

U. S. DEPARTMENT OF LABOR

JAMES J. DAVIS, Secretary

CHILDREN'S BUREAU

GRACE ABBOTT, Chief

INFANT MORTALITY

RESULTS OF A FIELD STUDY IN BALTIMORE, MD.
BASED ON BIRTHS IN ONE YEAR

By

ANNA ROCHESTER

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INFANT MORTALITY

RESULTS OF A FIELD SURVEY IN THE DISTRICT OF COLUMBIA
BASED ON BIRTHS IN 1914

BY ANNA KOLLETTER

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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 infant mortality in Baltimore, Md.

It is the eighth and in many respects the most important of the unique and valuable series of infant mortality studies which the Children's Bureau made while Julia C. Lathrop was its chief. Because Baltimore is the largest city studied by the bureau, the number of births is larger, and a more detailed comparison has been possible than in other studies.

Dr. Grace Meigs Crowder was medical adviser during this investigation; Estelle B. Hunter was in charge of the field work; Emma Duke and Dr. Robert M. Woodbury planned the statistical tabulation; and Anna Rochester organized the material and wrote the report. In the analysis, the "method of expected deaths" developed by Prof. Harald Westergaard was applied under the direction of Doctor Woodbury to isolate the effects of the several causal factors.

It is a pleasure to record that conditions have improved in Baltimore since the investigation was made. The city now has a bureau of child hygiene, and the opportunities for prenatal care have been increased; and, as everywhere, the corollary has been a downward trend in the infant mortality rate. The evidence which this report adds to those already made as to conditions which affect the mortality rate among infants under 1 year of age, will, it is believed, be of value to all communities that are at work on this problem.

Respectfully submitted.

GRACE ABBOTT, *Chief.*

Hon. JAMES J. DAVIS,
Secretary of Labor.

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LETTER OF TRANSMITTAL

UNITED STATES DEPARTMENT OF AGRICULTURE

WASHINGTON, D. C.

Dear Sir: This is transmitted herewith a report of laboratory work... It is the eighth and in many respects the most important of the... and reliable series of infant mortality statistics... Baltimore is the largest city... and a more detailed comparison... in other studies... The same... was... in 1908... Dr. Robert M. Woodbury... and... for the analysis... of the... was applied under the direction of the... Woodbury to receive the effect of the... It is a pleasure to report that... more than the investigation was made... of child hygiene, and the... increased; and, as... trend in the infant mortality... able to those absolutely... (only two among infants under 1 year of age... of value to all communities... Respectfully submitted,

HON. JAMES J. HAYES,
Secretary of Labor

GEORGE J. HAYES

INFANT MORTALITY, BALTIMORE, MD.

INTRODUCTION.

Baltimore is the eighth city in which the Children's Bureau has made an intensive field study of infant mortality. Not only do the Baltimore findings strengthen conclusions indicated in the earlier studies, but they have also a unique significance because of the detailed analysis made possible by the large number of births included in the study and because Baltimore differs in certain ways from the seven other cities.

Baltimore is the largest of the cities studied by the bureau. The population, shown by the Federal census of 1910 to be 558,485, is estimated to have been 599,817 on July 1, 1915, the middle of the calendar year covered by the study.¹ It is the first city studied in which the negro population was large enough to permit analysis of the high infant mortality rate among negro babies. In fact, the composite of native white, foreign-born white, and negro elements in Baltimore was similar to that in the United States as a whole.

In the cities previously studied, some one industry predominated, but not so in Baltimore. It is not only a shipping center but also a manufacturing city producing a great variety of wares.

Baltimore is also the first city studied in which extensive infant-welfare work, including opportunity for prenatal instruction and supervision, had been carried on for several years. Hospital provision for maternity care was also relatively well developed.

In Baltimore the mortality was not markedly higher than the mortality in the birth-registration area of the United States. But this in turn is definitely higher than the mortality in certain other countries. Even when the negro births—which showed uniformly higher mortality than white births—are eliminated from consideration, the Baltimore infant mortality rate in 1916 was not only twice as high as the rate for New Zealand (and markedly higher than the rates for the cities of New Zealand) but also higher than the rates in a number of European and American cities, including London and New York. On the other hand, a number of American cities showed approximately the same mortality as Baltimore and others a higher mortality than Baltimore.²

In its population, the variety of its industries, and the rate of infant mortality prevailing, Baltimore may be regarded as a typical American city with a typical problem in relation to infant mortality.

¹ U. S. Bureau of the Census, Bulletin No. 133, p. 22.

² See Table 1, Appendix VII, p. 223.

METHOD AND PURPOSE OF THE STUDY.

The study is based primarily on the registered births (including stillbirths and miscarriages) occurring in Baltimore during the year 1915,³ and the deaths among these infants within 12 months after birth (in 1915 or 1916). The information was secured in part from the birth certificates and death certificates on file with the Baltimore Department of Public Safety, subdepartment of health, and in larger measure from the mothers who were visited by women agents of the bureau as soon as possible after the first anniversary of the baby's birth.⁴ In addition, information was secured from the mothers about all their babies and the deaths (or stillbirths or miscarriages) among these earlier births.

The babies born in 1915 fall into two main groups—the 13,484 legitimate and the 1,124 illegitimate.⁵ As the study progressed, each of these two groups had to be further divided.

Among the legitimate it was found that the families of 1,466 could not be located in Baltimore or were known to have moved away; the families of 381 were omitted as nonresidents; and for 24 babies whose families were found, and who were residents of Baltimore, detailed information was not available. Such facts as are known about these 1,871 excluded births have been analyzed and are discussed in Appendix II.^{5a} Therefore the normal group of legitimate births whose home surroundings were studied in detail and whose infant mortality rate is given with precision includes 11,613, or 86 per cent, of the registered legitimate births.⁶

More difficult to trace were the 1,124 illegitimate births. Only 679, or 60.4 per cent of these could be located and information secured about their surroundings and care. Such items as were given on the birth certificates and the known deaths in Baltimore or elsewhere are, however, analyzed for the larger group of all illegitimate births. The material on illegitimate infants is presented in a special section of the report.

The infant mortality rate among the legitimate babies whose histories were traced throughout the year was 103.5 per 1,000 live births. The rates for the other groups were unsatisfactory, but the known deaths among the illegitimate babies indicate a rate about three times as high as the rate in the normal group.⁷

³ For discussion of birth registration in Baltimore, see Appendix I, p. 185.

⁴ The father, provided he was able and willing to give the information, might be interviewed if the mother was not at home or if it was otherwise inexpedient to see the mother; others (as custodians or relatives living with the baby's family) might be interviewed (1) when the parents were dead or it was impossible to see them; (2) when the relation of such persons to the family and their information were such that there was no question as to their knowledge of facts; and (3) when their reliability was otherwise unquestioned.

⁵ In addition there were 28 stillbirths or miscarriages whose legitimacy was not reported and for whom no information could be secured.

^{5a} See p. 189.

⁶ See Table 2, Appendix VII, p. 223.

⁷ See Table VII, p. 170. For mortality among excluded legitimate births, see Appendix II, p. 189. For mortality among illegitimate infants, see p. 168.

No rate is offered as exact for Baltimore as a whole.⁸ Even the rate for the group of families studied in detail can not be considered an exact rate for all legitimate babies in Baltimore. While all the nationalities living in Baltimore, all grades of economic status, and mothers working and not working for wages are represented in the large group on which the main body of the study is based, their distribution in the group may not be identical with their distribution in the families about which information was not secured.

But the study is directly related to the city. Certain items were noted about the houses in which the babies born in 1915 lived and civic conditions affecting their health. Families in which either mother or baby was away from Baltimore surroundings four months or more during the year were excluded from the detailed study, even when the facts about them were clear. The facts about earlier births or "maternal histories" are not, however, so directly related to Baltimore.

Many known social factors in infant mortality were present in Baltimore—poverty, gainful employment for married women, imperfect sanitation, room congestion, and artificial feeding of young babies. Whether these were more or less prevalent in Baltimore than elsewhere is a question outside the scope of the present study, the aim of which is, rather, to show how these factors, and others, were related to infant mortality among the Baltimore babies about whom detailed information was available.

Statements of nationality or color are uniformly based on the color or nationality (mother tongue) of the mother. For example, in the discussion of fathers' occupations and earnings, the fathers are sometimes referred to as native white, foreign-born white, Jewish, etc., to avoid constant repetition of some such cumbersome phrase as "fathers of babies born to native white mothers."⁹

In the distribution of certain factors—the percentage of "mothers" or "fathers" or "families" of whom one or another statement is made in the text—the presence of plural births is disregarded. It is assumed that the number of births and the number of mothers, etc., are identical. The actual error involved is slight, but it should be remembered that data are based, for example, not on "mothers employed" but on "births to mothers employed."

⁸ The relation of the rates given in this study to rates for the city as a whole is discussed in Appendix III, p. 193.

⁹ Intermarriage between white and colored is forbidden in Maryland. In the study of infant mortality in Waterbury, Conn., an analysis was made of the nationality of the mother in relation to that of the father. In 87 per cent (1,911 cases) of the total 2,197 cases, the nationality of the fathers was the same as that of the mothers. *Infant Mortality: Results of a Field Study in Waterbury, Conn., Based on Births in One Year*, by Estelle B. Hunter, Children's Bureau publication No. 29, p. 116.

The study is based on a sample of Baltimore as a whole. From the data for the study, estimates obtained in detail can not be considered an exact rate for all Baltimore births in Baltimore. While all the non-maternal living in Baltimore, all ranks of economic status and another group, and not working for wages are represented in the study group in which the main body of the study is based, their distribution in the group may not be identical with their distribution in the family about which information was not secured.

But the study is directly related to the city. Certain facts were noted about the houses in which the births born in 1917 took and the conditions attending their health. Families in which either mother or father was away from Baltimore surrounding four months or more during the year, were excluded from the detailed study, even when the facts about them were clear. The facts about certain births of "maternal character" are not, however, so strictly related to Baltimore.

Many human social factors in infant mortality were present in Baltimore, however, careful study made for married women, temperamental, room temperature, and artificial feeding of young babies. Whether these were more or less present in Baltimore than elsewhere, a question outside the scope of the present study. The aim of which is rather to show how these factors and others were related to infant mortality among the Baltimore births about which detailed information was available.

Assessment of birth rate or fertility is uniformly based on the color of birth rate, the number of the mother, 5 or 6 children in the lifetime of father, conditions and earnings, the father's age, that related to a father's work, foreign-born white, black, etc. to avoid constant repetition of some such emphasis, these are factors of birth rate in other white mothers.

In the definition of certain factors - the percentage of 5 mothers or fathers, or "families" of 4 or 5 or mother's status is made in the book - the presence of birth rate is determined. It is assumed that the number of births and the number of mothers are the same. The actual error involved is slight, but it should be emphasized that data are based, for example, not on "mothers employed" but on "births to mothers employed."

1. The study is based on a sample of Baltimore as a whole. From the data for the study, estimates obtained in detail can not be considered an exact rate for all Baltimore births in Baltimore. While all the non-maternal living in Baltimore, all ranks of economic status and another group, and not working for wages are represented in the study group in which the main body of the study is based, their distribution in the group may not be identical with their distribution in the family about which information was not secured.

THE BABIES' SURROUNDINGS.

BALTIMORE.

In 1729 the inhabitants of Baltimore County addressed a petition to the general assembly for the erection of a town upon the Patapsco River. About 70 years later (in 1797) the town was incorporated as Baltimore City with a population of 20,000 persons. The settlement centered about the water front, and many houses of the shipbuilders, merchants, and sea captains of these early days still stand in the district east of the Fallsway. With the growth of the last century, the "old families" have moved away from the water front, wharves and warehouses have been extended, and the homes of the leaders in former days have passed to the immigrants of yesterday.

Commercially the water front has remained of primary importance to Baltimore. The city has spread far to the north and west of the original settlement, and freight yards and factories have carried business into other parts of the city, but the center of business life is still near the river. In the fourth ward, which lies at the head of the basin, just south and east of the physical center of the 30 square miles of Baltimore City,¹⁰ are the city hall and the customhouse, the newspapers, banks, and business offices, and, along the water front, docks, warehouses, and factories. East and south of the fourth ward docks and warehouses extend along the entire shore; and the irregular contour, especially marked in the southern districts, increases enormously the water front available to a comparatively small and compact territory.

But at the time of this study business did not monopolize the eight wards of the water front.¹¹ The more prosperous residents had moved to the north, but the poorest native white families and colonies of the foreign born remained. The negroes lived mainly in other sections of the city, but in the fourth ward and the twenty-second ward (directly south of the fourth) a considerable percentage of the births were colored. In the eight water-front wards were born more than one-third of the Baltimore babies of 1915.¹²

The foreign neighborhoods extended into two other wards—the eighteenth ward, just west of the fourth, and the fifth ward, just east of the fourth and north of the third. In these two small adja-

¹⁰ Before the annexation of additional territory on January 1, 1919.

¹¹ Wards 1, 2, 3, 4, 21, 22, 23, 24. For the tabulations on which following statements are based see Tables 3, 4, 5, 6, and 7, Appendix VII, pp. 224 to 229.

¹² "Baltimore" in this study refers to the 24 wards of Baltimore City as it was before the annexation of surrounding territory, January 1, 1919.

cent wards and the eight wards of the water front were more than two-thirds of the Baltimore births to foreign-born white mothers and all the foreign neighborhoods except the Bohemian colony near the Johns Hopkins Hospital. In these 10 wards, also, were nearly two-thirds (65.8 per cent) of the white babies whose fathers earned less than \$550 during the year after the birth in 1915.

Class.	Live births.		
	Baltimore City (24 wards).	The 10 wards. ¹	
		Number.	Per cent.
Total.....	10,797	4,581	42.4
Foreign-born white mothers.....	2,753	1,899	69.0
White mothers, earnings of father under \$550.....	2,130	1,402	65.8

¹ Wards 1, 2, 3, 4, 5, 18, 21, 22, 23, and 24.

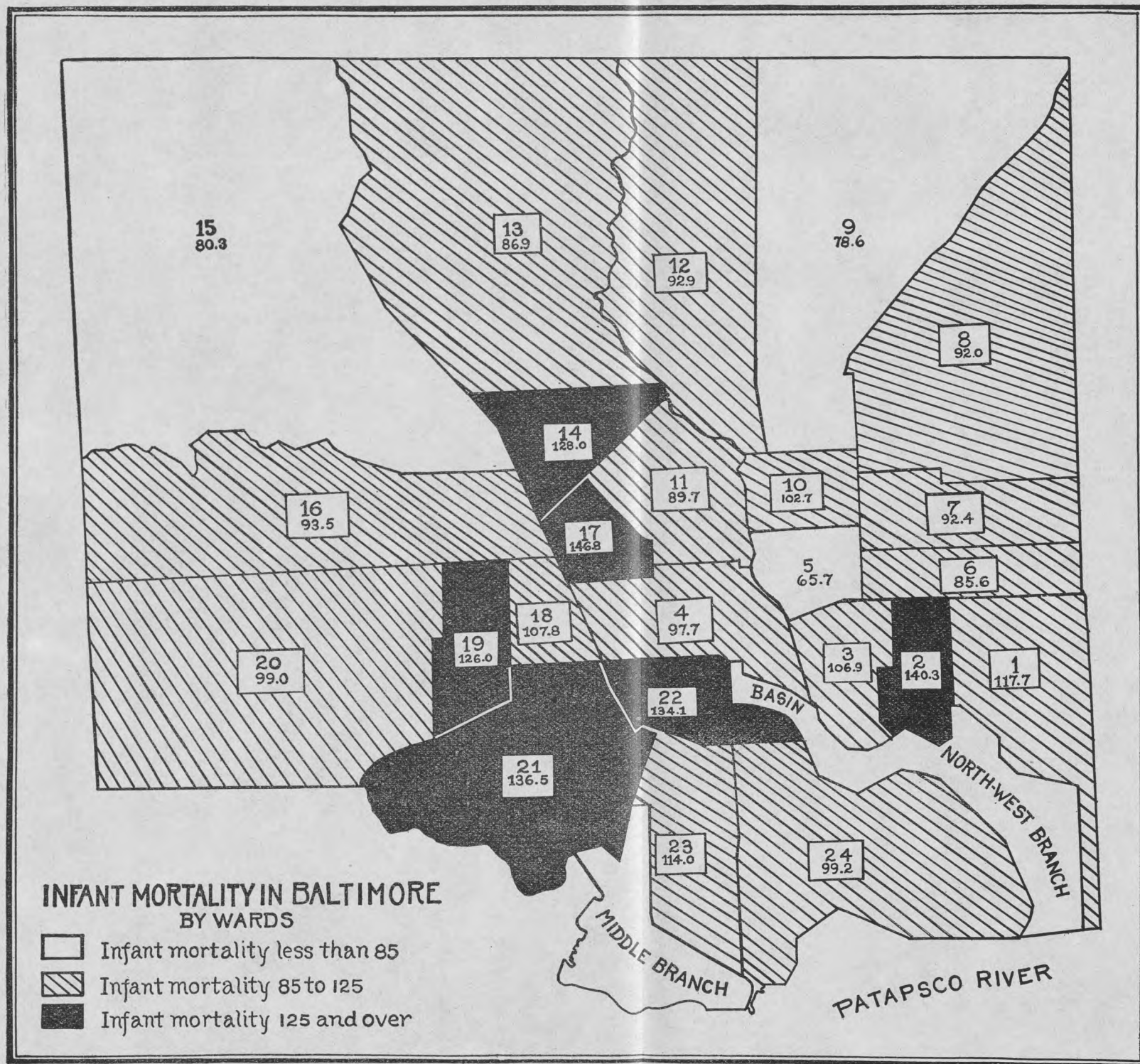
The largest distinctively foreign neighborhoods lay east of the fourth ward. Crossing the Fallsway eastward on Baltimore Street, one stepped from the business of the fourth ward into a district of dwellings and small shops from which the main currents of city life seemed singularly remote. In the fifth ward and the third ward which lay north and south of East Baltimore Street at this point, only 13 per cent of the babies were born to native white mothers. Almost half were foreign-born Jewish and one-fifth were Italian.

Just south of East Baltimore Street, in the third ward, were the blocks described in detail as the Albemarle Street district in the 1907 study of housing conditions in Baltimore.¹³ Except that between 1907 and 1915 the sewer had been built and many, though not all, of the toilets in the third ward had been connected, that report gives a true picture of the neighborhood when the babies studied were born—one-family dwellings used as tenements; extensions crowding the lots and reducing light and air to a minimum; poorly paved yards reeking with waste water (the gutters in many streets still ran with surface drainage); and live stock in congested sheds or cellars, chicken slaughterhouses, stables, and manure piles adding their odors to the general stench.

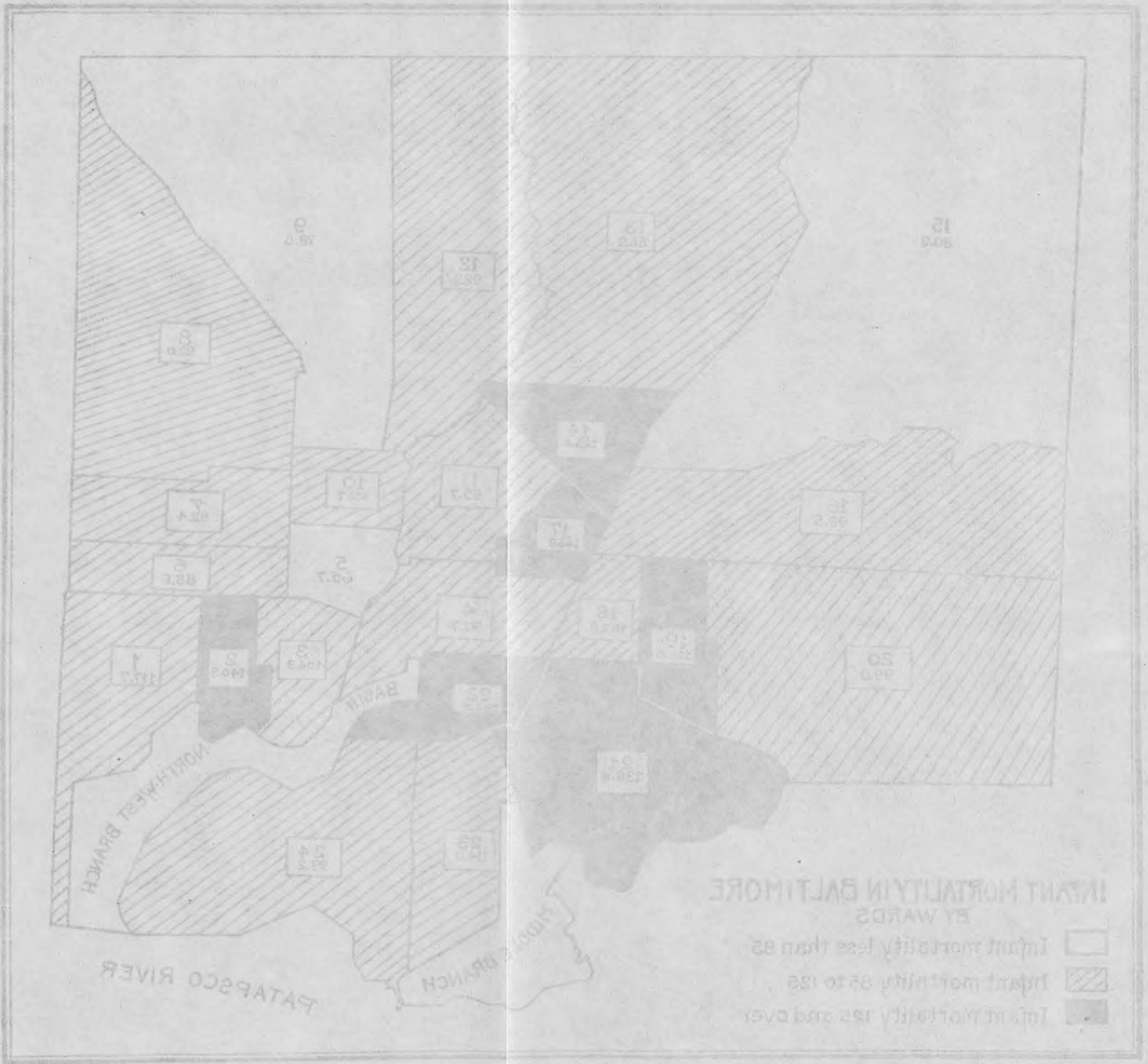
Farther south and east in the third ward the neighborhood shifted; the Jewish signs were less frequent and the Polish colony began. The Polish colony was nearer the water front in the third ward, and in the second ward and the first which follow on the east.

A typical neighborhood in the Polish colony is described in the 1907 housing report referred to above. Here also the one-family

¹³ Housing Conditions in Baltimore, a study under direction of Association for the Improvement of the Condition of the Poor and Charity Organization Society, Baltimore, 1907.



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Source: U.S. Census Bureau, 1921

house of an earlier day was the prevailing type of tenement. In lot congestion and in neglect of necessary repairs, the report found this neighborhood slightly better than the Albemarle district, and there were no chicken slaughterhouses. Dampness, however, in cellars and yards was no less prevalent.

A much smaller Polish colony lived across the Basin, in the eastern part of the twenty-fourth ward in the district known as Locust Point. Behind the railroad piers, the dry docks, and the grain elevators which line the water front, and separated from the western part of the ward by railroad tracks and, at the time of this study, by a wide stretch of unbuilt land, lived this isolated community, made up largely of Poles and other foreigners working on the water front and in the big industrial plants of the districts.¹⁴ The lack of sanitation and the filthy condition of the streets in this district were conspicuous. In the twenty-fourth ward as a whole considerably more than half the babies were in homes which had no sewer connection.¹⁵

In the foreign neighborhoods west and south of the business center of the fourth ward,¹⁶ the largest single group of foreign-born families was the Lithuanian, and 91 of the 100 babies of Lithuanian mothers in Baltimore lived in the fourth or the twenty-second ward or just west of these in the eighteenth or the twenty-first ward. Almost no Polish families lived in the wards west and south of the central business district, and foreign-born Jewish families were slightly less numerous than Italian families. In the twenty-second ward, also, were the blocks selected in the 1907 housing study to show the worst conditions in negro dwellings in Baltimore. But there were fewer births to colored mothers than to foreign-born white mothers in this ward.

The largest negro neighborhood lay northwest of the downtown business district. More than half the births in the seventeenth ward (which adjoined to the north the western part of the fourth ward) were colored; and this ward, with the fourteenth which lay beyond it to the north and the eleventh ward which adjoined them both on the east, included almost one-third of the total number of negro births in Baltimore.

¹⁴ The tabulations do not show how the 447 live births to native white mothers and the 158 live births to foreign-born white mothers were divided between the Locust Point district and the western part of the ward. But the Locust Point district was popularly supposed to be chiefly foreign and the western part of the ward chiefly native born.

¹⁵ See Table 4, Appendix VII, p. 224.

¹⁶ Wards 4, 18, 21, 22, 23, and 24 except Locust Point.

TABLE I.—*Ward of residence; live births to colored mothers in 1915.*

Ward group.	Live births to colored mothers.	
	Number.	Per cent distribution.
Total.....	1,305	100.00
Wards 11, 14, 17.....	414	31.7
Wards 15, 16, 18, 22.....	338	25.9
All other wards ¹	553	42.4

¹ Wards in which less than one-fifth of the births were to colored mothers.

Certain alleys in the seventeenth ward were described in the 1907 study of housing conditions in Baltimore as typical of negro alley dwellings in the city. This study showed space to be less congested in the Negro alleys than in the Jewish and Polish districts east of the Fallsway. But it found a higher percentage of dwellings seriously out of repair, and it referred especially to the lack of decent toilet facilities and to the filthy dampness of the alleyways. At the time of this study the percentage of babies born into homes which lacked sewer connection was more than twice as high in the seventeenth ward as that in any one of the four poorest white wards.¹⁷

Around these districts, where the poorest homes predominated and where native white families were in the minority, the city stretched out to the east, to the north, and to the west. The small downtown district of fashion and wealth lay directly north of the fourth ward—a narrow belt in the eleventh ward—between the negro district on the west and the steep slope that dropped to the factories and railroad tracks along the Fallsway on the east. The other choice residential districts were to the north and northwest of this, about Druid Hill Park and toward the Johns Hopkins University and beyond.¹⁸

In no ward, however, did births among the well-to-do predominate, and no ward was without a quota of foreign-born and negro families.¹⁹

Baltimore has been called a city of homes. The present study offers no basis for comparing Baltimore with other cities in respect to the prevalence of one-family houses, but it was found that slightly more than two-thirds (68 per cent) of the infants whose dwellings were studied lived in one-dwelling buildings and only 3 per cent lived in buildings of five or more dwellings.²⁰ Twenty-eight per cent of

¹⁷ Wards 2, 3, 5, and 22 showed median earnings of the fathers under \$650. For exact percentages of dwellings with sewer connection in the several wards, see Table 4, Appendix VII, p. 225.

¹⁸ Of the 197 live births in families where the father earned \$2,850 and over, 134, or 68 per cent, lived in the eleventh ward, or in the twelfth, thirteenth, fourteenth, or fifteenth wards to the north or northwest of the eleventh ward. Of the 44 infants surviving at least two weeks who lived in rented dwellings with rental of \$50 or more a month, 42 lived in these five wards. See Tables 5 and 6, Appendix VII, pp. 226 and 228.

¹⁹ See Tables 3 and 5, Appendix VII, pp. 224 and 226.

²⁰ See Table 10, Appendix VII, p. 230.

the families owned the dwellings in which they lived, but behind this average percentage there were wide variations in the different wards and in the different earnings groups. Speaking generally, the higher the fathers' earnings and the higher the economic level within a ward the higher was the percentage of families owning the dwelling in which they lived. This percentage rose to 50 per cent and 56 per cent, respectively, among the families throughout the city where the fathers earned \$1,250 to \$1,849, and \$1,850 and over. Wards 1, 6, 7, 9, 15, and 16 also showed more than one-third of the infants in families who owned their dwellings. But these should be contrasted with the seven wards (4, 5, 11, 17, 18, 22, and 23) where only 15 per cent or less owned their dwellings, and the very small percentages of homes owned by families in the lower earnings groups.²¹

Baltimore is built on the alley plan, and in these narrow back streets lived a considerable percentage of the population, especially of the negroes. The evils of unpaved and dirty alleys were recognized by the city officials, and in 1916, during the epidemic of poliomyelitis, a systematic flushing of the alleys was attempted. Paving of the alleys was gradually being pushed, but the *Municipal Journal* stated in February, 1917, that 800 alleys were then under contract to be paved and in addition 1,279 alleys had not yet been paved nor contracted for. Alley dwellings have not been tabulated separately in the present study, but they unquestionably housed many of the colored babies and many of the babies in the poorest white families.

The sewerage system of Baltimore was opened in 1911. Of the 10,336 infants whose dwellings are included in the present study, 2,364, or 23 per cent, had toilets not connected with the sewer. The great majority of these dwellings were in wards which included open blocks and outlying districts. The tabulations do not show how many of the dwellings without sewer connection were in open blocks and how many in thickly settled parts of these wards. It was found, however, that in 13 wards having no outlying districts, 598 infants lived in dwellings without sewer connection, and the percentage having no sewer connection varied in these 13 wards from 1 per cent in the fourth ward to 35 per cent in the nineteenth ward and 37 per cent in the first ward.²²

During 1916 a vigorous clean-up campaign was inaugurated, the Women's Civic League and the Women's Cooperative Civic League working with the city departments to secure the cooperation of householders throughout the city in more efficient handling of garbage and other refuse. In 1916 a city ordinance was enacted requiring householders to use covered metal cans for garbage awaiting collection.

²¹ See Tables 7 and 9, Appendix VII, pp. 229 and 230.

²² See Table 4, Appendix VII, p. 225.

MOTHERS' COLOR AND NATIONALITY.

The group of Baltimore births includes nearly 7,000 native white families, nearly 3,000 white families in which the mother was of foreign birth, and more than 1,000 negro families. Or, in exact percentages, 62 per cent of the births were to native white mothers, 25 per cent to foreign-born white mothers, and 13 per cent to negro mothers.²³

TABLE II.—*Color and nativity of mother; births in 1915.*

Color and nativity of mother.	Births in 1915.	
	Number.	Per cent distribution.
Total.....	11, 195	100. 0
Native white.....	6, 937	62. 0
Foreign-born white.....	2, 837	25. 3
Colored.....	1, 421	12. 6

Foreign-born white families.

The tabulations do not show how many of the native white mothers were of foreign parentage and what foreign stocks predominated; but in 1910, according to the Federal census, more than one-third (34 per cent) of the native white population of all ages and both sexes was of foreign or mixed parentage. The principal groups were, in the order named, German, English and Celtic (chiefly Irish), Jewish, and Polish. Together these groups comprised almost 90 per cent of the total number of native white persons of foreign or mixed parentage and about 30 per cent of the total native white population.²⁴

In 1910 the same four groups predominated among the foreign-born population in Baltimore that have been noted among the native white population of foreign or mixed parentage. The order of numerical importance was somewhat different, however, with the Jewish and Polish groups each larger than the English and Celtic (chiefly Irish) group. The German group was both actually and relatively smaller among the foreign-born white population than among the native white population of foreign or mixed parentage. In the present study, based on births in Baltimore during the year 1915, the group of foreign-born German mothers was smaller than the groups of foreign-born Jewish, Polish, or Italian mothers.

Certain important elements in the foreign-born population of the United States were not sufficiently represented in Baltimore to appear in the present study. For example, the detailed study of legitimate

²³ See Table 69, Appendix VII, p. 280.²⁴ See Table 11, Appendix VII, p. 230.

births includes 21 births to foreign-born mothers of western European nationalities other than German or English and Celtic, and 77 to mothers of eastern European nationalities other than Polish, Bohemian, and Lithuanian. In the analysis of conditions and mortality rates in the foreign-born families—that is, among infants of foreign-born white mothers—discussion will cover mainly the Jewish, Polish, and Italian groups.

TABLE III.—*Nationality of mother; births in 1915 to foreign-born white mothers.*

Nationality of mother.	Births ¹ to foreign-born white mothers.		Nationality of mother.	Births ¹ to foreign-born white mothers.	
	Number.	Per cent distribution.		Number.	Per cent distribution.
Total.....	2,894	100.0	Bohemian.....	112	3.9
Jewish.....	1,011	34.9	Lithuanian.....	105	3.6
Polish.....	655	22.6	Russian.....	24	.8
Italian.....	440	15.2	Other western European ²	21	.7
German.....	331	11.4	Other eastern European ³	53	1.8
Irish.....	101	3.5	All other ⁴	4	.1
English, Scotch, and English-Canadian.....	37	1.3			

¹ Includes miscarriages.

² 8 Norwegian, 5 French, 3 Dutch, 2 Swedish, 2 Spanish, 1 Danish.

³ 19 Greek, 13 Magyar, 6 Serbian, 5 Slovak, 4 Rumanian, 4 Ruthenian, 2 Slavic (not otherwise specified).

⁴ 3 French-Canadian, 1 Arabian.

The length of time these different groups had been in the United States reflects the general shifts in the tide of immigration. More than 25 per cent of the German, Bohemian, and English and Celtic mothers had been here 20 years or longer,²⁵ and less than half had come during the last 10 years.

Length of residence of mother in the United States.	Per cent distribution of births ^a in 1915.		
	German mothers.	English and Celtic mothers.	Bohemian mothers.
Total.....	100.0	100.0	100.0
Under 10 years.....	34.7	28.3	39.3
10 years, under 20.....	24.7	41.3	29.5
20 years and over.....	39.3	29.0	30.4
Not reported.....	1.3	1.4	0.8

^a Includes miscarriages.

Among the Lithuanians and Italians and the 102 mothers of various nationalities (Russians, other eastern Europeans, "other western Europeans," and "all other") more than half had come to the United States within 10 years and, except among the Lithuanians, more

²⁵ The difference between these three groups should be noted.

than one-third had come within 5 years. The Jewish and Polish immigration had been more evenly distributed over a long period of years than any other, with more mothers who had come during the last 10 years than during the 10 years next preceding, but also with a high percentage who had been in the United States 20 years or more.²⁶

The groups which had been longest in the United States were least separated from the life of the community. Their economic status approached that of the native white American; the mothers more generally spoke English; and the families lived not in the poorest neighborhoods where the foreign born predominate, but in wards of average prosperity, where more than half the births were to native white mothers.

TABLE IV.—Median earnings of fathers and percentage of mothers unable to speak English, by color and nationality of mother; live births in 1915.

Color and nationality of mother.	Median earnings of fathers. ^a	Per cent of mothers unable to speak English. ^b	Color and nationality of mother.	Median earnings of fathers. ^a	Per cent of mothers unable to speak English. ^b
Native white.....	\$796	.....	Foreign-born white—Contd.		
Foreign-born white.....	619	37.3	Polish.....	\$555	63.5
English and Celtic.....	781	.....	Lithuanian.....	525	71.4
German.....	718	14.4	Italian.....	540	66.0
Bohemian.....	703	17.9	All other.....	671	43.1
Jewish.....	664	18.4	Colored.....	474	0.1

^a Based on births, not including miscarriages except for English and Celtic, Bohemian, Lithuanian, and "all other foreign." For method by which median earnings are computed, see Appendix IV, p. 197.

^b Based on births, not including miscarriages except for Bohemian, Lithuanian, "all other foreign," and colored.

Nationality of mother.	Births ^a in 1915.	Estimated median residence of mother in United States.	
		Years.	Months.
English and Celtic.....	138	14	6
German.....	331	14	2
Bohemian.....	112	12	6
Jewish.....	1 011	10	5
Polish.....	655	9	8
Lithuanian.....	105	8	.....
Italian.....	440	7	5
All other foreign-born white.....	102	5	5

^a Includes miscarriages.

The median conceals, however, the important fact that 20 per cent of the Poles and only 6 per cent of the Lithuanians had been in this country 20 years or longer. For detailed tabulation see Table 12, Appendix VII, p. 231.

²⁶ The median residence in the United States reported by the several groups offers a convenient summary of their relation on this point.

While, on the whole, the nationality groups varied in these respects according to the median periods that they had been in the United States, three exceptions appear—among the Italians, the Bohemians, and the mixed group of “all other foreign.”

The Italian families, among whom relatively more had come within the last five years than the Lithuanians, reported higher median earnings than the Lithuanians and a slightly smaller percentage of mothers unable to speak English. The Italians were also more widely scattered through the city than the Lithuanians.²⁷

The Bohemian families, who belonged to the older immigration and whose economic status was far above that of the recent immigrants, had stayed mainly in one district. Of the 107 live births to Bohemian mothers, 93, or 87 per cent, were in the three wards about Johns Hopkins Hospital, a distinct colony in wards where, on the whole, native white families predominated.²⁸ On the other hand, the Bohemian families had a higher percentage owning their homes than any other group in Baltimore—not only higher than any other foreign-born group, but also more than twice as high as the native white group: Bohemians, 73 per cent; native white families, 31 per cent.

The mixed group of “all other foreign” families, in spite of the shortest median period in the United States, had higher median earnings than any other foreign group except the English and Celtic, German, and Bohemian, and fewer mothers unable to speak English than the Poles, Italians, and Lithuanians. It will be remembered that about one-fifth of the “all other foreign” families were western Europeans of the older immigration, but in the main this group consisted of Russians and southeastern Europeans. In this group, also, the percentage of families owning their homes (33 per cent) was about equal to the percentage among the native white families (31 per cent) and higher than that among any other foreign group except the Bohemians (73 per cent) and the Germans (47 per cent).²⁹

Furthermore, while the variations in the extent to which foreign-born mothers had learned English correspond roughly with the variations in the length of time that the groups had been in the United States, certain marked differences persist when a comparison is made of the mothers in each nationality who had been in the United States less than 5 years, or those who had been here 10 years and

²⁷ Of the 100 Lithuanians, 91 were in a compact neighborhood made up of parts of 4 contiguous wards, while 16 wards reported no birth to a Lithuanian mother. Of the 412 Italians, 50 per cent were in the 2 wards just east of the Fallsway (the third and the fifth), 26 per cent were in the other wards of the water front (wards 1, 2, 4, 21, 22, 23, and 24), and the remainder were distributed throughout the city. Only 3 wards (the ninth, eleventh, and the thirteenth) reported no live birth to an Italian mother. See Table 3, Appendix VII, p. 224.

²⁸ Wards 6, 7, and 8. See Table 3, Appendix VII, p. 224.

²⁹ For percentages of homes owned in the several groups, see Table 8, Appendix VII, p. 229.

over. In each comparison, a relatively high percentage of the Poles and of the Italians and a relatively low percentage of the Jews spoke no English.³⁰ The fact that illiteracy was far more prevalent among the Poles and Italians than among the other foreign born may account in part for their failure to learn English. For within each nationality³¹ a higher percentage of mothers spoke English among those who could read and write than among the illiterate.

Illiteracy, inability to speak English, and poverty seemed to go hand in hand. Not only were there more mothers who could not read and write, more mothers who could not speak English, and more very poor families among the recent immigrants (especially the Italians and the Poles) than among the Jews and the older immigration, but within each nationality, also, the poorer the fathers the higher the percentages of mothers who were cut off from the community by inability to speak English or by inability to read in any language.³²

Colored families.

The proportion of negroes in the population of Baltimore at the census of 1910 was somewhat greater than that in the United States as a whole and decidedly above the average for the cities of 500,000 or more population—15 per cent in Baltimore, 11 per cent in the United States, and 3 per cent in the large cities. In actual number of negroes Baltimore ranked in 1910 as the fourth city of the United States.³³

Practically all the negroes in Baltimore were of native birth, and most of them were born in Maryland. Nine per cent of the negroes in Maryland in 1910 had come from Virginia; 87 per cent were native in Maryland; and less than 1 per cent had come from any other State. What proportion of the negroes had been born in Baltimore is not known. The increase in negro population in Baltimore from 1900 to 1910 accompanying a decrease in negro population in the State of Maryland as a whole indicates a drift from the country to the city.³⁴

Shifting of the colored population within the city was limited at the time of this study by a segregation ordinance, which prohibited any colored person from moving into a block occupied wholly by white persons (and vice versa). This ordinance had been passed in 1913 and was in force until it became invalid through the decision

³⁰ See Table 14, Appendix VII, p. 232.

³¹ Based on data for Jewish, Polish, Italian, German and "all other foreign" (including Lithuanian). See Table 13, Appendix VII, p. 231.

³² See Tables 15 and 16, Appendix VII, p. 232.

³³ Negro population: Washington, 94,446; New York, 91,709; New Orleans, 89,262; Baltimore, 84,749; Philadelphia, 84,459; Memphis, 52,441. See U. S. Bureau of the Census, Vol. I, Population statistics 1910, pp. 207-213.

³⁴ U. S. Bureau of the Census, Thirteenth Census of the United States, 1910, Vol. II, Population statistics, p. 837; Bulletin 129, Negroes in the United States, 1915, pp. 14 and 58.

of the United States Supreme Court in the Louisville segregation case.³⁵ The rentals paid by colored families were excessively high.

Only 6 per cent of the colored families included in the study owned the dwellings in which they lived. This percentage was smaller than the corresponding figure in the poorest families, all nationalities combined, and smaller than in any one of the foreign groups.³⁶

Illiteracy was more prevalent among the negroes in Baltimore—13 per cent illiterate—than among the negroes in any other city having 500,000 population or over at the 1910 census. Only St. Louis approached it, with 12 per cent of the negroes illiterate.³⁷ A comparison of the negro mothers and the native white mothers included in the detailed study also indicates the neglect of education for the negroes. Thus, 12 per cent of the negro mothers as against 2 per cent of the native white mothers were unable to read and write. In the poorest native white families, where the percentage of illiteracy rose above the average (to 6 per cent in families with fathers earning less than \$450, and 5 per cent in families with fathers earning \$450 but less than \$550), it was much lower than the percentage in the negro families.

In Baltimore separate schools and playgrounds were provided for white and colored children, but the colored leaders interviewed by the agents of the bureau referred to the fact that provision for their children was inferior to that for white children. They pointed out the lack of a colored industrial school in Baltimore and the absence of provision for mental defectives.

Negroes in Baltimore had political representation; the seventeenth ward had for some years been represented by a negro in the city council. Several organizations of colored people were found working for improvement of education, of civic conditions, and of health conditions. The Federated Charities had enlisted the cooperation of colored leaders.

Such agencies as the hospitals, the Babies' Milk Fund Association, and the Children's Aid Society were serving both the white and the colored population.

Social questions arising from differences in color and nationality.

Isolation of a group from the life of the community as a whole may or may not affect the physical welfare of the babies of the group. If it deprives men of economic opportunity, because they can not pass barriers of language or of color, the babies born into their homes will pay with a high mortality the price of the fathers' poverty. If it cuts off women from the services of nurses and hos-

³⁵ *Buchanan v. Warley*, 245 U. S. 60, reversing *Harris v. City of Louisville*, 165 Ky. 539. Decided Nov. 5, 1917.

³⁶ See Tables 8 and 9, Appendix VII, pp. 229 and 230.

³⁷ U. S. Bureau of the Census, Bulletin 129, p. 102.

pitals and from opportunities to learn fundamental principles of the hygiene of maternity and infancy, the babies of the isolated group will suffer from their mothers' ignorance and lack of care. If, on the other hand, the foreign mother steps outside of her colony merely to exchange the traditions of the Old World for the habits of her American neighbors, without guidance from a trained adviser, her contact with the community will be of doubtful value to her baby.

Several items in the data collected throw light on the contacts with the community established by the groups of foreign born and by the negroes in Baltimore. It is possible to examine the occupations in which the fathers in foreign and negro families were engaged and their earnings, as compared with the earnings of fathers in the native white families in the same occupations; to compare the dwellings which, whether from choice or necessity, were occupied by the several groups, and the home conditions into which the babies were born; and to note how white and colored mothers were supplementing the fathers' earnings and the extent to which they were going out into the community to work. It has already been noted how many mothers were unable to read and write, and how many of the foreign-born white mothers spoke no English. It is interesting to see how the knowledge of English had reacted upon the customs of the foreign born in regard to infant feeding; and to what extent the community agencies for instruction in hygiene and for medical care were serving the mothers in the several groups.

FATHERS' EARNINGS AND OCCUPATIONS.

The native white families were the most well-to-do and the negro families were the poorest in the city, while the foreign-born groups varied in economic status from English and Celtic,³⁸ whose earnings were only a little lower than the earnings in the native white families, to the Lithuanians, whose earnings were considerably above the earnings of the colored fathers. In the native white group, however, less than half the fathers earned as much as \$850. The percentage of fathers earning at least \$850 ranged from 42 per cent (based on total births) of all in the native white families to 4 per cent of all in the colored families.³⁹ It may be fairly assumed that at the time of this study the difference between \$850 and \$1,850 marked the difference between a minimum of subsistence and a fair standard of comfort. Four per cent of the families (total births) lived at the comfort level; among the native white families, 6 per cent; and among the colored families, two-tenths of 1 per cent. That is to say, of the 10,797 live-born babies only 431 were in families where the father earned so much as \$1,850.

³⁸ Including Irish, Scotch, and Welsh.

³⁹ See Table 20, Appendix VII, pp. 238-239.

Fathers' earnings and family income.

The father's earnings are used as the index to the family's economic status because they are the normal source of the family income, and the assumption in the United States is that a man's earnings will be sufficient to meet the needs of wife and children. In Baltimore, the father's earnings were in fact the main source of income and usually determined the family's economic status. Fifty-five per cent of the births were in families without income from any source except the father's earnings, and 23 per cent in families where the father's earnings were supplemented only by earnings of wife or children; 4 per cent, where the family's earnings were supplemented by earnings of other relatives living in the household, or by money from pensions, or compensation allowances, and 10 per cent, where the cash earnings of the family were supplemented by gifts or by meals given in part payment for services rendered. Only 7 per cent were in families with any income from insurance, investments, or rents from tenants outside the family's dwellings.⁴⁰

Where the father's earnings were below the level of decent subsistence (reckoned at \$850 at pre-war prices), the family income also was usually below \$850. In this study 7,171 births were in families where the father earned less than \$850; of these, 3,672 had no other source of income except the father's earnings, and 2,753 reported earnings from other members of the household⁴¹ in such amounts that the aggregate earnings of the family remained below \$850. Only 109 of the families where the father earned under \$850 had total earnings from all wage earners in the family amounting to \$1,250 or more, and four-fifths of the families whose total earnings were under \$850 had no other source of income. In all, then, 7,171 births, or 64 per cent of all studied, were in families where the fathers earned less than \$850; and at least 5,249 births, or 47 per cent of all, were in families where the total family income was also less than \$850. In addition, 1,336 births, or 12 per cent, were in families where the aggregate earnings were under \$850, but were supplemented by meals, gifts, or income from other sources.

The amount of income received from insurance, investments, or rents was not asked, but simply whether the family received income from such sources. It should be noted, however, that in no fathers' earnings group under \$1,250 did so many as 10 per cent of the families report income from such sources. Where the fathers earned \$1,250 but less than \$1,850, 11 per cent reported income from insurance, investments, or rents, and where the fathers earned \$1,850 or over, 21 per cent.⁴²

⁴⁰ See Tables 26, 27, and 28, Appendix VII, pp. 243-244.

⁴¹ Including, besides earnings, pensions, compensation allowances, and alimony, where these were reported.

⁴² Tables 26, 27, and 28, Appendix VII, pp. 243-244.

The exact amounts received from family earnings apart from the father's earnings are not tabulated in detail. It is known, however, that more than half the mothers who worked within the year after the baby's birth earned less than \$150.⁴³ And considering only families where fathers' earnings were supplemented by earnings of other members of the family, when earnings are classified in five groups (under \$550, \$550 to \$849, \$850 to \$1,249, \$1,250 to \$1,849, and \$1,850 and over), it is found that about one-third of the families fell in a higher earnings group on the basis of aggregate earnings than that in which they belonged on the basis of fathers' earnings.⁴⁴

Except where the father's earnings by themselves approached the level of comfort, the great majority of the families (93 per cent) were dependent on their own exertions for support. And the amounts earned by wife and children, when these were employed, were usually too small to lift the family to a definitely higher economic level than that provided by the father's earnings.

Fathers' occupations.

The differences in the earnings of the fathers in the native white, foreign-born white, and the colored groups reflect differences in the kinds of work the fathers did and in the regularity of their employment. It was commonly stated that negro workers were paid lower wages than white workers in the same occupations. The tabulations do not furnish exact evidence on this point, but they do show unmistakably that the annual earnings of negro workers were lower than the annual earnings of white workers in the same occupations. Occasional striking instances of difference in pay for white men and colored men doing the same work were noted by the bureau agents.

The census classification of occupations according to subdivisions of the great fields of manufacturing, trade, transportation, clerical occupations, domestic and personal service, public service, agriculture and animal husbandry, extraction of minerals, and professional and semiprofessional pursuits, throws little light on the economic status of the persons engaged in them. In the present study, therefore, the occupations of the fathers have first been classified according to this method and then regrouped according to the median earnings of the fathers in each occupation. This further grouping gives five classes of occupations in which median earnings were: I, under \$550; II, \$550 to \$649; III, \$650 to \$849; IV, \$850 to \$1,049; and V, \$1,050 and over.⁴⁵

⁴³ See Table 30, Appendix VII, p. 245.

⁴⁴ Four thousand seven hundred and thirty-six births were in families where fathers' earnings were supplemented by family earnings and the amounts of the fathers' earnings and the aggregate earnings were known. Sixty-five per cent fell in the same earnings group on both bases. See Tables 26 and 29, Appendix VII, pp. 243 and 244.

⁴⁵ For the method by which median earnings are computed, see Appendix IV, p. 197.

In Group I (under \$550)^a were cannery operatives; laborers, except those employed in public service; janitors and elevator men; servants, except waiters; and the small number engaged in "agriculture, animal husbandry, and extraction of minerals." In Group II (\$550 to \$649)^a were all factory operatives, except cannery workers; shoemakers and tailors; deliverymen and chauffeurs, teamsters, and expressmen; waiters; and laborers employed in public service. The total number of births with fathers in these two groups of occupations was 5,292, or 47 per cent of all births studied.

Groups III (\$650 to \$849)^a and IV (\$850 to \$1,049)^a included all the other types of skilled manual labor—blacksmiths, boilermakers, skilled mechanics in the building trades, engineers and firemen in industrial establishments, and barbers, with median earnings \$650 to \$849; compositors, electricians, machinists, conductors and railway trainmen, and express, telegraph and telephone employees, with median earnings \$850 to \$1,049. (No type of manual labor showed median earnings so high as \$1,050.) In Group III (median earnings \$650 to \$849) were included also men engaged in clerical occupations, saloon keepers and bartenders, and unclassified employees designated as "others" in manufacturing and mechanical occupations, in trade, in transportation, and in public service. Group IV (median earnings \$850 to \$1,049) included in addition to the more highly paid manual workers, salesmen and commercial travelers, firemen and policemen, proprietors and managers of hotels, pool rooms, etc., and retail and wholesale dealers, together with officials and managers in retail and wholesale trade. The number of births in families representing these two groups of occupations was a trifle smaller than the number in the more poorly paid occupations, and totaled 4,972, or 44 per cent, of all the births studied.

Group V (median earnings \$1,050 and over) was made up of men in six types of occupations—builders and contractors; manufacturers, proprietors, officials, etc., in manufacturing and mechanical industries; bankers, brokers, and real estate and insurance agents; proprietors, officials, and managers of transportation; public-service officials and inspectors; and men engaged in professional and semi-professional pursuits. Six per cent of the births in the study were in families of this group.

Two hundred and eight, or 2 per cent, of the births were in families where the father had no occupation (including seven births in families living on own income). Seventeen births, or less than 1 per cent, were in families where the occupation of the father was not reported.⁴⁶

The most poorly paid occupations—with median earnings under \$550—included more than half the fathers in the colored group,

^a Median earnings.

^b See Table 17, Appendix VII, p. 233.

almost one-fifth of the fathers in the foreign-born white, and almost one-twelfth of the fathers in the native white.⁴⁷ In the next occupation group—with median earnings between \$550 and \$650—were approximately one-third of the fathers in the colored group, more than two-fifths of the fathers in the foreign-born white, and more than one-fourth of the fathers in the native white. Together these two groups of occupations, where more than half the fathers earned less than \$650 and very few individual workers earned so much as \$1,250, included 84.7 per cent of the fathers in the colored group, 59.2 per cent of the fathers in the foreign-born white, and 34.7 per cent of the fathers in the native white.⁴⁸

More than half the fathers in the native white group and more than one-third of the fathers in the foreign-born white were in occupation Groups III and IV, mainly skilled manual occupations, with median earnings between \$650 and \$1,050. Only 8.1 per cent of the colored fathers were in this group.

The supervisory and professional occupations—Group V, with median earnings above \$1,050—included less than 10 per cent of the fathers in the native white group; 4.7 per cent of the fathers in the foreign-born white, and 1.6 per cent of the fathers in the colored.

The earnings of all fathers engaged in each occupation are included in the computation of these medians, but when the earnings of the three color and nativity groups are considered separately a marked difference in median earnings appears even within each group of occupations. The earnings were highest in the native white and lowest in the colored group. For example, in the poorly paid and mainly unskilled occupations of Group I, the median earnings of the native white were approximately \$560, the median earnings of the foreign-born white approximately \$483, and the median earnings of the colored group were approximately \$452. Again, in the occupations of Group II, with median earnings for all workers studied falling between \$550 and \$650, the median earnings of the native white group were approximately \$654, of the foreign-born white, \$585, and of the colored, \$489.⁴⁹

It appears, therefore, that relatively more of the fathers in the negro than of the fathers in the white group, and relatively more of the fathers in the foreign-born white than of the fathers in the native white group, were employed in the most unskilled and poorly paid occupations. And, among men doing the same type of work, the earnings of the native white were higher and the earnings of the negro were lower than the earnings of the foreign born.

⁴⁷ The reader is reminded that the groups are based on the color and nativity of mother.

⁴⁸ See Table 17, Appendix VII, p. 233.

⁴⁹ See Tables 20 and 21, Appendix VII, pp. 238 and 240. Median earnings are estimated from known distribution in earnings groups under \$450, \$450 to \$549, \$550 to \$649, \$650 to \$849, etc. For method, see Appendix IV, p. 197.

The actual difference in economic level comes out even more strongly when the earnings are compared without reference to the fathers' occupations. For all occupations combined, the median earnings in the native white group were \$796; in the foreign-born white, \$618; in the colored, \$474. In the native white group, 55.3 per cent of the fathers earned less than \$850 (in addition to 1.4 per cent who earned nothing); in the foreign-born white group, 73.9 per cent of the fathers earned less than \$850 (besides 1.9 per cent who earned nothing); and in the colored group, 87.3 per cent of the fathers earned less than \$850 (besides 5.2 per cent who earned nothing). Or, comparing the earnings in the several groups with the amount which the infant mortality rates seem to indicate as the minimum for providing the necessities of health and well-being, it appears that in the native white group 5.5 per cent earned at least \$1,850; in the foreign-born white group 2.2 per cent earned at least \$1,850; and in the colored group 0.2 per cent earned at least \$1,850.⁵⁰

TABLE V.—*Earnings of father by color and nativity of mother; per cent distribution of births in 1915.*

Earnings of father.	Total births.	Per cent distribution.		
		Births to—		
		Native white mothers.	Foreign-born white mothers.	Colored mothers.
Total.....	100.0	100.0	100.0	100.0
Under \$650.....	41.8	29.7	53.1	78.5
\$650-\$849.....	22.2	25.6	20.8	8.8
\$850-\$1,849.....	27.9	36.0	20.2	4.2
\$1,850 and over.....	4.0	5.5	2.2	0.2
No earnings.....	2.0	1.4	1.9	5.2
Not reported.....	2.0	1.9	1.8	3.1

Irregularity of fathers' employment.

The fathers in the native white group were more steadily employed than the fathers in the foreign-born or the colored groups, 66 per cent reporting employment throughout the year, as against 47 per cent among the foreign born and 46 per cent among the negroes.⁵¹ Nonemployment is discussed in the present study from the point of view of the family and includes not only the father's unemployment from lack of work or from illness but also any period during which he was not contributing to the support of the family because of desertion or death. Irregularity of employment has been considered in computing the father's earnings, and earnings refer in every

⁵⁰ The reader is again reminded that these figures refer to pre-war prices and earnings. For more detailed tabulation of father's earnings by color and nationality, see Table 18, Appendix VII, p. 234.

⁵¹ See Table 23, Appendix VII, p. 241.

case to amounts actually received during the year following the birth of the infant in 1915.⁵²

Relatively more nonemployment was ascribed to lack of work and to illness among the fathers in the foreign-born white than among the fathers in the negro group; and among the fathers in the negro group the number "nonemployed" for other reasons, including desertion of the family, was relatively high.

TABLE VI.—Per cent of fathers "nonemployed" by cause of nonemployment and color and nativity of mother; births in 1915.¹

Color and nativity of mother.	Per cent of fathers non-employed.		
	Cause of nonemployment.		
	Work not available.	Illness.	Other causes (including desertion).
Total.....	32.4	6.4	2.6
Native white.....	26.0	6.1	2.0
Foreign-born white.....	44.0	7.9	1.6
Colored.....	40.5	5.2	7.6

¹ See Table 24, Appendix VII, p. 242.

Comparing those in each group whose nonemployment was ascribed to lack of work and for whom the period of nonemployment was definitely stated, it is found that relatively more of the foreign born than of the native, whether white or colored, were out of work for six months or more—12 per cent of the unemployed foreign born, 6 per cent of the unemployed native white, and 5 per cent of the unemployed negroes.⁵³

The nonemployment from other causes, including illness and desertion, was, in each group, of somewhat longer duration than the nonemployment from lack of work, and when all nonemployment, from whatever cause, is considered together it appears that the period of nonemployment was at least six months for 12.5 per cent of the irregularly employed fathers in the native white group, for 16.2 per cent of the irregularly employed fathers in the foreign-born white group, and for 21.7 per cent of the irregularly employed fathers in the colored group.

⁵² In the majority of cases the computations were based on reports made by the mothers of the weekly or the monthly wages and the time out of work. In the study of infant mortality in Manchester, N. H., similar reports of fathers' earnings were tested with pay-roll data; it was found that on the whole the mothers' statements were substantially correct, with perhaps a slight tendency to overstatement. See *Infant Mortality. Results of a Field Study in Manchester, N. H., Based on Births in One Year*, by Beatrice Sheets Duncan and Emma Duke, Children's Bureau publication No. 20, pp. 15 and 16.

⁵³ See Table 25, Appendix VII, p. 242.

TABLE VII.—Duration of nonemployment of father by color and nativity of mother; births in 1915 with fathers reporting duration of nonemployment.

Duration of nonemployment of father.	Per cent distribution of fathers nonemployed. ¹		
	Native white group.	Foreign-born white group.	Colored group.
Total.....	100.0	100.0	100.0
Under 3 months.....	69.4	54.3	59.0
3-6 months.....	18.1	29.5	19.4
6 months and over.....	12.5	16.2	21.7

¹ Based on births.

The extent to which nonemployment was responsible for low earnings among the fathers in the native white, the foreign-born white, and the colored groups is indicated by the following figures.

Among all the fathers in the native white group earning less than \$450 during the year, 10 per cent were steadily employed and 27.2 per cent were nonemployed for at least six months; in the foreign-born white group earning less than \$450 during the year, 12.2 per cent were steadily employed and 19.4 per cent were nonemployed for at least 6 months; but in the colored group, 32.2 per cent of those earning less than \$450 were steadily employed throughout the year and only 7.9 per cent were nonemployed for six months or more. (In each color and nativity group there were also a considerable number reported as nonemployed but with no report as to the period of nonemployment. This number was 14.8 per cent of the native white, 19.7 per cent of the foreign-born white, and 18.2 per cent of the colored fathers, respectively, in the group earning less than \$450.) In the next earnings groups, where the fathers earned from \$450 to \$549 or from \$550 to \$649, relatively more of the fathers in the colored than of the fathers in the white group were steadily employed, and fewer of the fathers in the colored than of the fathers in the white group were without employment for three months or more. But in these earnings groups there was far more nonemployment among the fathers in the foreign-born group than among those in the native white group. In the higher earnings groups, where more steady employment was reported among all types of families, the total number of colored fathers was small.

Again, it is possible to compare, roughly, the median earnings of all fathers in the native white, the foreign-born white, and the colored groups with the median earnings of those fathers in the same groups who were steadily employed. The smallest difference appears in the colored group and the largest difference in the foreign-born white group, in spite of the fact, already noted, that on the whole

in these two groups the percentage of fathers irregularly employed was practically identical.

TABLE VIII.—*Median earnings of fathers steadily employed compared with all fathers, by color and nativity of mother; births in 1915.*

Color and nativity of mother.	Median earnings. ¹	
	Fathers steadily employed.	All fathers.
Total.....	\$825	\$705
Native white.....	888	796
Foreign-born white.....	785	618
Colored.....	511	474

¹ Estimated from distribution of births in earnings groups "under \$450," "\$450 to \$549," "\$550 to \$649," "\$650 to \$849," "\$850 to \$1,049," etc. See Tables 22 and 23, Appendix VII, pp. 240 and 241.

Two things seem apparent, even from this unsatisfactory analysis: First, that in the pre-war days to which the data refer the foreign-born white man and the colored man were less regularly employed than the native white man; and, second, that from the nature of the occupations in which he was engaged and the rate at which he was paid, the colored man who was steadily employed remained in the same low earnings class with the colored man who was not steadily employed.

HOME CONDITIONS.

Many of the most important phases of home conditions do not lend themselves to tabulation, and yet a rough index for the comparison of the babies' homes among the native white families, the larger groups of foreign white families, and the negro families is afforded by such items as the rental paid, the sanitary arrangements of the dwellings, and the relative sizes of dwellings and households.

Rental and sanitation.

The lowest median rental, \$5.83 per month, was found among the Polish families; the highest, \$13.25 per month, among the English and Celtic.⁵⁴ In the three other groups it ran from \$8.42 among the Italian families to \$11.83 among the native white families. Three hundred and fifty babies, or 5 per cent of those living in dwellings for which cash rent of a known amount was paid, were in dwellings rented at less than \$5 a month. The proportion rose to 39 per cent among the Poles and dropped to 2 per cent among the Jews and the Negroes.

⁵⁴ The Lithuanians paid a rental slightly higher than the Poles, and the English and Celtic paid a rental slightly higher than the Negroes. For all other housing items these two nationalities are included in the group of "all other foreign," and this group, as a whole, paid a rental lower than the negroes and higher than the Poles.

The 350 dwellings rented at less than \$5 a month were scattered throughout the city. At least 1 was reported for every ward, but only in seven wards were there as many as 10 such dwellings. Almost three-fourths were in wards 1, 2, and 3, and in these wards they formed a considerable percentage of all the dwellings.

Taking the city as a whole, one-half of all the families studied reported a rental of less than \$15 a month.

Differences in rental usually reflect a difference in economic status, but a comparison of the median rental with the median earnings of the fathers in each of the color and nationality groups reveals two variations: Among the Negroes, the group with the lowest earnings, is found next to the highest median rental, amounting to 33 per cent of their median earnings; among the Poles, with earnings lower than any other group except the Lithuanians, Italians, and Negroes, was found a median rental so low that it amounted to only 13 per cent of their median earnings. The native white families, the Jewish families, and the Italians were paying in median rental 18 per cent, 17 per cent, and 19 per cent, respectively, of their median earnings.⁵⁵

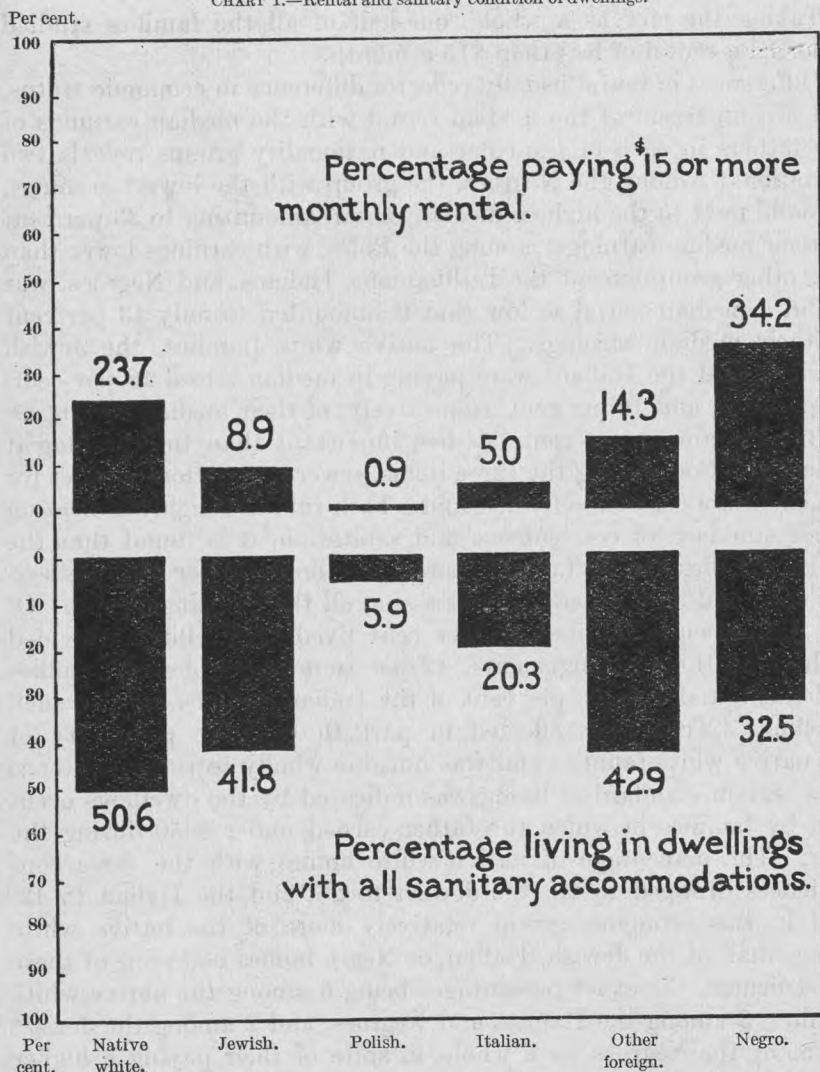
But the amount of rental is less important than the dwelling it procures. Considering the three items, sewer connection, a toilet for the exclusive use of the family, and a bath tub, as roughly indicating a fair standard of convenience and sanitation, it is found that the Polish families had by far the poorest dwellings, 12 per cent possessing none and only 6 per cent possessing all these arrangements. Of the native white families, 51 per cent lived in dwellings provided with these three arrangements, 42 per cent of the Jewish families had them, and only 20 per cent of the Italian families lived in such dwellings. That this reflected in part the relative prosperity of the native white families and was not due wholly to their insistence on a certain standard of living was indicated by the dwellings occupied by families in which the father earned under \$650 during the year. The percentage of native white homes with the three conveniences dropped to 29, the Jewish to 25, and the Italian to 12. And in this economic group relatively more of the native white homes than of the Jewish, Italian, or Negro homes had none of these conveniences, the exact percentages being 6 among the native white families, 3 among the Italians and Negroes, and 2 among the Jews.⁵⁶

Among the Negroes, as a whole, in spite of their paying a higher median rental than any other group except the English and Celtic, the percentage of dwellings provided with the three stated sanitary arrangements was lower than among the native white or the Jewish families. It has been commonly believed that a negro tenant pays more than a white tenant for similar accommodations. These find-

⁵⁵ See Tables 31, 32, and 33, Appendix VII, pp. 245 and 246. ⁵⁶ See Table 34, Appendix VII, p. 247.

ings confirm this belief so far as the city of Baltimore is concerned. Among the native white families living in rented dwellings, 24 per cent paid \$15 or more per month, and 51 per cent of all native white families lived in dwellings having bathtub, sewer connection, and a

CHART I.—Rental and sanitary condition of dwellings.



toilet for the exclusive use of the family; among the negro families 34 per cent of those living in rented dwellings paid \$15 or more per month, but only 33 per cent of all the negro families lived in dwellings provided with these arrangements.⁵⁷

⁵⁷ See Tables 31 and 34, Appendix VII, pp. 245 and 247.

Space and size of household.

So far as space is concerned, the native white families, as the most prosperous, fared better than any others. In actual number of rooms per dwelling, the median negro home, with six rooms, was the same as the median dwelling among native white families, but the median negro household numbered six persons, and the median native white household numbered only four persons, so the margin of space in negro homes was considerably less than in the native white homes. More cramped than either of these groups were the households of the foreign born, where the median dwelling of four rooms accommodated a median household of four persons. (The kitchen was counted as a room, but the bathroom was not.)

Within the foreign group itself, variations were found both in the size of the dwelling and in the number of persons it accommodated. The medians in the Jewish families were the same as those for the entire foreign group; in the Italian families the number of rooms was the same but the median household numbered five instead of four. The Polish families had the smallest and most congested dwellings, with a median of three rooms and four persons. The "other foreign"—including the German, Bohemian, English and Celtic, and all other families—reported the same median space in their dwellings as the native white families—six rooms and four persons.

Further analysis shows that the percentage of families who reported one or more persons per room, exclusive of the baby born during 1915, ranged from 36 per cent among the native white families to 89 per cent among the Polish families. The Italians stood nearest to the Polish in their room congestion, with 72 per cent reporting one or more persons per room; then the Jewish families with 63 per cent, the Negroes with 54 per cent, and the group of "other foreign" with 49 per cent.

Thirty-one per cent of the babies in Polish families were housed in dwellings with two or more persons per room; among the Italians 14 per cent, and among the Jewish families 9 per cent, were housed in such congested quarters.

In each group, the percentage of families reporting one or more persons per room increased with the size of the household, but it was not only large households that had no margin of space. The households of four persons or less showed similar variations in the native white, the foreign white, and the negro families—18 per cent of such native white families, 31 per cent of such negro families, and 50 per cent of such foreign families were living one or more persons per room. And for each size of household, there were markedly higher percentages reporting two or more persons per room among the foreign families, and especially among the Poles, than among other groups.

In each race and nativity group room congestion was greatest in the poorest households; but, again, at each economic level the native white and the negro families had relatively more rooms in their dwellings than the foreign families.⁵⁸

Variations in size of family.

Closely related to the variations in the size of household are the variations in the numbers of children born to the mothers of the several nationalities. But they do not correspond exactly, because of differences in the stillbirth and infant mortality rates, and differences in custom regarding the presence in the household of relatives and lodgers. Thus the Polish and Italian mothers reported on the average more births and (in spite of high mortality among the Polish) more children surviving the first year of life than any other nationality. But the average households of the Jewish, the Polish, and the "other foreign" groups were approximately the same; and of all the foreign born, only the Italians with their high percentage of families keeping lodgers showed a definitely larger average household.⁵⁹ The negro mothers also reported a large average number of births but relatively fewer children surviving their first year. The negro households, however, were larger, on the average, than any others.

TABLE IX.—*Size of family by nationality of mother; births¹ in 1915.*

Color and nationality of mother.	Average number of births ¹ to mother. ²	Average number of children surviving 1 year. ³	Average number of persons per dwelling. ³
Native white.....	3.08	2.48	4.48
Foreign-born white.....	4.11	3.36	4.77
Jewish.....	3.89	3.35	4.70
Polish.....	4.51	3.54	4.66
Italian.....	4.35	3.49	5.19
All other.....	3.39	3.18	4.73
Colored.....	4.13	2.88	5.79

¹ Includes miscarriages.

² Including 1915 birth. Average derived from Table 70, Appendix VII, p. 281.

³ Excluding 1915 infant, but including parents. Average derived from data shown in Table 35, Appendix VII, p. 248.

Analyzing the average number of births to the mothers, the extent to which the groups vary from one another is more clearly seen. The number of mothers who had borne seven or more children ranged from 10 per cent of all in the native white group to 26 per cent of all in the Polish group.

⁵⁸ See Tables 35, 36, and 37, Appendix VII, pp. 248 to 252.

⁵⁹ Two nationality groups—the Lithuanians and the small unclassified group of "all other foreign" made up mainly of immigrants who had recently arrived from southeastern Europe—showed a higher percentage of families keeping lodgers than the Italian showed. But the housing data for these two groups with 191 infants have not been separately analyzed. In comparison with every other group the Italians had the highest percentages keeping any lodgers (18.3 per cent) or keeping 3 or more lodgers (4.8 per cent). See Table 40, Appendix VII, p. 254.

The mothers in the poorest families bore more children than the prosperous mothers. This difference was more marked among the native white mothers, who had an average of 3.1 children in families in which the fathers earned less than \$550 a year and 2.5 in families in which the fathers earned \$1,250 or over, than among the foreign-born mothers, who had an average of 4 children in families having earnings of less than \$550 a year and 3.8 in families having earnings of \$1,250 or over.⁶⁰

Associated with this question of the size of the family is a variation in the length of the interval between births. From the three sets of data on this point included in the tabulations, it appears that the average interval between births was shorter in the poorer families than in the well-to-do, and shorter among the colored families than among native white families of the same economic level. The Polish and Italian mothers—the groups with the largest families—seem to have had the shortest interval and the Jewish mothers the longest interval between births. But it appears also that the intervals between the first birth and the second and between the second birth and the third tended to be somewhat shorter than those between births later than the third, except that the intervals between births in very large families (of 10 or more) were the shortest of all.⁶¹

EMPLOYMENT OF MOTHERS.

In Baltimore, as in other cities studied by the Children's Bureau, it was mainly the wives of men whose earnings were insufficient for the family's needs who were gainfully employed away from home during the critical time of pregnancy or the normal nursing period. Tracing the mother's record back for the entire period of her marriage, as the Baltimore tabulations for the first time allow, it is found that for the large number of women who had worked away from home at some time after marriage the same relation holds: The lower the earnings⁶² of the men, the higher the proportion of women going out to work.

⁶⁰ Considering live births, stillbirths, and miscarriages, the averages in the native white families were 5 under \$550 and 2.8 at \$1,250 or over and in the foreign white families 4.7 under \$550 and 4.1 at \$1,250 or over. See Tables 38 and 39, Appendix VII, p. 253.

⁶¹ See Tables 41, 156, 157, and 165, Appendix VII, pp. 254, 351, and 357.

⁶² This statement is based on the assumption that, in general, the earnings of the father during the year following the birth of a baby in 1915 correctly indicate the family's economic status in previous years also.

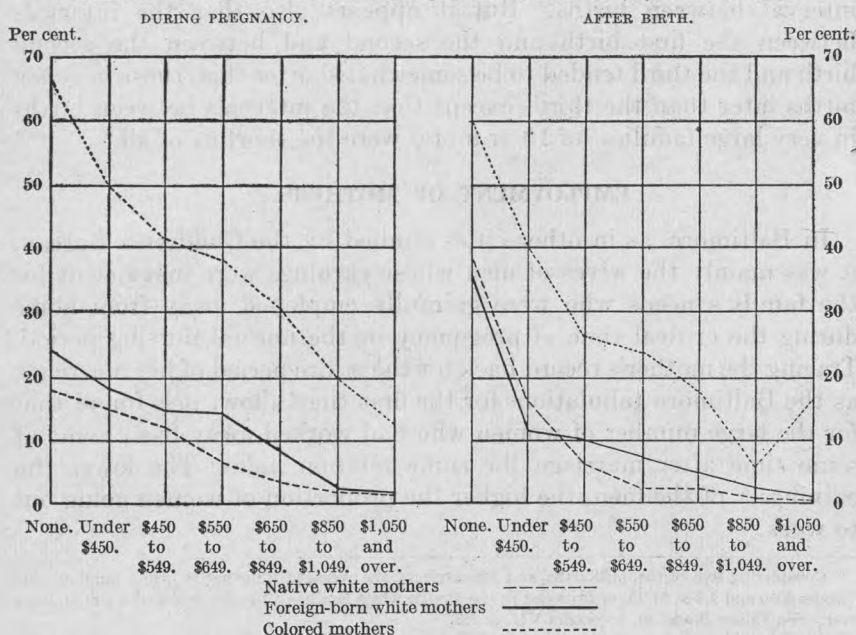
TABLE X.—*Employment of mother away from home, by earnings of father and color and nativity of mother; births¹ in 1915.*

Earnings of father.	Per cent ² of mothers employed away from home during pregnancy.		
	Native white mothers.	Foreign-born white mothers.	Colored mothers.
Total.....	5.5	11.4	44.9
Under \$450.....	15.5	18.5	50.9
\$450-\$549.....	12.5	14.6	41.3
\$550-\$649.....	7.6	14.7	36.5
\$650-\$849.....	4.1	7.8	34.8
\$850-\$1,049.....	2.0	2.8	.....
\$1,050-\$1,249.....	1.2	2.9	.....
\$1,250 and over.....	1.1	.9	.....
No earnings.....	20.4	24.5	69.6

¹ Includes miscarriages.

² Based on births, including miscarriages. Not shown where base is less than 50.

CHART II.—Per cent of mothers gainfully employed away from home, by fathers' earnings.



Prevalence of employment.

Relatively more colored women than white women, and relatively more foreign-born women than native women, worked outside their homes. But in each of these three groups separately it is found that in descending the scale of fathers' earnings, there was a steady increase in the percentage of mothers gainfully employed away from home at any time after marriage, or during the pregnancy of 1915, or during the first 12 months of the baby's life time.⁶³

⁶³ For detailed tabulation see Table 92, Appendix VII, p. 295.

Another indication of the economic pressure that is usually present when married women go to work outside their homes is given by the fact that the percentage of women reporting such employment rose steadily with the number of children in the family. At each economic level within each of the three race and nativity groups, the percentage of mothers who had worked outside their homes since their marriage was higher among those who had borne seven or more children than among others. And in families where the father earned less than \$850, the percentage of mothers who had worked outside their homes since marriage was higher among those who had borne from four to six children than among those who had borne less than four.⁶⁴

TABLE XI.—*Time of employment of mother away from home; live births in 1915.*

Time of employment of mother.	Live births.	
	Number.	Per cent distribution. ¹
Total.....	10,797	100.0
Mothers never gainfully employed away from home.....	2,284	21.1
Mothers gainfully employed away from home.....	8,507	78.8
Before marriage only.....	6,011	55.7
After marriage but only prior to pregnancy of 1915.....	945	8.8
During pregnancy of 1915 or within 12 months after infant's birth.....	1,551	14.4
Mothers for whom employment was not reported.....	6	.....

¹ Not shown when less than one-tenth of 1 per cent.

In all, 8,507 live-born babies, or 79 per cent of those studied, were born to mothers who had been at some time gainfully employed outside their homes. Over one-half of all the mothers had gone out to work before they were 16 years old, and over one-fourth before they were 14. But many of these mothers had had no outside employment after marriage, and others did not go out to work during the pregnancy of 1915 nor within 12 months after the birth of a baby in that year.

Of the 10,797 babies studied, 1,229, or 11 per cent, were born to mothers who worked outside their homes during pregnancy; more than one-half of these mothers resumed work outside the home after the baby's birth—594 during the baby's lifetime and 104 after the baby's death. The mothers of 322 babies, or 3 per cent of all, went out to work within 12 months of the baby's birth, although they had not been so employed during pregnancy—261 during the baby's lifetime, and 61 after the baby's death.⁶⁵ All but 22 of these 322 mothers had been gainfully employed away from home at some previous time.

⁶⁴ See Table 94, Appendix VII, p. 296.

Occupations.

The white mothers working away from home were mainly factory operatives; the negro mothers were mainly domestic servants, charwomen, and laundresses.⁶⁶

TABLE XII.—*Occupation of mother, by color; births in 1915 to mothers employed away from home during pregnancy.*¹

Occupation of mother during 1915 pregnancy.	Births to mothers employed away from home.		Occupation of mother during 1915 pregnancy.	Births to mothers employed away from home.	
	White.	Colored.		White.	Colored.
All	688	629	Charwork, laundering, etc.	49	363
Factory operatives:			Domestic service.....	22	194
Canning, shucking.....	315	6	Other occupations.....	82	31
Clothing.....	99	23			
Other factory.....	121	12			

¹ The statements that follow in text are based on births, Table 98, Appendix VII, p. 300.

Among the cannery workers Polish women predominated, and almost one-third were native white women; the other cannery workers, a very small number in all, represented every nationality group except the Jewish.

Approximately two-fifths of the clothing workers were native white women and the remainder were about evenly divided among the Negroes, the Lithuanians, and a scattered group representing every nationality except the English and Celtic.

Of the workers in "other factories," four-fifths were native white women.

These numbers represent widely varying percentages of mothers employed away from home in the several race and nationality groups, as custom and economic status within the group sent more mothers or fewer out to work. At one extreme, with the largest numbers going out to work, were the Negroes and Poles; at the other extreme, the Jewish and Italian women.

Of the native white mothers, 14 per cent had worked away from home after marriage, 6 per cent during their pregnancy of 1915, and 4 per cent during the first 12 months of the infant's life. Among the Jewish mothers, these percentages dropped to 7 per cent, 1 per cent, and less than 1 per cent; among the Negroes they rose to 67 per cent, 45 per cent, and 32 per cent.⁶⁷

For the period of the 1915 pregnancy and the 12 months after the birth of a baby in that year, the gainful employment of mothers within their own homes has also been tabulated. Except among

⁶⁶ See Table 101, Appendix VII, p. 303.

⁶⁷ See Tables 96, 97, and 98, Appendix VII, pp. 297-300.

the Poles and the Negroes, more mothers worked at home than away from home. And considering together employment at home and away it is found that the native white mothers, instead of the Jewish mothers, reported the least employment during the pregnancy of 1915. The percentage employed among the Jews rose to a point just above the average for the city, and among the Italians considerably higher. The Negroes and Poles still headed the list with the highest proportions of mothers gainfully employed.⁶⁸

Relatively few mothers reported doing "home work" given out by a factory. The 174 mothers⁶⁹ (just 2 per cent of all) who reported having sewed at home on work given out by a factory during the 1915 pregnancy were Italians (69), native white women (37), Poles (22), Lithuanians (17), Jews (15), and others (14). Only among the Italians and the Lithuanians did these numbers represent more than 4 per cent of the mothers, but here they rose to 16 per cent of all. Of the 124 mothers employed at "other home work," 3 mothers—native white—were working for a factory and 12 were probably doing factory work. These 12 included 2 Italian mothers making lace and embroidering, one Jewish mother "making crab cakes at home," one colored mother mending feed bags, and 8 native white mothers making Christmas ornaments, flowers, brushes, etc.

The principal home occupations among the white mothers were keeping lodgers and helping in the husband's business; among the negro mothers, laundering.

TABLE XIII.—*Occupation of mother, by color; births in 1915 to mothers employed at home during pregnancy.*

Occupation of mother during 1915 pregnancy.	Births to mothers employed at home.		Occupation of mother during 1915 pregnancy.	Births to mothers employed at home.	
	White mothers.	Colored mothers.		White mothers.	Colored mothers.
All occupations	1,397	355	Sewing (not for factory)	55	22
Keeping lodgers	670	46	Laundering	68	269
Sewing (for factory)	167	1	Helping in husbands' business	333	3
			Doing other home work	104	14

Keeping lodgers was most prevalent among four of the foreign groups. In the small mixed group of "other foreign," 19 per cent of the mothers were so engaged; of the English and Celtic mothers, 15 per cent; and of the Lithuanian mothers and the Italian mothers, 14 per cent. But these groups were small, and together they reported only 115 of the 732 mothers who kept lodgers. In actual numbers, the

⁶⁷ See Tables 92 and 93, Appendix VII, pp. 295 and 296.

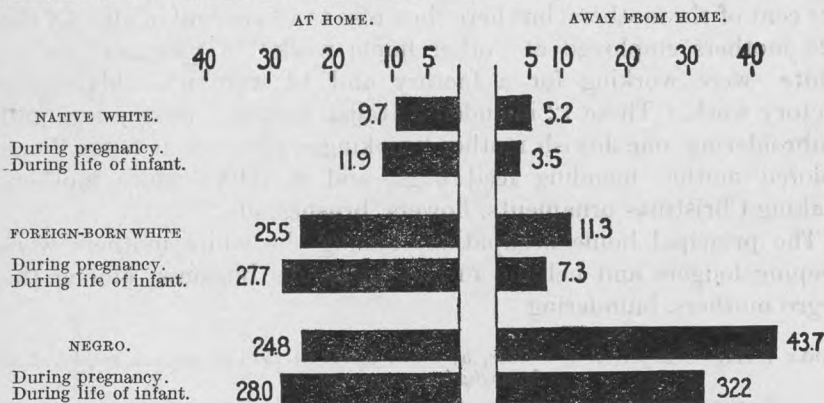
⁶⁸ See Table 100, Appendix VII, p. 302.

⁶⁹ Births. Table 98, Appendix VII, p. 300.

native white mothers led, with 422 keeping lodgers—a large number but a small percentage (6 per cent) of the total number of native white mothers. The other 195 mothers keeping lodgers were scattered among the other nationalities, with percentages in each group varying from 3 per cent of the Negro mothers to 9 per cent of the German mothers.

Helping the husband's business was the chief occupation reported by Jewish mothers, of whom 163, or 16 per cent, were so engaged. These Jewish mothers and 107 native white mothers constituted more than three-fourths of all the women helping in the husband's business. Both actually and relatively the numbers were small in the other groups, ranging from less than 1 per cent of the negroes to 10 per cent of the mixed group of "other foreign."

CHART III.—Per cent of mothers gainfully employed at home and away from home, by color and nativity.



It has been noted that fewer mothers were employed outside their homes after the birth of the baby than during the pregnancy of 1915. This decrease accompanies an increase in the number gainfully employed within their homes. Even omitting from consideration the mothers who resumed or began work only after the death of the baby born in 1915, this increase in work at home persists.⁷⁰

TABLE XIV.—Time and place of employment of mother; live births in 1915 to mothers employed.

Place of employment.	Live births to mothers employed.		
	During pregnancy.	Within the first year after birth.	
		At any time.	During lifetime of infant.
Total.....	2,911	3,035	2,784
Employed away from home.....	1,229	1,020	855
Employed at home.....	1,682	2,015	1,929

⁷⁰ For details of shifting from employment to nonemployment and from employment away to employment at home and vice versa, see Table 101, Appendix VII, p. 303.

In each nationality without exception⁷¹ this change in the distribution of working mothers is found—relatively more working at home and relatively fewer working away during the lifetime of the infant than during pregnancy. Among the Negroes and the Poles, however, in spite of this increase in employment at home, work away continued to be more prevalent than work at home.

Whether the mother works at home or away is a matter of great importance to her baby's welfare.

From the infant mortality rates, which will be discussed in detail in a later section,⁷² it appears that the work away from home increased the hazard to the baby, while work at home, so far as the Baltimore figures show, was accompanied by no excess in the infant mortality rate. Whether the mother at home regulated her own conditions of work so that strain during pregnancy was avoided, and ill effects were not too serious to be outweighed by the benefit of addition to the family income, is an open question. It does appear that the mothers who worked at home breast fed their babies to about the same extent as mothers at the same economic level who were not gainfully employed.

The high percentage of Negro mothers and Polish mothers employed away from home and the very low percentages of Jewish and Italian mothers so employed may reasonably be considered one factor in the high infant mortality rates among Negro and Polish babies and the low infant mortality rates among Jewish and Italian babies.

CARE OF THE INFANT.

Prevalence of artificial feeding.

One baby in 11 was deprived of breast milk during the first month of life; 1 baby in 5 had been weaned before the end of the third month; and by the ninth month, 1 baby in 3 was having only artificial food.

Behind these average percentages for all babies born in 1915 were certain marked variations among the several groups. More babies were artificially fed in the prosperous families than among the less well-to-do, and more babies were artificially fed in the native white families than in the foreign-born white or the negro families.

On the other hand, mixed feeding—that is, the supplementing of the mother's milk with cow's milk or other food—was less common during the early months of infancy among the native white families than elsewhere. But even with the relatively high percentages of babies mixed fed in the other groups, there were also higher percentages having only breast feeding among the babies of foreign-born white mothers than among the babies of native white mothers and, omitting

⁷¹ Native white, Negro, Jewish, Polish, Italian, and all other foreign (German, Bohemian, English and Celtic, Lithuanian, and "other foreign" combined).

⁷² See page 114.

the babies of mothers gainfully employed, higher percentages having only breast feeding among the babies of colored mothers than among the babies of native white mothers. These comparisons hold true not only for the several groups as a whole, but also for native white, foreign-born white, and colored families of the same economic levels.

The feeding was tabulated separately for the three largest foreign-born groups. The Polish and Italian babies showed approximately the same distribution among the three types of feeding, with a slight difference in favor of the Italian babies. Among the babies of Jewish mothers, on the other hand, during the third month and later, the percentages having mixed feeding were markedly high. As compared with the Polish babies, the Jewish babies showed slightly less artificial feeding at the first, third, and sixth months of life and markedly less breast feeding during the sixth month and later. As compared with the Italian babies, the Jewish babies showed practically no difference in the extent of artificial feeding, but markedly less breast feeding from the third month onward.⁷³

It is worth noting that the Italian and Polish mothers who had learned to speak English were more likely to wean their babies during the early months than the Italian and Polish mothers who had not learned to speak English, while exactly the reverse was true of the Jewish mothers. And more of the Polish mothers who could read and write than of the illiterate Polish mothers were weaning their babies during the early months, while among the Italian mothers as well as the Jewish mothers there was less artificial feeding when the mothers could read and write than when they were illiterate.

Among the native mothers, both white and colored, the illiterate women were less likely than the others to give their babies breast milk and no other food during the early months. In both groups the illiterate mothers showed a high percentage of babies whose nursing by their mothers was supplemented by other food. And among the illiterate native white mothers the percentage of babies weaned in the early months was also above the average.⁷⁴

Within each race and nationality group the greatest prevalence of artificial feeding occurred in families where the mother was gainfully employed away from home.⁷⁵

SUMMARY.

The Baltimore group included considerable numbers of colored births and of births to foreign-born Jewish, Polish, and Italian mothers. Other foreign groups were also represented, but their numbers were too few to permit a separate detailed analysis.

⁷³ See Tables 42, 80, and 81, Appendix VII, pp. 255, 288, and 289.

⁷⁴ See Tables 43, 44, and 45, Appendix VII, pp. 255 and 256.

⁷⁵ See Table 46, Appendix VII, p. 257. The relation of the mother's employment to her way of feeding her baby is discussed in detail in the section on Employment of Mothers and Infant Mortality, p. 124.

Artificial feeding of young babies, poverty, poor housing, and employment of mothers away from home are four important factors in infant mortality the relation of which to mortality rates will be discussed in detail in the later sections of the report.

In Baltimore artificial feeding was more prevalent among the native white mothers than among the foreign-born mothers or the colored mothers. It was more prevalent among the well-to-do than among the very poor white mothers, although it was greatly increased in certain poor groups by the mothers' employment away from home. Except among the foreign-born Jewish families, the foreign-born mother who spoke English was more likely to wean her baby during the early months than the foreign-born mother who spoke no English. In spite of the relatively high percentage of mothers employed in the Polish group there was no marked difference in the prevalence of artificial feeding among the Poles, the Italians, and the foreign-born Jewish mothers when these groups are considered as a whole.

Almost two-thirds of the births studied were in families where the fathers earned less than \$850 a year. Four per cent were in families where the fathers earned \$1,850 or over. Economic conditions were worst among the colored families. These fathers were employed mainly in unskilled and poorly paid occupations and their annual earnings were lower than the earnings of white fathers in similar kinds of work. On the other hand, the colored families paid higher rentals than white families for houses with corresponding type of sanitation. In the colored group the median rental was approximately one-third of the median earnings of the fathers; in the white groups it was less than one-fifth.

The foreign-born fathers also earned less than the native white fathers, because of difference in type of occupation and lower earnings from similar types of occupations. But no foreign-born group (except the small group of Lithuanians) was so poor as the colored group.

The foreign-born families lived in poorer dwellings and had greater room congestion than the native white families. But when native and foreign-born families of corresponding economic levels are compared, it appears that the foreign-born families had approximately the same sanitary equipment as native white families with similar earnings. The greatest room congestion and the lowest rentals were found in the Polish group.

More than one-fifth of the families lived in dwellings without sewer connections, and a considerable number of these were in wards with no outlying, thinly settled districts. The percentage of dwellings having no sewer connection was higher in the seventeenth

and eighteenth wards than in any other ward with no outlying district.

