	12				1
14	120	67		12	32	22			1
15	112	96	1	4	33	45	12		1
16	125	113	1	2	15	53	36	6	
Age not reported	1	1							1
$850, less than $1,250	1,019	604	5	56	195	243	91	10	4
13	271	61	2	29	27	1			2
14	236	116	3	15	67	30			1
15	275	219		8	70	109	32		
16	237	208		4	31	103	59	10	1
Age not reported									
$1,250, less than $1,850	759	344	6	30	88	142	65	13	
13	226	32	3	12	17				
14	177	64		7	31	26			
15	174	112	1	7	25	63	15	1	
16	182	136	2	4	15	53	50	12	
Age not reported									
$1,850 and over	183	38			11	16	9	2	
13	54	1			1				
14	44	8			6	2			
15	46	16			2	12	2		
16	39	13			2	2	7	2	
Age not reported									
Father dead or deserted	451	300	12	43	88	98	48	4	7
13	104	40	5	21	14				
14	94	57	1	9	31	16			
15	126	94	3	8	28	34	16		5
16	126	108	3	5	15	48	32	4	1
Age not reported	1	1							1
Father's earnings not reported	241	157	2	21	45	52	30	5	2
13	64	22		13	9				
14	45	26	1	1	14	10			
15	61	46		5	13	20	7		1
16	70	62	1	2	9	22	23	5	
Age not reported	1	1							1

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TABLE 29.—*Proportion of children leaving school prior to specified ages, by age at time of inquiry and father's earnings; children 13 to 16 years of age.*

Birthday and age at time of inquiry.	Children who had passed specified birthday.																			
				Earnings of father.																
	Total.	Who left school prior to specified birthday.		None or less than $850.			$850, less than $1,250.			$1,250, less than $1,850.			$1,850 and over.			Father dead or deserted.			Not reported.		
				Total.	Who left school prior to specified birthday.		Total.	Who left school prior to specified birthday.		Total.	Who left school prior to specified birthday.		Total.	Who left school prior to specified birthday.		Total.	Who left school prior to specified birthday.		Total.	Who left school prior to specified birthday.	
		Number.	Per cent.		Number.	Per cent.		Number.	Per cent.		Number.	Per cent.		Number.	Per cent.		Number.	Per cent.		Number.	Per cent.
Twelfth	3,136	28	0.9	483	3	0.6	1,019	5	0.5	759	6	0.8	183	.....	.....	451	12	2.7	241	2	0.8
13 years	844	11	1.3	125	1	.8	271	2	.7	226	3	1.3	54	.....	.....	104	5	4.8	64	.....	.....
14 years	716	5	.7	120	.....	.....	236	3	1.3	177	.....	.....	44	.....	.....	94	1	.....	45	1	.....
15 years	794	5	.6	112	1	.9	275	.....	.....	174	1	.6	46	.....	.....	126	3	2.4	61	.....	.....
16 years	782	7	.9	126	1	.8	237	.....	.....	182	2	1.1	39	.....	.....	127	3	2.4	71	1	.....
Thirteenth	3,136	204	6.5	483	29	6.0	1,019	61	6.0	759	36	4.7	183	.....	.....	451	55	12.2	241	23	9.5
13 years	844	94	11.1	125	9	7.2	271	31	11.4	226	15	6.6	54	.....	.....	104	26	25.0	64	13	.....
14 years	716	49	6.8	120	12	10.0	236	18	7.6	177	7	4.0	44	.....	.....	94	10	.....	45	2	.....
15 years	794	37	4.7	112	5	4.5	275	8	2.9	174	8	4.6	46	.....	.....	126	11	8.7	61	5	.....
16 years	782	24	3.1	126	3	2.4	237	4	1.7	182	6	3.3	39	.....	.....	127	8	6.3	71	3	.....
Fourteenth	2,292	549	24.0	358	100	27.9	748	198	26.5	533	92	17.3	129	10	7.8	347	103	29.7	177	46	26.0
14 years	716	230	32.1	120	44	36.7	236	85	36.0	177	38	21.5	44	6	.....	94	41	.....	45	16	.....
15 years	794	208	26.2	112	38	33.9	275	78	28.4	174	33	19.0	46	2	.....	126	39	31.0	61	18	.....
16 years	782	111	14.2	126	18	14.3	237	35	14.8	182	21	11.5	39	2	.....	127	23	18.1	71	12	.....
Fifteenth	1,576	883	56.0	238	154	64.7	512	325	63.5	356	170	47.8	85	18	.....	253	144	56.9	132	72	54.5
15 years	794	491	61.8	112	83	74.1	275	187	68.0	174	96	55.2	46	14	.....	126	73	57.9	61	38	.....
16 years	782	392	50.1	126	71	56.3	237	138	58.2	182	74	40.7	39	4	.....	127	71	55.9	71	34	.....
Sixteenth	782	599	76.6	126	107	84.9	237	197	83.1	182	124	68.1	39	11	.....	127	103	81.1	71	57	.....

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TABLE 30.—*Cubic contents and adult and child occupants of bedrooms; bedrooms in blocks intensively studied in Shenandoah.*

Number of adults and children.	Cubic contents required under model housing law.	Bedrooms having specified cubic content.										
		Total bedrooms.	Under 600.	600, under 800.	800, under 1,000.	1,000, under 1,200.	1,200, under 1,400.	1,400, under 1,600.	1,600, under 1,800.	1,800, under 2,000.	2,000, over.	Not reported.
Total		534	4	40	102	155	122	78	24	4	4	1
1 child	400	11		1	4	1	5					
1 adult	600	70	1	9	19	18	14	3	3	2		1
2 children	800	39	1	4	9	10	11	2	2			
1 adult and 1 child	1,000	50		8	9	16	6	7	2	1	1	
2 adults or 3 children	1,200	125	2	9	18	39	27	24	5		1	
1 adult and 2 children	1,400	33			4	14	8	6	1			
4 children or 2 adults and 1 child	1,600	94		6	20	27	23	15	3			
1 adult and 3 children or 3 adults	1,800	22		1	3	5	4	5	2	1	1	
5 children or 2 adults and 2 children	2,000	37		1	9	11	7	5	4			
3 adults and 1 child or 1 adult and 4 children	2,200	9			1	3	3	2				
6 children, or 4 adults, or 2 adults and 3 children	2,400	23			3	6	9	3	1		1	
1 adult and 5 children or 3 adults and 2 children	2,600	5		1	2		2					
7 children or 2 adults and 4 children	2,800	11			1	5	2	3				
5 adults or 3 adults and 3 children	3,000	2					1	1				
2 adults and 5 children or 4 adults and 2 children	3,200	2						1	1			
6 adults and 1 child	4,000	1						1				

Total persons in blocks intensively studied in Shenandoah..... 1,435

Adults..... 745
Children..... 690

Persons sleeping in rooms having less than cubic contents required under model housing law (73.58 per cent)..... 1,056

Adults..... 540
Children (74.78 per cent of all children)..... 516

Persons sleeping in rooms having less than one-half required cubic contents (15.54 per cent)..... 223

Adults..... 90
Children (19.28 per cent of all children)..... 133

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