About one mother in seven worked away from home during pregnancy or during the lifetime of the baby within 12 months after the birth. Such employment was most prevalent among the Negro and Polish mothers and in these groups 45 per cent and 33 per cent, respectively, worked away from home during pregnancy. In every group the percentage of mothers employed away was greatest in the poorest families and decreased steadily with increase in the fathers' earnings. The principal occupation among white mothers employed away from home was factory work—chiefly in canneries for the Poles, and for others chiefly in clothing factories. Domestic service was the principal occupation among colored mothers.

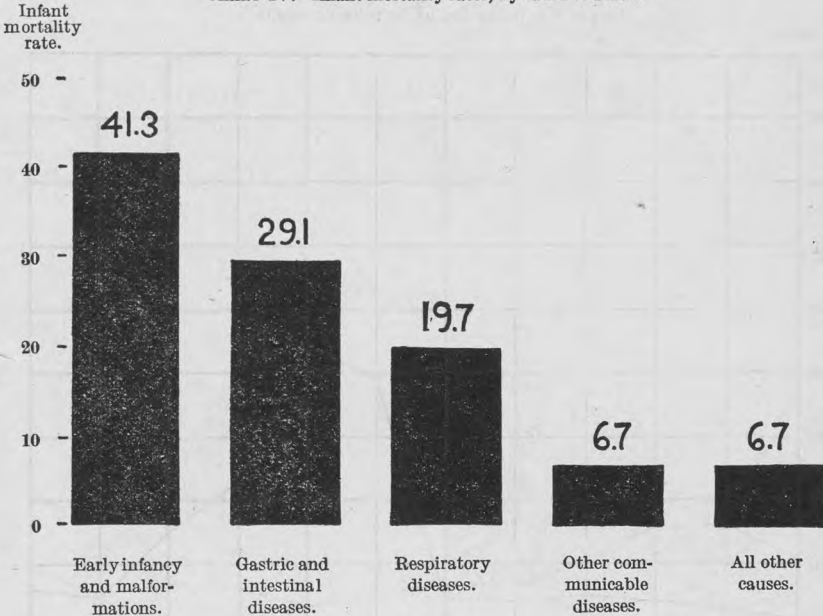
The interplay of these social conditions in relation to variations in the infant mortality rates in the several groups offers the main subject for the following sections. Even this brief survey of the field suggests certain reasons for the excessive mortality among babies of Polish mothers and babies of colored mothers.

THE DEATHS.

Of the 10,797 live-born babies in the normal Baltimore group, 1,117, or approximately 1 in 10, died during the first year of life; 477 died during the first month, 337 between the second month and the sixth, and 303 between the seventh month and the twelfth.

Seven-eighths of all the deaths were ascribed to the three main

CHART IV.—Infant mortality rates, by cause of death.



groups of infant diseases, and the total infant mortality rate, 103.5 per 1,000 live births, is made up as follows:

TABLE I.—*Infant mortality rates, by cause of death; live births in 1915.*¹

Cause of death.	Infant mortality rate.	Cause of death.	Infant mortality rate.
All causes.....	103.5	Early infancy.....	37.7
Gastric and intestinal diseases.....	29.1	Epidemic and other communicable diseases.....	6.7
Respiratory diseases.....	19.7	All other causes.....	6.7
Malformations.....	3.6		

¹ For detailed tabulation, see Table 48, Appendix VII, p. 258.

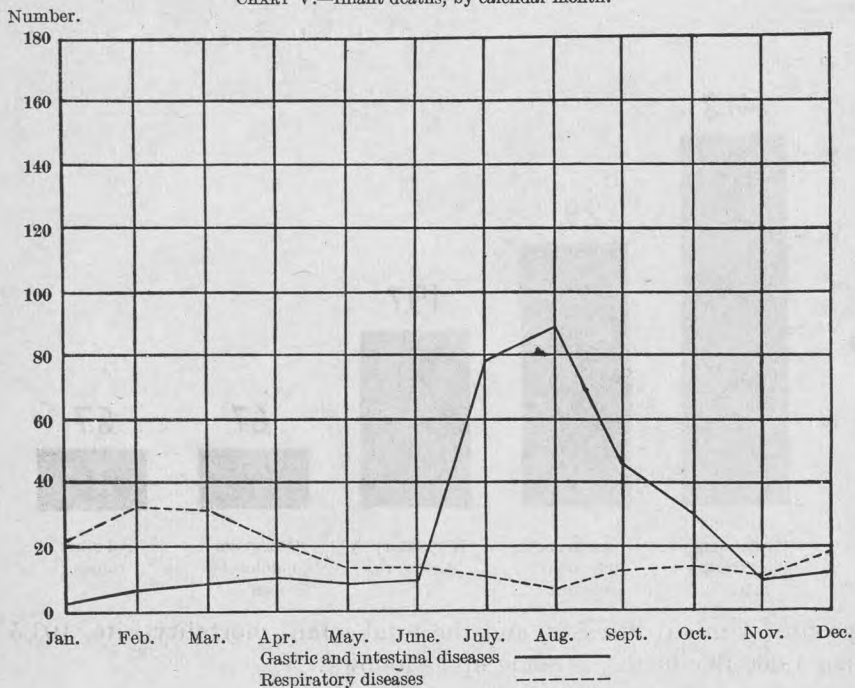
More babies died during the hot months from July to September and during the month of March than at any other season. Omitting the seasonal deaths (from gastric and intestinal diseases and from

respiratory diseases), it is found that in March there were 71 deaths from other causes, while in the other months the number of deaths from other causes ranged from 56 in April to 39 in January.

AGE AT DEATH.

In the Baltimore group, as in the death-registration area of the United States and in the cities of the birth-registration area, slightly over two-fifths of all infant deaths occurred in the first month of life. Roughly, one may say that in Baltimore of every 1,000 babies

CHART V.—Infant deaths, by calendar month.



born alive, 103 died during the first year; 56 died during the first three months (37 of these failed to survive the first two weeks); 19 died during the fourth, fifth, or sixth month; 15, during the seventh, eighth, or ninth month, and 13, during the last three months of the first year. A glance at the deaths by single months reveals the fact that although, in general, the number of deaths decreased month by month, more babies died in the fifth month and in the sixth month than in the second, third, or fourth. In the seventh month the number of deaths was strikingly less than in any preceding month.⁷⁶

⁷⁶ See Table 50, Appendix VII, p. 260.

TABLE II.—Deaths per 1,000 live births, by age at death; comparison of Baltimore and cities in the birth-registration area.

Age at death.	Deaths per 1,000 live births.		Age at death.	Deaths per 1,000 live births.	
	Balti- more.	Cities in the birth- registra- tion area (1915).		Balti- more.	Cities in the birth- registra- tion area (1915).
Total.....	103.5	103.3	1 month, under 2.....	6.0	9.2
Under 3 months.....	56.0	60.4	2 months, under 3.....	5.8	7.8
Under 2 weeks.....	37.0	35.4	3 months, under 6.....	19.4	18.1
2 weeks, under 1 month.....	7.1	8.0	6 months, under 9.....	15.1	14.0
			9 months, under 12.....	13.0	10.9

In the cities of the birth-registration area in 1915 the total infant mortality rate (103.3 per 1,000 live births) was practically identical with the rate for the Baltimore group (103.5 per 1,000 live births). But the Baltimore rate was higher than that for the other cities during the first two weeks of life and during each three-month period after the first three months.⁷⁷

CAUSES OF DEATH.

Early infancy and malformations.

In Baltimore, as in the cities of the birth-registration area, the causes of death peculiar to early infancy were responsible for more babies' deaths than any other group of diseases. Among the Baltimore babies 407 deaths were assigned to premature birth, congenital debility, or injuries at birth, and in addition 39 babies born with malformations died early in their first year.⁷⁸ These causes together showed an infant mortality rate of 41.3 per 1,000 live births. More than three-fourths (78.5 per cent) of these deaths occurred within 2 weeks of birth, many of them within 24 hours; 40 deaths assigned to early infancy or malformations, or 9 per cent of all deaths from these causes, occurred after the second month. The deaths after the second month included none of those due to injuries at birth, and

⁷⁷ For detailed tabulation see Table 47, Appendix VII, p. 257.

⁷⁸ So far as information could be secured, a list of defects of infants born alive is shown in the following tabular statement:

Nature of defect.	Number.	Rate per 1,000 live births.	Nature of defect.	Number.	Rate per 1,000 live births.
Cleft palate.....	6	0.6	Imperfectly developed head..	7	0.6
Harelip.....	9	.8	Spina bifida.....	4	.4
Additional finger or toe.....	13	1.2	Monster.....	2	.2
Missing finger or toe.....	3	.3	Lack of opening of rectum....	1	.1
Club foot.....	3	.3	Congenital disease of heart....	38	3.5
Paralysis of limb.....	1	.1	Blind.....	1	.1
Hydrocephalus.....	4	.4			

only 2 of those due to prematurity. But 9 of the 39 babies who died from malformations and 29 of the 138 who died from congenital debility had struggled safely through the first two months and died later in the year.⁷⁹

The death rate from malformations (3.6 per 1,000) was lower than the corresponding rate (6.1 per 1,000) in the cities of the birth-registration area. For the causes peculiar to early infancy the Baltimore rate was higher than that in the birth-registration cities. Even omitting from the Baltimore group the colored babies with their specially high death rate from these diseases, the Baltimore rate was still somewhat above the rate for the other cities.

TABLE III.—*Infant mortality rates from causes peculiar to early infancy, by color and nativity of mother; comparison of Baltimore and cities of the birth-registration area (1915).*

Color and nativity of mother, and area.	Live births.	Infant mortality rate from early infancy.
Cities of birth-registration area (1915).....	1 481, 496	35. 0
Baltimore study.....	10, 797	37. 7
White mothers.....	9, 492	36. 0
Native.....	6, 739	38. 1
Foreign-born.....	2, 753	30. 9
Colored mothers.....	1, 305	49. 8

¹ Includes 471,144 white and 10,352 colored infants. U. S. Bureau of the Census, Birth Statistics, 1915. First annual report, p. 10.

Only for the babies of foreign-born mothers did the Baltimore rate from early infancy drop below that for all the cities of the birth-registration area combined.

The deaths from causes peculiar to early infancy were more evenly distributed through the different seasons than deaths from gastric and intestinal diseases or deaths from respiratory diseases; and yet in the Baltimore group it was found that more babies died from causes peculiar to early infancy in March, April, and November than in other months and noticeably few in January. The variations in the numbers of births occurring in the several months do not account for these differences, for the infant mortality rate from this group of causes was exceptionally high among babies born in March, April, or November and exceptionally low among babies born in January.⁸⁰ In discussing these diseases, Dr. Grace L. Meigs says:

“No more than a guess can be made as to the degree to which these diseases can be prevented. * * * Two problems are here involved: (1) The ignorance of the prospective mother in the care of

⁷⁹ See Table 50, Appendix VII, p. 260.

⁸⁰ See Tables 52 and 53, Appendix VII, pp. 262 and 263.

herself during pregnancy; (2) improper care by physician and midwife during pregnancy and at birth."⁸¹

The present study will show the extent to which in the Baltimore group the death rate from causes peculiar to early infancy varied not only with the color and nativity of the mother, but also with the family's means, with the work the mother did, and the number of children she had borne.

Gastric and intestinal diseases.

Second in importance as a cause of death were the diarrheal diseases, from which 308 babies in the Baltimore families died under 1 year of age. The six deaths from diseases of the stomach were included with these in the group of gastric and intestinal diseases, and the combined infant mortality rate was 29.1 per 1,000 live births. In the deaths from these causes there was the least variation in rates between the native, foreign-born, and colored groups as a whole.⁸² Each of the three in the Baltimore study showed a rate somewhat higher than the rate in the cities of the birth-registration area.

Color and nativity of mother, and area.	Infant mortality rate from gastric and intestinal diseases.
Cities of birth-registration area (1915).....	26.6
Baltimore study.....	29.1
Native white mothers.....	28.8
Foreign-born white mothers.....	29.1
Colored mothers.....	30.7

These deaths occurred at every month of age within the first year of life. The hazard was less during the first two months than later and for these early months the rate in the Baltimore group was below the rate in the cities of the birth-registration area. The monthly death rate from gastric and intestinal diseases, in the Baltimore group reached its maximum during the sixth month. Or, if the four three-month periods of the first year of life are considered, the lowest infant mortality rate from gastric and intestinal diseases is found during the first quarter and the highest rate during the second quarter.⁸³ Quite different was the distribution of such infant deaths among all babies under 1 year of age in all cities of the birth-registration area during 1915. There the rate from gastric and intestinal diseases was highest during the first three months of life and decreased steadily and markedly through the remainder of the first year. For each age period except the first three months the Baltimore group had a higher rate than the babies in these other cities, and it may be noted that the highest rate reached by the Baltimore group

⁸¹ Grace L. Meigs, M. D.: Other Factors in Infant Mortality than the Milk Supply and Their Control, in *American Journal of Public Health*, Vol. VI, No. 8.

⁸² Table 49, Appendix VII, p. 259. Important variations in rate occur within the foreign group, which will be discussed in the comparison of the several nationalities. Compare page 78.

⁸³ See Tables 50 and 54, Appendix VII, pp. 260 and 264.

(during the second three months) was higher than the maximum reached in the other cities (during the first three months). A comparison with the death rate under 1 year from gastric and intestinal diseases in Baltimore City during the calendar year 1915 shows a distribution of deaths similar to that in the group studied in detail and unlike that in the cities of the birth-registration area.

Gastric and intestinal diseases are, of course, largely seasonal. Disregarding for a moment differences between the two summers, it appears that for the Baltimore group, while no calendar month was without infant deaths assigned to these diseases, the months from July to October had 243 such deaths, or 77.4 per cent of them all. August had the highest number of deaths, 89, and July followed with 78.⁸⁴

The summer of 1916, which was the period of special exposure for most of the older babies in the Baltimore group, was exceptionally dry,⁸⁵ and the city death records showed more deaths under 2 years of age from diarrhea and enteritis during 1916 than during 1915, when the younger babies in the Baltimore group were especially exposed to gastric and intestinal disorders. This might account for an exceptionally high percentage of such deaths occurring during the later months of life. It could have no bearing upon the high mortality during the months from the third to the sixth.

Deaths from these causes are considered the most immediately preventable of all infant deaths, since the disorders from which they result are directly related to wrong feeding and improper care. That these disorders are gradually being controlled and prevented throughout the country is indicated by the mortality statistics for the death-registration area.

The total number of infant deaths in the death registration States as of 1910 (exclusive of North Carolina) decreased from 135,020 in 1910 to 119,349 in 1917. There is no reason to assume a corresponding decrease in the annual number of births within the same area, since a possible decrease in birth rate would have been more than offset by an increase in population. Therefore, the shift in per cent distribution of deaths by cause of death indicates, primarily, a decrease in the mortality from the causes which show a decreasing percentage of the total infant deaths.

On the other hand, whether the mortality from causes which show an increasing percentage of the total deaths has actually increased or merely remained constant while the deaths from other causes have decreased can not be determined without a comparison of deaths and births.⁸⁶

⁸⁴ See Chart V, p. 58, and Table 52, Appendix VII, p. 262.

⁸⁵ See Table 56, Appendix VII, p. 264.

⁸⁶ A comparison of infant births and deaths is possible for the birth-registration area as of 1915, exclusive of Rhode Island. The infant mortality rate from gastric and intestinal diseases was 24.6 in 1915, 25.1 in 1916, and then fell to 23.4 in 1917, 23.2 in 1918, and 19.0 in 1919. Compiled from U. S. Bureau of the Census, Birth Statistics, 1915 to 1919.

TABLE IV.—*Changes in per cent of infant deaths from certain causes in the death-registration area, as of 1910 (exclusive of North Carolina), 1910 to 1917.*

Years.	Per cent of infant deaths from specified causes.			Years.	Per cent of infant deaths from specified causes.		
	Gastric and intestinal diseases.	Early infancy and malformations.	All other causes.		Gastric and intestinal diseases.	Early infancy and malformations.	All other causes.
1917.....	23.7	41.4	34.8	1913.....	26.1	39.8	34.2
1916.....	24.3	41.2	34.6	1912.....	25.3	39.5	35.0
1915.....	23.4	41.9	34.6	1911.....	27.0	37.1	35.7
1914.....	24.5	41.4	34.2	1910.....	30.6	30.7	38.7

(U. S. Bureau of the Census, Mortality Statistics, 1917, p. 64.)

Marked variations in the rates from gastric and intestinal diseases occurred within the native white group and among the several nationalities in the Baltimore study. How these variations were related to methods of feeding and to home conditions will be discussed in later sections of this report. The very low rates prevailing in certain groups tend to confirm the belief that these disorders can be largely prevented by breast feeding, and by good care and surroundings.

Respiratory diseases.

To the third important group of infant diseases—pneumonia, bronchitis, and broncho-pneumonia—were assigned 213 deaths among the Baltimore infants, an infant mortality rate of 19.7 per 1,000 live births. The hazard from these diseases persists throughout the first year of life, but the rate was highest (3.5) during the first month and decreased slightly as the year progressed. More than one-sixth of the babies who died of respiratory diseases were less than 1 month old, and more than three-fifths of them were less than 6 months old. In the cities of the birth-registration area there was a similar slight decrease in these deaths as babies grew older, but the proportions of the deaths from respiratory diseases occurring in the early months of age were not quite so high as in the Baltimore group. During each three-month period except the last the rate was higher in Baltimore than in the cities of the birth-registration area.⁸⁷

As in the deaths from gastric and intestinal diseases, there was a seasonal variation, but the greatest numbers of deaths from respiratory diseases were in February (33) and March (32), and the least were in August (7). The five calendar months, January, February, March, April, and December, had 129 such deaths, two and one-third times as many as the five months from July to November.

These deaths were very unevenly distributed among the different families studied. Relatively more than three times as many occurred

⁸⁷ See Table 47, Appendix VII, p. 257.

among the colored babies as among the white babies. Or, specifically, of the 1,305 babies born to colored mothers, 64 died from respiratory diseases—49 per 1,000 live births; of the 9,492 babies born to white mothers, 149 died from respiratory diseases—15.7 per 1,000 live births. Among the babies of foreign-born mothers the rate (20.7) was higher than among the babies of native white mothers. It should be mentioned that respiratory diseases are often complications of acute contagious diseases, especially of whooping cough and measles, and as shown later, whooping cough was more prevalent among colored than among white babies.⁸⁸

This element of the infant death rate has been considered difficult to touch; the definite attempt to reach it is the development of only the last few years. But, again, the low rates found in certain groups suggest that many of the deaths from respiratory diseases might be prevented.⁸⁹ Here, too, the chief weapons are improvement in the standard of living and the education of the mother. She must learn that breast milk and plenty of fresh air increase the baby's power of resistance; that the baby must not be exposed to infection from a person suffering from a cold; and that respiratory infections in the baby must receive early treatment.

Other communicable diseases.

About 1 in 15 of the infant deaths were ascribed to the other communicable diseases, which included whooping cough, with 18 deaths, tuberculosis, 15 deaths, and syphilis, 14 deaths. The other 25 deaths in this classification were scattered among several causes—measles 8, influenza 7, erysipelas 4, diphtheria and croup 4, and scarlet fever and dysentery each 1. Altogether these diseases showed an infant mortality rate of 6.7 per 1,000 live births, which was somewhat less than the corresponding rate (8.5 per 1,000) in cities in the birth-registration area in 1915.⁹⁰

The 14 deaths assigned to syphilis occurred in the earliest months of life—10 in the first month and only 1 after the third month.⁹¹ Deaths from this cause, like those assigned to early infancy, are directly related to the condition of the mother and the condition of the infant at birth. Their prevention depends directly upon the care and treatment of the mother during pregnancy and confinement.

⁸⁸ But if both causes are stated on the death certificate the death is ascribed to the epidemic rather than to the respiratory cause. See U. S. Bureau of the Census, *Manual of International Causes of Death*, pp. 18-20; also U. S. Bureau of the Census, *List of Joint Causes of Death*.

⁸⁹ A marked reduction in infant mortality from respiratory diseases in New Zealand during the past 15 years from 10 per 1,000 births in 1905-1909 to 4.6 in 1915-1918, has accompanied the development of infant-welfare work in that country.

⁹⁰ See Tables 47, 48, 49, and 50, Appendix VII, pp. 257 to 260.

⁹¹ In addition to these deaths assigned to syphilis, an unknown number due to syphilis or other venereal infection are probably included in the early deaths assigned to "prematurity," "congenital debility," "diseases ill defined and unknown," and other causes.

The deaths assigned to other communicable diseases increased in the later months of life, and 24, or almost two-fifths of all, occurred among babies more than 9 months old.⁹² Among babies from 6 to 12 months old the death rate was practically the same in the Baltimore group and in the cities of the birth-registration area for other communicable diseases.

While it is necessary to guard against using the rates for the group studied as true and complete for the city of Baltimore, it is found nevertheless that on this point the experience of the group was similar to that shown by all registered infant deaths in Baltimore during 1915 and 1916—low death rates for communicable diseases other than syphilis, with a diminishing difference between Baltimore and the other cities as babies passed from early infancy to the later months of their first year.

Variations in rates from these diseases were found within the Baltimore group. Except for the three diseases—whooping cough, tuberculosis, and syphilis—the total numbers of deaths were too small to justify analysis, and, even for these three causes, slight variations in rates would not be significant. But when it is found that the babies of colored mothers died from whooping cough at the rate of 5.4 per 1,000 live births and that this rate was 3 times as high as the rate (1.8) among babies of foreign-born white mothers and 6 times as high as the rate (0.9) among babies of native white mothers, it becomes apparent that this difference in rate reflects a real difference in conditions and care. Again, the rate from deaths assigned to syphilis was 11 times as high among babies of colored mothers (7.7 per 1,000) as among babies of foreign-born white mothers (0.7), and 26 times as high as the rate (0.3) among babies of native white mothers.⁹³

For tuberculosis the babies of foreign-born mothers had the most favorable rate (0.4 per 1,000). The colored babies had a rate (3.1 per 1,000) more than twice as high as the babies of native white mothers (1.4 per 1,000). This indication that relatively more colored babies than white babies died from tuberculosis was confirmed by the much

⁹² This can not be ascribed to the fact that measles and whooping cough were more prevalent in Baltimore during 1916 than during 1915. While 17 of the 26 babies in this group who died from one of these diseases had passed the sixth month of life, more than half the infant deaths from measles and whooping cough recorded for the year 1915 in the cities of the birth-registration area were in this same age period. See Table 50, Appendix VII, p. 260.

⁹³ This may in part reflect a difference in the extent to which deaths from syphilis were assigned to other causes in registering deaths of white persons and deaths of colored persons. It has been shown in other studies that venereal infection is more prevalent among the negroes in Baltimore than among the white population. J. Whitridge Williams: *The Limitations and Possibilities of Prenatal Care* based upon the study of 705 fetal deaths occurring in 10,000 consecutive admissions to the obstetrical department of the Johns Hopkins Hospital, pp. 32-48, especially pp. 33-35, American Association for Study and Prevention of Infant Mortality, fifth annual meeting, Boston, 1914; J. Whitridge Williams: *The Significance of Syphilis in Prenatal Care and in the Causation of Fetal Deaths*, in *New York State Journal of Medicine*, 1920, Vol. XX, pp. 252-259.

greater difference between the white and colored death rates from tuberculosis at all ages in Baltimore.⁹⁴

The prevention of communicable diseases in infancy is not only a general community health problem but another challenge to all efforts to insure babies breast feeding and good home care. It is also, in large part, a problem of the sound condition and good care of the mother during pregnancy and confinement.

The deaths from such diseases, even where the rate was highest, were few in relation to infant deaths from all causes, and yet they did increase the total infant mortality rate in the group. If no babies had died from these diseases the rate for babies of white mothers would have been 90.6 per 1,000 instead of 95.9 and for babies of colored mothers 141.7 instead of 158.6.

Other causes.

Of the remaining 72 scattered deaths which completed the toll within the group, 10 were assigned to external causes, 7 to causes entered as ill defined or unknown, 10 to meningitis, and 15 to "convulsions." Little variation within the group was found in relation to these deaths. The colored babies had more than their share of deaths from external causes, with a rate of 2.3 per 1,000, as against

⁹⁴NOTE.—

Year, and color of mother.	Estimated population of Baltimore, July 1. ^a	Deaths from tuberculosis. ^b		Year, and color of mother.	Estimated population of Baltimore, July 1. ^a	Deaths from tuberculosis. ^b	
		Number.	Per 1,000 population.			Number.	Per 1,000 population.
White:				Colored:			
1915.....	496,682	798	1.60	1915.....	87,923	489	5.56
1916.....	501,155	812	1.62	1916.....	88,466	509	5.75

^a U. S. Bureau of the Census, Bulletin 133, p. 37.

^b U. S. Bureau of the Census, Mortality Statistics, 1915, p. 570; 1916, p. 420.

Information was secured from various agencies in Baltimore about the mothers shown by their record to have had tuberculosis, either at the time of the birth during 1915 or at some earlier time. This was undoubtedly an incomplete statement of the total number of cases, but it offers a bit of evidence about the increase in hazard to infants whose mothers had had tuberculosis.

Condition of mothers.	Live births.	Infant deaths.			
		From tuberculosis.		From all other causes.	
		Number.	Infant mortality rate.	Number.	Infant mortality rate.
Mothers with tuberculosis.....	96	3	31.3	23	239.6
Mothers without tuberculosis.....	10,701	12	1.1	1,079	100.8

Note that while infant mortality from "all other causes" was higher when the mother had tuberculosis than when she did not have tuberculosis, the difference was especially marked in the mortality from tuberculosis.

0.7 per 1,000 among the white babies, but the whole number of such deaths (10) was too small to be significant. Plainly, however, deaths from external causes usually reflect lack of proper care of the baby.

Of the other 62 deaths, 24, or about two-fifths, occurred in the first month of life, and 50, or nearly four-fifths, occurred during the first six months of life. It seems likely that many of these early deaths were closely related to the deaths classified as due to causes peculiar to early infancy and could have been prevented only by better care of the mother before her baby's birth.

SUMMARY.

The total infant mortality in the Baltimore group was approximately equal to the mortality reported for the cities of the birth-registration area during 1915. The Baltimore group had a rate somewhat higher than this general rate for deaths during the first two weeks and after the first three months of infancy, and lower than this general rate for deaths among infants 2 weeks but less than 3 months old.⁹⁵

The Baltimore rate for causes peculiar to early infancy, which was slightly above that for the birth-registration cities, was relatively high during the first two weeks of life and relatively low thereafter.

The Baltimore rate for gastric and intestinal diseases, which for the year as a whole was above the rate in the birth-registration cities, was lower than the rate elsewhere during the first two months and higher than the rate elsewhere during the remainder of the year. It was especially high among babies in their fourth, fifth, and sixth months of life.

The Baltimore rate for respiratory diseases was relatively high for the year as a whole and was not at any period lower than the rate in the birth-registration cities. The excess in the Baltimore rate appeared chiefly among babies 3 months but less than 9 months old, but also for the relatively few deaths from these diseases among babies under 2 weeks of age the Baltimore rate was higher than the rate elsewhere.

The Baltimore rates for communicable diseases and for the ill-defined and "all other" causes were below the rates for the birth-registration cities.

In each group of deaths, except those from malformations, the rates among colored babies were higher than the rates among white babies. Other variations that accompanied differences in economic and social conditions will appear in the development of the discussion.

⁹⁵ The reader is again reminded that in comparing the rates in the Baltimore group with the cities of the birth-registration area, the rates used as a standard of comparison were almost twice as high as the rates which had prevailed during recent years in the cities of New Zealand. And even where the rate for the Baltimore group as a whole was "relatively low," it was still above the New Zealand rate.

The total infant mortality in the Baltimore group was higher than that in the groups studied by the bureau in Brockton, Akron, and Saginaw, and lower than that in the groups studied by the bureau in Waterbury, New Bedford, Johnstown, and Manchester. The Baltimore rate from gastric and intestinal diseases was markedly higher than the rates in the three other cities with a lower total mortality. The Baltimore rate from the causes peculiar to early infancy was higher than the corresponding rates in New Bedford and in Akron. Saginaw and Brockton showed lower mortality from respiratory and other communicable diseases.

TABLE V.—*Infant mortality rates from specified causes; cities studied by the Children's Bureau.*

City.	Infant mortality rate.			
	All causes.	Gastric and intestinal diseases.	Respiratory and other communicable diseases.	Early infancy.
Johnstown.....	134.0	32.8	38.3	39.6
Manchester.....	165.0	63.3	29.4	39.6
New Bedford.....	130.3	48.3	36.7	29.0
Brockton.....	96.7	12.4	21.5	37.2
Waterbury.....	122.7	41.0	26.6	38.7
Akron.....	85.7	20.4	16.0	28.9
Saginaw.....	84.6	8.2	15.3	37.7
Baltimore.....	103.5	29.1	26.4	37.7

FEEDING AND INFANT MORTALITY.

It has become a truism that babies who are nursed through the greater part of the first year have a lower mortality than babies who are weaned prematurely or are never nursed at all, and that babies who are given during their early months other food in addition to breast milk face a greater hazard than babies who have breast milk only. The extent of the variation is greatly modified by the conditions under which artificial feeding is given and the nature of the food. It is true, also, as shown in later sections of the report, that breast-fed babies in the poorest families have a higher mortality than artificially-fed babies in the most prosperous families, but within each group, distinct and homogeneous in race or nationality and in economic status, an excessive hazard persists among artificially-fed babies as compared with breast-fed babies in the same group.

In these studies "breast feeding" refers to those babies who at the specified age were receiving breast milk and no artificial food whatever. "Artificial feeding" refers to those babies who were receiving no breast milk at all. "Mixed feeding" refers to babies who were being nursed but were having other food besides. No attempt has been made to distinguish among the various kinds of artificial food such as cow's milk (raw or Pasteurized), condensed or evaporated milk, proprietary foods, bread or other solid foods, etc.⁹⁶

The feeding of each baby was recorded and classified separately for each of the 12 months of the first year.⁹⁷

Any comparison of mortality must, therefore, be based primarily on the monthly death rates of the three groups of babies—the breast-fed group, which diminished from month to month as babies were given other food, and the mixed-fed and artificially-fed groups, which increased correspondingly. But from the monthly death rates an annual rate, per 1,000 babies fed, may be computed in order to compare the total hazards to breast-fed and other babies.⁹⁸

⁹⁶ The milk situation in Baltimore during 1915 and 1916 was generally recognized as unsatisfactory. Raw milk, inadequately safeguarded by regulation and inspection of dairies, and "loose milk" were sold under insanitary conditions. Pasteurization was voluntarily carried on by certain large dairies but without standardization of the process. The sale of milk from diseased cows was prohibited, but city health authorities found, year by year, a considerable number of herds which had not been tuberculin tested. A new ordinance intended to remedy these conditions was passed in 1917, to become effective June 1 of that year. (Municipal Journal, Feb. 9, 1917, p. 7.)

⁹⁷ When a shift from one type of feeding to another occurred within the month the month was assigned to the type of feeding which predominated. In most of the tabulations of feeding and mortality, however, the feeding after the ninth month was disregarded; infants surviving at the beginning of the tenth month and deaths among them were classified according to the feeding recorded for the ninth month.

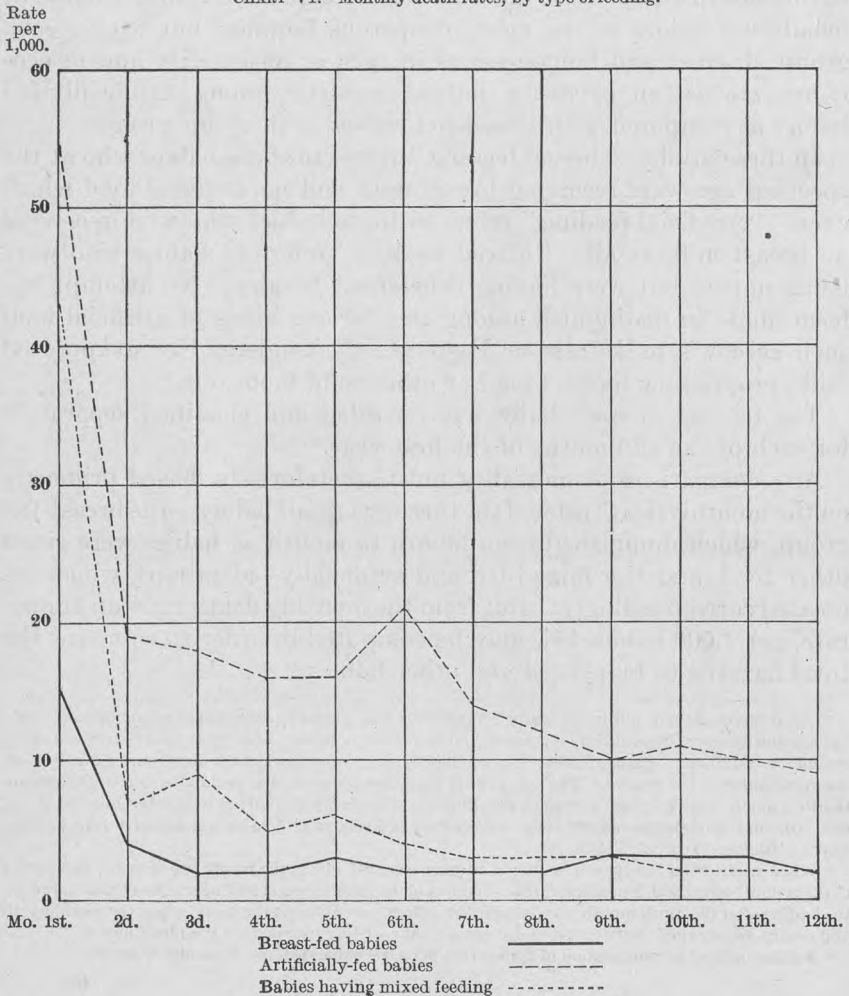
⁹⁸ For the method of computation of annual rate per 1,000 babies fed, see Appendix V, p. 199.

TABLE I.—Monthly death rates, by type of feeding and month of life; infants born in 1915.

Month of life.	Deaths per 1,000 infants surviving at beginning of month.	Deaths per 1,000 infants fed in specified way.		
		Breast fed.	Mixed fed.	Artificially fed.
First.....	144.2	15.0	42.7	55.3
Second.....	6.3	3.9	6.6	18.9
Third.....	6.1	2.4	9.5	18.4
Fourth.....	6.1	2.3	5.4	16.5
Fifth.....	7.0	3.4	5.6	15.7
Sixth.....	7.6	2.2	4.0	20.6
Seventh.....	5.6	1.7	3.2	13.7
Eighth.....	5.6	2.2	3.3	11.8
Ninth.....	5.2	2.8	3.1	9.8
Tenth to twelfth (average).....	4.8	2.7	2.3	9.6

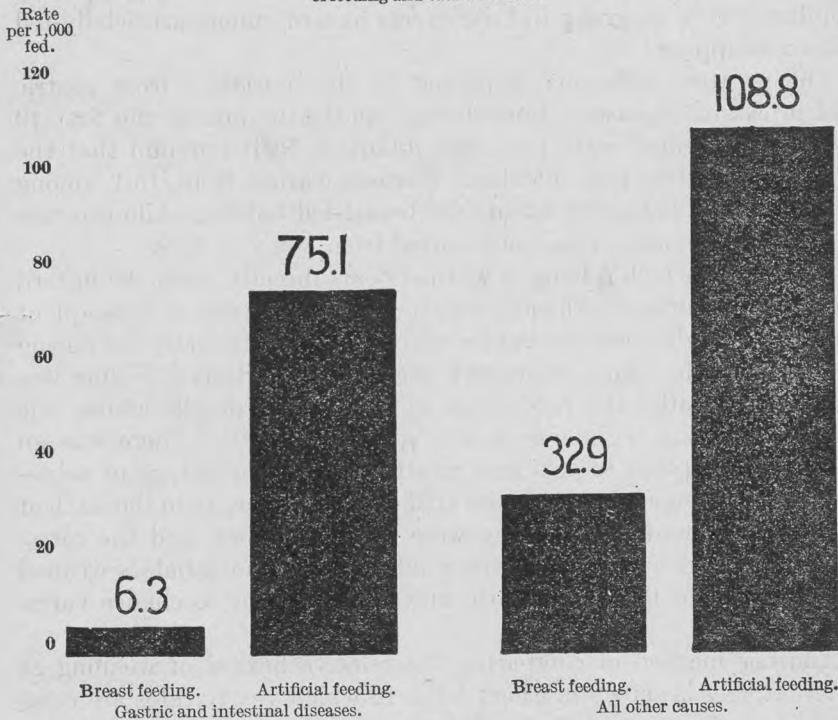
¹ The rate per 1,000 infants fed was 19.3; 269, or 24.9 per 1,000 live births, died not fed.

CHART VI.—Monthly death rates, by type of feeding.



Comparing, first, the monthly death rates, it is found that at each month up to the ninth the babies artificially fed had the highest mortality, and that during the last three months of the first year the babies who had been artificially fed in the earlier months continued to show a higher mortality than the babies who had had breast feeding or mixed feeding through the ninth month. The breast-fed babies showed a monthly death rate of 15 per 1,000 babies fed in the first month, 3.9 per 1,000 babies fed in the second month, and thereafter a fairly constant rate ranging from 1.7 to 3.4 per

CHART VII.—Computed infant mortality rates during first 10 months of life per 1,000 infants fed, by type of feeding and cause of death.



1,000 in each month to the end of the year. The artificially-fed babies showed a monthly death rate of 55.3 per 1,000 babies fed in the first month, 18.9 per 1,000 babies fed in the second month, and a slowly diminishing rate in the succeeding months which touched 9.6 per 1,000 in the tenth to twelfth month. A break in the fall occurred, however, in the sixth month, when the mortality among artificially-fed babies rose to 20.6 per 1,000. The babies having mixed feeding showed the greatest difference between the first and later months. Their rate in the first month, 42.7 per 1,000, approaches the rate for artificially-fed babies; from the second month to the ninth it continued higher than the rate for breast-fed babies

though with a diminishing difference. From the tenth month to the end of the year the babies who had had mixed feeding during the ninth month or earlier had approximately the same mortality as the babies who had been breast fed throughout that period.⁹⁹

Or, comparing the computed annual rates per 1,000 infants fed, it appears that, on the whole, the hazard to babies having mixed feeding was twice as great, and the hazard to babies artificially fed was more than four times as great, as the hazard to babies who were breast fed. The excess hazard to artificially-fed babies as compared with breast-fed babies in the same group rose to a still higher point in the poorest families and dropped somewhat in the most prosperous families, but in no group did the excess hazard among artificially-fed babies disappear.¹

The greatest difference appeared in the mortality from gastric and intestinal diseases. Considering the deaths during the first 10 months (computed rates per 1,000 infants fed), it is found that the rate from gastric and intestinal diseases varied from 75.1 among artificially-fed babies to 6.3 among breast-fed babies, while the rate from all other causes combined varied from 108.8 to 32.9.²

The age at which a baby is weaned bears directly upon the hazard he must encounter. At each month, the percentage of subsequent deaths was highest among babies who had been artificially fed during the first month. And, in general, the later the artificial feeding was begun the smaller the percentage of subsequent deaths among the survivors at the beginning of any specified month. There was an apparent exception to this in a relatively high percentage of subsequent deaths among babies whose artificial feeding began in the sixth or the seventh month. But they were few in number, and the rates, apparently higher than the corresponding rates among babies weaned in the fourth or the fifth month, may easily be due to chance variation.³

Another method of comparing the relative hazard of weaning at different ages is shown in Chart VIII, in which yearly rates are computed for infants weaned at different ages. In computing the rates, it has been arbitrarily assumed that infants were mixed-fed during

⁹⁹ See Tables 58 and 59, Appendix VII, pp. 266 and 268.

¹ The average excess hazard among artificially-fed babies as compared with breast-fed babies is probably a slight understatement of the true average excess. The artificially-fed babies included a relatively large proportion of babies in the most prosperous families and relatively more of the babies in native white families and fewer of the babies in foreign-born white families than are included in the breast-fed group. The average hazard to artificially-fed babies was based, therefore, on a group weighted a little more favorably than the breast-fed group, in relation to nationality and fathers' earnings. But whether the average hazard to artificially-fed babies was four times as great or more than five times as great is, after all, of little moment. See Table 60, Appendix VII, p. 276.

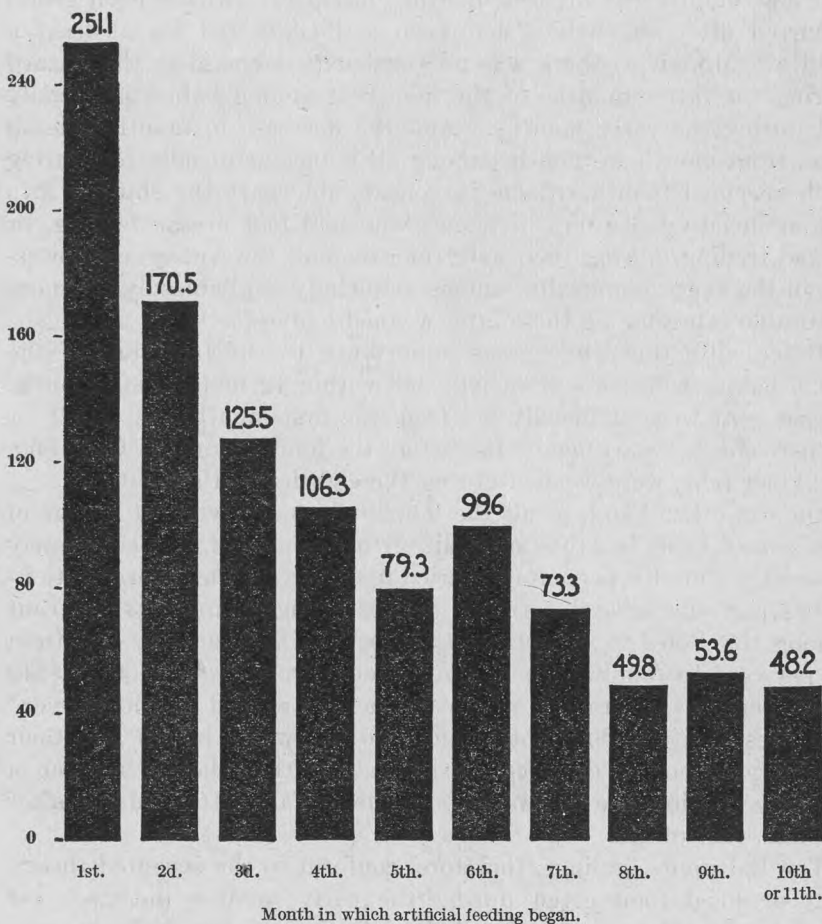
² See Table 63, Appendix VII, p. 278.

³ See Table 64, Appendix VII, p. 278.

the month preceding the month in which artificial feeding began, and breast fed during the earlier months.⁴ The infant mortality rate per 1,000 for babies artificially fed from birth was 251.1. For infants mixed fed during the first, and artificially fed from the second to the

CHART VIII.—Infant mortality rates, by month of life in which artificial feeding began.

Rate per 1,000
fed.
280 -



twelfth month, the rate per 1,000 fed was 170.5; while for those breast fed the first eight or nine months and artificially fed only from the tenth or eleventh months, the rate per 1,000 fed was only 48.2. The rates descend with two slight breaks in the regularity—the

⁴ In the computation, average monthly death rates by type of feeding and, for those artificially fed, by the month in which feeding began, have been used as the basis of computation. For further explanation of method, see Appendix V, p. 199.

babies weaned in the sixth seem to have a slightly higher rate than those weaned in the fifth month, but the number of cases upon which the monthly rates are based are small; and the differences are slight among the babies weaned in the eighth, ninth, and later months (eighth month, 49.8; ninth, 53.6; tenth or eleventh, 48.2).⁵

Furthermore, analysis of the monthly death rates among artificially fed babies, grouped according to the month in which artificial feeding began, shows that except among babies artificially fed from the first month, the highest monthly death rate within each group occurred after the babies had been artificially fed for at least a month.⁶ Moreover, there was no consistent decrease in the hazard during the latter months of the first year among babies artificially fed during the early months. And the decrease in monthly death rate, from month to month, among all babies artificially fed during each specified month reflects in considerable part the shifting into the artificially-fed group of babies who had had breast feeding, or mixed feeding, during their early months and the consequent lowering of the average mortality among artificially-fed babies by the more favorable rates among these later-weaned babies.

Practically, this lends great importance to the fact that of the 4,025 babies who were artificially fed within 12 months after birth, 24 per cent were artificially fed from the first month, and 2,082, or 52 per cent, were artificially fed before the fourth month. Only 850, or 21 per cent, were weaned during the eighth month or later.⁷

On the other hand, of all the 9,680 babies surviving at 1 year of age, considerably less than one-half (37 per cent) had been completely weaned. But this percentage varied markedly in the several nationalities and the several earnings groups—ranging from 23 per cent among the Poles to 46 per cent among the Lithuanians, and from 30 per cent in families where the fathers earned from \$450 to \$549 to 63 per cent in families where the fathers earned \$2,850 or over.⁸ The present study does not attempt to follow the babies into their second year nor to draw conclusions about the relation between a too long continuance of nursing and the welfare of the infants after the first year of life.

The Baltimore findings, therefore, conform to the accepted theory that artificial food given during the early months increases the hazards of infancy, and that babies having in the early months breast milk and other food besides, face a greater hazard than babies who are breast fed only, but a lesser hazard than babies who are artificially fed only. They show that the effect of artificial feeding was most marked in gastric and intestinal diseases, but that for

⁵ See Table 65, Appendix VII, p. 279.

⁶ See Table 66, Appendix VII, p. 279.

⁷ See Table 65, Appendix VII, p. 279.

⁸ See Tables 67 and 68, Appendix VII, pp. 279 and 280.

other causes of death, also, the artificially-fed babies had a higher mortality during each month of life than the breast-fed babies. The effect of artificial feeding appeared most markedly after the baby had been deprived of breast milk for at least a month.

Artificial feeding, as it was practiced in Baltimore, meant in large measure artificial feeding during the early months. More than half the babies weaned during their first year had been weaned before the end of their third month, and more than three-fourths before the end of the seventh month. The earlier the baby was weaned the greater the hazard he encountered during his first year.

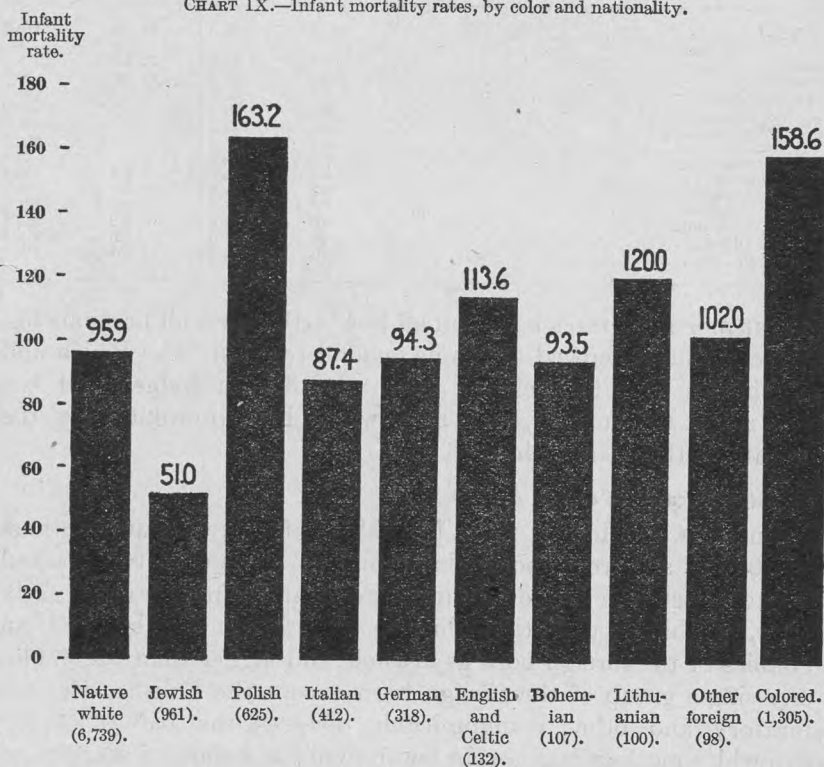
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SOCIAL AND ECONOMIC FACTORS IN INFANT MORTALITY.

NATIONALITY AND MORTALITY.

It has been noted that the mortality from all causes and from each cause separately except the gastric and intestinal diseases and malformations was markedly higher among the colored babies than among the white babies in the Baltimore group. Differences quite as marked appear within the white families studied, when

CHART IX.—Infant mortality rates, by color and nationality.



they are divided according to the nationality of the mother. It is true that the foreign-born white families, considered as a single group, showed the same mortality as the native white families—95.9 per 1,000. But the babies of Jewish mothers had the lowest mortality in Baltimore—51 per 1,000—and the Polish babies the highest—163.2 per 1,000. (The rate among colored babies, it will be remembered was 158.6 per 1,000.) The other nationality groups—

Italian, German, English and Celtic, Bohemian, Lithuanian, and all other foreign born—had rates ranging from 120 per 1,000 among the Lithuanians to 87.4 per 1,000 among the Italians, but the numbers of live births within each of these other nationality groups were small and the variations shown may not be significant.

TABLE I.—*Infant mortality rates, by color and nationality of mother; live births in 1915 and live births, all pregnancies.*

Color and nationality of mother.	Live births in 1915.		Live births, all pregnancies.	
	Number.	Infant mortality rate.	Number.	Infant mortality rate.
Total.....	10,797	103.5	34,844	119.3
White.....	9,492	95.9	30,440	111.9
Native.....	6,739	95.9	19,696	110.9
Foreign born.....	2,753	95.9	10,744	113.7
Jewish.....	961	51.0	3,561	65.2
Polish.....	625	163.2	2,681	163.7
Italian.....	412	87.4	1,701	111.1
German.....	318	94.3	1,313	125.7
All other.....	437	107.6	1,488	132.4
English and Celtic.....	132	113.6	529	132.3
Bohemian.....	107	93.5	387	124.0
Lithuanian.....	100	120.0	252	162.7
Other.....	98	102.0	320	118.7
Colored.....	1,305	158.6	4,404	170.5

Infant mortality rates based on all live births from all pregnancies, to these mothers, showed the same general relation: The Polish and Negro babies had the highest rates; the Jewish babies had the lowest rates; the foreign born as a whole had approximately the same rate as the native white.⁹

Nationality and cause of death.

Behind the equal total rates for babies of native white mothers and babies of all foreign-born white mothers, there were two marked differences between these groups. For causes peculiar to early infancy, the babies of native white mothers had a rate higher than the babies of the foreign born as a whole and higher than the babies in any single group of the foreign born except the Polish. But for respiratory and other communicable diseases the babies of the native white mothers had a rate lower than the babies of the foreign born as a whole and lower than the babies in any single group of the foreign born except the Jewish.

⁹ For detailed tabulations see Tables 69 and 70, Appendix VII, pp. 280 and 281.

TABLE II.—*Infant mortality rates from specified causes, by nationality of mother; live births in 1915.*

Color and nationality of mother.	Infant mortality rate.				
	All causes.	Gastric and intestinal diseases.	Respiratory and other communicable diseases.	Early infancy.	All other causes.
Total.....	103.5	29.1	26.4	37.7	10.3
Native white.....	95.9	28.8	18.4	38.1	10.5
Foreign-born white.....	95.9	29.1	27.2	30.9	8.7
Jewish.....	51.0	9.4	15.6	22.9	3.1
Polish.....	163.2	68.8	33.6	43.2	17.6
Italian.....	87.4	9.7	31.6	34.0	12.1
All other.....	102.2	31.9	34.6	29.1	6.6
Colored.....	158.6	30.7	65.9	49.8	12.3

Again, behind the excessively high rates which were approximately the same for Polish babies and Negro babies were marked differences in the rates from the principal causes of death. The high rate among the Polish babies was chiefly due to an excessive rate (68.8) from gastric and intestinal diseases, but their deaths from early infancy (43.2 per 1,000) and from respiratory and communicable diseases (33.6 per 1,000) were also above the average. Among the colored babies, on the other hand, the rate from gastric and intestinal diseases (30.7) was practically the same as the average for all Baltimore babies studied, but the rate from respiratory and other communicable diseases (65.9) was excessively high and the rate from early infancy (49.8) was higher than the corresponding rate in the Polish group.

The very low rate among babies of Jewish mothers appears in each group of causes. At one point only was it equaled by the rate in any other group: The babies of Italian mothers, whose total mortality was considerably higher than the mortality among babies of Jewish mothers, had the same low rate as the Jewish babies from gastric and intestinal diseases.

The deaths from scattered and unspecified causes (which make up the rates shown in the sixth column of Table II) were too few in the several foreign-born groups to justify detailed comparison. It may be noted, however, that again the Polish babies show the highest rate and the babies of Jewish mothers the lowest rate.

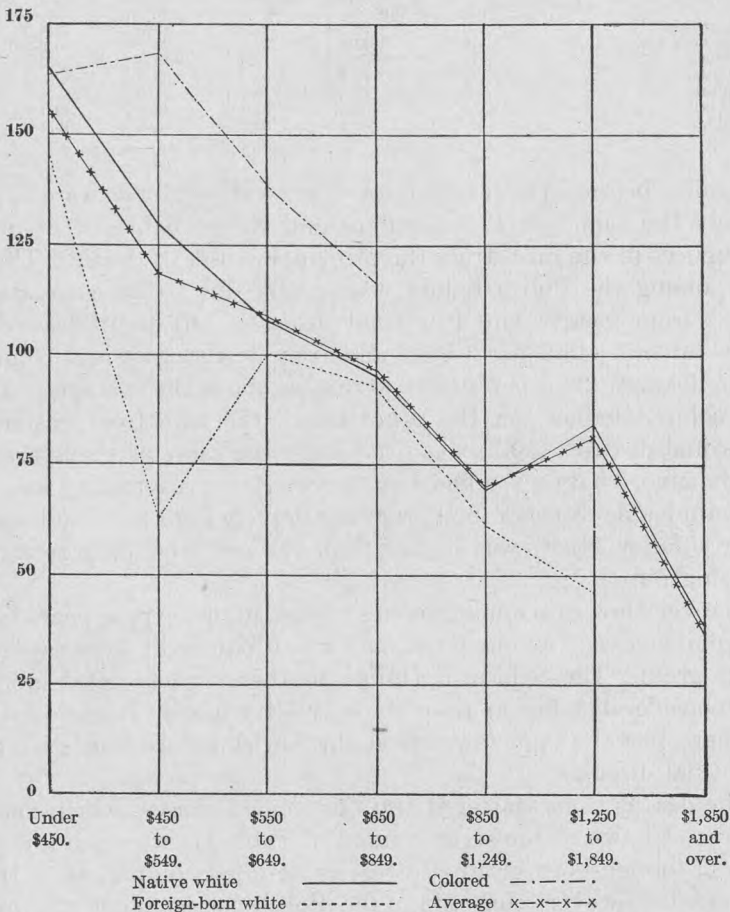
Social factors in the variation of rates by nationality.

Do the differences in social and economic conditions under which the several groups were living account for these variations? Or are the variations related to other differences in home life or in physical vigor which can not be analyzed in a study like the present one?

The relation which the several social factors seem to bear in themselves to infant mortality will be discussed in later sections. The present section will merely review briefly the items, already noted about the distribution of these factors within each of the principal race and nationality groups, and indicate the points at which varia-

CHART X.—Infant mortality rates from all causes, by fathers' earnings, for infants of native white, foreign-born white, and colored mothers.

Infant
mortality
rate.



tions in rate seem to coincide with or to run counter to the differences in social condition.

Native white and colored families.—The most obvious differences in social conditions in native white and colored families were the excessively high percentages of colored fathers earning the lowest wages and of colored mothers gainfully employed, and the greater prevalence in colored families of many births to a mother and of births following a preceding birth by an interval of less than two years.

As a corollary to the poverty in colored families, their dwellings were poorer than those occupied by native white families. But in relation to room congestion and sanitary equipment of the dwelling—the main points on housing which in the present study have been exactly tabulated—the percentage of colored babies living in unfavorable dwellings was not quite so high as the percentage of native white babies, when families at the same economic level are compared. Housing as a factor distinct from poverty is therefore omitted from this comparison of infant mortality rates in native white and colored families.¹⁰

Six aspects of the relative rates among babies of native white mothers and babies of colored mothers will be considered: (a) Were the higher rates among colored babies due wholly or partly to the greater poverty of their families? (b) Were they due to the larger families and the shorter intervals between births in the colored group? (c) Were they due to a combination of poverty and prevalence of mothers' employment away from home? (d) Were they due to poverty and artificial feeding? (e) Were they due to a lack of trained care for mothers and babies? (f) Is there a difference in mortality that persists when all these factors have been considered?

(a) So far as rates can be computed for colored babies whose fathers earned more than the very lowest wages (that is, at least \$450), the rates were somewhat higher for colored babies than for babies in native white families of the same earnings groups, but these differences were far less than the difference between the native white and colored groups as a whole. And in the families where the father earned less than \$450 the difference disappeared, the babies of native white mothers showing a rate of 164.8 and the babies of colored mothers a rate of 163.7.

TABLE III.—*Infant mortality rates, by father's earnings; infants born in 1915 to native white and colored mothers.*

Earnings of father.	Native white mothers.		Colored mothers.	
	Live births.	Infant mortality rate. ^a	Live births.	Infant mortality rate. ^a
Total	6,739	95.9	1,305	158.6
Under \$450.....	449	164.8	507	163.7
\$450-\$549.....	644	128.9	356	168.5
\$550-\$649.....	908	107.9	152	138.2
\$650-\$849.....	1,726	95.6	121	115.7
\$850 and over.....	2,797	69.0	59	.....
No earnings.....	88	.....	69	.....
Not reported.....	127	133.9	41	.....

^a Not shown where base is less than 100.

¹⁰ On housing conditions among the negroes in Baltimore, see p. 42 ff.

A large part of the difference in mortality, but not all, is evidently due to the greater poverty of the colored families.

(b) In every group a short interval since the preceding birth was accompanied by a relatively high mortality. The percentage of short-interval births was considerably higher among the colored families, but when all short-interval births are eliminated and native white and colored families in which the fathers earned under \$550 are compared, it appears that the colored babies had a somewhat higher mortality than the white babies. The short-interval births, considered by themselves, on the other hand, showed approximately the same mortality in white and colored families of this low-earnings level. In general, it would seem, therefore, that the greater prevalence of short intervals between births in colored families contributed to the high mortality among colored infants, but that in the lowest earnings group the mortality in native white families was greater from other causes, which counterbalanced the longer intervals in white families.

TABLE IV.—*Excess mortality among infants of colored mothers, when effect of greater prevalence of short intervals between births is eliminated; infants of native white and colored mothers.*

Color and nativity of mother and earnings of father.	Per cent of live births with interval of less than 2 years.	Infant mortality rate.	
		Live births with interval of less than 2 years.	Live births with interval of 2 years or over.
Total:			
Native white.....	25.5	138.0	88.6
Colored.....	33.5	188.9	141.4
Under \$550:			
Native white.....	27.9	205.6	134.1
Colored.....	35.7	207.0	142.2

Again, considering all earnings groups together, more than twice as high a percentage of colored babies as of babies in native white families were seventh or later in order of birth. But the distinctive hazards to these babies of the later orders of birth evidently combined with other factors to raise the total mortality among colored babies and themselves played a minor part in the total rate. The difference in rates between the later born and the earlier born was less among the colored babies than among the babies of native white mothers, the colored rate remaining high, even when babies seventh or later in order of birth were eliminated from the comparison. The part played by large families and short intervals between births in the total mortality among the colored infants seems to have been, therefore, of small importance.

TABLE V.—*Excess mortality among infants of colored mothers, when effect of greater prevalence of births of late orders is eliminated; infants born in 1915 to native white and colored mothers.*

Color and nativity of mother and earnings of father.	Per cent of live births, seventh or later. ¹	Infant mortality rate.	
		Births, seventh or later.	Births, sixth or earlier. ¹
Total:			
Native white.....	9.8	132.6	84.3
Colored.....	20.0	152.3	146.9
Under \$550:			
Native white.....	14.5	163.4	127.5
Colored.....	20.8	170.5	150.3

¹ Based on single issues only. See Table 138, Appendix VII, p. 339.

(c) It is plain that in some way the mothers' employment was a factor in the excessive mortality of colored babies, for when all mothers employed away from home during pregnancy or within 12 months after the birth in 1915 are eliminated from the comparison, the total mortality rates among the colored babies and the babies in native white families of the same earnings groups become almost identical, with a slight difference in favor of the colored babies.¹¹

TABLE VI.—*Relative mortality among infants of white and colored mothers, when effect of greater prevalence of employment is eliminated; infants born in 1915 to native white and colored mothers not employed away from home.*

Earnings of father.	Live births to mothers not employed away from home. ¹			
	Native white mothers.		Colored mothers.	
	Live births.	Infant mortality rate.	Live births.	Infant mortality rate.
Under \$450.....	329	130.7	217	124.4
\$450-\$549.....	548	131.4	184	108.7
\$550-\$849.....	2,467	94.4	160	93.8

¹ During pregnancy or within 12 months after the birth of a baby in 1915. Compare Table 102, Appendix VII, p. 304.

(d) More colored babies than babies of native white mothers were nursed by their mothers. The higher mortality among colored babies as compared with white babies (when working mothers are included) can not be attributed to an excess of artificial feeding in the colored group; and the equivalent rates among colored babies and babies of native white mothers (when working mothers are not included) occur in spite of markedly more favorable feeding among the colored babies than among the babies of native white mothers.

¹¹ The relation of mothers' employment to mortality is discussed in detail in another section of the report, pp. 114 to 131.

Throughout, whether working mothers are included or not in the comparison, the hazard to breast-fed colored babies or to artificially-fed colored babies, was greater than the hazard to babies of native white mothers reporting the same type of feeding.

TABLE VII.—*Excess mortality among infants of colored mothers, when effect of differences in type of feeding and mother's employment is eliminated; infants of native white and of colored mothers in families where the father earned under \$550.*

Type of feeding and nonemployment of mother.	Computed mortality rates among infants born in 1915 in families where the father earned under \$550.			
	For first 10 months per 1,000 infants fed.		For second to tenth months per 1,000 infants surviving at beginning of second month. ¹	
	Native white mothers.	Colored mothers.	Native white.	Colored.
All mothers:				
Breast.....	36.7	73.3		
Mixed.....	100.3	127.9		
Artificial.....	268.8	375.7		
Mothers not employed:				
Breast.....	32.2	79.3	11.8	53.2
Mixed.....	107.1	131.4	107.1	13.8
Artificial.....	259.3	448.9	196.8	204.5

¹ By eliminating deaths during the first month—the period in which most of the deaths from prenatal causes occur—the effect of the greater prevalence of employment during pregnancy among the colored mothers is, at least in part, neutralized. Rate not computed for all mothers.

(e) The infant-welfare agencies in Baltimore reached during the period of this study more of the colored mothers than of the native white mothers in Baltimore. This subject is discussed in detail in Appendix VI,^{11a} but it should be noted here that comparison of native white and colored families at the same economic level showed a higher percentage of colored mothers than of white mothers receiving prenatal care of Grades A and B and trained nursing care at confinement, and a larger percentage of colored babies than of white babies receiving supervision from infant-welfare agencies. The percentage of cases dropped by the infant-welfare agencies because the mother failed to cooperate was smaller in the colored group than in any other.

(f) Among the colored babies, then, the greater poverty of the fathers (with the attendant evil of poor housing), the more general employment of the mothers, the tendency toward larger families and shorter intervals between births, and the wider prevalence of venereal disease indicated by the high mortality assigned to syphilis, were increasing mortality, while mothers' nursing of their babies, prenatal care, and instruction and supervision received from infant-welfare

^{11a} See p. 203.

agencies were tending to reduce mortality. As the net result, the mortality from gastric and intestinal diseases—which responds most readily to breast feeding and intelligent care—was relatively low; the mortality from early infancy—which was especially increased by mothers' employment away from home during pregnancy and by the prevalence of venereal disease—was checked by prenatal care from rising to the excessively high rate found in the poorest native white families; and the mortality from respiratory diseases and other communicable diseases, which tends always to rise with poverty, was almost twice as high among the colored babies in the poorest families, as among babies in native white families of the same economic level, suggesting a less protection from exposure to contagious diseases or a lower resistance in the colored families.

TABLE VIII.—*Infant mortality rates, by cause of death, earnings of father, and color of mother; live births in 1915.*¹

Earnings of father.	Infant mortality rate. ²					
	Gastric and intestinal diseases.		Respiratory and other communicable diseases.		Early infancy.*	
	Native white mothers.	Colored mothers.	Native white mothers.	Colored mothers.	Native white mothers.	Colored mothers.
Total.....	28.9	30.7	18.4	65.9	38.1	49.8
Under \$450.....	51.2	33.5	37.9	71.0	62.4	47.3
\$450-\$849.....	34.2	28.6	21.0	55.6	41.5	54.1
\$850 and over.....	14.7	.....	11.4	.....	31.1	.....

¹ See Table 78, Appendix VII, p. 286.

² Not shown where base is less than 100.

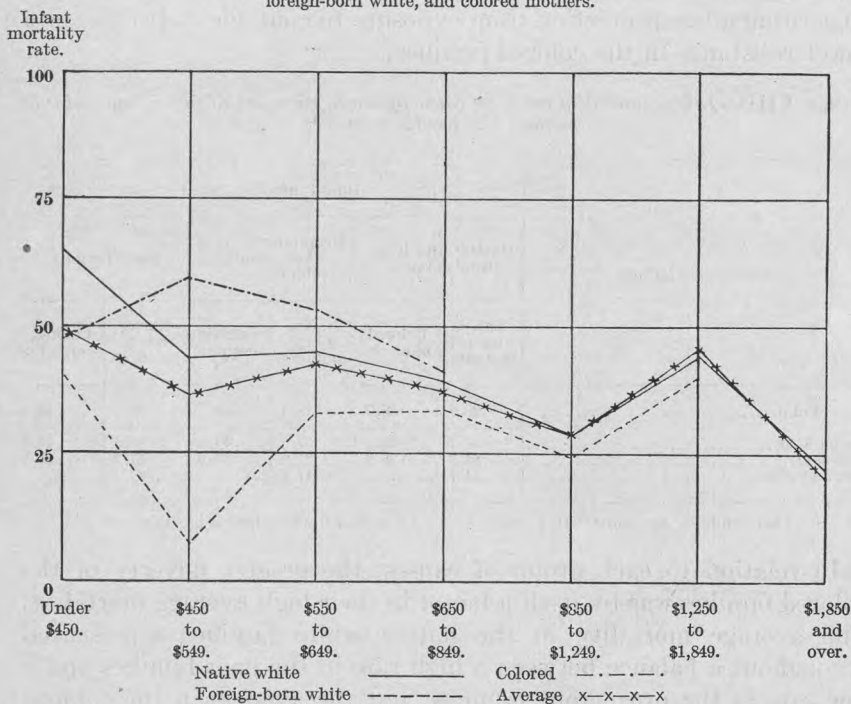
In relation to each group of causes, the greater poverty of the colored families was by itself a factor in their high average mortality. The average mortality in the native white families represented throughout a balance between a high rate in the poor families and a low rate in the prosperous families; but the average in the colored families was not tempered by lower rates in some favored group, since there were almost no "prosperous" colored families.¹²

Native white and foreign-born white families.—The foreign-born group itself presents so wide a diversity in rates that the social and economic differences between the foreign-born group as a whole and the native white group may be discussed briefly. Three points stand out: The fathers' earnings were much lower among the foreign born than the native white; the percentage of mothers employed away from home was slightly higher among the foreign born than the native white, whether a comparison is made of families at all economic levels

¹² Three live births to colored mothers were in families where the father earned \$1,850 or over; 11, where the father earned \$1,250 to \$1,849.

combined or only of those in both groups in which fathers' earnings were identical; and room congestion was more common in the foreign-born families than in native white families having the same economic status. In addition, relatively more of the foreign-born white mothers than of the native white mothers had borne seven or more children; but the difference on this point is reduced when corresponding earning groups are compared; and the foreign-born white mothers as a whole, seem not to have had shorter intervals between births than the native white mothers.

CHART XI.—Infant mortality rates from early infancy, by fathers' earnings, for infants of native white, foreign-born white, and colored mothers.



Except for the relatively high mortality from respiratory and other communicable diseases among the babies of the foreign-born mothers, the comparative rates in the foreign-born and native white families ran counter to that which might have been expected from these social conditions if no other factors had been present. For example, comparing only those families in which the fathers earned under \$650, it is found that there was among the babies of native white mothers the higher mortality from early infancy, in spite of a relatively low percentage of employment away from home, and the higher mortality from gastric and intestinal diseases, in spite of less congested dwellings. The total mortality, in families with earnings

CHART XII.—Infant mortality rates from gastric and intestinal diseases, by fathers' earnings, for infants of native white, foreign-born white, and colored mothers.

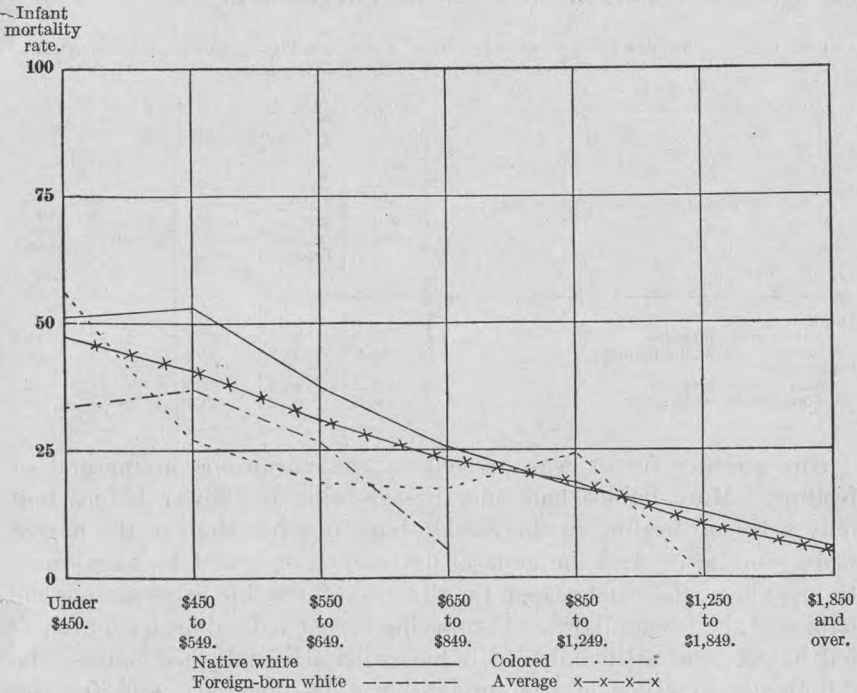
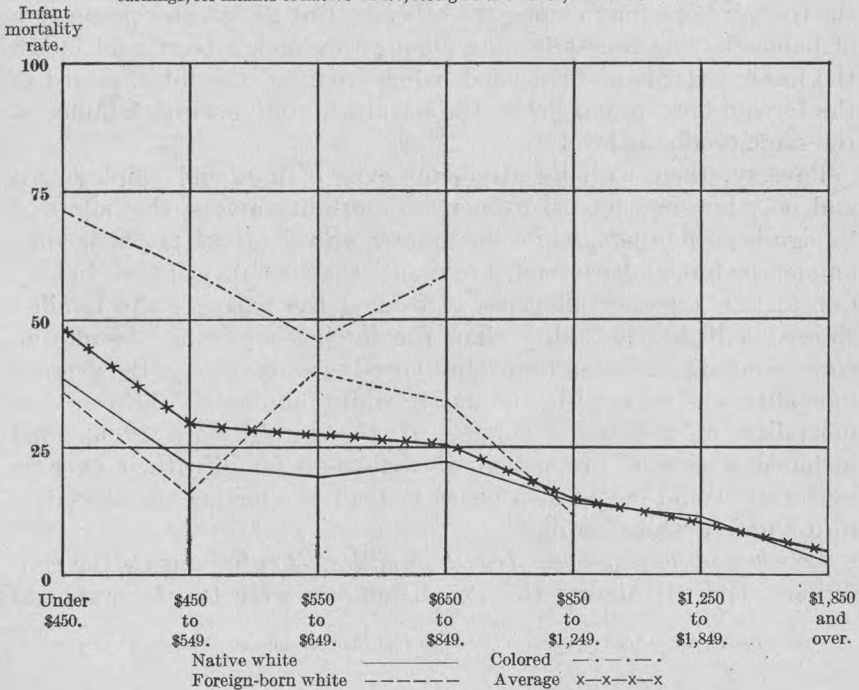


CHART XIII.—Infant mortality rates from respiratory and other communicable diseases, by fathers' earnings, for infants of native white, foreign-born white, and colored mothers.



under \$650, was definitely higher among the babies of native white mothers than among the babies of the foreign born.¹³

TABLE IX.—*Infant mortality rates, by cause of death, nativity of mother, and earnings of father; live births in 1915 to white mothers.*

Nativity of mother and earnings of father.	Infant mortality rate.				
	All causes.	Gastric and intestinal diseases.	Respiratory and other communicable diseases.	Early infancy.	All other diseases.
Total:					
Native white mothers.....	95.9	28.8	18.4	38.1	10.5
Foreign-born white mothers.....	95.9	29.1	27.2	30.9	8.7
Under \$650:					
Native white mothers.....	127.4	45.5	24.0	48.5	9.5
Foreign-born white mothers.....	106.4	36.2	30.7	28.6	10.9

But another factor was present in the variations in method of feeding. More babies had only breast milk and fewer babies had only artificial feeding in the foreign-born families than in the native white families. And the general prevalence of breast feeding seems to have been the chief reason for the more favorable rates among the babies of the foreign born. Comparing breast-fed babies with breast-fed babies, and artificially-fed babies with artificially-fed babies, the differences in favor of the foreign-born disappeared; and for the breast-fed babies the total mortality was higher among the babies of the foreign-born than among the others. But the greater proportion of babies having breast feeding among the foreign born, and facing the lesser hazards of breast-fed babies, reduced the total hazard in the foreign-born group below the hazard in native white families at the same economic level.¹⁴

Poverty, then, with its attendant evils of mothers' employment and poor housing, tended to increase mortality among the babies of foreign-born mothers, while the greater prevalence of breast feeding among the foreign born tended to reduce the mortality of their babies. Considering together all types of feeding the native white families showed a higher mortality than the foreign-born white families in corresponding earnings groups; but for all earnings groups the average mortality was reduced in the native white families by the very low mortality in well-to-do homes. If the foreign-born group had included a similar proportion of well-to-do families their average mortality would have fallen below instead of equaling the mortality in the native white families.

Polish and foreign-born Jewish families.—On five points the conditions reported among the Polish families were less favorable to

¹³ See Table 78, Appendix VII, p. 286.

¹⁴ See Tables 60 and 80, Appendix VII, pp. 276 and 288.

the welfare of their babies than the conditions reported among the Jewish families: (1) father's earnings; (2) housing; (3) mothers' employment; (4) interval between births; (5) care and instruction of the mother. In respect to feeding, so far as it can be judged in the present study by the rough classifications of breast feeding, mixed feeding and artificial feeding, practically no difference appeared.¹⁵

TABLE X.—*Relative prevalence of certain conditions influencing infant mortality, by nationality of mother; births in 1915 to Jewish, Italian, and Polish mothers.*

Condition.	Per cent of births in 1915.		
	Jewish mothers.	Polish mothers.	Italian mothers.
Father earning under \$650	46.3	70.5	62.1
Mother employed away from home:			
During pregnancy	1.3	32.8	3.9
During lifetime of infant .....	.9	23.4	1.7
Households with 2 or more persons per room	8.9	30.7	13.9
Dwelling lacking one or more of three items of sanitary equipment	58.2	94.1	79.7
Mother reporting:			
7 or more issues	17.6	25.5	19.5
10 or more issues	3.8	8.2	7.3
Mother pregnant within year or during infant's lifetime	7.9	17.0	25.2
Any prenatal care by physician	53.4	13.9	22.1
Prenatal care of Grades A and B	35.3	7.9	9.2
Physician at confinement	64.8	22.6	54.8
Trained nurse at confinement	37.2	6.0	8.5
Any supervision from infant-welfare agencies	45.1	22.4	32.3
Regular supervision from infant-welfare agencies	24.5	5.7	13.6

(1) The greater poverty of the Polish families was only a partial factor in the excessive mortality among their babies as compared with the Jewish babies; for when Polish and Jewish families in which the father earned under \$650 are compared, the differences in their total rates and in their rates from each of the groups of causes show little if any variation from the differences that appear when the average rates for all earnings groups are compared.¹⁶ It is plain, however, that the most unfavorable circumstances accompanying poverty were more prevalent among the Poles than among the Jews.

(2) It has been noted that the median annual rental paid by Polish families (\$70) was lower than the median rental paid by Jewish families (\$114); that the dwellings of the Polish families were more congested than the dwellings of the Jewish families; and that fewer of the dwellings were equipped with sanitary conveniences. The greater congestion and poorer sanitation among the Poles appeared not only in all earnings groups combined but also in the families in which the

¹⁵ The Jewish families reported very little more breast feeding than the Polish families during the first month; after the second month this was reversed and the Polish had slightly more breast feeding than the Jewish. At each month, excepting the ninth, the percentage artificially fed was slightly higher among the Poles than among the Jews. The quality of the mixed feeding and of the artificial feeding may have been better in the Jewish group than in the Polish group because of the greater prevalence of infant-welfare work in the Jewish group. See Table 81, Appendix VII, p. 289.

¹⁶ See Table 78, Appendix VII, p. 286.

father earned under \$650. It is known that overcrowding and lack of conveniences within the dwelling react disastrously on the baby. Rates in relation to room congestion can not be computed for Jewish and Polish babies separately; but a comparison of the actual deaths among Jewish and Polish babies who had survived the first two weeks with the expected deaths (computed from the numbers in each group living in congested dwellings and the average death rate for all foreign-born nationalities in similar dwellings) shows actual deaths far below the expected number among the Jews and far above the expected number among the Poles (Jewish, 54 expected, 25 actual; Polish, 45 expected, 75 actual).

TABLE XI.—*Relative mortality in Jewish and Polish families, when effect of differences in room congestion is eliminated; infants, born in 1915 to Jewish and Polish mothers, who survived two weeks.*

Persons per room.	Infants (of foreign-born white mothers) surviving 2 weeks.						
	Deaths per 100.	Jewish mothers.			Polish mothers.		
		Infants.	Deaths.		Infants.	Deaths.	
			Actual.	Ex-pected. ¹		Actual.	Ex-pected. ¹
Total.....	.....	931	25	54.4	597	75	44.7
Less than 1.....	3.9	342	.....	13.3	68	.....	2.7
1 but less than 2.....	6.4	506	.....	32.4	345	.....	22.1
2 or more.....	10.5	83	.....	8.7	183	.....	19.2
Not reported.....	66.6	.....	.....	.....	1	.....	.7

¹ Expected deaths in each nationality are computed by multiplying number of infants in each group by death rate (all nationalities combined) for infants in dwellings with stated number of persons. For detailed discussion of method, see Appendix V, p. 201.

Rates computed in relation to the sanitary equipment of the dwelling indicate that while the greater prevalence of bad housing among the Poles may accentuate the difference, part of the excess mortality among the Poles must be traced to some further cause. In dwellings lacking one or all of three specified items of sanitation and in families where the father earned less than \$650, the Polish mortality was 12.6 per 100 infants surviving the first two weeks, the Jewish mortality 2.2.¹⁷

(3) Employment of the mother away from home was far more prevalent among the Poles than among the foreign-born Jews. This employment increased the mortality among the Polish babies. (See p. 114 ff.) It accounts, however, for only part of the difference in rates in these two nationalities. Comparing families in which the mother was not employed away either during pregnancy or at any time within 12 months after the birth in 1915, a persistently higher mortality was found among Polish babies than among Jewish babies.

¹⁷ See Table 91, Appendix VII, p. 294.

(4) More than twice as many of the Polish mothers as of the foreign-born Jewish mothers became pregnant during the infant's lifetime and within a year after the birth in 1915; Polish, 17 per cent, and Jewish, 7.9 per cent. (For discussion of the effect of short interval between births, see p. 139.) But comparing only the infants of mothers who did not become pregnant within a year, a mortality still markedly higher was found among the Poles than among the Jews, with a Polish rate of 153.7 per 1,000 live births and a Jewish rate of 50.6 per 1,000 live births.¹⁸

(5) Relatively few of the Polish mothers were reached by the infant-welfare activities in Baltimore, and the contrast between the Polish families and the Jewish families on this point was marked.

TABLE XII.—*Relative prevalence of types of prenatal and confinement care and supervision from infant-welfare agencies in Jewish and Polish families.*

Kind of care.	Per cent having specified kind of care. ¹	
	Jewish mothers.	Polish mothers.
Any prenatal care from physician.....	53.4	13.9
Prenatal care of Grades A and B.....	35.3	7.9
Physician attendant at confinement.....	64.8	22.6
Trained nursing care, confinement.....	37.2	6.0
Any supervision from infant-welfare agencies.....	45.1	22.4
Regular supervision from infant-welfare agencies.....	24.5	5.7

¹ Percentages for prenatal and confinement care based on mothers who had had births in 1915; percentages of supervision from infant-welfare agencies based on infants born in 1915 who survived 2 weeks.

Whether these factors together account for the differences in mortality among Polish and Jewish babies, or whether other factors existed which did not appear in the present study, can not be determined. Unfortunately, the groups were too small to permit a com-

¹⁸ The mortality rates are not materially altered by eliminating the time lived by infants of mothers who became pregnant during the infant's lifetime and the deaths among these infants, as shown in the following table. For a discussion of the excess mortality among infants of mothers who became pregnant during the infant's first year of life, see p. 140.

Nationality of mother.	Infant mortality rate.	
	All mothers.	Mothers not pregnant within year after birth.
Total.....	103.5	101.6
Native white.....	95.9	93.8
Jewish.....	51.0	50.6
Polish.....	163.2	153.7
Italian.....	87.4	89.9
Other foreign-born white.....	102.0	101.8
Colored.....	158.6	160.8

parison of Jewish and Polish families in which no one of these unfavorable factors was present and in which the fathers' earnings and the grade of prenatal care, etc., were identical.¹⁹

A word must be added about the difference between the Polish and Jewish rates and the rates among babies of native white mothers.

An excess in mortality among Polish babies as compared with babies of native white mothers follows naturally from the conditions surrounding them. Just as we have noted in our comparison of Polish and Jewish babies the conditions among the Poles involving excess hazard to their babies, so, point by point, the comparison might be repeated with equal force as between the Polish babies and the babies of native white mothers. The fact that more Polish babies than babies of native white mothers were breast fed is the only item more favorable to the Polish babies than to the others. But the rate for breast-fed Polish babies—83.7 per 1,000 babies fed—is itself so excessive that the somewhat greater prevalence of breast feeding still leaves the total Polish mortality far in excess of the mortality in native white families.

On the other hand, poverty and poor housing are more prevalent among the Jews than among the native white families, and more Jewish mothers than native white mothers reported having had seven or more births.²⁰ If these conditions were not balanced by others, more favorable in the Jewish families than in the native white families, the Jewish rate would fall, not below the rate in native white families, but between the rates for native white and for Polish families. Actually, the Jewish rate is almost twice as favorable as the rate among babies of native white mothers.²¹

Four of these more favorable factors in the Jewish homes are clear from the tabulations: (1) Fewer mothers were employed away from home; (2) fewer babies followed a preceding birth by an interval under two years; (3) more babies were breast fed; (4) more mothers had Grade A or Grade B prenatal care, trained nursing care at confinement, and more babies had regular supervision from infant-welfare agencies. Apart from the prevalence of one or another type of feeding, these factors, favorable and unfavorable, seem approximately to balance among the native white and the Jewish families.

¹⁹ The Italians had a mortality falling between the mortality of the Jews and the Poles. In each of the factors presented in this section, except interval between births, the Italians had conditions less favorable than the Jews and more favorable than the Poles. The percentage of Italian mothers pregnant within a year was, however, higher than the corresponding percentage in any other group. See Table 161, Appendix VII, p. 355.

²⁰ Note, however, the small percentage of Jewish mothers who had 10 or more births: Polish, 8.3; Jewish, 3.8; native white, 2.9.

²¹ In families where the fathers earned less than \$550, the Jewish rate is quite as definitely more favorable than the rate in native white families as it was in the whole group, all grades of earnings combined. This was true for the total mortality and for each group of causes separately. Also, in families where the fathers earned less than \$550 and the dwelling lacked one or more of three selected items of sanitation, the Jewish rates from all causes and from gastric and intestinal diseases fell further below the rates for native white families than when the average rates for all earnings groups and all dwellings are compared. See Tables 78 and 91, Appendix VII, pp. 286 and 294.

The mortality of breast-fed babies was almost identical in both groups— 32.7 per 1,000 fed in the native white families and 31.4 in the Jewish families. But the scales tip slightly in favor of the Jewish babies, for the artificially-fed babies had a rate of 160.5 per 1,000 fed in the native white families and 137.2 in the Jewish families. With the greater prevalence of breast feeding among the Jewish mothers, the total mortality in their families naturally fell definitely below the total mortality in the native white families.

Summary.

The highest rates by color and nationality were found among the Polish and the Negro babies. They seem to have been due in part to the fact that these two groups had the largest percentage of fathers earning very low wages and of mothers gainfully employed away from home. In addition, the Polish families had more congested dwellings and more dwellings lacking in sanitary equipment than any other group, even when compared with other families at the same earnings level; and the Polish mothers had received less trained care and instruction during pregnancy, confinement, and the year after the birth than any others in Baltimore. Among the Polish babies the computed annual rates from all causes, per 1,000 babies fed, were excessive even for breast-fed babies; and, in spite of the relatively high percentage of breast feeding among them, their excess mortality appeared chiefly in gastric and intestinal diseases.

The negro families had the poor housing that accompanies poverty, but in comparison with other families at the same economic level their room congestion and lack of sanitary equipment were not excessive; on general conditions, such as dampness and ill repair, the present study furnishes no information. The negro mothers more generally than any others received trained care and instruction in maternal and infant hygiene. The high mortality among colored babies was not due to a high rate from gastric and intestinal diseases; and their rate from early infancy was above the average, but below the corresponding rate in the poorest native white families. Their greatest excess appeared in the deaths from respiratory and from other communicable diseases.

The lowest rate, by nationality, was found among the babies of foreign-born Jewish mothers. The rate for these babies was much lower than the rate among babies of native white mothers, in spite of the greater poverty in the Jewish families with its attendant evil of poorer housing. But in the employment of mothers away from home, the interval between births, the prevalence of breast feeding, and the receiving of trained care and instruction by the mothers, conditions were more favorable among the Jewish mothers than among the native white mothers.

POVERTY AND INFANT MORTALITY.

Fathers' earnings and mortality rates.

In Baltimore, as elsewhere, the babies in poor families had the greatest hazards to face. Among the 1,544 babies whose fathers earned less than \$450 during the year after the baby's birth, more than 1 in 7 died within the year; among the 431 babies whose fathers earned \$1,850 or more, 1 in 27 died within the year. Eliminating differences in race and nationality and considering only the babies born to native white mothers, the same extremes are found—1 in 26 dying in the most prosperous homes and about 1 in 6 dying in the poorest homes.²²

TABLE XIII.—*Infant mortality rates, by earnings of father and color and nationality of mother; live births in 1915.*

Earnings of father.	Infant mortality rate. ¹		
	Native white mothers.	Foreign-born white mothers.	Colored mothers.
Total.....	95.9	95.9	158.6
Under \$450.....	164.8	144.6	163.7
\$450-\$549.....	128.9	62.4	168.5
\$550-\$649.....	107.9	100.2	138.2
\$650-\$849.....	95.6	93.0	115.7
\$850-\$1,249.....	69.9	61.1	.....
\$1,250-\$1,849.....	84.3	46.7	.....
\$1,850 and over.....	38.3	.....	.....

¹ Not shown where base is less than 100.

The very low infant mortality in families where the fathers earned at least \$1,850 (a sum which at that time was held to be sufficient to maintain a family at the comfort level) suggests that the differences in mortality in the several earnings groups below \$1,850 may be less significant than the difference between this "\$1,850 and over" group and all poorer families. Unfortunately, the numbers are too small to permit the clear analysis of higher earnings groups above \$1,850 (and above \$2,850) which would be of interest. Except among the native white families, however, this comparison of the "\$1,850 and over" group with all poorer families is impossible, because the general level of earnings was low. (See Chart X, p. 80.)

In the foreign white families, all nationalities combined, only 62 births occurred where the fathers earned as much as \$1,850, and in no single foreign nationality except the Jewish were there 100 or more live births in families where the fathers earned even as much as \$850, so that no comparison of rates by detailed grouping of fathers' earnings can be made within each nationality. But if each nationality is divided into two earnings groups—under \$650 and \$650 and over—it is found that in both groups the Jewish rate was low and the Polish

²² For detailed tabulation see Tables 18 and 74, Appendix VII, pp. 234 and 283.

rate was high, while the Italians and "all other foreign" families showed markedly higher rates below this dividing line than above it.²³

TABLE XIV.—*Infant mortality rates, by earnings of father, selected nationalities; live births in 1915.*

Nationality of mother.	Infant mortality rate.	
	Earnings of father under \$650.	Earnings of father \$650 and over.
Foreign-born white mothers.....	106.4	73.0
Jewish.....	49.3	40.5
Polish.....	160.3	153.4
Italian.....	105.5	48.6
All other.....	112.1	86.7

In the colored families only 3 babies were born whose fathers earned \$1,850 or more, and only 59 babies whose fathers earned as much as \$850; in fact, nearly two-thirds of all were in families where the fathers earned less than \$550, so that the comparison of infant mortality by fathers' earnings in the colored families is especially limited. It is plain, however, that the colored babies whose fathers earned less than \$550 had a higher rate than those whose fathers earned \$550 or more. (See Charts XI, XII, and XIII, pp. 86 and 87.)

In ascending the scale of fathers' earnings, the decrease in infant mortality in the more well-to-do families represents, in the main, a decrease in deaths from gastric and intestinal disorders and from respiratory and other communicable diseases; but among the babies of native white mothers there was also a definite decrease in deaths from causes peculiar to early infancy.²⁴ Or, separating the deaths of babies who died immediately after birth, before they had been fed at all, and all other deaths during the first year of life, it is found that the decrease in the infant death rate appears chiefly in the later deaths—although, again, among the babies of native white mothers, there was the lowest rate for deaths immediately after birth in the families of the highest earnings group.²⁵

The total infant mortality decreased steadily from one earnings group to the next among the white babies of both native and foreign mothers, except for one break in the downward curve of rates in each group.

(1) The babies of native white mothers in families where the fathers earned \$1,250 but less than \$1,850 had a total infant mortality rate higher than the babies whose fathers earned \$850 but less than \$1,250. But their rate—84.3 per 1,000—was lower than the rate for babies whose fathers earned less than \$850, and above \$1,850 the rate dropped sharply again.

²³ For detailed tabulation see Table 78, Appendix VII, p. 286. ²⁴ See Table 79, Appendix VII, p. 287.

²⁵ See Table 78, Appendix VII, p. 286.

TABLE XV.—*Infant mortality rates, by cause of death and earnings of father; infants of native white mothers.*

Earnings of father.	Infant mortality rate; infants of native white mothers.		
	All causes.	Early infancy.	All other causes.
Total.....	95.9	38.1	57.7
Under \$450.....	164.8	62.4	102.4
\$450-\$549.....	128.9	43.5	85.4
\$550-\$649.....	107.9	45.2	62.7
\$650-\$849.....	95.6	38.8	56.8
\$850-\$1,249.....	69.9	28.3	41.6
\$1,250-\$1,849.....	84.3	44.5	39.7
\$1,850 and over.....	33.3	21.9	16.4

This break in the downward curve appeared only in the rates from early infancy. That is to say, the mortality related to the care and condition of the mother was unfavorable in this group which lay between the poor and the well to do, but the mortality related to the care of the baby after birth and the home surroundings was more favorable here than in any poorer homes. It should be noted, however, that even for the causes peculiar to early infancy the highest rate was found in the families where the father earned less than \$450 and the lowest rate where the father earned \$1,850 or more.²⁶

(2) In the foreign-born white families, all nationalities combined, the families where the father earned under \$450 had the highest total infant mortality rate and the families where the fathers earned \$1,250 or over had the lowest total infant mortality rate, and these extremes fell definitely above and below the rates for any earnings groups between \$450 and \$1,250. But a break in the curve between these two extremes occurred at \$450 to \$549, where the rate was lower than in the two earnings groups next above and practically identical with the rate at \$850 to \$1,249.

TABLE XVI.—*Infant mortality rates, by cause of death and earnings of father; infants of foreign-born white mothers.*

Earnings of father.	Infant mortality rate; infants of foreign-born white mothers.				
	All causes.	Gastric and intestinal diseases.	Respiratory and other communicable diseases.	Early infancy.	Other causes.
Total.....	95.9	29.1	27.2	30.9	8.7
Under \$450.....	144.6	56.1	35.7	40.8	11.9
\$450-\$549.....	62.4	26.7	15.6	8.9	11.1
\$550-\$649.....	110.2	18.6	39.6	32.6	9.4
\$650-\$849.....	93.0	17.5	31.6	33.3	10.5
\$850 and over.....	54.8	16.1	9.7	27.4	1.6
\$850 to \$1,249.....	61.1	24.4	11.9	24.4	.....
\$1,250 and over.....	42.5	.....	4.8	33.0	4.8

²⁶ For detailed tabulation see Table 78, Appendix VII, p. 286.

This comparatively low rate in so poor an earnings group appeared in the rates from early infancy and from respiratory and other communicable diseases, but not in the rate from gastric and intestinal diseases. For deaths assigned to early infancy this earnings group—\$450 to \$549—showed the lowest rate of all among the foreign born.²⁷

Among the foreign-born white families, more babies in this wage group were breast fed through the earlier months and fewer were artificially fed throughout the first nine months than in the group under \$450 or in the groups between \$550 and \$849.²⁸ This more favorable feeding would, apart from other factors, reduce the infant death rate for babies fed somewhat below the death rate for babies fed in the earnings groups between \$550 and \$849. It does not, however, account for the whole difference that appears, and, obviously, it has no relation whatever to the very low death rate for babies dying immediately after birth.²⁹

TABLE XVII.—Comparison of infant mortality in fathers' earnings group, \$450 to \$549 with that in the group \$550 to \$849, eliminating differences due to type of feeding; infants in foreign-born white families in the \$450 to \$549 group.

Type of feeding.	Actual deaths.	Expected deaths. ¹	Type of feeding.	Actual deaths.	Expected deaths. ¹
Total.....	28	39.7	Infants fed:		
Infants not fed.....	5	9.9	Breast.....	12	15.0
Infants fed.....	23	29.8	Mixed.....	3	6.0
			Artificially.....	8	8.8

¹ The "expected deaths" are computed from rates in \$550 to \$849 group for babies not fed, breast fed, mixed fed, and artificially fed.

Type of feeding and mortality in the several earnings groups.

In general, such variations as occurred in the prevalence of breast feeding or of artificial feeding in the several groups do not account for high rates in the poorer families and low rates among the well to do, but tend, on the contrary, to obscure the actual differences in hazard. For example, in the native white families of the "under \$450" group, where the rates were highest, there were during the early months, which are the period of greatest hazard, a higher percentage of babies breast fed and a lower percentage artificially fed than in the native white families of any other earnings group. Only after the sixth month did the percentage breast fed in this earnings group drop below the average for all earnings groups combined. And the fewest babies were breast fed and the greatest number were artificially fed in the highest earnings group—\$2,250 to \$2,849, and \$2,850 and over—where the rates were very low.²⁸

²⁷ For detailed tabulation see Table 78, Appendix VII, p. 286.

²⁸ See Table 80, Appendix VII, p. 288.

²⁹ See Tables 79 and 82, Appendix VII, pp. 287 and 289.

Again, dividing all the native white families into two approximately equal groups, with fathers earning under \$850 and fathers earning \$850 and over, the infant mortality rate in the poorer group (112.7 per 1,000) was considerably above the rate (69.0 per 1,000) in the group with higher earnings. But the percentages breast fed, month by month, were almost identical in the two groups. The one difference, that there was more artificial feeding in the "\$850 and over" group and more mixed feedings in the "under \$850" group, would reduce the rate in the poorer families below the rate among the more well to do if other factors were not involved.

What, then, of the commonly held opinion that if all babies received the mother's milk and no other food through the first nine months of infancy the excessive mortality among the babies in the poorest families would disappear? In the Baltimore study, the Children's Bureau is, for the first time, discussing numbers large enough to permit a detailed analysis of rates in relation to the earnings of the father, the race and nativity of the mother, and the type of feeding given to the infant. This analysis confirms the theory that the rates for breast-fed babies at each economic level are below the rates for artificially-fed babies in homes of the same economic level; but it shows that while the rates for breast-fed babies in the poorest homes (61.8 per 1,000 fed) were below the average rates for all babies studied in Baltimore (80.5 per 1,000 fed) they were far above the rates for breast-fed babies in families that were well to do (13.3 per 1,000 fed).³¹

TABLE XVIII.—*Infant mortality rates, by earnings of father and color and nativity of mother; infants artificially fed.^a*

Earnings of father.	Computed annual rates ^a for artificially-fed infants.			
	All mothers.	Native white mothers.	Foreign-born white mothers.	Colored mothers.
Total.....	191.4	160.8	232.1	347.3
Under \$550.....	310.1	289.9	274.1	} 387.9 } 252.4
\$550-\$849.....	185.4	178.8	196.9	
\$850-\$1,249.....	117.3	109.6	} 169.7	
\$1,250-\$1,849.....	130.1	104.2		
\$1,850 and over.....	27.5	26.0		

^a The method by which an annual rate per 1,000 infants fed is computed from the monthly rates for babies artificially fed, mixed fed, or breast fed during the first month, the second month, etc., is shown in Appendix V, p. 199.

³¹ See Table 60, Appendix VII, p. 276.

TABLE XVIX.—*Infant mortality rates, by earnings of father and color and nativity of mother; breast-fed infants.*¹

Earnings of father.	Computed annual rates ¹ for breast-fed infants.			
	All mothers.	Native white mothers.	Foreign-born white mothers.	Colored mothers.
Total.....	43.3	32.7	50.2	90.2
Under \$550.....	61.8	39.0	63.8	91.4
\$550-\$849.....	46.1	39.6	51.1	
\$850-\$1,249.....	22.5	20.2	20.9	
\$1,250-\$1,849.....	23.2	29.2		
\$1,850 and over.....	13.3	15.6		

¹ The method by which an annual rate per 1,000 infants fed is computed from the monthly rates for babies artificially fed, mixed fed, or breast fed during the first month, the second month, etc., is shown in Appendix V, p. 199.

The variations in rates between the poorest and the most prosperous were greater among the artificially-fed babies than among the breast-fed babies, and the rates for artificially-fed babies descended in an unbroken line from one earnings group to the next in each of the three race and nativity groups. But the contrasts in rates between the poorest and the most prosperous were quite definite even among the breast-fed babies. In the native white families, the rate for breast-fed babies was more than twice as high in the families "under \$550" as in the families "\$1,850 and over," but the downward curve in the rate was broken by a slight rise in the group \$1,250 to \$1,849.

How do these rates compare with the rates for all babies having all types of feeding? The total death rate in Baltimore for the 10,528 babies living long enough to be fed at all was 80.5 per 1,000 infants fed. The rates for breast-fed babies in the poorest homes—except in the colored families—were below this average rate for the community but also above the rates for breast-fed babies in the most prosperous homes; and, it should be noted, the artificially-fed babies in the most prosperous homes showed a far more favorable rate than the breast-fed babies in the poorest homes. Three simple computations of what the infant mortality in Baltimore might have been if all the babies had been exposed only to such hazards as the more favored babies had to meet, illustrate the interplay of infant feeding and economic conditions as factors in preventable mortality.

(1) If the infant death rate of 43.3 per 1,000 infants fed, which was the average for all breast-fed babies in Baltimore, had been the death rate among all the 10,528 babies who lived long enough to be fed, the total number of deaths among babies fed would have been approximately 456 instead of 848, and the total number of deaths in the entire group (including the 269 who died immediately after birth without being fed at all) would have been approximately 725

instead of 1,117; and 392, or 35 per cent of those who died, would have been saved.

(2) If the infant mortality rate (including all types of feeding and babies not fed at all) among the 431 babies born in families where the father earned at least \$1,850 had been the rate for the entire group of 10,797 babies, the total number of infant deaths would have been approximately 401 instead of 1,117; and 716 babies, or 64 per cent of those who died, would have been saved.

(3) But if the rate, lower than either of these, for breast-fed babies in the most prosperous families, and the rate in these families of deaths immediately after birth before the infant was fed at all, had been true for the entire group in Baltimore, then 175 instead of 269 babies would have died immediately after birth; and among the 10,622 who would have survived long enough to be fed 141 would have died during the year. The total deaths would have been 316 instead of 1,117; and 801 babies, or 72 per cent of those who died, would have been saved.

TABLE XX.—*Potential saving in infant mortality in Baltimore; live births in 1915.*

I. IF ALL BABIES HAD BEEN BREAST FED THROUGH THE FIRST NINE MONTHS (OR UNTIL DEATH WITHIN THAT PERIOD).

	Infants.	Potential.		Actual deaths.
		Rate.	Deaths.	
Total.....	10,797	.....	725	1,117
Not fed at all.....	269	.....	269	269
Fed.....	10,528	43.3	456	848

II. IF ALL BABIES HAD FACED THE HAZARDS TO BABIES (TYPE OF FEEDING DISREGARDED) WHOSE FATHERS EARNED \$1,850 OR OVER.

Total.....	10,797	37.1	401	1,117
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III. IF ALL BABIES HAD FACED THE HAZARDS FACED AT BIRTH AND BY BREAST-FED BABIES AFTER BIRTH, IN FAMILIES WHERE FATHERS EARNED \$1,850 OR OVER.

Total.....	10,797	.....	316	1,117
Live births and deaths at birth.....	10,797	16.2	175	269
Infants fed and subsequent deaths.....	10,622	13.3	141	848

Living conditions affecting mortality in the poorer families.

The higher mortality among babies living in the poorest families, even when exclusively breast fed, is not easily explained. It is doubtless due in part to social conditions associated with but not due to poverty and in part to conditions for which poverty is itself a cause. It is not easy to separate these two classes of conditions nor

to determine the extent to which poverty itself may be a direct factor in increasing the hazards to babies.

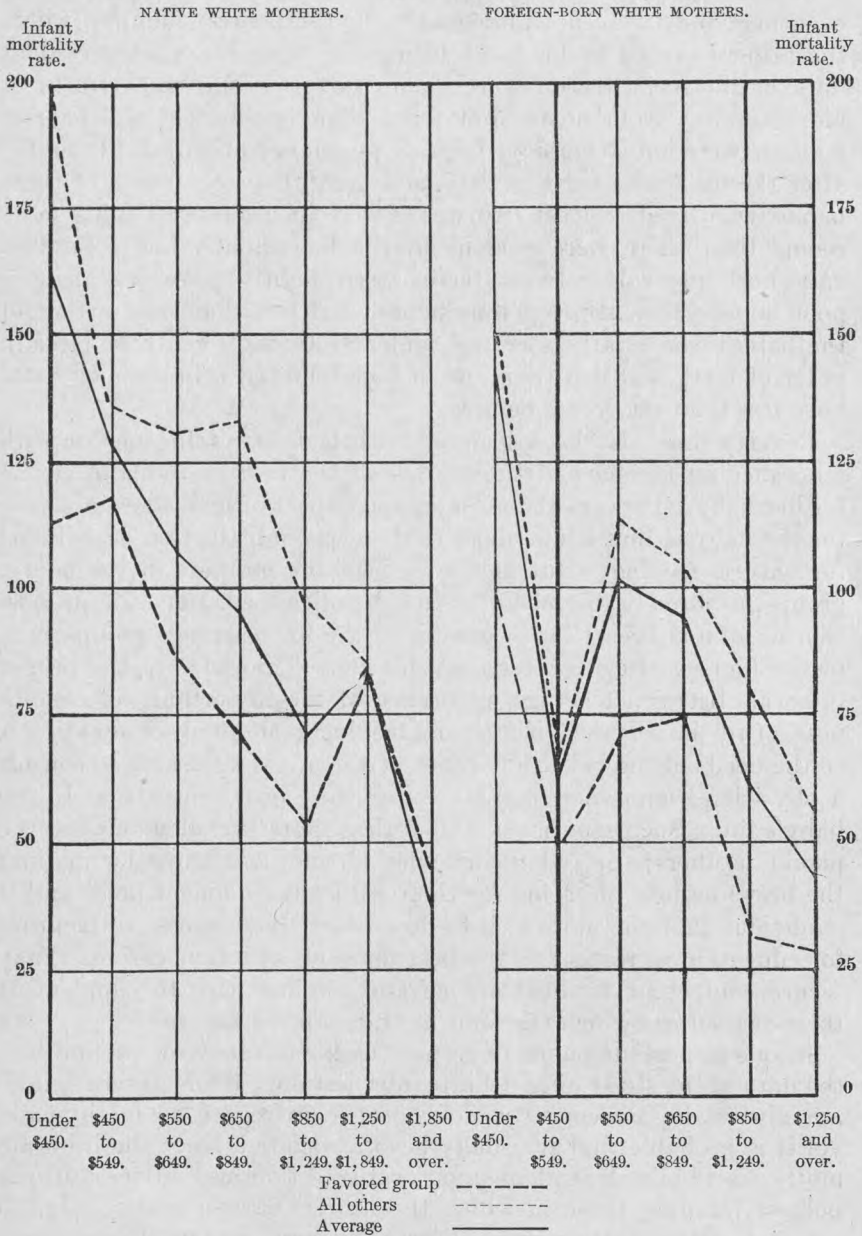
Certain social conditions that raise the infant mortality rate were more commonly present in the poorest families than elsewhere, but even here they were not universal.³² In the poorest families, where the fathers earned under \$450 during the year, the most prevalent unfavorable social factors were room congestion and employment of mothers away from home; but more than one-half of the poorest mothers were not so employed during pregnancy or within 12 months after the birth of a baby in 1915, and more than one-fourth of these babies who lived at least two weeks were in dwellings having more rooms than there were persons in the household. Large families and short intervals between births were slightly more prevalent in poor homes than in prosperous homes, but less than one in four of the babies whose fathers earned under \$450 was seventh or later in order of birth and less than one in four followed a brother or sister born less than two years before.

Poverty may also be associated with lack of intelligence or with ignorance on the part of the mother of the best methods of caring for her baby. Perhaps the most serious aspect of ignorance in caring for the baby is that it may lead to the early substitution of artificial for natural feeding. But in this respect the mothers in the poorer groups, as already discussed, are not handicapped, since the proportion of infants breast fed is greater in the low earnings groups than in the higher. In other respects, however, ignorance of the proper intervals between feedings, ignorance of the importance of cleanliness, of the importance, if artificial feeding is adopted, of adapting it to the needs of the baby, ignorance of when it is advisable to consult a physician—ignorance of these things may prove disastrous to the baby's life. Such ignorance is doubtless more prevalent among the poorer mothers; the old theory that all mothers know by instinct the best methods of caring for their babies is no longer held; and it is obvious that the more well-to-do mothers have access to facilities for education in respect to the best methods of infant care and may secure competent medical advice and nursing care to supplement their own efforts which the poor mother can not secure.

In one important point, in respect to the illiteracy of the mother, the data of the study offer definite information. While illiteracy may not always be associated with ignorance in regard to infant care, yet it is probable that it usually is so associated, since the illiterate mother is wholly dependent upon oral tradition and advice. In the poorest families, those in which the fathers earned under \$450, 23 per cent of the mothers were illiterate as compared with less than 1 per cent in families where the fathers earned \$1,850 or over.

³² Compare Tables 90, 102, 127, 137, and 154, Appendix VII, p. 293, 304, 332, 338, and 349.

CHART XIV.—Infant mortality rates, by fathers' earnings among infants of "favored group" and all other infants.



The effects upon infant mortality of these conditions associated with poverty—illiteracy of the mother, her employment away from home, large families, and short intervals between births—can be eliminated to a large extent by examining the mortality rates in a favored group in which none of the most unfavorable conditions are present, and in which therefore the influence of poverty as distinct from these conditions is revealed. Eliminating all families where the mother was employed away from home or was illiterate, or where the 1915 baby was seventh or later in order of birth or followed a preceding birth by an interval of less than two years, a "favored group" is formed which includes 22 per cent of the live births in families where the father earned under \$450 and 40 per cent of the live births in families where the father earned under \$850. In this favored group, the contrast in rates between the poorest and the most prosperous families is slightly less sharp than in all the families combined, but the same general trend persists—the infant mortality falls as the fathers' earnings rise.³³

TABLE XXI.—*Infant mortality in first favored group by earnings of father; infants of native white mothers.*

Earnings of father.	Total.		Favored group. ¹	
	Live births.	Infant mortality rate.	Live births.	Infant mortality rate.
Under \$450.....	449	164.8	185	113.5
\$450-\$549.....	644	128.9	301	119.6
\$550-\$849.....	908	107.9	492	87.4
\$650-\$849.....	1,726	95.6	1,063	72.4
\$850-\$1,249.....	1,802	69.9	1,175	54.5
\$1,250-\$1,849.....	629	84.3	453	83.9
\$1,850 and over.....	366	38.3	281	46.3

¹ From this group have been eliminated mothers employed away from home and illiterate mothers, and infants who were seventh or later in order of birth or who had followed a preceding birth by an interval of less than two years.

Eliminating not only these social factors but room congestion as well, the favored group is further reduced and includes only 11.5 per cent of the infants surviving two weeks whose fathers earned under \$450 and 26.3 per cent of the infants surviving two weeks whose fathers earned under \$850. But the favored group is still large enough to permit a comparison of infant death rates by fathers' earnings, and again the same trend persists—the death rate falls as the fathers' earnings rise.³⁴

³³ To eliminate complications arising from differences in race, figures are shown in the table for infants of native white mothers only. For detailed tabulations see Tables 78 and 83, Appendix VII, pp. 286 and 290.

³⁴ To eliminate complications arising from difference in race, figures are shown in the table for infants of white mothers only. For detailed tabulation see Tables 84 and 90, Appendix VII, pp. 290 and 293.

TABLE XXII.—*Infant mortality in second favored group by father's earnings: infants of white mothers who lived at least two weeks in dwelling of residence.*

Earnings of father.	Total.		Favored group. ¹	
	Infants.	Deaths per 100.	Infants.	Deaths per 100.
Under \$450.....	984	11.1	113	7.1
\$450-\$549.....	1,052	6.8	193	5.2
\$550-\$849.....	3,490	6.4	1,146	4.0
\$850-\$1,249.....	2,142	4.1	1,025	2.6
\$1,250 and over.....	1,156	2.4	704	2.0

¹ From this group have been eliminated mothers employed away from home and illiterate mothers and infants who were seventh or later in order of birth or who had followed a preceding birth by an interval of less than two years, and infants in dwellings with one or more persons per room.

Poverty as a direct factor in infant mortality.

Evidently there are other unmeasured factors which make poverty—or lack of means—a hazard to infant life apart from the size of the dwelling, the size of the family, the interval between births, and the illiteracy or the gainful employment of the mother. Low income may itself be a factor in infant mortality.

An important way in which lack of means handicaps mothers in caring for their babies is in the purchase of competent medical care and supervision and nursing service. Such medical care and supervision is necessary not only during the mother's pregnancy but also during the infant's first year of life. The disadvantages of poverty in this respect, however, are to a certain degree removed by provision of infant-welfare stations and free consultation centers which are open to the poor as well as to the well to do. But the highest percentages of mothers reporting examination and instruction by physicians during pregnancy and medical and trained nursing care at confinement were found in families where the fathers earned at least \$1,850, and the lowest percentages were found in one or another of the earnings groups under \$850. The extent to which the poorest mothers took advantage of free medical supervision and care is shown by the fact that the lowest percentages receiving care were in no case found among the families in which the fathers earned the least (under \$450). But the provision of free care does not solve the problem for the poorer mothers since throughout the study the highest mortality rates were found in this lowest earnings group.

Lack of means is a further handicap in an attempt to fortify and maintain health through good food, fresh air, rest, and recreation, as recommended by health authorities. During pregnancy and the nursing period the mother should have plenty of nourishing food, including a generous proportion of fresh fruits and vegetables, and should drink plenty of good milk. But the mother who is constantly striving to make ends meet on a meager income may be forced to stint herself or her children in order to provide food to maintain the

physical efficiency of the breadwinner of the family. She should have her teeth cared for by a good dentist; but she is probably unable to pay for such care. She should have pleasant exercise and recreation and spend at least two hours of each day in the open air; she should avoid worry and fatigue; she should sleep at least 8 hours out of the 24. But her day may be filled with worries of making ends meet, and with busy work patching up clothing for the different members of the family that they may appear at least respectable, preparing meals, caring for the children, besides trying to do all the housework; it may be physically impossible for her so to arrange her time and work—and the household conveniences which lighten the toil and shorten the hours of housework can not be obtained without money—that she may carry out these excellent recipes for her own health and that of her baby. For the baby the house should be sunny, well ventilated, and dry; his room should be not too hot nor too cold, not too light nor too noisy. On a limited income it will be difficult to rent a dwelling which meets all these requirements. The baby should have clean, comfortable clothing, a good bed, and suitable coverings. Even the cleverest and most diligent mother can not provide all these things from an empty purse.

Poverty, therefore, through lack of means to provide the physical essentials for health, as well as to procure medical and nursing assistance when needed, appears to have a direct influence upon the infant mortality rate.

Summary.

It appears, then, that the highest infant mortality was found in the families where the father's earnings were lowest, and the lowest infant mortality where the fathers' earnings were highest, and in general the rates for the several causes of death decreased, with the total rate, as the father's earnings rose. Two minor exceptions to this general rule appear in the Baltimore material—a low rate (especially from diseases of early infancy) in the \$450 to \$549 group among the foreign born, and a break in the downward curve from diseases of early infancy in the \$1,250 to \$1,849 group among the native white.

The importance of breast feeding in reducing mortality was apparent in the differences between the rates for breast-fed babies and for artificially-fed babies in the poorest homes. But the rates for breast-fed babies also varied with the father's earnings, and it is to be noted that the artificially-fed babies in the most well-to-do homes had a lower mortality than the breast-fed babies in the poorest homes.

Certain unfavorable living conditions were more commonly present in the homes where the father's earnings were low than elsewhere, but a "favored group" from which had been eliminated all babies

whose mothers were employed or were illiterate, all babies who were seventh or later in order of birth or who had followed a preceding birth by less than two years, and all babies living in congested dwellings, showed a marked decrease in mortality from the lower earnings groups to the higher.

Prenatal instruction and supervision of the mother and medical and nursing care at confinement were not universal in any earnings group, but they were reported by more mothers in the most prosperous families than at any lower economic level. That the absence of care and instruction was not the chief cause of high mortality in the poorer homes is evident, however, from the fact that relatively more mothers reported trained care and instruction in the lowest earnings group than in the groups slightly higher in the scale. But, uniformly, the mortality was highest in these poorest homes.

The sheer absence of means with which to supply the necessities of wholesome living seemed to be itself a factor in mortality.

NEIGHBORHOODS, DWELLINGS, AND INFANT MORTALITY.

The physical environment into which the babies were born is difficult of measurement and tabulation. The babies can be grouped according to the ward in which their families lived and the room congestion and sanitary equipment of the dwelling, but such important items as dryness, ventilation, and cleanliness of the dwelling, and the condition of the street and yard, can not be touched upon in the present study. Moreover, in every community the condition of neighborhoods and dwellings is primarily determined by the means of the families and, to a slighter degree, by their traditions and habits. It has been noted, for example, that overcrowding in the homes was directly related to the fathers' earnings but that the foreign-born families reported more room congestion than the native white families, even when groups with identical earnings are compared.³⁵

So far, therefore, as environment can be measured, the effect of environment upon mortality must be considered as secondary to the relation of poverty and of nationality to mortality.

Wards.³⁶

In discussing the relation of wards to infant mortality, two separate questions are involved: First, Where in Baltimore were the babies living who faced the greatest hazards? and, second, What was the effect of neighborhood conditions on infant mortality apart from other factors such as poverty and differences in conditions within the home?

³⁵ See Table 37, Appendix VII, p. 252.

³⁶ The classification by wards is based on the dwelling in which the infant spent the greater part of his life up to 1 year of age. If a period was equally divided between two dwellings, the dwelling occupied during the time nearer the birth is used. In the case of babies dying under 2 weeks of age (or stillbirths), the ward refers to the house in which the mother spent the greater part of her pregnancy.

Four wards in Baltimore had infant mortality rates above 130 per 1,000. The second ward, a low-lying district on the water front, where the foreign born predominated and more than two-fifths of the births were to Polish mothers, had a total infant mortality of 140.3 per 1,000, chiefly due to an excessive mortality from gastric and intestinal diseases. The seventeenth ward, lying on higher ground to the northwest of the business center, where about three-fourths of the births were to colored mothers, had a total infant mortality of 146.8 per 1,000, chiefly due to an excessive mortality from the diseases of early infancy. The twenty-first ward, the most western of the wards bordering the river, with congested blocks and less settled blocks, foreign-born and native families, very poor families and families of average means, had a mortality rate of 136.5 per 1,000, chiefly due to a high mortality from gastric and intestinal diseases. The twenty-second ward, a very poor ward on the water front, with crowded blocks of the foreign born toward the west and a negro colony toward the east, had an excessive mortality from gastric and intestinal diseases and from respiratory diseases, but a relatively low mortality from the diseases of early infancy. The total rate in the twenty-second ward (134.1) was practically the same as the rate in the twenty-first ward.

Ward rates do not offer a satisfactory index to the neighborhoods in which babies were facing excessive hazards. In many parts of Baltimore the limits of a single ward included a marked variety of neighborhoods, with alleys and streets, the homes of the rich and the homes of the poor, grouped together in the ward unit. The high mortality of a neglected neighborhood may have been balanced by the low mortality of a well-conditioned neighborhood within the same ward. The average for a ward may, therefore, conceal a genuine contrast which it is impossible to trace from the data in the present study.³⁷

³⁷ See the general discussion of this in the section on "Baltimore," p. 23ff. The most obvious example of contrasting conditions within the wards was found in the six wards in which 5 per cent or more of the babies were born in families where the father earned at least \$1,850. In each of these six wards the relatively high percentage of well to do families was balanced by a higher percentage of families in which the father earned less than \$650. And in four of these six wards the percentage of colored births was considerably above the percentage of colored births in the city as a whole, and more of the babies in the ward were born into colored families than into well to do white families—see especially p. 26.

Color of mother and earnings of father.	Live births in specified ward of residence.							
	The six.		11	12	13	14	15	16
	Number.	Per cent.						
Total.....	2,307	100.0	145	409	449	289	598	417
\$1,850 and over:								
White mothers.....	284	12.3	23	70	42	26	89	29
Colored mothers.....	2	0.1				1	1	
Under \$650:								
White mothers.....	326	14.1	8	66	117	26	64	45
Colored mothers.....	378	16.4	60	43	5	107	98	65
All other:								
White mothers.....	1,185	51.4	33	212	284	78	315	258
Colored mothers.....	132	5.7	11	18	1	51	31	20

That there were undoubtedly blocks, or districts, outside of wards 2, 17, 21, and 22 where mortality was also far above the average for all is indicated by the extent to which the three groups in the population whose mortality was especially high were gathered in other wards. Fifty-four per cent of the Polish babies, 78 per cent of the Negro babies, and 77 per cent of all babies in white families where the father earned less than \$450 lived outside these four wards, but the total mortality among these babies was excessive not only in the four wards with high mortality rates but also in the remainder of the city.

TABLE XXIII.—*Relative mortality, by ward groups, in selected nationality and earnings groups; live births in 1915.*

Earnings of father, color and nationality of mother.	The four wards (2, 17, 21, 22).		The other wards.	
	Live births.	Infant mortality rates.	Live births.	Infant mortality rates.
Polish mothers.....	288	180.6	337	148.4
Colored mothers.....	293	170.6	1,012	155.1
White mothers in families where father earned under \$450	242	165.3	795	149.7

Is there, then, no distinctive relation between neighborhood conditions and mortality, apart from the economic status of the family and living conditions within the home?

The ward rates in the present study illustrate the difficulty of demonstrating the relation which many students of infant mortality have thought to exist between infant mortality and lack of drainage and sanitation and dirty streets—in other words, the city house-keeping in any given district and the lot congestion and absence of sunlight and open spaces. The families living in ill-favored neighborhoods are usually the poorest, whose babies suffer from other known hazards of poverty. Or, if they have a small margin of income, they accept an ill-favored neighborhood because they consider other things more essential than an improvement in living conditions either within or without the home. And, vice versa, most of the very poor families live in ill-favored neighborhoods. In Baltimore, at least, there was no basis for comparing families in ill-favored neighborhoods with families of the same nationality and similar poverty in well-conditioned neighborhoods. No evidence can be offered as to whether in Baltimore neighborhood conditions were an independent factor in mortality, apart from the influence of poverty, racial customs, and conditions within the dwelling.

For example, only two of the four wards—the twenty-first and the twenty-second—with a mortality above 130, markedly above the

average for all wards, had an excess that is not accounted for by the inclusion within the ward of nationality and earnings groups with high mortality rates.³⁸ But keeping in mind the difficulties of analysis stated above, it is apparent that this fact offers no evidence either for or against the independent effect of neighborhood. The apparent absence of high mortality in certain other conspicuously unfavorable districts also proves nothing. For example, the Locust Point district is merged in the tabulation with the western part of the twenty-fourth ward. The third ward had an average rate, although it closely resembled the second ward in housing and the condition of the streets and yards; but the third ward had a considerable percentage of births to Jewish mothers who managed, always, to protect their babies to an amazing degree. The seventeenth and eighteenth wards had a higher percentage of dwellings that lacked sewer connection than any other wards in the center of the city; but in neither ward was the mortality from gastric and intestinal diseases exceptionally high.

Another element in mortality according to wards is infant-welfare work, which should tend to reduce the mortality in districts where the work is well developed. The fifth ward, for example, which was one of the poorest in the city, had the lowest infant mortality rate in any ward. The large Jewish population in this ward accounts for part, but only for part, of the difference between the fifth ward and the average for all. The chief factor seems to have been the exceptionally high percentage of mothers having fairly good prenatal care and of infants having supervision.³⁹ In the seventeenth and eighteenth wards and in the twenty-fourth ward the percentage having regular supervision from infant-welfare agencies was also above the average for the city, and in the third ward more mothers and babies had such care and supervision than in the second ward. But in none of these wards except the fifth did more than one baby in five have regular supervision from infant-welfare agencies.

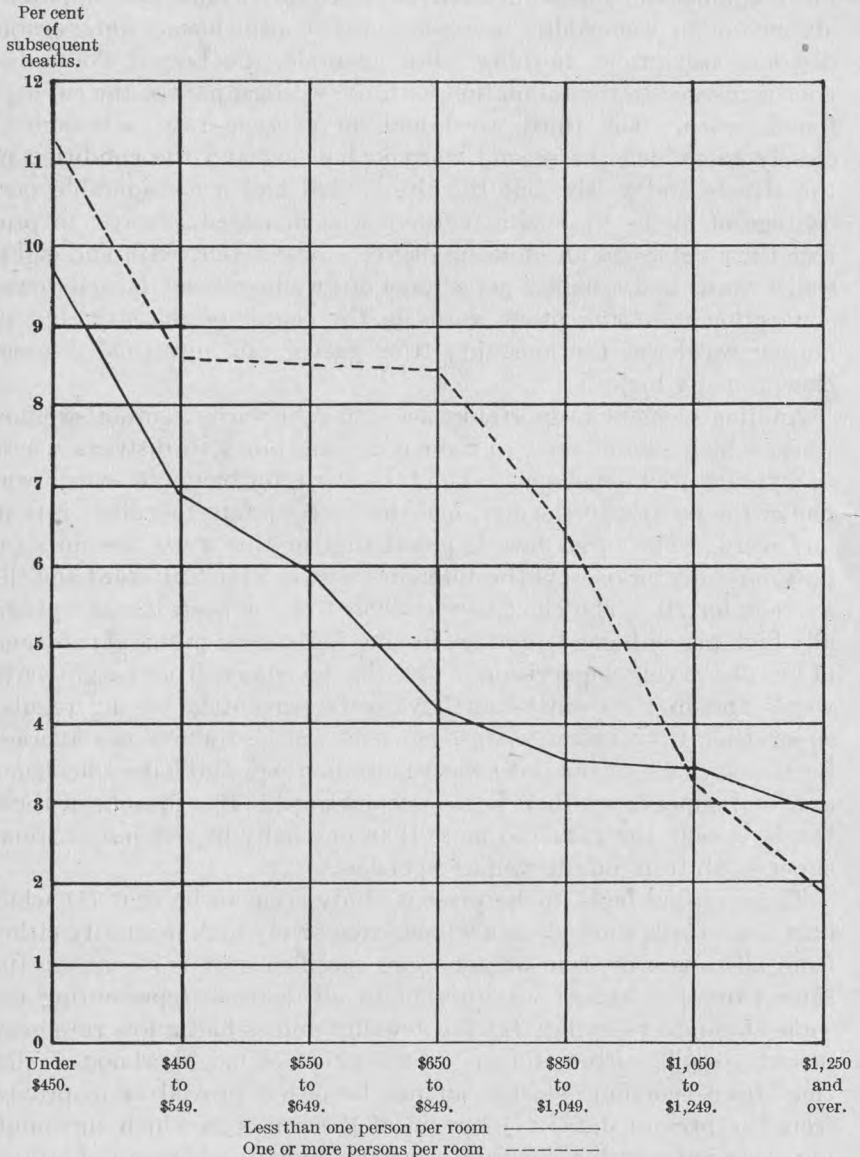
The essential facts in the present study seem to be that (1) while only four wards showed, as a whole, excessively high mortality either from all causes or from one or more specified groups of causes, the same excessive hazard was present in all districts representing the same standard of living; (2) the Jewish families had a low rate even in unfavorable surroundings; (3) the effect of neighborhood as distinct from economic status can not be either proved or disproved from the present data; (4) certain of the wards in which surroundings were unfavorable showed a relatively high development of infant-

³⁸See Table 87, Appendix VII, p. 292.

³⁹Grades A and B, prenatal care, 38.1 per cent; regular supervision from infant-welfare agencies, 34.6 per cent. For grades of care, see pp. 208 to 210. But note that the rate in the fifth ward (65.7) is almost twice as high as the rate in families where the fathers earned \$1,350 or over.

welfare work and an average mortality, instead of excessive mortality, from gastric and intestinal diseases; (5) but not even the fifth ward with its high percentage of Jewish mothers and excep-

CHART XV.—Death rates among infants surviving two weeks, by fathers' earnings and room congestion.



tional development of infant-welfare work had a rate approaching the very low rate among babies in the most prosperous families throughout the city.

Dwellings.

In relation to room congestion and lack of sanitation there was more definite evidence that low standards reacted unfavorably upon the baby.⁴⁰ These conditions were, of course, chiefly prevalent in poor homes, but a comparison of the infants in crowded and poorly equipped dwellings with other infants in families at the same economic level showed a higher mortality in the crowded and poorly equipped dwellings than elsewhere.

Room congestion.—Of the infants in native white families who lived at least two weeks, 2,344 were in dwellings with one or more persons per room—107 of these in dwellings with two or more persons per room. The death rate among the infants whose families lived in dwellings with more rooms than persons in the household was 4.6 per 100 infants surviving two weeks; in dwellings with one person but less than two persons per room, the death rate was 8.6 per 100 infants, and in dwellings with two or more persons per room it was 14 per 100.⁴¹

TABLE XXIV.—*Excess mortality in overcrowded dwellings, when effect of differences in fathers' earnings is eliminated; infants born in 1915 to native white mothers, who lived at least two weeks in dwellings with specified number of persons per room.*

Earnings of father.	Deaths per 100 infants (native white mothers) who lived at least 2 weeks in dwellings with specified number of persons per room. ¹		
	Less than 1.	1 but less than 2.	2 or more.
Total.....	4.6	8.6	14.0
Under \$450.....	7.5	15.1	.....
\$450-\$549.....	7.1	9.6	.....
\$550-\$649.....	6.9	8.3	.....
\$650-\$849.....	4.5	7.8	.....
\$850-\$1,249.....	3.8	5.8	.....
\$1,250 and over.....	2.7	3.4	.....

¹ Not shown where base is less than 100.

At each earnings level, the death rate was lowest in the least crowded dwellings. The families of the 107 infants in dwellings with two or more persons per room were so distributed among the several earnings groups that even in the lowest group their number was too small to justify the computation of a death rate according to father's earnings. It may be noted, however, that the average death rate among these 107 infants, for all earnings groups combined, was higher than the death rate in any earnings group except the

⁴⁰ The housing tables are based on infants who had survived the first 2 weeks of life and the dwellings in which each lived the greater part of his life. The possible effect of housing on the condition of the mothers or infants immediately after birth is not considered. Of the infant deaths in Baltimore 35.8 per cent occurred within 2 weeks after birth, and such deaths are almost entirely assigned to natal and prenatal causes.

⁴¹ For detailed tabulation see Table 90, Appendix VII, p. 293.

poorest among the infants in dwellings with one person but less than two persons per room.

A fair measure of the effect of room congestion upon mortality in the native white families is afforded by comparing the actual number of deaths—208—among the 2,344 infants of native white mothers living in dwellings with one or more persons per room, with the number of deaths that would have occurred among them—approximately 133—if they had been exposed to the hazards indicated by the rates in families at the same economic levels in dwellings with more rooms than persons in the household.⁴² The total mortality among babies in native white families was 6.1 per 100 infants surviving the first two weeks and 95.9 per 1,000 live births. If the excess deaths among babies in dwellings with one or more persons per room had been eliminated, the total mortality would have been reduced to 4.9 per 100 infants surviving the first two weeks and 84.7 per 1,000 live births.

In the same way among the colored babies the death rate in families living with less than one person per room was 8.1 per 100 infants surviving the first two weeks and 12.4 in families living with one or more persons per room. That is to say, 82 deaths occurred in the congested dwellings instead of the 54 deaths which would have occurred if these babies had faced the hazards of babies in other dwellings.⁴³

The total colored mortality was 10.7 per 100 infants surviving the first two weeks and 158.6 per 1,000 live births. If the excess deaths among babies in dwellings with one or more persons per room had been eliminated, the total rates would have been 8.4 per 100 infants surviving the first two weeks and 137.2 per 1,000 live births.

Among the foreign-born families, the difference in mortality according to the room congestion was less than among the native white families, ranging from 4 per 100 infants surviving two weeks in households with less than one person per room to 10.5 per 100 infants in households with two or more persons per room. In this group of most congested households, more than half were Polish, and the differences in nationality distribution within the least congested and the most congested groups would by themselves, apart from the room congestion, account for the part of the difference in mortality, but the actual difference (from 4 to 10.5) is somewhat greater than the expected difference (from 5.5 to 8.6). Again, part of this excess may be accounted for by the higher earnings in the families living with

⁴² See Table 86, Appendix VII, p. 291.

⁴³ Variations in distribution by earnings were disregarded in this comparison, since the general level was low in both groups of colored families, and "2 or more per room" were combined with "1 but less than 2," since their number (48) was too small to serve as the base for a rate. See Table 90, Appendix VII, p. 293.

less than one person per room, where the median was between \$650 and \$850, while the median in the families living with two or more persons per room was between \$450 and \$550. Disregarding the differences in nationality distribution, computations of the deaths expected in these two groups from the earnings of the fathers show that, apart from room congestion, a somewhat higher mortality would be expected in the congested households from the greater poverty of the families. Again, however, the actual difference between the families with less than one person per room and the families with two or more persons per room (from 4 to 10.5) was greater than the expected difference (from 5.4 to 7.6). Even if the difference due to variations in nationality and the difference due to poverty had been entirely distinct—and they were not—and the total expected variations in death rate might be fairly indicated by the sum of the two expected variations in rate, there would still be a margin of actual difference in rate unrelated to nationality and poverty.⁴⁴ Moreover, the rates for all Polish babies, all Jewish babies, etc., and the rates for all foreign-born families with the fathers' earnings under \$450, \$450 to \$549, etc., used in the computation of expected deaths are themselves weighted somewhat by the relatively high percentage of congested dwellings among the Polish families and in the lowest earnings groups, and, therefore, overstate the differences which can be attributed to poverty or to nationality apart from room congestion. It may be concluded that the babies of foreign-born mothers also met a greater hazard in congested dwellings than elsewhere, although the excess was far less marked (and more difficult to demonstrate) than the excess accompanying congestion in the native households.

Sanitary equipment.—The native families, both white and colored, showed a marked difference in the death rates among infants two weeks old and over according to the sanitary equipment of the dwellings. Three items were taken as index to the condition of the dwelling; a toilet connected with the sewer, a toilet for the exclusive use of the baby's household, and a bathtub. Dividing the babies into two groups, with the dwellings equipped with all three items in one group, and the dwellings lacking one or more of the three items in the other group, and comparing the families where the fathers' earnings were the same, it is found throughout, for the native white and the colored families, that the babies in well-equipped dwellings had a lower death rate than the babies in other dwellings. The difference appeared mainly in the deaths from gastric and intestinal diseases.

⁴⁴ Actual difference is 10.5 minus 4, or 6.5. Expected difference on basis of nationality is 8.6 minus 5.5, or 3.1, and expected difference on basis of fathers' earnings is 7.6 minus 5.4, or 2.2. 3.1 plus 2.2 is less than 6.5. See Tables 88 and 89, Appendix VII, pp. 292 and 293.

Only 35 Polish babies in a total of 597, and 80 Italian babies in a total of 394, lived in well-equipped dwellings, but the Jewish families and the "other foreign" group had a large enough number living in well-equipped dwellings to permit the computation of a death rate for the babies in these families separately. Among the Jewish babies, no difference appeared in the rate from gastric and intestinal diseases, but there was a slight excess in deaths from other causes in the poorer dwellings. Among the "other foreign" babies, the death rate was higher in the poorer dwellings than in the well-equipped dwellings, from gastric and intestinal diseases and from other causes also.⁴⁵

Summary.

It seems clear that physical surroundings do affect the welfare of the baby. The Baltimore data give new evidence that the crowded and insanitary home adds to the hazards of poverty and affects especially the mortality from gastric and intestinal diseases.

The Baltimore data afforded no satisfactory classification of neighborhoods and no clear evidence that neighborhood conditions are an independent factor in mortality apart from poverty and conditions within the home.

The low mortality in one poor ward, the fifth, with its exceptionally large percentage of mothers receiving trained care and instruction in maternal and infant hygiene, illustrates how mortality can be reduced in spite of unfavorable surroundings, but the rate in the fifth ward (65.7) was markedly higher than the rate (37.1) among the babies throughout the city whose fathers earned \$1,850 and over.

EMPLOYMENT OF MOTHERS AND INFANT MORTALITY.

The infant mortality rates among babies of mothers who worked outside their homes were higher than the rates among other babies. The working mothers represented, in the main, poorer homes, and the proportion of Polish and Negro mothers was higher; but even after due allowance was made for the higher infant mortality expected in a group so constituted, there remained an excessive mortality which seemed to be related to the fact of the mother's employment away from home.

In the present study, there are three sets of data on infant mortality and the mothers' employment:

First, concerning employment at home and outside the home during the pregnancy of 1915.

Second, concerning employment at home and outside the home during the first 12 months after the birth of 1915.

Third, concerning employment outside the home at any time during the mother's life.

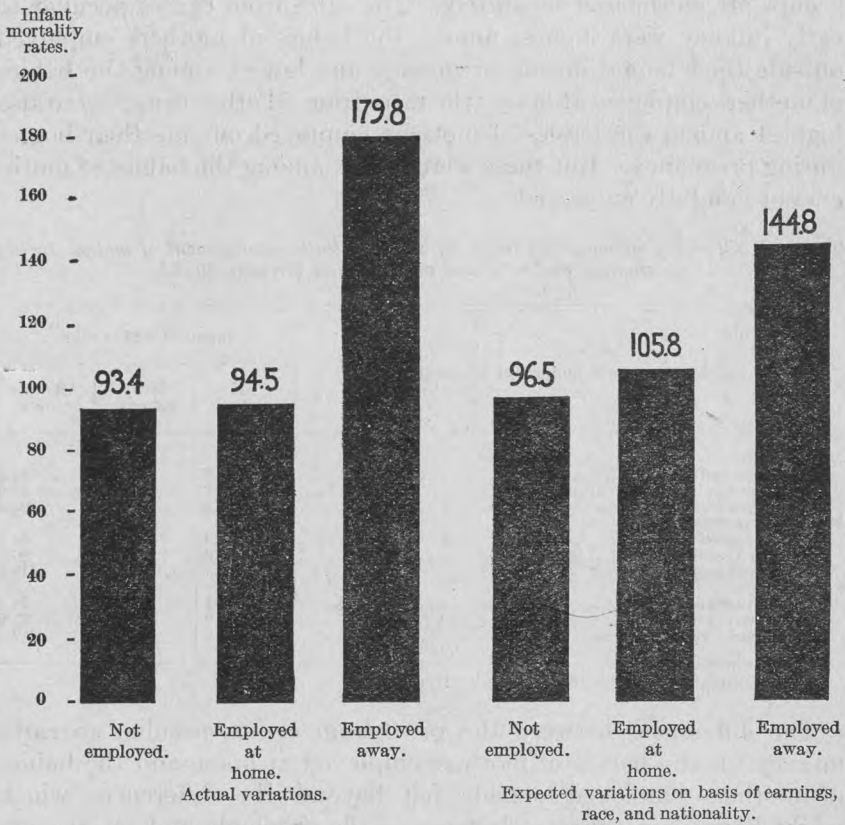
⁴⁵ See Table 91, Appendix VII, p. 294.

From the first two sets of tables are derived infant mortality rates based on the births of 1915. From the third set of tables are derived rates based on all births to the mothers studied.

Employment during pregnancy of 1915.

It is difficult to disentangle the effect of employment during pregnancy and of employment during the first year of the baby's life, since three-fourths (76.3 per cent) of the mothers who worked during

CHART XVI.—Infant mortality rates, by mothers' employment during pregnancy; actual rates compared with rates expected on the basis of the fathers' earnings and the mothers' color and nationality.



pregnancy resumed work during the first year of the baby's life. But it is known that deaths assigned to "early infancy" always are related to the condition of the mother and the care she has received during pregnancy and confinement; therefore, such deaths may fairly be related to the mothers' employment or nonemployment during pregnancy.

The total infant mortality among the 7,883 babies of mothers not employed during pregnancy was 93.4 per 1,000—37.2 from the causes peculiar to early infancy and 56.2 from all other causes combined.

The total infant mortality among the 1,682 babies of mothers employed at home during pregnancy was 94.5 per 1,000—26.2 from the causes peculiar to early infancy and 68.4 from all other causes combined.

The total infant mortality among the 1,229⁴⁶ babies of mothers employed away from home during pregnancy was 179.8 per 1,000—57 from the causes peculiar to early infancy and 122.9 from all other causes combined.

Similar differences appear when each of the three race and nativity groups are considered separately. The rates from causes peculiar to early infancy were highest among the babies of mothers employed outside their homes during pregnancy and lowest among the babies of mothers employed at home; the rates from all other causes were also highest among the babies of mothers employed outside their homes during pregnancy. But these were lowest among the babies of mothers not gainfully employed.

TABLE XXV.—*Infant mortality rates, by cause of death, employment of mother during pregnancy, and color and nativity; live births in 1915.*¹

Employment, color, and nativity of mother.	Infant mortality rates.		
	All causes.	Early infancy.	All other causes.
Native white:			
Not employed.....	94.3	38.9	55.5
Employed at home.....	85.4	27.4	57.9
Employed away from home.....	140.8	46.0	94.8
Foreign-born white:			
Not employed.....	82.9	28.8	54.1
Employed at home.....	88.2	21.3	66.9
Employed away from home.....	183.3	64.3	119.0
Colored:			
Not employed.....	124.1	48.7	74.5
Employed at home.....	126.9	34.1	92.9
Employed away from home.....	201.8	59.6	142.1

¹ For detailed table, see Table 103, Appendix VII, p. 305.

The differences between the rates from causes peculiar to early infancy for the babies of mothers employed at home and the babies of mothers employed outside fell beyond the differences which might have been expected because of the economic and racial composition of the two groups and indicate a definite variation due to the fact and circumstances of employment.⁴⁷

Among the white mothers the predominating types of work done at home and away were quite different; and a marked difference in infant mortality rates would be expected, since the monotony and unbroken strain of a factory day are not comparable with the variety

⁴⁶ For the mothers of three babies no report as to employment during pregnancy was secured.

⁴⁷ See discussion of employment of mothers in section on Nationality and Mortality: Social Factors, pp. 83 and 89, and Table 104, Appendix VII, p. 306.

of work and the adjustable hours of the woman who is keeping lodgers. But among the negro women, for whom laundering was the chief occupation at home, and doing laundry work and char work was the chief occupation away from home, the differences in rates persist. This seems to indicate that it is not so much the fact of muscular exertion as the uninterrupted hours of a full day's work required in outside employment that is injurious during pregnancy.

Why the rates from causes peculiar to early infancy were lower among the babies of mothers employed at home than among babies of mothers not employed at all during pregnancy is not so clear.

In the native white families the variations in rate according to the fathers' earnings were more marked than in other groups both in the deaths ascribed to early infancy and in deaths from all other causes. It may well be that, when the mother worked at home during pregnancy, her addition to the family income was of direct and immediate benefit and tended to lessen the hazards to her baby. When she worked outside her home during pregnancy the benefit of her earnings was outweighed by the greater physical strain involved.

In the foreign-born white families the most marked variations in rate followed the differences in nationality rather than the differences in fathers' earnings. The rate from early infancy among babies of mothers not employed during pregnancy was a trifle lower than the rate expected on the basis of the nationality distribution within the group.

In the negro families the economic factor may have been of importance, since the general level of fathers' earnings was low, and yet there is no indication that the rate from early infancy was highest in the poorest negro families.

One fact remains quite clear, however: The rates from early infancy were definitely higher when the mothers worked away from home during pregnancy than when the mothers worked at home or did not work at all.

Premature births were more prevalent among the mothers who worked away during pregnancy than among those who worked at home. And in this respect as in others the mothers who were not gainfully employed fell between the other two groups. But the differences in the prevalence of premature births do not account for the differences in rates. Considering only the full-term live births, there were throughout—that is, for native white mothers, foreign-born white mothers, and colored mothers separately—the same differences in rates from early infancy—that is, the highest rates when the mothers were employed away from home and the lowest when they were employed at home.⁴⁸

⁴⁸ See Tables 105 and 106, Appendix VII, pp. 307 and 308.

The stillbirth rate varied also with employment and nonemployment during pregnancy except among the foreign-born white mothers. The native white mothers who worked away from home and the colored mothers who worked either at home or away from home had definitely higher stillbirth rates than the other native white and colored mothers. But in no group was the stillbirth rate materially lower when the mothers worked at home than when they did not work at all.⁴⁹

The mortality rates from all causes other than those peculiar to early infancy were excessive among the babies of mothers working away from home during pregnancy, and only in part was this excess accounted for by the greater poverty in these families. It seems to have been due in part, also, to the mothers' resumption of work during the first 12 months of the babies' lifetime. Of the mothers who worked outside their homes during pregnancy, 39 per cent of the white and 59 per cent of the negro resumed such work within 12 months of the birth. There may be, however, some further relation between mothers' employment away from home during pregnancy and the deaths during later infancy, but this can not be clearly determined.

It is commonly believed that if the working mother secures an interval of release from employment before confinement the work has a less harmful effect or no effect at all upon her own physical condition and upon the health of her child. In Baltimore 74 per cent of the mothers employed outside their homes during pregnancy had stopped work at least two weeks before confinement, and most of these, or 60 per cent of the total number of mothers so employed, had stopped two months or more before confinement. Relatively more of the colored mothers than of the white mothers employed away from home continued working until less than two weeks before the birth.⁵⁰

In the white group there was a definitely higher stillbirth rate, and in the colored group a definitely higher mortality rate for deaths under 1 month of age, when the mothers worked away with no interval of rest from employment before the birth or with only a short interval than when the mothers had stopped work at least two weeks before confinement. The same tendency, though less marked, appears in the stillbirth rates in the colored group, and the mortality rates under 1 month of age in the white group.

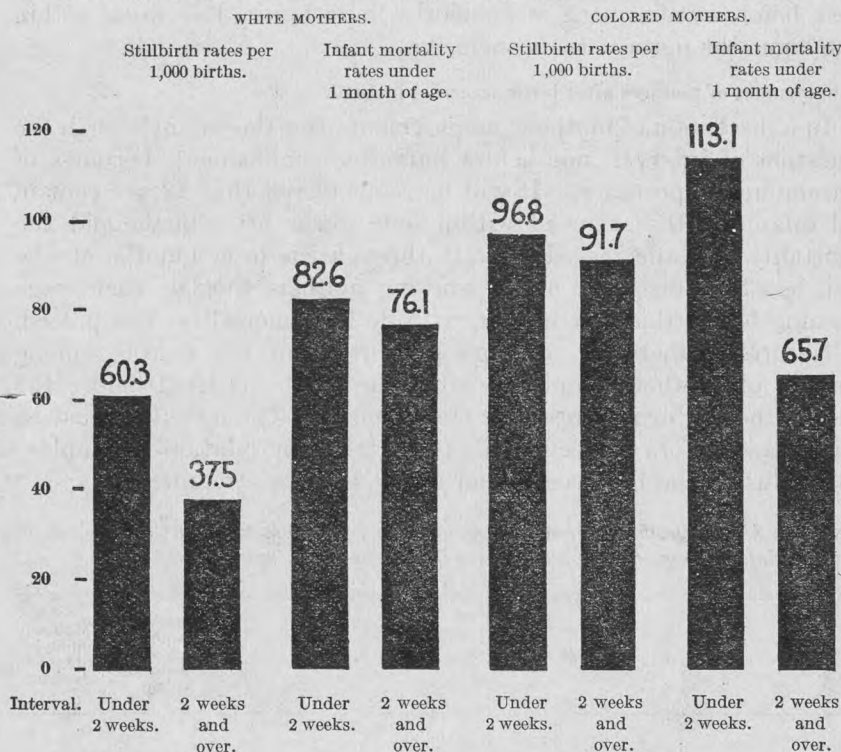
It should be remembered that the group who had stopped work before the last two weeks probably included far more than its proportionate share of the mothers who had suffered from some special disability or unfavorable symptom during pregnancy, and this would

⁴⁹ See Tables 103 and 104, Appendix VII, pp. 305 and 306.

⁵⁰ See Table 107, Appendix VII, p. 308.

tend to increase the losses in this group above the losses in the group who continued work. When, therefore, the losses in the group who stopped work are found to be either equal to or definitely lower than the losses in the group who continued until less than two weeks before confinement, it may fairly be concluded that the experience of the Baltimore mothers confirms the belief that a fair interval of rest

CHART XVII.—Infant mortality rates under 1 month of age and stillbirth rates, by interval between the mothers' cessation of work and confinement of mothers employed away from home during pregnancy.



from employment outside the home during the latter weeks of pregnancy is of great importance.

This unfavorable weighting of the group who stopped work appears plainly among the mothers employed at home. These mothers commonly continued work until less than two weeks before confinement, and 71 per cent of the white mothers and 54 per cent of the colored mothers working at home reported no interval whatever. Such work as the Baltimore mothers were doing at home seems not to have been physically injurious to the mother or the child, and, as has been noted, the babies born to mothers employed at home had lower infant mortality and stillbirth rates than the babies of mothers not gainfully employed. In the relatively small group of white

mothers who had been employed at home during pregnancy but had ceased their employment two weeks or more before their confinement, the stillbirth rate and the mortality rate under 1 month of age were relatively high. In the colored group the total number of mothers working at home during pregnancy was small, and the slight differences in rates between those who stopped work and those who continued are without significance.⁵¹

For gainful employment outside the home, a definite interval of rest before confinement is evidently important. For work within the home the figures are inconclusive.

Employment of mothers after birth occurring in 1915.

In a discussion of mothers' employment after the infant's birth the question of interval, not before but after confinement, becomes of paramount importance. It will be remembered that 43 per cent of all infant deaths occurred within four weeks after birth, and the mortality rates decreased steadily through the later months of life. But less than one-third of the working mothers took up their wage earning before this first month, with its high mortality, was passed.

Naturally, therefore, a large proportion of the deaths among infants of mothers employed after the birth occurred before the mother began, or resumed, her employment. These deaths must be eliminated before a discussion of mortality in relation to employment during the first year of an infant's life is attempted.

TABLE XXVI.—Deaths of infants by age at death in relation to mother's employment; infants of mothers employed away from home within year after the birth.

Age at death.	Mother employed only after death of infant.	Mother employed during life of infant.
Total.....	250	161
Under 1 month.....	142	2
1 month, under 3.....	40	18
3 months, under 6.....	43	54
6 months, under 12.....	25	87

From the 161 deaths occurring among the 2,784 babies of mothers who began, or resumed, employment during the infant's life, no single infant mortality rate can be computed to compare with a single infant mortality rate among the babies of mothers who did not work during the infant's life.

Instead, since the hazard for all babies surviving at the beginning of the second month, for example, was greater than the hazard for all babies surviving at the beginning of the seventh month, the

⁵¹ See Table 108, Appendix VII, p. 309.

hazards to babies of working mothers must be compared with those to all babies according to the month of age of the infant when the mother began, or resumed, her employment. Roughly, such a comparison is indicated in Table XXVII.

TABLE XXVII.—*Excess mortality among infants of mothers employed during infant's lifetime, when effect of differences in infants' ages is eliminated.*

Age of infant when mother began to work.	Mothers employed at home.		Mothers employed away from home.		Death rate ² all infants surviving at specified age.
	Infants.	Death rate. ¹	Infants.	Death rate. ¹	
Under 1 month.....	695	6.5	60	21.7	6.9
1 month, under 2.....	465	4.4	132	14.4	6.2
2 months, under 3.....	194	6.2	99	9.1	5.6
3 months, under 6.....	297	2.4	255	9.4	5.0 (4.4)
6 months, under 12.....	326	1.5	308	2.9	3.0 (2.2)
Not reported.....	12	.....	1	.....	.....

¹ Subsequent deaths in year per 100 infants.

² Death rate per 100 is based on total number surviving at beginning of specified period (except in "under 1 month" group, when it is based on number surviving the first 2 weeks) and total subsequent deaths in the group. But the two rates shown in parentheses are based on sum of survivors at beginning of each month in the period and the sum of the subsequent deaths in each of these monthly groups.

From this it appears that employment away during the infant's life was disastrous and employment at home was beneficial. But marked variations may have been due to some special weighting of the working group in relation to the father's earnings and the mother's nationality, and the extent to which these babies were breast fed. The question of the infant's age when the mother went to work also demands further analysis.

(1) How do the death rates among babies whose mothers worked during the first 12 months of their lifetime compare with rates corrected to the special distribution of nationalities and incomes within the group where the mothers worked? ⁵²

Two-thirds of the mothers who worked away from home were Polish or Negro women whose babies showed high infant mortality rates throughout. Among these Polish and Negro babies there occurred 54 deaths, 16 more than the 38 deaths that would have occurred if these babies had faced only the average hazards to Negro and Polish babies of corresponding ages in Baltimore. The white mothers, other than Polish, who went out to work were mainly native born and the 20 babies who died in these families were more than twice as many as the number who would have died if they had been facing only the average hazards to white babies, other than Polish, in Baltimore.

More than two-thirds (70.6) of the babies whose mothers worked away from home during their lifetime were in families where the father earned less than \$550 during the year; barely 4 per cent were in the

⁵² See Tables 109, 110, and 111, Appendix VII, pp. 310-314.

families where the father earned as much as \$850. On this point no complete comparison with rates corrected for distribution of incomes is possible, but it is found that the actual deaths among babies of native white mothers and babies of negro mothers, where the fathers earned under \$850 and the mothers went out to work during the babies' lifetime, were more numerous than the deaths expected on the basis of the rates for all babies in all native white and negro families of corresponding earnings groups.

Among the mothers who worked at home during the baby's lifetime the percentage of Negro and Polish mothers was markedly lower than among the mothers who worked away, and about the same as the percentage of Negro and Polish women among those who were not employed at all during the baby's lifetime. The Jewish and Italian mothers, on the other hand, whose babies had relatively low mortality under all circumstances and who were almost entirely absent from the group which worked away during the baby's lifetime, constituted about 24 per cent of those who were employed at home. (In the group of mothers not employed at all during the baby's lifetime, the Jewish and Italian mothers formed about 11 per cent of all.) A comparison of the deaths which might be expected, on the basis of this favorable nationality distribution with those actually occurring, among babies of mothers employed at home during the baby's lifetime reveals but little difference for the group as a whole—92 deaths expected and 87 deaths occurring.

These mothers employed at home represented in general a higher economic level than the mothers employed outside. At least 25 per cent, instead of barely 4 per cent, had husbands earning \$850 or over. But they were still far below the economic level of mothers not gainfully employed. Again, on this point, no complete comparison is possible, but it is found that for all native white mothers employed at home whose husbands' earnings were known, the actual infant deaths, 30, were approximately the number expected, 32, on the basis of fathers' earnings. For colored mothers employed at home, the actual infant deaths, 16, were fewer than the number expected, 24, on the basis of the fathers' earnings.

Evidently, the mother's employment outside the home during her baby's lifetime involved some hazard which was distinct from the general conditions of poverty and which was not operative when the mother's work was done at home. Infant mortality seems to have been even a trifle lower when the mother worked at home during the baby's lifetime than when she was not employed.

(2) What is the relation between the age of the baby when the mother took up her employment and excessive or favorable death rates?

From the foregoing comparison, it appears that the earlier the mother had begun her work the greater was the excess of infant deaths among the babies of mothers employed away from home. This might result, quite apart from the effect of the mothers' employment, if the group of mothers going out to work before the baby was 3 months old represented families in which other conditions were more unfavorable to the baby than in the families where the mother took up her outside employment after 3 months. On three points the conditions in these groups can be compared: Race and nationality, fathers' earnings, and the extent to which the mothers were employed away during pregnancy. And this reveals in the "under 3 months" group a slightly higher percentage of babies of Polish mothers and Negro mothers; a higher percentage of fathers with the lowest earnings or none at all; and a markedly higher percentage of mothers employed away from home during pregnancy, than in the "3 months or over" group.⁵³

That the high percentage of mothers who worked away from home during pregnancy does not account for the greater excess in rate in the "under 3 months" group is plain, since this excess was approximately equal among the babies whose mothers had worked away from home during pregnancy and the babies whose mothers had not worked away during pregnancy. (It will be remembered that even among the mothers who went out to work within three months after the birth, comparatively few began their work during the first month, and most of the deaths from prenatal causes occur before the baby has completed a month of life.)

But the unfavorable weighting of the "under 3 months group" in the two other respects might account in part for the greater excess of infant deaths in this group. This excess, however, when the mother went out to work within three months did not appear uniformly throughout. Among the babies of white mothers other than Polish the number of deaths was more than twice the number expected, whether the mother began work within three months, or between three months and six months, or after the baby was 6 months old. In the Polish families the greatest excess of deaths occurred when the mothers went out to work after the baby's third month but before he was 6 months old. In the Negro group the excess appeared only among the babies whose mothers went to work during the first three months.⁵⁴

Where the mothers worked at home, the comparison of infant death rates with the death rates for all infants surviving at each month of life showed rates more favorable for the babies of working mothers than for others in the "3 months or over" group and not

⁵³ See Tables 112, 113, 114, and 115, Appendix VII, pp. 314-316.

⁵⁴ See Table 110, Appendix VII, p. 313.

in the "under 3 months" group. But in these families there was no such favorable weighting in the "3 months or over" group as in the families where the mothers worked outside their homes.⁵⁵ So, when the number of deaths in one group or the other was below or above the number expected, it reflects clearly some relation between the age of the infant when the mother began her work at home and the benefit or the hazard of the work. Turning to each of the race and nationality groups separately, it appears that in the native white, the Italian, and the "other foreign" families there was a slight excess over the expected number of deaths among the babies whose mothers took up their employment within three months. In the native white families this excess yielded to a number smaller than the expected number of deaths, when the mothers took up their employment after three months. In the negro families the number of deaths is below the expected number for each period.⁵⁶

From these variations, it may reasonably be inferred that, especially if the mother works away from home, she serves her baby's interests better if she delays her employment at least three months or six months after the baby's birth, and longer if possible.

(3) Did the babies of mothers working away from home have less breast feeding than other babies, and did those whose mothers worked at home have more breast feeding than other babies? Do such variations in methods of feeding account for the high death rates in the one group and the low death rates in the other?

The ways in which working mothers fed their babies were different in the three principal race and nativity groups, just as the methods of nonworking mothers varied in these groups.

In each group, employment away decreased breast feeding and increased both mixed feeding and artificial feeding throughout the first nine months. But in the native white families, after the third month, the increase in artificial feeding was much greater than the increase in mixed feeding; in the foreign white and the colored families, the increase in artificial feeding was not greater than the increase in mixed feeding until after the sixth month. Throughout the nine months, however, the foreign-born white mothers and the negro mothers who went out to work were more likely to give their babies mixed feeding than to wean them entirely; exactly the reverse appeared among the native white mothers.

It has been frequently assumed that few, if any, babies of mothers working away from home had breast milk and no other food. The statements of the mothers interviewed in Baltimore showed that of the 470 babies surviving at the beginning of the sixth month whose

⁵⁵ See Tables 112 and 113, Appendix VII, pp. 314 and 315.

⁵⁶ See Tables 109 and 110, Appendix VII, pp. 310 and 313.

mothers had been employed away during the preceding month, 118, or 25 per cent, were entirely breast fed during the sixth month.⁵⁷

So far as employment either at home or away increases early weaning it will inevitably raise the infant death rate. And the earlier the baby is deprived of breast milk the greater will be the hazard he must face throughout the year.⁵⁸

A comparison of the deaths among babies of mothers employed away during the babies' lifetime with the number expected on the basis of the rates, month by month, for breast-fed, mixed-fed, and artificially-fed babies in the race and nationality and fathers' earnings groups represented, showed an excess of deaths among babies of mothers employed away. The greater prevalence of mixed and artificial feeding leads one to expect a relatively large number of deaths. The actual number was even higher.

TABLE XXVIII.—*Excess mortality among infants of mothers employed away from home during infant's lifetime, when effect of differences in type of feeding, color, and nationality of mothers and earnings of father is eliminated.*

Type of feeding.	Infants of mothers employed away from home during infant's lifetime. ¹	
	Actual deaths.	Expected deaths.
Total.....	68	53.8
Breast.....	6	4.4
Mixed.....	20	13.2
Artificial.....	42	36.2

¹ Excludes 46 infants (6 deaths) of native white mothers in father's earnings groups "No earnings" and "Not reported." See Table 117, Appendix VII, p. 323.

Some excess in the number of deaths among babies of working mothers over the number expected on the basis of the feeding reported appeared in each race and nativity group except in the very small group of foreign families other than Polish. It was highest in the Polish families.

⁵⁷ See Table 116, Appendix VII, p. 317.

⁵⁸ The effect of artificial feeding in relation to the age at which the infant is weaned is discussed in section on Feeding and Infant Mortality, p. 69.

TABLE XXIX.—*Excess mortality, by color and nationality of mother, among infants of mothers employed away from home during infant's lifetime, when effect of differences in color and nationality of mother, earnings of father, type of feeding, and infants' ages is eliminated.*

Color and nationality of mother.	Infants of mothers employed away from home during infant's lifetime. ¹	
	Actual deaths.	Expected deaths. ²
Total.....	68	53.8
Native white.....	15	8.3
Polish.....	14	8.8
Other foreign-born white.....	2	2.1
Colored.....	37	34.6

¹ See footnote 1, Table 117, p. 323.

² See footnote 2, Table 117, p. 323.

When the mothers worked at home the effect of their employment upon their way of feeding their babies was much less marked. In the native white families the mothers employed at home had an even higher percentage of babies breast fed at each month of life and a slightly lower percentage artificially fed than the mothers not employed. In the foreign-born white families, the mothers employed at home showed a greater tendency to give their babies either mixed or artificial feeding after the second month than the mothers not employed. In the negro families this tendency appeared from the beginning.

The infant deaths in these families where the mother worked at home were slightly fewer than those expected on the basis of the feeding reported, but the difference occurred chiefly among the babies having breast milk at the time of death. These showed 23 deaths instead of the 36 deaths expected. The numbers of actual deaths and expected deaths among babies artificially fed were practically identical.

TABLE XXX.—*Relative mortality among infants of mothers employed at home during infant's lifetime, when effect of differences in color and nationality of mother, earnings of father, type of feeding, and infants' ages is eliminated.*

Type of feeding.	Infants of mothers employed at home during infant's lifetime. ¹	
	Actual deaths.	Expected deaths.
Total.....	83	95.7
Breast.....	14	20.7
Mixed.....	10	15.9
Artificial.....	59	59.1

¹ See Table 117, Appendix VII, p. 323.

Interference with breast feeding when the mother worked outside her home and continuation of breast feeding when she worked at home seem to account in part for the excessive number of deaths in the one group and the relatively few deaths in the other group. But even after the effect of the different methods of feeding is allowed for, there was still a definite hazard in employment of the mother away from home during her infant's lifetime.

Employment away from home at any time.

In studying the deaths among all babies born to the mothers, not only during 1915 but at any previous time, no data are available about methods of feeding, cause of death, or the baby's age at death. Only the total infant mortality and stillbirth rates for babies of mothers never gainfully employed outside their homes, for babies of mothers so employed before marriage only, and for babies of mothers so employed after marriage can be compared.

The 8,169 babies born to 2,371 mothers never gainfully employed outside their homes showed an infant mortality rate of 99.2 per 1,000.

The 17,491 babies born to 6,229 mothers gainfully employed outside their homes before marriage but not so employed after marriage showed an infant mortality rate of 104.3 per 1,000.

The 9,172 babies born to 2,562 mothers gainfully employed outside their homes after marriage showed an infant mortality rate of 165.8 per 1,000.

In each of these groups, as elsewhere, the infant mortality was higher among negro babies than white babies, the general tendency was for rates to decline as the fathers' earnings increased; and the babies in large families, showed higher rates than others.

From the presence of more negro babies, more babies of fathers with very low earnings, and more babies of mothers who had borne several children in the families where the mothers worked away from home after marriage than in the other families, a high infant mortality among the babies whose mothers worked after marriage was to be expected. But the rate expected from the presence of these unfavorable factors—approximately 143 per 1,000—was considerably below the actual rate of 165.8 per 1,000.⁵⁹

This difference was present in each of the three race and nativity groups considered separately, and it seems to be plainly indicated that the mothers' employment after marriage or some undefined factor related to it was unfavorable to the babies' welfare.

The stillbirth rates were uniformly higher among mothers employed away after marriage than among those employed away before marriage only. But in the native white and the colored families, the mothers who were never gainfully employed away from home had

⁵⁹ See Tables 118, 120, 122, 123, and 124, Appendix VII, pp. 324, 326, 328, 329, and 330.

stillbirth rates higher than the mothers who worked before marriage only, and in the colored families this rose to a point higher than the rate among mothers who worked away after marriage.⁶⁰

It may be noted that in this grouping, no distinction is made between mothers who had worked habitually since marriage and mothers who had worked irregularly or for some one short period since marriage. Mothers who may have worked during each pregnancy are grouped with mothers who may have ceased work before the first pregnancy. The figures may conceal further variations of rates within this general group of working mothers, but they do serve to sum up the general fact that, in actual practice under existing conditions, employment of married women outside their homes involves danger to their babies.⁶¹

TABLE XXXI.—*Stillbirth rates, by employment of mother away from home previous to 1915 birth, by color and nativity of mother.*

Color and nativity of mother.	Stillbirth rate. Mother employed away from home.	
	During pregnancy of 1915 birth.	After marriage but not during pregnancy of 1915 birth.
Native white.....	49.2	21.6
Foreign-born white.....	34.2	25.8
Colored.....	93.8	78.2

Among the live born babies of 1915, there was also in the foreign-born and the colored families a higher mortality from the diseases of early infancy in the group where the mothers worked away from home during pregnancy than in the group where they had worked away after marriage but not during the pregnancy of 1915. In the native white families this difference does not appear, but the rates are approximately equal in the two groups.

It should be noted that in the colored families, but not in the white families, stillbirth and early infancy rates were as high among the few babies whose mothers had never been employed outside the home as among the mothers who worked outside the home during pregnancy. (Detailed tabulations are shown in Table 121, Appendix VII, p. 327.)

From the data for all pregnancies it appears that the age at which the mother had commenced gainful employment away from home

⁶⁰ See Table 119, Appendix VII, p. 325.

⁶¹ Among the births during 1915, the stillbirth rates were uniformly higher in the group where the mothers worked away during pregnancy than in the group where the mothers had worked away after marriage but did not work during the pregnancy of 1915.

affected the well-being of her children. Among all mothers employed away at any time previous to the birth occurring during 1915, the lowest infant mortality rate, 106.9 per 1,000, was when the mother had been from 16 to 19 years of age at beginning work. The highest rate, 161.7 per 1,000, appeared in the group of 699 babies whose mothers had begun work after the twenty-fifth year, and the next highest rate, 139.6 per 1,000, in the group of 8,983 babies whose mothers had begun work before they were 14.

But each of these two groups with rates above the average for all babies of mothers employed away were so constituted as to lead to an unfavorable infant mortality rate apart from the mothers' age at first employment. In the "25 years and over" group 91 per cent of the babies were born to mothers employed away from home after marriage—a percentage more than twice as large as that in any earlier age group. In the "under 14 years" group an economic level below the average for all working mothers may be assumed, and this group is known to include a relatively high percentage of negro babies (20 per cent, as against an average of 14 per cent in other age groups).

The only check afforded by the tabulations on the variations in economic level in the families where the mothers had begun work at the various ages is the fact of the mothers' employment or nonemployment away from home after marriage. But on the basis of the mothers' employment and of color and nativity, "expected rates" may fairly be computed for comparison with the actual rates in the several age groups. From these it appears that the relatively low rate among babies whose mothers had begun work at from 16 to 19 years of age was lower than the expected rate for this age group, and the relatively high rate among babies whose mothers had begun work under 14 years was higher than the expected rate.

In the other data, based on births during 1915, there was a similar trend in the rates—the lowest among babies whose mothers had begun work between 16 and 19 years, and the highest among babies whose mothers had begun work at 25 or over, with a rate also slightly above the average for all mothers who had ever been employed away from home in the "under 14 years" group. But comparing these actual rates with rates expected from the distribution in the several groups of mothers employed and mothers not employed during the pregnancy of 1915, and of native white, foreign-born white, and colored mothers, the variation in the several age groups are so little greater than the expected variation that with the relatively small numbers involved it can not fairly be related to the mother's age at beginning work. Even when the total mortality is divided into the two big groups of causes, there is no clear indication of a

relation between excess mortality from either group of causes and the mother's age at beginning work.⁶²

Summary.

The babies of women who had been employed outside their homes since their marriage faced a greater hazard than other babies, and this hazard appears to have been especially emphasized when the mothers had been employed away during pregnancy or during the first 12 months after the baby's birth.

That employment outside the home during pregnancy had reacted harmfully upon the condition of the mother and through her upon the health of her baby is indicated by a high percentage of premature births to mothers employed away from home during pregnancy, high stillbirth rates to native white and colored mothers so employed, and high mortality from early infancy causes even among the full-term live births of mothers employed away from home during pregnancy. The babies of mothers who worked away during pregnancy also showed a high mortality from causes other than those peculiar to early infancy. This may have been due in part to the mother's resumption of work during the first year of the baby's lifetime.

The variations in stillbirth rates and the mortality from early infancy in relation to the interval of rest before confinement indicate the importance of the mother's ceasing her employment outside the home at least two weeks before her confinement.

Employment away from home during the baby's first year increased the hazard to the baby. This increase in the hazard was especially marked when the mother took up her work before the baby was 6 months old. The mothers employed away from home resorted largely to artificial feeding for their babies, but the greater prevalence of artificial feeding accounts only in part for the special hazard. The actual number of deaths was greater than the number that would have occurred among them if these babies had faced the average hazards to all babies of their nationalities and their economic status who had the same high percentage of artificial feeding.

In general, then, the baby whose mother works away from home during pregnancy or during the baby's first year pays dearly for the physical strain to the mother and for the lack of a mother's care.

The mothers' employment at home, on the other hand, in the occupations and under the conditions prevailing in the families studied seems to have no ill effect upon the mothers or their babies. The one rate indicating an exception to this general statement was a stillbirth rate among colored mothers employed at home during

⁶² See Tables 123, 124, 125, and 126, Appendix VII, pp. 329-331.

pregnancy greatly in excess of the stillbirth rate among colored mothers not employed during pregnancy.

RELATION OF INFANT MORTALITY TO THE MOTHER'S ILLITERACY OR INABILITY TO SPEAK ENGLISH.

The babies of illiterate mothers and the babies of mothers who spoke no English had a higher mortality than others, but outside the small group of native white families in which the mother was illiterate the data collected offer no evidence that the differences in mortality were directly related to the fact of illiteracy or the fact that a foreign-born mother had not learned to speak English.⁶³

It has already been noted⁶⁴ that the illiterate mothers and the mothers who spoke no English represented, on the whole, families poorer than the average in their several color and nationality groups; and, when due allowance is made in the comparison of rates for the low economic level in these families, it is found that except among the illiterate native white mothers the excess in mortality which seemed to be related to illiteracy or to inability to speak English practically disappears. And among the Polish babies there was, on either basis, a somewhat higher mortality in the families where the mother spoke English and in the families where the mother could read and write than in other Polish families.⁶⁵

Although the higher mortality in certain foreign families where the mother spoke no English coincides with greater poverty and seems to be traceable to it, another question at once arises: Was not lack of English a barrier cutting off certain mothers from the benefit of infant-welfare work? In one sense it might seem so, for, it will be remembered, fewer of the Polish and Italian women than of the Jewish women had learned to speak English and fewer in these two groups than in the Jewish group had care from the infant-welfare agencies. But the lack of English does not account for the lack of care. Within the Polish group 7 per cent of the 210 infants of mothers who spoke English and 5 per cent of the 388 of mothers who did not speak English had regular supervision from an infant-welfare agency. Within the Jewish group, 23 per cent of the 768 infants of mothers who spoke English had such supervision, and 31 per cent of the 169 of mothers who did not speak English. Only in the Italian group was the percentage having such regular supervision markedly higher

⁶³ See Tables 127, 128, 129, and 130, Appendix VII, pp. 332-334.

⁶⁴ See p. 32.

⁶⁵ The differences in the prevalence of artificial feeding or of mixed feeding previously noted in connection with the illiteracy and inability to speak English (see p. 54) were too slight materially to affect the relative mortality, and can not account for the high mortality among babies of illiterate native white mothers or the relatively low mortality among babies of Polish mothers who were illiterate or who could not speak English.

among the infants of mothers who spoke English (22 per cent) than among those of mothers who did not speak English (9 per cent).⁶⁶

The chief measureable difference, then, between the families where the foreign-born mother had not learned English, or the mother, whether native or foreign, had not learned to read and write, and all other families, is a difference in economic status, and this is, as has been seen, a real factor in infant mortality. So far as illiteracy on the part of the parents or their inability to speak English is responsible for the greater poverty of the families in which the parents have these limitations, the limitations become, themselves, a factor in the infant mortality rate.

⁶⁶ See Table 131, Appendix VII, p. 334.

PHYSICAL FACTORS IN INFANT MORTALITY.

ORDER OF BIRTH, AGE OF MOTHER, AND INTERVAL BETWEEN BIRTHS

It is commonly said that mortality among first-born children is higher than among second- or third-born, but lower than among the later-born children. And babies born to mothers more than 35 years old are supposed to face a special hazard. References to the high mortality among fourth-, fifth-, and later-born children are frequently countered by the statement that the largest families are the poorest and that poverty rather than any essential condition in the bearing and rearing of many children is the cause of the excessive hazard.

On these points one set of data is available based on the births during 1915, and a second set of data based on these and all previous births to the same mothers.

Order of birth.

The data based on births during 1915 showed a rate for the 2,868 first-born children slightly higher than the rates for second- and third-born children, and the rates rose steadily with each order of birth after the third.⁶⁷ The curve in the rates rose most sharply among the later births in large families, and an excess in rates in the group of babies seventh to ninth in order of birth as compared with babies of earlier orders of birth persisted in the subdivisions of both groups when the white and colored mothers and the families at different economic levels are considered separately.⁶⁸

In the larger group the first-born babies showed an infant mortality rate higher than the rate for babies second in order of birth and approximately equal to the rate for babies third in order of birth. For later births the rate rose steadily and touched its highest point among the 883 babies tenth or later in order of birth.⁶⁷

In the larger numbers considered, the births in this group of all pregnancies would presumably give a better basis for discussion of order of birth than the births in 1915, but there are certain qualifications which should be noted. For example, if this large group—all births—is subdivided according to the total numbers of births reported by the mothers, it appears that within each subdivision of the group the first-born babies showed a higher mortality than the later-born babies in the same families.⁶⁹ Even in the families of seven

⁶⁷ See Tables 132 and 133, Appendix VII, p. 335.

⁶⁸ See Tables 137, 138, and 139, Appendix VII, pp. 338-339.

⁶⁹ See Table 135, Appendix VII, p. 337.

or more births the first-born babies had higher infant mortality rates than the babies born seventh or later in the same families. This apparent contradiction of the relative rates shown among the births during 1915 should be weighed against the fact that these births of all pregnancies had extended over a number of years during which the development of work for infant welfare and the improvement of sanitary conditions had been tending steadily to reduce mortality. The importance of this latter qualification is further suggested by the differences between the rates for babies of corresponding orders of birth in the small families and in the large families, and again by the differences in mortality among all babies in small families and all babies in large families, differences which fall far beyond the variation expected from the relatively unfavorable economic conditions in the larger families.⁷⁰

In both sets of data we have stillbirth rates in addition to the infant mortality rates for the several orders of birth. The stillbirth rates for the several orders of birth showed almost identical curves in the two sets of data, with a greater loss among first births than among any later births except those tenth or over in order of birth. The rates dropped sharply from the first birth to the second and thereafter rose slowly without a break in the upward curve.⁷¹

In the data based on births during 1915, but not in the other set of data, are found analyses of the infant mortality rates by causes peculiar to early infancy and all other causes, and statements of the relative prevalence of premature births among the several orders of birth. The first child was more likely than later children to come to birth prematurely. Of the 2,999 first births in 1915, 9 per cent were premature; of the 8,196 later births, 5.9 per cent were premature. Or, considering only the live-born babies, 8 per cent were premature among the first births and 4.6 per cent were premature among the later births. The percentage of prematurity was lowest among the births fourth to seventh in order of birth and rose thereafter, but only among the babies twelfth and later in order of birth was it higher than among the first born.⁷²

⁷⁰ That is, assuming that earnings during the year after the birth in 1915 were a fair index to the family's economic status throughout married life. It may be questioned whether the fathers who in 1915 were employed in manual labor, either skilled or unskilled, would have had during their married life any general improvement in rate of wages (in relation to the cost of living) comparable to the salary increases that commonly occur among those doing administrative or professional work. The majority of the fathers were wage earners doing manual labor.

⁷¹ See Tables 132, 133, 134, and 142, Appendix VII, pp. 335, 336, and 340.

⁷² See Table 140, Appendix VII, p. 340.

CHART XVIII.—Infant mortality rates from early infancy and from all other causes, by order of birth; single births in 1915.

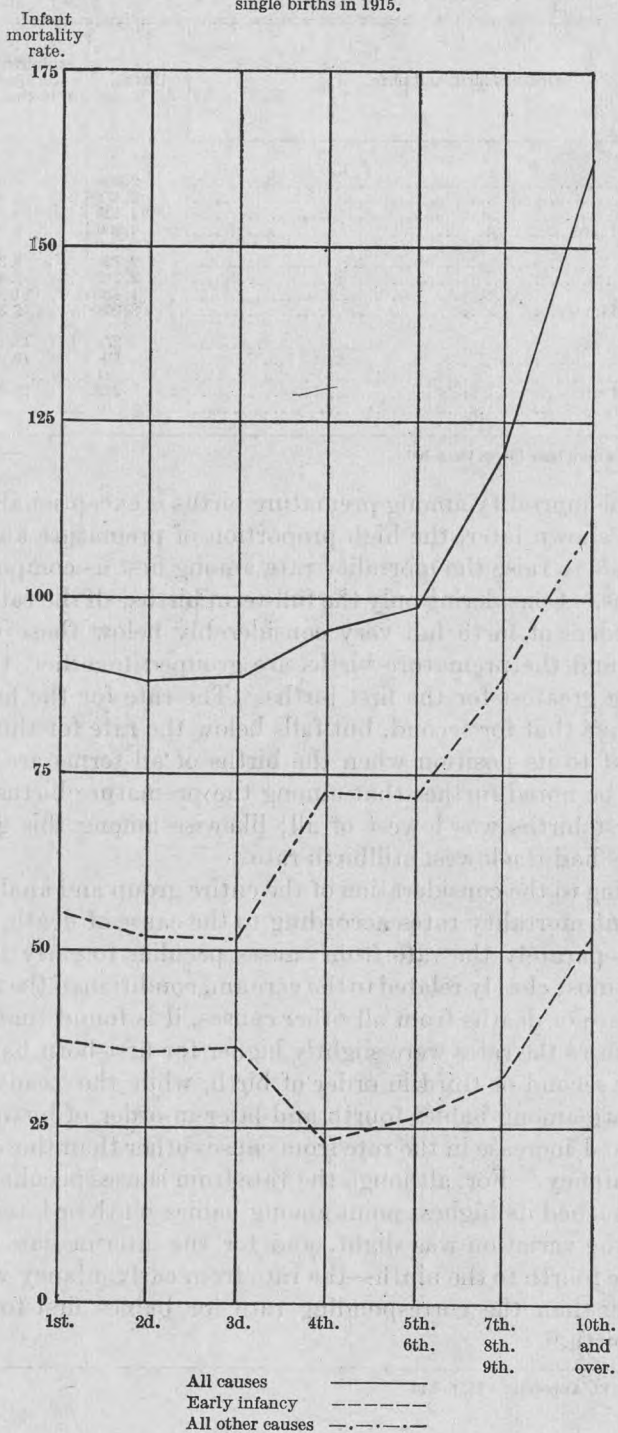


TABLE I.—*Infant mortality and stillbirth rates, by order of birth and term; births in 1915.*

Order of birth and term.	Births.	Stillbirth rates (per 100 births). ¹	Infant mortality rate (per 1,000 live births). ¹
Total:			
First.....	2,999	4.4	94.8
Second.....	2,471	2.5	92.6
Third.....	1,525	2.9	91.8
Fourth and later.....	4,200	3.8	120.3
Full term:			
First.....	2,726	3.3	65.6
Second.....	2,312	1.4	62.7
Third.....	1,429	1.3	68.8
Fourth and later.....	3,963	2.3	97.9
Premature:			
First.....	271	15.1	426.1
Second.....	158	19.0	625.0
Third.....	94	.....	.....
Fourth and later.....	232	29.3	640.2
Not reported.....	10	.....	.....

¹ Not shown where base is less than 100.

Since the mortality among premature births is exceptionally heavy, as will be shown later, the high proportion of premature among first births tends to raise the mortality rate among first as compared with later births. Considering only the full-term births, all the rates for the several orders of birth fall very considerably below those when the full-term and the premature births are grouped together, the difference being greatest for the first births. The rate for the first births is still above that for second, but falls below the rate for third births, in contrast to its position when the births of all terms are grouped. It should be noted further that among the premature births the rate among first births was lowest of all; likewise among this group the first births had the lowest stillbirth rate.

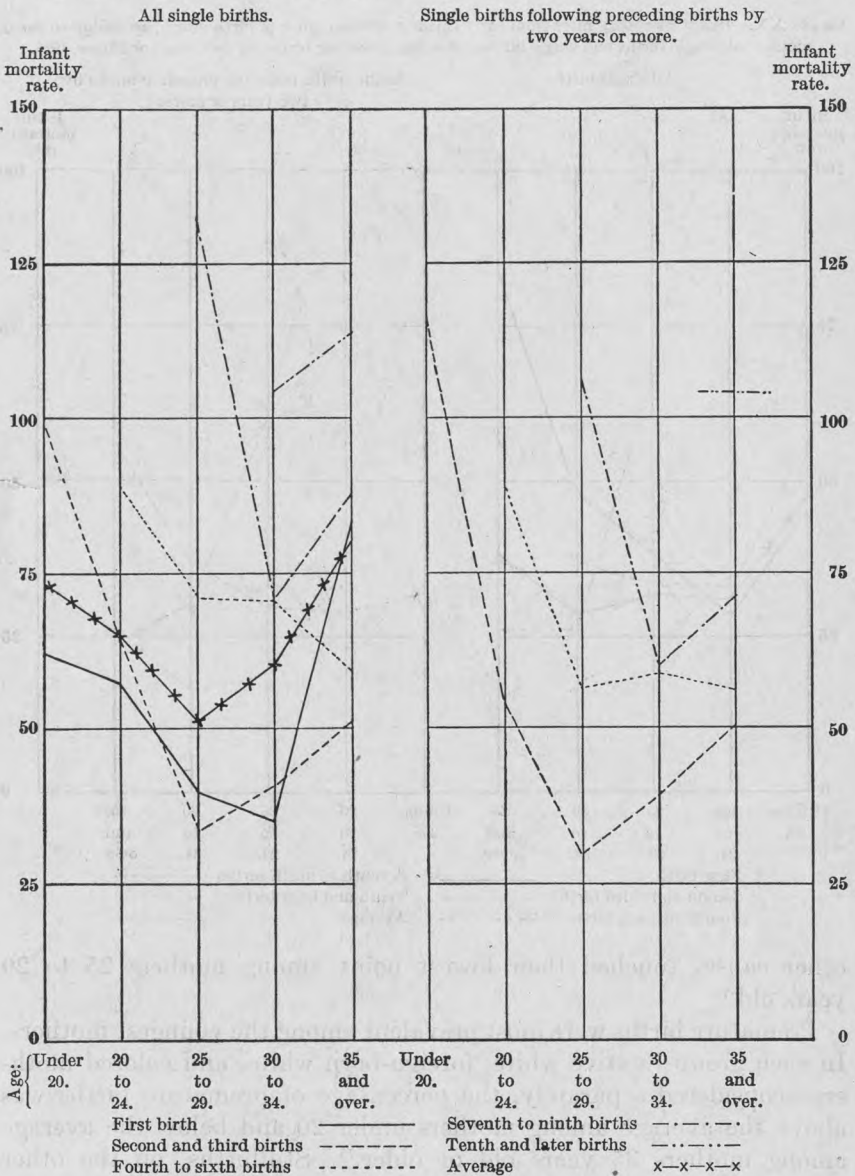
Reverting to the consideration of the entire group and analyzing the total infant mortality rates according to the cause of death, and considering separately the rate from causes peculiar to early infancy—which are most closely related to the care and condition of the mother—and the rate of deaths from all other causes, it is found that for each type of causes the rates were slightly higher for first-born babies than for babies second or third in order of birth, while the steady increase in total rate among babies fourth and later in order of birth was due to a marked increase in the rate from causes other than those peculiar to early infancy. For, although the rate from causes peculiar to early infancy touched its highest point among babies tenth or later in order of birth, the variation was slight, and for the intermediate orders of birth—the fourth to the ninth—the rate from early infancy was somewhat lower than the corresponding rate for babies first to third in order of birth.⁷³

⁷³ See Table 142, Appendix VII, p. 340.

Age of mother.

Closely related to the variations in mortality for the several orders of birth were the variations for the several age periods of the mothers.

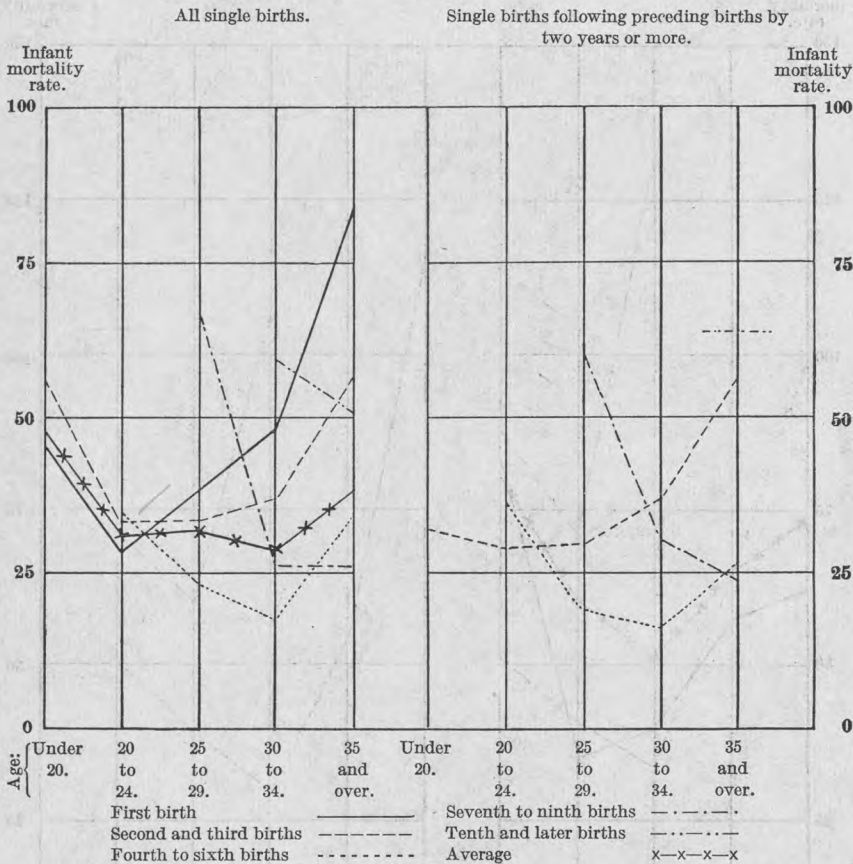
CHART XIX.—Infant mortality rates from all causes for each order of birth group, according to age of mother; all single births and single births following preceding births by two years or longer, 1915.



Both among the 1915 births and the larger group of all births to these mothers the same curve in the rates was found, touching the lowest point among mothers from 25 to 29 years of age and rising to high

points among mothers under 20 and 35 or over. The same general curve appeared in the rates from early infancy and in the rates from all other causes when these were considered separately, with this difference—that the rates from early infancy were practically identical for the three age periods between 20 and 35, but the rates from all

CHART XX.—Infant mortality rates from early infancy for each order of birth group, according to age of mother; all single births and single births following preceding births by two years or longer, 1915.



other causes touched their lowest point among mothers 25 to 29 years old.⁷⁴

Premature births were most prevalent among the youngest mothers. In each group—native white, foreign-born white, and colored mothers—considered separately, the percentage of premature births was above the average among mothers under 20 and below the average among mothers 35 years old or older.⁷⁵ Stillbirths, on the other

⁷⁴ See Tables 143, 146, and 147, Appendix VII, pp. 341 and 343.

⁷⁵ See Table 148, Appendix VII, p. 344.

hand, were most prevalent among the oldest mothers, although the stillbirth rate among mothers under 20 was also above the average.⁷⁶

One might assume that the mortality rates for older mothers were high because among their babies the later births in large families predominated, or that the rate for later births in large families was high because older mothers predominated, and the limited volume of the available data makes it impossible to separate entirely these two interdependent factors. But it does reveal the fact that among the babies of the oldest mothers the first born as well as the seventh and later born had excessively high rates, while for births other than the first, and the seventh or later, the highest rates were not found among the oldest mothers. Thus for babies second and third in order of birth the highest rate appeared when the mothers were under 20 years old; for babies fourth to sixth in order of birth, when the mothers were from 20 to 24 years old; and for babies seventh to ninth in order of birth, when the mothers were from 25 to 29 years old.⁷⁷

These excessive mortality rates for babies of certain orders of birth born to mothers of certain ages appear in both types of causes. The mortality from causes peculiar to early infancy was highest (83.3 per 1,000) among first-born infants of mothers 35 years old or older, but the babies second to sixth in order of birth born to such mothers also had rates above the average for all age groups. And babies of all orders of birth born to exceptionally young mothers had rates above the averages for all age groups. With one exception the highest mortality from all other causes was among the babies born to very young mothers; only among babies tenth or later in order of birth did this relation to the age of the mother disappear, and in this group the mortality from all causes other than early infancy was high throughout.

The age of the older mothers seems to have offered a real hazard (involving a high mortality from prenatal causes) which was independent of large families; and the large family seems to have suffered from a lack of care (showing an especially high mortality from post-natal causes) which was accentuated if the mother had begun her child-bearing too young or had borne her children in too quick succession. The interval between births appears to have been, in fact, a third element in the problem of the variations of hazard according to the age of the mother and the number of children she had borne.

⁷⁶ See Tables 144 and 145, Appendix VII, p. 341. This variation was true for native and foreign-born white mothers; it did not appear among the colored mothers, but the colored groups were too small to afford basis for any deductions.

⁷⁷ In the data based on all pregnancies, the highest rate for babies tenth or later in order of birth appeared when the mothers were 30 to 34 years old; but in the data based on 1915 births, the rate for babies tenth or later in order of birth is identical at this age period and among older mothers. See Tables 150, 151, 152, and 153, Appendix VII, pp. 345-347.

Interval between births.

In general the babies who followed a preceding birth by an interval of less than two years had a definitely higher mortality than those for whom the interval was longer, with a rate of 146.7 per 1,000 among the 2,072 babies born after an interval of less than 2 years since a preceding birth and a rate of 92.3 per 1,000 among the 5,810 babies born after an interval of 2 years or longer. (Compare the rate of 94.8 among the 2,868 first-born babies.) It is, of course, true that among these short-interval babies the percentage of negro families and, in the white group, the percentage of poor families were somewhat higher than among the babies following a preceding birth by two years or longer. But these differences were too slight to account for the difference in rates.⁷⁸

Moreover, if the native white families in the several earnings groups are considered separately, and the variations due to race or nationality and to economic status are thus eliminated, there appears in each earnings group except the highest a markedly higher infant mortality among the short-interval babies than among the others.

The tabulations permit a comparison of infant mortality rates by interval from another angle—that is, in relation to the mother's pregnancy within 12 months after the birth of the baby in 1915.

TABLE II.—*Infant deaths in relation to succeeding pregnancies commencing within 1 year after birth of 1915 infant; live births in 1915.*

Relation of infant death to pregnancy of mother.	Live births.		
	Total.	Mother pregnant within 1 year after birth.	
		Num-ber.	Per cent.
Total live births.....	10,797	1,563	14.5
Infant deaths.....	1,117	406	36.3
Preceding month in which pregnancy began.....		299	26.8
Following month in which pregnancy began.....		74	6.6
During month in which pregnancy began.....		28	2.5
Relation to pregnancy not reported.....		5	.4

The percentage of mothers pregnant within 12 months after the birth in 1915 was more than twice as high among the babies who died within the year as in the entire group; and among those babies who died and whose mothers became pregnant within the year, approximately three-fourths died before and one-fourth after the pregnancy had begun.⁷⁹

⁷⁸ See Tables 154, 155, and 156, Appendix VII, pp. 348-351.

⁷⁹ See Tables 161 and 162, Appendix VII, pp. 355 and 356.

Of the 1,231 babies whose mothers became pregnant during their first year of lifetime, 74 babies died within 10 months after birth, whereas only 34 babies would have died if they had been facing the average hazards of all who were born in 1915. Most of them were deprived of mother's milk; but the deaths were also in excess of the deaths which might have been expected because of the greater prevalence of artificial feeding.

TABLE III.—*Excess mortality among infants of mothers becoming pregnant during first year of infant's lifetime, when effect of differences in type of feeding and infants' ages is eliminated.*

Type of feeding.	Infants of mothers becoming pregnant during first year of infant's lifetime.		
	Actual deaths. ¹	Expected deaths.	
		On basis of average mortality.	On basis of feeding reported.
Total.....	74	33.8	60.3
Breast.....	2	.....	1.2
Mixed.....	5	.....	2.8
Artificial.....	67	.....	56.3

¹ See Table 163, Appendix VII, p. 357.

The births of all pregnancies can be classified only according to the total number of births to the same mother and the number of years she had been married.⁸⁰ They indicate the same general tendency—the shorter the average interval between births the higher the mortality.

It is possible, however, that the high infant mortality accompanying the births in families with short average intervals between births was in part a cause, as well as a result, of the short interval and the circumstances under which it occurred. For it appears that the mother whose baby had died was more likely to become pregnant within a short period than the mother whose baby was living, and hence in classifying the births for mothers who had had short intervals between births, the fact that the death of the infant was correlated with short interval following the death exaggerated the relation between infant mortality and short interval.

⁸⁰ See Tables 157 and 158, Appendix VII, pp. 352 and 353.

TABLE IV.—*Per cent of short intervals following birth¹ preceding 1915 birth according to survival or death of preceding birth;¹ single births in 1915 second and later in order of birth.¹*

Type of loss.	Single births in 1915.		
	Total. ²	With interval under two years since preceding birth. ¹	
		Number.	Per cent.
Single births ³ of 1915.....	7,959	2,101	26.4
Preceding birth a loss.....	1,650	776	47.0
Stillbirth or miscarriage.....	897	440	49.1
Infant death.....	753	336	44.6
Under 3 months.....	365	184	50.4
3 months, under 6.....	157	66	42.0
6 months, under 12.....	225	85	37.8
Age not reported.....	6	1	.....
1915 birth a loss.....	1,016	354	34.8
Stillbirth.....	252	75	29.8
Infant death.....	764	279	36.5

¹ Includes miscarriages.² Excludes first births.³ The corresponding percentage for all births in 1915, 26.2; for all live births, 26.1; for single live births 26.3.

It has been noted that among the mothers who became pregnant within the year after the birth in 1915 and whose babies died within the year three-fourths became pregnant after the death of the baby and not before. From the data about births in 1915 and the preceding birth it appears that the percentage of short intervals was considerably higher in the groups where the preceding birth was a stillbirth or miscarriage or a live-born baby who died within 12 months than in the group as a whole. Some such difference would appear if short interval was a cause of infant mortality. But the actual percentage of short intervals in the group where the preceding birth did not survive (47 per cent) was not only higher than in the group as a whole (26 per cent) but also higher than in the group of losses among the 1915 births (35 per cent). And, significantly, the difference was greatest where the preceding birth had been a stillbirth or miscarriage or a death occurring within three months after birth. This seems to indicate that the short interval was in part a result of the death of the preceding infant. It does not, however, do away with all the excess mortality, for among the babies who died in 1915 the percentage who had followed the preceding birth by an interval of less than two years was still considerably higher than the corresponding percentage among all babies born in 1915—or, as has been noted, 35 per cent instead of 26 per cent.

Evidently, the mothers whose babies had died were a little more likely than other mothers to bear another child after a short interval; the babies whose mothers became pregnant during the first year of

the babies' lifetime met a special hazard; and, except in the most prosperous families, the babies who followed a preceding birth by an interval of less than two years had a higher infant mortality than other babies.

It is generally assumed that short intervals between births are more prevalent in large families than in small families, and this seems to have been true for the few exceptional families where the mother had borne 15 or more children. In these families, more than half the births during 1915 followed the preceding birth by an interval of less than two years. But in the much larger number of families where the mother had borne from 10 to 14 children, the percentage reporting intervals of less than two years was less than in the families where the mother had borne only 2 children and only a trifle higher than in the families where the mother had borne 3 children. A similar tendency appears among the births of all pregnancies. The interval in this group of data refers not to the period between births but the period between one birth and the beginning of the following pregnancy. The percentage with average interval under two years is therefore higher, on this basis, throughout. But the relation of the several orders of birth to short interval is identical with that shown in the births during 1915 and the interval since the preceding birth.⁸¹

It is not surprising, therefore, to find also that the percentage of births during 1915 following the preceding birth by an interval of less than two years was greatest among the youngest mothers and decreased steadily as the age of the mothers increased. At all age periods there was a practically constant proportion reporting an interval of two or three years; only the percentage reporting an interval of four years or more increased among the older mothers as the percentage of very short intervals declined.⁸²

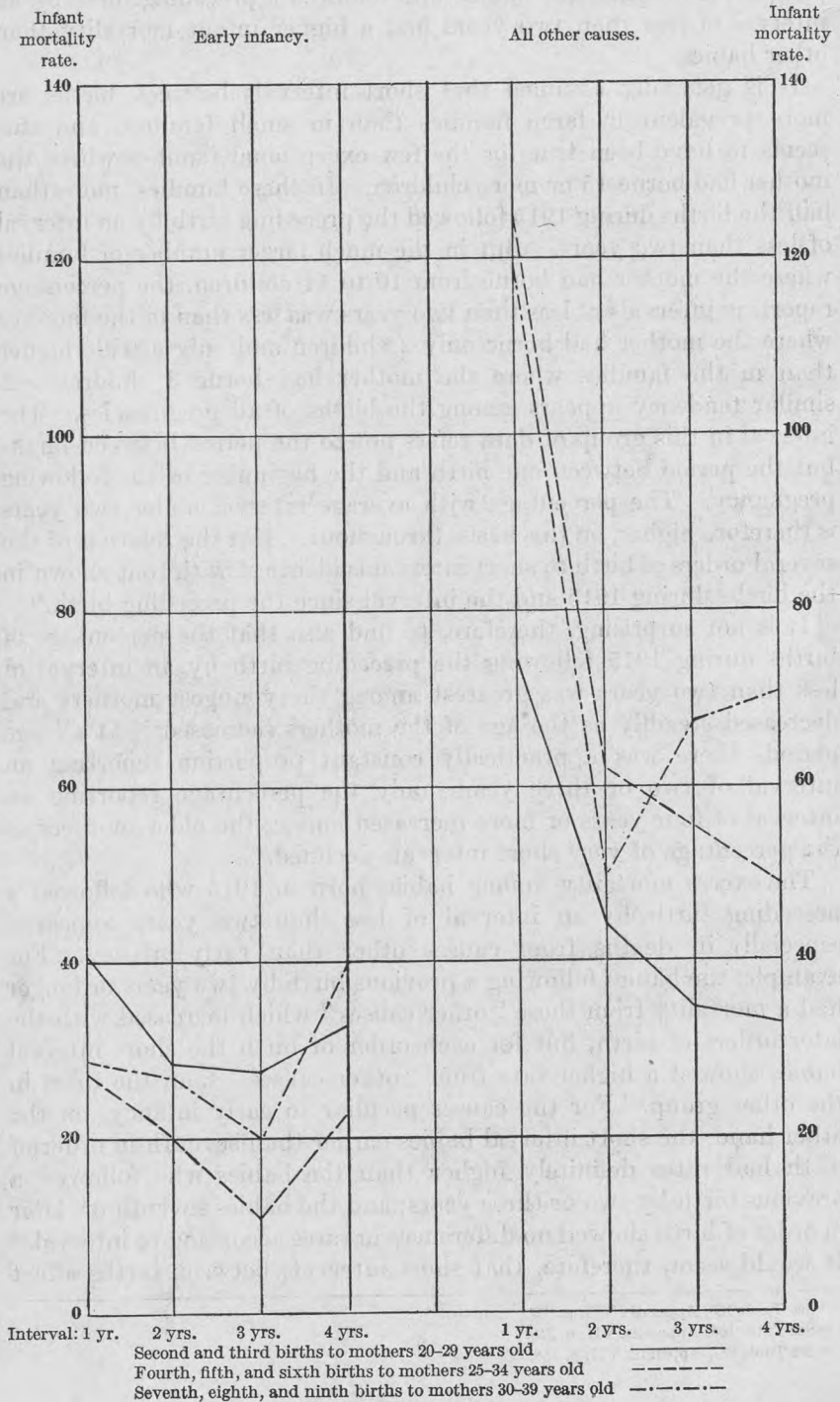
The excess mortality among babies born in 1915 who followed a preceding birth by an interval of less than two years appeared especially in deaths from causes other than early infancy. For example, the babies following a previous birth by two years or longer had a mortality from these "other causes" which increased with the later orders of birth, but for each order of birth the short interval babies showed a higher rate from "other causes" than the rates in the other group. For the causes peculiar to early infancy, on the other hand, the short interval babies earlier than seventh in order of birth had rates definitely higher than the babies who followed a previous birth by two or three years; and the babies seventh or later in order of birth showed no differences in rates according to interval.⁸³ It would seem, therefore, that short intervals between births affect

⁸¹ See Table 165, Appendix VII, p. 357.

⁸² See Table 166, Appendix VII, p. 358.

⁸³ See Table 167, Appendix VII, p. 358.

CHART XXI.—Infant mortality rates from early infancy and from all causes for each order of birth groups, by interval since preceding birth; single births in 1915.



the care the mother is able to give the baby more than they affect the physical condition of the mother herself.

Again, at each age period of the mother, except among mothers less than 20 years old, there was a relatively high mortality from "other causes" among the short interval babies but no clear difference by interval in the mortality from early infancy. Under 20, however, the mortality from early infancy rose markedly among the short interval babies, while for all babies alike the mortality from "other causes" was high.⁸⁴

Variations in mortality according to the age of the mother and the order of the baby's birth can not, therefore, except in this group of babies born to mothers less than 20 years old, be ascribed to the prevalence in certain groups of short intervals between births. In fact, when all the babies who followed the preceding birth by an interval of less than two years are eliminated, the characteristic curves in the rates persist, except that the rise in the curve for causes peculiar to early infancy among babies of mothers under 20 years of age disappears. But while the curves have the same general outlines they are at several points lower when the short interval babies have been eliminated than they are for the entire group, and most notably so in the rates for causes other than early infancy among babies fourth to ninth in order of birth born to mothers 25 years old or older.^{84a}

TABLE V.—*Infant mortality rate,¹ by interval since preceding birth,² order of birth,² and age of mother; live births in 1915.*

Age of mother and order of birth. ²	Infant mortality rate. ¹	
	Interval under 2 years.	Interval 2 years and over.
Second and third births:		
Under 20 years.....	160.6	70.4
20-34 years.....	113.0	107.3
35 years and over.....		
Fourth to sixth births:		
20-34 years.....	142.3	81.2
35 years and over.....		82.9
Seventh and later births:		
20-34 years.....	166.7	110.4
35 years and over.....	185.0	122.6

¹ Not shown where base is less than 100.

² Includes miscarriages.

Summary.

It may fairly be concluded that although these three factors are closely bound together, yet each makes its own contribution to the general problem. In grouping the births according to the order of birth, it is found that, independently of age and interval, the births

⁸⁴ See Table 168, Appendix VII, p. 359.

^{84a} See Table 169, Appendix VII, p. 360.

seventh and later in order had a mortality higher than earlier births. The babies of mothers under 20 or over 35 years of age in general faced a greater hazard than other babies, although to this general rule there were certain exceptions. And the short-interval babies had throughout higher rates than other babies of the same orders of birth born to mothers of the same age periods.

Variations in rate with the different age periods of the mother appeared in the deaths from early infancy and also in the deaths from all other causes. But variations with the different orders of birth and the different intervals between births appeared more markedly in the mortality from other causes than in the mortality from early infancy.

Large families and short intervals were especially a problem in the poorer homes, where they were somewhat more prevalent than in prosperous homes. In the small group of prosperous homes the excess mortality that accompanied them elsewhere was greatly diminished or seemed to disappear entirely.

PLURAL BIRTHS.

Plural births show an infant mortality from two to four times as high as the infant mortality among single births, but the number of plural births is small and they are not, therefore, an important factor in the total mortality of a community. For example, if no plural births had occurred in the Baltimore group of births during 1915 the infant mortality rate would have been 97.1 per 1,000 instead of 103.5 per 1,000.^{84b}

Just over 1 per cent of the pregnancies studied resulted in plural births. Of all the births during 1915, 2.5 per cent were plural. But the losses among plural births were so great that, among the infants born in 1915 and surviving their first year of life, the number of twins or triplets was 1.7 per cent of the total survivors.

The three color and nativity groups showed practically no variation in the percentage of plural births. But there was a slight variation according to the age of the mother and the number of children she had borne. The younger mothers showed fewer plural births than the older mothers, the percentage of plural births increasing steadily from approximately 1 per cent among the mothers under 20 years of age to approximately 4 per cent among the mothers 35 years of age or over. A similar increase appears when the first, second, third, and later births are compared. Analysis of the births during 1915 seems to indicate that order of birth and age of mother are independent factors in the prevalence of plural births.⁸⁵

^{84b} See Tables 170, 171, 172, and 173, Appendix VII, pp. 361-362.

⁸⁵ See Tables 174, 175, 176, and 177, Appendix VII, pp. 362-363.

It is clear, also, that the mother who has once had a plural birth is more likely than other mothers to have plural births. Of the 38,211 pregnancies studied, 1.1 per cent resulted in plural births; of the 734 pregnancies subsequent to a plural birth, 3.7 per cent resulted in plural births. This simply indicates that the second occurrence of a plural birth is correlated with the occurrence of a first plural birth.

TABLE VI.—Loss rates—Comparison of single and plural births¹ in 1915.

Type of loss.	Loss rates.	
	Single births.	Plural births.
Miscarriages (per 100 births) ¹	3.6	5.4
Stillbirths (per 100 births).....	3.6	7.1
Infant mortality (per 1,000 live births).....	97.1	361.5
Early infancy.....	33.9	192.3
All other causes.....	63.2	169.2

¹ Includes miscarriages.

In every sense the losses were high among plural births. Miscarriages, stillbirths, and infant deaths were all more numerous among plural than among single births. The infant mortality among plural births showed its greatest excess in deaths from early infancy, but it was also high from all other causes combined. There was among the plural births a high percentage of premature births, but it was also found that among the full-term plural births the mortality rate (266 per 1,000) was more than three times the mortality rate (73.9 per 1,000) among the full-term single births.⁸⁶

TABLE VII.—Computed annual infant mortality rates, by type of feeding; comparison of plural and all live births in 1915.

Type of feeding.	Computed infant mortality rate.	
	All births.	Plural births.
Not fed; died at once.....	24.1	88.5
Breast fed.....	43.3	132.2
Mixed fed.....	87.4	256.2
Artificially fed.....	191.4	399.0

Among the plural births,⁸⁷ the percentage of infants artificially fed was high at each month from the first to the tenth; but, again, for each type of feeding considered separately, the computed rate per 1,000 infants fed was markedly higher among the plural-born than among the single-born children.

⁸⁶ See Tables 178 and 179, Appendix VII, pp. 363 and 364.

⁸⁷ See Table 180, Appendix VII, p. 364.

Of the 403 pregnancies⁸⁸ resulting in twin births, 40, or 9.9 per cent, ended in miscarriage of both fetuses and 3, or 0.7 per cent, ended in miscarriage of one fetus and live birth of the other. Among the pregnancies resulting in single births, on the other hand, 6.6 per cent ended in miscarriage.

Again, of these 403 pregnancies resulting in twin births, 9, or 2.2 per cent, ended in the stillbirths of both infants and 34, or 8.4 per cent, ended in the stillbirth of one infant and the live birth of the other. But among the pregnancies resulting in single births, only 3.3 per cent ended in stillbirth.

In 317 cases the twins were both born alive, and 150 pairs of twins, or 47 per cent of these plural live births, survived the first year; 90 pairs of twins, or 28 per cent of these plural live births died; and for each of 77 pairs of twins, or 24 per cent, there were one survivor and one infant death.

TABLE VIII.—*Survival or death of twins in pairs; births,¹ all pregnancies.*

Total pairs of twins.....	403	1 stillbirth and 1 live birth (survivals, 23; deaths, 11).....	34
Both miscarriages.....	40	1 miscarriage and 1 live birth (survival, 1; deaths, 2).....	3
Both stillbirths.....	9		
Both live births.....	317		
Both deaths.....	90		
1 survival and 1 death.....	77		
Both survivals.....	150		

¹ Includes miscarriages.

The infant mortality rate among these 634 twins who were both born alive was 405.4 per 1,000. But note the distribution of deaths and survivals. The twins tended both to survive or both to die. If the average mortality rate for the whole group of 634 twin-born infants had applied to them as individuals, the probable distribution of deaths would have doubled the number of cases where one twin survived and one twin died and reduced, correspondingly, the numbers of cases where both died or both survived.⁸⁹

⁸⁸ Among the total pregnancies the mothers had had.

⁸⁹ NOTE.—

	Pairs of twins.	
	Actual distribution.	Computed distribution.
Total.....	317	317
Both deaths.....	90	52.1
1 survival, 1 death.....	77	152.8
Both survivals.....	150	112.1

"Computed distribution" is derived from chance of death and chance of survival indicated in the average rate for the 634 infants—405.4 deaths per 1,000 live births. p =chance of death, or 0.4054; q =chance of survival, or 1 minus 0.4054, which is 0.5946. The formula $p^2+2pq+q^2$ gives the following expected distributions:

$$\text{Both deaths} = 317 \times (0.4054)^2 = 52.1.$$

$$\text{One died, one survived} = 317 \times 2(0.4054)(0.5946) = 152.8.$$

$$\text{Both survived} = 317 \times (0.5946)^2 = 112.1$$

PREMATURE BIRTHS.

Premature birth resulted in excessive mortality, especially during the first month of life, and in excessive losses from stillbirth and miscarriage. If the mortality rates among infants born at full term had been applicable to the entire group, the losses from stillbirth and miscarriage would have been 2.2 instead of 7 per 100 births, and the infant mortality rate would have been 77.7 instead of 103.5 per 1,000 live births. These differences indicate fairly the part played by premature birth in the total mortality. They do not reveal clearly the very great difference in hazard to infants born at full term and infants born prematurely.

Among the 11,613 births in 1915 and included in the study, 1,173 or 1 in 10 were born prematurely. Of these premature births, approximately one-half were stillborn; and of the live born premature infants, less than one-half survived 12 months. Five hundred and seven were born after less than seven months gestation, and in this group only 89 were live born and only 3 survived the year. Six hundred and sixty-four were born after seven months but less than nine months gestation, and in this group 500 were live born and 266 survived the year.

Comparing these losses with the losses among the full-term births, it appears that among the premature births 49.6 per cent of the births were stillborn (or miscarried) instead of 2.2 per cent stillborn, and 544.8 per 1,000 instead of 77.7 per 1,000 live births died within the year. Even when the births of less than seven months gestation are eliminated there was among the premature births a stillbirth rate of 24.7 per 100 births and an infant mortality rate of 468 per 1,000 live births.

The difference in mortality rates among premature and full-term births was greatest during the first month—453.5 per 1,000 live births in one group and 20.4 per 1,000 live births in the other group; after the third month the mortality among the prematurely born was still higher than among the others but the difference then was slight.⁹⁰

It has been noted in the analysis of the infant deaths in the Baltimore group that 477, or 43 per cent of the total, occurred within one month after birth. Of these deaths during the first month, 56 per cent occurred among infants prematurely born, although premature births were less than 6 per cent of the total live births.

It would seem, therefore, that the prevention of deaths in early infancy and the prevention of premature births are closely related to each other and alike depend on protection of the mother. The relatively high percentages of premature births which have been

⁹⁰ See Tables 181 and 182, Appendix VII, pp. 364 and 365.

noted among the first-born children and among all children of young mothers emphasize the great importance of adequate care and instruction for young mothers and for all mothers during their first pregnancy. The high percentage of premature births previously noted, also, among mothers gainfully employed away from home during pregnancy emphasizes the importance of freedom from physical strain.⁹¹ In all groups the percentage of premature births could doubtless have been greatly reduced by the general application of known principles of hygiene and medical care.

SEX OF INFANT.

The Baltimore group offered no exception to the general fact that male infants have a higher mortality than female infants. This appeared in a higher percentage of miscarriages, a higher stillbirth rate, a higher percentage of premature births, and a higher mortality among the full-term live-born infants.

TABLE IX.—*Loss rates, by sex; births¹ in 1915.*

Type of loss.	Loss rates.	
	Male.	Female.
Miscarriages (per 100 births ¹).....	3.4	1.6
Stillbirths (per 100 births).....	3.8	3.3
Premature births (per 100 live births).....	5.9	5.0
Infant mortality rate (all live births).....	115.1	91.3
Infant mortality rate (full-term live births).....	87.3	67.7
Infant mortality rate (premature live births).....	553.5	534.1

¹ Includes miscarriages.

The total number of male births was higher than the total number of female births in the native and foreign-born white families, and, in spite of the higher mortality among male infants, the number of males surviving the first year was also slightly higher than the number of females surviving the first year in these two groups. Among the colored births, on the other hand, there were more female births than male births and markedly more female survivors than male survivors.⁹²

MATERNAL DEATHS.

When a mother dies from childbirth or from any other cause within 12 months after a birth, her baby faces a special hazard. In the Baltimore group 106 births, including 72 live births, were to mothers who died during the following year. Among these live-born infants the mortality rate from all causes was 486.1 per 1,000, with a mortality from early infancy alone of 250 per 1,000. Among

⁹¹ See p. 117.

⁹² See Tables 183 and 184, Appendix VII, pp. 365 and 366.

the 32 live-born infants whose mothers died within 2 months after childbirth, or later in the year from a cause known to be connected with childbirth, the mortality rate from all causes rose to 625 per 1,000 and the mortality from early infancy to 375 per 1,000 live births. Even in so small a group, these rates indicate an excess hazard far beyond the range of a chance variation from the rates for infants whose mothers lived throughout the year—100.9 from all causes and 36.3 from the diseases of early infancy.

TABLE X.—*Infant mortality rates from specified causes, by survival or death of mother; live births in 1915.*

Survival or death of mother.	Live births.	Infant mortality rate.			
		All causes.	Gastric and intestinal diseases.	Early infancy.	All other causes.
Mothers surviving.....	10,725	100.9	28.6	36.3	36.0
Mothers dying.....	72	486.1	97.2	250.0	138.9
From childbirth or within 2 months.....	32	625.0	93.8	375.0	156.3
All other.....	40	375.0	100.0	150.0	125.0

The excess in mortality from gastric and intestinal diseases and from all other causes was less than the excess in mortality from early infancy and showed no such marked variation between the infants of mothers who died within 2 months after childbirth and the infants of mothers who died later in the year.

Among the births (whether miscarriages, stillbirths, or live births) to mothers who died within the year after the baby's birth a markedly high percentage of premature births was found, but this accounts only in part for the excessive infant mortality among infants whose mothers died. When the premature births and the full-term births are considered separately it appears that in each group the live-born infants whose mothers died within the year had a higher mortality than other live-born infants in the same group; but it is noted that the high mortality among premature infants whose mothers died was assigned wholly to early infancy while the high mortality among full-term infants whose mothers died was due to other causes.⁹³

Of the 106 births to the mothers who died, 34 were stillborn (or miscarried)—a total of 32.1 per cent. Of the 11,507 births to mothers who lived, 782 were stillborn (or miscarried)—a total rate of 6.8 per cent. Among the premature births the difference in loss was less marked in the two groups—54 per cent where the mother died and 49.5 per cent where the mother lived. But among the full-term births, the still-birth rate (20.3 per cent) was about 10 times higher when the mother died than when the mother lived (2.1 per cent).

⁹³ See Table 185, Appendix VII, p. 367.

Evidently the relation is close between hazard to the mother and hazard to her child. The live-born baby whose mother dies may suffer from the prenatal effect of the condition which leads to the mother's death; it may suffer from the lack of the mother's nursing and care. Premature birth and stillbirth or miscarriage may also result from a condition which leads afterwards to the mother's death. The data show unmistakably that a high infant mortality, a high percentage of prematurity, and high losses from stillbirth and miscarriage accompany the mothers' deaths.

Perhaps this relation appears even more clearly if the mortality rates among the mothers are considered. In the group as a whole 105 maternal deaths occurred within one year after the birth, or 9.7 per 1,000 live births. Fifty of these deaths were assigned to causes connected with childbirth; 18, or 1.7 per 1,000 live births, to puerperal septicemia; 14, or 1.3 per 1,000 live births, to puerperal albuminuria and convulsions; and 18, or 1.7 per 1,000 live births, to all other causes related to childbirth. But in addition to these 50 mothers whose deaths were ascribed to childbirth, 7 others died within one month, 4 after one month but in less than two months, and 7 after two months but within three months after confinement. If the confinement was a contributing cause of the mother's death in these 18 cases the actual loss from deaths related to childbirth would be approximately 6.3 per 1,000 live births. But these rates vary with the nature of the birth.

Among the 798 confinements resulting in stillbirths and miscarriages, 29 mothers died from causes related to childbirth or from other stated cause within three months after the birth—a death rate within the year of 36.3 per 1,000 confinements. But among the 10,665 resulting in live births, 39 mothers died from causes related to childbirth or from other stated cause within three months after the birth—a death rate within the year of 3.7 per 1,000 confinements.

Again, among the 1,131 mothers prematurely confined (whether with miscarriage, stillbirth, or live birth), 28 mothers died from such cause—a death rate of 24.8 per 1,000 confinements. And among the 562 mothers prematurely delivered of live-born children, considered by themselves, 13 mothers died from such causes—a death rate of 23.1 per 1,000 confinements.

On the other hand, among the 10,322 mothers delivered at full term, 40 maternal deaths occurred from such causes, or a death rate of 3.9 per 1,000 confinements. Behind this average, again, there was an excessive maternal death rate of 61.7 per 1,000 confinements among the 227 mothers delivered at term of stillborn infants, and a rate lower than the average for the entire group only among the mothers delivered at term of live-born infants.

STILLBIRTHS.

From the mothers' statements about all their pregnancies, it appears that in the group as a whole the total number of stillbirths and miscarriages, among the 38,630 births reported, was equal to 91 per cent of the total number of infant deaths occurring among their live-born infants—3,786 stillbirths and miscarriages and 4,158 infants deaths. In the Jewish families, with their exceptionally low infant mortality, the number of stillbirths and miscarriages—309—was greater than the number of infant deaths—232. And in the colored families, with their exceptionally high miscarriage and still-birth rates (as well as high infant mortality), the number of stillbirths and miscarriages—842—was also greater than the number of infant deaths—751. Only among the Polish families and the foreign other than Jewish, Polish, or Italian, were the total stillbirths and miscarriages markedly fewer than the infant deaths. The Poles, with an excessive infant mortality (chiefly from gastric and intestinal diseases) had an average stillbirth rate and a miscarriage rate below the average. The group of "other foreign" families showed an average mortality and average stillbirth rate but, like the Poles, a miscarriage rate below the average.⁹⁴

In the present study the word "stillbirth" refers to dead births of at least seven months gestation and "miscarriage" to dead births of a shorter term. The substantial agreement in stillbirth rates shown in the two sets of data suggests a fairly complete reporting of stillbirths, both in the registration of births during 1915 and in the mothers' statements about their previous pregnancies. On the other hand, registration of miscarriages seems to have been far from complete, since the miscarriage rates based on births during 1915 were in every nationality group markedly lower than the miscarriage rates based on all pregnancies. Whether the mothers' reporting of miscarriages was itself complete is a question that can not be determined. It may be noted, however, that the variations in miscarriage rate by nationality were approximately the same in the two sets of data—the colored rate above the average for all and the Polish and "other foreign" rates below the average for all.

The average loss from miscarriages (all pregnancies) was 67 per 1,000 births and the average loss from stillbirths (all pregnancies) was 33 per 1,000 births.

⁹⁴ See Tables 187 and 188, Appendix VII, p. 368.

Certain variations in stillbirth rates have been noted in earlier sections of the report: The rate rises with the mothers' employment away from home during pregnancy, with the mother's advancing years, and with the bearing of very large families.⁹⁵

What relation is there between stillbirth and infant mortality? Medical authorities agree that many of the causes of stillbirth and of deaths from causes peculiar to early infancy are identical. One would expect, therefore, to find the variations in stillbirth rates and in mortality from early infancy following the same general trend in the several groups. And it is true that the colored families, with a high infant mortality, especially high from early infancy, had the highest stillbirth rate in the Baltimore group. But the foreign-born Jewish families, with a low infant mortality, including a low rate from the causes peculiar to early infancy, the Polish families, with a high infant mortality and a rate above the average from early infancy, and the Italian families, with an average infant mortality and a rate somewhat below the average from early infancy, had approximately equal stillbirth rates, with such difference as there was tending toward a high stillbirth rate in the Italian families and a low stillbirth rate in the Polish families. Again, the foreign-born white group as a whole had a lower mortality from early infancy than the native-white group, but the stillbirth rates in the two groups were practically identical.

Except in the colored group, therefore, the data show no coincidence of stillbirths and infant deaths.

⁹⁵ See Tables 73, 103, 104, 132, 133, 144, 145, 149, 154, 189, and 190, Appendix VII, pp. 282, 305, 306, 335, 341, 342, 344, 348, 368, and 369.

ILLEGITIMATE BIRTHS.

It has been noted that certain families were excluded from the study of the normal group because of temporary absence from Baltimore or removal from the city. In studying the babies born out of wedlock a different method was followed. Information was secured about every baby of illegitimate birth for whom the facts could be ascertained, whether the baby and mother were still living in Baltimore or had left the city. One source of information was the birth and death certificates, and (since none but registered births were included) information was available from the birth certificates for all infants. This method of study, however, offered a complication in computing an infant mortality rate, since only deaths that occurred within the city were registered in Baltimore.⁹⁶

Besides securing this information, every effort was made to obtain an interview with the mother and to add detailed information on points not covered in the birth or death certificates. Shifting of residence of mother and baby was so frequent an occurrence that it was difficult to locate the mothers. A special effort was made, therefore, to secure information in regard to this shifting of residence and separation of mother and baby that are so characteristic of the life of the illegitimate baby.

THE MOTHERS.

Color and nativity.

Of the 12,045 births to white mothers registered as occurring during 1915 in Baltimore, 420, or 3.5 per cent, were illegitimate. Of the 2,555 births to colored mothers, 704, or 27.6 per cent, were illegitimate. In the illegitimate white group, less than half (192, or 45.7 per cent) were scheduled; in the illegitimate colored group, more than two-thirds (487, or 69.2 per cent) were scheduled.^{96a}

TABLE I.—*Color, nativity, and parentage of mother, by legitimacy of birth; scheduled legitimate and illegitimate births in 1915.*

Color, nativity, and parentage of mother.	Legitimate births.		Illegitimate births.	
	Number.	Per cent distribution.	Number.	Per cent distribution.
Total	11,613	100.0	679	100.0
White mothers.....	10,104	87.0	192	28.3
Native.....	7,210	62.1	174	25.6
Both parents native.....	(a)	(a)	111	16.3
One or both parents foreign.....	(a)	(a)	43	6.3
Parentage not reported.....	(a)	(a)	20	2.9
Foreign born ^b	2,894	24.9	18	2.7
Colored mothers.....	1,509	13.0	487	71.7

^a Parentage of mothers of legitimate children not reported, but compare census figures shown on p. 28.

^b Foreign-born white mothers of illegitimate children include 8 Polish, 3 German, 1 English, 1 Irish, 1 Scotch, 1 Lettish, 2 Russian Jewish, and 1 other Jewish. For nationalities of legitimate mothers see p. 29.

⁹⁶ See p. 168.

^{96a} See Table 191, Appendix VII, p. 369.

The nativity of the white mothers was tabulated only for the scheduled group, and among these 192 white mothers were 18 women of foreign birth, a percentage about one-third of the percentage of foreign-born women in the group of legitimate births to white women. It is not known whether the larger group of unscheduled illegitimate white births included also a low percentage of foreign-born women.

Employment.

Women employed outside their homes predominated, both among the white and colored mothers of children born out of wedlock. In the large group (total registered illegitimate births), the fact of the mother's employment or nonemployment during pregnancy was not reported for 31 per cent of the white women and 14 per cent of the colored women, but 53 per cent of the white women and 70 per cent of the colored women were stated to have been employed outside their homes. Twelve per cent of the white women and 10 per cent of the colored women were reported as not employed during pregnancy.⁹⁷

Domestic service was the chief occupation among the colored women and ranked second to factory work in importance among the white women. The mothers of 491, or 70 per cent, of the colored births and 88, or 21 per cent, of the white births were in domestic service and kindred occupations, which included those of laundress, waitress, cook, or kitchen girl, charwoman, nursemaid, and chambermaid. Of the white women 102, or 24 per cent, were factory operatives and of the colored women 40, or 6 per cent. The other white women who were employed were stenographers or clerks (13), saleswomen (6), nurses (4), school teachers (3), seamstresses (10), and telephone operators (3). Eight white women and 4 colored women were scattered among the following occupations: Chorus girl, companion, hairdresser, demonstrator, peddler, florist's helper, proprietor of grocery store, farm worker, maid in hospital, maid in department store, lady's maid, and prostitute.⁹⁸

Age.

The extreme youth of most of the mothers of children born out of wedlock is noteworthy. Fifty-five of them (5 per cent) were under 16 years of age, 180 (16 per cent) were 16 and 17 years of age, and 274 (24 per cent) were 18 but less than 20 years of age. Six of the girls under 16 and 9 of the girls between 16 and 20 years old were school girls. In all, 87 (17 per cent) of these mothers under 20 years of age are known not to have been gainfully employed, while among the

⁹⁷ In the scheduled group, with a smaller percentage of mothers whose employment or nonemployment was not reported, there were relatively more employed away and more not employed. Only the percentage employed at home remained approximately the same as in the entire group. For exact figures, see Table 192, Appendix VII, p. 370.

⁹⁸ See Tables 193 and 194, Appendix VII, pp. 370 and 371.

mothers 20 years or older the number known not to have been gainfully employed was only 6 per cent of the total. The colored mothers were somewhat younger than the white mothers—with 26 per cent under 18 years of age among the colored mothers and 13 per cent under 18 years of age among the white mothers. But, on the other hand, fewer of the colored mothers than of the white mothers were between 20 and 25 years of age, and among the colored mothers 12 per cent, but among the white mothers 9 per cent, were 30 years of age or older.⁹⁹

Civil condition at confinement.

The civil condition of the mother at the time of the birth is known only for the scheduled group, and even here it is not known for seven, or 4 per cent, of the white mothers and four, or 0.8 per cent, of the colored mothers. Of the white women, 78 per cent were single, 15 per cent were widowed, divorced, or separated from a husband, and 4 per cent were married. Of the colored women, 88 per cent were single, 11 per cent were widowed, divorced, or separated from a husband, and 1 per cent were married.¹

Previous births.

The illegitimate birth in 1915 was, in the majority of cases, the first the mother had borne, but one in four of the white mothers and about two in five of the colored mothers (scheduled group) had previously had at least one illegitimate birth. Among both the white and the colored women were a few, also, who had borne one or more legitimate children but no illegitimate child previous to the 1915 birth.

The order of birth of the illegitimate birth in 1915 is known for the entire group, with the exception of one white child and four colored children for whom it was not reported on the birth certificate. Eighty-two per cent of the white births and 58 per cent of the colored births were first-born children; 5 per cent of the white births and 15 per cent of the colored births were fourth or later-borne children. Cases other than the first birth proved slightly easier to trace, so in the scheduled group the percentage of first-born children dropped to 73 per cent of the white births and 55 per cent of the colored births.

Only for the scheduled group is the legitimacy of the previous births known. In this group (192 white and 487 colored) there were 52 white women and 219 colored women who had borne other children. For 4 white women and 9 colored women the legitimacy of the previous births was not reported; for 16 white women, or 8.3 per cent of the total scheduled, and for 21 colored women, or 4.3 per cent of the total scheduled, the previous births had all been legitimate. The white women had borne from 1 to 6 legitimate children and the colored

⁹⁹ See Tables 195 and 196, Appendix VII, pp. 371 and 372. ¹ See Table 197, Appendix VII, p. 372.

women from 1 to 9 legitimate children. Twenty-four white women (or 12.5 per cent of the total scheduled) and 165 colored women (or 33.9 per cent of the total scheduled) had borne only illegitimate children, the white women from 1 to 3 children previous to the birth of 1915 and the colored women from 1 to 12 children previous to the birth of 1915. In all, including the birth of 1915, these 24 white women had borne 57 illegitimate children and these 165 colored women had borne 531 illegitimate children. In addition, 8 white women and 24 colored women (4.2 per cent and 4.9 per cent, respectively, of the totals scheduled) had borne at least 1 illegitimate and 1 legitimate child previous to the birth of 1915, or a total, including the birth of 1915, of 59 white children and 162 colored children.²

Literacy.

One other item is known about the scheduled mothers of illegitimate children. A slightly higher percentage of these women than of the mothers in the legitimate group were illiterate—10.9 per cent of the white women, instead of 9.3 per cent, and 16.2 per cent of the colored women, instead of 12.4 per cent.

THE FATHERS.

Information about the fathers is comparatively meager. The birth certificates supposedly state the father's color, age, and occupation, but the age was not reported for 29.5 per cent of the fathers of white children and 9.5 per cent of the fathers of colored children,³ and the occupation was not reported for 35.5 per cent of the fathers of white children and 11.8 per cent of the fathers of colored children. The father's color was stated, however, for all except the fathers of 15, or 2.1 per cent, of the births to colored women.

Two of the 420 white women had births by colored fathers. About these colored fathers nothing is stated except that one had died before the birth. Two of the 704 colored mothers are stated to have had births by white fathers, one classed as "teamster, chauffeur, or delivery man," and one as "clerk." But there may have been other white fathers in the group of 15 cases where the mother was colored and the color of the father was not reported. The occupations of these 15 fathers were not reported.

Unfortunately, the occupations of the fathers as stated on the birth certificates do not lend themselves to exact classification or comparison with the occupations of the fathers of legitimate children. The fathers were so scattered through the various types of occupations that, except for the 277 colored laborers and the 88 colored "teamsters, chauffeurs, and delivery men," the number of white or

² See Tables 198, 199, and 200, Appendix VII, pp. 373, 374, and 375.

³ See Tables 201 and 202, Appendix VII, pp. 375 and 376.

colored fathers of children born out of wedlock in any 1 of the 19 occupations given was less than 40 and frequently less than 10. Moreover, any conclusions as to the prevalence of certain types of occupations among the fathers of illegitimate children based on less than two-thirds of the white group and less than nine-tenths of the colored group would, in any case, be subject to serious error. Inexact registration of occupation is also an important factor. The number of colored "laborers," for example, in the illegitimate group, represented 45.6 per cent of the colored fathers in that group having a stated occupation, while in the colored legitimate group 34.5 per cent of the fathers having a stated occupation were classified as laborers. This apparent excess of laborers in the illegitimate group might indicate nothing but a tendency on the part of physicians and midwives to classify all unskilled workers as laborers.⁴

Both the white and colored fathers seem to have been older than the mothers. Omitting the 124 white fathers and the 67 colored fathers whose ages were not reported, in the white group 6 per cent were under 20 years of age and 20 per cent 30 years of age or older; in the colored group, 14 per cent were under 20 years of age and 25 per cent 30 years of age or older.⁵

THE BIRTHS.

Place of confinement and attendant at birth.

Far more of the illegitimate births than of the others occurred in hospitals. In the total group of illegitimate births, 46 per cent were hospital births as against 13 per cent in the total group of legitimate births and 10 per cent in the scheduled group of legitimate births.

Fifty-six illegitimate births, or 5 per cent of the total, occurred in institutions, including two infants born in jail. The illegitimate births in hospitals and institutions were more difficult to trace than those in private houses. Less than half the hospital births were scheduled and only 10 of the 56 births in institutions, while of the 551 births in private houses 424 were studied in detail. But even with the relatively small number of hospital births included in the scheduled group there still was in that group a percentage of hospital births (36 per cent of the total number scheduled) far in excess of the percentage of hospital births in the legitimate groups.

A relatively high percentage of births attended by physicians accompanied, of course, the high percentage of hospital births in the illegitimate group.⁶

Prenatal care.

For the scheduled illegitimate births, information was secured about the mother's prenatal care. Of the white women the per-

⁴ See Table 201, Appendix VII, p. 375.

⁶ See Tables 203 and 204, Appendix VII, p. 377.

⁵ See Table 202, Appendix VII, p. 376.

centage reporting no prenatal care by a physician was the same among the legitimate and the illegitimate births, but a slightly smaller percentage of the mothers of children born out of wedlock than of the others reported prenatal care of grade A or B. Among the colored mothers of children born out of wedlock, however, a smaller percentage reported no prenatal care and a slightly higher percentage reported prenatal care of grade A or B than among the legitimate colored mothers.^{6a}

CONDITIONS DURING YEAR AFTER BIRTH.⁷

Relation of mothers and fathers.

Thirteen per cent (25) of the white mothers of children born out of wedlock and 18 per cent (86) of the colored mothers lived with the men by whom they had borne children in 1915 during the whole or the greater part of the year following the birth. But although more of the colored mothers than of the white mothers lived with the fathers of their children, slightly more of the white mothers than of the colored mothers were married to them during the year—10 per cent of the white mothers and 8 per cent of the colored mothers. These marriages include in the white group 2 women (or 1 per cent of all the white mothers) and in the colored group 9 women (or 2 per cent of all the colored mothers) who did not live with the fathers of their children during the greater part of the year following the 1915 birth.⁸

In addition to these 25 white women and 86 colored women who lived with the men by whom they had borne illegitimate children in 1915, there were 50 white women, or 26 per cent of the total, and 171 colored women, or 35 per cent of the total, who reported that the fathers of their children had contributed something to their own or their child's support. For 12 per cent of the white women and 4 per cent of the colored women, no report was made as to whether or not the father contributed to the support of mother or child. The median amounts contributed by both the white and the colored fathers were between \$50 and \$100. In the colored group, however, there were relatively more contributing under \$5—4 per cent (17) instead of 0.5 per cent (1) of the white group—and also relatively more contributing \$100 and over—9 per cent (45) instead of 6 per cent (13).

The number of fathers who did not live with the mothers and contributed nothing to the support of mother or child was relatively greater in the white group than in the colored group—white, 49 per cent (94); colored, 43 per cent (211).

^{6a} See Table 205, Appendix VII, p. 378.

⁷ The statements about conditions during the year following the birth are based entirely on the scheduled group—192 white issues and 487 colored issues.

⁸ See Tables 197 and 206, Appendix VII, pp. 372 and 378.

In both groups the percentage who contributed nothing to the mother's support was higher where the birth was a stillbirth or miscarriage than where it was a live-born infant. The difference was especially marked in the white group. But even where the infants were live-born, more of the white fathers than of the colored fathers contributed nothing to the support of mother or child.⁹

Where the mothers lived.

Two-fifths of the mothers in both groups lived in their parental homes during the year after the birth. And these women, together with the women who lived with the child's father, were considerably more than half of the mothers, both white and colored.

It has been noted that more of the colored mothers than of the white mothers lived with the fathers of their children. It was found also that more of the colored mothers than of the white mothers lived with relatives or friends other than their parents or the fathers of their children. On the other hand, 10 per cent (19) of the white mothers but none of the colored mothers lived in an institution or hospital.

TABLE II.—*Mother's mode of living during whole or greater part of year after confinement; scheduled illegitimate births¹ in 1915.*

Mother's mode of living during whole or greater part of year after confinement.	Per cent distribution: scheduled illegitimate births in 1915.	
	White mothers.	Colored mothers.
Total.....	100.0	100.0
Parental home.....	41.1	40.2
With other relatives or friends.....	6.3	11.5
With father of child.....	13.0	17.7
Own establishment or boarding.....	12.0	12.3
At service.....	3.1	3.1
In institution or hospital.....	9.9	.....
With husband or other man (not father of child).....	2.6	2.3
Died.....	1.6	2.3
Not reported.....	10.4	10.7

¹ Includes miscarriages.

The white group studied in detail includes 39 stillbirths, miscarriages, and infant deaths under 2 weeks of age and 153 infants who lived at least two weeks. The colored group includes 112 stillbirths, miscarriages, and infant deaths under 2 weeks of age and 375 infants who lived at least two weeks. A comparison of the mode of living of the mothers whose babies lived two weeks and of the others reveals certain differences which can not be pressed to definite conclusions but which should be noted. Among the women whose in-

⁹ See Tables 207 and 208, Appendix VII, pp. 379 and 380.

fants had survived the first two weeks certain types of living arrangements were reported by relatively more than among the mothers of dead births or of infants dying within two weeks after birth. Thus, in the white and in the colored group, more mothers were living independently, more mothers were living at service, and more mothers were living with friends or relatives other than their parents. And among the white mothers, also, a higher percentage were in an institution or a hospital and among the colored mothers a higher percentage lived in their parental homes. On the other hand, fewer, both of the white and of the colored women, were living with the father of the child or with some other man, and among the white women fewer were living in their parental homes.

TABLE III.—*Mother's mode of living during whole or greater part of year after confinement, by color of mother; scheduled illegitimate births¹ in 1915.*

Mother's mode of living during whole or greater part of year after confinement.	Per cent distribution; ² scheduled illegitimate births ¹ in 1915.			
	White mothers.		Colored mothers.	
	Stillbirths, miscarriages, or deaths under 2 weeks.	Infants surviving 2 weeks.	Stillbirths, miscarriages, or deaths under 2 weeks.	Infants surviving 2 weeks.
Total.....	100.0	100.0	100.0	100.0
Parental home.....		40.5	35.7	41.6
With other relatives or friends.....		6.5	6.3	13.1
With father of child.....		12.4	21.4	16.5
Own establishment or boarding.....		12.4	9.8	13.1
At service.....		3.9	2.7	3.2
In institution or hospital.....		11.1	.....	.....
With husband or other man (not father of child).....		1.3	4.5	1.6
Died.....		7	3.6	1.9
Not reported.....		11.1	16.1	9.1

¹ Includes miscarriages.

² Not shown where base is less than 100. See Table 206, Appendix VII, pp. 378-379.

Civil condition of mother at one year after confinement.

It has been noted that 4 per cent (7) of the white mothers of children born out of wedlock and 1 per cent (5) of the colored mothers were married women; and, further, that 3 per cent (5) of the white mothers and 2 per cent (11) of the colored mothers in this group lived during the whole or the greater part of the year following the confinement with a husband or some other man, not the father of the illegitimate child born in 1915. Comparing the civil condition of the mother at confinement with her civil condition one year later, it is found that these women who spent the whole or the greater part of the year with a husband or some other man were only part of the total number who definitely reported marriage during the year to a man other than the father of the illegitimate child.

Thus, among the white mothers 9 single women and 3 who had been widowed or divorced, were married to a man other than the father of the child, and of the 7 white mothers of children born out of wedlock who were married women, 6 were living at the end of the year. Apart, therefore, from the 15 white women whose civil condition at the end of the year was not reported, there were at least 13 white women, or 7 per cent of the total, who lived with a man other than the father of the illegitimate child at some time during the year after the birth, in addition to the 5 women (3 per cent of the total) who reported spending the whole or the greater part of the year with such a man.

Among the colored mothers 16 single women were married during the year to a man other than the father of the child and 5 had been married women at the time of the birth. Hence, apart from the 16 colored women whose civil condition at the end of the year was not reported, there were at least 17, or 4 per cent of the total, who lived with a man other than the father of the illegitimate child at some time during the year after the birth, in addition to the 11 women (2 per cent of the total) who reported spending the whole or the greater part of the year with such a man.

To what extent, if at all, the mothers of children born out of wedlock in either the white or the colored group lived with the fathers of their children or with other men for short periods during the year the data do not indicate.

Of the 149 single women among the white mothers of children born out of wedlock, 79 per cent were single at the end of the year, 11 per cent had been married to the father of the child, and 6 per cent had been married to another man. Of the 29 white mothers who had been widowed, divorced, or separated at the time of the birth, 69 per cent reported their civil condition as unchanged, 10 per cent had been married to the father of the child, and 10 per cent had been married to another man.

Of the 426 single women among the colored mothers of children born out of wedlock, 82 per cent were single at the end of the year, 9 per cent had been married to the father of the child, and 4 per cent had been married to another man. Of the 52 colored mothers who had been widowed, divorced, or separated at the time of the birth, 96 per cent reported their civil condition as unchanged a year later. Two per cent (1 mother) had been married, but whether to the father of the child or to another man is not known.

For 8 per cent of the white women and 3 per cent of the colored women the civil condition at the end of the year was not reported. These 15 white women included not only the 7 whose civil condition at the time of the birth was not reported but also 6 who were single

and 2 who were "widowed, divorced, or separated" at the time of the birth. And these 16 colored women included not only the 4 whose civil condition at the time of the birth was not reported but also 12 who were then single.¹⁰

Maternal deaths.

A relatively high percentage of these mothers are known to have died during the year. Classifying the maternal deaths according to the stated cause of death, it is found that among this group of mothers the deaths assigned to causes directly related to childbirth numbered 9 per 1,000 confinements, while among the mothers of children born in wedlock they numbered 4.4 per 1,000. Deaths occurring within the year but assigned to other causes numbered among these mothers 11.9 per 1,000 confinements, but among the mothers in the legitimate group 4.8 per 1,000. That the high maternal death rate in the illegitimate group is not due wholly to the large proportion of colored women, whose hazard in childbirth is usually greater than the hazard to white women, is suggested by the fact that in the legitimate group as a whole the maternal deaths from all stated causes were 9.2 per 1,000 confinements; in the illegitimate group the maternal deaths from all stated causes among white women totaled 15.7 per 1,000 confinements and among colored women 22.9 per 1,000. Evidently the death rate among mothers of children born out of wedlock is excessive, not only among the white mothers but also among the colored mothers, as compared with the rates among mothers in the legitimate group.¹¹

Economic status of the mothers.

Of the economic status of the mothers during the year after the birth of an illegitimate child in 1915 there is little exact information. Such data as there are indicate extreme poverty. It has been noted that 49 per cent (94) of the white mothers and 43 per cent (211) of the colored mothers did not live with the fathers of their children and received no support from them, and that the amounts paid toward the support of the mother and child by those fathers who did not live with them but made some contribution were in most cases very small. Fifty white fathers (26 per cent) and 171 colored fathers (35 per cent) made contributions, but only 13 of these white fathers and 45 of these colored fathers contributed \$100 or more. The median earnings of the white fathers and of the colored fathers who lived with the mother and whose earnings were stated were lower than the median earnings of white and of colored fathers in the normal

¹⁰ See Table 197, Appendix VII, p. 372.

¹¹ See Table 209, Appendix VII, p. 381.

group. Part of the difference may have been due to the relatively high percentage in the illegitimate groups whose earnings were not reported, and, furthermore, a difference appearing in a group so small as that of the fathers of children born out of wedlock who lived with the mothers during the year after the birth can not be pressed to definite conclusions.¹²

No information was obtained regarding the economic status of the mother's parents, or the extent to which the material needs of the mothers were provided for in the large number of cases where the women lived in their parental homes during the year after the birth. But 80 per cent of the women in the scheduled group were gainfully employed during the year before the birth and at least 77 per cent during the year after the birth. The actual percentages may have been even higher, since the fact of employment or nonemployment was not reported for 3 per cent during pregnancy and for 4 per cent during the year following. The earnings of the mothers were utterly inadequate for their support. Only 12 mothers of the 501 who worked during the year earned as much as \$350. Or, considering separately the 297 mothers who worked at least nine months of the year, it is found that more than half this group earned less than \$250, with 7 mothers earning less than \$50 in cash (although 4 of these received meals in addition) and 2 mothers working for room and board with no cash wages whatever.¹³

More than two-thirds (68 per cent) of the women who had been employed during pregnancy returned to their former occupations or to other occupations included in the same group; 20 per cent shifted to a new occupation; 11 per cent did not resume gainful employment; and for 2 per cent of those employed during pregnancy employment during the year following was not reported. Of the mothers who had not been employed during pregnancy, 40 per cent were employed during the year after the birth. Comparing the total numbers engaged in the five principal occupations during pregnancy and during the year following, it appears that the numbers working in domestic service and in factory work decreased while the numbers working in the occupations akin to domestic service—as laundress, waitress, cook, or kitchen girl, or as charwoman—increased.¹⁴

Where the babies lived.

One in three of the white babies and one in six of the colored babies were, at some time during the year, in an institution or a boarding home or boarding with a private family. The white babies were chiefly in institutions and the colored babies chiefly in boarding homes or boarding in private homes.

¹² See Table 207, Appendix VII, p. 379.

¹⁴ See Table 194, Appendix VII, p. 371.

¹³ See Tables 192, 194, and 210, Appendix VII, pp. 370, 371, and 382.

TABLE IV.—*Infant's place of residence, by color of mother; scheduled illegitimate live births in 1915.*

Infant's place of residence.	Scheduled illegitimate live births in 1915.			
	White mothers.		Colored mothers.	
	Number.	Per cent distribution.	Number.	Per cent distribution.
Total.....	163	100.0	409	100.0
Institution.....	29	17.8	4	1.0
Institution and boarded.....	6	3.7	1	.2
Boarding home.....	15	9.2	39	9.5
Boarded in private home.....	3	1.8	23	5.6
Boarding home and private home.....	1	.6	3	.7
Never inmate of institution or boarded.....	108	66.3	339	82.9
Not reported.....	1	.6		

But not all these infants spent the whole, or even the greater part, of the year, or of their lives, in an institution or boarding. Among those who survived the first two weeks of life, approximately four-fifths of the infants (78 per cent of the white infants and 82 per cent of the colored infants) spent more than half of the year (or of their lives) with their mothers. In addition, 4 per cent of the white infants and 1 per cent of the colored infants lived more than half the time with foster parents, and 4 per cent of the colored infants (but none of the white infants) with the mother's relatives. Among the remainder—the 18 per cent of the white infants and the 13 per cent of the colored infants who had survived the first two weeks of life and spent the greater part of the year in an institution or boarding—it appears again that institutions predominated for the white infants and boarding homes or boarding in private homes predominated for the colored infants.

TABLE V.—*Infant's place of residence during greater part of first year of life, by color of mother; scheduled illegitimate infants surviving the first two weeks.*

Infant's place of residence during greater part of first year.	Scheduled illegitimate infants surviving first 2 weeks.			
	White mothers.		Colored mothers.	
	Number.	Per cent distribution.	Number.	Per cent distribution.
Total.....	153	100.0	375	100.0
With mother's relatives.....			13	3.5
With foster parents.....	6	3.9	4	1.1
In institution or hospital.....	16	10.5	1	.3
In boarding home.....	8	5.2	31	8.3
In private home.....	3	2.0	15	4.0
With others.....			2	.5
With mother.....	120	78.4	309	82.4
Never separated from mother.....	97	63.4	279	74.4
Away part of time.....	23	15.0	30	8.0

Of the 33 white infants away from the mother more than half the year 16 were among the 17 whose mothers' mode of living was not reported. And of the 66 colored infants away from the mother 30 were among the 34 whose mothers' mode of living was not reported. For the others, a smaller percentage of the infants in both the white and colored groups were away from the mother when she lived with the father or with another man than under any other circumstances. In the colored group, the next smallest percentage of infants away from the mother appeared in the group whose mothers lived in their parental homes. But this was not so in the white group. There the mothers living in an institution, the mothers having their own establishments or boarding, and the mothers living with relatives (other than parents) or with friends all showed a smaller percentage whose infants were separated from them than the mothers living in their parental homes.¹⁵

TABLE VI.—*Mother's mode of living, by color and separation of infant from mother; scheduled illegitimate infants surviving first two weeks.*

Mother's mode of living.	Scheduled illegitimate infants surviving the first 2 weeks.					
	White mothers.			Colored mothers.		
	Total.	Away from mother. ¹		Total.	Away from mother. ¹	
		Number.	Per cent.		Number.	Per cent.
Total.....	153	33	21.6	375	66	17.6
Parental home.....	62	10	16.1	156	7	4.5
With other relatives or friends.....	10	1	10.0	49	10	20.4
With father of child.....	19	.....	.....	62	2	3.2
Own establishment or boarding.....	19	2	10.5	49	4	8.2
At service.....	6	3	50.0	12	9	75.0
In institution or hospital.....	17	1	5.9	.....	.....	.....
With husband or other man (not father of child).....	2	.....	.....	6	.....	.....
Died.....	1	.....	.....	7	4	57.1
Not reported.....	17	16	94.1	34	30	88.2

¹ During whole or greater part of year, or of life.

SUMMARY OF SOCIAL BACKGROUND.

In so far, therefore, as the scheduled group, including 46 per cent of the total white illegitimate births and 69 per cent of the total colored illegitimate births occurring during 1915, offers a fair picture of the condition of these mothers and their babies, it indicates certain differences in the status of mothers of children born out of wedlock among the colored population and the white population which may account for the greater excess in mortality among white illegitimate infants, which is revealed in the discussion below of deaths and mortality rates.

¹⁵ For more detailed figures, see Table 211, Appendix VII, p. 383.

Births out of wedlock were more common among colored women than among white women. Not only was there a high percentage of illegitimate births in the total births during the year, but also among the colored mothers a relatively high percentage reported having borne several illegitimate children previously.

More of the colored than of the white mothers were single women; fewer had been widowed, divorced, or separated, fewer were married women at the time of the birth, and fewer were married either to the father of the child or to another man during the year following the birth. But, on the other hand, a higher percentage of the colored women than of the white women lived with the father of the child during the whole or the greater part of the year after the birth, and a higher percentage of the colored women than of the white women who did not live with the father of the child received some contribution from him toward their support, including a higher percentage in the colored group who received at least \$100 from the father of the child.

More of the colored mothers than of the white mothers kept their babies with them throughout the year (or until the baby's death within the year). And 20 per cent of the colored babies who were separated from their mothers—but none of the white babies who were separated from their mothers—were cared for by the mother's relatives.

The difference in the white and colored mothers' relation to their parental homes was most marked. The percentage who lived in their parental homes during the year after the birth was practically identical in the two groups as a whole. But in the colored group more mothers (instead of fewer) lived in their parental homes when the baby had survived the first two weeks than when the baby had died within two weeks or had been stillborn. And of all the mothers whose babies had survived two weeks and who lived in their parental homes, only 5 per cent in the colored group (instead of 16 per cent as in the white group) had their babies cared for elsewhere.

MORTALITY AMONG ILLEGITIMATE INFANTS.

The group of 1,124 illegitimate births registered as occurring in Baltimore during the year 1915, faced excessive hazards, but the mortality rates which can be computed for the illegitimate babies can not be pressed to exact comparisons with the legitimate group for two reasons: (1) The large-number of illegitimate infants whose condition at the end of the year is not known (256 in a total of 955 live births) involves a wide margin of probable error in the rates based on the total illegitimate group; (2) in the scheduled group of illegitimate infants the basis of inclusion is broader than the basis of inclusion in the scheduled group of legitimate births, but the

difficulties of tracing the babies were so great that the scheduled group is relatively smaller among the illegitimate births than among the legitimate births and probably less representative of the entire number¹⁶ in social conditions and in mortality rates.

The true infant mortality rates for the illegitimate group as a whole were probably higher than the rates which may be computed from all known infant deaths, whether scheduled or unscheduled, and the total (955) live births, since among the 256 cases which could not be traced and whose condition at 1 year of age was unknown some deaths under one year doubtless occurred. The rate of 294.2, based upon the total illegitimate births and the known infant deaths, is therefore an understatement of the true rate. The scheduled group, however, including those infants who could be located and traced to the end of the year, or, in other words, including roughly the group of infants whose mothers remained in Baltimore at or near the places from which births were registered, showed a rate of 300.7, slightly higher than the rate based on the total births. It can not be assumed, however, that this rate indicates the true rate for all illegitimate infants. In any case it is clear that the illegitimate infants had a mortality markedly higher than the legitimate infants.

White and colored infants.

The live-born colored illegitimate infants (581 in number) had a mortality rate of 280.6, based upon births and known infant deaths per 1,000 births. The live-born white infants (374 in number) had a mortality rate of 315.5 on the same basis.¹⁷ In the scheduled group of illegitimate infants, the rate among the colored babies was 293.4 per 1,000 and among the white babies 319 per 1,000. It will be noted, therefore, that among the colored births the mortality of illegitimate infants approached twice the mortality (158.6 per 1,000) of legitimate infants, while among the white births the mortality of illegitimate infants was more than three times as great as the mortality (95.9 per 1,000) among legitimate infants. This greater excess in mortality among the white illegitimate births accompanied an odd reversal in rates: In the legitimate groups the colored babies had a markedly higher mortality than the white babies; in the illegitimate groups the white babies had a slightly higher mortality than the colored babies. Among both white and colored infants, although the excess hazard to illegitimate babies can not be measured exactly, the fact of an excess hazard is clearly established.¹⁸

¹⁶ The unscheduled illegitimate infants include 256 live-born infants whose condition at the end of the year is not known, 18 live-born infants who are known to have survived the year, and 109 live-born infants who are known to have died.

¹⁷ The degree of uncertainty as to the mortality among illegitimate white infants was much greater than that among illegitimate colored infants; in the white group, the condition at one year after birth, whether alive or dead, of 133, or 36 per cent, was unknown; in the colored group the condition of 123, or 21 per cent of the total colored, was unknown.

¹⁸ See Table 212, Appendix VII, p. 384.

TABLE VII.—*Infant mortality rates, by legitimacy of births and color of mother; live births in 1915.*

Color of mother.	Infant mortality rate.		
	Legitimate infants.	Illegitimate infants.	
		Total.	Scheduled.
Total.....	103.5	294.2	300.7
White.....	95.9	315.5	319.0
Colored.....	158.6	280.6	293.4

Age at death and stated cause of death.

At all ages under 1 year and among the deaths from all stated causes an excess mortality among the illegitimate infants persisted. The excess was greatest, however, in both white and colored groups, in the deaths during the second and third months. This may reflect a genuine peak in the excess hazard or it may reflect a grouping in the later months of infant deaths among the 256 illegitimate infants whose condition at 1 year is not known.¹⁹ The one stated cause of death which showed an excess in mortality above the average excess for all causes was syphilis. But, again, this fact should be qualified by the reminder that less effort might be made in the case of an illegitimate infant than in the case of a legitimate infant to assign a death from syphilis to some other cause.²⁰

Employment of mother.

Employment away from home was far more prevalent among the mothers of children born out of wedlock than in the normal group, even comparing white mothers with white mothers and colored mothers with colored mothers. Apparently, also, these mothers resumed their work after the birth a little sooner than the others. With the limitations already noted as due to the different basis of computation, a rough comparison can be made of the mortality in the two groups among infants of mothers employed away from home during pregnancy; and for both the white and the colored illegitimate infants of working mothers a mortality is found definitely higher than that for legitimate infants of working mothers of the same race. Furthermore, it is to be noted that the illegitimate infants of mothers working away during pregnancy had a mortality only slightly higher than that of the other illegitimate infants.

In one point, however, the effect of employment away from home seems to appear even in the illegitimate group. Among the illegiti-

¹⁹ It may fairly be assumed that relatively few of the infants were removed from Baltimore during the first month, and, further, that such deaths as occurred among the 256 untraced infants occurred chiefly out of the city—therefore, chiefly after the first month of life.

²⁰ See Tables 213, 214, 215, and 216, Appendix VII, pp. 385 and 386.

mate births, as among the legitimate, the percentage of premature births was higher when the mother worked during pregnancy than when she did not. But, also, the percentage of premature births was higher among the mothers of children born out of wedlock not employed than among the working mothers in the legitimate group. The infant mortality rates among the full-term illegitimate live births were higher, also, than the infant mortality rates among full-term legitimate live births.²¹

Poverty.

The economic status of the mothers is not clear. Such amounts as are reported for the mothers' earnings and for the fathers' contributions indicate a small income for the mother and suggest that the mortality rates among the illegitimate infants should be compared with the mortality rates among the legitimate infants whose fathers earned nothing or less than \$450. This comparison shows that among both white and colored infants, the illegitimate births had higher mortality rates than legitimate births of the same race in families where the father earned nothing at all or less than \$450.

TABLE VIII.—*Relative mortality rates, by color, among scheduled illegitimate infants, in comparison with legitimate infants in lowest fathers' earnings groups.*

Earnings of father and legitimacy of infant.	White mothers.		Colored mothers.	
	Live births.	Infant mortality rate.	Live births.	Infant mortality rate.
Legitimate births—Earnings of father:				
Under \$450.....	1,037	153.3	507	163.7
No earnings.....	138	210.1	69	202.8
Illegitimate births.....	374	315.5	581	280.6

Conditions peculiar to illegitimacy.

The irregular relation of the father and mother, the separation of a considerable percentage of the infants from their mothers, and, in particular, the placing of the babies in an institution or boarding home, seem to have been responsible in large measure for the high mortality among illegitimate infants. These factors do not, however, account for it entirely. The very slight difference in mortality between the white and the colored illegitimate infants, has already been noted and in the present discussion they will be considered together.

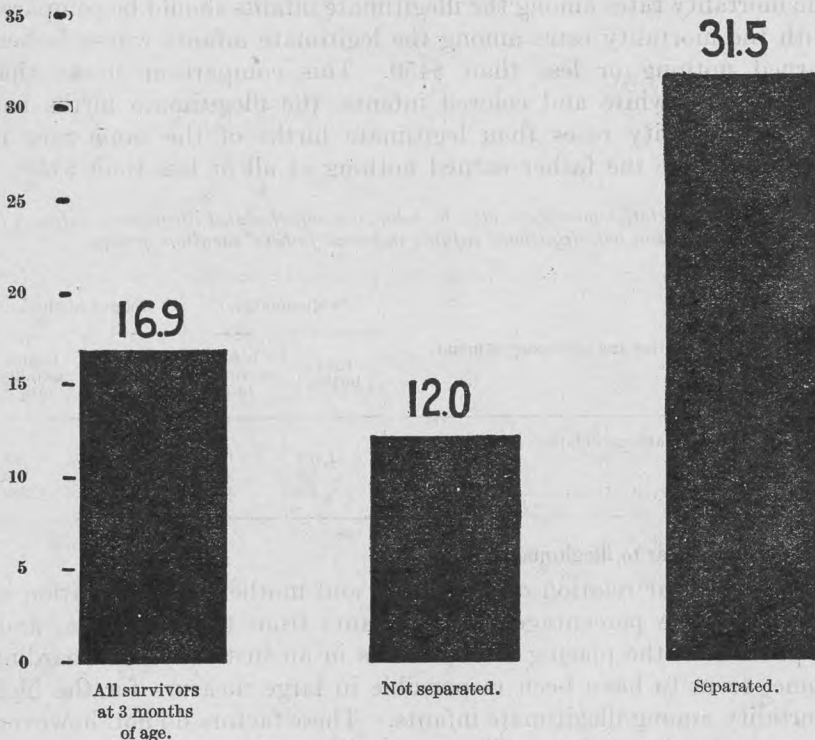
In the scheduled group of illegitimate children as a whole, the infant mortality rate was 300.7 per 1,000 live births. Among the 199 infants whose mothers did not live with the fathers but received something from the fathers for their support, 46 deaths occurred within the year—an infant mortality rate of 231.2 per 1,000. This

²¹ See Tables 212, 218 and 219, Appendix VII, pp. 334 and 387.

rate was definitely lower than the rate (309.9 per 1,000) among the 242 infants whose mothers did not live with the fathers and received nothing from them, and lower than the rate (347.8 per 1,000) among the 92 infants whose mothers and fathers lived together during the whole or the greater part of the year following the birth. However, 19 deaths occurred among the 39 infants for whom the relation of the mother and father was not reported and a true distribution of these deaths among the other groups might shift the relation of the mortality rates.²²

CHART XXII.—Per cent of deaths before end of first year of life among illegitimate infants surviving at 3 months of age, according to separation from mother.

Per cent
of deaths.



The infants separated from their mothers had a mortality from two to three times as high as the infants who stayed with their mothers. Of the survivors at 3 months of age 17 per cent died before the end of the year—12 per cent in the group who stayed with their mothers, and 32 per cent in the group who were separated from their mothers. Again, of the survivors at 6 months of age, 11 per cent died before the end of the year—8 per cent in the group who stayed with their mothers

²² See Table 221, Appendix VII, p. 388.

and 24 per cent in the group who were separated from their mothers. A similar difference appears if the colored infants are considered by themselves.²³ It may be questioned whether the scheduled group indicates fairly the part played by the separation of the infant from his mother in the total mortality among all illegitimate infants, since the percentage of infants away from their mothers may have been higher among those who could not be traced than among those for whom it was possible to secure detailed information. But the rates which have been noted show that even in the scheduled group separation of the infant from the mother more than doubled the death rate among survivors of the first three months. At the same time, the death rates were higher even among the infants who stayed with their mothers than among legitimate infants, either white or colored, at the same ages.

As to the hazard of institutional life for infants, there were two indications of excessive mortality. In the entire group of 955 illegitimate live births, there were 56 which occurred in an institution, including 2 infants born in jail. Of these 56 infants, 35 are known to have died, while 9 could not be traced and their condition at the end of the year was not known. Assuming that these known deaths are all that occurred, the infant mortality rate was 625 per 1,000 for these 56 infants born in institutions. In the scheduled group of 572 illegitimate live births were 10 live births in institutions. Two of these 10 infants died within two weeks after birth.²⁴

Again, it is possible to compare the percentage of deaths among infants who were at some time during the first year of life in an institution or boarding home, and among those who were at no time inmates of an institution or boarding. The actual numbers in the several groups are small and the differences in rates are inconclusive, but they seem to indicate that the hazard to infants in an institution or a boarding home was excessive—in both cases about 3 babies in 8 died. The 30 infants boarding in private homes did not, on the other hand, show a mortality above that for illegitimate infants who were never an inmate of an institution or boarded. In the colored group the mortality among infants boarded in private homes seems to have been even a trifle lower than that in the large group who were never boarded or placed in an institution. But even when all the babies in institutions and boarding homes were eliminated, the other

²³ See Table 222, Appendix VII, p. 389. No comparison of mortality among infants under 3 months of age is possible without analysis by the age at which the infant was separated from the mother. The high percentage of total deaths in the age period between 2 weeks and 3 months among infants "with mother" and the low percentage of total deaths in the age period between 2 weeks and 3 months among infants "separated from mother" suggest that the separations occurred mainly in the later months, and after the first month at least.

²⁴ See Table 223, Appendix VII, p. 389.

illegitimate babies still showed a relatively high mortality in comparison with legitimate infants, white or colored.²⁵

Among the infants who were not separated from their mother, the dwelling was shifted in many cases. Of the 528 illegitimate infants who survived at least two weeks, approximately half (262) were removed at least once from one dwelling to another. These removals can not be related, in the tabulation of so small a total group, to other circumstances, but it may be noted that the percentage of subsequent deaths was higher among the babies who were moved about than among the babies who were not subjected to removals.²⁶

Infant feeding.

With the prevalence of employment among the mothers of children born out of wedlock and with the considerable minority who did not keep their babies with them, it is not surprising to find a high percentage of the illegitimate infants artificially fed during the early months. In the legitimate group, the number of babies having breast milk and no other food was 88 per cent of all in the first month and 72 per cent of all in the third month. In the illegitimate group, 79 per cent were breast fed in the first month, but only 44 per cent in the third month. By the ninth month, the number breast fed in the illegitimate group had dropped to 12 per cent of all, as against 29 per cent in the legitimate group. These low percentages breast fed were balanced by high percentages artificially fed. Mixed feeding, on the other hand, was rather more prevalent in the illegitimate group than in the other during the early months but less prevalent in the illegitimate group than in the other after the sixth month.

The difference in types of feeding reported for the illegitimate group and the legitimate group was especially marked among the white babies, but it was present also among the colored babies. And in the illegitimate group, as to a less degree in the legitimate group, more mixed feeding and less artificial feeding was found among the colored infants than among the white infants.

The white illegitimate infants having each specified type of feeding showed higher computed rates per 1,000 infants fed than white legitimate infants having the same type of feeding. The excess in rates persisted even in a comparison of the rates for white illegitimate infants with the rates for white legitimate infants in the lowest earnings groups. It was most marked among infants artificially fed. The colored illegitimate infants, on the other hand, showed a clear excess in the computed rate per 1,000 infants fed only in the comparison of breast-fed infants.

²⁵ See Table 224, Appendix VII, p. 390.

²⁶ See Table 225, Appendix VII, p. 390.

Again, comparing the computed rates among white and colored illegitimate infants having each specified type of feeding, it appears that the breast-fed colored illegitimate infants had a mortality twice as high as the breast-fed white illegitimate infants, while the artificially-fed colored illegitimate infants had a mortality slightly lower than the artificially-fed white illegitimate infants.

With regard to deaths immediately after birth of infants not fed at all, the most marked excess was among colored illegitimate births.²⁷

The total mortality among illegitimate births, therefore, which was slightly higher in the white group than in the colored group, reflects in the white group an especially high percentage of infants artificially fed, and a marked excess in mortality among these infants, together with a slighter excess in mortality (as compared with white legitimate infants) among infants breast fed or mixed fed and among infants dying immediately after birth without being fed at all. In the colored group, the high mortality among illegitimate infants reflects also a high percentage of infants artificially fed, a high percentage mixed fed during the early months, and a marked excess in mortality among infants breast fed and among infants dying immediately after birth without being fed at all.

STILLBIRTHS AND MISCARRIAGES.

The stillbirth and miscarriage rates among the illegitimate births were higher than among the legitimate births, even in a comparison of white births with white births and colored births with colored births. Again, eliminating from both groups the mothers who were not gainfully employed away from home during pregnancy or whose employment was not reported, there were found in both the white and the colored groups higher stillbirth rates among the illegitimate births than among the legitimate births. The white illegitimate births (but not the colored illegitimate births) showed also a high miscarriage rate.²⁸

It will be remembered that in the normal group mothers under 20 years of age had a higher stillbirth rate than the older mothers. In the white illegitimate group this difference disappeared, and mothers of all ages had higher stillbirth rates than the mothers in the normal group. In the colored illegitimate group, the stillbirth rate was higher among the mothers 20 years of age and older than among the mothers under 20, and only these older mothers had a stillbirth rate higher than the stillbirth rate among colored mothers in the normal group.

²⁷ See Tables 226 and 227, Appendix VII, p. 391.

²⁸ See Table 212, Appendix VII, p. 384.

TABLE IX.—Miscarriage and stillbirth rates, by legitimacy, color, and age of mother; births ¹ in 1915.

Age and color of mother.	Legitimate.		Illegitimate.	
	Miscarriages per 100 births. ¹	Stillbirths per 100 births.	Miscarriages per 100 births. ¹	Stillbirths per 100 births.
White mothers:				
Under 20 years.....	2.8	3.4	4.7	5.6
20 years and over.....	3.3	2.8	6.3	5.6
Colored mothers:				
Under 20 years.....	4.0	11.0	3.9	9.5
20 years and over.....	6.1	7.7	6.7	16.0

¹ Includes miscarriages.

The high percentage of premature births in the illegitimate group has already been noted. Comparing full-term births with full-term births, however, there was still a higher stillbirth rate in the illegitimate group than in the legitimate group, except among the 96 full-term births to mothers of children born out of wedlock not gainfully employed during pregnancy. This rate (2.1 per 100 births) was practically identical with the rate (2 per 100 births) among full-term legitimate births to mothers not gainfully employed away from home during pregnancy.²⁹

²⁹ See Table 219, Appendix VII, p. 387.

GENERAL SUMMARY.

The total infant mortality rate in the group of 10,797 live births to married mothers, studied in detail in Baltimore, was 103.5 per 1,000. The deaths from causes peculiar to early infancy were 37.7 per 1,000 live births, the deaths from gastric and intestinal diseases were 29.1 per 1,000 live births, and the deaths from respiratory and other communicable diseases were 26.4 per 1,000 live births. Malformations were the stated cause of 39 deaths, or 3.6 per 1,000 live births. External causes, diseases unknown or not specified, and scattering deaths assigned to unusual causes were responsible for a mortality of 6.7 per 1,000 live births.

Of the total number of 1,117 deaths, 42.7 per cent occurred within the first month after birth and 27.1 per cent after the sixth month.

The mortality in the entire group was approximately the same as the mortality in the cities of the United States birth registration area in 1915 and 1916. An analysis of the conditions under which babies lived and died in Baltimore may fairly be considered an analysis of conditions in a typical American city.

Mortality rates markedly above the average for the entire group occurred among the colored families, the foreign-born Polish families, and the very poor native white families.

Low mortality rates—approximating those in New Zealand—were found among the babies of foreign-born Jewish mothers and in families of the highest earnings groups.

Breast-fed babies in every group of the population had lower mortality than artificially-fed babies in the same group. Computed mortality rates derived from the monthly death rates among babies having the specified types of feeding month by month were 43.3 per 1,000 infants breast fed and 191.4 per 1,000 infants having only artificial food. The earlier the babies were weaned the greater was the excess in mortality among those artificially fed. For example, among infants surviving at the beginning of the third month of life the percentage of subsequent deaths during the year was 18.7 in the group artificially fed from the first month, 12.4 in the group artificially fed from the second month, and 10.6 in the group whose artificial feeding began in the third month. The rates for breast-fed babies and the rates for artificially-fed babies varied greatly with the color and nationality of the mother and the earnings of the father ranging from 91.4 per 1,000 infants breast fed and 387.9 per 1,000 infants artificially fed in the poorest colored families to 13.3 per 1,000 infants breast fed and 27.3 per 1,000 infants artificially fed in the most prosperous families (mainly native white).

In every group certain measurable conditions accompanied a mortality above the average for the group: Poverty, employment of mothers away from home during pregnancy or the early months of an infant's life, housing below standard in point of sanitary equipment and room congestion, short intervals between births, and the bearing of many children. On the other hand, certain mothers whose infants were exposed to such unfavorable conditions were being reached by the organizations carrying on prenatal and post-natal work.

New evidence is afforded by the Baltimore study that poverty is an important factor in infant mortality. Among the 1,544 babies whose fathers earned less than \$450 the infant mortality rate was 156.7 per 1,000 live births; among the 431 babies whose fathers earned \$1,850 or more the infant mortality rate was 37.1 per 1,000 live births. Eliminating differences in color and nationality and considering only the babies born to native-white mothers a similar decrease in mortality appears as the fathers' earnings rise: In the poorest families about 1 baby in 6 died within the year, in the most prosperous families about 1 baby in 26 died within the year. Further, eliminating certain measurable conditions that occur more frequently in very poor homes than elsewhere and considering only babies born to native white mothers who were literate, who were not employed during pregnancy or the year after the birth, who had borne fewer than seven children previous to the birth in 1915, and who reported an interval of two years or longer since the previous birth if the 1915 baby was not a first-born child, a marked difference in mortality in the poorest homes and in the most prosperous persists. Even in this favored group the infant mortality rate in the poor homes was more than twice as high as the infant mortality rate in the most prosperous homes.

Employment of the mother away from home during pregnancy accompanied, in each color and nativity group, a percentage of premature births above the average for the group and excessive mortality among full-term births from the causes peculiar to early infancy. The mortality from other causes was also higher among the babies whose mothers worked away from home during pregnancy than the mortality that would be expected when allowance is made for the poverty of these families and the large number of colored families and Polish families among them. For the infants whose mothers were employed away during the earliest months after the birth the hazard was markedly increased. Not only did they face the hazard that would naturally occur in a group with so large a percentage of infants weaned during the early months, but also a still greater hazard directly related, apparently, to the fact and circumstances of the mothers' employment away from home. However, the actual effect on the total mortality of mothers' employment

away during the first year after a birth was slight, since the number of mothers employed away after the birth was smaller than the number employed away during pregnancy, and employment was usually resumed after the first month or even later in the year, when the period of highest mortality had been already passed.

Room congestion and lack of sanitary equipment in the dwelling accompanied death rates among infants surviving the first two weeks higher than the death rates in groups of similar color and nationality and corresponding fathers' earnings in dwellings of a better type. Of the 5,544 infants in dwellings with less than one person per room, 4.9 per cent died during the year; of the 4,269 infants in dwellings with one person but less than two persons per room, 8.4 per cent died during the year; of the 498 infants in dwellings with two or more persons per room, 11.6 per cent died during the year. Again, of the 4,486 infants in dwellings with sewer connection, a bath tub, and a toilet for the exclusive use of the family, 4.4 per cent died during the year; but of the 5,850 infants in dwellings lacking one or more of these three items, 8.5 per cent died during the year. In this latter comparison the deaths from gastric and intestinal diseases are noted separately and these show a greater difference than the deaths from other causes. Variations in death rate in relation to housing persist when the greater poverty of the group in the poorer dwellings is considered.

The first-born infants had a mortality slightly higher than the mortality of infants second or third in order of birth, but among the later orders of birth the mortality (especially from causes other than the diseases of early infancy) rose steadily. The first-born infants showed a higher percentage of premature births than any others except the infants twelfth or later in order of birth. Having come to birth, whether at full term or prematurely, the first-born babies had a markedly lower mortality than other babies of the corresponding term, with differences in rates between the first born and the others far greater than the average difference between first born and all others when full-term births and premature births are grouped together.

The infants of mothers under 20 years of age and of mothers 35 years old or older showed higher mortality rates than other infants. Among the infants of the youngest mothers the high mortality appears in deaths from causes peculiar to early infancy and (when infants were second or third in order of birth) in deaths from other causes. Among the infants of the oldest mothers the high mortality appears mainly in deaths from "all other causes," but the first-born infants of the oldest mothers had also an excessive mortality from causes peculiar to early infancy.

Variations in mortality according to the infant's order of birth and the mother's age were accentuated when the interval since a pre-

ceding birth was short. Throughout, the births following a preceding birth by an interval of less than two years had a higher mortality than births occurring after a longer interval.

The infants born to the 105 mothers who died within the year after confinement had the highest mortality in the entire group, with a rate of 486.1 per 1,000 live births as compared with the mortality of 100.9 per 1,000 among the infants whose mothers survived. When the mother died from a cause directly related to childbirth or from some other stated cause within two months after her confinement, the infant mortality from all causes rose to 625 per 1,000. The excess mortality was somewhat greater from early infancy than from other causes.

Among the negroes all the unfavorable social factors were present. Their poverty was greater than the poverty in any other group in Baltimore (except the small group of Lithuanian families); 44.9 per cent of the mothers were gainfully employed away from home during pregnancy; room congestion was less prevalent than among the foreign-born white families, but the number of dwellings without standard equipment was relatively high; one-fifth of the negro infants were seventh or later in order of birth and 33.5 per cent had followed the preceding birth by an interval of less than two years. But more of the negro mothers than of any others were reached by the prenatal and postnatal work. As the net result of these factors—and others not touched upon in such a study as the present one—the negro babies had a high mortality from early infancy (49.8 per 1,000), a high mortality from respiratory and other communicable diseases (65.9 per 1,000), and an average mortality (30.7 per 1,000) from gastric and intestinal diseases.

In the Polish group, also, all the unfavorable factors were present. Their room congestion was the greatest in Baltimore; the percentage of mothers gainfully employed away from home during pregnancy was almost as high as the corresponding percentage in the negro families; and the influence of unfavorable factors was not counterbalanced by infant-welfare work, since the prenatal and postnatal agencies had reached but few of the Polish mothers. The Polish mortality was especially high from gastric and intestinal diseases (68.8 per 1,000) and above the average from early infancy (43.2 per 1,000).

The very poor native white mothers were less generally employed away from home than the Polish or Negro mothers; their housing was poor in sanitary equipment but they lived in less congested dwellings than the Poles; in interval between births and the bearing of many children conditions were more favorable than among the negroes. Infant-welfare work had reached more of the very poor native white mothers than of the Polish mothers, but fewer in this native white

group than in the colored group. In the poorest native white families the mortality from early infancy was higher than in the Negro or Polish families; and the mortality from gastric and intestinal diseases was markedly above the average though less high than in the Polish group.

The foreign-born Jewish families were poorer than the native white families but less poor than the Negroes and the Poles. Practically none of the mothers were employed away from home. Many of them had borne large families but the percentage of mothers pregnant again within 12 months after the birth in 1915 was smaller than in any other color or nationality group. Room congestion was less prevalent than among the Poles but more prevalent than among the native white families. In sanitary equipment, too, the dwellings of the Jewish families were better than the dwellings of the Poles and the Italians. And more of the Jewish mothers than of any others except the Negroes were reached by the prenatal and post-natal work. From these and other factors not touched in the present study, the babies in the foreign-born Jewish families had a low mortality from early infancy (22.9 per 1,000), a low mortality from respiratory and other communicable diseases (15.6 per 1,000), and a markedly low mortality from gastric and intestinal diseases (9.4 per 1,000).

In the illegitimate group of 955 live births, 281 infant deaths are known to have occurred, but the condition of 256 infants at 12 months after birth could not be learned. The known infant mortality rate of 294.2 per 1,000 live births is therefore a minimum statement of the hazard to the illegitimate infants born in Baltimore during 1915. More than two-thirds of the illegitimate births were to colored mothers, and the mortality in the illegitimate colored group was less high than in the illegitimate white group. The excess in mortality among illegitimate infants appears especially in deaths from early infancy, from gastric and intestinal diseases, and from syphilis. For 572 live-born illegitimate infants detailed information was secured which revealed a high percentage of infants artificially fed during the early months. In the colored group the excess mortality among illegitimate infants seems to be largely accounted for by the prevalence of artificial feeding. But the deaths in the white group were more numerous than the deaths which would have occurred if they had been subject only to the hazard of babies born to married mothers and having the same type of feeding. The chief conditions indicated in such a study as the present one which seemed to increase the hazard to illegitimate infants were the prevalence of care in institutions or boarding homes, the frequent shifts in dwelling place, and the generally low economic level of the mothers.

APPENDIXES

APPENDICES

APPENDIX I.—BIRTH REGISTRATION IN BALTIMORE.

As a preliminary to each of the bureau's field studies of infant mortality in cities a fairly complete record of births during a given period has been secured. In 1915, when the plans were made for the present study, Maryland had not been admitted to the birth-registration area, for which a 90 per cent registration is required by the United States Bureau of the Census. But a steadily increasing annual birth rate (the registered live births rising from 16.9 per 1,000 population in 1908 to 23.3 per 1,000 population in 1915) indicated that registration of births in Baltimore had improved year by year. During the same period the infant mortality rate had dropped from 241.3 per 1,000 registered live births to 119.8 per 1,000 registered live births, a decrease so marked that, in spite of a reduction in the number of infant deaths, a more nearly complete registration of births is also clearly indicated. In 1916 Maryland was added to the birth-registration area.

The registration law in Maryland in effect at the time of this study was enacted in 1912 and slightly amended in 1914.¹ Under this law stillbirths were registered as births and as deaths. "The record of a birth shall state the date and place of its occurrence, name in full, sex and color, and the number of the child, whether living or stillborn, whether a twin, triplet, or other plural birth, and the name, color, occupation, birthplace, and residence of parents."² The physician or midwife was required to register a birth within four days.

TABLE I.—*Estimated population, birth rate, and infant mortality rate, shown by registered births and deaths, under 1 year of age in Baltimore City, 1908-1917.*¹

Year.	Estimated population, July 1.	Birth rate.	Registered live births.	Registered deaths under 1 year.	Infant mortality rate.
1908.....	549,499	16.7	9,178	2,215	241.3
1909.....	554,514	15.8	8,796	2,227	253.2
1910.....	559,530	17.6	9,858	2,148	217.9
1911.....	564,545	16.4	9,283	1,958	209.8
1912.....	569,560	20.0	11,398	2,026	177.8
1913.....	574,575	21.8	12,542	2,002	159.6
1914.....	579,590	22.0	12,637	1,954	154.6
1915.....	584,605	23.3	13,634	1,633	119.8
1916.....	589,621	25.6	15,085	1,783	118.2
1917.....	594,637	25.1	14,950	1,783	119.3

¹ Estimated population computed from figures for censuses of 1900 and 1910. Figures for births and deaths based on annual reports of Baltimore City Department of Public Safety, subdepartment of health, 1908-1917.

TABLE II.—*Stillbirths in Baltimore City, 1908-1917.*^a

Year.	Total births. ^b	Stillbirths. ^b	Stillbirths ^b per 1,000 births.	Year.	Total births. ^b	Stillbirths. ^b	Stillbirths ^b per 1,000 births.
1908.....	9,989	811	81.2	1913.....	13,451	909	67.6
1909.....	9,613	817	85.0	1914.....	13,663	1,026	75.1
1910.....	10,680	822	77.0	1915.....	14,765	1,131	76.6
1911.....	9,995	712	71.2	1916.....	16,320	1,235	75.7
1912.....	12,087	689	56.5	1917.....	16,217	1,267	78.1

^a Derived from annual reports of Baltimore City Department of Public Safety, subdepartment of health, 1908-1917.

^b Includes all registered dead births, both stillbirths and miscarriages.

¹ 1912 C 696; 1914 C 747. The law was further amended in 1916 and 1920 (1916 C 691 and 1920 C 317), but the provisions here referred to were not changed.

² 1912 C 696, amending Annotated Code, art. 43, sec. 9.

During 1915 the Baltimore City Department of Public Safety, subdepartment of health, was making a special effort to secure the rigid enforcement of the birth-registration law. Among the devices the health officials were using to trace unregistered births was the checking of infants' death certificates with the birth records. When it was found that a birth had not been registered, the health warden of the district from which the death was reported called upon the parents of the child and learned who had attended the birth. If the birth had occurred within the city, a complete record was secured from the attendant or, in cases where neither physician nor midwife had been employed, from the parents of the child.

In September, 1915, the Babies' Milk Fund Association of Baltimore furnished the Children's Bureau with the names of 813 babies born in Baltimore City since January 1 of that year, and these names the agents of the bureau checked with the birth records. Most of the mothers in this group were native white, negroes, or foreign-born Jews, and they included 125 negro mothers of illegitimate babies. All of the births had been attended by physicians. Of the entire number, 724, or 89.1 per cent, had been registered. The Children's Bureau followed this test by a canvass of certain districts in order to determine whether unregistered births were fairly well distributed throughout the city or confined to particular groups of the population. The districts were selected for the canvass after consultation with various persons in Baltimore and they included eight neighborhoods especially representing native white, Negroes, and six foreign nationalities—Jewish, Polish, Italian, German, Bohemian, and Lithuanian. Registration was found to be poorest among the Poles and best among the Jews. Of the 555 births found in the canvass, 77 per cent were registered. The low percentage of registered births in this group is not accounted for by the large number of cases attended by midwives, for a larger percentage of the midwives' cases than of the physicians' cases had been registered.

TABLE III.—Registration of birth, by color and nationality of mother; births studied in special canvass.

Color and nationality of mother.	Births studied in special canvass.		
	Total.	Registered.	
		Number.	Per cent. ¹
Total.....	555	425	76.7
Native white.....	180	148	82.2
Foreign-born white:			
Polish.....	93	59	63.4
Jewish.....	73	62	84.9
Italian.....	42	32	.....
Lithuanian.....	26	19	.....
Bohemian.....	15	12	.....
German.....	12	8	.....
Other.....	11	8	.....
Colored.....	98	72	73.5
Not reported.....	5	5	.....

¹ Not shown where base is less than 50.

TABLE IV.—Registration of birth, by attendant at birth; births studied in special canvass.

Attendant at birth.	Births studied in special canvass.		
	Total.	Registered.	
		Number.	Per cent. ¹
Total.....	555	425	76.6
Physician.....	301	237	78.7
Midwife.....	224	179	79.9
Both.....	11	7	.....
Neither.....	7	2	.....
Not reported.....	12	.....	.....

¹ Not shown where base is less than 50.

The Babies' Milk Fund Association and other organizations in Baltimore began during 1915 to cooperate with the city health department in securing the registration of unregistered births.

In February, 1916, the Children's Bureau agents interviewed the families of babies born in January, 1915; the following month each ward was visited again for interviews with the families of babies born in February, 1915, and so on through the year. Whenever the bureau's agents learned of an unregistered baby who had been born in 1915, the name and address were reported to the health department and the baby was included in the study.

How nearly complete was the final record of births during 1915, when the names secured in the course of the field study had been added to the registered births, it is not possible to estimate. It is probable, at least, that the numbers of births of the several color and nationality groups traced in this way tended to diminish the differences in the extent to which the known births fell short of the total number in the several groups. Even if the final record remained (as the preliminary canvass indicated the original records to be) between 80 and 90 per cent complete for the foreign-born Jewish infants and between 60 and 70 per cent complete for the Polish infants, correction of this difference would diminish but would not obliterate the difference in mortality rate apparent in these two groups. In the same way, if it is contended that the poorest babies were least likely to be registered and that part of the apparent excess mortality rate in the poorest families is accounted for by defective registration, it should also be remembered that unregistered births were far more easily traced in the poorest districts than among the well-to-do. It has also been noted that midwives' cases showed a slightly higher percentage of registered births than physicians' cases, so the hypothesis that more poor babies than others escaped registration may itself be questioned.

In general, it may be concluded that in so far as the record of births is incomplete, the infant mortality rates derived in the present study overstate the absolute hazard, but that the relative hazards of the various groups lie in the direction indicated by the figures shown.

The Illinois Milk Producers' Association and other organizations
began in 1915 to cooperate with the city health
department in carrying out the registration of dairies.
In February, 1916 the health department issued the
order for the registration of dairies. The following month
work was started again in earnest with the health department
in February, 1916, and so on through the year. The
health department's records of an unregistered dairy which had
been in 1915, the name and address were reported to the health
department and the dairy was included in the study.

From nearly everywhere was the final record of dairies during 1915.
When the names secured in the course of the study had been
added to the registered dairies, it is not possible to estimate the
probability of the number of dairies of the several color and
particular groups listed in this way. It is possible, however,
that in the study to which the above table alludes on the total
number in the several groups. Even if the final record of dairies
as the probability survey indicated the original record to be
between 80 and 90 per cent complete for the registered dairies,
infants and between 60 and 70 per cent complete for the Polish
infants, correction of this difference would diminish but would not
affect the difference in mortality rate apparent in these two
groups. In the same way, if it is understood that the apparent rates
were for likely to be registered and that part of the apparent rates
mortality rate in the poorer families is accounted for by unregistered
dairies, it should also be remembered that unregistered dairies
were far more easily traced in the poorest districts than among the
well-to-do. It has also been noted that milk from dairies which
carry a high percentage of registered dairies than poor areas, where
on the other hand, that more poor babies than others received milk
from unregistered dairies.

In general, it may be concluded that in so far as the record of
dairies is incomplete, the infant mortality rates listed in the present
study represent the absolute hazard, but that the relative hazard of
the various groups is in the direction indicated by the figures shown.

APPENDIX II.—THE BABIES IN FAMILIES WHICH COULD NOT BE STUDIED.

Fourteen per cent of the legitimate births registered as occurring in Baltimore during the year 1915 are not included in the detailed study. The number excluded (1,871) was made up of three main groups: One thousand four hundred and sixty-six whose families could not be located in Baltimore or were known to have moved away; 381 nonresidents (320 nonresident hospital cases and 61 cases where the family was living in Baltimore but had been absent from the city more than four months during the first year after the baby's birth); and 24 births whose families were located but about whom information was not available. It was desired to relate the conditions under which the babies lived and died to the city of Baltimore, and hence infants of nonresident mothers, infants whose families were away from the city for over four months, and infants whose families had moved away were excluded. Moreover, it would have been difficult to secure exact information as to age at leaving; and even if exact information could have been obtained about the ages of infants when they left the city, or returned, the separating of the time spent in the city and the time spent elsewhere and fair computation of the rates among these infants during the months spent in Baltimore would have involved minute computations of doubtful value. In this study, as in the earlier studies of the bureau, the nonresidents are therefore omitted from the detailed study.

Whether in the families omitted from the detailed study conditions were markedly different from those we have been analyzing is a question to which the data afford no satisfactory answer.

For the unknown number of babies whose births were never registered no information is available. For the other group of 1,871 babies whose births were registered but who could not be included in the detailed study the birth certificates give us certain items. They state the father's occupation, and the race, nativity, and age of both parents, as given by the physician or midwife who reported the birth. The data about the father's occupation are of uncertain value, but these statements and the statements about the mother's color and nativity have been tabulated and analyzed. The 320 nonresident hospital cases are not included in this analysis, since they do not represent a part of the Baltimore population. It may be noted in passing that the birth certificates indicate them to be a selected group with a higher percentage of well-to-do native white mothers than the other births registered in Baltimore during the year. The following paragraphs, therefore, refer to the 1,551 births to Baltimore mothers who could not be located or who were known to have moved away or who had been absent from the city more than four months during the year.

TABLE I.—*Color and nativity of mother, by class of exclusion; legitimate births¹ in 1915.*

Color and nativity of mother.	Legitimate births. ¹							
	Included in study.		Excluded from study.					
			Total.		Nonresident hospital cases.		All other exclusions.	
Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	
Total.....	11,613	100.0	1,871	100.0	320	100.0	1,551	100.0
Native white.....	7,210	62.1	1,143	61.1	243	75.9	900	58.0
Foreign-born white.....	2,894	24.9	378	20.2	27	8.4	351	22.6
Colored.....	1,509	13.0	342	18.3	47	14.7	295	19.0
Not reported.....			8	0.4	3	0.9	5	0.3

¹ Includes miscarriages.

More than one in six of the mothers were colored, as against one in eight in the families studied in detail. Eight per cent of the fathers were reported in occupations with median earnings of \$1,050 or more, a percentage approximately the same as that in the detailed study. In each race and nativity group the percentage of mothers delivered in a hospital was higher than in the detailed study, and except among the foreign born the percentage attended by a physician not at a hospital was lower than in the detailed study. This suggests a slightly lower economic level in the excluded group.

TABLE II.—*Prevalence of attendance at confinement by physician, by place of confinement and color of mother; births¹ to mothers in 1915.²*

Color and nativity of mother.	Per cent of mothers ¹ attended by a physician.			
	In hospital.		Outside hospital.	
	Detailed study.	Excluded legitimate births. ³	Detailed study.	Excluded legitimate births.
Total.....	9.5	20.0	57.9	55.8
Native white.....	8.1	21.3	64.4	58.7
Foreign-born white.....	10.9	13.1	40.4	45.9
Colored.....	13.5	24.1	60.4	58.6

¹ Includes miscarriages.

² Detailed study figures are based on mothers; excluded legitimate figures are based on issues.

³ Except nonresident hospital cases.

If the economic status and general character of the white families, native and foreign, and of the colored families were the same in this excluded group as in the included group, one would still expect to find among the excluded families slightly greater losses than in the included group, because of the larger percentage of colored families. What are the facts?

Of the total infant mortality under 1 year in this group there is no direct measure, as deaths doubtless occurred outside the city for which there is no information available. But it may reasonably be

supposed that few families moved away within two weeks after the baby's birth and that the known death rate among babies under two weeks of age is approximately correct.

TABLE III.—*Infant mortality and stillbirth rates, by color and nativity of mothers; excluded legitimate births¹ other than nonresident hospital cases.*

Color and nativity of mother.	Excluded legitimate births ¹ other than nonresident hospital cases.								
	Total births. ¹	Miscarriages.	Total births.	Stillbirths.		Live births.	Known infant deaths.		
				Number.	Per 1,000 births. ²		Under 2 weeks.	2 weeks and over.	Age not reported.
Total.....	1,551	45	1,506	70	46.4	1,436	57	73	1
Native white.....	900	28	872	27	31.0	845	28	33	.....
Foreign-born white.....	351	5	346	14	40.5	332	13	15	1
Colored.....	295	11	284	28	98.6	256	16	25	.....
Not reported.....	5	1	4	1	.....	3	.....	.....	.....

¹ Includes miscarriages.

² Not shown where base is less than 100.

Of the 1,551 births, 1,436 were live births, and among these live-born babies 57 died in the first two weeks, a death rate of 39.7 per 1,000. This rate can be compared with an expected death rate computed from the rates for each race and nativity in the detailed study. Thus, in the detailed study, the death rate under 2 weeks of age was 35.8 among babies of native white mothers, 33.8 among babies of foreign-born white mothers, and 50.6 among babies of colored mothers. In the excluded group, if these same rates applied, one would expect to find 30 deaths among the 845 babies of native white mothers, 11 deaths among the 332 babies of foreign-born white mothers, and 13 deaths among the 256 colored babies, or a total of 54 deaths under 2 weeks of age and a total rate of 37.6 per 1,000. Actually, there were 57 deaths and a rate of 39.1 per 1,000, a difference too slight to have significance.

On the other hand, the stillbirth rates in the excluded group were higher for mothers of each race and nativity than in the detailed study. Comparing in the same way the expected rate and the actual rate in the two groups, it appears that there were 70 stillbirths instead of 58 expected, and a rate of 46.5 per 1,000 births instead of 38.1.

TABLE IV.—*Excess prevalence of stillbirths among excluded over rates prevailing among included legitimate births.*

Color and nativity of mother.	Excluded legitimate births other than nonresident hospital cases.		
	Total births.	Stillbirths.	
		Actual.	Expected. ¹
Total.....	1,506	70	58
Native white.....	872	27	25
Foreign-born white.....	346	14	10
Colored.....	284	28	23
Not reported.....	4	1	.....

¹ Expected on the basis of stillbirth rates prevailing in corresponding color and nativity groups in the detailed study.

Another basis of comparison, less exact but still of interest, is found in the causes of death during the first month. The record of deaths during the third and fourth weeks of age in the excluded group is probably incomplete, but when it shows an excessive death rate from any group of causes, the incompleteness of the record serves as a reminder that this excessive death rate errs, if at all, merely in being an understatement of the facts. In the excluded group, 11 deaths in the first month were assigned to communicable diseases other than the respiratory diseases, with a death rate from such causes alone of 7.7 per 1,000 live births as compared with a rate of 1.2 from similar causes in the detailed study. Syphilis was the given cause of death for 8 of these 11 babies; in the detailed study, dealing with more than seven times as many babies, only 13 deaths during the first month were assigned to communicable diseases and 10 of these to syphilis. The numbers of deaths in both groups are too small to permit any definite conclusions, but they seem to indicate in the excluded group a slightly larger proportion of families in which babies were not protected from disease.

TABLE V.—*Mortality during the first month of life, by cause of death and inclusion in or exclusion from study; live births in 1915.*

Cause of death.	Deaths during the first month—							
	Among 10,797 live-born infants included in study.				Among the 1,436 live-born infants not included in study. ¹			
	Total.		Under 2 weeks of age.	2 weeks, under 1 month.	Total. ²		Under 2 weeks of age.	2 weeks, under 1 month.
	Number.	Rate per 1,000 live births.			Number.	Rate per 1,000 live births.		
All causes.....	477	44.2	400	77	66	45.9	57	9
Gastric and intestinal diseases.....	17	1.6	8	9	4	2.8	4	.....
Respiratory diseases.....	37	3.4	20	17	4	2.8	2	2
Malformations.....	27	2.5	27	.....	4	2.8	4	.....
Early infancy.....	357	33.2	323	34	40	27.8	36	4
Epidemic and other communicable diseases.....	13	1.2	9	4	11	7.7	10	1
All other.....	26	2.4	13	13	3	2.1	1	2

¹ Other than nonresident hospital cases.

² Probably incomplete. Note that in study the number of deaths reported at "2 weeks, under 1 month" is 19.3 per cent of the number reported "under 2 weeks"; among excluded infants the corresponding percentage is 15.8 per cent.

Mortality during the months later than the first varied with economic status and home surroundings more markedly than the mortality related to prenatal causes and occurring within the first weeks after birth. But of these deaths from postnatal causes the record is too incomplete to warrant the computation of rates.

APPENDIX III.—INFANT MORTALITY AND STILLBIRTH RATES IN THIS STUDY AND IN BALTIMORE CITY AS A WHOLE.

A city's infant mortality rate is based on the number of live births and the number of deaths under 1 year of age registered during a calendar year. It is stated in terms of the number of deaths per 1,000 live births. In Baltimore, the number of live births registered during 1915 was 13,634 and the number of deaths under 1 year registered during 1915 was 1,633.¹

The infant mortality rates given in the Children's Bureau field studies of infant mortality are based on the number of deaths under 1 year of age among a group of babies whose births are registered as occurring in a given city during a given period, and whose individual histories have been traced until 12 months after birth or until death. These rates also are stated in terms of the number of deaths per 1,000 live births.

The present study is based on births occurring in Baltimore City during 1915. But many of these births during 1915 were not registered until 1916, and the births registered in 1915 included births of an earlier period and several cases of duplicate registration. A few births in Baltimore County had also been entered in the records for Baltimore City. Therefore the total number of live births used by the Children's Bureau as the starting point for the present study—13,477—is not the same as the number of live births registered in Baltimore during the year and serving as the basis for the city infant mortality rate.

For two divisions within the group detailed schedules were secured: Among 10,797 legitimate babies, 1,117 died under 1 year of age, or 103.5 per 1,000; among 572 illegitimate babies, 172 died, or 300.7 per 1,000. In addition there were 1,725 legitimate babies who could not be traced or for whom detailed information could not be secured or who were omitted from the study as nonresidents. It was learned, however, chiefly from the death records in Baltimore, that 153 of these babies had died; no attempt was made to learn of deaths outside Baltimore. For 383 illegitimate babies detailed schedules could not be taken, but in this group information was secured whenever possible about babies who had left Baltimore; from death records and other sources it was learned that 109 of these babies had died; 18 were known to have survived the first year; and 256 could not be traced. Estimated rates for the excluded legitimate babies and for the illegitimate babies are discussed on pages 191 and 168, respectively.

It should be noted that while no deaths occurring outside Baltimore among legitimate infants and only a partial record of deaths occurring outside Baltimore among illegitimate infants are included in the number of known deaths among the total number of live births

¹ Department of public safety, annual report, subdepartment of health, to the mayor and city council of Baltimore for the fiscal year ended Dec. 31, 1915, pp. 13, 16-19. The number of deaths under 1 year of age in Baltimore during 1915 is given by the U. S. Bureau of the Census as 1,626. (See Mortality Statistics, 1915, p. 669.)

on which the present study is based and the rate which might be computed for the entire group is to that extent defective, no corresponding incompleteness due to shifts of residence appears in the deaths included in computing the city rate. For while the city rate excludes all deaths occurring outside the city among babies born in Baltimore, it includes all deaths occurring in Baltimore among babies born elsewhere.

It is obvious that with such differences in the selection of live births and of deaths included in the city rate and in the rates computed in the present study, no precise comparison between them is possible.

TABLE I.—*Infant mortality rates, by age at death, legitimacy of birth, and whether or not the birth was scheduled; registered live births in 1915.*

Legitimacy and group.	Registered live births in 1915.	Known infant deaths.							
		Total.		Under 2 weeks.		2 weeks, under 1 month.		1 month and over.	
		Number.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.
Total.....	113,477	1,551	115.1	548	40.7	113	8.4	890	66.0
Legitimate:									
Scheduled.....	10,797	1,117	103.5	400	37.0	77	7.1	640	59.3
Not scheduled.....	11,725	153	88.7	70	40.6	12	7.0	71	41.2
Illegitimate.....	955	281	294.2	78	81.7	24	25.1	179	187.4
Scheduled.....	572	172	300.7	44	76.9	14	24.5	114	199.3
Not scheduled.....	383	109	284.6	34	88.8	10	26.1	65	169.7

Includes 289 nonresident hospital cases.

In comparing the data on stillbirths and miscarriages secured in this report with the data published by the city health department, two differences should be kept in mind. First, there is the difference between births registered in 1915 and births occurring in 1915 which has been noted in the preceding discussion of live births and infant mortality rates. Then, there is a difference in the use of the word "stillbirth." By the city health department all dead births of whatever term are reported as stillbirths; in the present study births of seven months or more are classified as stillbirths and earlier births are classified as miscarriages.

The only stillbirth rates that can be computed from the city health department's data would not correspond with the stillbirth rate given in the present report, but with a rate secured by combining the stillbirths and miscarriages and dividing the sum by the total births. Such a rate is roughly comparable with a rate based on the city health department's data, in spite of the difference between births registered in 1915 and registered births occurring in 1915, since the completeness or incompleteness of the data depend in both cases on the ultimate completeness of the registration. Difficulties involved in changes in residence and the tracing of families do not affect the accuracy of the stillbirth rates for the entire group in the present study.

TABLE II.—*Stillbirth rates, by registration of birth and color of mother; births registered in 1915 and registered births occurring in 1915.*

Registration of birth and color of mother.	Total births.	Stillbirths and miscarriages.		Total births.	Stillbirths.	
		Number.	Per 1,000 births. ¹		Number.	Per 1,000 births. ¹
Births registered in 1915 ²	14,765	1,131	76.6	.....	.....	.....
White.....	12,231	771	63.0	.....	.....	.....
Colored.....	2,534	360	142.1	.....	.....	.....
Registered births occurring in 1915.....	14,636	1,159	79.2	14,095	618	43.8
White.....	12,045	755	62.7	11,647	357	30.7
Colored.....	2,555	372	145.6	2,419	236	97.6
Color not reported.....	36	32	.....	29	25	.....

¹ Not shown where base is less than 50.² Department of public safety, annual report, subdepartment of health, fiscal year ended Dec. 31, 1915. Baltimore, 1916.

APPENDIX IV.—METHOD BY WHICH MEDIAN EARNINGS AND MEDIAN RENTALS ARE ESTIMATED FROM DATA AVAILABLE IN THE PRESENT STUDY.

The exact median of the father's earnings is the amount earned by the father in the middle of the group or, perhaps more accurately phrased, the median is the earnings at the point in the scale where one-half of the cases fall above and one-half fall below.

Similarly, the exact median rental is such an amount that one-half of the families paid more and one-half paid less.

In the tabulations, earnings and rentals are not listed individually, but grouped. The group within which the median falls can be exactly determined; the individual median can be roughly estimated within the group. As typical of the process, which is identical for earnings and rentals, the median earnings of all the fathers studied are computed below. It will be noted that the numbers refer to births. The presence of plural births (approximately 2 per cent of all) may, however, be disregarded. The slight error involved would not affect the group median, since plural births appear with about the same frequency in all earnings and nationality groups, and would not affect the validity of the comparisons made in the report on the basis of estimated individual medians.

	Births.
Total.....	11, 195
With father's earnings not reported.....	226
Total with known earnings.....	<u>10, 969</u>
One-half of total with known earnings.....	<u>5, 484. 5</u>
Father's earnings:	
None.....	222
Under \$450.....	1, 615
\$450 to \$549.....	1, 523
\$550 to \$649.....	<u>1, 543</u>
	4, 903
\$650 to \$849.....	<u>2, 490</u>
	7, 393

Comparison of the total earning less than \$650 and of the total earning less than \$850 with one-half of total with known earnings shows that \$650 to \$849 is the group in which the median falls. In other words, the median earnings were between \$650 and \$850.

	Births.
One-half of total with known earnings.....	5, 484. 5
Total in groups lower than median group.....	<u>4, 903</u>
	581. 5

The point within the median group at which individual median probably falls is:

$$\$650 \text{ plus } \left\{ \begin{array}{l} 581.5 \\ 2,490 \end{array} \right\} \text{ times } \$200 = \$796.$$

Assuming that within the median group the cases are distributed uniformly in respect to earnings, the median point which will divide the cases in the entire series into two equal parts, half above and half below the median, is: $\frac{581.5}{2,490}$ times \$200 above the sum, \$650, which represent the lowest earnings in the median group. This gives \$796 as the median earnings.

APPENDIX V.—METHOD BY WHICH INFANT MORTALITY RATE IS COMPUTED FOR INFANTS HAVING A SPECIFIED TYPE OF FEEDING; EXPLANATION OF TERMS “EXPECTED DEATHS” AND “EXPECTED RATES.”

COMPUTED RATE BY TYPE OF FEEDING.

Many of the babies who are breast fed throughout the first month are shifted to mixed feeding or to artificial feeding during the second month, and such shifts from one type of feeding to another continue throughout the year. The annual rate is computed (1) from the monthly rate for each month from the first to the ninth, based on all infants receiving a given type of feeding through more than half the month (or until death within the month) and the deaths occurring during the month within this group; and (2) from the survivors of the ninth month, who had had a stated type of feeding during that month, and the deaths occurring after the ninth month within this group.

The number of breast-fed babies dwindled from 9,283 during the first month to 2,825 during the ninth month. The number of deaths during the first nine months among babies who at the time of death were receiving breast milk and no other food was 259. These represent monthly death rates varying from 15 per 1,000 in the first month to 1.7 per 1,000 in one of the later months. After the ninth month, 23 deaths occurred among the 2,817 survivors of the ninth month who were breast fed during that month. These represent a death rate after the ninth month of 8.2 per 1,000 survivors.

By applying these rates to a hypothetical group of 1,000 babies breast fed throughout the first nine months, the known monthly death rates are translated into terms of infant deaths per 1,000 babies born alive and surviving to be fed. The rate for the first month gives the number of deaths within the first month in the hypothetical group. Subtracting these deaths from 1,000, gives the number of survivors at the beginning of the second month, which, in turn, is multiplied by the rate for the second month to give the number of deaths within the second month in the hypothetical group. These, in turn, are subtracted from the survivors at the beginning of the second month. This process is repeated for each month to the ninth. The survivors of the ninth month in the hypothetical group are then multiplied by the death rate for survivors of the ninth month who had been breast fed through that month. The sum of the 10 numbers of deaths is the number of deaths which would occur during the first 12 months of life in the hypothetical group of 1,000 breast-fed babies. And, since this number is derived from a group of 1,000, it is identical with the death rate per 1,000 among breast-fed babies.

BREAST-FED INFANTS.

Month of life.	Actual group.			Hypothetical group of 1,000 infants.		
	Infant survivors.	Deaths within month.	Monthly death rate.	Infant survivors.	Monthly death rate.	Deaths within month.
First.....	9,283	139	15.0	1,000.0	15.0	15.0
Second.....	8,176	32	3.9	985.0	3.9	3.8
Third.....	7,400	18	2.4	981.2	2.4	2.4
Fourth.....	6,457	15	2.3	978.8	2.3	2.3
Fifth.....	5,905	20	3.4	976.5	3.4	3.3
Sixth.....	5,352	12	2.2	973.2	2.2	2.1
Seventh.....	4,215	7	1.7	971.1	1.7	1.7
Eighth.....	3,590	8	2.2	969.4	2.2	2.1
Ninth.....	2,825	8	2.8	967.3	2.8	2.7
Tenth to twelfth.....	2,817	23	8.2	964.6	8.2	7.9
				956.7		43.3

From the sum of the deaths within the month in the hypothetical group is derived the computed annual rate for breast-fed babies of 43.3 per 1,000 infants fed. In the same way from the computations that follow, are derived the computed annual rate for babies having mixed feeding—87.4 per 1,000 infants fed—and the computed annual rate for babies having artificial feeding—191.4 per 1,000 infants fed.

MIXED-FED INFANTS.

Month of life.	Actual group.			Hypothetical group of 1,000 infants.		
	Infant survivors.	Deaths within month.	Monthly death rate.	Infant survivors.	Monthly death rate.	Deaths within month.
First.....	281	12	42.7	1,000.0	42.7	42.7
Second.....	608	4	6.6	957.3	6.6	6.3
Third.....	844	8	9.5	951.0	9.5	9.0
Fourth.....	1,303	7	5.4	942.0	5.4	5.1
Fifth.....	1,614	9	5.6	936.9	5.6	5.2
Sixth.....	1,977	8	4.0	931.7	4.0	3.7
Seventh.....	2,845	9	3.2	928.0	3.2	3.0
Eighth.....	3,291	11	3.3	925.0	3.3	3.1
Ninth.....	3,890	12	3.1	921.9	3.1	2.9
Tenth to twelfth.....	3,878	27	7.0	919.0	7.0	6.4
				912.6		87.4

ARTIFICIALLY-FED INFANTS.

Month of life.	Actual group.			Hypothetical group of 1,000 infants.		
	Infant survivors.	Deaths within month.	Monthly death rate.	Infant survivors.	Monthly death rate.	Deaths within month.
First.....	958	53	55.3	1,000.0	55.3	55.3
Second.....	1,531	29	18.9	944.7	18.9	17.9
Third.....	2,006	37	18.4	926.8	18.4	17.1
Fourth.....	2,426	40	16.5	909.7	16.5	15.6
Fifth.....	2,605	41	15.7	894.7	15.7	14.0
Sixth.....	2,725	56	20.6	880.7	20.6	18.1
Seventh.....	2,919	40	13.7	862.6	13.7	11.8
Eighth.....	3,042	36	11.8	850.8	11.8	10.0
Ninth.....	3,153	31	9.8	840.8	9.8	8.2
Tenth to twelfth.....	3,122	90	28.8	832.6	28.8	24.0
				808.6		191.4

In the tables showing computed infant mortality rates by type of feeding, the numbers of infants having the stated type of feeding during the first month and during the ninth month are shown. In addition, the total number of months of feeding of a specified type from the first to the ninth is given, as a truer indication of the size of the base for the computed rate.

“EXPECTED DEATHS.”

In this report the “expected deaths” and “expected rates” are frequently compared with the “actual deaths” or “actual rates.” The reason for making such a computation and the method of securing the expected deaths are briefly explained in the following paragraphs.

Suppose, for example, an analysis is to be made of the relation of mother's employment during pregnancy to infant mortality. By classifying live births and deaths according to the employment and nonemployment of the mother during pregnancy, an infant mortality rate for each group can be obtained. The question immediately arises, however, whether an undue proportion of the mothers who worked during pregnancy may not be colored or foreign born, groups in which the infant mortality rates have been found to be high. The excessive mortality, therefore, among the babies of mothers who worked may be due merely to the differences in the composition of the groups. Accordingly the next step is to subdivide the group into the native white, foreign-born white, and colored, and to ascertain in each group the infant mortality rate among babies whose mothers worked during pregnancy and whose mothers did not work. It appears that the rates are still higher for infants of mothers who worked. The question then arises whether this high mortality may not be due to the general conditions of poverty in homes from which mothers go out to work. Or it may be due to the fact that among the foreign-born mothers, it was chiefly the Polish mothers who went out to work. The next step in analysis, therefore, is to subdivide these groups still further and to compare in each of the subgroups the mortality among babies whose mothers worked and those whose mothers did not work. The difficulty then arises that the numbers in each of these homogeneous subgroups are so small that great differences in the rates may be due to chance variation. Evidently, some method of summarizing the results of the findings of the different subgroups is necessary, but if the live births and infant deaths in the different groups are merely added up, the result gives the figures from which the analysis originally proceeded. It is therefore obvious that the method of summarizing must produce results which are independent of the differences in the distributions of the various factors which complicate the findings in the original group. For this purpose, an expected rate is used for comparison with the actual rate.

The method which has been followed in computing an expected rate is, first, to compute the infant mortality rate in each of the subgroups not divided according to the factor upon which information is particularly sought. In the present case infant mortality rates are determined for each color and nationality and earnings group.

The second step is to divide the live births in each of the subgroups into two subdivisions—those whose mothers were, and those whose mothers were not, employed during pregnancy. The third step is to multiply the live births in each of these subdivisions by the infant mortality rate for the subgroup. The result of this multiplication gives the number of infant deaths in each of the subdivisions of the subgroups if the rate which was true of the subgroups applied to each of the subdivisions. These expected deaths are then added so that one total is secured of all the expected deaths among infants of mothers employed, and another of expected deaths of infants of mothers not employed during pregnancy.

These totals of expected deaths are then compared to the totals of actual deaths among infants of mothers employed and not employed during pregnancy.¹

If there is a tendency for employment of the mother to affect adversely the mortality of babies, then in each of the subdivisions of the subgroups the actual number of deaths among infants of mothers employed during pregnancy will tend, other things being equal, to be in excess of the number expected, found by multiplying the live births by the infant mortality rate for the entire subgroup. In each of the subgroups, then, a comparison can be made between the actual number and the expected number of deaths. By adding on the one hand all the expected deaths and on the other all the actual deaths, the validity of the comparison between the actual and expected deaths is preserved, and the result expresses the comparative mortality in the two groups after the influence of differences in nationality and economic condition is eliminated.

In summing up the results from all the subgroups the range of variation due merely to chance is greatly lessened, and the conclusion secures the full value of the weight attached to the number of cases in the comparison.

Expected rates are found by dividing the number of expected deaths by the total number of live births. These rates may be compared to the actual rates in the same way that expected deaths are compared to actual deaths.

In connection with each table showing expected deaths or expected rates, a statement will be found showing the base upon which these have been computed.

¹ It is obvious that adding together the actual deaths in each of the subdivisions of each subgroup will give the total deaths among infants of mothers employed and not employed during pregnancy.

APPENDIX VI.—PREVALENCE OF PRENATAL CARE AND EXTENT TO WHICH THE INFANTS IN THE STUDY WERE REACHED BY INFANT-WELFARE WORK.

In its Baltimore study, the Children's Bureau for the first time in its series of infant mortality inquiries had an opportunity to observe the development of prenatal clinics and infant-welfare work and to ascertain the extent to which these facilities were available to the babies born during the specified period. The prevalence of prenatal care among the mothers of infants born in 1915 and the extent to which the infants were reached by the infant-welfare agencies were included in the scope of the inquiry. In Baltimore no public work had yet been undertaken in the field of prenatal care and infant welfare, but three private agencies, the Johns Hopkins Hospital, the Babies' Milk Fund Association, and the Mothers' Relief Society, had begun in 1914, 1915, and 1916 to carry on systematic prenatal and infant care. Other hospitals and agencies were making examinations of women who came to them during pregnancy and were cooperating in various ways with these three agencies.

Organizations giving prenatal care.

The prenatal care and obstetrical service furnished by the Johns Hopkins Hospital included a maternity ward, an out-patient dispensary open every day, and a free, outside obstetrical service which, however, was limited to mothers living not more than a mile from the hospital.¹ A clinic nurse visited mothers living within the hospital district, and other mothers were referred for nursing care to the organization next described.

The Babies' Milk Fund Association, organized in 1904 for the distribution of pure modified milk, maintained a nursing service which to some extent reached patients of private physicians,² and supplemented the work of prenatal clinics. The association also maintained an obstetrical clinic in a neighborhood far from any hospital, where foreign-born women predominated.³

A third clinic was carried on by the Mothers' Relief Society, which held a prenatal clinic once in two weeks at a settlement house, Lawrence House.⁴ The work of the one nurse employed was supplemented through cooperation with the Instructive Visiting Nurse Association.

A prospective mother was received by the Johns Hopkins Hospital obstetrical clinic only with the understanding that she would return to the clinic at least monthly until confinement⁵ and

¹ Almost all of the following wards were included in this area: 2, 3, 5, 6, 7, 8, and 10.

² Among the 665 married women attended during pregnancy by the Babies' Milk Fund Association approximately 63 per cent were patients of a prenatal clinic, while about 11 per cent were patients of a private physician only. Twenty-five per cent had no attendant during pregnancy except the nurse of this association. Mothers receiving care from a nurse only have not been included in this report as having prenatal care.

³ The eastern part of the twenty-fourth ward, in the district known as Locust Point. The ward as a whole showed median earnings of fathers between \$650 and \$850; the median earnings for the Locust Point neighborhood had they been tabulated separately would probably have fallen into the lower earnings group.

⁴ This clinic served parts of wards 4, 22, 21, 23, 18, 19.

⁵ Since 1915 the staff has been increased, and the patient is now expected to visit the clinic monthly until the seventh month, and then every two weeks until confinement.

that the baby would be placed under the care of the Babies' Milk Fund Association until he was at least 1 year of age. The clinic did not usually retain as a patient a woman who could afford a private physician. The Babies' Milk Fund Association endeavored to devote the major part of its work to women in families with less than a stated income; it preferred not to take as clinic patients women who could and would go to a hospital for confinement or who would employ a private physician. The Mothers' Relief Society restricted its work to white married mothers who would otherwise have employed a midwife at confinement. It required of the mother full cooperation in the plan of prenatal care, and tried to have mothers brought to the society during the early months of pregnancy.

The prenatal service rendered by the Johns Hopkins Hospital included at the first visit a complete physical examination with pelvic measurements, and at this and each later visit a urinalysis. At least one home visit was made by the clinic nurse or one of the nurses on the staff of the Babies' Milk Fund Association.⁶

The physician in charge of the Babies' Milk Fund Association clinic examined the mother thoroughly at her first visit, and she was expected to return to the clinic at least monthly. Urinalysis was made monthly in normal cases. The mother was visited in her home about once in ten days, and if abnormal symptoms were found she was urged to visit the clinic more often. An initial physical examination, monthly urinalysis, and weekly visits by a trained nurse comprised the prenatal supervision carried on in normal cases by the Mothers' Relief Society.

Prevalence of prenatal care.

The three agencies doing systematic prenatal work gave medical prenatal care to 893 married mothers (769 of these received care from the Johns Hopkins Hospital) and 128 unmarried mothers of those who were included in the scheduled groups. In addition, 379 married mothers reported prenatal visits from a nurse of the Babies' Milk Fund Association or the Mothers' Relief Society, but no medical prenatal care either from these organizations or from the Johns Hopkins prenatal clinic. Of these 379 mothers, 122 had medical prenatal care from some other clinic and 257 did not have prenatal care from any clinic.

Hospital clinics, other than Johns Hopkins gave prenatal care to 546 married mothers (including the 122 who also had visits from nurses of the Babies' Milk Fund Association or the Mothers' Relief Society) and to 161 unmarried mothers.

Besides the special work organized in the clinics, prenatal advice and care were given by private physicians. A complete statement of the prevalence of prenatal care could be obtained, therefore, only by ascertaining in the case of each mother whether she had received prenatal care during the pregnancy of 1915.⁷ Standards of prenatal care were drawn up in consultation with medical authorities, and it was agreed that to be classified as having any medical prenatal care a mother must at the very least have consulted a physician once

⁶ Since 1915, to the routine of each visit have been added the determination of blood pressure and an abdominal examination. In every case a Wassermann test is taken on the first visit and treatment is instituted if a positive reaction is secured.

⁷ The discussion in the following pages is limited to mothers of infants of legitimate birth in the scheduled group.

during her pregnancy or have had a urinalysis.⁸ Consultations with or advice given by a nurse or midwife were not considered prenatal care.

On this basis slightly over half, 52.4 per cent, of the mothers of legitimate infants born in Baltimore in 1915, received some medical prenatal care; nearly half received none. Seven and eight-tenths per cent of the mothers received care from one or more of the three clinics described above, 4.8 per cent from other clinics, and 39.8 per cent from a private physician only.

Prenatal care and poverty.

Table I shows the prevalence of prenatal care in the different earnings groups. A marked correlation between the prevalence of prenatal care and the earnings of the fathers is evident from the table. Of the mothers in families where the fathers earned less than \$850, 56 per cent, as compared with 35 per cent in the families where the fathers earned \$850 to \$1,849, and with 14 per cent in families where the fathers earned \$1,850 or over, received no prenatal care. Of the mothers in families where the fathers earned \$2,850 and over, only 10.8 per cent were without some prenatal care.

But the greatest lack of care did not occur in the very poorest families. In these families clinic care was most prevalent, reaching 34.9 per cent of the mothers in families with no fathers' earnings and 30.4 per cent of the mothers in families with fathers' earnings less than \$450. In families with a little more money, far fewer mothers went to the clinics, and among several of the groups under \$850 the increase in private care as the fathers' earnings rose was less marked than the decrease in clinic care. Therefore fewer mothers had prenatal care in families where fathers earned more than \$450 but less than \$650 than in families where the fathers earned nothing or under \$450.

TABLE I.—Prevalence of prenatal care among mothers,^a by source of care and by earnings of father.

Earnings of father.	Total mothers. ^a	Per cent having no prenatal care.	Per cent having prenatal care.			Per cent not reported.
			Total.	From clinic physician. ^b	From private physician only.	
Total.....	11,463	47.5	52.4	12.6	39.8	0.1
No earnings.....	232	41.4	57.3	34.9	22.4	1.3
Under \$850.....	7,331	55.6	44.3	16.6	27.7	.1
Under \$450.....	1,668	53.0	46.9	30.4	16.5	.1
\$450-\$549.....	1,551	58.7	41.0	20.8	20.2	.3
\$550-\$649.....	1,566	59.8	40.1	13.0	27.1	.1
\$650-\$849.....	2,546	52.7	47.3	7.1	40.1	.1
\$850-\$1,849.....	3,205	34.8	65.1	3.0	62.2	(c)
\$850-\$1,049.....	1,675	40.5	59.5	4.1	55.4	.1
\$1,050-\$1,249.....	696	30.0	70.0	2.3	67.7	.....
\$1,250-\$1,449.....	444	32.9	67.1	2.5	64.6	.....
\$1,450-\$1,849.....	390	21.3	78.7	.3	78.5	.....
\$1,850 and over.....	456	13.8	86.1	.2	86.0	.....
\$1,850-\$2,249.....	143	18.2	81.8	.7	81.1	.....
\$2,250-\$2,849.....	101	13.9	86.1	.....	86.1	.....
\$2,850 and over.....	212	10.8	89.2	.....	89.2	.....
Not reported.....	239	39.7	58.6	18.8	39.7	1.7

^a Includes only married mothers to whom children were born in 1915.

^b With or without care from other physician.

^c Not shown when less than one-tenth of 1 per cent.

⁸ In 103 cases the mother reported urinalysis, but no consultation with a physician.

In families where the father's earnings were below \$850, less than one-third of the mothers sought private prenatal care and less than one-fifth were reached by clinics. In families where the father's earnings were \$850 and below \$1,850, less than two-thirds had private prenatal care and less than 1 in 30 was reached by the clinics. In families where the fathers earned \$1,850 or over, nearly seven-eighths of the mothers sought private prenatal care.

Prenatal care and color and nationality.

The different customs of the several race and nationality groups also play their part in causing the variations in prevalence of prenatal care. In general, of course, the more the group clings to the employment of midwives at confinement the fewer are the mothers in the group who have medical care during pregnancy. Thus, in Baltimore, at one extreme are the Polish mothers with 86.1 per cent (Table II) reporting no prenatal care (and 77.6 per cent attended by midwives at confinement), and at the other extreme the colored mothers and the native white mothers with 42.8 per cent and 41.5 per cent, respectively, reporting no prenatal care (and 25.9 per cent and 27.4 per cent, respectively, employing midwives at confinement). The six nationality groups fall into two divisions: First, the native white mothers, the colored mothers, and the foreign-born Jewish mothers, of whom many, relatively, had prenatal care; and the Polish, Italian, and "all other foreign" mothers, of whom relatively few had prenatal care.

TABLE II.—Prevalence of prenatal care among mothers,¹ by source of care and by color and nationality of mother.

Color and nationality of mother.	Total mothers. ¹	Per cent having no prenatal care.	Per cent having prenatal care.					Per cent not reported.
			Total.	From clinic physician ² .			From private physician only.	
				Total.	The three clinics.	Other clinics.		
Total.....	11,463	47.5	52.4	12.6	7.8	4.8	39.8	0.1
Native white.....	7,117	41.5	58.3	5.6	3.8	1.8	52.8	.1
Jewish.....	996	46.5	53.4	31.7	22.6	9.1	21.7	.1
Polish.....	646	86.1	13.9	8.2	5.7	2.5	5.7	.....
Italian.....	435	77.9	22.1	8.5	6.4	2.1	13.6	.....
All other foreign-born white.....	780	63.1	36.5	8.8	6.4	2.4	27.7	.4
Colored.....	1,489	42.8	57.0	38.1	18.9	19.2	18.9	.3

¹ Includes only married mothers to whom children were born in 1915.

² With or without care from other physician.

The native white mothers depended mainly on private physicians, while the foreign-born Jewish mothers and the colored mothers depended mainly on the clinics. In the three other groups where the majority of mothers had no prenatal care, about 1 mother in 12 had been reached by the clinics and the percentages having private medical prenatal care ranged from 5.7 per cent of the Polish mothers to 27.7 per cent of the "other foreign-born" mothers.

The three clinics doing systematic prenatal work were so located as to be accessible to mothers in the very poor districts in which

native white families predominated. In the wards within a mile of Johns Hopkins, which treated more prenatal patients than any other clinic, occurred about two-thirds of the births to Jewish, Polish, and Italian mothers. The principal colored neighborhoods were not so accessible to Johns Hopkins and were less accessible to the Babies' Milk Fund Association clinic. The Mothers' Relief Society did not accept colored patients. These three clinics together reached 22.6 per cent of the total foreign-born Jewish mothers and 18.9 per cent of the total colored mothers. The other clinics were accessible to certain other very poor districts, including the principal colored neighborhoods, and reached 9.1 per cent of the foreign-born Jewish mothers and 19.2 per cent of the colored mothers. In the other nationality groups much smaller proportions of the mothers were reached by the clinics.

TABLE III.—Prevalence of prenatal care among mothers,¹ from specified source, by ward of residence and median earnings of father.

Ward of residence and median earnings of father.	Total mothers. ¹	Per cent having no prenatal care.	Per cent having prenatal care.				Per cent not reported.	
			Total.	From clinic physician. ²		From private physician only.		
				Total.	The three clinics.			Other clinics.
Total.....	11,463	47.5	52.4	12.6	7.8	4.8	39.8	0.1
Median earnings: Under \$650—								
Ward 2.....	652	76.5	23.5	10.7	7.8	2.9	12.7	.....
Ward 3.....	647	63.1	36.9	26.3	19.8	6.5	10.7	.....
Ward 4.....	240	57.1	42.9	18.8	5.4	13.3	24.2	.....
Ward 22.....	290	54.5	45.5	20.7	4.8	15.9	24.8	.....
Ward 5.....	420	50.5	49.5	37.4	30.7	6.7	12.1	.....
Ward 17.....	287	41.1	58.5	28.6	6.3	22.3	30.0	.3
Median earnings: \$650-\$849—								
Ward 1.....	825	71.0	29.0	5.0	3.4	1.6	24.0	.....
Ward 24.....	630	69.2	30.6	6.3	5.1	1.3	24.3	.2
Ward 21.....	465	54.2	45.4	14.4	8.8	5.6	31.0	.4
Ward 6.....	623	52.8	47.2	18.0	14.6	3.4	29.2	.....
Ward 23.....	370	49.7	50.3	10.5	3.8	6.8	39.7	.....
Ward 18.....	281	49.1	50.5	16.7	6.4	10.3	33.8	.4
Ward 7.....	694	48.4	51.6	14.0	12.8	1.2	37.6	.....
Ward 19.....	401	43.9	56.1	11.0	6.5	4.5	45.1	.....
Ward 10.....	356	43.5	55.9	20.8	15.2	5.6	35.1	.6
Ward 20.....	643	38.6	61.4	4.8	2.5	2.3	56.6	.....
Ward 11.....	157	37.6	61.8	9.6	3.2	6.4	52.2	.6
Ward 13.....	489	33.7	66.1	1.8	.8	1.0	64.2	.2
Ward 8.....	634	33.0	66.9	10.6	8.7	1.9	56.3	.2
Ward 14.....	308	31.8	67.5	15.3	4.2	11.0	52.3	.6
Median earnings: \$850 and over—								
Ward 15.....	645	29.8	69.9	5.3	.8	4.5	64.7	.3
Ward 12.....	437	28.8	70.9	6.9	3.9	3.0	64.1	.2
Ward 16.....	452	24.1	75.9	7.3	1.8	5.5	68.6	.....
Ward 9.....	517	21.9	77.8	5.4	4.6	.8	72.3	.4

¹ Includes only married mothers to whom children were born in 1915.

² With or without care from other physician.

Prenatal care and wards.

Of the five wards (wards 3, 5, 10, 17, and 22) in which 20 per cent or more of the mothers received clinic care, four were among the poorest wards in the city (Table III). Three of these (3, 5, and 10) were within the Johns Hopkins Hospital district. The other two wards included districts with a large proportion of colored mothers which were conveniently accessible to other hospitals. Other wards showing a large proportion of mothers receiving prenatal care from clinics were ward 4, which was conveniently accessible to two hospitals; wards 6 and 7, which were within the Johns Hopkins district, and ward 14, which contained a large colored population and was conveniently accessible to other clinics. Wards 3 and 5 had a considerable Jewish population; it is noteworthy that ward 2, which was in the Johns Hopkins district, had a relatively low proportion of mothers who reported prenatal care, a fact which may be related to its relatively large Polish population.

Grade of prenatal care.

An attempt was made to classify the care received by the mothers roughly into three grades, which were determined upon after consultations with medical authorities. These grades are designated by the letters A, B, and C—grade C including all cases having the minimum of care already noted which could not qualify as either A or B.

To qualify in grade B the care received by the mother must have satisfied all four of the following requirements:

- (1) Some supervision by a physician.
- (2) At least one urinalysis.
- (3) At least an abdominal examination.
- (4) Pelvic measurements if a primipara.

To qualify in grade A, the care must have fulfilled the following additional requirements: Monthly visits to clinic from the fifth to the ninth month or under supervision of private physician from the fifth to the ninth month, and monthly urinalysis during the same period.

Several points should be mentioned in connection with the grading of care. In the first place, the requirements even for grade A care are low and may by no means be considered ideal. The fact that so small a proportion of mothers received care of grade A with its low standard is therefore all the more significant. In the second place, though the care given by the three clinics was based upon their records, the classification of care given by the private physicians was based upon the mothers' statements. The results are, therefore, subject to qualification in that the mothers' memories may have been at fault or that the mothers may not have understood the object or the scope of the examination made by the physicians. On the other hand, the agents were given careful instructions in regard to the questions to be asked and in every case the answers were so classified as to overstate rather than to understate the extent of care actually received. In the third place, it should be emphasized that the results of this study can not be interpreted as in any way a criticism of the physicians or the clinics, since the small proportion of cases receiving

the best grade of care is largely determined by the fact that the mothers did not present themselves for treatment early enough in their pregnancies, or did not continue visits with sufficient regularity. For a better showing the fuller cooperation of the mothers is required, and this can be secured only after the importance of early care is generally recognized and appreciated.

The results of the classification by grades of care is shown in Table IV. Of the entire group of mothers of legitimate infants, 5.1 per cent had grade A, 17.1 per cent had grade B, and 25.6 per cent had grade C care. The proportion with grade A care was less than 5 per cent in all earnings groups under \$850, and between 5 and 10 per cent in the groups \$850 to \$1,449, but rose to 39.2 per cent in the group \$2,850 and over.

TABLE IV.—Prevalence of prenatal care among mothers,¹ by grade of care and by earnings of father.

Earnings of father.	Total mothers. ¹	Per cent having prenatal care of specified grades.				
		Total.	Grade A.	Grade B.	Grade C.	Grade not reported.
Total.....	11,463	52.4	5.1	17.1	25.6	4.5
No earnings.....	232	57.3	1.7	28.9	23.3	3.4
Under \$850.....	7,331	44.3	2.2	17.9	21.7	2.5
Under \$450.....	1,668	46.9	1.3	25.7	17.7	2.2
\$450-\$549.....	1,551	41.0	1.8	19.5	18.2	1.5
\$550-\$649.....	1,566	40.1	1.6	15.7	20.3	2.5
\$650-\$849.....	2,546	47.3	3.5	13.2	27.2	3.4
\$850-\$1,849.....	3,205	65.1	8.5	14.0	34.6	8.0
\$850-\$1,049.....	1,675	59.5	6.6	13.3	33.1	6.6
\$1,050-\$1,249.....	696	70.0	8.2	14.5	37.6	9.6
\$1,250-\$1,449.....	444	67.1	9.2	13.5	36.9	7.4
\$1,450-\$1,849.....	390	78.7	16.4	17.2	33.3	11.8
\$1,850 and over.....	456	86.1	30.3	17.3	28.9	9.6
\$1,850-\$2,249.....	143	81.8	21.0	14.0	36.4	10.5
\$2,250-\$2,849.....	101	86.1	24.8	23.8	26.7	10.9
\$2,850 and over.....	212	89.2	39.2	16.5	25.0	8.5
Not reported.....	239	58.6	4.2	22.6	23.4	8.4

¹ Includes only married mothers to whom children were born in 1915.

Grade B care was most prevalent in the poorest families, with 28.9 per cent of all in the "No earnings" group and 25.7 per cent of all in the "Under \$450" group.⁹ Grade C care, on the other hand, was most prevalent in the families between the very poor and the well to do, the percentage having this grade of care ranging from 33.1 to 37.6 per cent of all in the families where the fathers earned \$850 but less than \$2,250, but falling below 30 per cent in the most prosperous families and below 20 per cent in very poor families.

Only in the poorest families (where the fathers earned less than \$550) and in the most prosperous families (where the fathers earned at least \$2,250) were the mothers who had grade A or grade B care more numerous than the mothers who had grade C care. In the poorest groups care of grades A or B was practically all grade B; in

⁹ The high percentage of grade B care at \$2,250 to \$2,849 is based on a group of 101 mothers of whom 76 had prenatal care of a stated grade. This variation from the general trend has little significance in so small a group.

the earnings group from \$2,250 to \$2,849, it was about evenly divided between grades A and B; and in the group \$2,850 and over, it was mainly grade A.

In quality of care even more than in general prevalence of care the mothers in families of average means fared less well than the very poor.

Prenatal care for 48 per cent of the mothers who received care did not begin until after the fifth month, and consequently it could not satisfy the requirements for grade A. More than one-fourth of the mothers who were classified as having prenatal care saw the physician only once during pregnancy.¹⁰ Only 31.4 per cent had had as many as five consultations.

¹⁰ A visit merely to engage the services of a physician without medical consultation was not counted as a consultation.

CONFINEMENT CARE.

Hospital facilities.

At the time of this study 13 hospitals received maternity cases¹¹ and 5 maintained outside obstetrical service, with the assistance of students in Baltimore medical schools.

Attendant at birth.

In all, 67.4 per cent of the mothers were attended at confinement by a physician (Table V). Confinement at home with a private physician attending was the predominating type of confinement care in the city as a whole, with 47.1 per cent of the total births studied. Next in importance numerically were the midwife cases, with 32.3 per cent of the total births. Confinements attended by the outside obstetrical service of a hospital and confinements occurring in a hospital were about equal in number with 9.9 and 9.5 per cent respectively of the total births. The 24 births to mothers delivered by the obstetrician of the Babies' Milk Fund Association and the 82 births to mothers delivered by the obstetrician of the Mothers' Relief Society were together less than one per cent of the total. Twenty-nine births, or 0.2 per cent of the total, took place with neither midwife nor physician in attendance.

Confinement care, like prenatal care, shows the greatest lack of medical attendance, according to Table VI, in families between the very poor and those who had more than the average income. The percentage of the mothers who were attended by midwives was only 20.7 per cent in the group in which the husband earned nothing and free hospital service reached the largest numbers of cases, but the percentage rose to 44 per cent in the groups in which the fathers earned between \$450 and \$649. In the families where the fathers earned \$650 or more the numbers attended by midwives decreased, but only in families where the fathers earned at least \$1,050 was the percentage of midwife cases smaller than in the poorest group, where the husbands earned nothing.

TABLE V.—Attendant at birth and place of confinement.

Attendant at birth and place of confinement.	Legitimate births in 1915.	
	Number.	Per cent distribution.
Total.....	11,613	100.0
Physician.....	7,830	67.4
In hospital.....	1,105	9.5
Not in hospital.....	6,725	57.9
Outside obstetrical service.....	1,150	9.9
Babies' Milk Fund Association.....	24	0.2
Mothers' Relief Society.....	82	0.7
Private.....	5,469	47.1
Midwife.....	3,754	32.3
Other and none.....	29	0.2

¹¹ See Report on the study of agencies in Baltimore, Md., caring for women in confinement, by Louise Pearce, M. D. Transactions of the third annual meeting of the American Association for Study and Prevention of Infant Mortality, Cleveland, Ohio, 1912, pp. 272-275.

TABLE VI.—Attendant during confinement period of mothers, by place of confinement, and earnings of father.

Earnings of father.	Total mothers. ¹	Per cent attended during confinement period—				
		By physician.			By midwife.	By other and no attend-ant.
		Total.	In hospital.	Outside of hospital.		
Total	11,463	67.4	9.5	57.9	32.4	0.3
No earnings	232	78.0	26.3	51.7	20.7	1.3
Less than \$850	7,331	60.6	7.9	52.7	39.1	.2
Less than \$450	1,668	64.3	11.8	52.5	34.8	.8
\$450-\$549	1,551	56.4	8.8	47.5	43.5	.1
\$550-\$649	1,566	56.3	7.0	49.2	43.7	.1
\$650-\$849	2,546	63.4	5.4	58.0	36.6	.....
\$850-\$1,849	3,205	77.8	9.1	68.7	22.0	.2
\$850-\$1,049	1,675	72.1	6.6	65.6	27.5	.4
\$1,050-\$1,249	696	81.9	8.5	73.4	18.1	.....
\$1,250-\$1,449	444	80.9	12.4	68.5	19.1	.....
\$1,450-\$1,849	390	91.5	17.2	74.4	8.2	.3
\$1,850 and over	456	93.4	25.9	67.5	6.6	.....
\$1,850-\$2,249	143	86.7	29.4	57.3	13.3	.....
\$2,250-\$2,849	101	94.1	25.7	68.3	5.9	.....
\$2,850 and over	212	97.6	23.6	74.1	2.4	.....
Not reported	239	74.9	15.1	59.8	24.7	.4

¹ Includes only married mothers to whom children were born in 1915.

Of the mothers who were delivered in hospitals relatively the fewest were among families of average earnings—that is, between \$650 and \$849; in this group less than 6 per cent of the mothers went to a hospital. But in the families where the fathers earned nothing and in the families where the fathers earned at least \$1,850, approximately 25 per cent of the mothers were delivered in a hospital.

Midwife care was not so prevalent among the colored as among the white mothers in Baltimore. No one nationality group of white mothers—not even the native white women—showed quite so high a percentage of attendance by a physician as the colored mothers. Of the foreign-born groups, the Jewish mothers had relatively the largest number attended by a physician and the Polish mothers had relatively the fewest. Except among the native white mothers, with their comparatively large numbers in the upper earnings groups, these differences in the prevalence of medical care at confinement, in the several color and nationality groups, correspond with the differences in the numbers reached by prenatal care from the clinics.

A considerable number of mothers had both a midwife and a physician in attendance. In 208 cases (5.3 per cent of all attended by midwives) a physician was called in during labor and the birth certificate was signed by the physician and in 93 cases (2.5 per cent of all delivered by midwives) a physician was in attendance after the delivery. In addition, 287 mothers not attended by a midwife at confinement employed a midwife as nurse.

Of the 29 mothers having neither physician nor midwife in attendance at confinement, 5 had a physician after the delivery.

TABLE VII.—*Type of attendant during confinement period, by nationality of mother.*

Color and nationality of mother.	Total mothers. ¹	Per cent attended during confinement period—				
		By physician.			By midwife.	By other and no attendant.
		Total.	In hospital.	Outside of hospital.		
Total.....	11,463	67.4	9.5	57.9	32.4	0.3
Native white.....	7,117	72.4	8.1	64.4	27.4	.2
Jewish.....	996	64.9	23.8	41.1	35.0	.1
Polish.....	646	21.8	2.9	18.9	77.6	.6
Italian.....	435	54.7	2.3	52.4	44.8	.5
All other foreign-born white.....	780	56.5	5.9	50.6	42.8	.6
Colored.....	1,489	73.9	13.5	60.4	25.9	.2

¹Includes only married mothers to whom children were born in 1915.

Visits by attendant during confinement period.

The usual arrangement reported both in cases attended by physicians and in those attended by midwives was a daily visit through the fourth day and at least one visit thereafter. Seven-eighths of the physicians' cases for which the arrangement of visits was reported and practically all the midwife cases fall into this group. The number of visits varied with the economic status of the family. When the fathers' earnings were under \$650, less than 10 per cent of the mothers saw the physician 10 times or oftener; when the fathers earned \$1,850 or more, 40.3 per cent of the mothers saw the physician 10 times or oftener.

Approximately 95 per cent of the mothers who were under the supervision of a physician during pregnancy and 37 per cent of those who had no prenatal care were attended by a physician at confinement.

Nursing care.

More than one mother in four had no professional nursing care. The greatest lack of such care appeared in the groups where fathers' earnings were low among mothers who had been attended by a private physician. The midwife usually gave nursing care to the mother whom she had delivered and such nursing care was the predominating type in families where the fathers earned less than \$850. Among the families where the fathers earned \$850 or more, the practical nurse was in attendance more commonly than the midwife. Only 3.5 per cent of all mothers were cared for by a resident trained nurse, and only in families where the father earned \$2,850 or more was this type of care predominant. Care by a visiting nurse was reported by 4.8 per cent of the mothers. Among the foreign-born Jewish mothers and the colored mothers the proportions cared for by a visiting nurse rose to 12.1 per cent and 11.6 per cent, but in both groups more mothers were nursed by midwives than by visiting nurses.

TABLE VIII.—*Number of visits received by mothers from physician following delivery, by earnings of father.*

Earnings of father.	Total mothers. ¹	Per cent having no visits from physician following delivery.	Per cent ² having specified number of visits from physician following delivery.					Per cent not reported as to visits.	
			Total.	1	2-3	4-9	10 and over.		Not reported.
Total.....	9,867	36.7	57.0	0.4	2.1	30.4	15.6	8.5	6.3
No earnings.....	194	25.3	70.6	2.1	3.6	30.9	8.2	25.8	4.1
Under \$850.....	6,427	43.5	50.9	.5	2.6	29.9	10.7	7.1	5.6
Under \$450.....	1,457	38.8	54.8	1.0	3.2	30.9	8.9	10.8	6.4
\$450-\$549.....	1,372	47.4	47.9	.4	3.1	28.2	8.2	8.0	4.7
\$550-\$649.....	1,369	49.2	46.4	.2	2.3	28.6	9.2	6.1	4.4
\$650-\$849.....	2,229	40.6	52.9	.3	2.2	31.1	14.5	4.8	6.6
\$850-\$1,849.....	2,699	25.6	66.8	.3	1.0	33.2	24.5	7.9	7.6
\$850-\$1,049.....	1,428	31.7	60.5	.5	1.0	32.7	20.7	5.7	7.8
\$1,050-\$1,249.....	582	21.5	71.3	.2	.9	39.2	24.1	7.0	7.2
\$1,250-\$1,449.....	372	22.0	70.7	.....	.8	31.5	26.9	11.6	-7.3
\$1,450-\$1,849.....	317	9.8	82.6	.....	1.6	26.2	40.1	14.8	7.6
\$1,850 and over.....	362	8.0	85.4	.3	.6	18.8	40.3	25.4	6.6
\$1,850-\$2,249.....	116	16.4	73.3	.....	.9	17.2	28.4	26.7	10.3
\$2,250-\$2,849.....	80	.....	.....	.....	.....	.....	.....	.....	.....
\$2,850 and over.....	166	2.4	91.6	.6	.6	18.7	47.0	24.7	6.0
Not reported.....	185	31.9	58.4	.5	1.6	29.2	15.7	11.4	9.7

¹ Includes only mothers with no complications of confinement. In tabulation the following were included as complications: Instrumental delivery, Caesarean section, convulsions, stillbirth, and miscarriage.

² Not shown where base is less than 100.

The period of nursing care¹² was longest among the mothers having a resident trained nurse, but more than two-thirds of the mothers confined in a hospital and of the mothers employing a practical nurse had nursing care during two weeks or longer. Close to nine-tenths of the mothers cared for by a visiting nurse had less than two weeks' nursing care; 30.6 per cent of them were nursed for less than 7 days. Among the midwife cases, over half had care for less than 10 days; 4.5 per cent were nursed for less than 7 days.

The period during which mothers stayed in bed was somewhat longer than the period during which they had professional nursing care. The usual time was from 10 to 13 days. It was shorter than this among the Poles and the Italians of whom 20 and 17 per cent, respectively, were up and about before the fourth day. But only in families where the fathers earned at least \$1,450 did half the mothers with no reported complications of confinement stay in bed for 14 days or longer.

Extra household help (usually given by a relative) was continued after the professional nursing had ceased and the mother was up and about. It lasted in most cases from four to six weeks. Ninety mothers (0.8 per cent of all) had no help and 269 mothers (2.3 per cent of all) had help which lasted less than one week.

¹² If the mother received more than one type of nursing care, the time during which the dominant type of care was received is here considered.

TABLE IX.—Type of nursing care¹ received by mothers, by earnings of father.

Earnings of father.	Total mothers. ²	Per cent having no nursing care. ³	Per cent having specified type of nursing care.							
			Total.	Hos-pital. ⁴	Trained nurse.			Mid-wife.	Practical nurse.	Not re-ported.
					Total.	Resi-dent.	Visit-ing. ⁵			
Total.....	11,463	28.6	71.4	9.5	8.3	3.5	4.8	34.4	18.7	0.5
No earnings.....	232	34.9	65.1	26.7	10.8	2.6	8.2	21.6	4.7	1.3
Under \$850.....	7,331	31.8	68.2	8.0	7.6	1.0	6.6	41.0	11.3	.4
Under \$450.....	1,668	37.2	62.8	11.8	11.0	.4	10.6	35.9	4.0	.1
\$450-\$549.....	1,551	30.1	69.9	9.0	9.7	.7	9.0	44.2	.7	.4
\$550-\$649.....	1,566	29.9	70.1	7.0	5.9	.4	5.4	45.7	11.2	.3
\$650-\$849.....	2,546	30.4	69.6	5.5	5.2	1.9	3.3	39.4	19.0	.6
\$850-\$1,849.....	3,205	23.6	76.4	9.1	6.7	5.6	1.2	24.5	35.3	.8
\$850-\$1,049.....	1,675	26.0	74.0	6.7	5.3	3.6	1.7	30.1	31.0	.8
\$1,050-\$1,249.....	696	25.0	75.0	8.5	5.7	4.7	1.0	21.1	39.4	.3
\$1,250-\$1,449.....	444	19.8	80.2	12.4	7.2	7.0	.2	22.0	37.8	.7
\$1,450-\$1,849.....	390	15.1	84.9	17.2	14.1	13.8	.3	9.0	43.1	1.5
\$1,850 and over.....	456	7.5	92.5	25.9	29.4	28.9	.4	7.2	29.2	.9
\$1,850-\$2,249.....	143	8.4	91.6	29.4	15.4	14.7	.7	14.0	32.2	.7
\$2,250-\$2,849.....	101	8.9	91.1	25.7	26.7	25.7	1.0	6.9	31.7	-----
\$2,850 and over.....	212	6.1	93.9	23.6	40.1	40.1	-----	2.8	25.9	1.4
Not reported.....	239	31.0	69.0	15.1	9.2	5.0	4.2	28.9	15.5	.4

¹ In this table nursing care includes only care beginning within first three days after delivery. If two kinds of care were given, the first in order is given preference.

² Includes only married mothers to whom children were born in 1915.

³ Includes 27 mothers who had nursing care only after the third day, and 126 for whom no information in regard to nursing care was secured.

⁴ Includes 6 mothers not delivered in hospital, but taken to hospital within three days from delivery. In addition 25 mothers were taken to hospital later in confinement period.

⁵ In addition 13 mothers had care from visiting nurse after the third day; 10 of these had no professional nursing within three days, 1 had hospital nursing, 1 midwife, and 1 practical nurse.

TABLE X.—Type of nursing care¹ received by mothers, by color and nationality of mother.

Color and national-ity of mother.	Total moth-ers. ²	Per cent having no nursing care. ³	Per cent having specified type of nursing care.							
			Total.	Hos-pital. ⁴	Trained nurse.			Mid-wife.	Practical nurse.	Type not re-ported.
					Total.	Resi-dent.	Visit-ing. ⁵			
Total.....	11,463	28.6	71.4	9.5	8.3	3.5	4.8	34.4	18.7	0.5
White.....	9,974	26.7	73.3	8.9	7.6	3.8	3.8	35.3	20.9	.6
Native.....	7,117	28.1	71.9	8.1	7.5	4.9	2.6	29.4	26.1	.7
Foreign born.....	2,857	23.3	76.7	11.0	7.8	.9	6.9	49.8	7.8	.3
Jewish.....	996	17.9	82.1	23.9	13.3	1.1	12.1	36.1	8.4	.4
Polish.....	646	11.6	88.4	2.9	3.1	.2	2.9	82.0	.3	-----
Italian.....	435	43.2	56.8	2.3	6.2	-----	6.2	46.0	2.3	-----
All other.....	780	28.8	71.2	5.9	5.6	1.7	4.0	42.6	16.4	.6
Colored.....	1,489	40.8	59.2	13.6	13.2	1.7	11.6	28.5	3.6	.3

¹ In this table nursing care includes only care beginning within first three days after delivery. If two kinds of care were given, the first in order is given preference.

² Includes only married mothers to whom children were born in 1915.

³ Includes 27 mothers who had nursing care only after the third day, and 126 for whom no information in regard to care was secured.

⁴ Includes 6 mothers not delivered in hospital, but taken to hospital within three days from delivery. In addition 25 mothers were taken to hospital later in confinement period.

⁵ In addition 13 mothers had care from visiting nurse after the third day; 10 of these had no professional nursing within three days, 1 had hospital nursing, 1 had midwife, and 1 practical nurse.

TABLE XI.—Duration of nursing care¹ received by mothers, by color and nativity of mother.

Duration of nursing care. ¹	Total mothers. ²		Native white mothers.		Foreign-born white mothers.		Colored mothers.	
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.
Total.....	11,463	100.0	7,117	100.0	2,857	100.0	1,489	100.0
With no nursing care ³	3,276	28.6	2,002	28.1	666	23.3	608	40.8
With care.....	8,187	71.4	5,115	71.9	2,191	76.7	881	59.2
Less than 7 days.....	421	3.7	146	2.1	183	6.4	92	6.2
7-9 days.....	2,216	19.3	961	13.5	942	33.0	313	21.0
10-13 days.....	2,618	22.8	1,734	24.4	601	21.0	283	19.0
14 days and over.....	2,888	25.2	2,244	31.5	459	16.1	185	12.4
Duration not reported....	44	.4	30	.4	6	.2	8	.5

¹ In this table nursing care includes only care beginning within first three days after delivery.

² Includes only married mothers to whom children were born in 1915.

³ Includes 27 mothers who had nursing care only after the third day, and 126 for whom no information in regard to care was secured.

TABLE XII.—Number of days mothers spent in bed or in hospital following delivery, by earnings of father.

Earnings of father.	Total mothers. ¹	Per cent with specified number of days in bed or in hospital following delivery.					
		Less than 1	1-3	4-6	7-9	10-13	14 and over.
Total.....	2 8,760	0.1	3.4	4.6	24.2	45.1	22.7
No earnings.....	178	-----	5.6	1.7	20.8	41.6	30.3
Under \$450.....	1,229	-----	6.2	6.4	30.7	35.1	21.4
\$450-\$649.....	2,432	(²)	5.3	6.5	28.0	41.4	18.6
\$650-\$849.....	1,999	-----	2.5	4.6	25.7	49.4	17.8
\$850-\$1,049.....	1,275	-----	1.5	2.7	19.1	53.8	22.8
\$1,050-\$1,249.....	530	-----	.8	2.6	20.0	52.1	24.5
\$1,250-\$1,449.....	327	-----	.3	2.1	16.2	55.0	26.3
\$1,450 and over.....	626	-----	.6	1.1	9.3	39.0	50.0
Not reported.....	164	-----	.6	2.4	4.3	28.0	28.8

¹ Includes only mothers with no complications of confinement. In tabulation the following were included as complications: Instrumental delivery, Cæsarean section, convulsions, stillbirth, and miscarriage.

² Excludes 1,107 mothers for whom number of days was not reported or who died without getting up.

³ Not shown when less than one-tenth of 1 per cent.

TABLE XIII.—Number of days mothers spent in bed or in hospital following delivery, by color and nationality of mother.

Color and nationality of mother.	Total mothers. ¹	Per cent with specified number of days in bed or in hospital following delivery.					
		Less than 1	1-3	4-6	7-9	10-13	14 and over.
Total.....	2 8,760	0.1	3.4	4.6	24.2	45.1	22.7
White.....	7,621	.1	3.6	4.9	22.9	46.3	22.2
Native.....	5,363	(²)	1.2	2.3	19.9	53.7	22.8
Foreign born.....	2,258	.1	9.4	11.0	30.0	28.7	20.8
Jewish.....	789	-----	.8	1.9	22.3	44.0	31.1
Polish.....	521	.6	19.8	19.4	34.9	7.5	17.8
Italian.....	343	-----	16.6	26.5	30.6	17.8	8.5
All other.....	605	-----	7.6	6.8	35.5	33.2	16.9
Colored.....	1,139	-----	1.8	2.5	32.7	37.2	25.7

¹ Includes only mothers with no complications of confinement. In tabulation the following were included as complications: Instrumental delivery, Cæsarean section, convulsions, stillbirth, and miscarriage.

² Excludes 1,107 mothers for whom number of days was not reported or who died without getting up.

³ Not shown when less than one-tenth of 1 per cent.

TABLE XIV.—*Household help at confinement and place of confinement, by color and nativity of mother.*

Household help at confinement and place of confinement.	Total mothers. ¹		Native white mothers.		Foreign-born white mothers.		Colored mothers.	
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.
Total.....	11,463	100.0	7,117	100.0	2,857	100.0	1,489	100.0
At home.....	10,067	87.8	6,297	88.5	2,520	88.2	1,250	83.9
Household help.....	9,855	86.0	6,163	86.6	2,447	85.6	1,245	83.6
Adult.....	9,701	84.6	6,084	85.5	2,384	83.4	1,233	82.8
Child only.....	105	.9	49	.7	44	1.5	12	.8
Laundry only.....	49	.4	30	.4	19	.7	.....	.....
No household help ²	212	1.8	134	1.9	73	2.6	5	.3
Away from home.....	1,377	12.0	808	11.4	334	11.7	235	15.8
Not reported.....	19	.2	12	.2	3	.1	4	.3

¹ Includes only married mothers to whom children were born in 1915.² Includes 122 cases where a practical nurse was employed.

INFANT-WELFARE WORK.

Organizations doing infant-welfare work.

The principal infant-welfare work carried on in Baltimore in 1915 was done by the Babies' Milk Fund Association, which conducted 12 (and from November, 1915, 13) infant-welfare centers. The association nurses were paying instructive visits to the mothers whose babies were less than 1 year of age and nursing sick babies under 3 years of age, and modified milk was dispensed in selected cases under the direction of a physician.

Infants attended at birth by the obstetrician of the Babies' Milk Fund Association and all infants attended by the outside obstetrical service of Johns Hopkins Hospital or born in the lying-in wards of Johns Hopkins were referred, if not in need of medical treatment, to the nurses of the Babies' Milk Fund Association for supervision. Infants born in other hospitals were less regularly referred to this organization. Many cases were reported to it by charitable organizations. It was the aim of the association to have the nurse visit the mother immediately at the close of the confinement period, in order to give instruction in infant care, and continue her visits at least once a month throughout the first year of the baby's life. After the baby was about a month old, the mother was expected to take him to the infant-welfare center for supervision by the physician. The mothers whose babies were receiving breast milk and no other food were urged to repeat these visits at least once a month. The mothers of babies artificially fed were encouraged to report at weekly intervals. The nurse's visits at the home were continued even when the mother failed to take the baby to the infant-welfare center; but it was contrary to the rules of the association for the nurse to direct the feeding of a child who was to be weaned. The centers, again, gave advice about feeding for children who were well or had slight digestive disorders; they did not prescribe treatment for sick children but referred all such cases to the Harriet Lane Hospital or some other clinic for sick children. Nursing care was given, however, to sick children under 3 years of age.

The Babies' Milk Fund Association did not attempt to restrict its infant-welfare work to the very poorest families but as a matter of fact the poorest families predominated among these cases as they did among the prenatal cases.

The policy of the Mothers' Relief Society in relation to infant supervision was changed twice during 1915. During the first months of the year the baby was referred to the Babies' Milk Fund Association at the end of the confinement period. Later, the policy was followed of having the trained nurse of the Mothers' Relief Society continue to visit the mother and instruct her in infant hygiene until the baby was 6 months old. In November the society decided to continue this visiting throughout the first year of infancy. The nurse paid a visit to the home at least once a month but the society had no infant-welfare center for supervision of well babies by a physician. Some of the artificially fed babies, however, were taken to the

society's physician, or to the Harriet Lane Dispensary or some other clinic, for supervision of the feeding.¹³

Infants reached by infant-welfare work.

Only the supervision and advice given by a physician to a mother visiting an infant-welfare center with her baby for consultation, and home visits by a nurse to instruct the mother in the care of her baby are included in the term "infant-welfare work" as used in the present study. Similar advice and supervision are given by private physicians or resident nurses in many well-to-do homes, but no attempt was made to measure the extent of private supervision. Home visits by a nurse for the treatment or care of a baby in sickness or visits by a mother and baby to a hospital or dispensary for this purpose are also excluded from consideration.

Infant-welfare work had been carried on longer than prenatal work and naturally reached more of the families needing care. In all, 2,935 legitimate infants, or 28.2 per cent of those who survived two weeks, had been visited at least once by an infant-welfare nurse or had been taken at least once to an infant-welfare center for consultation.

In the poorest families approximately one-half of the babies had such supervision—48.8 per cent, where the fathers earned nothing, and 51.6 per cent, where the fathers earned less than \$450. Comparison of the several earnings groups shows a steady decrease in the proportion of infants reached by infant-welfare work as the fathers' earnings rise, but in each group below \$850, from one-fourth to one-half of the babies had supervision by infant-welfare agencies. Where the fathers earned at least \$1,850, 3.1 per cent of the babies had such supervision.

TABLE XV.—Prevalence of supervision from infant-welfare agencies, by earnings of father.

Earnings of father.	Infants who survived 2 weeks.		
	Total.	Having supervision from infant-welfare agencies.	
		Number.	Percent. ^a
Total.....	10,397	2,935	28.2
No earnings.....	201	98	48.8
Under \$850.....	6,624	2,347	35.4
Under \$450.....	1,468	758	51.6
\$450-\$549.....	1,391	568	40.8
\$550-\$649.....	1,437	455	31.7
\$650-\$849.....	2,328	566	24.3
\$850-\$1,849.....	2,944	409	13.9
\$850-\$1,049.....	1,551	266	17.2
\$1,050-\$1,249.....	639	80	12.5
\$1,250-\$1,449.....	402	43	10.7
\$1,450-\$1,849.....	352	20	5.7
\$1,850 and over.....	421	13	3.1
\$1,850-\$2,249.....	137	10	7.3
\$2,250-\$2,849.....	92	2	.....
\$2,850 and over.....	192	1	0.5
Not reported.....	207	68	32.9

^a Not shown where base is less than 100.

¹³ The work of the Harriet Lane Hospital, a children's hospital connected with Johns Hopkins, is not included in this discussion which is concerned primarily with the preventive and instructive care of mothers and babies.

As in prenatal work, the organizations had been more successful in reaching colored families and foreign-born Jewish families than any others. Nearly two-thirds (60.5 per cent) of the colored babies and nearly one-half (45.1 per cent) of the babies of foreign-born Jewish mothers had supervision from welfare agencies. The actual number of infants who had such supervision was greatest among the native white families (1,302) but the total number of native white families was large and the percentage having care (20 per cent) was lower in this group than in any other. Even when families with similar earnings are compared, it appears that in each group except that in which fathers' earnings were from \$450 to \$549 fewer infants, relatively, of native white mothers than of foreign-born white mothers had supervision from infant-welfare agencies.

Among the Poles and Italians the agencies were more successful in reaching families where the mother could speak English than families where the mother could not speak English, but the reverse was true in the foreign-born Jewish families.

Two-thirds of the infants who had supervision at any time within 12 months after birth were still having it at the end of the year. About 5 per cent died within the year; less than 1 per cent were discharged to a private physician or transferred from one agency to another without further record of the case; about 6 per cent were dropped by the agency because the mother would not cooperate. But the principal loss of cases occurred in families that moved and were not followed to their new addresses; 18.8 per cent of the infants who had had supervision were not having it at the end of the year because their families had moved.

TABLE XVI.—Prevalence of supervision from infant-welfare agencies, by color and nationality of mother.

Color and nationality of mother.	Infants who survived 2 weeks.		
	Total.	Having supervision from infant-welfare agencies.	
		Number.	Per cent.
Total.....	10,397	2,935	28.2
Native white.....	6,498	1,302	20.0
Foreign-born white.....	2,660	883	33.2
Jewish.....	937	423	45.1
Polish.....	598	134	22.4
Italian.....	396	128	32.3
All other.....	729	198	27.2
Colored.....	1,239	750	60.5

In every ward, as in the city as a whole, a higher percentage of colored than of white infants had supervision. The need of supervision was of course greatest in the poorest wards, but at the time of this study the work seems to have been more developed or more successful in finding response in certain poor wards than in others. In five of the six wards where the father's median earnings were lowest the percentage having supervision was well above the average for the city (28.2), when all infants are considered together. But when the

white infants and the colored infants are considered separately two of these wards (second and seventeenth) did not show high percentages having supervision. In the seventeenth ward, the number having supervision was 40.9 per cent of the total. But of the white infants in this ward only 7.9 per cent had supervision, as compared with the average, 23.9, for white infants, and of the colored infants, who comprised three-fourths of all the infants in the ward, only 53.3 per cent had supervision, as compared with the average, 60.5, for colored infants. In the second ward, where less than 2 per cent of the infants were colored and where very poor white families predominated, the percentage having supervision (23.2) was approximately the average for all white families, rich and poor, throughout the city. The white babies in the fifth ward had the highest percentage for white infants; 48.1 per cent of the total had supervision.

TABLE XVII.—Prevalence of supervision from infant-welfare agencies, by color of mother, and ward of residence.

Ward of residence and median earnings of father.	Per cent ¹ of infants who survived 2 weeks having supervision from infant-welfare agencies.		
	Total mothers.	White mothers.	Colored mothers.
Total.....	28.2	23.9	60.5
Median earnings under \$650:			
Ward 5.....	54.8	48.1	82.7
Ward 22.....	47.0	39.2	73.7
Ward 3.....	41.2	40.6	.....
Ward 4.....	41.1	35.5	.....
Ward 17.....	40.9	7.9	53.3
Ward 2.....	23.2	22.3	.....
Median earnings \$650-\$849:			
Ward 18.....	39.1	31.2	66.1
Ward 21.....	38.0	35.5	.....
Ward 23.....	36.7	30.9	.....
Ward 24.....	36.1	36.1	.....
Ward 10.....	29.8	25.8	.....
Ward 1.....	27.5	27.3	.....
Ward 14.....	27.5	12.4	39.5
Ward 6.....	27.1	22.0	.....
Ward 11.....	25.9	10.0	42.0
Ward 13.....	22.7	22.6	.....
Ward 8.....	22.6	20.7	.....
Ward 7.....	22.4	16.5	71.6
Ward 19.....	22.4	18.9	.....
Ward 20.....	18.1	17.0	.....
Median earnings \$850 and over:			
Ward 12.....	21.0	12.8	65.6
Ward 15.....	17.2	5.1	60.2
Ward 9.....	15.5	11.9	.....
Ward 16.....	13.1	4.6	46.9

¹ Not shown where base is less than 50.

Of the 2,935 infants reached by infant-welfare work, more than half did not receive supervision regularly, but were taken to the centers or were visited by the nurses only at irregular intervals. Over one-third, however, had each an average of a visit a month—either a visit from a nurse or a consultation at the center—from the time the supervision was commenced until the end of the year. And 120 babies, or 4.1 per cent of these reached by the infant-welfare work, had each an average of a visit from the nurse and a visit to the center during each month from the time the baby came under the

supervision of the organization until the end of the year. Nine babies each averaged three or four visits a month, including at least one to the center and one home visit of the nurse in each month during the period from the commencement of care until the end of the first year.

Of the total number of infants who were reached by infant-welfare work, over half, 55.8 per cent, were never taken to the infant-welfare center; 13.8 per cent were taken once; 14.7 per cent were taken from two to four times; 10.1 per cent were taken from 5 to 10 times; and only 5.3 per cent were taken more than 10 times during the year. The home visits by the nurses were made more regularly and more frequently than the mothers' visits with the baby to the center. In only 62 cases did the mother pay one or more visits to the center and have no home visits from the nurse.

One-half the babies who were reached by infant-welfare work received supervision before the end of the first month, and more than one-third began receiving it during the second or third months. Over 80 per cent of all these infants who received supervision before the end of the third month were breast fed when it began, approximately the same proportion as in the entire group of babies in Baltimore. But among the 392 babies whose supervision began at some time between the beginning of the fourth month and the end of the ninth month, artificial feeding was markedly more prevalent than in the entire group of infants.

APPENDIX VII.—TABLES.

TABLE 1.—*Infant mortality rates in the United States birth-registration area, in certain foreign countries, in Baltimore (selected group) and certain foreign cities, and in cities (population 100,000 or more) in the United States birth-registration area, 1916.*

Area.	Infant mortality rate.	City.	Infant mortality rate.
United States birth-registration area.....	101	Baltimore (selected group).....	103
Countries with more favorable rates:		Foreign cities with more favorable rates:	
Scotland.....	97	Edinburgh.....	100
England and Wales.....	91	London.....	89
The Netherlands.....	85	Melbourne.....	86
Switzerland.....	178	Adelaide.....	83
Australia.....	70	Christiania.....	80
Norway.....	264	Geneva.....	73
New Zealand.....	51	Sidney.....	68
		Wellington.....	65
		Auckland.....	59
		Amsterdam.....	58
		Zurich.....	55

CITIES IN UNITED STATES BIRTH-REGISTRATION AREA.³

City.	Infant mortality rate.	City.	Infant mortality rate.	City.	Infant mortality rate.
Fall River.....	173	Providence.....	110	Albany.....	97
Lowell.....	146	Bridgeport.....	106	Springfield, Mass.....	95
New Bedford.....	139	Washington.....	106	New York.....	93
Seranton.....	131	White.....	83	White.....	92
Reading.....	125	Colored.....	158	Colored.....	169
Baltimore.....	122	Boston.....	105	Cambridge.....	91
White.....	104	White.....	104	New Haven.....	88
Colored.....	219	Colored.....	193	Lynn.....	87
Lawrence.....	116	Philadelphia.....	105	Rochester, N. Y.....	86
Pittsburgh.....	115	White.....	102	Minneapolis.....	82
White.....	113	Colored.....	160	Grand Rapids.....	75
Colored.....	177	Hartford.....	101	St. Paul.....	68
Buffalo.....	114	Worcester.....	101		
Detroit.....	112	Syracuse.....	100		

¹ Annuaire Statistique de la Suisse.

² Compiled from Annuaire Statistique de la Norvège, 1919.

³ Birth Statistics, 1916, U. S. Bureau of the Census.

TABLE 2.—*Legitimacy of birth, inclusion in and exclusion from, and reason for exclusion from detailed study; total registered births¹ in Baltimore in 1915.²*

Inclusion or exclusion, reason for exclusion, and legitimacy of birth.	Total births. ¹	Miscarriages.	Stillbirths.	Infant deaths.	Live births.
Total registered.....	14,636	541	618	1,551	13,477
Legitimate.....	13,484	474	488	1,270	12,522
Included in detailed analysis.....	11,613	418	398	1,117	10,797
Excluded from detailed analysis.....	1,871	56	90	153	1,725
Nonresident hospital cases.....	320	11	20	22	289
Other nonresident cases.....	61	7	5	7	49
Information not available.....	24	—	1	11	23
Not located or moved from city.....	1,466	38	64	113	1,364
Illegitimate.....	1,124	61	108	281	955
Legitimacy not reported (foundlings).....	28	6	22	—	—

¹ Includes miscarriages.

² See Appendix II, p. 189, for discussion of exclusions.

TABLE 3.—Ward of residence, by color and nationality of mother; scheduled legitimate live births in Baltimore in 1915.¹

Color and nationality of mother.	Live births.																								
	Total.	Ward of residence.																							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Total.....	10,797	790	620	627	215	396	596	649	598	496	331	145	409	449	289	598	417	252	269	381	606	447	261	351	605
White mothers.....	9,492	786	609	616	174	317	544	577	576	465	305	74	348	443	130	468	332	68	204	331	591	407	203	319	605
Native.....	6,739	558	259	78	70	59	366	432	527	428	214	53	322	416	93	416	307	38	144	283	503	348	102	276	447
Foreign born.....	2,753	228	350	538	104	258	178	145	49	37	91	21	26	27	37	52	25	30	60	48	88	59	101	43	158
Jewish.....	961	7	49	275	21	180	124	27	5	.....	39	12	8	20	27	32	11	17	23	8	31	7	24	10	4
Polish.....	625	168	279	115	1	2	.....	4	1	1	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	3	6	1	42
Italian.....	412	16	4	133	38	75	6	22	7	.....	21	.....	5	2	2	4	13	8	3	3	5	26	14	5	
German.....	318	18	8	1	4	.....	24	20	21	20	6	5	3	2	2	11	3	.....	8	20	32	18	2	10	80
Irish, English, Scotch, and English-Canadian.....	132	2	2	.....	2	1	3	3	6	15	22	3	7	4	3	5	4	.....	7	6	15	8	1	3	10
Bohemian.....	107	3	1	.....	.....	.....	19	65	9	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	1	6
Lithuanian.....	100	.....	1	6	36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	.....	1	8	36	.....	1	10
All other.....	98	14	6	8	2	.....	2	4	.....	1	2	1	3	1	3	2	3	.....	2	10	6	8	6	4	10
Colored mothers.....	1,305	4	11	11	41	79	52	72	22	31	26	71	61	6	159	130	85	184	65	50	15	40	58	32	.....

¹ All subsequent tables, unless otherwise specified, are based on the scheduled group of legitimate births occurring in Baltimore during 1915.

TABLE 4.—Sanitary condition of dwelling, by ward of residence; infants born in 1915 who lived at least two weeks in dwellings studied.

Sanitary condition of dwelling.	Infants born in 1915 who lived at least 2 weeks in dwellings studied.																								
	Total.	Ward of residence.																							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Total.....	10,336	754	598	601	207	380	572	621	570	484	317	137	394	434	266	577	405	228	257	361	573	431	250	341	578
Water supply:	10,288	754	597	601	207	380	572	621	570	476	317	137	392	426	266	569	398	228	257	360	560	431	250	341	578
City.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....	.....	1	4	.....	6	3	.....	.....	1	11	.....	.....	.....	.....
Well.....	33	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE 5.—Earnings of father, by ward of residence and color of mother; live births in 1915.

Earnings of father and color of mother.	Live births in 1915.																								
	Total.	Ward of residence.																							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
All mothers.....	10,797	790	620	627	215	396	596	649	598	496	331	145	409	449	289	598	417	252	269	381	606	447	261	351	605
Earnings of father:																									
Under \$450.....	1,544	93	143	186	46	105	67	57	49	33	49	34	37	25	58	54	49	98	48	43	33	61	70	50	56
\$450-\$549.....	1,449	121	114	135	32	97	75	72	65	41	48	29	28	33	47	56	27	41	41	55	42	67	45	51	87
\$550-\$649.....	1,489	146	136	90	33	54	91	90	83	50	46	5	44	64	28	52	34	23	26	53	63	80	40	50	108
\$650-\$849.....	2,417	209	121	118	37	56	151	166	167	108	76	13	68	114	39	91	70	35	48	86	184	125	50	93	192
\$850-\$1,049.....	1,595	124	51	33	27	43	99	126	109	125	60	13	62	78	21	80	71	21	37	51	133	65	25	55	86
\$1,050-\$1,249.....	661	30	12	13	10	9	29	49	48	51	13	2	37	39	16	52	51	7	18	46	61	18	8	18	24
\$1,250-\$1,449.....	419	21	9	11	7	3	34	29	28	22	12	4	18	17	15	43	35	3	12	16	33	10	4	12	21
\$1,450-\$1,849.....	371	17	6	6	6	11	14	17	19	29	12	2	24	27	13	57	37	3	14	8	30	5	2	4	8
\$1,850-\$2,249.....	139	5	3	5	.....	4	6	2	4	12	1	8	13	10	7	25	14	1	3	3	7	.....	3	2	1
\$2,250-\$2,849.....	95	.....	3	.....	1	1	4	2	3	4	1	1	17	7	28	6	1	3	3	4	5	.....	.....	.....	.....
\$2,850 and over.....	197	7	.....	.....	2	1	6	7	6	5	2	19	40	25	13	37	9	1	.....	3	1	4	.....	.....	.....
No earnings.....	207	5	11	22	5	8	9	20	10	5	10	4	11	4	16	9	5	7	6	9	5	5	3	4	1
Not reported.....	214	12	11	8	9	4	11	12	7	11	1	11	10	6	9	14	9	11	13	7	6	8	2	5	15
White mothers.....	9,492	786	609	616	174	317	544	577	576	465	305	74	348	443	130	468	332	68	204	331	591	407	203	319	605
Earnings of fathers:																									
Under \$450.....	1,037	90	139	179	29	75	51	42	39	23	34	3	15	23	10	9	9	11	21	24	30	46	46	33	56
\$450-\$549.....	1,093	121	199	133	23	68	57	45	62	30	45	5	16	32	9	21	8	2	21	40	33	56	26	44	87
\$550-\$649.....	1,337	146	134	90	28	43	82	80	77	46	46	.....	35	62	7	34	28	6	22	47	63	73	34	44	87
\$650-\$849.....	2,296	209	121	117	33	51	146	161	164	104	74	8	63	113	20	79	61	15	43	82	183	120	45	92	108
\$850-\$1,049.....	1,560	124	51	33	25	43	99	121	109	125	58	11	60	78	14	78	68	16	35	51	133	63	24	55	86
\$1,050-\$1,249.....	651	30	12	13	10	9	29	49	48	51	13	2	37	39	12	52	49	4	18	45	61	18	8	18	24
\$1,250-\$1,449.....	414	21	9	11	7	3	34	29	28	22	12	4	16	17	13	42	35	3	12	16	33	10	4	12	21
\$1,450-\$1,849.....	365	17	6	6	6	11	14	17	19	29	12	2	22	27	12	56	36	2	14	8	30	5	2	4	8
\$1,850-\$2,249.....	138	5	3	5	.....	4	6	2	4	12	1	8	13	10	7	24	14	1	3	3	7	.....	3	2	1
\$2,250-\$2,849.....	94	.....	3	.....	1	1	4	2	3	4	1	1	17	7	6	28	6	1	3	3	1	4	.....	.....	.....
\$2,850 and over.....	196	7	.....	.....	2	1	6	6	6	5	2	19	40	25	13	37	9	1	.....	3	5	4	1	1	1
No earnings.....	138	4	11	21	3	5	7	13	10	4	6	3	5	4	3	3	2	2	.....	3	5	1	3	4	5
Not reported.....	173	12	11	8	7	3	9	10	7	10	1	8	9	6	4	5	7	4	10	6	5	8	2	6	15
Colored mothers.....	1,305	4	11	11	41	79	52	72	22	31	26	71	61	6	159	130	85	184	65	50	15	40	58	32	.....
Earnings of father:																									
Under \$450.....	507	3	4	7	17	30	16	15	10	15	3	31	22	2	48	45	40	87	27	19	3	15	24	17	.....
\$450-\$549.....	356	.....	5	2	9	29	18	27	3	10	3	24	12	1	38	35	19	39	20	15	9	11	19	7	.....

\$550-\$649.....	152	2	5	11	9	10	6	4	5	9	2	21	18	6	17	4	6	7	6	4
\$650-\$849.....	121	1	4	5	5	5	3	4	2	5	1	19	12	9	20	5	4	1	5	1
\$850-\$1,049.....	35		2			5			2	2		7	2	3	5	2		2		5
\$1,050-\$1,249.....	10											4		2	3		1			
\$1,250-\$1,449.....	5										2		1							
\$1,450-\$1,849.....	6										2		1	1	1					
\$1,850-\$2,249.....	1												1	1						
\$2,250-\$2,849.....	1												1							
\$2,850 and over.....	1					1														
No earnings.....	69	1	1	2	3	2	7	1	4	1	6	13	6	3	5	4	4	1	3	2
Not reported.....	41		2	1	2	2		1		3	1	5	9	2	7	3	1			1

Per cent distribution.

All mothers.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Earnings of father:																									
Under \$450.....	14.3	11.8	23.1	29.7	21.4	26.5	11.2	8.8	8.2	6.7	14.8	23.4	9.0	5.6	20.1	9.0	11.8	38.9	17.8	11.3	5.4	13.6	26.8	14.2	9.3
\$450-\$549.....	13.4	15.3	18.4	21.5	14.9	24.5	12.6	11.1	10.9	8.3	14.5	20.0	6.8	7.3	16.3	9.4	6.5	16.3	15.2	14.4	6.9	15.0	17.2	14.5	14.4
\$550-\$649.....	13.8	18.5	21.9	14.4	15.3	13.6	15.3	13.9	13.9	10.1	13.9	3.4	10.5	14.3	9.7	8.7	8.2	9.1	9.7	13.9	10.4	17.9	15.3	14.2	17.9
\$650-\$849.....	22.4	26.5	19.5	18.8	17.2	14.1	25.3	25.6	27.9	21.8	23.0	9.0	16.6	25.4	13.5	15.2	16.8	13.9	17.8	22.6	30.4	28.0	19.2	26.5	31.7
\$850-\$1,049.....	14.8	15.7	8.2	5.3	12.6	10.9	16.6	19.4	18.2	25.2	18.1	9.0	15.2	17.4	7.3	13.4	17.0	8.3	13.8	13.4	21.9	14.5	9.6	15.7	14.2
\$1,050-\$1,249.....	6.1	3.8	1.9	2.1	4.7	2.3	4.9	7.6	8.0	10.3	3.9	1.4	9.0	8.7	5.5	8.7	12.2	2.8	6.7	12.1	10.1	4.0	3.1	5.1	4.0
\$1,250-\$1,449.....	3.9	2.7	1.5	1.8	3.3	.8	5.7	4.5	4.7	4.4	3.6	2.8	4.4	3.8	5.2	7.2	8.4	1.2	4.5	4.2	5.4	2.2	1.5	3.4	3.5
\$1,450-\$1,849.....	3.4	2.2	1.0	1.0	2.8	2.8	2.3	2.6	3.2	5.8	3.6	1.4	5.9	6.0	4.5	9.5	8.9	1.2	5.2	2.1	5.0	1.1	.8	1.1	1.3
\$1,850-\$2,249.....	1.3	.6	.5	.8		1.0	1.0	.3	.7	2.4	.3	5.5	3.2	2.2	2.4	4.2	3.4	.4	1.1	.8	1.2		1.1	.6	.2
\$2,250-\$2,849.....	.9		.5		.5	.3	.7	.3	.5	.8	.3	.7	4.2	1.6	2.4	4.7	1.4	.4	1.1	.3	.7				.2
\$2,850 and over.....	1.8	.9			.9	.3	1.0	1.1	1.0	1.0	.6	13.1	9.8	6.5	4.5	6.2	2.2	4		.8		2	1.1	1.1	.2
No earnings.....	1.9	.6	1.8	3.5	2.3	2.0	1.5	3.1	1.7	1.0	3.0	2.8	2.7	.9	5.5	1.5	1.2	2.8	2.2	2.4	.8	1.6	3.4	1.4	.2
Not reported.....	2.0	1.5	1.8	1.3	4.2	1.0	1.8	1.8	1.2	2.2	.3	7.6	2.4	1.3	3.1	2.3	2.2	4.4	4.8	1.8	1.0	1.8	.8	2.0	2.5

TABLE 6.—*Monthly rental, by ward of residence; infants born in 1915 who lived at least two weeks in rented dwellings studied.*

Ward of residence.	Total infants.	Infants who lived at least 2 weeks in dwellings of specified monthly rental.														Rental not reported.	
		Under \$5.		\$5, under \$10.		\$10, under \$15.		\$15, under \$25.		\$25, under \$50.		\$50 and over.		Free.			
		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.....	7,300	350	4.8	2,579	35.3	2,324	31.8	1,180	16.2	331	4.5	44	0.6	95	1.3	397	5.4
1.....	429	69	16.1	232	54.1	91	21.2	20	4.7	2	.5					15	3.5
2.....	462	119	25.8	264	57.1	46	10.0	12	2.6	1	.2			8	1.7	12	2.6
3.....	501	65	13.0	302	60.3	92	18.4	7	1.4	3	.6			2	.4	30	6.0
4.....	181	1	.6	86	57.5	36	19.9	21	11.6	13	7.2			4	2.2	20	11.0
5.....	318	10	3.1	151	47.5	97	30.5	37	11.6	1	.3			4	1.3	18	5.7
6.....	341	2	.6	127	37.2	135	39.6	53	15.5	1	.3			3	.9	20	5.9
7.....	296	5	1.7	86	29.1	126	42.6	51	17.2	6	2.0	1	.3	8	2.7	13	4.4
8.....	393	1	.3	105	26.7	193	49.1	76	19.3	3	.8			5	1.3	10	2.5
9.....	274	3	1.1	51	18.6	119	43.4	82	29.9	5	1.8			4	1.5	10	3.6
10.....	256	1	.4	101	39.5	98	38.3	36	14.1	3	1.2			3	1.2	14	5.5
11.....	118	1	.8	5	4.2	24	20.3	35	29.7	23	19.5	10	8.5	1	.8	19	16.1
12.....	268	2	.7	39	14.6	91	34.0	57	21.3	45	16.8	12	4.5	5	1.9	17	6.3
13.....	329	11	3.3	79	24.0	112	34.0	67	20.4	26	7.9	10	3.0	8	2.4	16	4.9
14.....	202	2	1.0	28	13.9	47	23.3	49	24.3	45	22.3	3	1.5	4	2.0	24	11.9
15.....	356	6	1.7	42	11.8	91	25.6	115	32.3	74	20.8	7	2.0	1	.3	20	5.6
16.....	247	1	.4	52	21.1	58	23.5	92	37.2	28	11.3			4	1.6	12	4.9
17.....	193	2	1.0	31	16.1	51	26.4	71	36.8	18	9.3			2	1.0	18	9.3
18.....	215	1	.5	66	30.7	75	34.9	36	16.7	8	3.7			6	2.8	23	10.7
19.....	274	3	1.1	89	32.5	117	42.7	42	15.3	13	4.7			4	1.5	6	2.2
20.....	388	3	.8	84	21.6	171	44.1	112	28.9	9	2.3			4	1.0	5	1.3
21.....	346	11	3.2	145	41.9	144	41.6	21	6.1	2	.6			5	1.4	18	5.2
22.....	215	5	2.3	102	47.4	65	30.2	24	11.2	1	.5	1	.5	1	.5	16	7.4
23.....	289	5	1.7	142	49.1	99	34.3	31	10.7	1	.3			3	1.0	8	2.8
24.....	409	21	5.1	170	41.6	146	35.7	33	8.1					6	1.5	33	8.1

TABLE 7.—Tenure of dwelling, by ward of residence; infants born in 1915 who lived at least two weeks in dwellings studied.

Ward of residence.	Total infants.	Infants who lived at least 2 weeks in dwellings of specified tenure.							Tenure not reported.
		Dwelling owned.		Dwelling rented.		Family boarding.			
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.		
Total.....	10,336	2,879	27.9	7,300	70.6	156	1.5	1	
1.....	754	322	42.7	429	56.9	3	.4		
2.....	598	136	22.7	462	77.3				
3.....	601	97	16.1	501	83.4	3	.5		
4.....	207	16	7.7	181	87.4	10	4.8		
5.....	380	55	14.5	318	83.7	7	1.8		
6.....	572	225	39.3	341	59.6	6	1.0		
7.....	621	310	49.9	296	47.7	15	2.4		
8.....	570	169	29.6	393	68.9	7	1.2	1	
9.....	484	192	39.7	274	56.6	18	3.7		
10.....	317	61	19.2	256	80.8				
11.....	137	16	11.7	118	86.1	3	2.2		
12.....	394	114	28.9	268	68.0	12	3.0		
13.....	434	92	21.2	329	75.8	13	3.0		
14.....	266	58	21.8	202	75.9	6	2.3		
15.....	577	214	37.1	356	61.7	7	1.2		
16.....	405	153	37.8	247	61.0	5	1.2		
17.....	228	29	12.7	193	84.6	6	2.6		
18.....	257	37	14.4	215	83.7	5	1.9		
19.....	361	81	22.4	274	75.9	6	1.7		
20.....	573	180	31.4	388	67.7	5	.9		
21.....	431	83	19.3	346	80.3	2	.5		
22.....	250	28	11.2	215	86.0	7	2.8		
23.....	341	51	15.0	289	84.8	1	.3		
24.....	578	160	27.7	409	70.8	9	1.6		

TABLE 8.—Tenure of dwelling, by color and nationality of mother; infants born in 1915 who lived at least two weeks in dwellings studied.

Color and nationality of mother.	Total infants.	Infants who lived at least 2 weeks in dwellings of specified tenure.										Tenure not reported.
		Dwelling owned.						Dwelling rented.		Family boarding.		
		Total.		By parents.		By others in household.		Number.	Per cent.	Number.	Per cent.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.					
Total.....	10,336	2,879	27.9	2,367	22.9	512	5.0	7,300	70.6	156	1.5	1
Native white.....	6,464	1,991	30.8	1,541	23.8	450	7.0	4,351	67.3	121	1.9	1
Foreign-born white.....	2,649	814	30.7	785	29.6	29	1.1	1,820	68.7	15	.6	
Jewish.....	931	241	25.9	237	25.5	4	.4	684	73.5	6	.6	
Polish.....	597	174	29.1	168	28.1	6	1.0	423	70.9			
Italian.....	394	97	24.6	93	23.6	4	1.0	296	75.1	1	.3	
German.....	308	144	46.8	135	43.8	9	2.9	163	52.9	1	.3	
Irish, English, Scotch, and English-Canadian ¹	127	33	26.0	32	25.2	1	.8	92	72.4	2	1.6	
Bohemian.....	101	74	73.3	71	70.3	3	3.0	27	26.7			
Lithuanian.....	96	20	20.8	19	19.8	1	1.0	72	75.0	4	4.2	
All other.....	95	31	32.6	30	31.6	1	1.1	63	66.3	1	1.1	
Colored.....	1,223	74	6.1	41	3.4	33	2.7	1,129	92.3	20	1.6	

¹ Includes 93 Irish, 18 English, 8 Scotch, and 8 English-Canadian.

TABLE 9.—Tenure of dwelling, by earnings of father; infants born in 1915 who lived at least two weeks in dwellings studied.

Earnings of father.	Total infants.	Infants who lived at least 2 weeks in dwellings of specified tenure.										Tenure not reported.
		Dwelling owned.						Dwelling rented.		Family boarding.		
		Total.		By parents.		By others in household.		Number.	Per cent.	Number.	Per cent.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.					
Total.....	10,336	2,879	27.9	2,367	22.9	512	5.0	7,300	70.6	156	1.5	1
Under \$450.....	1,457	171	11.7	135	9.3	36	2.5	1,270	87.2	16	1.1	.....
\$450-\$549.....	1,387	202	14.6	161	11.6	41	3.0	1,172	84.5	13	.9	.....
\$550-\$849.....	3,749	907	24.2	703	18.8	204	5.4	2,786	74.3	56	1.5	.....
\$850-\$1,249.....	2,183	911	41.7	762	34.9	149	6.8	1,239	56.8	33	1.5	.....
\$1,250-\$1,849.....	751	375	49.9	333	44.3	42	5.6	361	48.1	15	2.0	.....
\$1,850 and over.....	419	236	56.3	220	52.5	16	3.8	180	43.0	3	.7	.....
No earnings.....	192	23	12.0	14	7.3	9	4.7	153	79.7	16	8.3	.....
Not reported.....	198	54	27.3	39	19.7	15	7.6	139	70.2	4	2.0	1

TABLE 10.—Dwellings in building; infants born in 1915 who lived at least two weeks in dwellings studied.

Dwellings in building.	Infants who lived at least 2 weeks in dwellings studied.		Dwellings in building.	Infants who lived at least 2 weeks in dwellings studied.	
	Number.	Per cent distribution.		Number.	Per cent distribution.
Total.....	10,336	100.0	4.....	196	1.9
1.....	6,972	67.5	5-9.....	218	2.1
2.....	2,051	19.8	10 and over.....	61	.6
3.....	812	7.9	Not reported.....	26	.3

TABLE 11.—Color, nativity, and mother tongue of population in Baltimore and in Continental United States, 1910.¹

Color, nativity, and mother tongue.	Population.		
	Baltimore.		Continental United States.
	Number.	Per cent distribution.	Per cent distribution.
Total.....	558,485	100.0	100.0
Native white:			
Native parentage.....	261,474	46.8	53.8
Foreign or mixed parentage.....	134,870	24.1	20.5
German.....	68,898	12.3	6.6
English and Celtic.....	29,740	5.3	7.3
Yiddish and Hebrew.....	11,557	2.1	.7
Polish.....	10,476	1.9	.8
Bohemian and Moravian.....	4,396	.8	.3
Italian.....	3,497	.6	.9
All other.....	6,306	1.1	4.0
Foreign-born white.....	77,043	13.8	14.5
German.....	25,104	4.5	3.0
English and Celtic.....	10,603	1.9	3.7
Yiddish and Hebrew.....	15,585	2.8	1.1
Polish.....	11,123	2.0	1.0
Bohemian and Moravian.....	3,354	.6	.2
Italian.....	5,043	.9	1.5
All other.....	6,231	1.1	4.0
Negro.....	84,749	15.2	10.7
Other colored.....	349	.1	.5

¹ Thirteenth Census of the United States, Vol. I, pp. 125, 207, 998-1015.

TABLE 12.—Years of residence of mother in the United States, by nationality of mother; births¹ in 1915 to foreign-born white mothers.

Years of residence of mother in the United States.	Births ¹ in 1915 to foreign-born white mothers of specified nationality.								
	Total births. ¹	Jewish.	Polish.	Italian.	German.	Irish, English, Scotch, and English-Canadian. ²	Bohemian.	Lithuanian.	All other. ³
Total.....	2,894	1,011	655	440	331	138	112	105	102
Under 5.....	651	188	160	157	48	15	12	22	49
1.....	132	41	31	37	5	3	1	4	10
2.....	186	55	40	40	21	5	3	8	14
3.....	184	55	45	41	12	2	5	7	17
4.....	149	37	44	39	10	5	3	3	8
5-9.....	792	294	174	126	67	24	32	51	24
10-14.....	601	258	114	79	59	32	23	18	18
15-19.....	303	113	73	45	23	25	10	8	6
20 and over.....	535	155	132	33	130	40	34	6	5
Not reported.....	12	3	2	.....	4	2	1	.....	.....
Per cent distribution.									
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 5.....	22.5	18.6	24.4	35.7	14.5	10.9	10.7	21.0	48.0
1.....	4.6	4.1	4.7	8.4	1.5	2.2	.9	3.8	9.8
2.....	6.4	5.4	6.1	9.1	6.3	3.6	2.7	7.6	13.7
3.....	6.4	5.4	6.9	9.3	3.6	1.4	4.5	6.7	16.7
4.....	5.1	3.7	6.7	8.9	3.0	3.6	2.7	2.9	7.8
5-9.....	27.4	29.1	26.6	28.6	20.2	17.4	28.6	48.6	23.5
10-14.....	20.8	25.5	17.4	18.0	17.8	23.2	20.5	17.1	17.6
15-19.....	10.5	11.2	11.1	10.2	6.9	18.1	8.9	7.6	5.9
20 and over.....	18.5	15.3	20.2	7.5	39.3	29.0	30.4	5.7	4.9
Not reported.....	.4	.3	.3	.....	1.2	1.4	.9	.....	.....

¹ Includes miscarriages.² Includes: 101 Irish, 19 English, 8 Scotch, and 10 English-Canadian.³ Includes: 24 Russian, 19 Greek, 13 Magyar, 8 Norwegian, 6 Serbian, 5 French, 5 Slovak, 4 Rumanian, 4 Ruthenian, 3 French-Canadian, 3 Dutch, 2 Slavic (n. o. s.), 2 Spanish, 2 Swedish, 1 Arabian, and 1 Danish.

TABLE 13.—Ability to speak English, by literacy and nationality of mother; births in 1915 to foreign-born white mothers of non-English-speaking nationalities.

Literacy and nationality of mother.	Births in 1915.				
	Total.	Mothers able to speak English.		Mothers not able to speak English.	
		Number.	Per cent. ¹	Number.	Per cent. ¹
Foreign-born white mothers of non-English-speaking nationalities:					
Literate.....	1,920	1,417	73.8	503	26.2
Illiterate.....	777	227	29.2	550	70.8
Jewish:					
Literate.....	814	697	85.6	117	14.4
Illiterate.....	176	112	63.6	64	36.4
Polish:					
Literate.....	354	187	52.8	167	47.2
Illiterate.....	288	47	16.3	241	83.7
Italian:					
Literate.....	228	107	46.9	121	53.1
Illiterate.....	196	38	19.4	158	80.6
German:					
Literate.....	306	272	88.9	34	11.1
Illiterate.....	21	8	.....	13	.....
All other:					
Literate.....	218	154	70.6	64	29.4
Illiterate.....	96	22	.....	74	.....

¹ Not shown where base is less than 100.

TABLE 14.—Ability to speak English, by years in the United States and nationality of mother; births in 1915 to foreign-born white mothers of non-English-speaking nationalities.

Nationality of mother.	Births to foreign-born white mothers reporting specified number of years in the United States.								
	Under 5.			5-9.			10 and over.		
	Total.	Unable to speak English.		Total.	Unable to speak English.		Total.	Unable to speak English.	
		Number.	Per cent. ¹		Number.	Per cent.		Number.	Per cent.
Total foreign-born white mothers of non-English-speaking nationalities.....	627	473	75.4	755	339	44.9	1,310	245	18.7
Jewish.....	186	104	55.9	288	48	16.7	514	30	5.8
Polish.....	158	151	95.6	171	134	78.4	312	123	39.4
Italian.....	152	136	89.5	124	84	67.7	150	61	40.7
German.....	48	23	.....	67	13	19.4	208	11	5.3
All other.....	83	59	71.1	105	60	57.1	126	20	15.9

¹ Not shown where base is less than 50.

TABLE 15.—Literacy of mother, by color and nationality of mother and earnings of father; births in 1915.

Earnings of father.	Per cent ¹ of births to illiterate mothers.								
	Total.	Color and nationality.							Colored.
		Native white.	Foreign-born white.					All other.	
			Total.	Jewish.	Polish.	Italian.	German.		
Total.....	9.7	1.9	27.5	17.8	44.8	46.0	6.4	22.4	12.2
Under \$450.....	22.6	6.1	43.1	26.2	54.3	62.3	(1)	43.7	14.2
\$450-\$549.....	16.4	5.0	37.5	27.5	48.9	51.6	(1)	25.0	10.9
\$550-\$649.....	11.7	2.7	29.6	19.0	45.6	40.0	6.6	26.6	14.6
\$650-\$849.....	5.9	1.6	17.8	11.8	31.0	30.6	5.3	15.6	10.4
\$850 and over.....	2.6	0.5	11.8	8.8	32.2	29.5	2.1	8.2	4.8
No earnings.....	15.3	.....	50.9	.....	.....	.....	.....	.....	9.5
Not reported.....	7.5	1.5	21.6	.....	.....	.....	.....	.....	.....

¹ Not shown where base is less than 50.

TABLE 16.—Ability of mother to speak English, by earnings of father and nationality of mother; births in 1915 to foreign-born white mothers of non-English-speaking nationalities.

Earnings of father.	Per cent ¹ of births to mothers unable to speak English, among foreign-born white mothers of specified nationality.					
	All non-English-speaking nationalities.	Jewish.	Polish.	Italian.	German.	All other.
Total.....	39.1	18.4	63.5	66.0	14.4	44.6
Under \$450.....	57.6	33.8	74.4	77.0	.....	66.2
\$450-\$549.....	45.7	18.3	65.2	67.7	.....	.....
\$550-\$649.....	43.1	17.4	59.2	62.0	26.2	.....
\$650-\$849.....	32.5	16.7	56.6	54.1	14.7	33.8
\$850 and over.....	18.9	9.1	52.5	55.7	5.2	20.0
No earnings.....	48.1	.....	.....	.....	.....	.....
Not reported.....	30.0	.....	.....	.....	.....	.....

¹ Not shown where base is less than 50.

TABLE 17.—*Occupation group¹ of father, by color and nativity of mother; births in 1915.*

Occupation group ¹ of father.	Total births.		Births to mothers of specified color and nativity.					
			Native white.		Foreign-born white.		Colored.	
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.
Total	11,195	100.0	6,937	100.0	2,837	100.0	1,421	100.0
Group I.....	1,757	15.7	522	7.5	499	17.6	736	51.8
Group II.....	3,535	31.6	1,888	27.2	1,179	41.6	468	32.9
Group III.....	2,591	23.1	2,048	29.5	470	16.6	73	5.1
Group IV.....	2,381	21.3	1,833	26.4	505	17.8	43	3.0
Group V.....	706	6.3	549	7.9	134	4.7	23	1.6
No occupation.....	201	1.8	85	1.2	44	1.6	72	5.1
Occupation not reported.....	17	.2	8	.1	4	.1	5	.4
Own income.....	7	.1	4	.1	2	.1	1	.1

¹ For grouping see p. 36.

TABLE 18.—*Infant mortality and stillbirth rates, by earnings of father, and color and nationality of mother; births¹ in 1915.*

Earnings of father and color and nationality of mother.	Total births. ¹	Miscarriages.		Births.	Stillbirths.		Live births.	Infant deaths.	Infant mortality rate. ²
		Number.	Per cent. ²		Number.	Per cent. ²			
All mothers.....	11,613	418	3.6	11,195	398	3.6	10,797	1,117	103.5
Earnings of father:									
Under \$450.....	1,690	75	4.4	1,615	71	4.4	1,544	242	156.7
\$450-\$549.....	1,574	51	3.2	1,523	74	4.9	1,449	171	118.0
\$550-\$649.....	1,590	47	3.0	1,543	54	3.5	1,489	162	108.8
\$650-\$849.....	2,575	85	3.3	2,490	73	2.9	2,417	232	96.0
\$850-\$1,049.....	1,696	56	3.3	1,640	45	2.7	1,595	114	71.5
\$1,050-\$1,249.....	705	27	3.8	678	17	2.5	661	44	66.6
\$1,250-\$1,449.....	449	19	4.2	430	11	2.6	419	31	74.0
\$1,450-\$1,849.....	397	17	4.3	380	9	2.4	371	32	86.3
\$1,850-\$2,249.....	146	3	2.1	143	4	2.8	139	5	36.0
\$2,250-\$2,849.....	103	3	2.9	100	5	5.0	95	3	3.0
\$2,850 and over.....	212	7	3.3	205	8	4.0	197	8	40.6
No earnings.....	235	13	5.5	222	15	6.8	207	43	207.7
Not reported.....	241	15	6.2	226	12	5.3	214	30	140.2
White mothers.....	10,104	330	3.3	9,774	282	2.9	9,492	910	95.9
Earnings of father:									
Under \$450.....	1,087	28	2.6	1,059	22	2.1	1,037	159	153.3
\$450-\$549.....	1,165	38	3.3	1,127	34	3.0	1,093	111	101.6
\$550-\$649.....	1,420	41	2.9	1,379	42	3.0	1,337	141	105.5
\$650-\$849.....	2,440	75	3.1	2,365	69	2.9	2,296	218	94.9
\$850-\$1,049.....	1,655	53	3.2	1,602	42	2.6	1,560	108	69.2
\$1,050-\$1,249.....	695	27	3.9	668	17	2.5	651	43	66.1
\$1,250-\$1,449.....	444	19	4.3	425	11	2.6	414	28	67.6
\$1,450-\$1,849.....	391	17	4.3	374	9	2.4	365	32	87.7
\$1,850-\$2,249.....	145	3	2.1	142	4	2.8	138	5	36.2
\$2,250-\$2,849.....	102	3	2.9	99	5	5.0	94	3	3.0
\$2,850 and over.....	211	7	3.3	204	8	3.9	196	8	40.8
No earnings.....	156	8	5.1	148	10	6.8	138	29	210.1
Not reported.....	193	11	5.7	182	9	4.9	173	25	144.5
Native mothers.....	7,210	273	3.8	6,937	198	2.9	6,739	646	95.9
Earnings of father:									
Under \$450.....	477	17	3.6	460	11	2.4	449	74	164.8
\$450-\$549.....	686	23	3.4	663	19	2.9	644	83	128.9
\$550-\$649.....	971	35	3.6	936	28	3.0	908	98	107.9
\$650-\$849.....	1,840	64	3.5	1,776	50	2.8	1,726	165	95.6
\$850-\$1,049.....	1,328	45	3.4	1,283	32	2.5	1,251	86	68.7
\$1,050-\$1,249.....	591	25	4.2	566	15	2.7	551	40	72.6
\$1,250-\$1,449.....	340	18	5.3	322	8	2.5	314	24	76.4
\$1,450-\$1,849.....	339	16	4.7	323	8	2.5	315	29	92.1
\$1,850-\$2,249.....	115	3	2.6	112	4	3.6	108	5	46.3
\$2,250-\$2,849.....	89	3	3.4	86	5	5.8	81	3	3.6
\$2,850 and over.....	191	7	3.7	184	7	3.8	177	6	33.9
No earnings.....	103	8	7.8	95	7	7.4	88	16	177.7
Not reported.....	140	9	6.4	131	4	3.1	127	17	133.9
Foreign-born mothers.....	2,894	57	2.0	2,837	84	3.0	2,753	264	95.9
Earnings of father:									
Under \$450.....	610	11	1.8	599	11	1.8	588	85	144.6
\$450-\$549.....	479	15	3.1	464	15	3.2	449	28	62.4
\$550-\$649.....	449	6	1.3	443	14	3.2	429	43	100.2
\$650-\$849.....	600	11	1.8	589	19	3.2	570	53	93.0
\$850-\$1,049.....	327	8	2.4	319	10	3.1	309	22	71.2
\$1,050-\$1,249.....	104	2	1.9	102	2	2.0	100	3	30.0
\$1,250-\$1,449.....	104	1	1.0	103	3	2.9	100	4	40.0
\$1,450-\$1,849.....	52	1	1.9	51	1	1.9	50	3	6.0
\$1,850-\$2,249.....	30	.....	.....	30	.....	.....	30	.....	.....
\$2,250-\$2,849.....	13	.....	.....	13	.....	.....	13	.....	.....
\$2,850 and over.....	20	.....	.....	20	1	5.0	19	2	10.0
No earnings.....	53	.....	.....	53	3	5.7	50	13	24.5
Not reported.....	53	2	3.8	51	5	9.8	46	8	17.2
Italian.....	440	14	3.2	426	14	3.3	412	36	87.4
Earnings of father:									
Under \$450.....	124	2	1.6	122	2	1.6	120	20	166.7
\$450-\$549.....	99	6	6.0	93	3	3.2	90	4	4.4
\$550-\$649.....	50	.....	.....	50	4	8.0	46	3	6.5
\$650-\$849.....	89	4	4.5	85	1	1.2	84	7	8.3
\$850-\$1,049.....	33	.....	.....	32	1	3.1	31	.....	.....

¹ Includes miscarriages.² Not shown where base is less than 100.

TABLE 18.—*Infant mortality and stillbirth rates, by earnings of father, and color and nationality of mother; births¹ in 1915—Continued.*

Earnings of father and color and nationality of mother.	Total births. ¹	Miscarriages.		Births.	Stillbirths.		Live births.	Infant deaths.	Infant mortality rate. ²
		Number.	Per cent. ²		Number.	Per cent. ²			
Earnings of father—Contd.									
\$1,050-\$1,249.....	15			15			15		
\$1,250-\$1,449.....	8			8			8		
\$1,450-\$1,849.....	5			5			5		
\$1,850-\$2,249.....									
\$2,250-\$2,849.....	1			1			1		
\$2,850 and over.....									
No earnings.....	6			6	2		4	1	
Not reported.....	10	1		9	1		8	1	
Jewish.....	1,011	20	2.0	991	30	3.0	961	49	51.0
Earnings of father:									
Under \$450.....	198	3	1.5	195	5	2.6	190	11	57.9
\$450-\$549.....	146	4	2.7	142	3	2.1	139	3	21.6
\$550-\$649.....	124	3	2.4	121	4	3.3	117	8	68.4
\$650-\$849.....	190	4	2.1	186	5	2.7	181	13	71.8
\$850-\$1,049.....	129	4	3.1	125	6	4.8	119	3	25.2
\$1,050-\$1,249.....	43	2		41			41	1	
\$1,250-\$1,449.....	59			59	2		57	1	
\$1,450-\$1,849.....	31			31			31	1	
\$1,850-\$2,249.....	21			21			21		
\$2,250-\$2,849.....	7			7					
\$2,850 and over.....	13			13	1		12		
No earnings.....	28			28	1		27	4	
Not reported.....	22			22	3		19	4	
Polish.....	655	12	1.8	643	18	2.8	625	102	163.2
Earnings of father:									
Under \$450.....	168	4	2.4	164			164	34	207.3
\$450-\$549.....	145	4	2.8	141	6	4.3	135	15	111.1
\$550-\$649.....	149	2	1.3	147	3	2.0	144	22	152.8
\$650-\$849.....	114	1	8.8	113	5	4.4	108	14	129.6
\$850-\$1,049.....	45			45	2	4.4	43	10	
\$1,050-\$1,249.....	7			7	1		6		
\$1,250-\$1,449.....	5			5	1		4	1	
\$1,450-\$1,849.....	1			1			1		
\$1,850-\$2,249.....	1			1			1		
\$2,250-\$2,849.....									
\$2,850 and over.....									
No earnings.....	10			10			10	4	
Not reported.....	10	1		9			9	2	
All other.....	788	11	1.4	777	22	2.8	755	77	102.0
Earnings of father:									
Under \$450.....	120	2	1.7	118	4	3.4	114	20	175.4
\$450-\$549.....	89	1		88	3		85	6	
\$550-\$649.....	126	1	.8	125	3	2.4	122	10	82.0
\$650-\$849.....	207	2	1.0	205	8	3.9	197	19	96.4
\$850-\$1,049.....	120	3	2.5	117	1	.9	116	9	77.6
\$1,050-\$1,249.....	39			39	1		38	2	
\$1,250-\$1,449.....	32	1		31			31	2	
\$1,450-\$1,849.....	15	1		14	1		13	2	
\$1,850-\$2,249.....	8			8			8		
\$2,250-\$2,849.....	5			5			5		
\$2,850 and over.....	7			7			7	2	
No earnings.....	9			9			9	4	
Not reported.....	11			11	1		10	1	
Colored mothers.....	1,509	88	5.8	1,421	116	8.2	1,305	207	158.6
Earnings of father:									
Under \$450.....	603	47	7.8	556	49	8.8	507	83	163.7
\$450-\$549.....	409	13	3.2	396	40	10.1	356	60	168.5
\$550-\$649.....	170	6	3.5	164	12	7.3	152	21	138.2
\$650-\$849.....	135	10	7.4	125	4	3.2	121	14	115.7
\$850-\$1,049.....	41	3		38	3		35	6	
\$1,050-\$1,249.....	10			10			10	1	
\$1,250-\$1,449.....	5			5			5	3	
\$1,450-\$1,849.....	6			6			6		
\$1,850-\$2,249.....	1			1			1		
\$2,250-\$2,849.....	1			1			1		
\$2,850 and over.....	1			1			1		
No earnings.....	79	5		74	5		69	14	
Not reported.....	48	4		44	3		41	5	

¹ Includes miscarriages.² Not shown where base is less than 100.

TABLE 19.—Earnings of father, by occupation; births in 1915.

Occupation of father.	Births in 1915.													
	Total.	Earnings of father.											No earnings.	Not reported.
		Under \$450	\$450-\$549	\$550-\$649	\$650-\$849	\$850-\$1,049	\$1,050-\$1,249	\$1,250-\$1,449	\$1,450-\$1,849	\$1,850-\$2,249	\$2,250-\$2,849	\$2,850 and over.		
All occupations.....	11,195	1,615	1,523	1,543	2,490	1,640	687	430	380	143	100	205	222	226
Manufacturing and mechanical industries.....	5,040	734	725	810	1,313	748	282	172	96	33	16	49	1	61
Blacksmiths.....	54	.....	13	6	11	16	3	2	1	1	.....	.....	.....	1
Boiler makers.....	42	2	7	3	13	9	2	3	2	.....	.....	.....	.....	1
Builders and contractors.....	49	.....	1	.....	2	6	6	10	11	3	3	7	.....	.....
Compositors, linotypers, and pressmen.....	146	11	12	14	34	33	17	15	10	.....	.....	.....	.....	.....
Electricians and electrical engineers.....	98	2	3	6	28	37	12	5	1	.....	1	.....	.....	3
Factory operatives.....	2,588	464	474	506	709	267	80	46	11	5	1	2	.....	23
Metal.....	951	131	162	204	292	88	40	16	3	4	1	1	.....	9
Clothing.....	669	164	117	114	155	79	16	18	2	.....	.....	.....	.....	4
Wood manufacturing.....	199	24	40	54	54	22	.....	2	3	.....	.....	.....	.....	.....
Food canning.....	71	34	17	11	7	1	.....	.....	.....	.....	.....	.....	.....	1
Other food manufacturing.....	170	26	29	32	57	17	5	3	.....	.....	.....	.....	.....	1
Textile.....	58	9	14	10	19	2	2	1	.....	.....	.....	.....	.....	1
Other.....	470	76	95	81	125	58	17	6	3	1	.....	1	.....	7
Laborers, helpers, and apprentices (not in manufacturing).....	325	125	86	56	47	4	2	.....	.....	.....	.....	.....	.....	5
Machinists, millwrights and toolmakers.....	244	3	3	9	56	91	48	20	9	2	.....	.....	.....	3
Manufacturers, proprietors, officials, etc.....	181	3	4	1	10	24	12	16	36	20	9	40	1	5
Shoemakers and cobblers (not in factory).....	66	11	17	9	14	7	2	2	1	.....	.....	.....	.....	3
Skilled mechanics, building trades.....	816	75	71	124	240	174	70	41	9	1	.....	.....	.....	11
Tailors.....	91	21	13	13	21	17	.....	1	2	.....	.....	.....	.....	3
Engineers and firemen.....	162	7	9	31	60	32	13	7	2	1	.....	.....	.....	.....
Others in manufacturing and mechanical industries.....	178	10	12	32	68	31	15	4	1	.....	2	.....	.....	3
Trade.....	1,957	222	249	245	354	275	120	129	125	54	35	79	8	62
Bankers, brokers, real estate and insurance agents.....	123	2	1	2	8	20	17	9	21	10	6	20	1	6
Deliverymen.....	323	59	74	69	88	24	4	.....	.....	.....	.....	.....	.....	5
Laborers.....	196	72	58	42	21	2	.....	.....	.....	.....	.....	.....	.....	1
Retail and wholesale dealers (officials, etc.).....	745	60	68	61	120	116	49	81	63	28	20	38	7	34
Salesmen and commercial travelers.....	453	21	36	39	79	105	43	34	38	15	7	21	.....	15
Others in trade.....	117	8	12	32	38	8	7	5	3	1	2	.....	.....	1

Transportation.....	1,792	375	319	258	381	230	108	32	32	7	3	10	1	36
Chauffeurs, teamsters, and expressmen.....	353	78	84	85	68	24	6	1	3					4
Conductors, motormen, and trainmen.....	402	12	18	22	122	126	58	21	13	3	1			6
Express, post, telegraph, and telephone employees.....	80	3	7	2	25	15	16	2	10					
Laborers.....	730	274	197	133	89	18		1	1					17
Proprietors, officials, and managers.....	28	1			6	4	4	2	1	3	1	3	1	2
Others in transportation.....	199	7	13	16	71	43	24	5	4	1	1	7		7
Clerical occupations.....	762	25	45	80	221	155	86	44	51	12	13	9		21
Domestic and personal service.....	758	215	130	85	137	69	31	26	19	7	5	4	3	27
Barbers.....	82	5	10	8	30	16	2	5	2	1	1		1	1
Janitors and elevator operators.....	84	31	26	12	11	3							1	1
Proprietors and managers in hotels, pool rooms, etc.....	66	4	4	1	13	12	10	7	8	1	2	1	1	2
Saloon keepers and bartenders.....	114	12	8	15	21	15	6	11	5	5	2	3	1	10
Servants.....	124	61	27	14	12	6	3							1
Waiters.....	106	30	16	12	19	9	6	3	4					7
Others in domestic and personal service.....	182	72	39	23	31	8	4							5
Public service.....	319	18	33	50	51	128	23	3	8	1		1		3
Firemen and policemen.....	147	1		5	11	115	13	1	1					
Laborers.....	79	11	18	34	15	1								
Officials and inspectors.....	28	1	3	2	6	6	2	6	1			1		
Others in public service.....	65	5	12	9	25	6	4		1					3
Professional and semiprofessional pursuits.....	297	8	10	7	25	33	28	24	47	29	28	53	1	4
Agriculture, animal husbandry, and extraction of minerals.....	45	15	9	8	7	2			2					2
Farmers and farm workers.....	30	7	4	8	7	1			2					1
Fishermen.....	2	2												
Quarrymen.....	13	6	5			1								1
Own income.....	7												7	
No occupation.....	201												201	
Not reported.....	17	3	3		1									10

TABLE 20.—Earnings of father, by occupation group¹ of father and color and nativity of mother; births in 1915.

Earnings of father and color and nativity of mother.	Births in 1915.																	
	Total infants.		Occupation of father.														None, not reported, and own income.	
			I and II		I		II		III and IV		III		IV		V			
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution. ²	Number.	Per cent distribution. ²	Number.	Per cent distribution. ²	Number.	Per cent distribution. ²
All mothers.....	11,195	100.0	5,292	100.0	1,757	100.0	3,535	100.0	4,972	100.0	2,591	100.0	2,381	100.0	706	100.0	225	100.0
Earnings of father:																		
Under \$450.....	1,615	14.4	1,324	25.0	684	38.9	640	18.1	273	5.5	156	6.0	117	4.9	15	2.1	3	1.3
\$450-\$549.....	1,523	13.6	1,138	21.5	459	26.1	679	19.2	363	7.3	212	8.2	151	6.3	19	2.7	3	1.3
\$550-\$649.....	1,543	13.8	1,016	19.2	299	17.0	717	20.3	515	10.4	356	13.7	159	6.7	12	1.7	.....	.....
\$650-\$849.....	2,490	22.2	1,152	21.8	225	12.8	927	26.2	1,286	25.9	798	30.8	488	20.5	51	7.2	1	.....
\$850-\$1,049.....	1,640	14.7	392	7.4	44	2.5	348	9.8	1,155	23.2	505	19.5	650	27.3	93	13.2	.....	.....
\$1,050-\$1,249.....	678	6.1	107	2.0	9	.5	98	2.8	498	10.0	232	9.0	266	11.2	73	10.3	.....	.....
\$1,250-\$1,849.....	810	7.2	78	1.5	4	.2	74	2.1	547	11.0	208	8.0	339	14.2	185	26.2	.....	.....
\$1,850 and over.....	448	4.0	8	.2	.....	.....	8	.2	203	4.1	63	2.4	140	5.9	237	33.6	.....	.....
No earnings.....	222	2.0	.....	.....	.....	.....	.....	.....	10	.2	2	.1	8	.3	4	.6	208	92.4
Not reported.....	226	2.0	77	1.5	33	1.9	44	1.2	122	2.5	59	2.3	63	2.6	17	2.4	10	4.4
Native white mothers	6,937	100.0	2,410	100.0	522	100.0	1,888	100.0	3,881	100.0	2,048	100.0	1,833	100.0	549	100.0	97	100.0
Earnings of father:																		
Under \$450.....	460	6.6	314	13.0	119	22.8	195	10.3	141	3.6	91	4.4	50	2.7	4	.7	1	.....
\$450-\$549.....	663	9.6	426	17.7	126	24.1	300	15.9	227	5.8	133	6.5	94	5.1	8	1.5	2	.....
\$550-\$649.....	936	13.5	556	23.1	129	24.7	427	22.6	371	9.6	260	12.7	111	6.1	9	1.6	.....	.....
\$650-\$849.....	1,776	25.6	707	29.3	113	21.6	594	31.5	1,034	26.6	641	31.3	393	21.4	34	6.2	1	.....
\$850-\$1,049.....	1,283	18.5	248	10.3	22	4.2	226	12.0	966	24.9	429	20.9	537	29.3	69	12.6	.....	.....
\$1,050-\$1,249.....	566	8.2	74	3.1	3	.6	71	3.8	436	11.2	210	10.3	226	12.3	56	10.2	.....	.....
\$1,250-\$1,849.....	645	9.3	50	2.1	2	.4	48	2.5	445	11.5	181	8.8	264	14.4	150	27.3	.....	.....
\$1,850 and over.....	382	5.5	7	.3	.....	.....	7	.4	170	4.4	54	2.6	116	6.3	205	37.3	.....	.....
No earnings.....	95	1.4	.....	.....	.....	.....	.....	.....	2	.5	1	(³)	1	.1	4	.7	89	.....
Not reported.....	131	1.9	28	1.2	8	1.5	20	1.1	89	2.3	48	2.3	41	2.2	10	1.8	4	.....

Foreign-born white mothers.....	2, 837	100.0	1, 678	100.0	499	100.0	1, 179	100.0	975	100.0	470	100.0	505	100.0	134	100.0	50	100.0
Earnings of father:																		
Under \$450.....	599	21.1	483	28.8	207	41.5	276	23.4	105	10.8	54	11.5	51	10.1	10	7.5	1	-----
\$450-\$549.....	464	16.4	351	20.9	122	24.4	229	19.4	107	11.0	61	13.0	46	9.1	5	3.7	1	-----
\$550-\$649.....	443	15.6	312	18.6	83	16.6	229	19.4	129	13.2	84	17.9	45	8.9	2	1.5	-----	-----
\$650-\$849.....	589	20.8	342	20.4	64	12.8	278	23.6	234	24.0	142	30.2	92	18.2	13	9.7	-----	-----
\$850-\$1,049.....	319	11.2	121	7.2	14	2.8	107	9.1	175	17.9	67	14.3	108	21.4	23	17.2	-----	-----
\$1,050-\$1,249.....	102	3.6	29	1.7	4	.8	25	2.1	60	6.2	22	4.7	38	7.5	13	9.7	-----	-----
\$1,250-\$1,849.....	154	5.4	24	1.4	-----	-----	24	2.0	98	10.1	24	5.1	74	14.7	32	24.0	-----	-----
\$1,850 and over.....	63	2.2	1	.1	-----	-----	1	.1	33	3.4	9	1.9	24	4.8	29	21.6	-----	-----
No earnings.....	53	1.9	-----	-----	-----	-----	-----	-----	7	.7	1	.2	6	1.2	-----	-----	46	-----
Not reported.....	51	1.8	15	.9	5	1.0	10	.8	27	2.8	6	1.3	21	4.2	7	5.2	2	-----
Colored mothers.....	1, 421	100.0	1, 204	100.0	736	100.0	468	100.0	116	100.0	73	100.0	43	100.0	23	100.0	78	100.0
Earnings of father:																		
Under \$450.....	556	39.1	527	43.8	358	48.6	169	36.1	27	23.3	11	-----	16	-----	1	-----	1	-----
\$450-\$549.....	396	27.9	361	30.0	211	28.7	150	32.1	29	25.0	18	-----	11	-----	6	-----	-----	-----
\$550-\$649.....	164	11.5	148	12.3	87	11.8	61	13.0	15	12.9	12	-----	3	-----	1	-----	-----	-----
\$650-\$849.....	125	8.8	103	8.6	48	6.5	55	11.8	18	15.5	15	-----	3	-----	4	-----	-----	-----
\$850-\$1,049.....	38	2.7	23	1.9	8	1.1	15	3.2	14	12.1	9	-----	5	-----	1	-----	-----	-----
\$1,050-\$1,249.....	10	.7	4	.3	2	.3	2	.4	2	1.7	-----	-----	2	-----	4	-----	-----	-----
\$1,250-\$1,849.....	11	.8	4	.3	2	.3	2	.4	4	3.4	3	-----	1	-----	3	-----	-----	-----
\$1,850 and over.....	3	.2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3	-----	-----	-----
No earnings.....	74	5.2	-----	-----	-----	-----	-----	-----	1	.9	-----	-----	1	-----	-----	-----	73	-----
Not reported.....	44	3.1	34	2.8	20	2.7	14	3.0	6	5.2	5	6.8	1	-----	-----	-----	4	-----

¹ For grouping see p. 36.² Not shown where base is less than 100.³ Less than one-tenth of 1 per cent.

TABLE 21.—*Estimated median earnings of father, by occupation group of father and color and nativity of mother; births in 1915.*

Occupation group of father. ¹	Estimated median earnings of father. ²			
	Total.	Color and nativity of mother.		
		Native white.	Foreign-born white.	Colored.
Total ³	\$705	\$796	\$618	\$474
Group I.....	489	560	483	452
Group II.....	610	654	585	489
Group III.....	786	811	696	596
Group IV.....	923	942	855	491
Group V.....	1,513	1,594	1,219	850

¹ For grouping see p. 36.² For method by which median earnings are computed, see Appendix IV, p. 197.³ Computations exclude cases of no occupation and cases in which earnings were not reported.TABLE 22.—*Earnings of father, by regularity of his employment, and by color and nativity of mother; births in 1915.*

Earnings of father and regularity of employment.	Total births.		Births to mothers of specified color and nativity.					
			Native white.		Foreign-born white.		Colored.	
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.
Fathers employed throughout the year.....	6,524	100.0	4,548	100.0	1,318	100.0	658	100.0
Earnings of father:								
Under \$450.....	298	4.6	46	1.0	73	5.5	179	27.2
\$450-\$549.....	654	10.0	278	6.1	143	10.8	233	35.4
\$550-\$649.....	832	12.8	540	11.9	192	14.6	100	15.2
\$650-\$849.....	1,619	24.8	1,187	26.1	347	26.3	85	12.9
\$850-\$1,049.....	1,265	19.4	1,000	22.0	239	18.1	26	4.0
\$1,050-\$1,249.....	554	8.5	461	10.1	83	6.3	10	1.5
\$1,250 and over.....	1,180	18.1	965	21.2	203	15.4	12	1.8
No earnings.....	12	.2	5	.1	6	.5	1	.2
Not reported.....	110	1.7	66	1.5	32	2.4	12	1.8
Fathers not employed throughout the year.....	4,639	100.0	2,365	100.0	1,517	100.0	757	100.0
Earnings of father:								
Under \$450.....	1,317	28.4	414	17.5	526	34.7	377	49.8
\$450-\$549.....	869	18.7	385	16.3	321	21.2	163	21.5
\$550-\$649.....	711	15.3	396	16.7	251	16.5	64	8.5
\$650-\$849.....	870	18.8	588	24.9	242	16.0	40	5.3
\$850-\$1,049.....	375	8.1	283	12.0	80	5.3	12	1.6
\$1,050-\$1,249.....	124	2.7	105	4.4	19	1.3	.....	.....
\$1,250 and over.....	78	1.7	62	2.6	14	.9	2	.3
No earnings.....	210	4.5	90	3.8	47	3.1	73	9.6
Not reported.....	85	1.8	42	1.8	17	1.1	26	3.4
Fathers' employment not reported.....	32	.....	24	.....	2	.....	6	.....
Earnings of father:								
\$650-\$849.....	1	.....	1	.....	.....	.....	.....	.....
Not reported.....	31	.....	23	.....	2	.....	6	.....

TABLE 23.—Duration of nonemployment, by earnings of father, and by color and nativity of mother; births in 1915.

Duration of nonemployment and earnings of father.	Births to mothers of specified color and nativity.							
	Total births.		Native white.		Foreign-born white.		Colored.	
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution. ¹
Total.....	11,195	100.0	6,937	100.0	2,837	100.0	1,421	100.0
Employed entire year.....	6,524	58.3	4,548	65.6	1,318	46.5	658	46.3
Nonemployed.....	4,639	41.4	2,365	34.1	1,517	53.5	757	53.3
Under 3 months.....	2,387	21.3	1,403	20.2	655	23.1	329	23.2
3 months, under 6.....	831	7.4	367	5.3	356	12.5	108	7.6
6 months and over.....	569	5.1	253	3.6	195	6.9	121	8.5
Period not reported.....	852	7.6	342	4.9	311	11.0	199	14.0
Employment not reported.....	32	.3	24	.3	2	.1	6	.4
Under \$450.....	1,615	100.0	460	100.0	599	100.0	556	100.0
Employed entire year.....	298	18.5	46	10.0	73	12.2	179	32.2
Nonemployed.....	1,317	81.5	414	90.0	526	87.8	377	67.8
Under 3 months.....	359	22.2	100	21.7	109	18.2	150	27.0
3 months, under 6.....	386	23.9	121	26.3	183	30.6	82	14.7
6 months and over.....	285	17.6	125	27.2	116	19.4	44	7.9
Period not reported.....	287	17.8	68	14.8	118	19.7	101	18.2
\$450-\$549.....	1,523	100.0	663	100.0	464	100.0	396	100.0
Employed entire year.....	654	42.9	278	41.9	143	30.8	233	58.8
Nonemployed.....	869	57.1	385	58.1	321	69.2	163	41.2
Under 3 months.....	479	31.5	235	35.4	152	32.8	92	23.2
3 months, under 6.....	180	11.8	76	11.5	84	18.1	20	5.1
6 months and over.....	39	2.6	16	2.4	21	4.5	2	.5
Period not reported.....	171	11.2	58	8.7	64	13.8	49	12.4
\$550-\$649.....	1,543	100.0	936	100.0	443	100.0	164	100.0
Employed entire year.....	832	53.9	540	57.7	192	27.5	100	61.0
Nonemployed.....	711	46.1	396	42.3	251	56.7	64	39.0
Under 3 months.....	478	31.0	273	29.2	161	36.3	44	26.8
3 months, under 6.....	107	6.9	64	6.8	38	8.6	5	3.0
6 months and over.....	13	.8	9	1.0	3	.7	1	.6
Period not reported.....	113	7.3	50	5.3	49	11.1	14	8.5
\$650-\$1,049.....	4,130	100.0	3,059	100.0	908	100.0	163	100.0
Employed entire year.....	2,884	69.8	2,187	71.5	586	64.5	111	68.1
Nonemployed.....	1,245	30.1	871	28.5	322	35.5	52	31.9
Under 3 months.....	904	21.9	657	21.5	208	22.9	39	23.9
3 months, under 6.....	137	3.3	91	3.0	46	5.1	.....	.....
6 months and over.....	16	.4	9	.3	7	.8	.....	.....
Period not reported.....	188	4.6	114	3.7	61	6.7	13	8.0
Employment not reported.....	1	.....	1	.....	.....	.....	.....	.....
\$1,050 and over.....	1,936	100.0	1,593	100.0	319	100.0	24	.....
Employed entire year.....	1,734	89.6	1,426	89.5	286	89.7	22	.....
Nonemployed.....	202	10.4	167	10.5	33	10.3	2	.....
Under 3 months.....	155	8.0	132	8.3	22	6.9	1	.....
3 months, under 6.....	13	.7	10	.6	2	.6	1	.....
6 months and over.....	1	.1	.....	.....	1	.3	.....	.....
Period not reported.....	33	1.7	25	1.6	8	2.5	.....	.....
No earnings.....	222	.....	95	.....	53	.....	74	.....
Earnings not reported.....	226	.....	131	.....	51	.....	44	.....

¹ Not shown where base is less than 100.

TABLE 24.—Cause of nonemployment of father, by color and nativity of mother; births in 1915.

Cause of nonemployment of father.	Total births.		Births to mothers of specified color and nativity.					
			Native white.		Foreign-born white.		Colored.	
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.
Total.....	11, 195	100. 0	6, 937	100. 0	2, 837	100. 0	1, 421	100. 0
Employed throughout year..	6, 524	58. 3	4, 548	65. 6	1, 318	46. 5	658	46. 3
Nonemployed at some time during year.....	4, 639	41. 4	2, 365	34. 1	1, 517	53. 5	757	53. 3
Work not available.....	3, 625	32. 4	1, 802	26. 0	1, 248	44. 0	575	40. 5
Illness.....	721	6. 4	424	6. 1	223	7. 9	74	5. 2
Other reasons.....	293	2. 6	139	2. 0	46	1. 6	108	7. 6
Employment not reported...	32	. 3	24	. 3	2	. 1	6	. 4

TABLE 25.—Duration of unemployment of father, by color and nativity of mother; births in 1915 in families with fathers unemployed because work was not available.

Duration of unemployment of father.	Births in families with fathers unemployed because work not available.											
	Total.		Color and nativity of mother.									
			Native white.			Foreign-born white.			Colored.			
	Number.	Per cent distribution.	Number.	Per cent distribution.		Number.	Per cent distribution.		Number.	Per cent distribution.		
Including not reported.				Excluding not reported.	Including not reported.		Excluding not reported.	Including not reported.		Excluding not reported.		
Total.....	3, 625	100. 0	.....	1, 802	100. 0	.....	1, 248	100. 0	.....	575	100. 0	.....
Duration not reported.....	759	20. 9	.....	303	16. 8	.....	274	22. 0	.....	182	31. 7	.....
Duration reported.....	2, 866	79. 1	100. 0	1, 499	83. 2	100. 0	974	78. 0	100. 0	393	68. 3	100. 0
Under 3 months.....	1, 983	54. 7	69. 2	1, 135	63. 0	75. 7	567	45. 4	58. 2	281	48. 9	71. 5
3 months, under 6.....	660	18. 2	23. 0	276	15. 3	18. 4	293	23. 5	30. 1	91	15. 8	23. 2
6 months, under 9.....	175	4. 8	6. 1	68	3. 8	4. 5	90	7. 2	9. 2	17	3. 0	4. 3
9 months, under 12.....	34	. 9	1. 2	14	. 8	. 9	19	1. 5	2. 0	1	. 2	. 3
12 months.....	14	. 4	. 5	6	. 3	. 4	5	. 4	. 5	3	. 5	. 8

TABLE 26.—Source of family income, by earnings of father; births in 1915.

Earnings of father.	Total births.	Births in 1915 in families where earnings of father were—												Source not reported.
		Sole source of income.		Not sole source of income, but supplemented by—										
				Earnings of mother or children or both, but with no other sources.		Sources included in family earnings ¹ only.		Meals, gifts.		Insurance, investments, tenants outside, or rents.		Other income.		
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total.....	11,195	6,175	55.2	2,531	22.6	425	3.8	1,105	9.9	763	6.8	187	1.7	9
Under \$850.....	7,171	3,672	51.2	1,881	26.2	284	4.0	820	11.4	381	5.3	132	1.8	1
Under \$450.....	1,615	422	26.1	529	32.8	77	4.8	442	27.4	82	5.1	63	3.9	.....
\$450-\$549.....	1,523	723	47.5	462	30.3	55	3.6	176	11.6	77	5.1	29	1.9	1
\$550-\$649.....	1,543	908	58.8	387	25.1	60	3.9	91	5.9	78	5.1	19	1.2	.....
\$650-\$849.....	2,490	1,619	65.0	503	20.2	92	3.7	111	4.5	144	5.8	21	.8	.....
\$850 and over.....	3,576	2,413	67.5	542	15.2	103	2.9	136	3.8	352	9.8	27	.8	3
\$850-\$1,049.....	1,640	1,098	67.0	288	17.6	58	3.5	56	3.4	123	7.5	17	1.0	.....
\$1,050-\$1,249.....	678	470	69.3	108	15.9	22	3.2	31	4.6	44	6.5	3	.4	.....
\$1,250-\$1,449.....	430	288	67.0	58	13.5	15	3.5	11	2.6	55	12.8	3	.7	.....
\$1,450-\$1,849.....	380	263	69.2	51	13.4	5	1.3	22	5.8	36	9.5	2	.5	1
\$1,850-\$2,249.....	143	92	64.3	15	10.5	.....	.....	7	4.9	28	19.6	1	.7	.....
\$2,250-\$2,849.....	100	75	75.0	8	8.0	2	2.0	4	4.0	11	11.0	.....	.....	.....
\$2,850 and over.....	205	127	62.0	14	6.8	1	.5	5	2.4	55	26.8	1	.5	2
No earnings.....	222	7	3.2	38	17.1	28	12.6	109	49.1	17	7.7	22	9.9	1
Not reported.....	226	83	36.7	69	30.5	10	4.4	40	17.7	14	6.2	6	2.7	4

¹ In family earnings, besides earnings of father, mother, and children, are included income from tenants in home, earnings of foster parents, grandmothers, and aunts, pensions, compensation allowances, and alimony.

TABLE 27.—Source of family income, by family earnings; births in 1915.

Family earnings. ¹	Total births.	Births in 1915 in families where family earnings were—								Source not reported.
		Sole source of income.		Not sole source of income, but supplemented by—						
				Meals or gifts.		Insurance, investments, tenants outside, or rents.		Other income.		
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Total.....	11,195	9,131	81.6	1,105	9.9	763	6.8	187	1.7	9
Under \$850.....	6,585	5,249	79.7	874	13.3	362	5.5	100	1.5	.....
Under \$450.....	1,185	694	58.6	398	33.6	67	5.7	26	2.2	.....
\$450-\$549.....	1,309	1,051	80.3	178	13.6	59	4.5	21	1.6	.....
\$550-649.....	1,518	1,268	83.5	150	9.9	81	5.3	19	1.3	.....
\$650-\$849.....	2,573	2,236	86.9	148	5.8	155	6.0	34	1.3	.....
\$850 and over.....	4,208	3,601	85.6	159	3.8	374	8.9	72	1.7	2
\$850-\$1,049.....	1,776	1,552	87.4	67	3.8	132	7.4	25	1.4	.....
\$1,050-\$1,249.....	879	770	87.6	37	4.2	54	6.1	18	2.0	.....
\$1,250-\$1,849.....	1,034	884	85.5	39	3.8	90	8.7	21	2.0	.....
\$1,850 and over.....	519	395	76.1	16	3.1	98	18.9	8	1.5	2
No earnings.....	40	11	27.5	21	52.5	8	20.0	.....	.....	.....
Not reported.....	362	270	74.6	51	14.1	19	5.2	15	4.1	7

¹ In family earnings, besides earnings of father, mother, and children, are included income from tenants in home, earnings of foster parents, grandmothers, and aunts, pensions, compensation allowances, and alimony.

TABLE 28.—*Earnings of father as sole source of family income, by amount of his earnings and color and nativity of mother; births in 1915.*

Earnings of father.	Births in families where earnings of father were sole source of income. ¹					
	Native white mothers.		Foreign-born white mothers.		Colored mothers.	
	Number.	Per cent of total births. ²	Number.	Per cent of total births. ²	Number.	Per cent of total births. ²
Total.....	4,611	66.5	1,277	45.0	287	20.2
Under \$450.....	149	32.4	199	33.2	74	13.3
\$450-\$549.....	411	62.0	214	46.1	98	24.7
\$550-\$649.....	626	66.9	229	51.7	53	32.3
\$650-\$849.....	1,281	72.1	312	53.0	26	20.8
\$850-\$1,049.....	928	72.3	154	48.3	16	.....
\$1,050-\$1,249.....	420	74.2	46	45.1	4	.....
\$1,250-\$1,449.....	235	73.0	50	48.5	3	.....
\$1,450-\$1,849.....	240	74.3	18	.....	5	.....
\$1,850-\$2,249.....	80	71.4	12	.....	.....	.....
\$2,250-\$2,849.....	65	.....	9	.....	1	.....
\$2,850 and over.....	116	63.0	10	.....	1	.....
No earnings.....	2	.....	5	.....	.....	.....
Not reported.....	58	44.3	19	.....	6	.....

¹ For total births in each color and nativity and father's earnings group, see Table 17, p. 233.

² Not shown where base is less than 100.

TABLE 29.—*Family earnings, by earnings of father; births in 1915.*

Family earnings.	Total births.		Births in families where father earned specified amount.											
			Under \$550		\$550-\$849		\$850-\$1,249		\$1,250-1,849		\$1,850 and over.		No earnings.	Not reported.
	Number.	Per cent dis-tribution.	Number.	Per cent dis-tribution.	Number.	Per cent dis-tribution.	Number.	Per cent dis-tribution.	Number.	Per cent dis-tribution.	Number.	Per cent dis-tribution.		
Total.....	11,195	100.0	3,138	100.0	4,033	100.0	2,318	100.0	810	100.0	448	100.0	222	226
Under \$550.....	2,494	22.3	2,345	74.7	.....	.....	.....	.....	.....	.....	.....	.....	147	2
\$550-\$849.....	4,091	36.5	625	19.9	3,455	85.7	.....	.....	.....	.....	.....	.....	11	.....
\$850-\$1,249.....	2,655	23.7	90	2.9	452	11.2	2,109	91.0	.....	.....	.....	.....	3	1
\$1,250-\$1,849.....	1,034	9.2	26	.8	66	1.6	167	7.2	770	95.1	.....	.....	3	2
\$1,850 and over.....	519	4.6	3	.1	14	.3	22	.9	30	3.7	446	99.6	4	.....
No earnings.....	40	.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	40	.....
Not reported.....	362	3.2	49	1.6	40	1.1	20	.9	10	1.2	2	.4	14	221

TABLE 30.—Earnings of mother, by color and nativity; births¹ in 1915 to mothers employed within year after birth of infant.

Earnings of mother during year after birth of infant.	Births ¹ in 1915 to mothers employed within year after birth.									
	Total.		White mothers.						Colored mothers.	
	Number.	Per cent distribution.	Total.		Native.		Foreign born.		Number.	Per cent distribution.
			Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.		
Total.....	3,354	100.0	2,321	100.0	1,237	100.0	1,084	100.0	1,033	100.0
Under \$50.....	645	19.2	439	18.9	231	18.7	208	19.2	206	19.9
\$50-\$149.....	1,018	31.2	587	25.3	303	24.5	281	26.2	461	44.6
\$150-\$249.....	639	19.1	387	16.7	238	19.2	149	13.7	252	24.4
\$250-\$349.....	258	7.7	210	9.0	153	12.4	57	5.3	48	4.6
\$350-\$549.....	146	4.4	128	5.5	87	7.0	41	3.8	18	1.7
\$550 and over.....	41	1.2	39	1.7	28	2.3	11	1.0	2	.2
No earnings.....	4	.1	3	.1	3	.2	.....	.....	1	.1
Not reported.....	573	17.1	528	22.7	191	15.7	334	30.8	45	4.4

¹Includes miscarriages.

TABLE 31.—Monthly rental, by color and nationality of mother; infants born in 1915 who lived at least two weeks in rented dwellings studied.

Monthly rental.	Infants who lived at least 2 weeks in dwellings studied.											
	Total.	Native white mothers.	Foreign-born white mothers.									Colored mothers.
			Total.	Jewish.	Polish.	Italian.	German.	Irish, English, Scotch, and English-Canadian.	Bohemian.	Lithuanian.	All other foreign.	
Total.....	7,300	4,351	1,820	684	423	296	163	92	27	72	63	1,129
Under \$5.....	350	123	203	11	165	13	4	.....	2	4	4	24
\$5, under \$10.....	2,579	1,375	909	314	229	182	58	19	20	55	32	295
\$10, under \$15.....	2,324	1,553	416	206	7	66	72	40	3	9	13	355
\$15, under \$20.....	905	599	89	38	3	14	9	17	1	1	6	217
\$20, under \$25.....	275	163	23	13	.....	.....	2	6	.....	1	1	89
\$25, under \$35.....	250	158	14	5	1	1	.....	1	.....	1	1	78
\$35, under \$50.....	81	73	6	4	.....	.....	1	4	.....	1	1	7
\$50 and over.....	44	40	4	1	.....	.....	.....	1	.....	.....	1	2
Free.....	95	70	5	2	1	.....	1	1	.....	.....	.....	20
Not reported.....	397	197	151	90	17	20	15	2	.....	1	5	49

Total.....	Per cent distribution. ¹										
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$5.....	4.8	2.8	11.2	1.6	39.0	4.4	2.5	.....	.....	.....	2.1
\$5, under \$10.....	35.3	31.6	49.9	45.9	54.1	61.5	35.6	.....	.....	.....	26.1
\$10, under \$15.....	31.8	35.7	22.9	30.1	1.7	22.3	44.2	.....	.....	.....	31.4
\$15, under \$20.....	12.4	13.8	4.9	5.6	.7	4.7	5.5	.....	.....	.....	19.2
\$20, under \$25.....	3.8	3.7	1.3	1.9	.....	.....	1.2	.....	.....	.....	7.9
\$25, under \$35.....	3.4	3.6	.8	.7	.2	.3	.6	.....	.....	.....	6.9
\$35, under \$50.....	1.1	1.7	.3	.6	.....	.....	.....	.....	.....	.....	.2
\$50 and over.....	.6	.9	.2	.1	.....	.....	.6	.....	.....	.....	.....
Free.....	1.3	1.6	.3	.3	.2	.....	.6	.....	.....	.....	1.8
Not reported.....	5.4	4.5	8.3	13.2	4.0	6.8	9.2	.....	.....	.....	4.3

¹ Not shown where bas eis less than 100.

TABLE 32.—*Monthly rental, by earnings of father; infants born in 1915 who lived at least two weeks in rented dwellings studied.*

Monthly rental.	Infants born in 1915 who lived at least 2 weeks in dwellings studied.													
	Total.	Earnings of father.											No earnings.	Not reported.
		Under \$450.	\$450- \$549	\$550- \$649	\$650- \$849	\$850- \$1,049	\$1,050- \$1,249	\$1,250- \$1,449	\$1,450- \$1,849	\$1,850- \$2,249	\$2,250- \$2,849	\$2,850 and over.		
Total.....	7,300	1,270	1,172	1,117	1,669	916	323	196	165	54	41	85	153	139
Under \$5.....	350	105	85	71	53	13	1	2	-----	-----	-----	-----	12	8
\$5, under \$10.....	2,579	624	555	487	587	184	43	16	7	1	-----	-----	46	28
\$10, under \$15.....	2,324	300	324	390	664	385	114	52	24	6	2	-----	28	35
\$15, under \$20.....	905	89	102	83	206	206	88	57	37	5	-----	-----	11	10
\$20, under \$25.....	275	42	30	16	42	43	30	19	33	5	2	-----	2	9
\$25, under \$35.....	250	39	19	17	27	25	26	21	29	13	7	16	3	8
\$35, under \$50.....	81	1	1	-----	1	1	1	17	10	14	28	3	3	3
\$50 and over.....	44	-----	-----	-----	-----	1	1	3	5	5	29	-----	1	9
Free.....	95	24	-----	7	7	4	-----	1	-----	-----	-----	-----	42	-----
Not reported.....	397	46	56	46	82	55	18	27	15	9	4	5	6	28
Per cent distribution. ¹														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$5.....	4.8	8.3	7.3	6.4	3.2	1.4	.3	1.0	-----	-----	-----	-----	7.8	5.8
\$5, under \$10.....	35.3	49.1	47.4	43.6	35.2	20.1	13.3	8.2	4.2	-----	-----	-----	30.1	20.1
\$10, under \$15.....	31.8	23.6	27.6	34.9	39.8	42.0	35.3	26.5	14.5	-----	-----	-----	18.3	25.2
\$15, under \$20.....	12.4	7.0	8.7	7.4	12.3	22.5	27.2	29.1	22.4	-----	-----	-----	7.2	7.2
\$20, under \$25.....	3.8	3.3	2.6	1.4	2.5	4.7	9.3	9.7	20.0	-----	-----	-----	1.3	6.5
\$25, under \$35.....	3.4	3.1	1.6	1.5	1.6	2.7	8.0	10.7	17.6	-----	-----	-----	2.0	5.8
\$35, under \$50.....	1.1	.1	.1	-----	.1	.1	.3	.5	10.3	-----	-----	-----	2.0	2.2
\$50 and over.....	.6	-----	-----	-----	-----	-----	.3	-----	1.8	-----	-----	-----	-----	.7
Free.....	1.3	1.9	-----	.6	.4	.4	.3	.5	-----	-----	-----	-----	27.5	-----
Not reported.....	5.4	3.6	4.8	4.1	4.9	6.0	5.6	13.8	9.1	-----	-----	-----	3.9	20.1

¹ Not shown where base is less than 100.TABLE 33.—*Estimated median rental, by estimated median earnings of father and by color and nationality of mother; births in 1915.*

Color and nationality of mother.	Median annual earnings of father. ¹	Annual rental.	
		Median amount. ²	Per cent of median earnings.
Total.....	\$706	\$132	18.6
Native white.....	796	141	17.7
Foreign-born white.....	619	102	16.5
Jewish.....	664	115	17.3
Polish.....	555	70	12.6
Italian.....	540	101	18.7
All other.....	619	119	19.2
German.....	718	130	18.1
Irish, English, Scotch, and English-Canadian.....	781	159	20.4
Bohemian.....	703	95	13.5
Lithuanian.....	525	95	18.1
Other.....	671	108	16.1
Colored.....	474	156	32.9

¹ Based on births, except for Irish, English, Scotch, and English-Canadian, Lithuanian, Bohemian, and "all other" foreign which are based on issues.² Based on infants living at least 2 weeks in dwellings studied.

TABLE 34.—*Sanitary arrangements of dwelling, by color and nationality of mother and earnings of father; infants born in 1915 who lived at least two weeks in dwellings studied.*

Color and nationality of mother and earnings of father.	Infants who lived at least 2 weeks in dwellings with specified sanitary arrangements.						
	Total infants.	All arrangements. ¹		None.		Other dwellings.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
All earnings groups:							
All mothers.....	10,336	4,486	43.4	351	3.4	5,499	53.2
Native white.....	6,464	3,273	50.6	190	2.9	3,001	46.4
Foreign-born white.....	2,649	816	30.8	126	4.8	1,707	64.4
Jewish.....	931	389	41.8	11	1.2	531	57.0
Italian.....	394	80	20.3	9	2.3	305	77.4
Polish.....	597	35	5.9	71	11.9	491	82.2
All other.....	727	312	42.9	35	4.8	380	52.3
Colored.....	1,223	397	32.5	35	2.9	791	64.7
Earnings of father under \$650:							
All mothers.....	4,272	1,081	25.3	234	5.5	2,957	69.2
Native white.....	1,913	556	29.1	111	5.8	1,246	65.1
Foreign-born white.....	1,409	236	16.7	91	6.5	1,082	76.8
Jewish.....	432	107	24.8	7	1.6	318	73.6
Polish.....	424	20	4.7	52	12.3	352	83.0
Italian.....	243	30	12.3	8	3.3	205	84.4
All other.....	310	79	25.5	24	7.7	207	66.8
Colored.....	950	289	30.4	32	3.4	629	66.2

¹ Dwellings having "all arrangements" have bath and toilet connected with sewer, and reserved for exclusive use of family.

TABLE 35.—Number of persons in household, by number of rooms in dwelling, and by color and nativity of mother; infants born in 1915 who lived at least two weeks in dwellings studied.

Number of persons ¹ in household and color and nativity of mother.	Infants born in 1915 who lived at least 2 weeks in dwellings studied.																				
	Total.	Number of rooms in dwelling.																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19	22	Not reported.
All mothers.....	10,336	42	731	1,404	1,297	1,130	3,585	884	677	286	163	47	34	22	13	5	1	6	1	1	7
Number of persons in household:																					
1.....	11	4	2	1	.....	1	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2.....	1,882	25	307	568	246	145	446	49	24	6	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
3.....	1,931	8	201	362	297	619	94	60	23	12	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
4.....	1,720	1	104	224	249	197	641	142	82	34	32	6	3	3	1	.....	.....	.....	.....	.....	.....
5.....	1,563	3	69	126	134	195	658	158	91	44	17	7	3	4	1	.....	.....	.....	.....	.....	.....
6.....	1,142	1	29	58	153	142	471	119	96	36	22	4	5	3	1	.....	.....	.....	.....	.....	.....
7.....	866	.....	10	43	90	105	334	111	88	41	21	7	7	2	4	.....	.....	.....	.....	.....	.....
8.....	559	.....	7	22	51	53	200	83	81	36	14	4	2	4	4	.....	.....	.....	.....	.....	.....
9.....	322	.....	.....	.....	20	26	107	59	64	23	8	3	6	3	1	.....	.....	.....	.....	.....	.....
10.....	186	.....	2	.....	4	12	59	32	32	20	15	4	3	1	.....	.....	.....	.....	.....	.....	.....
11.....	100	.....	.....	.....	2	1	25	16	33	11	5	4	2	1	.....	.....	.....	.....	.....	.....	.....
12.....	44	.....	.....	.....	.....	3	10	9	9	7	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13.....	29	.....	.....	.....	.....	.....	5	7	5	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14.....	5	.....	.....	.....	.....	.....	.....	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15.....	6	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17.....	3	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18.....	2	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Not reported.....	22	.....	.....	.....	1	1	5	2	6	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	4
White mothers.....	9,113	27	674	1,355	1,148	976	3,239	714	506	221	132	39	29	20	13	5	1	6	1	1	6
Number of persons in household:																					
1.....	8	2	2	1	.....	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2.....	1,730	17	283	557	229	134	427	48	23	6	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
3.....	1,789	5	181	346	267	217	491	85	56	23	12	2	1	.....	.....	.....	.....	.....	.....	.....	.....
4.....	1,539	.....	99	214	210	171	586	123	59	33	31	6	3	2	1	.....	.....	.....	.....	.....	.....
5.....	1,375	2	66	117	162	174	582	134	74	35	13	6	2	4	1	.....	.....	.....	.....	.....	.....
6.....	972	1	27	56	135	117	412	96	72	24	19	3	4	3	1	.....	.....	.....	.....	.....	.....
7.....	700	.....	9	42	78	82	284	78	56	30	19	6	7	2	4	.....	.....	.....	.....	.....	.....
8.....	447	.....	6	22	44	47	166	60	57	27	10	2	1	3	1	.....	.....	.....	.....	.....	.....

TABLE 35.—Number of persons in household, by number of rooms in dwelling, and by color and nativity of mother; infants born in 1915 who lived at least two weeks in dwellings studied—Continued.

Number of persons ¹ in household and color and nativity of mother.	Infants born in 1915 who lived at least 2 weeks in dwellings studied.																				
	Total.	Number of rooms in dwelling.																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19	22	Not reported.
Number of persons in household—Con.																					
13.....	2					1							1								
14.....	1							1													
15.....	2					1	1														
20.....	1					1															
Not reported.....	6					1	1	2													2
Colored mothers.....	1,223	15	57	49	149	154	346	170	171	65	31	8	5	2							1
Number of persons in household:																					
1.....	3	2				1															
2.....	92	8	24	11	17	11	19	1	1												
3.....	142	3	20	16	30	32	28	9	4												
4.....	181	1	5	10	39	26	55	19	23	1				1							
5.....	188	1	3	9	22	21	76	24	17	9	4	1	1								
6.....	170		2	2	18	25	59	23	24	12	3	1	1								
7.....	166		1	1	12	23	50	33	32	11	2	1	1								
8.....	112		1		7	6	34	23	24	9	4	2	1	1							
9.....	63				2	7	14	18	11	7	2		2								
10.....	39		1			1	5	5	11	9	6	1									
11.....	24				2		2	4	10	3	2	1									
12.....	17					1	2	5	3	1	5										
13.....	12							3	4	3		1									
14.....	2							1			1										
15.....	2								2												
16.....	1							1													
17.....	2								2												
Not reported.....	7					1	1	1	3												1

¹ The number of persons in household does not include infants born in 1915.

TABLE 36.—Average number of persons per room, by size of household and color and nationality of mother; infants born in 1915 who lived at least two weeks in dwellings studied.¹

Average number of persons per room and number of persons in household. ¹	Infants who lived at least 2 weeks in dwellings studied.															
	Total.		Native white mothers.		Foreign-born white mothers.								All other.		Colored mothers.	
					Total.		Jewish.		Polish.		Italian.					
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.
All households.....	10,336	100.0	6,464	100.0	2,649	100.0	931	100.0	597	100.0	395	100.0	726	100.0	1,223	100.0
Number of persons per room:																
Less than 1.....	5,544	53.6	4,108	63.6	882	33.3	342	36.7	68	11.4	107	27.1	365	50.3	554	45.3
1 but less than 2.....	4,269	41.3	2,237	34.6	1,418	53.5	506	54.4	345	57.8	230	58.2	337	46.4	614	50.2
2 or more.....	498	4.8	107	1.7	343	12.9	83	8.9	183	30.7	55	13.9	22	3.0	48	3.9
Not reported.....	25	.2	12	.2	6	.2			1	.2	3	.8	2	.3	7	.6
Households of 1 to 4.....	5,484	100.0	3,691	100.0	1,375	100.0	506	100.0	314	100.0	175	100.0	380	100.0	418	100.0
Number of persons per room:																
Less than 1.....	3,999	72.9	3,020	81.8	689	50.1	273	54.0	59	18.8	72	41.1	285	75.0	290	69.4
1 but less than 2.....	1,347	24.6	640	17.3	596	43.3	218	43.1	189	60.2	97	55.4	92	24.2	111	26.6
2 or more.....	138	2.5	31	.8	90	6.5	15	3.0	66	21.0	6	3.4	3	.8	17	4.1
Not reported.....																
Households of 5 and over.....	4,830	100.0	2,764	100.0	1,268	100.0	425	100.0	282	100.0	217	100.0	344	100.0	798	100.0
Number of persons per room:																
Less than 1.....	1,545	32.0	1,088	39.4	193	15.2	69	16.2	9	3.2	35	16.1	80	23.3	264	33.1
1 but less than 2.....	2,922	60.5	1,597	57.8	822	64.8	288	67.8	156	55.3	133	61.3	245	71.2	503	63.0
2 or more.....	360	7.5	76	2.8	253	20.0	68	16.0	117	41.5	49	22.6	19	5.5	31	3.9
Not reported.....	3	.1	3	.1												
Households of number not reported.	22	100.0	9	100.0	6	100.0			1	100.0	3	100.0	2	100.0	7	100.0

¹ The number of persons in household does not include infants born in 1915.

TABLE 37.—Average number of persons per room, by earnings of father and color and nativity of mother; infants born in 1915 who lived at least two weeks in dwellings studied.

Average number of persons ¹ per room and earnings of father.	Infants who lived at least 2 weeks in dwellings studied.							
	Total.		Native white mothers.		Foreign-born white mothers.		Colored mothers.	
	Num-	Per cent distrib- ution.	Num-	Per cent distrib- ution. ²	Num-	Per cent distrib- ution. ²	Num-	Per cent distrib- ution. ²
All earnings groups	10,336	100.0	6,464	100.0	2,649	100.0	1,223	100.0
Persons per room:								
Less than 1	5,544	53.6	4,108	63.6	882	33.3	554	45.3
1 or more	4,767	46.1	2,344	36.3	1,761	66.5	662	54.1
1 but less than 2	4,269	41.3	2,237	34.6	1,418	53.5	614	50.2
2 or more	498	4.8	107	1.7	343	12.9	48	3.9
Not reported	25	.2	12	.2	6	.2	7	.6
Under \$550	2,844	100.0	1,041	100.0	995	100.0	808	100.0
Persons per room:								
Less than 1	994	35.0	441	42.4	206	20.7	347	42.9
1 or more	1,840	64.7	599	57.5	785	78.9	456	56.5
1 but less than 2	1,555	54.7	551	52.9	581	58.4	423	52.4
2 or more	285	10.0	48	4.6	204	20.5	33	4.1
Not reported	10	.4	1	.1	4	.4	5	.6
\$550-\$849	3,749	100.0	2,527	100.0	963	100.0	259	100.0
Persons per room:								
Less than 1	1,905	50.8	1,456	57.6	321	33.3	128	49.4
1 or more	1,836	49.0	1,066	42.2	641	66.6	129	49.8
1 but less than 2	1,682	44.9	1,025	40.6	535	55.6	122	47.1
2 or more	154	4.1	41	1.6	106	11.0	7	2.7
Not reported	8	.2	5	.2	1	.1	2	.8
\$850-\$1,249	2,183	100.0	1,745	100.0	397	100.0	41	100.0
Persons per room:								
Less than 1	1,509	69.1	1,283	73.5	200	50.4	26	63.4
1 or more	671	30.7	460	26.4	196	49.4	15	36.6
1 but less than 2	644	29.5	452	25.9	177	44.6	15	36.6
2 or more	27	1.2	8	.5	19	4.8		
Not reported	3	.1	2	.1	1	.3		
\$1,250 and over	1,170	100.0	951	100.0	205	100.0	14	100.0
Persons per room:								
Less than 1	958	81.9	824	86.6	122	59.5	12	85.7
1 or more	209	17.9	124	13.0	83	40.5	2	14.3
1 but less than 2	201	17.2	119	12.5	80	39.0	2	14.3
2 or more	8	.7	5	.5	3	1.5		
Not reported	3	.3	3	.3				
No earnings	192	100.0	81	100.0	47	100.0	64	100.0
Persons per room:								
Less than 1	67	34.9	31		11		25	
1 or more	125	65.1	50		36		39	
1 but less than 2	108	56.2	47		27		34	
2 or more	17	8.9	3		9		5	
Earnings not reported	198	100.0	119	100.0	42	100.0	37	100.0
Persons per room:								
Less than 1	111	56.1	73	61.3	22		16	
1 or more	86	43.4	45	37.8	20		21	
1 but less than 2	79	39.9	43	36.1	18		18	
2 or more	7	3.5	2	1.7	2		3	
Not reported	1	.5	1	.8				

¹ The number of persons in household does not include infants born in 1915.² Not shown where base is less than 100.

TABLE 38.—Total number of births ¹ to mother, by earnings of father and color and nativity of mother; single births in 1915.

Earnings of father and color and nativity of mother.	Per cent of births in 1915 to mothers reporting specified number of total births. ¹			
	1-3	4-6	7-9	10 and over.
All mothers.....	62.9	23.5	9.5	4.1
Earnings of father:				
Under \$550.....	54.9	26.5	12.9	5.8
\$550-\$849.....	63.5	23.7	9.2	3.7
\$850-\$1,249.....	68.1	21.1	7.3	3.4
\$1,250-\$1,849.....	68.8	21.8	6.5	2.9
\$1,850 and over.....	75.3	17.4	5.7	1.6
No earnings.....	62.0	25.0	8.8	4.2
Not reported.....	65.3	22.5	7.7	4.5
Native white mothers.....	69.4	20.8	7.1	2.7
Earnings of father:				
Under \$550.....	63.7	21.9	10.6	3.8
\$550-\$849.....	68.3	22.0	7.3	2.5
\$850-\$1,249.....	71.0	19.9	6.4	2.8
\$1,250-\$1,849.....	72.9	19.6	4.9	2.6
\$1,850 and over.....	79.9	15.0	3.7	1.3
No earnings.....	71.0	18.3	8.6	2.2
Not reported.....	69.8	22.5	5.4	2.3
Foreign-born white mothers.....	52.3	28.4	13.3	5.9
Earnings of father:				
Under \$550.....	48.9	30.1	14.9	6.2
\$550-\$849.....	54.4	27.3	12.6	5.7
\$850-\$1,249.....	56.0	26.3	11.3	6.4
\$1,250-\$1,849.....	51.9	30.5	13.0	4.5
\$1,850 and over.....	45.9	32.8	18.0	3.3
No earnings.....	52.9	25.5	9.8	11.8
Not reported.....	61.2	22.4	12.2	4.1
Colored mothers.....	52.2	27.5	13.0	7.3
Earnings of father:				
Under \$550.....	51.4	27.7	13.3	7.6
\$550-\$849.....	50.5	27.0	14.6	7.8
\$850 and over.....	64.3	23.2	8.9	3.6
No earnings.....	56.9	33.3	8.3	1.4
Not reported.....	56.8	22.7	9.1	11.4

¹ Includes miscarriages.TABLE 39.—Total number of births ¹ to mother, by nationality of mother; births ¹ in 1915 to foreign-born white mothers.

Nationality of mother.	Per cent of births ¹ to mothers reporting specified number of total births. ¹		
	1-3	4-6	7 and over.
Foreign-born white mothers:			
Jewish.....	53.3	29.1	17.6
Polish.....	45.2	29.3	25.5
Italian.....	45.9	34.5	19.5
All other.....	56.3	25.1	18.5

¹ Includes miscarriages.

TABLE 40.—*Keeping of lodgers, by color and nationality of mother; infants born in 1915 who lived at least two weeks in dwellings studied.*

Color and nationality of mother.	Per cent of infants ¹ whose mothers kept specified number of lodgers.	
	1 or more.	3 or more.
All mothers.....	8.4	0.9
Native white mothers.....	6.5	.5
Foreign-born white mothers.....	12.2	1.7
Jewish.....	8.7	.8
Polish.....	11.1	.5
Italian.....	18.3	4.8
All other.....	14.2	2.1
German.....	8.8	.3
Irish, English, Scotch, and English-Canadian.....	16.5	1.6
Bohemian.....	7.9	.....
Lithuanian.....	22.9	2.1
Other.....	26.3	10.5
Colored mothers.....	10.3	1.3

¹ Infants who lived at least two weeks in dwellings studied.

TABLE 41.—*Mother pregnant within year after birth of infant, by color and nationality of mother; live births in 1915.*

Color and nationality of mother.	Live births in 1915.		
	Total.	To mothers pregnant within the year following.	
		Number.	Per cent.
Total.....	10,797	1,563	14.5
Native white.....	6,739	840	12.5
Foreign-born white.....	2,753	490	16.7
Jewish.....	961	90	9.4
Polish.....	625	144	23.0
Italian.....	412	118	28.6
All other.....	755	108	14.3
Colored.....	1,305	263	20.2

TABLE 42.—*Type of feeding, by month of life, and by earnings of father and color and nativity of mother; infants born in 1915 to native white and colored mothers not employed within year after birth.*

Month of life of infant, earnings of father, and color and nativity of mother.	Total infants.	Infants whose mothers were not employed and who had specified type of feeding.						Type of feeding not reported.
		Breast feeding.		Mixed feeding.		Artificial feeding.		
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
NATIVE WHITE MOTHERS.								
Earnings of father under \$550:								
Second month.....	975	770	79.1	56	5.7	149	15.3	.....
Third month.....	923	663	71.8	79	8.6	181	19.6	.....
Sixth month.....	831	431	51.9	174	21.0	226	27.2	.....
Ninth month.....	759	218	28.7	309	40.7	232	30.6	.....
Earnings of father, \$550 and over:								
Second month.....	4,998	3,868	77.4	224	4.5	905	18.1	1
Third month.....	4,846	3,405	70.3	275	5.7	1,165	24.0	1
Sixth month.....	4,626	2,443	42.8	684	14.8	1,498	32.4	1
Ninth month.....	4,495	1,393	31.0	1,437	32.0	1,664	37.0	1
COLORED MOTHERS.								
Earnings of father under \$550:								
Second month.....	757	613	81.0	69	9.1	75	9.9	.....
Third month.....	629	478	76.0	69	11.0	82	13.0	.....
Sixth month.....	394	230	58.4	88	22.3	76	19.3	.....
Ninth month.....	297	97	32.7	136	45.8	64	21.5	.....
Earnings of father, \$550 and over:								
Second month.....	302	237	78.5	25	82.8	40	13.2	.....
Third month.....	264	201	76.1	28	10.6	35	13.3	.....
Sixth month.....	203	118	58.1	47	23.2	38	18.7	.....
Ninth month.....	165	57	34.5	70	42.4	38	23.0	.....

TABLE 43.—*Type of feeding, by month of life of infant, and by literacy and color and nativity of mother; infants born in 1915.*

Month of life of infant, literacy, and color and nativity of mother.	Per cent of infants having specified type of feeding.		
	Breast feeding.	Mixed feeding.	Artificial feeding.
Native white mothers:			
Literate—			
First month.....	86.7	2.3	11.0
Second month.....	77.3	4.8	17.9
Third month.....	70.1	6.2	23.7
Sixth month.....	52.1	16.0	31.9
Ninth month.....	30.1	33.6	36.3
Illiterate—			
First month.....	79.4	5.6	15.1
Second month.....	75.6	8.1	16.3
Third month.....	71.1	9.9	19.0
Sixth month.....	55.7	17.4	27.0
Ninth month.....	33.0	39.4	27.5
Foreign-born white mothers:			
Literate—			
First month.....	91.5	3.0	5.5
Second month.....	85.2	5.8	9.0
Third month.....	79.0	9.0	12.0
Sixth month.....	58.2	23.8	18.0
Ninth month.....	27.4	48.8	23.8
Illiterate—			
First month.....	90.8	4.2	5.0
Second month.....	83.5	8.3	8.3
Third month.....	78.4	11.1	10.5
Sixth month.....	60.1	23.3	16.6
Ninth month.....	30.4	48.8	20.8
Colored mothers:			
Literate—			
First month.....	90.5	2.4	7.1
Second month.....	78.9	9.0	12.1
Third month.....	70.4	14.2	15.4
Sixth month.....	48.5	28.6	22.9
Ninth month.....	21.9	48.8	29.3
Illiterate—			
First month.....	87.9	6.0	6.0
Second month.....	71.3	18.9	9.8
Third month.....	58.5	26.8	14.8
Sixth month.....	34.3	43.8	21.9
Ninth month.....	15.7	53.2	26.1

TABLE 44.—Prevalence of artificial feeding, by month of life of infant, and by ability of mother to speak English and nationality of mother; infants born in 1915 to Jewish, Polish, and Italian mothers.

Month of life of infant and nationality of mother.	Mothers able to speak English.			Mothers not able to speak English.		
	Infant survivors.			Infant survivors.		
	Total.	Artificially fed.		Total.	Artificially fed.	
		Number.	Per cent.		Number.	Per cent.
Jewish mothers:						
First month.....	786	18	2.3	175	9	5.1
Second month.....	766	43	5.6	169	12	7.1
Third month.....	764	56	7.3	168	14	8.3
Sixth month.....	759	94	12.4	166	25	15.1
Ninth month.....	755	135	17.9	165	36	21.8
Twelfth month.....	748	193	25.8	165	47	28.5
Polish mothers:						
First month.....	223	9	4.0	402	20	5.0
Second month.....	207	17	8.2	383	26	6.8
Third month.....	205	22	10.7	382	38	9.9
Sixth month.....	201	34	16.9	368	54	14.7
Ninth month.....	191	39	20.4	353	60	17.0
Twelfth month.....	186	48	25.8	343	75	21.9
Italian mothers:						
First month.....	140	5	3.6	272	6	2.2
Second month.....	134	10	7.5	261	12	4.6
Third month.....	134	11	8.2	259	17	6.6
Sixth month.....	133	23	17.3	253	30	11.9
Ninth month.....	131	29	22.1	250	55	22.0
Twelfth month.....	130	41	31.5	247	73	29.6

TABLE 45.—Prevalence of artificial feeding, by month of life of infant, and by literacy and nationality of mother; infants born in 1915 to Jewish, Polish, and Italian mothers.

Month of life of infant and nationality of mother.	Literate mothers.			Illiterate mothers.		
	Infant survivors.			Infant survivors.		
	Total.	Artificially fed.		Total.	Artificially fed.	
		Number.	Per cent.		Number.	Per cent.
Jewish mothers:						
First month.....	791	20	2.5	169	7	4.1
Second month.....	769	42	5.5	165	13	7.9
Third month.....	768	56	7.3	163	14	8.6
Sixth month.....	764	98	12.8	160	21	13.1
Ninth month.....	760	142	18.7	159	29	18.2
Twelfth month.....	754	201	26.7	158	39	24.7
Polish mothers:						
First month.....	339	18	5.3	285	11	3.9
Second month.....	316	26	8.2	273	16	5.9
Third month.....	314	38	12.1	272	22	8.1
Sixth month.....	305	54	17.7	264	34	12.9
Ninth month.....	290	61	21.0	254	38	15.0
Twelfth month.....	284	76	26.8	245	47	19.2
Italian mothers:						
First month.....	220	5	2.3	190	6	3.2
Second month.....	213	11	5.2	180	11	6.1
Third month.....	211	13	6.2	180	15	8.3
Sixth month.....	210	25	11.9	174	28	16.1
Ninth month.....	205	44	21.5	174	40	23.0
Twelfth month.....	204	57	27.9	171	57	33.3

TABLE 46.—Prevalence of mixed feeding and artificial feeding, by month of life of infant, and by place of employment and color and nationality of mother; infants born in 1915 to mothers employed within year after birth.

Place of employment and color and nationality of mother.	Per cent of infant survivors. ¹							
	Mixed fed.				Artificially fed.			
	Second month.	Third month.	Sixth month.	Ninth month.	Second month.	Third month.	Sixth month.	Ninth month.
Native white mothers:								
Employed at home.....	5.6	5.3	16.9	37.0	16.0	24.2	31.2	34.6
Employed away from home.....			26.7	38.2			44.8	45.8
Foreign-born white mothers:								
Employed at home.....	6.3	11.4	26.2	48.3	9.2	11.8	18.8	25.1
Employed away from home.....			28.7	58.9			28.7	24.2
Jewish mothers:								
Employed at home.....	6.7	13.9	36.2	60.0	4.7	6.0	12.3	20.0
Employed away from home.....								
Polish mothers:								
Employed at home.....	3.6	7.7	17.3	46.7	10.9	12.3	18.5	16.7
Employed away from home.....			31.5	65.0			20.4	13.8
Italian mothers:								
Employed at home.....	8.1	11.1	18.1	40.5	2.7	8.3	16.7	25.5
Employed away from home.....								
All other.....								
Employed at home.....	5.8	9.3	22.0	37.1	19.4	24.0	31.4	37.6
Employed away from home.....								
Colored mothers:								
Employed at home.....		19.6	28.4	54.4		17.5	20.2	28.0
Employed away from home.....		46.8	48.6	53.3		31.5	33.1	39.1

¹ Each infant is classified according to type of feeding and mother's employment in each month, except that if a mother worked away from home following a period of work at home the latter is disregarded; a mother's employment is assumed to continue from the time it commenced until the end of infant's first year of life. Per cent not shown where base is less than 50.

TABLE 47.—Infant deaths per 1,000 live births, by cause of death and age; legitimate live births in 1915, Baltimore study, and total registered live births in 1915 in cities of 10,000 or more population in United States birth-registration area.

Age at death.	Infant mortality rate per 1,000 live births.							
	All causes.		Gastric and intestinal diseases.		Respiratory diseases.		Malformations.	
	Balti-more study.	Regis-tration cities. ¹	Balti-more study.	Regis-tration cities. ¹	Balti-more study.	Regis-tration cities. ¹	Balti-more study.	Regis-tration cities. ¹
Total.....	103.5	103.3	29.1	26.6	19.7	17.8	3.6	6.1
Under 3 months.....	56.0	60.4	5.9	9.0	6.7	6.3	3.0	5.4
Under 2 weeks.....	37.0	35.4	.7	1.0	1.9	1.3	2.5	4.1
2 weeks, under 1 month.....	7.1	8.0	.8	1.8	1.6	1.5		.6
1 month, under 2.....	6.0	9.2	1.4	3.0	1.5	1.9	.3	.4
2 months, under 3.....	5.8	7.8	3.0	3.1	1.8	1.6		.3
3 months, under 6.....	19.4	18.1	9.3	8.0	5.1	4.1	.6	.4
6 months, under 9.....	15.1	14.0	7.4	5.9	4.5	3.9	.1	.2
9 months, under 12.....	13.0	10.9	6.5	3.8	3.4	3.5		.1

Age at death.	Infant mortality rate per 1,000 live births.					
	Early infancy.		Epidemic and other communicable diseases.		All other causes.	
	Balti-more study.	Regis-tration cities. ¹	Balti-more study.	Regis-tration cities. ¹	Balti-more study.	Regis-tration cities. ¹
Total.....	37.7	35.0	6.7	8.5	6.7	9.3
Under 3 months.....	35.4	32.0	1.9	2.8	3.1	4.9
Under 2 weeks.....	29.9	25.9	.8	.6	1.2	2.4
2 weeks, under 1 month.....	3.1	2.7	.4	.6	1.2	.9
1 month, under 2.....	1.8	2.1	.6	.9	.5	.9
2 months, under 3.....	.6	1.4	.1	.7	.3	.8
3 months, under 6.....	1.4	2.0	1.0	1.8	2.0	1.7
6 months, under 9.....	.7	.7	1.5	1.9	.8	1.4
9 months, under 12.....	.2	.3	2.2	2.0	.6	1.3

¹Cities of birth-registration area, 1915. Based on unpublished data furnished by U. S. Census.

TABLE 48.—*Infant deaths, by cause of death, with reference to classification numbers in International List of Causes of Death; deaths among legitimate live births in 1915, Baltimore study, and total deaths in United States death-registration area in 1915.*

Abridged International List No. ¹	Detailed International List No. ¹	Cause of death. ²	Deaths among infants born in Baltimore in 1915.		Infant deaths in death-registration area in 1915.	
			Number.	Per cent distribution.	Number.	Per cent distribution.
		All causes.....	1,117	100.0	148,561	100.0
		Gastric and intestinal diseases ³	314	28.1	34,394	23.2
		Diseases of the stomach.....	6	.5	2,193	1.5
		Diarrhea and enteritis.....	308	27.6	32,201	21.7
		Respiratory diseases ⁴	213	19.1	23,886	16.1
		Acute bronchitis.....	24	2.1	3,401	2.3
		Broncho-pneumonia.....	149	13.3	13,904	9.4
		Pneumonia.....	40	3.6	6,581	4.4
		Malformations.....	39	3.5	9,327	6.3
		Early infancy.....	407	36.4	51,765	34.8
		Premature birth.....	225	20.1	29,027	19.5
		Congenital debility.....	138	12.4	16,824	11.3
		Injuries at birth.....	44	3.9	5,914	4.0
		Epidemic and other communicable diseases. ⁵	72	6.4	12,109	8.2
		Measles.....	8	.7	965	.6
		Scarlet fever.....	1	.1	146	.1
		Whooping cough.....	18	1.6	3,119	2.1
		Diphtheria and croup.....	4	.4	869	.6
		Influenza.....	7	.6	982	.7
		Dysentery.....	1	.1	491	.3
		Erysipelas.....	4	.4	750	.5
		Tetanus.....	.....	.....	299	.2
		Tuberculosis of the lungs.....	4	.4	851	.6
		Tuberculous meningitis.....	10	.9	1,194	.8
		Other forms of tuberculosis.....	1	.1	421	.3
		Syphilis.....	14	1.3	2,022	1.4
		External causes.....	10	.9	1,727	1.2
		Diseases ill-defined or unknown.....	7	.6	2,943	2.0
		All other causes.....	55	4.9	12,420	8.4
		Meningitis.....	10	.9	1,444	1.0
		Convulsions.....	15	1.3	2,301	1.5
		Organic diseases of the heart.....	.....	.....	590	.4
		Other..... diseases of the heart.....	30	2.7	8,085	5.4

¹ The numbers indicate the classification in the abridged and the detailed lists, respectively, of the Manual of the International List of Causes of Death.

² The causes of death included in this list are those used by the U. S. Bureau of the Census (see Mortality Statistics, 1915, p. 442) in classifying the deaths of infants under 1 year. They are those causes of death or groups of causes which are most important at this age. The numbers of the detailed and abridged International Lists will facilitate their identification. In order to make discussion of the figures easier, these causes of death have been grouped in 8 main groups.

³ The term "gastric and intestinal diseases," as used in the tables and discussion, includes, as above shown, only the diseases of this type which are most important among infants; i. e., diseases of the stomach, diarrhea, and enteritis. It does not include all "diseases of the digestive system" as classified under this heading according to the detailed International List.

⁴ The term "respiratory diseases," as used in the tables and discussion, similarly includes only those of the respiratory diseases which are most important among infants; i. e., acute bronchitis, broncho-pneumonia, and pneumonia. It does not include all "diseases of the respiratory system" as classified under this heading according to the detailed International List.

⁵ The term "epidemic and other communicable diseases," as used in the tables and discussion, includes only those of this group which are most important among infants.

TABLE 49.—*Infant mortality rates, by cause of death, and by color and nativity of mother; live births in 1915.*

Cause of death.	Total deaths.		Deaths among infants born to mothers of specified color and nationality.							
	Num-ber.	Infant mor-tality rate.	White.						Colored mothers.	
			Total.		Native.		Foreign born.		Num-ber.	Infant mor-tality rate.
			Num-ber.	Infant mor-tality rate.	Num-ber.	Infant mor-tality rate.	Num-ber.	Infant mor-tality rate.		
All causes.....	1,117	103.5	910	95.9	646	95.9	264	95.9	207	158.6
Gastric and intestinal diseases.	314	29.1	274	28.9	194	28.8	80	29.1	40	30.7
Diseases of the stomach.....	6	.6	5	.5	4	.6	1	.4	1	.8
Diarrhea and enteritis.....	308	28.5	269	28.3	190	28.2	79	28.7	39	29.9
Respiratory diseases.....	213	19.7	149	15.7	92	13.7	57	20.7	64	49.0
Acute bronchitis.....	24	2.2	13	1.4	7	1.0	6	2.2	11	8.4
Broncho-pneumonia.....	149	13.8	103	10.9	65	9.6	38	13.8	46	35.2
Pneumonia.....	40	3.7	33	3.5	20	3.0	13	4.7	7	5.4
Malformations.....	39	3.6	36	3.8	27	4.0	9	3.3	3	2.3
Early infancy.....	407	37.7	342	36.0	257	38.1	85	30.9	65	49.8
Premature birth.....	225	20.8	183	19.3	145	21.5	38	13.8	42	32.2
Congenital debility.....	138	12.8	119	12.5	81	12.0	38	13.8	19	14.6
Injuries at birth.....	44	4.1	40	4.2	31	4.6	9	3.3	4	3.1
Epidemic and other commu-nic-able diseases.....	72	6.7	50	5.3	32	4.7	18	6.5	22	16.9
Measles.....	8	.7	8	.8	5	.7	3	1.1	.....	.....
Scarlet fever.....	1	.1	1	.1	1	.1	.....	.....	.....	.....
Whooping cough.....	18	1.7	11	1.2	6	.9	5	1.8	7	5.4
Diphtheria and croup.....	4	.4	4	.4	1	.1	3	1.1	.....	.....
Influenza.....	7	.6	6	.6	5	.7	1	.4	1	.8
Dysentery.....	1	.1	1	.1	.....	.....	.....	.....	.....	.....
Erysipelas.....	4	.4	4	.4	2	.3	2	.7	.....	.....
Tuberculosis of the lungs.....	4	.4	1	.1	1	.1	.....	.....	3	2.3
Tubercular meningitis.....	10	.9	10	1.1	9	1.3	1	.4	.....	.....
Other forms of tuberculosis	1	.1	.....	.....	.....	.....	.....	.....	1	.8
Syphilis.....	14	1.3	4	.4	2	.3	2	.7	10	7.7
External causes.....	10	.9	7	.7	6	.9	1	.4	3	2.3
Diseases ill-defined or un-known.....	7	.6	6	.6	3	.4	3	1.1	1	.8
All other causes.....	55	5.1	46	4.8	35	5.2	11	4.0	9	6.9
Meningitis.....	10	.9	9	.9	8	1.2	1	.4	1	.8
Convulsions.....	15	1.4	10	1.1	7	1.0	3	1.1	5	3.8
Other.....	30	2.8	27	2.8	20	3.0	7	2.5	3	2.3

TABLE 50.—*Infant deaths, by cause of death and month of life; live births in 1915.*

Cause of death.	Deaths among infants born in 1915.														
	Total.	Occurring in specified month of life.													
		First.			Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	Ninth.	Tenth.	Eleventh.	Twelfth.
		Total.	Under 2 weeks.	2 weeks, under 1 month.											
All causes.....	1,117	477	400	77	65	63	62	71	76	56	56	51	49	42	49
Gastric and intestinal diseases.....	314	17	8	9	15	32	27	29	44	36	24	20	27	21	22
Diseases of the stomach.....	6	1	1	1	1	1	2	1	1	1	1	1	1	1	1
Diarrhea and enteritis.....	308	16	7	9	15	31	25	28	44	36	24	20	27	20	22
Respiratory diseases.....	213	37	20	17	16	19	21	17	17	12	20	17	14	12	11
Acute bronchitis.....	24	6	2	4	5	2	1	2	2	1	2	2	1	2	1
Broncho-pneumonia.....	149	20	11	9	7	12	17	14	12	8	16	13	11	10	9
Pneumonia.....	40	11	7	4	4	5	3	3	3	3	2	2	2	2	2
Malformations.....	39	27	27	3	3	2	3	1	2	1	1	1	1	1	1
Early infancy.....	407	357	323	34	19	6	5	5	5	4	3	1	1	1	1
Premature birth.....	225	216	197	19	7	1	1	1	1	1	1	1	1	1	1
Congenital debility.....	138	97	83	14	12	5	5	4	5	4	3	1	1	1	1
Injuries at birth.....	44	44	43	1	1	1	1	1	1	1	1	1	1	1	1
Epidemic and other communicable diseases.....	72	13	9	4	7	1	4	4	3	1	7	9	4	8	12
Measles.....	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet fever.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough.....	18	1	1	1	2	1	3	2	2	1	2	1	1	3	2
Diphtheria and croup.....	4	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Influenza.....	7	2	2	1	1	1	1	1	1	1	3	1	1	1	1
Dysentery.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Erysipelas.....	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Tuberculosis of the lungs.....	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Tuberculous meningitis.....	10	1	1	1	1	1	1	1	1	1	3	1	1	2	3
Other forms of tuberculosis.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Syphilis.....	14	10	7	3	2	1	1	1	1	1	1	1	1	1	1
External causes.....	10	2	1	1	1	1	1	1	1	2	1	1	2	1	1
Diseases ill-defined or unknown.....	7	3	2	1	1	2	1	1	1	1	1	1	1	1	1
All other causes.....	55	21	10	11	4	1	1	13	4	2	1	4	1	1	3
Meningitis.....	10	1	1	1	1	1	1	5	1	2	1	1	1	1	1
Convulsions.....	15	9	6	3	1	1	1	1	2	1	1	1	1	1	1
Other.....	30	12	4	8	3	1	1	7	1	1	1	4	1	1	2

TABLE 51.—*Infant deaths, by age at death, and by color and nationality of mother; live births in 1915.*

Age at death.	Deaths among infants born to mothers of specified color and nationality.																			
	Total infant deaths.		White mothers.														Colored mothers.			
			Total.		Native.		Foreign born.													
	Num-ber.	Per cent distri-bu-tion.					Num-ber.	Per cent distri-bu-tion.	Num-ber.	Per cent distri-bu-tion.	Jew-ish. ¹	Polish.		Ital-ian. ¹	Ger-man. ¹	Irish, Eng-lish, Scotch, and Eng-lish-Can-a-dian. ¹	Bohe-mian. ¹	Lithu-anian. ¹	All other. ¹	Num-ber.	Per cent distri-bu-tion.
Total.....			1,117	100.0	910	100.0						646	100.0							
Under 1 month.....	477	42.7	394	43.3	286	44.3	108	40.9	26	35	34.3	17	12	4	7	5	2		83	40.1
Under 1 day.....	208	18.6	178	19.6	135	20.9	43	16.3	10	13	12.7	5	7	2	3	2	1		30	14.5
1 day, under 2.....	40	3.6	36	4.0	24	3.7	12	4.5	4	4	3.9	2	1		1				4	1.9
2 days, under 3.....	42	3.8	37	4.1	24	3.7	13	4.9	4	3	2.9	2	1	1	1	1			5	2.4
3 days, under 7.....	51	4.6	40	4.4	25	3.9	15	5.7	3	4	3.9	5	5	1	1				11	5.3
1 week, under 2.....	59	5.3	43	4.7	33	5.1	10	3.8	3	3	2.9	2	1			1			16	7.7
2 weeks, under 1 month.....	77	6.9	60	6.6	45	7.0	15	5.7	2	8	7.8	1	2		1	1			17	8.2
1 month, under 2.....	65	5.8	51	5.6	35	5.4	16	6.1	3	3	2.9	2	1	3			1	3	14	6.8
2 months, under 3.....	63	5.6	52	5.7	34	5.3	18	6.8	1	10	9.8	4	2			1			11	5.3
3 months, under 6.....	209	18.7	159	17.5	113	17.5	46	17.4	7	19	18.6	6	7	2	1	2	2		50	24.2
6 months, under 9.....	163	14.6	138	15.2	98	15.2	40	15.2	7	17	16.7	3	4	3	1	2	3		25	12.1
9 months, under 12.....	140	12.5	116	12.7	80	12.4	36	13.6	5	18	17.6	4	4	3	1	1			24	11.6

¹ Per cent distribution not shown where base is less than 50.

TABLE 52.—*Infant deaths, by calendar month of death and cause; live births in 1915.*

Cause of death.	Deaths among infants born in 1915.												
	Total.	Occurring in specified calendar month.											
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
All causes.....	1,117	65	81	112	89	75	68	144	140	100	91	76	76
Gastric and intestinal diseases.....	314	3	7	9	11	9	10	78	89	46	30	10	12
Diseases of the stomach.....	6	.....	7	.....	.....	.....	1	1	2	.....	.....	1	1
Diarrhea and enteritis.....	308	3	7	9	11	9	9	77	87	46	30	9	11
Respiratory diseases.....	213	23	33	32	22	14	14	11	7	13	14	11	19
Acute bronchitis.....	24	2	4	6	2	2	2	.....	.....	.....	3	1	2
Broncho-pneumonia.....	149	14	19	22	18	11	8	11	6	11	10	7	12
Pneumonia.....	40	7	10	4	2	1	4	.....	1	2	1	3	5
Malformations.....	39	3	3	6	4	2	7	3	1	2	4	2	2
Early infancy.....	407	18	24	50	41	40	30	34	29	32	32	45	32
Premature birth.....	225	8	14	27	25	21	20	18	15	21	17	25	14
Congenital debility.....	138	7	10	14	14	15	7	12	12	9	12	14	12
Injuries at birth.....	44	3	.....	9	2	4	3	4	2	2	3	6	6
Epidemic and other communicable diseases.....	72	10	7	10	6	5	2	8	6	4	4	3	7
Measles.....	8	1	.....	3	2	.....	.....	.....	.....	1	.....	.....	.....
Scarlet fever.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Whooping cough.....	18	1	2	4	2	2	.....	4	1	.....	.....	.....	.....
Diphtheria and croup.....	4	1	1	1	1	.....	.....	.....	.....	.....	.....	1	.....
Influenza.....	7	4	2	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Dysentery.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Erysipelas.....	4	2	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....
Tuberculosis of the lungs.....	4	1	.....	.....	.....	1	1	2	1	.....	1	.....	2
Tuberculous meningitis.....	10	.....	2	.....	1	.....	.....	.....	1	.....	.....	.....	.....
Other forms of tuberculosis.....	1	.....	.....	.....	.....	.....	.....	.....	.....	3	2	2	2
Syphilis.....	14	.....	.....	.....	1	1	1	2	1	.....	.....	.....	.....
External causes.....	10	2	1	2	1	1	1	2	.....	.....	1	.....	1
Diseases, ill-defined or unknown.....	7	.....	.....	.....	.....	.....	.....	.....	3	1	1	.....	.....
All other causes.....	55	6	6	3	4	3	4	8	5	2	6	5	3
Meningitis.....	10	.....	2	.....	1	.....	.....	.....	1	1	.....	.....	.....
Convulsions.....	15	2	2	1	.....	.....	1	3	.....	1	3	2	.....
Other.....	30	4	2	2	3	3	2	1	4	.....	3	3	3

TABLE 53.—*Infant mortality rates, by calendar month of birth and cause of death; live births in 1915.*

Month of birth.	Live births.	Total infant deaths.		Infant deaths from specified causes.									
		Number.	Infant mortality rate.	Gastric and intestinal diseases.		Respiratory diseases.		Malformations.	Early infancy.		Epidemic and other communicable diseases.	External causes.	Diseases ill defined or unknown and all other causes.
				Number.	Infant mortality rate.	Number.	Infant mortality rate.		Number.	Infant mortality rate.			
Total.....	10,797	1,117	103.5	314	29.1	213	19.7	39	407	37.7	72	10	62
January.....	885	82	92.7	33	37.3	14	15.8	2	24	27.1	2	.....	7
February.....	891	97	108.9	36	40.4	21	23.6	2	26	29.2	5	.....	7
March.....	973	113	116.1	24	24.7	14	14.4	7	57	58.6	5	1	5
April.....	793	103	129.9	38	47.9	16	20.2	3	41	51.7	5	.....	.....
May.....	828	88	106.3	20	24.2	20	24.2	4	36	43.5	5	.....	3
June.....	878	101	115.0	25	28.5	14	15.9	5	38	43.3	13	3	3
July.....	999	97	97.1	21	21.0	31	31.0	4	30	30.0	6	1	4
August.....	936	78	83.3	19	20.3	17	18.2	1	27	28.8	5	1	8
September.....	909	78	85.8	18	19.8	16	17.6	.....	29	31.9	8	.....	6
October.....	904	94	104.0	30	33.2	18	19.9	5	26	28.8	6	3	6
November.....	886	101	114.0	24	27.1	16	18.1	4	44	49.7	7	.....	6
December.....	915	85	92.9	26	28.4	16	17.5	2	29	31.7	5	.....	7

TABLE 54.—*Infant deaths from gastric and intestinal diseases per 1,000 live births, by age at death; Baltimore City, 1915 and 1916, cities of birth-registration area, 1915, and legitimate group in Baltimore study.*

Age at death.	Infant deaths from gastric and intestinal diseases per 1,000 live births.			
	Baltimore group. ¹	Cities of birth-registration area.	Baltimore City.	
			1915	1916
Total.....	29.1	26.7	29.9	32.7
Under 3 months.....	5.9	9.0	7.7	9.9
3 months, under 6.....	9.3	8.0	9.2	8.6
6 months, under 9.....	7.4	5.9	8.1	8.2
9 months, under 12.....	6.5	3.8	4.8	6.0

¹ In the Baltimore group the deaths under 1 year of age among infants born in 1915 occurred partly in 1915 and partly in 1916.

TABLE 55.—*Infant deaths from diarrhea and enteritis per 1,000 live births, by age at death; England and Wales, 1891 to 1917.*

Period.	Infant deaths from diarrhea and enteritis per 1,000 live births.		
	Age at death.		
	Under 3 months.	3-6 months.	6-12 months.
1891-1900.....	6.95	8.51	9.71
1901-1910.....	5.58	6.97	7.92
1911-1915.....	5.56	6.35	7.33
1916.....	3.53	3.50	3.55
1917.....	3.42	3.47	3.41

(Based on reports of registrar general of births, deaths, and marriages in England and Wales: 1915, cd. 8484; 1916, cd. 8869; 1917, cmd. 40.)

TABLE 56.—*Mean temperature and precipitation, by calendar month; Baltimore, 1915 and 1916.*

Calendar month.	Monthly mean temperature and total precipitation in Baltimore.			
	1915		1916	
	Mean temperature (° F.).	Precipitation (inches).	Mean temperature (° F.).	Precipitation (inches).
January.....	36.0	6.81	39.5	1.51
February.....	38.4	4.75	33.6	3.21
March.....	39.4	1.06	37.0	3.61
April.....	59.2	1.37	52.6	3.68
May.....	62.2	3.19	66.6	3.49
June.....	70.6	6.23	69.4	5.33
July.....	76.9	2.22	78.0	5.04
August.....	74.2	9.93	76.8	.83
September.....	71.5	2.30	67.6	1.82
October.....	59.6	3.86	57.6	1.61
November.....	47.0	1.59	47.3	1.97
December.....	35.4	3.08	36.0	3.94

Source: U. S. Department of Agriculture, Weather Bureau, monthly issues Climatological Data, Maryland and Delaware Section, 1915 and 1916, and Monthly Meteorological Summary, 1915 and 1916.

TABLE 57.—*Infant deaths from epidemic and communicable diseases per 1,000 live births, by age at death and cause of death; Baltimore City, 1915 and 1916, cities of birth-registration area, 1915, and legitimate group in Baltimore study.*

Cause of death	Infant deaths at specified age under 1 year per 1,000 live births.											
	Baltimore study.			Cities of the birth-registration area, 1915.			Baltimore City.					
							1915			1916		
	Under 1 year.	Under 6 months.	6 months, under 12.	Under 1 year.	Under 6 months.	6 months, under 12.	Under 1 year.	Under 6 months.	6 months, under 12.	Under 1 year.	Under 6 months.	6 months, under 12.
Epidemic and communicable diseases.....	6.7	2.9	3.7	8.5	4.6	3.9	8.9	5.9	3.0	9.1	5.5	3.6
Syphilis.....	1.3	1.3	.....	1.6	1.5	.2	4.5	4.0	.5	4.0	3.6	.3
Other epidemic and communicable diseases.....	5.4	1.7	3.7	6.9	3.1	3.7	4.4	1.9	2.5	5.1	1.9	3.2
Measles.....	.7	.....	.7	.9	.2	.7	.6	.1	.4	.6	.1	.5
Whooping cough.....	1.7	.8	.8	1.9	1.0	.9	1.0	.4	.5	2.0	.9	1.1
Tuberculosis of the lungs.....	.4	.1	.3	.6	.3	.3	.7	.4	.3	.5	.1	.3
All other.....	2.6	.8	1.9	3.5	1.6	1.9	2.2	1.0	1.2	2.1	.8	1.3

TABLE 58.—Monthly death rates, by type of feeding, and by color and nationality of mother; infants born in 1915.

Month of life of infant and nationality of mother.	Infant survivors.	Subsequent deaths.				Breast fed.			Mixed fed.			Artificially fed.			Not reported.			Not fed died at once.			
		In year.		In month.		Infant survivors.	Subsequent deaths.		Infant survivors.	Subsequent deaths.		Infant survivors.	Subsequent deaths.		Infant survivors.	Subsequent deaths.					
		Num-ber.	Per 1,000.	Num-ber.	Per 1,000.		In year.	In month.		In year.	In month.		In year.	In month.		In year.	In month.				
							Num-ber.	Per 1,000.		Num-ber.	Per 1,000. ¹		Num-ber.	Per 1,000. ¹		In year.	Num-ber.		Per 1,000. ¹		
All mothers:																					
First month.....	10,797	1,117	103.5	477	44.2	9,283	570	139	15.0	281	34	12	42.7	958	240	53	55.3	6	4	4	269
Second month.....	10,320	640	62.0	65	6.3	8,176	319	32	3.9	608	50	4	6.6	1,531	271	29	18.9	5	1		
Third month.....	10,255	575	56.1	63	6.1	7,400	228	18	2.4	844	52	8	9.5	2,006	294	37	18.4	5	1		
Fourth month.....	10,192	512	50.2	62	6.1	6,457	163	15	2.3	1,303	53	7	5.4	2,426	293	40	16.5	6	3		
Fifth month.....	10,130	450	44.4	71	7.0	5,905	133	20	3.4	1,614	49	9	5.6	2,605	265	41	15.7	6	3	1	
Sixth month.....	10,059	379	37.7	76	7.6	5,352	97	12	2.2	1,977	44	8	4.0	2,725	236	56	20.6	5	2		
Seventh month.....	9,953	303	30.4	56	5.6	4,215	65	7	1.7	2,845	46	9	3.2	2,919	191	40	13.7	4	1		
Eighth month.....	9,927	247	24.9	56	5.6	3,590	48	8	2.2	3,291	44	11	3.3	3,042	154	36	11.8	4	1		
Ninth month.....	9,871	191	19.3	51	5.2	2,825	31	8	2.8	3,900	39	12	3.1	3,153	121	31	9.8	3	1	1	
White mothers:																					
First month.....	9,492	910	95.9	394	41.5	8,137	446	107	13.1	245	28	9	36.7	870	198	40	46.0	6	4	4	234
Second month.....	9,098	516	56.7	51	5.6	7,223	254	25	3.5	484	38	3	6.2	1,386	224	23	16.6	5	1		
Third month.....	9,047	465	51.4	52	5.7	6,568	179	14	2.1	654	37	6	9.2	1,820	248	32	17.6	5	1		
Fourth month.....	8,995	413	45.9	43	4.8	5,761	127	7	1.2	1,036	37	4	3.9	2,192	246	32	14.6	6	3		
Fifth month.....	8,952	370	41.3	56	6.3	5,288	108	17	3.2	1,304	36	6	4.6	2,354	223	32	13.6	6	3	1	
Sixth month.....	8,896	314	35.3	60	6.7	4,808	79	9	1.9	1,623	31	6	3.7	2,460	202	45	18.3	5	2		
Seventh month.....	8,836	254	28.7	45	5.1	3,827	54	4	1.0	2,378	32	6	2.5	2,627	167	35	13.3	4	1		
Eighth month.....	8,791	209	23.8	48	5.5	3,276	42	7	2.1	2,782	32	9	3.2	2,729	134	31	11.4	4	1	1	
Ninth month.....	8,743	161	18.4	45	5.1	2,587	26	7	2.7	3,328	30	11	3.3	2,825	105	27	9.6	3			
Native mothers:																					
First month.....	6,739	646	95.9	286	42.4	5,681	296	75	13.2	156	20	7	44.9	726	155	29	39.9	4	3	3	172
Second month.....	6,453	360	55.8	35	5.4	4,985	159	14	2.8	313	26	2	6.4	1,153	175	19	16.5	2			
Third month.....	6,418	325	50.6	34	5.3	4,497	109	5	1.1	403	25	5	12.4	1,517	191	24	15.8	1			
Fourth month.....	6,384	291	45.6	33	5.2	3,922	75	4	1.0	646	22	2	3.1	1,814	193	27	14.9	2	1		
Fifth month.....	6,351	258	40.6	43	6.8	3,588	64	12	3.3	823	23	3	3.6	1,938	170	28	14.4	2	1		
Sixth month.....	6,308	215	34.1	37	5.9	3,290	47	7	2.1	1,012	20	1	1.0	2,004	147	29	14.5	2	1		
Seventh month.....	6,271	178	28.4	34	5.4	2,675	31	3	1.1	1,472	24	4	2.7	2,123	123	27	12.7	1			
Eighth month.....	6,237	144	23.1	30	4.8	2,324	24	3	1.3	1,736	23	6	3.5	2,176	97	21	9.7	1			
Ninth month.....	6,207	114	18.4	34	5.5	1,871	13	3	1.6	2,092	23	10	4.8	2,243	78	21	9.4	1			
Foreign-born mothers:																					
First month.....	2,753	264	95.9	108	39.2	2,456	150	32	13.0	89	8	2	22.5	144	43	11	76.4	2	1	1	62
Second month.....	2,645	156	59.0	16	6.0	2,238	95	11	4.9	171	12	1	5.8	233	49	4	17.2	3			
Third month.....	2,629	140	53.3	18	6.8	2,071	70	9	4.3	251	12	1	4.0	303	57	8	26.4	4	1		
Fourth month.....	2,611	122	46.7	10	3.8	1,839	52	3	1.6	390	15	2	5.1	378	53	5	13.2	4	2		
Fifth month.....	2,601	112	43.1	13	5.0	1,700	44	5	2.9	451	13	3	6.2	416	53	4	9.6	4	2	1	
Sixth month.....	2,588	99	38.3	23	8.9	1,518	32	2	1.3	611	11	5	8.2	456	55	16	35.1	3	1		
Seventh month.....	2,565	76	29.6	11	4.3	1,152	23	1	1.9	906	8	2	2.2	504	44	8	15.9	3	1		
Eighth month.....	2,554	65	25.5	18	7.0	952	18	5	4.2	1,046	9	3	2.9	553	37	10	18.1	3	1	1	
Ninth month.....	2,536	47	18.5	11	4.3	716	13	4	5.6	1,236	7	1	.8	582	27	6	10.3	2			

Jewish—																					
First month.....	961	49	51.0	26	27.1	878	25	7	8.0	39	1	.....	27	6	2	.....	1	1	1	.....	16
Second month.....	935	23	24.6	3	3.2	803	14	2	2.5	76	3	1	55	6	.....	1	.....	.....	.....	.....	.....
Third month.....	932	20	21.5	1	1.1	746	11	.....	.....	115	2	.....	70	7	1	.....	1	.....	.....	.....	.....
Fourth month.....	931	19	20.4	3	3.2	638	10	1	1.6	193	3	1	98	5	1	5.2	2	1	.....	.....	.....
Fifth month.....	928	16	17.2	3	3.2	581	8	1	1.7	232	2	1	113	5	1	4.3	2	1	8.8	.....	.....
Sixth month.....	925	13	14.1	1	1.1	514	6	.....	.....	290	2	.....	119	4	1	.....	2	1	8.4	.....	.....
Seventh month.....	924	12	13.0	.....	.....	366	6	.....	.....	419	.....	.....	137	5	.....	.....	2	1	.....	.....	.....
Eighth month.....	924	12	13.0	4	4.3	297	4	1	3.4	471	2	.....	154	5	2	13.0	2	1	.....	.....	.....
Ninth month.....	920	8	8.7	3	3.3	206	3	2	9.7	542	2	1	171	3	.....	.....	1	.....	.....	.....	.....
Polish—																					
First month.....	625	102	163.2	35	56.0	559	64	13	23.3	17	5	.....	29	14	3	.....	1	.....	.....	.....	19
Second month.....	590	67	113.6	3	5.1	507	42	2	3.9	38	8	.....	43	17	1	.....	2	.....	.....	.....	.....
Third month.....	587	64	109.0	10	17.0	477	33	7	14.7	47	8	1	60	22	2	.....	3	1	.....	.....	.....
Fourth month.....	577	54	93.6	2	3.5	430	21	1	2.3	74	9	1	71	23	.....	.....	2	1	.....	.....	.....
Fifth month.....	575	52	90.4	6	10.4	402	18	2	5.0	92	8	2	79	25	1	.....	2	1	.....	.....	.....
Sixth month.....	569	46	80.8	11	19.3	369	13	1	2.7	111	6	2	88	27	8	18.0	1	.....	.....	.....	.....
Seventh month.....	558	35	62.7	7	12.5	276	7	1	3.6	188	8	2	93	20	4	10.6	1	.....	.....	.....	.....
Eighth month.....	551	28	50.8	7	12.7	241	6	1	4.1	213	6	3	96	16	3	14.1	1	.....	.....	.....	.....
Ninth month.....	544	21	38.6	3	5.5	185	5	1	5.4	259	3	.....	99	13	2	.....	1	.....	.....	.....	.....
Italian—																					
First month.....	412	36	87.4	17	41.3	372	19	5	13.4	18	1	1	11	5	.....	.....	.....	.....	.....	.....	11
Second month.....	395	19	48.1	2	5.1	348	13	2	5.7	25	.....	.....	22	6	.....	.....	.....	.....	.....	.....	.....
Third month.....	393	17	43.3	4	10.2	327	10	2	6.1	38	1	.....	28	6	.....	.....	.....	.....	.....	.....	.....
Fourth month.....	389	13	33.4	1	2.6	302	7	.....	.....	50	2	.....	37	4	2	.....	.....	.....	.....	.....	.....
Fifth month.....	388	12	30.9	2	5.2	287	7	2	7.0	59	2	.....	42	3	.....	.....	.....	.....	.....	.....	.....
Sixth month.....	386	10	25.9	3	7.8	256	5	1	3.9	77	2	2	53	3	.....	.....	.....	.....	.....	.....	.....
Seventh month.....	383	7	18.3	1	2.6	201	3	.....	.....	117	.....	.....	65	4	1	.....	.....	.....	.....	.....	.....
Eighth month.....	382	6	15.7	1	2.6	161	1	.....	.....	141	1	.....	80	4	1	.....	.....	.....	.....	.....	.....
Ninth month.....	381	5	13.1	1	2.6	125	1	.....	.....	172	1	.....	84	3	1	.....	.....	.....	.....	.....	.....
All other—																					
First month.....	755	77	102.0	30	39.7	647	42	7	10.8	15	1	1	77	18	6	.....	.....	.....	.....	.....	16
Second month.....	725	47	64.8	8	11.0	580	26	5	8.6	32	.....	.....	113	20	3	26.5	.....	.....	.....	.....	.....
Third month.....	717	39	54.4	3	4.2	521	16	.....	.....	51	1	.....	145	22	3	20.7	.....	.....	.....	.....	.....
Fourth month.....	714	36	50.4	4	5.6	469	14	1	2.1	73	1	.....	172	21	3	17.4	.....	.....	.....	.....	.....
Fifth month.....	710	32	45.1	2	2.8	430	11	.....	.....	98	1	.....	182	20	2	11.0	.....	.....	.....	.....	.....
Sixth month.....	708	30	42.4	8	11.3	379	8	.....	.....	133	1	1	196	21	7	35.7	.....	.....	.....	.....	.....
Seventh month.....	700	22	31.4	3	4.3	309	7	.....	.....	182	.....	.....	209	15	3	14.4	.....	.....	.....	.....	.....
Eighth month.....	697	19	27.3	6	8.6	253	7	2	7.9	221	.....	.....	223	12	4	17.9	.....	.....	.....	.....	.....
Ninth month.....	691	13	18.8	4	5.8	200	4	1	5.0	263	1	.....	228	8	3	13.2	.....	.....	.....	.....	.....
Colored mothers:																					
First month.....	1,305	207	158.6	83	63.6	1,146	124	32	27.9	36	6	3	88	42	13	.....	.....	.....	.....	.....	35
Second month.....	1,222	124	101.5	14	11.5	953	65	7	7.3	124	12	1	145	47	6	41.4	.....	.....	.....	.....	.....
Third month.....	1,208	110	91.1	11	9.1	832	49	4	4.8	190	15	2	186	46	5	26.9	.....	.....	.....	.....	.....
Fourth month.....	1,197	99	82.7	19	15.9	696	36	8	11.5	267	16	3	234	47	8	34.2	.....	.....	.....	.....	.....
Fifth month.....	1,178	80	67.9	15	12.7	617	25	3	4.9	310	13	3	251	42	9	35.9	.....	.....	.....	.....	.....
Sixth month.....	1,163	65	55.9	16	13.8	544	18	3	5.5	354	13	2	265	34	11	41.5	.....	.....	.....	.....	.....
Seventh month.....	1,147	49	42.7	11	9.6	388	11	3	7.7	467	14	3	292	24	5	17.1	.....	.....	.....	.....	.....
Eighth month.....	1,136	38	33.5	8	7.0	314	6	1	3.2	509	12	2	313	20	5	16.0	.....	.....	.....	.....	.....
Ninth month.....	1,128	30	26.6	6	5.3	238	5	1	4.2	562	9	1	328	16	4	12.2	.....	.....	.....	.....	.....

¹Rate not shown where base is less than 100.

TABLE 59.—Monthly death rates, by type of feeding, and by earnings of father and color and nativity of mother; infants born in 1915.¹

Month of life of infant, earnings of father, and color and nativity of mother.	Total.			Breast fed.			Mixed fed.			Artificially fed.			Feeding not reported.	
	Infant survivors.	Deaths in month.		Infant survivors.	Deaths in month.		Infant survivors.	Deaths in month.		Infant survivors.	Deaths in month.		Infant survivors.	Deaths in month.
		Number.	Per cent. ²		Number.	Per cent. ²		Number.	Per cent. ²		Number.	Per cent. ²		
ALL MOTHERS.														
Earnings of father:														
Under \$450—														
First month.....	1,495	44	2.9	1,332	31	2.3	50	.....	.....	110	11	10.0	3	2
Second month.....	1,451	17	1.2	1,165	10	.9	114	.....	.....	170	7	4.1	2	.....
Third month.....	1,434	15	1.0	1,039	5	.5	173	4	2.3	220	6	2.7	2	.....
Fourth month.....	1,419	11	.8	882	2	.2	254	1	.4	281	8	2.8	2	.....
Fifth month.....	1,408	18	1.3	793	6	.8	308	4	1.3	305	8	2.6	2	.....
Sixth month.....	1,390	20	1.4	705	4	.6	355	3	.8	328	13	4.0	2	.....
Seventh month.....	1,370	14	1.0	526	1	.2	488	3	.6	354	10	2.8	2	.....
Eighth month.....	1,356	16	1.2	428	.....	.....	554	4	.7	372	11	3.0	2	1
Ninth month.....	1,340	6	.4	332	1	.3	626	.....	.....	381	5	1.3	1	.....
Tenth to twelfth month ³	1,334	32	2.4	331	10	3.0	626	7	1.1	376	15	4.0	1	.....
\$450-\$549—														
First month.....	1,412	30	2.1	1,279	19	1.5	38	2	.....	95	9	.....	.....	.....
Second month.....	1,382	9	.7	1,138	4	.4	92	1	.....	152	4	2.6	.....	.....
Third month.....	1,373	15	1.1	1,029	5	.5	137	3	2.2	207	7	3.4	.....	.....
Fourth month.....	1,358	12	.9	881	2	.2	214	1	.5	263	9	3.4	.....	.....
Fifth month.....	1,346	7	.5	803	2	.2	267	1	.4	276	4	1.4	.....	.....
Sixth month.....	1,339	18	1.3	725	1	.1	329	1	.3	285	16	5.6	.....	.....
Seventh month.....	1,321	9	.7	553	.....	.....	476	1	.2	292	8	2.7	.....	.....
Eighth month.....	1,312	6	.5	460	.....	.....	549	3	.5	303	2	.7	.....	.....
Ninth month.....	1,306	6	.5	352	1	.3	631	1	.2	323	4	1.2	.....	.....
Tenth to twelfth month ³	1,300	22	1.7	351	2	.6	630	7	1.1	319	13	4.1	.....	.....
\$550-\$649—														
First month.....	1,452	29	2.0	1,294	18	1.4	33	3	.....	124	7	5.6	1	1
Second month.....	1,423	12	.8	1,147	7	.6	71	1	.....	205	4	2.0	.....	.....
Third month.....	1,411	9	.6	1,047	2	.2	92	.....	.....	272	7	2.6	.....	.....
Fourth month.....	1,402	11	.8	914	4	.4	164	1	.6	324	6	1.9	.....	.....
Fifth month.....	1,391	9	.6	849	1	.1	207	2	1.0	335	6	1.8	.....	.....
Sixth month.....	1,382	5	.4	775	1	.1	254	1	.4	353	3	.8	.....	.....
Seventh month.....	1,377	14	1.0	603	2	.3	398	2	.5	376	10	2.7	.....	.....
Eighth month.....	1,365	12	.9	523	3	.6	457	.....	.....	383	9	2.3	.....	.....
Ninth month.....	1,351	7	.5	426	.....	.....	539	.....	.....	386	7	1.8	.....	.....
Tenth to twelfth month ³	1,344	17	1.3	426	2	.5	539	4	.7	379	11	2.9	.....	.....

\$650-\$849—													
First month.....	2,362	51	2.2	2,078	37	1.8	60	4	-----	224	10	4.5	-----
Second month.....	2,311	9	.4	1,858	4	.2	113	1	.9	340	4	1.2	-----
Third month.....	2,302	11	.5	1,684	4	.2	166	-----	-----	452	7	1.5	-----
Fourth month.....	2,291	14	.6	1,495	3	.2	251	1	.4	545	10	1.8	-----
Fifth month.....	2,277	19	.8	1,367	8	.6	331	1	.3	579	10	1.7	-----
Sixth month.....	2,258	9	.4	1,240	2	.2	413	1	.2	605	6	1.0	-----
Seventh month.....	2,249	6	.3	1,001	1	.1	604	-----	-----	644	5	.8	-----
Eighth month.....	2,243	10	.4	852	2	.2	726	2	.3	665	6	.9	-----
Ninth month.....	2,233	16	.7	682	3	.4	861	4	.5	690	9	1.3	-----
Tenth to twelfth month ³	2,217	32	1.4	679	7	1.0	857	4	.5	681	21	3.1	-----
\$850-\$1,249—													
First month.....	2,205	25	1.1	1,928	16	.8	53	1	-----	224	8	3.6	-----
Second month.....	2,180	10	.5	1,711	5	.3	107	-----	-----	360	5	1.4	2
Third month.....	2,170	6	.3	1,577	-----	-----	119	1	.8	472	5	1.1	2
Fourth month.....	2,164	4	.2	1,383	1	.1	203	-----	-----	576	3	.5	2
Fifth month.....	2,160	7	.3	1,266	3	.2	262	1	.4	630	3	.5	2
Sixth month.....	2,153	12	.6	1,144	2	.2	345	1	.3	662	9	1.4	2
Seventh month.....	2,141	4	.2	932	2	.2	496	1	.2	711	1	.1	2
Eighth month.....	2,137	5	.2	798	1	.1	590	-----	-----	747	4	.5	2
Ninth month.....	2,132	11	.5	621	2	.3	742	4	.5	767	5	.7	2
Tenth to twelfth month ³	2,121	23	1.1	619	-----	-----	738	3	.4	762	20	2.6	2
\$1,250-\$1,849—													
First month.....	767	19	2.5	651	10	1.5	27	2	-----	88	6	-----	1
Second month.....	748	3	.4	574	-----	-----	39	-----	-----	135	3	2.2	-----
Third month.....	745	1	.1	519	1	.2	55	-----	-----	171	-----	-----	-----
Fourth month.....	744	2	.3	472	-----	-----	74	1	-----	198	1	.5	-----
Fifth month.....	742	2	.3	441	-----	-----	85	-----	-----	216	2	.9	-----
Sixth month.....	740	3	.4	408	1	.2	108	-----	-----	224	2	.9	-----
Seventh month.....	737	3	.4	321	-----	-----	172	1	.6	244	2	.8	-----
Eighth month.....	734	1	.1	282	1	.4	192	-----	-----	260	-----	-----	-----
Ninth month.....	733	-----	-----	223	-----	-----	235	-----	-----	275	-----	-----	-----
Tenth to twelfth month ³	733	6	.8	223	2	.9	235	-----	-----	275	4	1.5	-----
\$1,850 and over—													
First month.....	424	5	1.2	377	5	1.3	12	-----	-----	35	-----	-----	-----
Second month.....	419	-----	-----	317	-----	-----	27	-----	-----	75	-----	-----	-----
Third month.....	419	1	.2	274	-----	-----	38	-----	-----	107	1	.9	-----
Fourth month.....	418	1	.2	232	-----	-----	59	-----	-----	127	1	.8	-----
Fifth month.....	417	-----	-----	207	-----	-----	67	-----	-----	143	-----	-----	-----
Sixth month.....	417	-----	-----	196	-----	-----	71	-----	-----	150	-----	-----	-----
Seventh month.....	417	-----	-----	156	-----	-----	91	-----	-----	170	-----	-----	-----
Eighth month.....	417	1	.2	137	-----	-----	98	-----	-----	182	1	.5	-----
Ninth month.....	416	1	.2	109	-----	-----	112	-----	-----	195	1	.5	-----
Tenth to twelfth month ³	415	-----	-----	109	-----	-----	112	-----	-----	194	-----	-----	-----

¹ Excludes 35 not fed (died at once).

² Not shown where base is less than 100.

³ Figures are infant survivors at beginning of tenth month, who are classified according to type of feeding in the ninth month; and deaths in tenth, eleventh, and twelfth months in each of these groups. The rate shows the deaths in these three months per 1,000 survivors at the beginning of the tenth month.

TABLE 59.—Monthly death rates, by type of feeding, and by earnings of father and color and nativity of mother; infants born in 1915¹—Continued.

Month of life of infant, earnings of father, and color and nativity of mother.	Total.		Breast fed.		Mixed fed.		Artificially fed.		Feeding not reported.				
	Infant survivors.	Deaths in month.		Infant survivors.	Deaths in month.		Infant survivors.	Deaths in month.		Infant survivors.	Deaths in month.		
		Number.	Per cent. ²		Number.	Per cent. ²		Number.	Per cent. ²			Number.	Per cent. ²
ALL MOTHERS—continued.													
Earnings of father—Continued.													
No earnings—													
First month.....	201	2	1.0	168	1	.6	1		31	1		1	
Second month.....	199	1	.5	131	1	.8	23		44			1	
Third month.....	198	3	1.5	111	1	.9	34		53	2			
Fourth month.....	195	4	2.1	92	2		44	2	59				
Fifth month.....	191	7	3.7	81			46		64	7			
Sixth month.....	184	9	4.9	74	1		52	1	58	7			
Seventh month.....	175	5	2.9	56	1		63	1	56	3			
Eighth month.....	170	1	.6	48			67	1	55				
Ninth month.....	169			37			74		58				
Tenth to twelfth months ³	169	5	3.0	37			74	1	58	4			
Not reported—													
First month.....	210	3	1.4	176	2	1.1	7		27	1			
Second month.....	207	4	1.9	135	1	.7	22	1	50	2			
Third month.....	203	2	1.0	120			30		52	2		1	
Fourth month.....	201	3	1.5	106	1	.9	40		53	2		2	
Fifth month.....	198	2	1.0	98			41		57	1		2	
Sixth month.....	196			85			50		60			1	
Seventh month.....	196	1	.5	67			57		72	1			
Eighth month.....	195	4	2.1	62			58	1	75	3			
Ninth month.....	191	4	2.1	43	1		70	3	78				
Tenth to twelfth months ³	187	3	1.6	42			67	1	78	2			
NATIVE WHITE MOTHERS.													
Earnings of father:													
Under \$550—													
First month.....	1,053	26	2.5	928	18	1.9	21		107	6	5.6	2	2
Second month.....	1,032	9	.9	814	1	.1	58	1	160	7	4.4		
Third month.....	1,023	12	1.2	729	1	.1	86	5	208	6	2.9		
Fourth month.....	1,011	10	1.0	622			130	1	259	9	3.5		
Fifth month.....	1,001	10	1.0	557	3	.5	169	1	275	6	2.2		
Sixth month.....	991	12	1.2	507	1	.2	205		279	11	3.9		
Seventh month.....	979	14	1.4	393	1	.3	300	1	286	12	4.2		

Eighth month.....	965	7	.7	336	.....	.....	348	4	1.1	281	3	1.1	.....	.....
Ninth month.....	958	4	.4	264	.....	.....	400	.....	.....	294	4	1.4	.....	.....
Tenth to twelfth months ²	954	18	1.9	264	2	.8	400	3	.8	290	13	4.5	.....	.....
\$550-\$849—														
First month.....	2,568	49	1.9	2,227	31	1.4	60	4	.....	280	13	4.6	1	1
Second month.....	2,519	13	.5	1,971	6	.3	112	1	.9	436	6	1.4	.....	.....
Third month.....	2,566	14	.6	1,778	3	.2	147	.....	.....	581	11	1.9	.....	.....
Fourth month.....	2,492	16	.6	1,552	4	.3	253	.....	.....	687	12	1.7	.....	.....
Fifth month.....	2,476	20	.8	1,422	6	.4	333	1	.3	721	13	1.8	.....	.....
Sixth month.....	2,456	9	.4	1,304	2	.2	405	.....	.....	747	7	.9	.....	.....
Seventh month.....	2,447	12	.5	1,072	.....	.....	592	1	.2	783	11	1.4	.....	.....
Eighth month.....	2,435	14	.6	930	2	.2	713	1	.1	792	11	1.4	.....	.....
Ninth month.....	2,421	17	.7	768	2	.3	847	3	.4	806	12	1.5	.....	.....
Tenth to twelfth months ²	2,404	33	1.4	766	6	.8	844	5	.6	794	22	2.8	.....	.....
\$850-\$1,249—														
First month.....	1,761	18	1.0	1,524	10	.7	41	1	.....	196	7	3.6	.....	.....
Second month.....	1,743	8	.5	1,347	5	.4	79	.....	.....	316	3	.9	1	.....
Third month.....	1,735	4	.2	1,232	.....	.....	83	.....	.....	419	4	1.0	1	.....
Fourth month.....	1,731	2	.1	1,078	.....	.....	144	.....	.....	508	2	.4	1	.....
Fifth month.....	1,729	7	.4	986	3	.3	129	1	.5	551	3	.5	1	.....
Sixth month.....	1,722	10	.6	897	2	.2	246	1	.4	578	7	1.2	1	.....
Seventh month.....	1,712	4	.2	740	2	.3	356	1	.3	615	1	.2	1	.....
Eighth month.....	1,768	4	.2	676	.....	.....	433	.....	.....	638	4	.6	1	.....
Ninth month.....	1,704	10	.6	498	1	.2	554	4	.7	651	5	.8	1	.....
Tenth to twelfth months ²	1,694	18	1.1	497	.....	.....	550	3	.5	646	15	2.3	1	.....
\$1,250-\$1,849—														
First month.....	609	15	2.5	514	10	1.9	20	2	.....	75	3	.....	.....	.....
Second month.....	594	3	.5	449	.....	.....	24	.....	.....	121	3	2.5	.....	.....
Third month.....	591	1	.2	404	1	.2	35	.....	.....	152	.....	.....	.....	.....
Fourth month.....	590	1	.2	365	.....	.....	46	.....	.....	179	.....	.....	.....	.....
Fifth month.....	589	.....	.....	345	.....	.....	50	.....	.....	194	1	.6	.....	.....
Sixth month.....	589	3	.5	322	1	.3	65	.....	.....	202	2	1.0	.....	.....
Seventh month.....	586	3	.5	259	.....	.....	109	1	.9	218	2	.9	.....	.....
Eighth month.....	583	1	.2	234	1	.4	119	.....	.....	230	.....	.....	.....	.....
Ninth month.....	582	.....	.....	188	.....	.....	151	.....	.....	243	.....	.....	.....	.....
Tenth to twelfth months ²	582	6	1.0	188	2	1.1	151	.....	.....	243	4	1.6	.....	.....
\$1,850 and over—														
First month.....	360	5	1.4	320	5	1.6	11	.....	.....	29	.....	.....	.....	.....
Second month.....	355	.....	.....	267	.....	.....	23	.....	.....	65	.....	.....	.....	.....
Third month.....	355	1	.3	232	.....	.....	30	.....	.....	93	1	.....	.....	.....
Fourth month.....	354	1	.3	196	.....	.....	47	.....	.....	111	1	.9	.....	.....
Fifth month.....	353	.....	.....	177	.....	.....	53	.....	.....	123	.....	.....	.....	.....
Sixth month.....	353	.....	.....	171	.....	.....	54	.....	.....	128	.....	.....	.....	.....
Seventh month.....	353	.....	.....	140	.....	.....	68	.....	.....	145	.....	.....	.....	.....
Eighth month.....	353	1	.3	123	.....	.....	73	.....	.....	157	1	.6	.....	.....
Ninth month.....	352	.....	.....	101	.....	.....	83	.....	.....	168	.....	.....	.....	.....
Tenth to twelfth months ²	352	.....	.....	101	.....	.....	83	.....	.....	168	.....	.....	.....	.....

¹ Excludes 35 not fed (died at once).

² Not shown where base is less than 100.

³ Figures are infant survivors at beginning of tenth month, who are classified according to type of feeding in the ninth month; and deaths in tenth, eleventh, and twelfth months in each of these groups. The rate shows the deaths in these three months per 1,000 survivors at the beginning of the tenth month.

TABLE 59.—Monthly death rates, by type of feeding, and by earnings of father and color and nativity of mother; infants born in 1915¹—Continued.

Month of life of infant, earnings of father, and color and nativity of mother.	Total.		Breast fed.		Mixed fed.		Artificially fed.		Feeding not reported.		
	Deaths in month.		Deaths in month.		Deaths in month.		Deaths in month.		Infant survivors.	Deaths in month.	
	Infant survivors.	Number.	Per cent. ²	Infant survivors.	Number.	Per cent. ²	Infant survivors.	Number.			Per cent. ²
NATIVE WHITE MOTHERS—con.											
Earnings of father—Continued											
No earnings—											
First month.....	86			66				19			1
Second month.....	86	1		57	1	6	22			1	
Third month.....	85	1		50		7	28	1			
Fourth month.....	84	1		43		9	32				
Fifth month.....	83	5		41		9	33	5			
Sixth month.....	78	3		37	1	13	28	2			
Seventh month.....	75	1		30		17	28	1			
Eighth month.....	74			28		19	27				
Ninth month.....	74			24		21	29				
Tenth to twelfth month ³	74	2		24		21	29	1			
Not reported—											
First month.....	125	1	.8	102	1	1.0	3		20		
Second month.....	124	1	.8	80	1		11		33		
Third month.....	123	1	.8	72			15		36	1	
Fourth month.....	122	2	1.6	66			17		38	2	1
Fifth month.....	120	1	.8	60			18		41	1	1
Sixth month.....	119			52			24		42		1
Seventh month.....	119			41			30		48		
Eighth month.....	119	3	2.5	37			31	1	51	2	
Ninth month.....	116	3	2.6	28			36	3	52		
Tenth to twelfth month ³	113	3	2.7	28			33	1	52	2	
FOREIGN-BORN WHITE MOTHERS.											
Earnings of father:											
Under \$450—											
First month.....	569	11	1.9	506	8	1.6	27		35	3	1
Second month.....	558	6	1.1	455	5	1.1	44		57	1	2
Third month.....	552	7	1.3	416	3	.7	65		69	4	2
Fourth month.....	545	1	.2	362			99		82	1	2
Fifth month.....	544	4	.7	335	2	.6	119	2	88		2
Sixth month.....	540	9	1.7	294	1	.3	142	2	102	6	2
Seventh month.....	531	4	.8	228			190	1	111	3	2

Eighth month.....	527	7	1.3	188			218	1	.5	119	5	4.2	2	1
Ninth month.....	520	3	.6	145	1	.7	253			121	2	1.7	1	
Tenth to twelfth month ³	517	14	2.7	144	5	3.5	253	2	.8	119	7	5.9	1	
\$450-\$549—														
First month.....	444	5	1.1	419	5	1.2	14			11				
Second month.....	439	3	.7	390	2	.5	26			23	1			
Third month.....	436	4	.9	365	3	.8	39			32	1			
Fourth month.....	432			317			68			47				
Fifth month.....	432			299			84			49				
Sixth month.....	432	4	.9	268			110	1	.9	54	3			
Seventh month.....	428			204			168			56				
Eighth month.....	428	2	.5	161			199	1	.5	68	1			
Ninth month.....	426			120			234			72				
Tenth to twelfth month ³	426	5	1.2	120	2	1.7	234	1	.4	72	2			
\$550-\$849—														
First month.....	977	18	1.8	903	14	1.6	29	2		45	2			
Second month.....	959	5	.5	829	4	.5	54			76	1			
Third month.....	954	4	.4	767	3	.4	82			105	1	1.0		
Fourth month.....	950	6	.6	697	2	.3	118	1	.8	135	3	2.2		
Fifth month.....	944	7	.7	647	3	.5	152	1	.7	145	3	2.1		
Sixth month.....	937	4	.4	583	1	.2	197	1	.5	157	2	1.3		
Seventh month.....	933	4	.4	437			321	1	.3	175	3	1.7		
Eighth month.....	929	8	.9	367	3	.8	372	1	.3	190	4	2.1		
Ninth month.....	921	5	.5	279	1	.4	441	1	.2	201	3	1.5		
Tenth to twelfth month ³	916	13	1.4	278	2	.7	440	3	.7	198	8	4.0		
\$850 and over—														
First month.....	609	9	1.5	550	4	.7	17			41	4		1	1
Second month.....	600	1	.2	501			39			59	1		1	
Third month.....	599	2	.3	466			56	1		76	1		1	
Fourth month.....	597	2	.3	415	1	.2	89			92	1		1	
Fifth month.....	595			374			111			109			1	
Sixth month.....	595	2	.3	331			145			118	2	1.7	1	
Seventh month.....	593			250			205			137			1	
Eighth month.....	593	1	.2	209	1	.5	232			151			1	
Ninth month.....	592	2	.3	155	1	.6	274			162	1	.6	1	
Tenth to twelfth month ³	590	3	.5	154			274			161	3	1.8	1	
No earnings—														
First month.....	47	1		40						7	1			
Second month.....	46			31			6			9				
Third month.....	46			28			7			11				
Fourth month.....	46	1		23			10	1		13				
Fifth month.....	45	1		20			9			16	1			
Sixth month.....	44	4		20			9	1		15	3			
Seventh month.....	40	2		14	1		13			13	1			
Eighth month.....	38			9			16			13				
Ninth month.....	38			6			19			13				
Tenth to twelfth month ³	38	1		6			19			13	1			

³ Figures are infant survivors at beginning of tenth month, who are classified according to type of feeding in the ninth month, and deaths in tenth, eleventh, and twelfth months in each of these groups. The rate shows the deaths in these three months per 1,000 survivors at the beginning of the tenth month.

TABLE 59.—Monthly death rates, by type of feeding, and by earnings of father and color and nativity of mother; infants born in 1915¹—Concluded.

Month of life of infant, earnings of father, and color and nativity of mother.	Total.			Breast fed.			Mixed fed.			Artificially fed.			Feeding not reported.	
	Infant survivors.	Deaths in month.		Infant survivors.	Deaths in month.		Infant survivors.	Deaths in month.		Infant survivors.	Deaths in month.		Infant survivors.	Deaths in month.
		Number.	Per cent. ²		Number.	Per cent. ²		Number.	Per cent. ²		Number.	Per cent. ²		
FOREIGN-BORN WHITE MOTHERS—continued.														
Earnings of father—Continued.														
Not reported—														
First month.....	45	2	.....	28	1	.....	2	.....	.....	5	1	.....	.....	.....
Second month.....	43	1	.....	32	.....	.....	2	1	.....	9	.....	.....	.....	.....
Third month.....	42	1	.....	29	.....	.....	2	.....	.....	10	1	.....	1	.....
Fourth month.....	41	.....	.....	25	.....	.....	6	.....	.....	9	.....	.....	1	.....
Fifth month.....	41	1	.....	25	.....	.....	6	.....	.....	9	.....	.....	1	1
Sixth month.....	40	.....	.....	22	.....	.....	8	.....	.....	10	.....	.....	.....	.....
Seventh month.....	40	1	.....	19	.....	.....	9	.....	.....	12	1	.....	.....	.....
Eighth month.....	39	.....	.....	18	.....	.....	9	.....	.....	12	.....	.....	.....	.....
Ninth month.....	39	1	.....	11	1	.....	15	.....	.....	13	.....	.....	.....	.....
Tenth to twelfth month ³	38	.....	.....	10	.....	.....	15	.....	.....	13	.....	.....	.....	.....
COLORED MOTHERS.														
Earnings of fathers:														
Under \$450—														
First month.....	489	16	3.3	444	12	2.7	14	.....	.....	31	4	.....	.....	.....
Second month.....	473	6	1.3	374	5	1.3	48	.....	.....	51	1	.....	.....	.....
Third month.....	467	3	.6	316	1	.3	75	.....	.....	76	1	.....	.....	.....
Fourth month.....	464	6	1.3	258	2	.8	105	1	.....	101	4	4.0	.....	.....
Fifth month.....	458	6	1.3	227	1	.4	122	.....	.....	109	4	3.7	.....	.....
Sixth month.....	452	8	1.8	202	2	1.0	136	1	.8	114	5	4.4	.....	.....
Seventh month.....	444	3	.7	144	.....	.....	176	1	.6	124	2	1.6	.....	.....
Eighth month.....	441	2	.9	115	.....	.....	191	.....	.....	135	4	3.0	.....	.....
Ninth month.....	437	.....	.....	85	.....	.....	213	.....	.....	139	2	1.4	.....	.....
Tenth to twelfth month ³	435	11	2.5	85	3	.....	213	4	1.9	137	4	2.9	.....	.....
\$450-\$549—														
First month.....	347	16	4.6	314	7	2.2	12	2	.....	21	7	.....	.....	.....
Second month.....	331	2	.6	270	1	.4	30	.....	.....	31	1	.....	.....	.....
Third month.....	329	4	1.2	242	2	.8	45	.....	.....	42	1	.....	.....	.....
Fourth month.....	325	6	1.8	204	2	1.0	66	1	.....	55	3	.....	.....	.....
Fifth month.....	319	5	1.6	178	2	1.1	81	1	.....	60	2	.....	.....	.....
Sixth month.....	314	5	1.6	159	1	.6	91	.....	.....	64	4	.....	.....	.....

Seventh month.....	309	2	6.5	110			130	1	.8	69	1		
Eighth month.....	307	2	.7	88	1		147	1	.7	72			
Ninth month.....	305	3	1.0	70	1		157	1	.6	78	1		
Tenth to twelfth month ²	302	6	2.0	69			156	4	2.6	77	2		
\$550 and over—													
First month.....	326	15	4.6	290	12	4.1	7	1		29	2		
Second month.....	311	4	1.3	243	1	.4	26	1		42	2		
Third month.....	307	2	.7	222			37			48	2		
Fourth month.....	305	4	1.3	193	1	.5	54	2		58	1		
Fifth month.....	301	3	1.0	179			62	1		60	2		
Sixth month.....	298	1	.3	155			79	1		64			
Seventh month.....	297	4	1.3	115	3	2.6	110			72	1		
Eighth month.....	293			93			121			79			
Ninth month.....	293	1	.3	72			139			82	1		
Tenth to twelfth month ²	292	5	1.7	72	1		139			81	3		
No earnings—													
First month.....	68	1		62	1		1			5			
Second month.....	67			43			11			13			
Third month.....	67	2		33	1		20			14	1		
Fourth month.....	65	2		26	2		25			14			
Fifth month.....	63	1		20			28			15	1		
Sixth month.....	62	2		17			30			15	2		
Seventh month.....	60	2		12			33	1		15	1		
Eighth month.....	58	1		11			32	1		15			
Ninth month.....	57			7			34			16			
Tenth to twelfth month ²	57	2		7			34			16	2		
Not reported—													
First month.....	40			36			2			2			
Second month.....	40	2		23			9			8	2		
Third month.....	38			19			13			6			
Fourth month.....	38	1		15	1		17			6			
Fifth month.....	37			13			17			7			
Sixth month.....	37			11			18			8			
Seventh month.....	37			7			18			12			
Eighth month.....	37	1		7			18			12	1		
Ninth month.....	36			4			19			13			
Tenth to twelfth month ²	36			4			19			13			

¹ Excludes 35 not fed (died at once).

² Not shown where base is less than 100.

³ Figures are infant survivors at beginning of tenth month, who are classified according to type of feeding in the ninth month, and deaths in tenth, eleventh, and twelfth months in each of these groups. The rate shows the deaths in these three months per 1,000 survivors at the beginning of the tenth month.

TABLE 60.—Computed infant mortality rates, by type of feeding, and by earnings of father and color and nativity of mother; infants born in 1915.

Earnings of father and color and nativity of mother.	Breast-fed infants.				Mixed-fed infants.				Artificially-fed infants.			
	Number.		Total months of feeding. ¹	Computed infant mortality rate. ²	Number.		Total months of feeding. ¹	Computed infant mortality rate. ²	Number.		Total months of feeding. ¹	Computed infant mortality rate. ²
	First month.	Ninth month.			First month.	Ninth month.			First month.	Ninth month.		
All mothers.....	9,283	2,825	.....	43.3	281	3,890	.....	87.4	958	3,153	.....	191.4
Earnings of father:												
Under \$550.....	2,611	684	14,422	61.8	88	1,257	5,655	87.8	205	704	4,717	310.1
\$550-\$849.....	3,372	1,108	19,835	46.1	93	1,400	5,740	108.5	348	1,076	7,502	185.4
\$850-\$1,249.....	1,928	621	11,360	22.5	53	742	2,917	44.6	224	767	5,149	117.3
\$1,250-\$1,849.....	651	223	3,891	23.2	27	235	987	91.9	88	275	1,811	130.1
\$1,850 and over.....	377	109	2,005	13.3	12	112	575	.....	35	195	1,184	27.5
No earnings.....	168	37	798	(³)	1	74	404	(³)	31	58	478	(³)
Not reported.....	176	43	892	(³)	7	70	375	(³)	27	78	524	(³)
Native white mothers.....	5,681	1,871	.....	32.7	156	2,092	.....	85.8	726	2,243	.....	160.8
Earnings of father:												
Under \$550.....	928	264	5,150	39.0	21	400	1,717	107.0	107	294	2,149	289.9
\$550-\$849.....	2,227	768	13,024	39.0	60	847	3,462	89.3	280	806	5,833	178.8
\$850-\$1,249.....	1,524	498	8,938	20.2	41	554	2,127	48.4	196	651	4,472	109.6
\$1,250 and over.....	834	289	4,807	31.1	31	234	1,061	69.7	104	411	2,633	77.3
No earnings.....	66	24	376	(³)	.....	21	101	(³)	19	29	246	(³)
Not reported.....	102	28	538	(³)	3	36	185	(³)	20	52	361	(³)
Foreign-born white mothers.....	2,456	716	.....	50.2	89	1,236	.....	61.0	144	582	.....	232.1
Earnings of father:												
Under \$550.....	925	265	5,472	63.8	41	487	2,099	35.1	46	193	1,196	274.1
\$550-\$849.....	903	279	5,509	51.1	29	441	1,766	101.3	45	201	1,229	196.9
\$850 and over.....	550	155	3,251	20.9	17	274	1,168	17.9	41	162	945	169.7
No earnings.....	40	6	191	(³)	.....	19	89	(³)	7	13	110	(³)
Not reported.....	38	11	219	(³)	2	15	59	(³)	5	13	89	(³)
Colored mothers.....	1,146	238	.....	90.2	36	562	.....	146.8	88	328	.....	347.3
Earnings of father:												
Under \$550.....	758	155	3,800	91.4	26	370	1,839	140.4	52	217	1,372	387.9
\$550 and over.....	290	72	1,562	88.0	7	139	635	229.0	29	82	534	252.4
No earnings.....	62	7	231	(³)	1	34	214	(³)	5	16	122	(³)
Not reported.....	36	4	135	(³)	2	19	131	(³)	2	13	74	(³)

¹ For first nine months of life only.² Per 1,000 infants fed. For method of computation, see Appendix V, p. 199.³ Rate not computed.

TABLE 61.—*Computed infant mortality rates, by type of feeding, and by nationality of mother; infants born in 1915 to foreign-born white mothers.*

Nationality of mother.	Breast-fed infants.				Mixed-fed infants.				Artificially-fed infants.			
	Number.		Total months of feeding. ¹	Computed infant mortality rate. ²	Number.		Total months of feeding. ¹	Computed infant mortality rate. ²	Number.		Total months of feeding. ¹	Computed infant mortality rate. ²
	First month.	Ninth month.			First month.	Ninth month.			First month.	Ninth month.		
Foreign-born white mothers.....	2,456	716	.....	50.2	89	1,236	.....	61.0	144	582	.....	232.1
Jewish.....	878	206	5,029	31.4	39	542	2,377	26.1	27	171	944	137.2
Polish.....	559	185	3,446	83.7	17	259	1,039	105.8	29	99	658	385.3
Italian.....	372	125	2,379	43.3	18	172	697	85.4	11	84	422	152.9
All others.....	647	200	3,588	48.6	15	263	805	77.2	77	228	1,317	230.5

¹ For first nine months of life only.

² Per 1,000 infants fed. For method of computation, see Appendix V, p. —.

TABLE 62.—*Monthly death rates, by type of feeding, month of life and cause of death; infants born in 1915.*

Month of life.	Deaths in month from specified causes per 1,000 survivors fed in specified way.							
	Gastric and intestinal diseases.				All other causes.			
	Total.	Breast fed.	Mixed fed.	Artificially fed.	Total.	Breast fed.	Mixed fed.	Artificially fed.
First.....	1.6	1.3	7.1	3.1	42.6	13.7	35.6	52.2
Second.....	1.5	.9	.....	5.2	4.8	3.1	6.6	13.7
Third.....	3.1	.8	5.9	10.5	3.0	1.6	3.6	8.0
Fourth.....	2.6	.2	3.1	9.1	3.4	2.2	2.3	7.4
Fifth.....	2.9	.3	2.5	8.4	4.1	3.0	3.1	7.3
Sixth.....	4.4	.6	3.1	13.9	3.2	1.7	5.1	6.6
Seventh.....	3.6	.5	1.1	10.6	2.0	1.2	2.1	3.1
Eighth.....	2.4	.3	1.2	5.9	3.2	1.9	2.1	5.9
Ninth.....	2.0	.4	1.3	4.4	3.1	2.5	1.8	5.4
Tenth.....	2.7	1.0	.7	6.6	2.2	2.4	.9	3.9

TABLE 63.—*Computed mortality rates for first 10 months of life, by cause of death of infant and color of mother; infants born in 1915.*

Cause of death of infant and color of mother.	Computed deaths in first 10 months of life per 1,000 infants.		
	Breast fed.	Mixed fed.	Artificially fed.
All mothers:			
Gastric and intestinal diseases.....	6.3	24.4	75.1
All other causes.....	32.9	59.5	108.8
White mothers:			
Gastric and intestinal diseases.....	5.9	22.3	75.5
All other causes.....	28.4	51.2	89.3
Colored mothers:			
Gastric and intestinal diseases.....	8.0	41.6	72.7
All other causes.....	67.1	99.7	280.7

TABLE 64.—*Death rates from each month to end of first year, by month in which artificial feeding began; infants born in 1915 and artificially fed during some part of first year of life.*

Month in which artificial feeding began.	Per cent of subsequent deaths among survivors at beginning of specified month of life.							
	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	Ninth.
First.....	20.7	18.7	16.4	13.8	11.9	9.6	7.4	6.4
Second.....	13.3	12.4	11.2	9.9	8.6	6.9	5.4	3.2
Third.....	(1)	10.6	9.7	8.8	7.5	6.0	5.6	4.2
Fourth.....	(1)	(1)	8.0	8.0	6.6	3.9	3.0	2.1
Fifth.....	(1)	(1)	(1)	5.5	5.1	3.3	3.3	2.4
Sixth.....	(1)	(1)	(1)	(1)	7.3	7.3	5.0	4.4
Seventh.....	(1)	(1)	(1)	(1)	(1)	4.4	3.6	3.2
Eighth.....	(1)	(1)	(1)	(1)	(1)	(1)	1.8	1.8
Ninth.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	2.1
After ninth ²	2.8	2.4	2.2	2.0	1.7	1.5	1.3	1.1

¹ Since the basis of classification requires that all infants of the several groups shall be alive at the beginning of the month when first artificially fed, rates for subsequent deaths among survivors at beginning of previous month are not shown.

² Computed from monthly rates for breast-fed infants.

TABLE 65.—*Computed (annual) infant mortality rates, by month in which artificial feeding began; infants born in 1915.*

Month of life in which exclusively artificial feeding began.	Infants whose artificial feeding began in stated month.	Computed (annual) infant mortality rates per 1,000 fed. ¹	Month of life in which exclusively artificial feeding began.	Infants whose artificial feeding began in stated month.	Computed (annual) infant mortality rates per 1,000 fed. ¹
First.....	952	251.1	Seventh.....	250	73.3
Second.....	622	170.5	Eighth.....	163	49.8
Third.....	508	125.5	Ninth.....	146	53.6
Fourth.....	461	106.3	Tenth or eleventh.....	384	48.2
Fifth.....	217	79.3	Twelfth.....	157	(²)
Sixth.....	165	99.6			

¹ For computation of annual rate it is assumed that during month next preceding the month in which artificial feeding began, the infants were mixed fed and that during earlier months they were breast fed. Computations are based on monthly death rates for breast or mixed fed infants, Table 58, and on the per cent of subsequent deaths among survivors at the beginning of the months in which artificial feeding began, Table 64.

² Data not available for estimate.

TABLE 66.—*Monthly death rates, by month of life, and by month in which artificial feeding began; infants born in 1915, and artificially fed.*

Month of life.	Monthly death rates per 1,000 infants whose artificial feeding began in specified month.										
	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	Ninth.	Tenth.	Eleventh.
First.....	55.7										
Second.....	24.5	11.3									
Third.....	27.4	13.0	9.8								
Fourth.....	30.5	14.8	9.9								
Fifth.....	21.8	13.4	14.1	15.2	4.6						
Sixth.....	24.7	18.6	16.3	28.6	18.5						
Seventh.....	24.1	15.5	4.1	9.1		24.2	8.0				
Eighth.....	10.4	22.8	14.6	9.2	9.4	6.2	4.0				
Ninth.....	15.7	12.6	12.7	4.6		12.5	4.0	6.1			
Tenth.....	18.7	5.5	8.5	9.3	4.8	6.3	24.4	6.2	6.8		
Eleventh.....	12.2	12.8	15.1	4.7	9.6	6.4	4.2	6.2		14.6	5.6
Twelfth.....	19.3	1.9	6.6	2.4	9.7	19.2			13.8		5.6

TABLE 67.—*Weaning before end of first year of life, by color and nationality of mother; infants born in 1915 and surviving at one year.*

Color and nationality of mother.	Infants born in 1915 and surviving at 1 year of age.	
	Total.	Completely weaned from breast.
		Number.	Per cent.^{1}
Total.....	9,680	3,567 36.8
White mothers.....	8,582	3,193 37.2
Native.....	6,093	2,449 40.2
Foreign born.....	2,489	744 29.9
Jewish.....	912	240 26.3
Polish.....	523	120 22.9
Italian.....	376	114 30.3
German.....	288	114 39.6
Irish, English, Scotch, and English-Canadian ²	117	50 42.7
Bohemian.....	97	28
Lithuanian.....	88	40
All other ³	88	38
Colored mothers.....	1,098	374 34.1

¹ Not shown where base is less than 100.

² Includes: 85 Irish, 17 English, 8 English-Canadian, and 7 Scotch

³ Includes: 19 Russian, 17 Greek, 11 Magyar, 8 Norwegian, 5 Serbian, 5 French, 5 Slovak, 4 Rumanian, 3 Ruthenian, 3 French-Canadian, 2 Dutch, 2 Slavic (n. o. s.), 2 Swedish, 1 Arabian, and 1 Danish.

TABLE 68.—Weaning before end of first year of life, by earnings of father; infants born in 1915 and surviving at one year.

Earnings of father.	Infants born in 1915 and surviving at 1 year of age.		
	Total.	Completely weaned from breast.	
		Number.	Per cent. ¹
Total.....	9,680	3,567	36.8
Under \$450.....	1,302	439	33.7
\$450-\$549.....	1,278	377	29.5
\$550-\$649.....	1,327	429	32.3
\$650-\$849.....	2,185	762	34.9
\$850-\$1,049.....	1,481	550	37.1
\$1,050-\$1,249.....	617	291	47.2
\$1,250-\$1,449.....	388	161	41.5
\$1,450-\$1,849.....	339	160	47.2
\$1,850-\$2,249.....	134	72	53.7
\$2,250-\$2,849.....	92	55	.....
\$2,850 and over.....	189	119	63.0
No earnings.....	164	62	37.8
Not reported.....	184	90	48.9

¹ Not shown where base is less than 100.

TABLE 69.—Infant mortality and stillbirth rates, by color and nationality of mother; births in 1915.

Color and nationality of mother.	Total.	Stillbirths.		Live births.	Infant deaths.	
		Number.	Per 1,000 births.		Number.	Infant mortality rate. ¹
Total.....	11,195	398	35.6	10,797	1,117	103.5
White mothers.....	9,774	282	28.9	9,492	910	95.9
Native.....	6,937	198	28.5	6,739	646	95.9
Foreign born.....	2,837	84	29.6	2,753	264	95.9
Jewish.....	991	30	30.3	961	49	51.0
Polish.....	643	13	28.0	625	102	163.2
Italian.....	426	14	32.9	412	36	87.4
German.....	327	9	27.5	318	30	94.3
Irish, English, Scotch, and English-Canadian ²	135	3	22.2	132	15	113.6
Bohemian.....	110	3	27.3	107	10	93.5
Lithuanian.....	104	4	38.5	100	12	120.0
All other ³	101	3	29.7	98	10	.....
Colored mothers.....	1,421	116	81.6	1,305	207	158.6

¹ Not shown where base is less than 100.² Includes 101 Irish, 19 English, 10 English-Canadian, and 8 Scotch.³ Includes 24 Russian, 19 Greek, 13 Magyar, 8 Norwegian, 6 Serbian, 5 French, 5 Slovak, 4 Rumanian, 4 Ruthenian, 3 French-Canadian, 3 Dutch, 2 Slavic (n. o. s.), 2 Spanish, 2 Swedish, 1 Arabian, and 1 Danish.

TABLE 70.—*Infant mortality and stillbirth rates, by color and nationality of mother; births, all pregnancies.¹*

Color and nationality of mother.	Births, all pregnancies.					
	Total.	Stillbirths.		Live births.	Infant deaths.	
		Number.	Per cent.		Number.	Infant mortality rate.
Total.....	36,047	1,203	3.3	34,844	4,158	119.3
White mothers.....	31,312	872	2.8	30,440	3,407	111.9
Native.....	20,258	562	2.8	19,696	2,185	110.9
Foreign born.....	11,054	310	2.8	10,744	1,222	113.7
Jewish.....	3,656	95	2.6	3,561	232	65.2
Polish.....	2,749	68	2.5	2,681	439	163.7
Italian.....	1,758	57	3.2	1,701	189	111.1
German.....	1,355	42	3.1	1,313	165	125.7
All other.....	1,536	48	3.1	1,488	197	132.4
Colored mothers.....	4,735	331	7.0	4,404	751	170.5

¹ To mothers of scheduled legitimate issues in 1915 who reported no previous illegitimate births.

TABLE 71.—*Infant mortality rates,¹ by cause of death, and by color and nationality of mother; live births in 1915.*

Cause of death.	Mortality rates among infants born to mothers of specified color and nationality.							
	Native white.	Foreign-born white.					Colored.	
		Total.	Italian.	Jewish.	German.	Polish.		All other.
All causes.....	95.9	95.9	87.4	51.0	94.3	163.2	107.6	158.6
Gastric and intestinal diseases.....	38.8	29.1	9.7	9.4	22.0	68.8	38.9	30.7
Respiratory diseases.....	13.7	20.7	26.7	9.4	25.2	32.0	20.6	49.0
Malformations.....	4.0	3.3	9.7	1.0	.....	3.2	4.6	2.3
Early infancy.....	38.1	30.9	34.0	22.9	31.4	43.2	27.5	49.8
Epidemic and other communicable diseases.....	4.7	6.5	4.9	6.2	12.6	1.6	11.4	16.9
Tuberculosis.....	1.4	.4	.....	.....	.....	0.4	.....	3.1
Syphilis.....	.3	.7	.....	.....	.....	.....	.7	7.7
External causes.....	.9	.4	2.4	.....	.....	.....	.....	2.3
Diseases ill-defined or unknown.....	.4	1.1	.....	.....	.....	4.8	.....	.8
All other causes.....	5.2	4.0	.....	2.1	3.1	9.6	4.6	6.8

¹ For figures upon which these rates are based, see Tables 49 and 69, pp. 259 and 280.

TABLE 72.—*Excess mortality among infants of Polish mothers over that among infants of other foreign-born white mothers when the effect of greater proportion of employed among Polish mothers is eliminated; infants of Polish mothers not employed away from home during infant's lifetime.*

Month of life.	Infants of Polish mothers not gainfully employed away from home during specified month of infant's life. ¹		
	Survivors at beginning of specified month.	Actual deaths.	Expected deaths. ²
Total.....		36	53.1
First.....	614	35	23.9
Second.....	570	3	3.4
Third.....	561	9	3.9
Fourth.....	530	2	2.1
Fifth.....	521	5	2.6
Sixth.....	505	7	4.5
Seventh.....	486	2	1.9
Eighth.....	471	6	3.3
Ninth.....	449	2	1.8
Tenth to twelfth.....	410	15	5.7

¹ The figures include in each month all infants whose mothers were not employed away from home during that month.

² Expected on the basis of monthly death rates among all infants of foreign-born white mothers. These expected deaths are slightly greater than would have been expected on the basis of monthly death rates among infants of foreign-born white mothers not employed away from home.

TABLE 73.—*Stillbirth rates, by earnings of father and color and nativity of mother; births in 1915.*

Earnings of father.	Total.		Births to mothers of specified color and nativity.									
			Native white.			Foreign-born white.			Colored.			
	Births.	Stillbirths.		Births.	Stillbirths.		Births.	Stillbirths.		Births.	Stillbirths.	
		Number.	Per 1,000 births.		Number.	Per 1,000 births. ¹		Number.	Per 1,000 births. ¹		Number.	Per 1,000 births. ¹
Total.....	11,195	398	35.6	6,937	198	28.5	2,837	84	29.6	1,421	116	81.6
Under \$450.....	1,615	71	44.0	460	11	23.9	599	11	18.4	556	49	88.1
\$450-\$549.....	1,523	74	48.6	663	19	28.7	464	15	32.3	396	40	101.0
\$550-\$649.....	1,543	54	35.0	936	28	29.9	443	14	31.6	164	12	73.2
\$650-\$849.....	2,490	73	29.3	1,776	50	28.2	589	19	32.3	125	4	32.0
\$850-\$1,249.....	2,318	62	26.7	1,849	47	25.4	421	12	28.5	48	3	.....
\$850-\$1,049.....	1,640	45	27.4	1,283	32	24.9	319	10	31.3	38	3	.....
\$1,050-1,249.....	678	17	25.1	566	15	26.5	102	2	19.6	10	.....	.....
\$1,250-\$1,849.....	810	20	24.7	645	16	24.8	154	4	26.0	11	.....	.....
\$1,250-\$1,449.....	430	11	25.6	322	8	24.9	103	3	29.1	5	.....	.....
\$1,450-\$1,849.....	380	9	23.7	323	8	24.8	51	1	.....	6	.....	.....
\$1,850 and over.....	448	17	37.9	382	16	41.9	63	1	.....	3	.....	.....
\$1,850-\$2,249.....	143	4	28.0	112	4	35.7	30	.....	.....	1	.....	.....
\$2,250-\$2,849.....	100	5	50.0	86	5	.....	13	.....	.....	1	.....	.....
\$2,850 and over.....	205	8	39.0	184	7	38.0	20	1	.....	1	.....	.....
No earnings.....	222	15	67.6	95	7	.....	53	3	.....	74	5	.....
Not reported.....	226	12	53.1	131	4	30.5	51	5	.....	44	3	.....

¹ Not shown where base is less than 100.

TABLE 74.—*Infant mortality rates, by earnings of father and color and nativity of mother; live births in 1915.*

Earnings of father.	Total.			Live births to mothers of specified color and nativity.								
				Native white.			Foreign-born white.			Colored.		
	Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.	
		Num-ber.	Infant mor-tality rate. ¹		Num-ber.	Infant mor-tality rate. ¹		Num-ber.	Infant mor-tality rate. ¹		Num-ber.	Infant mor-tality rate. ¹
Total.....	10,797	1,117	103.5	6,739	646	95.9	2,753	264	95.9	1,305	207	158.6
Under \$450.....	1,544	242	156.7	449	74	164.8	588	85	144.6	507	83	163.7
\$450-\$549.....	1,449	171	118.0	644	83	128.9	449	28	62.4	356	60	168.5
\$550-\$649.....	1,489	162	108.8	908	98	107.9	429	43	100.2	152	21	138.2
\$650-\$849.....	2,417	232	96.0	1,726	165	95.6	570	53	93.0	121	14	115.7
\$850-\$1,249.....	2,256	158	70.0	1,802	126	69.9	409	25	61.1	45	7	.....
\$850-\$1,049.....	1,595	114	71.5	1,251	86	68.7	309	22	71.2	35	6	.....
\$1,050-\$1,249.....	661	44	66.6	551	40	72.6	100	3	30.0	10	1	.....
\$1,250-\$1,849.....	790	63	79.7	629	53	84.3	150	7	46.7	11	3	.....
\$1,250-\$1,449.....	419	31	74.0	314	24	76.4	100	4	40.0	5	3	.....
\$1,450-\$1,849.....	371	32	86.3	315	29	92.1	50	3	.....	6	.....	.....
\$1,850 and over.....	431	16	37.1	366	14	38.3	62	2	.....	3	.....	.....
\$1,850-\$2,249.....	139	5	36.0	108	5	46.3	30	.....	.....	1	.....	.....
\$2,250-\$2,849.....	95	3	.....	81	3	.....	13	.....	.....	1	.....	.....
\$2,850 and over.....	197	8	40.6	177	6	33.9	19	2	.....	1	.....	.....
No earnings.....	207	43	207.7	88	16	.....	50	13	.....	69	14	.....
Not reported.....	214	30	140.2	127	17	133.9	46	8	.....	41	5	.....

¹ Not shown where base is less than 100.

TABLE 75.—*Infant mortality rates, by earnings of father and color and nativity of mother; live births, all pregnancies.*

Earnings of father.	Live births, all pregnancies.											
	Total.			Color and nativity of mother.								
				Native white.		Foreign-born white.		Colored.				
	Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.	
Num-ber.		Infant mor-tality rate. ¹	Num-ber.		Infant mor-tality rate. ¹	Num-ber.		Infant mor-tality rate. ¹	Num-ber.		Infant mor-tality rate. ¹	
Total.....	34,844	4,158	119.3	19,696	2,185	110.9	10,744	1,222	113.7	4,404	751	170.5
Under \$450.....	5,751	915	159.1	1,512	218	144.2	2,500	366	145.4	1,739	331	190.3
\$450-\$549.....	4,837	634	131.1	1,980	268	135.4	1,724	183	106.1	1,133	183	161.5
\$550-\$649.....	4,975	627	126.0	2,788	355	127.3	1,655	181	109.4	1,532	91	171.1
\$650-\$849.....	7,521	877	116.6	4,963	581	117.1	2,100	231	110.0	458	65	141.9
\$850-\$1,249.....	6,874	648	94.3	5,159	467	90.5	1,550	160	103.2	165	21	127.3
\$850-\$1,049.....	4,780	443	92.7	3,469	300	86.5	1,180	127	107.6	131	16	122.1
\$1,050-\$1,249.....	2,094	205	97.9	1,690	167	98.8	370	33	89.2	34	5	.....
\$1,250-\$1,849.....	2,371	200	84.4	1,756	151	86.0	581	42	72.3	34	7	.....
\$1,250-\$1,449.....	1,291	105	81.3	879	74	84.2	392	24	61.2	20	7	.....
\$1,450-\$1,849.....	1,080	95	88.0	877	77	87.8	189	18	95.2	14	.....	.....
\$1,850 and over.....	1,134	61	53.8	892	54	60.5	239	7	29.3	3	.....	.....
\$1,850-\$2,249.....	366	18	49.2	249	18	72.3	116	.....	.....	1	.....	.....
\$2,250-\$2,849.....	240	10	41.7	199	10	50.3	40	.....	.....	1	.....	.....
\$2,850 and over.....	528	33	62.5	444	26	58.6	83	7	.....	1	.....	.....
No earnings.....	683	107	156.7	259	47	181.5	215	25	116.3	209	35	167.5
Not reported.....	698	89	127.5	387	44	113.7	180	27	150.0	131	18	137.4

¹ Not shown where base is less than 100.

TABLE 76.—Stillbirth rates, by earnings of father and color and nativity of mother; births, all pregnancies.

Earnings of father.	Total.			Births to mothers of specified color and nativity; all pregnancies.								
				Native white.			Foreign-born white.			Colored.		
	Stillbirths.			Stillbirths.			Stillbirths.			Stillbirths.		
	Births.	Num-ber.	Per 1,000 births.	Births.	Num-ber.	Per 1,000 births.	Births.	Num-ber.	Per 1,000 births. ¹	Births.	Num-ber.	Per 1,000 births. ¹
Total.....	36,047	1,203	33.4	20,258	562	27.7	11,054	310	28.0	4,735	331	69.9
Under \$450.....	6,002	251	41.8	1,552	40	25.8	2,561	61	23.8	1,889	150	79.4
\$450-\$549.....	5,050	213	42.2	2,039	59	28.9	1,786	62	34.7	1,225	92	75.1
\$550-\$649.....	5,123	148	28.9	2,858	70	24.5	1,701	46	27.0	564	32	56.7
\$650-\$849.....	7,735	214	27.7	5,094	131	25.7	2,160	60	27.8	481	23	47.8
\$850-\$1,249.....	7,078	204	28.8	5,308	149	28.1	1,593	43	27.0	177	12	67.8
\$850-\$1,049.....	4,915	135	27.5	3,561	92	25.8	1,213	33	27.2	141	10	70.9
\$1,050-\$1,249.....	2,163	69	31.9	1,747	57	32.6	380	10	26.3	36	2	.....
\$1,250-\$1,849.....	2,439	68	27.9	1,813	57	31.4	592	11	18.6	34	.....	.....
\$1,250-\$1,449.....	1,326	35	26.4	904	25	27.7	402	10	24.9	20	.....	.....
\$1,450-\$1,849.....	1,113	33	29.6	909	32	35.2	190	1	5.3	14	.....	.....
\$1,850 and over....	1,172	38	32.4	922	30	32.5	247	8	32.4	3	.....	.....
\$1,850-\$2,249.....	375	9	24.0	257	8	31.1	117	1	8.5	1	.....	.....
\$2,250-\$2,849.....	251	11	43.8	206	7	34.0	44	4	.....	1	.....	.....
\$2,850 and over....	546	18	33.0	459	15	32.7	86	3	.....	1	.....	.....
No earnings.....	723	40	55.3	274	15	54.7	225	10	44.4	224	15	67.0
Not reported.....	725	27	37.2	398	11	27.6	189	9	47.6	138	7	50.7

¹ Not shown where base is less than 100.

TABLE 77.—*Neonatal infant mortality rates, earnings of father, and color and nationality of mother; live births in 1915.*

Earnings of father and color and nationality of mother.	Live births.	Infant deaths at specified age.			
		Under 1 month.		1 month and over.	
		Number.	Per 1,000 live births. ¹	Number.	Per 1,000 live births. ¹
All mothers.....	10,797	477	44.2	640	59.3
Earnings of father:					
Under \$450.....	1,544	93	60.2	149	96.5
\$450-\$549.....	1,449	67	46.2	104	71.8
\$550-\$649.....	1,489	66	44.3	96	64.5
\$650-\$849.....	2,417	106	43.9	126	52.1
\$850-\$1,249.....	2,256	76	33.7	82	36.3
\$1,250-\$1,849.....	790	42	53.2	21	26.6
\$1,850 and over.....	431	12	27.8	4	9.3
No earnings.....	207	8	38.6	35	169.1
Not reported.....	214	7	32.7	23	107.5
Native white mothers.....	6,739	286	42.4	360	53.4
Earnings of father:					
Under \$450.....	449	29	64.6	45	100.2
\$450-\$549.....	644	32	49.7	51	79.2
\$550-\$649.....	908	40	44.1	58	63.9
\$650-\$849.....	1,726	75	43.5	90	52.1
\$850-\$1,249.....	1,802	59	32.7	67	37.2
\$1,250-\$1,849.....	629	35	55.6	18	28.6
\$1,850 and over.....	366	11	30.1	3	8.2
No earnings.....	88	2	22.7	14	157.8
Not reported.....	127	3	23.6	14	110.2
Foreign-born white mothers.....	2,753	108	39.2	156	56.7
Earnings of father:					
Under \$650.....	1,466	56	38.2	100	68.2
Under \$450.....	588	30	51.0	55	93.5
\$450-\$549.....	449	10	22.3	18	40.1
\$550-\$649.....	429	16	37.3	27	62.9
\$650 and over.....	1,191	45	37.8	42	35.3
\$650-\$849.....	570	24	42.1	29	50.9
\$850-\$1,249.....	409	13	31.8	12	29.3
\$1,250 and over.....	212	8	37.7	1	4.7
No earnings.....	50	4	80.0	9	180.0
Not reported.....	46	3	65.2	5	108.7
Jewish.....	961	26	27.1	23	23.9
Earnings of father:					
Under \$650.....	446	10	22.4	12	26.9
\$650 and over.....	469	14	29.9	5	10.7
No earnings.....	27	1	37.0	3	111.1
Not reported.....	19	1	52.6	3	157.9
Polish.....	625	35	56.0	67	107.2
Earnings of father:					
Under \$650.....	443	22	49.7	49	110.6
\$650 and over.....	163	12	73.6	13	79.8
No earnings.....	10	1	100.0	3	300.0
Not reported.....	9	1	111.1	2	222.2
Italian.....	412	17	41.3	19	46.1
Earnings of father:					
Under \$650.....	256	12	46.9	15	58.6
\$650 and over.....	144	4	27.8	3	20.8
No earnings.....	4	1	250.0	1	250.0
Not reported.....	8	1	125.0	1	125.0
All other.....	755	30	39.7	47	62.3
Earnings of father:					
Under \$650.....	321	12	37.4	24	74.8
\$650 and over.....	415	15	36.1	21	50.6
No earnings.....	9	2	222.2	2	222.2
Not reported.....	10	1	100.0	1	100.0
Colored mothers.....	1,305	83	63.6	124	95.0
Earnings of father:					
Under \$450.....	507	34	67.1	49	96.6
\$450-\$549.....	356	25	70.2	35	98.3
\$550-\$649.....	152	10	65.8	11	72.4
\$650 and over.....	180	11	61.1	13	72.2
No earnings.....	69	2	28.9	12	173.9
Not reported.....	41	1	243.9	4	166.7

¹ Not shown where base is less than 100.

TABLE 78.—*Infant mortality rates, by cause of death, earnings of father, and color and nationality of mother; live births in 1915.*

Earnings of father and color and nationality of mother.	Live births.	Infant deaths from specified causes.									
		Total infant deaths.		Gastric and intestinal diseases.		Respiratory and other communicable diseases.		Early infancy.		Other causes.	
		Number.	Infant mortality rate. ¹	Number.	Infant mortality rate. ¹	Number.	Infant mortality rate. ¹	Number.	Infant mortality rate. ¹	Number.	Infant mortality rate. ¹
All mothers.....	10,797	1,117	103.5	314	29.1	285	26.4	407	37.7	111	10.3
Earnings of father:											
Under \$450.....	1,544	242	156.7	73	47.3	74	47.9	76	49.2	19	12.3
\$450-\$549.....	1,449	171	118.0	59	40.7	42	29.0	53	36.6	17	11.7
\$550-\$649.....	1,489	162	108.8	46	30.9	41	27.5	63	42.3	12	8.1
\$650-\$849.....	2,417	232	96.0	55	22.8	63	26.1	91	37.6	23	9.5
\$850-\$1,249.....	2,256	158	70.0	41	18.2	33	14.6	64	28.4	20	8.9
\$1,250-\$1,849.....	790	63	79.7	8	10.1	8	10.1	36	45.6	11	13.9
\$1,850 and over.....	431	16	37.1	2	4.6	2	4.6	9	20.9	3	7.0
No earnings.....	207	43	207.7	20	96.6	13	62.8	7	33.8	3	14.5
Not reported.....	214	30	140.2	10	46.7	9	42.1	8	37.4	3	14.0
Native white mothers.....	6,739	646	95.9	194	28.8	124	18.4	257	38.1	71	10.5
Earnings of father:											
Under \$450.....	449	74	164.8	23	51.2	17	37.9	28	62.4	6	13.4
\$450-\$549.....	644	83	128.9	34	52.8	14	21.7	28	43.5	7	10.9
\$550-\$649.....	908	98	107.9	34	37.4	17	18.7	41	45.2	6	6.6
\$650-\$849.....	1,726	165	95.6	44	25.5	38	22.0	67	38.8	16	9.3
\$850-\$1,249.....	1,802	126	69.9	31	17.2	24	13.3	51	28.3	20	11.1
\$1,250-\$1,849.....	629	53	84.3	8	12.7	7	11.1	28	44.5	10	15.9
\$1,850 and over.....	366	14	38.3	2	5.5	1	2.7	8	21.9	3	8.2
No earnings.....	88	16	.....	10	.....	2	.....	3	.....	1	.....
Not reported.....	127	17	133.9	8	63.0	4	31.5	3	23.6	2	15.7
Foreign-born white mothers.....	2,753	264	95.9	80	29.1	75	27.2	85	30.9	24	8.7
Earnings of father:											
Under \$650.....	1,466	156	106.4	53	36.2	45	30.7	42	28.6	16	10.9
Under \$450.....	588	85	144.6	33	56.1	21	35.7	24	40.8	7	11.9
\$450-\$549.....	449	28	62.4	12	26.7	7	15.6	4	8.9	5	11.1
\$550-\$649.....	429	43	100.2	8	18.6	17	39.6	14	32.6	4	9.3
\$650 and over.....	1,191	87	73.0	20	16.8	24	20.2	36	30.2	7	5.9
\$650-\$849.....	570	53	93.0	10	17.5	18	31.6	19	33.3	6	10.5
\$850-\$1,249.....	409	25	61.1	10	24.4	5	12.2	10	24.4	.....	.....
\$1,250 and over.....	212	9	42.5	.....	.....	1	4.7	7	33.0	1	4.7
No earnings.....	50	13	.....	5	.....	4	.....	3	.....	1	.....
Not reported.....	46	8	.....	2	.....	2	.....	4	.....	.....	.....
Jewish.....	961	49	51.0	9	9.4	15	15.6	22	22.9	3	3.1
Earnings of father:											
Under \$650.....	446	22	49.3	5	11.2	8	17.9	7	15.7	2	4.5
\$650 and over.....	469	19	40.5	2	4.3	4	8.5	12	25.6	1	2.1
No earnings.....	27	4	.....	2	.....	1	.....	1	.....	.....	.....
Not reported.....	19	4	.....	.....	.....	2	.....	2	.....	.....	.....
Polish.....	625	102	163.2	43	68.8	21	33.6	27	43.2	11	17.6
Earnings of father:											
Under \$650.....	443	71	160.3	31	70.0	13	29.3	20	45.1	7	15.8
\$650 and over.....	163	25	153.4	8	49.0	7	42.9	6	38.6	4	24.5
No earnings.....	10	4	.....	2	.....	1	.....	1	.....	.....	.....
Not reported.....	9	2	.....	2	.....	.....	.....	.....	.....	.....	.....
Italian.....	412	36	87.4	4	9.7	13	31.6	14	34.0	5	12.1
Earnings of father:											
Under \$650.....	256	27	105.5	4	15.6	10	39.1	9	35.2	4	15.6
\$650 and over.....	144	7	48.6	.....	.....	3	20.8	4	27.8	.....	.....
No earnings.....	4	1	.....	.....	.....	.....	.....	.....	.....	1	.....
Not reported.....	8	1	.....	.....	.....	.....	.....	1	.....	.....	.....
All other.....	755	77	102.0	24	31.8	26	34.4	22	29.1	5	6.6
Earnings of father:											
Under \$650.....	321	36	112.1	13	40.5	14	43.6	6	18.7	3	9.3
\$650 and over.....	415	36	86.7	10	24.1	10	24.1	14	33.7	2	4.8
No earnings.....	9	4	.....	1	.....	2	.....	1	.....	.....	.....
Not reported.....	10	1	.....	.....	.....	.....	.....	1	.....	.....	.....
Colored mothers.....	1,305	207	158.6	40	30.7	86	65.9	65	49.8	16	12.3
Earnings of father:											
Under \$450.....	507	83	163.7	17	33.5	36	71.0	24	47.3	6	11.8
\$450-\$549.....	356	60	168.5	13	36.5	21	59.0	21	59.0	5	14.0
\$550-\$649.....	152	21	138.2	4	26.3	7	46.1	8	52.6	2	13.2
\$650 and over.....	180	24	133.3	1	5.6	12	66.7	10	55.6	1	5.6
No earnings.....	69	14	.....	5	.....	7	.....	1	.....	1	.....
Not reported.....	41	5	.....	.....	.....	3	.....	1	.....	1	.....

¹ Not shown where base is less than 100.

TABLE 79.—Deaths before feeding per 1,000 live births, and infant death rates per 1,000 fed, by earnings of father and color and nativity of mother; live births in 1915.

Earnings of father and color and nativity of mother.	Live births.	Infants died at once, not fed.		Infants fed.		
		Number.	Per 1,000 live births. ¹	Number.	Subsequent deaths.	
					Number.	Per 1,000 fed. ¹
All mothers.....	10,797	269	24.9	10,528	848	80.5
Earnings of father:						
Under \$450.....	1,544	49	31.7	1,495	193	129.1
\$450-\$549.....	1,449	37	25.5	1,412	134	94.9
\$550-\$649.....	1,489	37	24.8	1,452	125	86.1
\$650-\$849.....	2,417	55	22.8	2,362	177	74.9
\$850-\$1,249.....	2,256	51	22.6	2,205	107	48.5
\$1,250-\$1,849.....	790	23	29.1	767	40	52.2
\$1,850 and over.....	431	7	16.2	424	9	21.2
No earnings.....	207	6	29.0	201	37	184.1
Not reported.....	214	4	18.7	210	26	123.8
Native white mothers.....	6,739	172	25.5	6,567	474	72.2
Earnings of father:						
Under \$450.....	449	12	26.7	437	62	141.9
\$450-\$549.....	644	23	35.7	621	60	96.6
\$550-\$649.....	908	24	26.4	884	74	83.7
\$650-\$849.....	1,726	42	24.3	1,684	123	73.0
\$850-\$1,249.....	1,802	41	22.8	1,761	85	48.3
\$1,250-\$1,849.....	629	20	31.8	609	33	54.2
\$1,850 and over.....	366	6	16.4	360	8	22.2
No earnings.....	88	2	-----	86	14	-----
Not reported.....	127	2	15.7	125	15	120.0
Foreign-born white mothers.....	2,753	62	22.5	2,691	202	75.1
Earnings of father:						
Under \$450.....	588	19	32.3	569	66	116.0
\$450-\$549.....	449	5	11.1	444	23	51.8
\$550-\$649.....	429	11	25.6	418	32	76.6
\$650-\$849.....	570	11	19.3	559	42	75.1
\$850-\$1,249.....	409	8	19.6	401	17	42.4
\$1,250 and over.....	212	4	18.9	208	5	24.0
No earnings.....	50	3	-----	47	10	-----
Not reported.....	46	1	-----	45	7	-----
Colored mothers.....	1,305	35	26.8	1,270	172	135.4
Earnings of father:						
Under \$450.....	507	18	35.5	489	65	132.9
\$450-\$549.....	356	9	25.3	347	51	147.0
\$550-\$649.....	152	2	13.2	150	19	126.7
\$650 and over.....	180	4	22.2	176	20	113.6
No earnings.....	69	1	-----	68	13	-----
Not reported.....	41	1	-----	40	4	-----

¹ Not shown where base is less than 100.

TABLE 80.—Type of feeding, by month of life and earnings of father and color and nativity of mother; infants born in 1915.

Earnings of father and color and nativity of mother.	Per cent of survivors. ¹											
	Breast fed.				Mixed fed.				Artificially fed.			
	1st mo.	3d mo.	6th mo.	9th mo.	1st mo.	3d mo.	6th mo.	9th mo.	1st mo.	3d mo.	6th mo.	9th mo.
All mothers.....	88.2	72.2	53.2	28.6	2.7	8.2	19.7	39.4	9.1	19.6	27.1	32.0
Earnings of father:												
Under \$450.....	89.3	72.6	50.8	24.8	3.4	12.1	25.6	46.8	7.4	15.4	23.6	28.5
\$450-\$549.....	90.6	74.9	54.1	27.0	2.7	10.0	24.6	48.3	6.7	15.1	21.3	24.7
\$550-\$649.....	89.2	74.2	56.1	31.5	2.3	6.5	18.4	39.9	8.5	19.3	25.5	28.6
\$650-\$849.....	88.0	73.2	54.9	30.5	2.6	7.2	18.3	38.6	9.5	19.6	26.8	30.9
\$850-\$1,049.....	87.8	73.9	55.1	30.5	2.5	5.9	16.3	35.9	9.7	20.2	28.7	33.6
\$1,050-\$1,249.....	86.6	69.8	48.6	25.8	2.1	4.6	15.5	32.3	11.3	25.6	35.9	41.9
\$1,250-\$1,449.....	84.1	70.5	56.5	31.6	3.2	7.5	14.9	33.4	12.7	22.0	28.6	34.9
\$1,450-\$1,849.....	86.0	68.7	53.6	29.0	3.9	7.2	14.2	30.5	10.1	24.1	32.2	40.5
\$1,850-\$2,249.....	90.5	67.9	51.9	31.3	1.5	8.8	15.6	27.6	8.0	23.4	32.6	41.0
\$2,250-\$2,849.....	87.1	65.2	41.3	21.7	1.1	7.6	18.5	29.3	11.8	27.2	40.2	48.9
\$2,850 and over.....	88.7	63.7	46.3	24.7	4.6	10.0	17.4	25.3	6.7	26.3	36.3	50.0
No earnings.....	84.0	56.1	40.2	21.9	.5	17.2	28.3	43.8	15.5	26.8	31.5	34.3
Not reported.....	83.8	59.4	43.6	22.5	3.3	14.9	25.6	36.6	12.9	25.7	30.8	40.8
Native white mothers.....	86.6	70.1	52.2	30.1	2.4	6.3	16.0	33.7	11.2	23.6	31.8	36.1
Earnings of father:												
Under \$850.....	87.1	71.0	52.5	30.5	2.2	6.6	17.7	36.9	10.7	22.4	29.8	32.6
Under \$450.....	87.8	74.0	52.5	26.6	2.1	8.0	19.3	41.8	10.1	18.1	28.1	31.6
\$450-\$549.....	87.9	69.4	50.3	28.2	1.9	8.7	21.6	41.7	10.1	21.9	28.2	30.1
\$550-\$649.....	87.7	72.2	53.1	33.9	2.3	4.4	17.2	35.1	11.0	23.3	29.7	31.1
\$650-\$849.....	86.3	70.3	53.1	30.6	2.4	6.6	16.1	34.9	11.3	23.1	30.8	34.4
\$850 and over.....	86.4	69.7	52.2	29.8	2.6	5.5	13.7	29.9	11.0	24.8	34.1	40.3
\$850-\$1,049.....	87.0	72.5	54.1	31.1	2.4	4.9	14.4	33.6	10.5	22.6	31.5	35.3
\$1,050-\$1,249.....	85.4	67.6	47.6	25.0	2.1	4.6	14.1	30.0	12.5	27.8	38.3	45.0
\$1,250-\$1,449.....	84.0	70.6	57.2	34.0	2.9	5.4	10.4	27.2	13.1	24.1	32.3	38.8
\$1,450-\$1,849.....	84.8	66.1	52.1	30.6	3.6	6.5	11.6	24.7	11.6	27.4	36.3	44.8
\$1,850 and over.....	88.9	65.4	48.4	28.7	3.1	8.5	15.3	23.6	8.1	26.2	36.3	47.7
No earnings.....	76.7	58.8	47.4	32.4	.....	8.2	16.7	28.4	22.1	32.9	35.9	39.2
Not reported.....	81.6	58.5	44.1	24.1	2.4	12.2	20.3	31.1	16.0	29.3	35.6	44.8
Foreign-born white mothers.....	91.3	78.9	58.7	28.3	3.3	9.6	23.6	48.8	5.4	11.5	17.6	23.0
Earnings of father:												
Under \$850.....	91.9	79.8	60.0	29.2	3.5	9.6	23.5	49.7	4.6	10.6	16.4	21.1
Under \$450.....	89.1	75.6	54.6	27.9	4.8	11.8	26.4	48.7	6.2	12.5	19.0	23.3
\$450-\$549.....	84.4	83.7	62.0	28.2	3.2	8.9	25.5	54.9	2.5	7.3	12.5	16.9
\$550-\$649.....	83.3	81.2	64.9	29.7	2.4	8.5	18.6	48.7	4.3	10.2	16.6	21.6
\$650-\$849.....	81.8	79.8	60.2	30.7	3.4	8.6	22.9	47.2	4.8	11.6	16.9	22.0
\$850 and over.....	90.5	77.9	55.7	26.2	2.8	9.4	24.4	46.4	6.7	12.7	19.8	27.4
\$850-\$1,049.....	90.4	80.1	59.2	29.0	2.6	8.5	22.3	43.1	7.0	11.5	18.5	27.9
\$1,050-\$1,249.....	92.9	80.6	54.1	29.9	2.0	5.1	22.4	43.3	5.1	14.3	23.5	27.0
\$1,250-\$1,449.....	89.4	73.5	51.5	20.6	3.4	12.7	28.4	52.5	7.2	13.7	20.1	26.8
No earnings.....	85.1	60.9	45.5	15.8	.....	15.2	20.5	50.0	14.9	23.9	34.1	34.2
Not reported.....	84.4	70.7	55.0	28.2	4.4	4.9	20.0	38.5	11.1	24.4	25.0	33.3
Colored mothers.....	90.2	68.9	46.8	21.1	2.8	15.7	30.4	49.8	7.0	15.4	22.8	29.1
Earnings of father:												
Under \$450.....	90.8	67.7	44.7	19.5	2.9	16.1	30.1	48.7	6.3	16.3	25.2	31.8
\$450-\$549.....	90.5	73.6	50.6	23.0	3.5	13.7	29.0	51.5	6.1	12.8	20.4	25.6
\$550-\$649.....	86.7	65.7	48.5	22.6	2.0	13.6	25.0	43.6	11.3	20.7	26.5	33.8
\$650 and over.....	90.9	77.8	54.9	26.3	2.3	10.8	27.8	50.6	6.8	11.4	17.3	23.1
No earnings.....	91.2	49.3	27.4	12.3	1.5	29.9	48.4	59.6	7.4	20.9	24.2	28.1
Not reported.....	90.0	50.0	29.7	11.1	5.0	34.2	48.6	52.8	5.0	15.8	21.6	36.1

¹ Percentages are based upon total number of survivors at the beginning of the month whose type of feeding was reported.

TABLE 81.—Type of feeding, by month of life and by nationality; infants born in 1915 to foreign-born white mothers.

Nationality of mother.	Per cent of survivors. ¹											
	Breast fed.				Mixed fed.				Artificially fed.			
	1st mo.	3d mo.	6th mo.	9th mo.	1st mo.	3d mo.	6th mo.	9th mo.	1st mo.	3d mo.	6th mo.	9th mo.
Foreign-born white mothers:												
Jewish.....	93.0	80.1	55.7	22.4	4.1	12.4	31.4	59.0	2.9	7.5	12.9	18.6
Polish.....	92.4	81.7	65.0	34.1	2.8	8.0	19.5	47.7	4.8	10.3	15.5	18.2
Italian.....	92.8	83.2	66.3	32.8	4.5	9.7	19.9	45.1	2.7	7.1	13.7	22.0
All other.....	87.6	72.7	53.5	28.9	2.0	7.1	18.8	38.1	10.4	20.2	27.7	33.0

¹ Percentages are based upon total number of survivors at the beginning of the month whose type of feeding was reported.

TABLE 82.—Relative mortality among infants in families where the father earned \$450 to \$549 in comparison with that among infants in families where the father earned \$550 to \$849, when effect of differences in type of feeding is eliminated; infants born in 1915 to foreign-born white mothers.

Month of life.	Infants born in 1915 to foreign-born white mothers in families where fathers earned \$450 to \$549. ¹											
	Total.			Breast fed.			Mixed fed.			Artificially fed.		
	Survivors. ¹	Deaths in month.		Survivors.	Deaths in month.		Survivors.	Deaths in month.		Survivors.	Deaths in month.	
		Ac-tual.	Ex-pected. ²		Ac-tual.	Ex-pected. ²		Ac-tual.	Ex-pected. ²		Ac-tual.	Ex-pected. ²
Total.....	.....	23	29.8	.....	12	15.0	.....	3	6.0	.....	8	8.8
First.....	444	5	8.0	419	5	6.5	14	.....	1.0	11	.....	.5
Second.....	439	3	2.2	390	2	1.9	26	.....	.....	23	1	.3
Third.....	436	4	1.7	365	3	1.4	39	.....	.....	32	1	.3
Fourth.....	432	.....	2.5	317	.....	.....	.....	.....	.....	.....	.....	.....
Fifth.....	432	.....	3.0	299	.....	1.4	84	.....	.6	47	.....	1.0
Sixth.....	432	4	1.8	268	.....	.5	110	1	.6	54	3	.7
Seventh.....	428	.....	1.5	204	.....	.....	168	.....	.5	56	.....	1.0
Eighth.....	428	2	3.2	161	.....	1.3	199	1	.5	68	1	1.4
Ninth.....	426	.....	2.0	120	.....	.4	234	.....	.5	72	.....	1.1
Tenth to twelfth ³	426	5	3.9	96	2	.7	249	1	1.7	81	2	1.5

¹ Excluding 5 live-born infants who died at once, never fed. The total live births in foreign-born white families, father's earnings group, \$450 to \$549, was 449; 5 infants died at once, never fed; if the rate for deaths of infants not fed (22.0 per 1,000 live births) among infants in foreign-born white families, father's earnings group \$550 to \$849, had applied to the group \$450 to \$549, 9.9 deaths would have occurred of infants not fed, instead of the 5 that actually occurred.

² For this comparison the numbers breast fed, mixed fed, and artificially fed during each month of life are multiplied by monthly death rates for breast fed, mixed fed, and artificially fed infants, respectively, for the same month of life in foreign-born white families where the fathers earned \$550 to \$849.

³ Figures for survivors at beginning of tenth, and deaths in tenth, eleventh, and twelfth among them.

TABLE 83.—*Infant mortality rates in favored group, by earnings of father and color and nativity of mother; live births in 1915.*

Earnings of father and color and nativity of mother.	Favored group. ¹			All others.		
	Live births.	Infant deaths.		Live births.	Infant deaths.	
		Number.	Infant mortality rate. ²		Number.	Infant mortality rate. ²
Native white mothers...	4,035	301	74.6	2,704	345	127.6
Earnings of father:						
Under \$450.....	185	21	113.5	264	53	200.8
\$450-\$549.....	301	36	119.6	343	47	137.0
\$550-\$649.....	492	43	87.4	416	55	132.2
\$650-\$849.....	1,063	77	72.4	663	88	132.7
\$850-\$1,249.....	1,175	64	54.5	627	62	98.9
\$1,250-\$1,849.....	453	38	83.9	176	15	85.2
\$1,850 and over.....	281	13	46.3	85	1	.....
No earnings.....	26	2	.....	62	14	.....
Not reported.....	59	7	.....	68	10	.....
Foreign-born white mothers.....	832	49	58.9	1,921	215	111.9
Earnings of father:						
Under \$450.....	112	11	98.2	476	74	155.5
\$450-\$549.....	102	5	49.0	347	23	66.3
\$550-\$649.....	127	9	70.9	302	34	112.6
\$650-\$849.....	214	16	74.8	356	37	103.9
\$850-\$1,249.....	159	5	31.4	250	20	80.0
\$1,250 and over.....	102	3	29.4	110	6	54.5
No earnings.....	4	.....	.....	46	13	.....
Not reported.....	12	.....	.....	34	8	.....
Colored mothers.....	201	18	89.6	1,104	189	171.2
Earnings of father:						
Under \$450.....	49	3	.....	458	80	174.6
\$450-\$549.....	66	7	.....	290	53	182.8
\$550-\$649.....	34	2	.....	118	19	161.0
\$650-\$849.....	27	4	.....	94	10	.....
\$850 and over.....	15	1	.....	44	9	.....
No earnings.....	4	.....	.....	65	14	.....
Not reported.....	6	1	.....	35	4	.....

¹ The "favored group" includes only infants from the second to the sixth in order of birth, born after an interval of at least 2 years since preceding issue to literate mothers not employed during pregnancy or the year after the birth.

² Not shown where base is less than 100.

TABLE 84.—*Death rates in favored group per 100 (infants who lived at least two weeks), by average number of persons per room and earnings of father; infants born in 1915 to white mothers, who lived at least two weeks in dwellings studied.*

Earnings of father.	Infants (of white mothers) who lived at least 2 weeks in dwellings with specified average number of persons per room.														
	Less than 1.						1 but less than 2.						2 or more.		
	Favored group. ¹			Others.			Favored group. ¹			Others.			In-fants.	Deaths.	
	In-fants.	Deaths.		In-fants.	Deaths.		In-fants.	Deaths.		In-fants.	Deaths.			Num-ber.	Per ct. ²
Num-ber.		Per ct. ²	Num-ber.		Per ct. ²	Num-ber.		Per ct. ²	Num-ber.		Per ct. ²				
Total...	3,247	108	3.3	1,743	114	6.5	1,437	77	5.4	2,218	207	9.3	450	51	11.3
Under \$450....	113	8	7.1	147	19	12.9	175	16	9.1	385	44	11.4	159	19	11.9
\$450-\$549....	193	10	5.2	194	13	6.7	188	11	5.9	384	32	8.3	93	6	.....
\$550-\$849....	1,146	46	4.0	631	39	6.2	680	36	5.3	880	87	9.9	147	14	9.5
\$850-\$1,249....	1,025	27	2.6	458	25	5.5	272	8	2.9	357	24	6.7	27	3	.....
\$1,250 and over.....	704	14	2.0	242	10	4.1	92	3	.....	107	1	.9	8	.....	.....
No earnings....	12	1	.....	30	6	.....	15	.....	.....	59	10	.....	12	7	.....
Not reported..	54	2	.....	41	2	.....	15	3	.....	46	9	.....	4	2	.....

¹ "Favored group" includes only infants from the second to the sixth in order of birth, born after an interval of at least 2 years since preceding issue, to literate mothers not employed during pregnancy or the year after the birth.

² Not shown where base is less than 100.

TABLE 85.—*Infant mortality rates, by occupation group¹ and earnings of father and color and nativity of mother; live births in 1915.*

Earnings of father and color and nativity of mother.	Live births in families where fathers were employed in specified occupations group. ²							
	Groups I and II.			Groups III, IV, and V.			Occupation not reported.	
	Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.
		Number.	Infant mortality rate. ³		Number.	Infant mortality rate. ³		
Native white mothers..	2,344	247	105.4	4,304	380	88.3	8	3
Earnings of father:								
Under \$450.....	307	54	175.9	141	19	134.8	1	1
\$450-\$549.....	416	53	127.4	226	30	132.7	2	
\$550-\$649.....	536	48	89.6	372	50	134.4		
\$650-\$849.....	689	63	91.4	1,036	102	98.5	1	
\$850-\$1,249.....	313	21	67.1	1,489	105	70.5		
\$1,250 and over.....	48	3		581	50	86.1		
No earnings.....	7			359	14	39.0		
Not reported.....	28	5		95	10		4	2
Foreign-born white mothers.....	1,638	164	100.1	1,068	88	82.4	4	1
Earnings of father:								
Under \$450.....	476	69	145.0	111	16	144.1	1	
\$450-\$549.....	338	25	74.0	110	3	27.3	1	
\$550-\$649.....	302	28	92.7	127	15	118.1		
\$650-\$849.....	335	26	77.6	235	27	114.9		
\$850-\$1,249.....	147	12	81.6	262	13	49.6		
\$1,250 and over.....	25	2		187	7	37.4		
No earnings.....				7	2			
Not reported.....	15	2		29	5		2	1
Colored mothers.....	1,100	165	150.0	133	28	210.5	4	1
Earnings of father:								
Under \$450.....	480	76	158.3	27	7			
\$450-\$549.....	324	55	169.8	32	5			
\$550-\$649.....	136	18	132.4	16	3			
\$650 and over.....	128	14	109.4	52	10			
No earnings.....				1	1			
Not reported.....	32	2		5	2		4	1

¹ For grouping see p. 36.

² In families where father had no occupation (including those who lived on own income) 83 births to native-white mothers, with 16 deaths; 43 births to foreign-born white mothers, with 11 deaths; and 68 births to colored mothers, with 13 deaths, were reported.

³ Not shown where base is less than 100.

TABLE 86.—*Excess mortality in overcrowded dwellings, with effect of differences in father's earnings eliminated; infants (born in 1915 to native white mothers) who lived at least two weeks in dwellings with one or more persons per room.*

Earnings of father.	Infants (native white mothers) who lived at least 2 weeks in dwellings with 1 or more persons per room.			
	Infants.	Actual deaths.	Expected deaths. ¹	
			Number.	Per 100 infants. ²
All.....	2,344	208	132.6	
Under \$450.....	267	41	20.0	7.5
\$450-\$549.....	332	33	23.6	7.1
\$550-\$649.....	432	34	29.8	6.9
\$650-\$849.....	634	51	28.5	4.5
\$850-\$1,249.....	460	26	17.5	3.8
\$1,250 and over.....	124	4	3.3	2.7
No earnings.....	50	9	8.1	
Not reported.....	45	10	1.8	4.0

¹ Expected deaths are calculated by applying to the infants in each earning group the rates for infants (of native white mothers) in the same earnings group who lived in dwellings with less than 1 person per room.

² Not shown where base is less than 100. Derived from Table 90.

TABLE 87.—*Excess mortality, by ward of residence and cause of death, over mortality expected when differences due to color and nationality are eliminated; live births in 1915.*

Ward of residence.	Live births.	Infant mortality rates from specified causes.							
		All causes.		Early infancy.		Gastric and intestinal diseases.		Respiratory and other communicable diseases.	
		Actual.	Expected. ¹	Actual.	Expected. ¹	Actual.	Expected. ¹	Actual.	Expected. ¹
Total.....	10,797	103.5	103.5	37.7	37.7	29.1	29.1	26.4	26.4
1.....	790	117.7	110.0	38.0	38.7	34.2	37.0	34.2	22.9
2.....	620	140.3	123.5	40.3	39.0	58.1	45.3	33.9	26.5
3.....	627	106.9	88.0	36.7	31.4	35.1	23.6	25.5	23.9
4.....	215	97.7	106.5	23.3	35.8	27.9	26.5	32.6	32.6
5.....	396	65.7	86.9	20.2	32.6	7.6	16.7	27.8	29.3
6.....	596	85.6	91.8	33.6	35.2	23.5	24.8	18.5	23.3
7.....	649	92.4	100.9	40.1	37.3	20.0	28.7	18.5	26.0
8.....	598	92.0	98.0	43.5	37.8	15.1	28.8	23.4	21.2
9.....	496	78.6	100.4	24.2	36.9	30.2	29.0	16.1	22.6
10.....	331	102.7	96.1	30.2	36.3	24.2	26.3	39.3	23.9
11.....	145	89.7	123.4	20.7	42.1	13.8	28.3	41.4	42.8
12.....	409	92.9	104.6	36.7	39.4	14.7	28.9	26.9	25.9
13.....	449	86.9	95.1	42.3	37.4	20.0	28.1	17.8	19.4
14.....	289	128.0	126.3	58.8	42.9	17.3	28.4	38.1	44.6
15.....	598	80.3	107.2	30.1	39.5	18.4	28.1	25.1	29.3
16.....	417	93.5	107.7	33.6	39.8	33.6	28.5	19.2	28.5
17.....	252	146.8	138.1	75.4	45.2	23.8	27.8	43.7	53.6
18.....	269	107.8	108.9	55.8	38.7	14.9	27.5	33.5	31.6
19.....	381	126.0	103.7	36.7	38.3	42.0	28.6	28.9	26.2
20.....	606	99.0	95.5	46.2	36.8	26.4	27.9	16.5	21.1
21.....	447	136.5	102.0	47.0	38.3	58.2	28.9	20.1	24.4
22.....	261	134.1	110.0	23.0	37.9	49.8	28.0	57.5	33.0
23.....	351	114.0	100.3	42.7	37.9	37.0	27.9	19.9	24.2
24.....	605	99.2	100.3	29.8	36.9	33.1	31.1	23.1	22.8

¹ Expected rates are found by dividing the births in each ward into the deaths calculated by applying the rates for all births in each color and nationality group to the live births of the corresponding groups in the ward.

TABLE 88.—*Excess mortality in overcrowded dwellings, with effect of differences in father's earnings eliminated; infants (born in 1915 to foreign-born white mothers) who lived at least two weeks in dwellings with less than one and with two or more persons per room.*

Earnings of father.	Infants (of foreign-born white mothers) who lived at least 2 weeks in dwellings with specified number of persons per room.					
	Less than 1.			2 or more.		
	Infants.	Deaths.		Infants.	Deaths.	
Actual.		Expected. ¹	Actual.		Expected. ¹	
Infant death rates.....	4.0	5.4	10.5	7.6		
Total.....	882	35	47.3	343	36	25.9
Under \$450.....	100	15	10.1	131	14	13.2
\$450-\$549.....	106	3	4.6	73	3	3.1
\$550-\$649.....	107	5	7.5	64	6	4.5
\$650-\$849.....	214	4	12.4	42	5	2.4
\$850-\$1,249.....	200	3	6.6	19	3	.6
\$1,250 and over.....	122	2	1.2	3		
No earnings.....	11	2	2.3	9	5	1.9
Not reported.....	22	1	2.6	2		.2

¹ Expected deaths are calculated by applying to the infants in each earnings group the rates for all infants (of foreign-born white mothers) in the same earnings group who lived at least 2 weeks in dwellings studied.

TABLE 89.—*Excess mortality in overcrowded dwellings, with effect of differences in nationality eliminated; infants (born in 1915 to foreign-born white mothers) who lived at least two weeks in dwellings studied.*

Nationality of mother.	Infants (of foreign-born white mothers) who lived at least 2 weeks in dwellings with specified number of persons per room.								
	Less than 1.			1 but less than 2.			2 or more.		
	Infants.	Deaths.		Infants.	Deaths.		Infants.	Deaths.	
		Actual.	Expected. ¹		Actual.	Expected. ¹		Actual.	Expected. ¹
Infant death rates.....	.....	4.0	5.5	.....	6.4	6.5	.....	10.5	8.6
Total.....	882	35	48.6	1,418	91	92.0	343	36	29.4
Jewish.....	342	(2)	9.1	506	(2)	13.5	83	(2)	2.2
Polish.....	68	(2)	8.5	345	(2)	43.3	183	(2)	22.9
Italian.....	107	(2)	5.4	230	(2)	11.6	55	(2)	2.8
Other foreign.....	365	(2)	25.6	337	(2)	23.6	22	(2)	1.5

¹ "Expected deaths" are based on rates for all infants in families of specified nationality. ² Not tabulated.

TABLE 90.—*Per cent of infant deaths, by average number of persons per room, earnings of father, and color and nativity of mother; infants born in 1915 who lived at least two weeks in dwellings studied.*

Earnings of father and color and nativity of mother.	Infants who lived at least 2 weeks in dwellings with specified average number of persons per room.													
	Total. ¹			Less than 1.			1 but less than 2.			2 or more.		Not reported.		
	In-fants.	Deaths.		In-fants.	Deaths.		In-fants.	Deaths.		In-fants.	Deaths.		In-fants.	Deaths.
		Num-ber.	Per-ct. ²		Num-ber.	Per-ct. ²		Num-ber.	Per-ct. ²		Num-ber.	Per-ct. ²		
All mothers.....	10,336	692 6.7	5,544	267 4.8	4,269	359 8.4	498	58 11.6	25	8				
Earnings of father:														
Under \$450.....	1,457	160 11.0	446	43 9.6	824	91 11.0	180	22 12.2	7	4				
\$450-\$549.....	1,387	111 8.0	548	38 6.9	731	64 8.8	105	7 6.7	3	2				
\$550-\$649.....	1,428	105 7.4	609	36 5.9	726	61 8.4	87	7	6	1				
\$650-\$849.....	2,321	139 6.0	1,296	54 4.2	956	76 7.9	67	9	2					
\$850-\$1,249.....	2,183	91 4.2	1,509	53 3.5	644	34 5.3	27	3	3	1				
\$1,250 and over.....	1,170	31 2.6	958	27 2.8	201	4 2.0	8		3					
No earnings.....	192	34 17.7	67	9	108	17 15.7	17	8						
Not reported.....	198	21 10.6	111	7 6.3	79	12	7	2	1					
Native white mothers.....	6,464	395 6.1	4,108	187 4.6	2,237	193 8.6	107	15 14.0	12					
Earnings of father:														
Under \$450.....	428	53 12.4	160	12 7.5	239	36 15.1	28	5	1					
\$450-\$549.....	613	53 8.6	281	20 7.1	312	30 9.6	20	3						
\$550-\$649.....	872	64 7.3	437	30 6.9	411	34 8.3	21		3					
\$650-\$849.....	1,655	97 5.9	1,019	46 4.5	614	48 7.8	20	3	2					
\$850-\$1,249.....	1,745	75 4.3	1,283	49 3.8	452	26 5.8	8		2					
\$1,250 and over.....	951	26 2.7	824	22 2.7	119	4 3.4	5		3					
No earnings.....	81	14	31	5	47	7	3	2						
Not reported.....	119	13 10.9	73	3	43	8	2	2	1					
Foreign-born white mothers.....	2,649	166 6.3	882	35 4.0	1,418	91 6.4	343	36 10.5	6	4				
Earnings of father:														
Under \$450.....	556	56 10.1	100	15 15.0	321	24 7.5	131	14 10.7	4	3				
\$450-\$549.....	439	19 4.3	106	3 2.8	260	13 5.0	73	3						
\$550-\$649.....	414	29 7.0	107	5 4.7	242	18 7.4	64	6	1					
\$650-\$849.....	549	32 5.8	214	4 1.9	293	23 7.8	42	5						
\$850-\$1,249.....	397	13 3.3	200	3 1.5	177	6 3.4	19	3	1	1				
\$1,250 and over.....	205	2 1.0	122	2 1.6	80		3							
No earnings.....	47	10	11	2	27	3	9							
Not reported.....	42	5	22	1	18	4	2							
Colored mothers.....	1,223	131 10.7	554	45 8.1	614	75 12.2	48	7	7	4				
Earnings of father:														
Under \$450.....	473	51 10.8	186	16 8.6	264	31 11.7	21	3	2	1				
\$450-\$549.....	335	39 11.6	161	15 9.3	159	21 13.2	12	1	3	2				
\$550 and over.....	314	28 8.9	166	9 5.4	139	16 11.5	7	2	2	1				
No earnings.....	64	10	25	2	34	7	5	1						
Not reported.....	37	3	16	3	18		3							

¹ Does not include 61 infants (25 subsequent deaths) surviving first two weeks, for whom housing data were not secured. ² Not shown where base is less than 100.

TABLE 91.—Percentage of infant deaths, by cause of death, sanitary arrangements of dwelling, earnings of father, and color and nationality of mother; infants born in 1915 who lived at least two weeks in dwellings studied.

Earnings of father and color and nationality of mother.	Infants who lived at least 2 weeks in dwellings of specified sanitary accommodations.									
	Dwellings with 3 specified items. ¹					Dwellings lacking 1 or more of 3 specified items.				
	Infants.	Deaths.				Infants.	Deaths.			
		All causes.		Gastric and intestinal.			All causes.		Gastric and intestinal.	
	Num-ber.	Per cent. ²	Num-ber.	Per cent. ²		Num-ber.	Per cent. ²	Num-ber.	Per cent. ²	
All mothers.....	4,486	197	4.4	66	1.5	5,850	495	8.5	230	3.9
Earnings of father:										
Under \$550.....	644	55	8.5	17	2.6	2,200	216	9.8	107	4.9
\$550-\$849.....	1,389	71	5.1	25	1.8	2,360	173	7.3	71	3.0
\$850-\$1,249.....	1,324	42	3.2	14	1.1	859	49	5.7	26	3.0
\$1,250-\$1,849.....	578	13	2.2	6	1.0	173	12	6.9	2	1.2
\$1,850 and over.....	385	5	1.3	.....	.....	34	1	.....	.....	.....
No earnings.....	72	8	11.1	4	5.6	120	26	21.7	15	12.5
Not reported.....	94	3	3.2	.....	.....	104	18	17.3	9	8.7
Native white mothers.....	3,273	135	4.1	48	1.5	3,191	260	8.1	135	4.2
Earnings of father:										
Under \$550.....	278	22	7.9	7	2.5	763	84	11.0	47	6.2
\$550-\$849.....	999	56	5.6	21	2.1	1,528	105	6.9	53	3.5
\$850-\$1,249.....	1,093	36	3.3	11	1.0	652	39	6.0	19	2.9
\$1,250-\$1,849.....	474	12	2.5	6	1.3	122	9	7.4	2	1.6
\$1,850 and over.....	329	5	1.5	.....	.....	26	.....	.....	.....	.....
No earnings.....	39	3	.....	3	.....	42	11	.....	7	.....
Not reported.....	61	1	1.6	.....	.....	58	12	20.7	7	12.1
Foreign-born white mothers.....	816	25	3.1	11	1.3	1,833	141	7.7	66	3.6
Earnings of father:										
Under \$550.....	139	10	7.2	4	2.9	856	65	7.6	38	4.4
\$550-\$849.....	286	8	2.8	3	1.0	677	53	7.8	15	2.2
\$850-\$1,249.....	211	5	2.4	3	1.4	186	8	4.3	7	3.8
\$1,250 and over.....	152	1	0.7	.....	.....	53	1	1.9	.....	.....
No earnings.....	12	1	.....	1	.....	35	9	.....	4	.....
Not reported.....	16	.....	.....	.....	.....	26	5	.....	2	.....
Jewish.....	389	6	1.5	4	1.0	542	17	3.1	4	0.7
Earnings of father:										
Under \$650.....	107	4	3.7	2	1.9	325	7	2.2	2	0.6
\$650 and over.....	266	1	0.4	1	0.4	190	5	2.6	1	0.5
No earnings.....	8	1	.....	1	.....	18	2	.....	1	.....
Not reported.....	8	.....	.....	.....	.....	9	3	.....	.....	.....
Polish.....	35	3	.....	1	.....	562	72	12.8	42	7.5
Earnings of father:										
Under \$650.....	20	2	.....	1	.....	404	51	12.6	30	7.4
\$650 and over.....	15	1	.....	.....	.....	139	15	10.8	8	5.8
No earnings.....	.....	.....	.....	.....	.....	10	4	.....	2	.....
Not reported.....	.....	.....	.....	.....	.....	9	2	.....	2	.....
Italian.....	80	3	3.8	.....	.....	314	16	5.1	4	1.3
Earnings of father:										
Under \$650.....	30	3	.....	.....	.....	213	12	5.6	4	1.9
\$650 and over.....	47	.....	.....	.....	.....	93	3	3.2	.....	.....
No earnings.....	.....	.....	.....	.....	.....	4	1	.....	.....	.....
Not reported.....	3	.....	.....	.....	.....	4	.....	.....	.....	.....
All other.....	312	13	4.2	6	1.9	415	36	8.7	16	3.9
Earnings of father:										
Under \$650.....	79	3	3.8	2	2.5	231	22	9.5	9	3.9
\$650 and over.....	224	10	4.5	4	1.8	177	12	6.8	6	3.4
No earnings.....	4	.....	.....	.....	.....	3	2	.....	1	.....
Not reported.....	5	.....	.....	.....	.....	4	.....	.....	.....	.....
Colored mothers.....	397	37	9.3	7	1.8	826	94	11.4	29	3.5
Earnings of father:										
Under \$550.....	227	23	10.1	6	2.6	581	67	11.5	22	3.8
\$550 and over.....	132	8	6.1	1	0.8	182	20	11.0	3	1.6
No earnings.....	21	4	.....	.....	.....	43	6	.....	4	.....
Not reported.....	17	2	.....	.....	.....	20	1	.....	.....	.....

¹ Bath, toilet connected with sewer and reserved for exclusive use of family.

² Not shown where base is less than 50.

TABLE 92.—*Employment of mother at any time after marriage, during pregnancy of 1915, or during lifetime of infant born in 1915, by place of employment, earnings of father, and color and nativity of mother; mothers (maternal histories) and births in 1915.*¹

Earnings of father and color and nativity of mother.	Mothers. ²			Births in 1915. ¹				Live births in 1915.					
	Total.	Employed away from home at any time after marriage.		To mothers employed during pregnancy.				To mothers employed during lifetime of infant and within 12 months after the birth.					
		Number.	Per ct. ³	Away from home.		At home.		Away from home.		At home.			
				Number.	Per ct. ³	Number.	Per ct. ³	Number.	Per ct. ³	Number.	Per ct. ³		
All mothers.....	11,169	2,562	22.9	11,613	1,400	12.1	1,819	15.7	10,797	855	7.9	1,929	17.9
Earnings of father:													
Under \$450.....	1,549	777	50.2	1,690	494	29.2	349	20.7	1,544	341	22.1	383	24.8
\$450-\$549.....	1,476	534	36.2	1,574	325	20.6	307	19.5	1,449	179	12.4	329	22.7
\$550-\$649.....	1,528	398	26.0	1,590	202	12.7	262	16.5	1,489	93	6.2	254	17.1
\$650-\$849.....	2,519	404	16.0	2,575	169	6.6	340	13.2	2,417	85	3.5	378	15.6
\$850-\$1,049.....	1,665	146	8.8	1,696	45	2.7	241	14.2	1,595	20	1.3	256	16.1
\$1,050-\$1,249.....	693	41	5.9	705	11	1.6	79	11.2	661	5	0.7	88	13.3
\$1,250 and over.....	1,289	54	4.2	1,307	16	1.2	144	11.0	1,221	7	0.6	144	11.8
No earnings.....	218	136	62.4	235	89	37.9	42	17.9	207	84	40.6	43	20.8
Not reported.....	232	72	31.0	241	49	20.3	55	22.8	214	41	19.2	54	25.2
Native white mothers.....	7,069	966	13.7	7,210	394	5.5	710	9.8	6,739	235	3.5	801	11.9
Earnings of father:													
Under \$450.....	463	188	40.6	477	74	15.5	58	12.2	449	69	15.4	73	16.3
\$450-\$549.....	661	158	23.9	686	86	12.5	79	11.5	644	42	6.5	86	13.4
\$550-\$649.....	949	171	18.0	971	74	7.6	120	12.4	908	25	2.8	123	13.5
\$650-\$849.....	1,807	212	11.7	1,840	75	4.1	162	8.8	1,726	38	2.2	189	11.0
\$850-\$1,049.....	1,308	84	6.4	1,328	27	2.0	134	10.1	1,251	10	.8	156	12.5
\$1,050-\$1,249.....	581	29	5.0	591	7	1.2	45	7.6	551	1	.2	53	9.6
\$1,250 and over.....	1,060	33	3.1	1,074	12	1.1	74	6.9	995	2	.2	78	7.8
No earnings.....	101	57	56.4	103	21	20.4	13	12.6	88	32	36.3	14	15.9
Not reported.....	139	34	24.5	140	18	12.9	25	17.9	127	16	12.6	29	22.8
Foreign - born white mothers	2,830	748	26.4	2,894	329	11.4	735	25.4	2,753	200	7.3	763	27.7
Earnings of father:													
Under \$450.....	594	228	38.4	610	113	18.5	146	23.9	588	70	11.9	167	28.4
\$450-\$549.....	472	161	34.1	479	70	14.6	123	25.7	449	43	9.6	130	29.0
\$550-\$649.....	433	136	31.4	449	66	14.7	98	21.8	429	33	7.7	98	22.8
\$650-\$849.....	590	123	20.8	600	47	7.8	142	23.7	570	26	4.6	152	26.6
\$850-\$1,049.....	317	44	13.9	327	9	2.8	94	28.7	309	8	2.6	86	27.8
\$1,050-\$1,249.....	103	10	9.7	104	3	2.9	3	29.8	100	2	2.0	33	33.0
\$1,250 and over.....	217	17	7.8	219	2	.9	68	31.1	212	2	.9	66	29.7
No earnings.....	53	22	41.5	53	13	24.5	14	26.5	50	12	24.0	14	28.0
Not reported.....	51	7	13.7	53	6	11.3	19	35.8	46	4	8.7	17	36.9
Colored mothers	1,270	848	66.8	1,509	677	44.9	374	24.8	1,305	420	32.2	365	28.0
Earnings of father:													
Under \$450.....	492	361	73.4	603	307	50.9	145	24.0	507	202	39.8	143	28.2
\$450-\$549.....	343	215	62.7	409	169	41.3	105	25.7	356	94	26.4	113	31.7
\$550-\$649.....	146	91	62.3	170	62	36.5	44	25.9	152	35	23.0	33	21.7
\$650-\$849.....	122	69	56.6	135	47	34.8	36	26.7	121	21	17.3	37	30.6
\$850-\$1,049.....	40	18	45.0	41	9	21.9	13	31.7	35	2	5.7	14	39.9
\$1,050-\$1,249.....	9	2	22.2	10	1	10.0	3	30.0	10	2	20.0	2	20.0
\$1,250 and over.....	12	4	33.3	14	2	14.3	2	14.3	14	3	21.4	3	21.4
No earnings.....	64	57	89.1	79	55	69.6	15	18.9	69	40	58.0	15	21.7
Not reported.....	42	31	73.8	48	25	52.1	11	22.9	41	21	51.2	8	19.5

¹ Includes miscarriages.

² Mothers for whom maternal history was secured. Schedule did not include employment at home prior to pregnancy of 1915.

³ Not shown where base is less than 100.

TABLE 93.—*Employment of mother at any time after marriage, during pregnancy of 1915, or during lifetime of infant born in 1915, by place of employment and nationality; foreign-born white mothers (maternal histories) and births in 1915.*¹

Nationality of mother.	Foreign-born white mothers. ²			Births in 1915 to foreign-born white mothers. ¹				Live births in 1915 to foreign-born white mothers.					
	Total.	Employed away from home at any time after marriage.		Total.	Employed during pregnancy of 1915.				Total.	Employed during lifetime of infant and within 12 months of birth.			
		Num-ber.	Per cent.		At home.		Away from home.			At home.	Away from home.		
					Num-ber.	Per cent.	Num-ber.	Per cent.			Num-ber.	Per cent.	
Total.....	2,830	748	26.4	2,894	735	25.4	329	11.4	2,753	763	27.7	200	7.3
Jewish.....	995	66	6.6	1,011	289	28.5	13	1.3	961	289	30.1	9	.9
Polish.....	634	421	66.4	655	104	15.9	215	32.8	625	116	18.6	146	23.4
Italian.....	433	53	12.2	440	162	36.8	17	3.9	412	165	40.0	7	1.7
All other.....	768	208	27.1	788	180	22.8	84	10.7	755	193	25.6	38	5.0
German.....	321	69	21.5	331	59	17.8	29	8.8	318	(3)	(3)	(3)	(3)
Irish, English, Scotch, and English-Canadian.....	136	13	9.6	138	23	16.7	4	2.9	132	(3)	(3)	(3)	(3)
Bohemian.....	109	27	24.8	112	27	24.1	10	8.9	107	(3)	(3)	(3)	(3)
Lithuanian.....	102	67	65.7	105	34	32.4	30	28.6	100	(3)	(3)	(3)	(3)
Other.....	100	32	32.0	102	37	36.3	11	10.8	98	(3)	(3)	(3)	(3)

¹ Includes miscarriages.

² Mothers for whom maternal history was secured. Schedule did not include employment at home prior to pregnancy of 1915 birth.

³ Not available.

TABLE 94.—*Employment of mother away from home after marriage, by number of births,¹ earnings of father, and color and nativity of mother; mothers (maternal histories).*

Earnings of father during year after 1915 birth and color and nativity of mother.	Mothers reporting specified number of births. ¹								
	Total.	1-3.		4-6.			7 and over.		
		Employed.		Total.	Employed.		Total.	Employed.	
		Num-ber.	Per cent. ²		Num-ber.	Per cent. ²		Num-ber.	Per cent. ²
Native white mothers.....	4,884	604	12.4	1,487	215	14.5	698	147	21.1
Earnings of father:									
Under \$450.....	279	101	36.2	108	48	44.4	76	39	.....
\$450-\$549.....	432	97	22.5	142	36	25.4	87	25	.....
\$550-\$649.....	626	102	16.3	226	39	17.3	97	30	.....
\$650-\$849.....	1,254	133	10.6	384	50	13.0	169	29	17.2
\$850-\$1,249.....	1,328	78	5.9	387	22	5.7	174	13	7.5
\$1,250 and over.....	796	25	3.1	190	5	2.6	74	3	.....
No earnings.....	74	42	.....	17	10	.....	10	5	.....
Not reported.....	95	26	.....	33	5	.....	11	3	.....
Foreign-born white mothers.....	1,468	356	24.3	811	219	27.0	551	173	31.4
Earnings of father:									
Under \$450.....	269	107	39.8	177	59	33.3	148	62	41.9
\$450-\$549.....	244	75	30.7	150	55	36.7	78	31	.....
\$550-\$649.....	216	56	25.9	127	46	36.2	90	34	.....
\$650-\$849.....	339	65	19.2	154	34	22.1	97	24	.....
\$850-\$1,249.....	232	24	10.3	112	16	14.3	76	14	.....
\$1,250 and over.....	109	9	8.3	67	4	.....	41	4	.....
No earnings.....	28	15	.....	13	4	.....	12	3	.....
Not reported.....	31	5	.....	11	1	.....	9	1	.....
Colored mothers.....	679	403	59.4	334	238	71.3	257	207	80.5
Earnings of father:									
Under \$450.....	255	171	67.1	129	101	78.3	108	89	82.4
\$450-\$549.....	187	101	54.0	91	60	.....	65	54	.....
\$550-\$649.....	77	40	.....	37	25	.....	32	26	.....
\$650 and over.....	100	46	46.0	46	24	.....	37	23	.....
No earnings.....	34	28	.....	21	20	.....	9	9	.....
Not reported.....	26	17	.....	10	8	.....	6	6	.....

¹ Includes miscarriages.

² Not shown where base is less than 100.

TABLE 95.—*Employment of mother during pregnancy, or within 12 months after the birth, by color of mother; live births in 1915.*

Employment of mother during pregnancy of 1915 or after 1915 birth.	Live births in 1915 to—			
	White mothers.		Colored mothers.	
	Number.	Per cent distribution. ¹	Number.	Per cent distribution. ¹
Total.....	9,492	100.0	1,305	100.0
Not employed during pregnancy or after birth.....	6,932	73.0	318	24.4
Employed only after death of infant.....	61	.6	12	.9
Employed at home only ²	1,663	17.5	320	24.5
Employed away from home.....	835	8.8	655	50.2
Employment not reported.....	1			

¹ Not shown when under one-tenth of 1 per cent.² Includes 4 white mothers and 6 colored mothers who worked at home during pregnancy and away after death of infant, and 1 white mother who may have worked away during life of infant but for whom employment after birth was not reported.TABLE 96.—*Occupation of mother and employment away from home before and after marriage, by color and nationality; mothers (maternal histories).*

Employment of mother away from home, and color and nationality of mother.	Mothers.				
	Total.	Employed away from home.			
		Total.	Factory.	Domestic.	Other.
All mothers.....	11,169	8,791	5,438	1,918	1,435
Not employed.....	2,371				
Employed.....	8,791	8,791	5,438	1,918	1,435
Before marriage only.....	6,229	6,229	4,031	954	1,244
After marriage.....	2,562	2,562	1,407	964	191
Employment not reported.....	7				
White mothers.....	9,899	7,627	5,342	893	1,392
Not employed.....	2,267				
Employed.....	7,627	7,627	5,342	893	1,392
Before marriage only.....	5,913	5,913	4,003	693	1,217
After marriage.....	1,714	1,714	1,339	200	175
Employment not reported.....	5				
Native mothers.....	7,069	5,520	3,830	503	1,187
Not employed.....	1,545				
Employed.....	5,520	5,520	3,830	503	1,187
Before marriage only.....	4,554	4,554	3,118	359	1,077
After marriage.....	966	966	712	144	110
Employment not reported.....	4				
Foreign-born mothers.....	2,830	2,107	1,512	390	205
Not employed.....	722				
Employed.....	2,107	2,107	1,512	390	205
Before marriage only.....	1,359	1,359	885	334	140
After marriage.....	748	748	627	56	65
Employment not reported.....	1				
Jewish.....	995	704	588	22	94
Not employed.....	291				
Employed.....	704	704	588	22	94
Before marriage only.....	638	638	552	18	68
After marriage.....	66	66	36	4	26

TABLE 96.—Occupation of mother and employment away from home before and after marriage, by color and nationality; mothers (maternal histories)—Continued.

Employment of mother away from home, and color and nationality of mother.	Mothers.				
	Total.	Employed away from home.			
		Total.	Factory.	Domestic.	Other.
Polish.....	634	599	516	54	29
Not employed.....	34				
Employed.....	599	599	516	54	29
Before marriage only.....	178	178	123	40	15
After marriage.....	421	421	393	14	14
Employment not reported.....	1				
Italian.....	433	147	111	4	32
Not employed.....	286				
Employed.....	147	147	111	4	32
Before marriage only.....	94	94	70	4	20
After marriage.....	53	53	41		12
German.....	321	270	114	135	21
Not employed.....	51				
Employed.....	270	270	114	135	21
Before marriage only.....	201	201	69	114	18
After marriage.....	69	69	45	21	3
Irish, English, Scotch, and English-Canadian.....	136	122	26	87	9
Not employed.....	14				
Employed.....	122	122	26	87	9
Before marriage only.....	109	109	21	80	8
After marriage.....	13	13	5	7	1
Bohemian.....	109	101	40	59	2
Not employed.....	8				
Employed.....	101	101	40	59	2
Before marriage only.....	74	74	17	55	2
After marriage.....	27	27	23	4	
Lithuanian.....	102	97	84	6	7
Not employed.....	5				
Employed.....	97	97	84	6	7
Before marriage only.....	30	30	21	3	6
After marriage.....	67	67	63	3	1
All other.....	100	67	33	23	11
Not employed.....	33				
Employed.....	67	67	33	23	11
Before marriage only.....	35	35	12	20	3
After marriage.....	32	32	21	3	8
Colored mothers.....	1,270	1,164	96	1,025	43
Not employed.....	104				
Employed.....	1,164	1,164	96	1,025	43
Before marriage only.....	316	316	28	261	27
After marriage.....	848	848	68	764	16
Employment not reported.....	2				

TABLE 97.—Occupation, by time of employment away from home and color and nationality of mother; mothers (maternal histories).

Occupation and time of employment of mother ¹ before marriage only and after marriage.	Mothers ¹ of specified color and nationality.												
	Total mothers.	White.											Colored.
		Total.	Native.	Foreign born.									
				Total.	Jewish.	Polish.	Italian.	German.	Irish, English, Scotch, and English-Canadian.	Bohe- mian.	Lithu- anian.	All other.	
Total.....	11,169	9,899	7,069	2,830	995	634	433	321	136	109	102	100	1,270
Not employed away from home.....	2,371	2,267	1,545	722	291	34	286	51	14	8	5	33	104
Employed away from home.....	8,791	7,627	5,520	2,107	704	599	147	270	122	101	97	67	1,164
Factory work.....	5,438	5,342	3,830	1,512	588	516	111	114	26	40	84	33	96
Domestic work.....	1,918	893	503	390	22	54	4	135	87	59	6	23	1,025
Other work.....	1,435	1,392	1,187	205	94	29	32	21	9	2	7	11	43
Before marriage only.....	6,229	5,913	4,554	1,359	638	178	94	201	109	74	30	35	316
Factory work.....	4,031	4,003	3,118	885	552	123	70	69	21	17	21	12	28
Domestic work.....	954	693	359	334	18	40	4	114	80	55	3	20	261
Other work.....	1,244	1,217	1,077	140	68	15	20	18	8	2	6	3	27
After marriage.....	2,562	1,714	966	748	66	421	53	69	13	27	67	32	848
Factory work.....	1,407	1,339	712	627	36	393	41	45	5	23	63	21	68
Domestic work.....	964	200	144	56	4	14	.....	21	7	4	3	3	764
Other work.....	191	175	110	65	26	14	12	3	1	.....	1	8	16
Employment not reported.....	7	5	4	1	.....	1	.....	.....	.....	.....	.....	.....	2

¹ Based on 11,169 mothers for whom maternal history was secured.

TABLE 98.—Occupation and place of employment of mother during pregnancy, by color and nationality; births in 1915.¹

Occupation and place of employment of mother during pregnancy of 1915 issue.	Total births. ¹	Births in 1915 ¹ to mothers of specified color and nationality.											Colored.
		White											
		Total.	Native.	Foreign born.									
				Total.	Jewish.	Polish.	Italian.	German.	Irish, English, Scotch, and English-Canadian. ²	Bohemian.	Lithuanian.	All other. ³	
All mothers.....	11,613	10,104	7,210	2,894	1,011	655	440	331	138	112	105	102	1,509
Not employed.....	8,391	7,934	6,105	1,829	709	335	261	243	111	75	41	54	457
Employed.....	3,219	2,168	1,104	1,064	302	319	179	88	27	37	64	48	1,051
At home.....	1,819	1,445	710	735	289	104	162	59	23	27	34	37	374
Keeping lodgers.....	732	686	422	264	69	46	61	28	20	6	15	19	46
Sewing (for factory).....	174	173	37	136	15	22	69	5	-----	4	17	4	1
Sewing (not for factory).....	90	58	32	26	13	7	2	2	-----	-----	-----	2	22
Laundering.....	362	74	56	18	1	1	7	7	-----	8	-----	1	288
Helping in husband's business.....	347	344	107	237	163	22	18	12	3	7	2	10	3
Doing other home work.....	124	110	56	54	28	6	12	5	-----	2	-----	1	14
Away from home.....	1,400	723	394	329	13	215	17	29	4	10	30	11	677
Factory operatives.....	609	560	272	288	9	205	11	17	2	7	29	8	49
Canning, shucking.....	332	325	103	222	-----	191	3	13	1	6	4	4	7
Clothing.....	133	106	54	52	7	8	7	1	-----	1	25	3	27
Other factory.....	144	129	115	14	2	6	1	3	-----	-----	-----	1	15
Charwork, laundress, etc.....	439	54	42	12	-----	2	-----	8	2	-----	-----	-----	385
Domestic servant.....	232	23	15	8	1	1	-----	3	-----	2	1	-----	209
Any other occupation.....	120	86	65	21	3	7	6	1	-----	1	-----	3	34
Employment not reported.....	3	2	1	1	-----	1	-----	-----	-----	-----	-----	-----	1
Per cent distribution. ⁴													
All mothers.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Not employed.....	72.3	78.5	84.7	63.2	70.1	51.1	59.3	73.4	80.4	67.0	39.0	52.9	30.3
Employed.....	27.7	21.5	15.3	36.8	29.9	48.7	40.7	26.6	19.6	33.0	61.0	47.1	69.6
At home.....	15.7	14.3	9.8	25.4	28.5	15.9	36.8	17.8	16.7	24.1	32.4	36.3	24.8
Keeping lodgers.....	6.3	6.8	5.9	9.1	6.8	7.0	13.9	8.5	14.5	5.4	14.3	18.6	3.0

Sewing (for factory).....	1.5	1.7	.5	4.7	1.5	3.4	15.7	1.5	-----	3.6	16.2	3.9	.1
Sewing (not for factory).....	.7	.6	.4	.9	1.3	1.1	.5	.6	-----	-----	-----	2.0	1.5
Laundrying.....	3.1	.7	.8	.6	.1	.2	-----	2.1	-----	7.1	-----	1.0	19.1
Helping in husband's business.....	3.0	3.4	1.5	8.2	16.1	3.4	4.1	3.6	2.2	6.2	1.9	9.8	.2
Doing other home work.....	1.1	1.1	.8	1.9	2.8	.9	2.7	1.5	-----	1.8	-----	1.0	.9
Away from home.....	12.1	7.2	5.5	11.4	1.3	32.8	3.9	8.8	-----	2.9	28.6	10.8	44.9
Factory operatives.....	5.2	5.5	3.8	10.0	.9	31.3	2.5	5.1	-----	1.4	6.2	27.6	7.8
Canning, shucking, etc.....	2.9	3.2	1.4	7.7	-----	29.2	.7	3.9	.7	5.4	3.8	3.9	.5
Clothing.....	1.1	1.0	.7	1.8	.7	1.2	1.6	.3	-----	.9	23.8	2.9	1.8
Other factory.....	1.2	1.3	1.6	.5	.2	.9	.2	.9	.7	-----	-----	1.0	1.0
Charwork, laundress, etc.....	3.8	.5	.6	.4	-----	.3	-----	2.4	1.4	-----	-----	-----	25.5
Domestic servant.....	2.0	.2	.2	.3	.1	.2	-----	.9	-----	1.8	1.0	-----	13.9
Any other occupation.....	1.0	.9	.9	.7	.3	1.1	1.4	.3	-----	.9	-----	2.9	2.3
Employment not reported.....	-----	-----	-----	-----	-----	.2	-----	-----	-----	-----	-----	-----	.1

¹ Includes miscarriages.

² Includes 101 Irish, 19 English, 8 Scotch, and 10 English-Canadian.

³ Includes 24 Russian, 19 Greek, 13 Magyar, 8 Norwegian, 6 Serbian, 5 French, 5 Slovak, 4 Rumanian, 4 Ruthenian, 3 French-Canadian, 3 Dutch, 2 Slavic (n. o. s.), 2 Spanish, 2 Swedish, 1 Arabian, and 1 Danish.

⁴ Not shown when less than one-tenth of 1 per cent.

TABLE 99.—Occupation of mother, by place and time of employment; live births in 1915 to mothers employed.

Occupation of mother.	Live births to mothers employed.			
	During 1915 pregnancy.		During lifetime of infant.	
	Number.	Per cent distribution.	Number.	Per cent distribution.
All mothers employed.....	2,911	100.0	2,784	100.0
At home.....	1,682	57.8	1,929	69.3
Keeping lodgers.....	700	24.0	948	34.1
Sewing (for factory).....	161	5.5	143	5.1
Sewing (not for factory).....	71	2.4	66	2.4
Laundering.....	312	10.7	303	10.9
Helping in husband's business.....	328	11.3	345	12.4
Doing other home work.....	110	3.8	124	4.5
Away from home.....	1,229	42.2	855	30.7
Cannery operative.....	315	10.8	220	7.9
Other factory operative.....	233	8.0	141	5.1
Charwork, laundry, etc.....	386	13.3	297	10.7
Domestic.....	191	6.5	121	4.3
All other.....	104	3.6	75	2.7
Not reported.....			1	

TABLE 100.—Employment of mother during pregnancy of 1915 and during lifetime of infant, by color and nationality; births in 1915.¹

Color and nationality of mother.	Per cent of mothers employed	
	During pregnancy. ²	During life of infant. ³
Total.....	27.7	25.8
White.....	21.5	21.5
Native.....	15.3	15.4
Foreign born.....	36.8	35.0
Jewish.....	29.9	31.0
Polish.....	48.7	41.9
Italian.....	40.7	41.7
Other.....	33.5	30.6
Colored.....	69.6	60.2

¹ Includes miscarriages.² Based on total births in 1915.³ Based on live births.

TABLE 101.—*Employment of mother during pregnancy of 1915, by employment after the birth, at home and away from home, by color of mother; live births in 1915.*

Employment of mother.	Live births in 1915 to—					
	All mothers.		White mothers.		Colored mothers.	
	Live births.	Infant deaths.	Live births.	Infant deaths.	Live births.	Infant deaths.
Total	10,797	1,117	9,492	910	1,305	207
Employed at home during 1915 pregnancy.	1,682	159	1,359	118	323	41
Not employed after birth of infant.....	147	23	130	20	17	3
Employed after death of infant:						
At home	54	54	35	35	19	19
Away	10	10	4	4	6	6
Employed during life of infant:						
At home	1,412	70	1,172	58	240	12
Away	58	2	17	1	41	1
Employment after birth not reported..	1		1			
Employed away during 1915 pregnancy ...	1,229	221	659	106	570	115
Not employed after birth of infant.....	363	41	274	27	89	14
Employed after death of infant:						
At home	10	10	4	4	6	6
Away	104	104	51	51	53	53
Employed during life of infant:						
At home	158	10	71	4	87	6
Away	594	56	259	20	335	36
Not employed during 1915 pregnancy ¹	7,886	737	7,474	686	412	51
Not employed after birth of infant.....	7,250	640	6,932	603	318	37
Employed after death of infant:						
At home	22	22	19	19	3	3
Away	51	51	42	42	9	9
Employed during life of infant:						
At home	359	7	321	6	38	1
Away	203	16	159	15	44	1
Employment after birth not reported .	1	1	1	1		

¹ Includes 3 live births (2 white, 1 colored) and 1 death (white); employment during 1915 pregnancy not reported.

TABLE 102.—*Infant mortality rates, by mother's employment away from home during pregnancy or within year after birth, earnings of father, and color and nativity of mother; live births in 1915.*

Earnings of father and color and nativity of mother.	Live births in 1915 to mothers—					
	Employed away from home during pregnancy or within year after birth. ¹			Not employed away from home during pregnancy or within year after birth.		
	Live births.	Infant deaths.		Live births.	Infant deaths.	
		Number.	Infant mortality rate. ²		Number.	Infant mortality rate. ²
All mothers.....	1,553	302	194.5	9,244	815	88.2
Earnings of father:						
Under \$550.....	891	181	203.1	2,102	232	110.4
\$550-\$849.....	408	69	169.1	3,498	325	92.9
\$850-\$1,249.....	61	10	.....	2,195	148	67.4
\$1,250 and over.....	18	5	.....	1,203	74	61.5
No earnings.....	112	24	214.3	95	19	.....
Not reported.....	63	13	.....	151	17	112.6
Native white mothers.....	501	99	197.6	6,238	547	87.7
Earnings of father:						
Under \$550.....	216	42	194.4	877	115	131.1
\$550-\$849.....	167	30	179.6	2,467	233	94.4
\$850-\$1,249.....	36	5	.....	1,766	121	68.5
\$1,250 and over.....	12	4	.....	983	63	64.1
No earnings.....	41	11	.....	47	5	.....
Not reported.....	29	7	.....	98	10	.....
Foreign-born white mothers.....	381	70	183.7	2,372	194	81.8
Earnings of father:						
Under \$550.....	213	43	201.9	824	70	85.0
\$550-\$849.....	128	19	148.4	871	77	88.4
\$850 and over.....	18	2	.....	603	32	53.1
No earnings.....	16	3	.....	34	10	.....
Not reported.....	6	3	.....	40	5	.....
Colored mothers.....	671	133	198.2	634	74	116.7
Earnings of father:						
Under \$550.....	462	96	207.8	401	47	117.2
\$550 and over.....	126	24	190.5	206	21	101.9
No earnings.....	55	10	.....	14	4	.....
Not reported.....	28	3	.....	13	2	.....

¹ Includes 2 mothers whose employment was not reported.² Not shown where base is less than 100.

TABLE 103.—*Infant mortality rates (by cause of death) and stillbirth rates, by employment of mother during pregnancy and color and nativity of mother; births in 1915.*

Employment during pregnancy of 1915, and color and nativity of mother.	Stillbirths.			Live births.	Infant deaths.					
	Total births.	Num-ber.	Per 1,000 births. ¹		Total.		Early infancy.		All other causes.	
					Num-ber.	Infant mor-tality rate. ¹	Num-ber.	Infant mor-tality rate. ¹	Num-ber.	Infant mor-tality rate. ¹
All mothers.....	11, 195	398	35. 6	10, 797	1, 117	103. 5	407	37. 7	710	65. 8
Not employed.....	8, 123	240	29. 5	7, 883	736	93. 4	293	37. 2	443	56. 2
Employed at home.....	1, 752	70	40. 0	1, 682	159	94. 5	44	26. 2	115	68. 4
Employed away from home.....	1, 317	88	66. 8	1, 229	221	179. 8	70	57. 0	151	122. 9
Employment not reported.....	3			3	1				1	
Native white mothers.....	6, 937	198	28. 5	6, 739	646	95. 9	257	38. 1	389	57. 7
Not employed.....	5, 896	162	27. 5	5, 734	541	94. 3	223	38. 9	318	55. 5
Employed at home.....	674	18	26. 7	656	56	85. 4	18	27. 4	38	57. 9
Employed away from home.....	366	18	49. 2	348	49	140. 8	16	46. 0	33	94. 8
Employment not reported.....	1			1						
Foreign-born white mothers.....	2, 837	84	29. 6	2, 753	264	95. 9	85	30. 9	179	65. 0
Not employed.....	1, 791	53	29. 6	1, 738	144	82. 9	50	28. 8	94	54. 1
Employed at home.....	723	20	27. 7	703	62	88. 2	15	21. 3	47	66. 9
Employed away from home.....	322	11	34. 2	311	57	183. 3	20	64. 3	37	119. 0
Employment not reported.....	1			1	1				1	
Colored mothers.....	1, 421	116	81. 6	1, 305	207	158. 6	65	49. 8	142	108. 8
Not employed.....	436	25	57. 3	411	51	124. 1	20	48. 7	31	75. 4
Employed at home.....	355	32	90. 1	323	41	126. 9	11	34. 1	30	92. 9
Employed away from home.....	629	59	93. 8	570	115	201. 8	34	59. 6	81	142. 1
Employment not reported.....	1			1						

¹ Not shown where base is less than 100.

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TABLE 104.—*Excess infant mortality (by cause of death) and stillbirth rates among infants of mothers employed during pregnancy, over those expected when effect of differences in color and nationality and earnings of father is eliminated; births in 1915.*

Employment of mother during pregnancy.	Total births.	Stillbirths.		Live births.	Deaths from all causes.		Early infancy.		All other causes.	
		Num-ber.	Per 1,000 ¹ births.		Num-ber.	Infant mor-tality rate. ¹	Num-ber.	Infant mor-tality rate. ¹	Num-ber.	Infant mor-tality rate. ¹
ALL MOTHERS.										
Not employed:										
Actual	8,123	240	29.5	7,883	736	93.4	293	37.2	443	56.2
Expected ²		256	31.5		759	96.3	290	36.8	469	59.5
Employed at home:										
Actual	1,752	70	40.0	1,682	159	94.5	44	26.2	115	68.4
Expected ²		70	40.0		176	104.6	62	36.9	114	69.0
Employed away from home:										
Actual	1,317	88	66.8	1,229	221	179.8	70	57.0	151	122.9
Expected ²		72	54.7		170	138.3	54	43.9	116	94.4
Employment not reported	3			3	1				1	
NATIVE WHITE MOTHERS.										
Not employed:										
Actual	5,896	162	27.5	5,734	541	94.3	123	38.9	318	55.5
Expected ²		168	28.5		538	93.8	217	37.8	321	56.0
Employed at home:										
Actual	674	18	26.7	656	56	85.4	18	27.4	38	57.9
Expected ²		19	28.2		65	99.1	25	38.1	40	61.0
Employed away from home:										
Actual	366	18	49.2	348	49	140.8	16	46.0	33	94.8
Expected ²		11	30.1		42	120.7	15	43.1	27	77.6
Employment not reported	1			1						
FOREIGN-BORN WHITE MOTHERS.										
Not employed:										
Actual	1,791	53	29.6	1,738	144	82.9	50	28.8	94	54.1
Expected ²		53	29.6		158	90.9	52	29.9	106	61.0
Employed at home:										
Actual	723	20	27.7	703	62	88.2	15	21.3	47	66.9
Expected ²		22	30.4		62	88.2	21	29.9	41	58.3
Employed away from home:										
Actual	322	11	34.2	311	57	183.3	20	64.3	37	119.0
Expected ²		9	28.0		44	141.5	12	38.6	32	102.9
Employment not reported	1			1	1				1	
COLORED MOTHERS.										
Not employed:										
Actual	436	25	57.3	411	51	124.1	20	48.7	31	75.4
Expected ²		35	80.3		63	153.3	21	51.1	42	102.2
Employed at home:										
Actual	355	32	90.1	323	41	126.9	11	34.1	30	92.9
Expected ²		29	81.7		49	151.7	16	49.5	33	102.2
Employed away from home:										
Actual	629	59	93.8	570	115	201.8	34	59.6	81	142.1
Expected ²		52	82.7		84	147.4	27	49.4	57	100.0
Employment not reported	1			1						

¹ Not shown where base is less than 100.² Expected stillbirths and deaths are calculated by applying to the births (or live births) in each nationality, earnings and employment of mother group, the average rates prevailing in the same nationality and earnings group; among the foreign-born white mothers average rates prevailing in each nationality group are used.

TABLE 105.—*Prevalence of premature births, by employment during pregnancy and color and nativity of mother; live births in 1915.*

Employment during pregnancy of 1915, and color and nativity of mother.	Live births.				
	Total.	Full term.	Premature births.		Term not reported.
			Number.	Per cent. ¹	
All mothers.....	10,797	10,196	591	5.5	10
Not employed.....	7,883	7,430	450	5.7	3
Employed at home.....	1,682	1,615	65	3.9	2
Employed away from home.....	1,229	1,149	76	6.2	4
Employment not reported.....	3	2	.....	.....	1
Native white mothers.....	6,739	6,322	415	6.2	2
Not employed.....	5,734	5,377	356	6.2	1
Employed at home.....	656	619	36	5.5	1
Employed away from home.....	348	325	23	6.6	.....
Employment not reported.....	1	1	.....	.....	.....
Foreign-born white mothers.....	2,753	2,654	97	3.5	2
Not employed.....	1,738	1,669	67	3.9	2
Employed at home.....	703	687	16	2.3	.....
Employed away from home.....	311	297	14	4.5	.....
Employment not reported.....	1	1	.....	.....	.....
Colored mothers.....	1,305	1,220	79	6.1	6
Not employed.....	411	384	27	6.6	.....
Employed at home.....	323	309	13	4.0	1
Employed away from home.....	570	527	39	6.8	4
Employment not reported.....	1	.....	.....	.....	1

¹ Not shown where base is less than 100.

TABLE 106.—*Infant mortality rates, by cause of death and by employment of mother during pregnancy and color and nativity; full-term live births in 1915.*

Employment during pregnancy of 1915, and color and nativity of mother.	Full-term live births.	Infant mortality rates. ¹		
		All causes.	Early infancy.	All other causes.
All mothers.....	10,196	77.7	14.7	63.0
Not employed.....	7,430	67.2	13.9	53.3
Employed at home.....	1,615	76.2	9.3	66.9
Employed away from home.....	1,149	147.1	27.9	119.2
Employment not reported.....	2			
Native white mothers.....	6,322	68.3	13.4	54.9
Not employed.....	5,377	67.0	13.9	53.1
Employed at home.....	619	63.0	6.5	56.5
Employed away from home.....	325	101.5	18.5	83.0
Employment not reported.....	1			
Foreign-born mothers.....	2,654	78.7	15.8	62.9
Not employed.....	1,669	63.5	13.2	50.3
Employed at home.....	687	78.6	11.6	67.0
Employed away from home.....	297	161.6	40.4	121.2
Employment not reported.....	1			
Colored mothers.....	1,220	123.8	18.9	104.9
Not employed.....	384	85.9	15.6	70.3
Employed at home.....	309	97.1	9.7	87.4
Employed away from home.....	527	167.0	26.6	140.4

¹ Not shown where base is less than 100.TABLE 107.—*Interval between cessation of work and confinement, by occupation and color of mother; births in 1915¹ to mothers employed during pregnancy.*

Occupation and place of employment during pregnancy of 1915 and color of mother.	Total births. ¹	Per cent ² of births ¹ to mothers reporting specified interval between cessation of work and confinement.				
		None.	Under 2 weeks.	2 weeks, under 2 months.	2 months and over.	Interval not reported.
All mothers employed during pregnancy.....	3,219	45.1	7.2	10.7	35.6	1.3
Employed at home.....	1,819	67.1	6.3	8.6	16.7	1.3
Keeping lodgers.....	732	86.1	2.0	3.3	7.1	1.5
Sewing (for factory).....	174	32.8	8.6	16.7	40.8	1.1
Sewing (not for factory).....	80					
Laundering.....	362	48.3	10.2	15.2	25.1	1.1
Husband's business.....	347	70.3	9.2	8.1	11.8	.6
Other home work.....	124	69.4	8.1	10.5	8.1	4.0
Employed away from home.....	1,400	16.6	8.5	13.4	60.1	1.4
Factory operatives.....	609	7.1	8.5	12.3	70.6	1.5
Canning, shucking, etc.....	332	9.0	10.8	17.8	61.7	.6
Clothing.....	133	3.8	10.5	6.0	79.7	
Other factory.....	144	5.6	1.4	5.6	82.6	4.9
Charwork, laundress, etc.....	439	31.0	10.5	14.6	42.6	1.4
Domestic servant.....	232	13.4	5.6	15.5	65.1	.4
Any other occupation.....	120	18.3	6.7	10.8	61.7	2.5
White mothers.....	2,168	50.3	6.6	9.6	32.0	1.4
Employed at home.....	1,445	70.7	5.5	7.8	14.7	1.3
Employed away from home.....	723	9.7	8.9	13.3	66.5	1.7
Colored mothers.....	1,051	34.4	8.5	12.8	43.1	1.1
Employed at home.....	374	53.5	9.1	11.5	24.6	1.3
Employed away from home.....	677	23.9	8.1	13.6	53.3	1.0

¹ Includes miscarriages.² Not shown where base is less than 100.

TABLE 108.—*Infant deaths under 1 month per 1,000 live births and stillbirth rates, by interval between cessation of work and confinement, color of mother, and place of employment; births in 1915 to mothers employed during pregnancy.*

Interval between cessation of work and confinement, color of mother, and place of employment.	Births in 1915 to mothers employed during pregnancy.						
	Total births.	Stillbirths.		Infant deaths.			
		Number.	Per 1,000 births. ¹	Total.		Under 1 month of age.	
				Number.	Per 1,000 live births. ¹	Number.	Per 1,000 live births. ¹
Mothers employed at home:							
White.....	1,397	38	27.2	118	86.8	36	26.5
Interval—							
None or under 2 weeks....	1,067	23	21.6	83	79.5	24	23.0
2 weeks and over.....	312	14	44.9	32	107.4	11	36.9
Not reported.....	18	1	.....	3	.....	1	.....
Colored.....	355	32	90.1	41	126.9	14	43.3
Interval—							
None or under 2 weeks....	218	20	91.7	23	116.2	9	45.5
2 weeks and over.....	132	10	75.8	16	131.1	4	32.8
Not reported.....	5	2	.....	2	.....	1	.....
Mothers employed away from home:							
White.....	688	29	42.2	106	160.8	50	75.9
Interval—							
None or under 2 weeks....	116	7	60.3	16	146.8	9	82.6
2 weeks and over.....	560	21	37.5	89	165.1	41	76.1
Not reported.....	12	1	.....	1	.....	.....	.....
Colored.....	629	59	93.8	115	201.8	45	78.9
Interval—							
None or under 2 weeks....	186	18	96.8	48	285.7	19	113.1
2 weeks and over.....	436	40	91.7	65	164.1	26	65.7
Not reported.....	7	1	.....	2	.....	.....	.....

¹ Not shown where base is less than 100.

TABLE 109.—Age of infant when mother began work, by place of mother's employment and color and nationality of mother; infants born in 1915 to mothers employed during infant's first year of life, and subsequent infant deaths.

Age of infant, and place of employment of mother.	Infants of mothers of specified color and nationality who were employed during infant's life.								
	Total.			White.			Native.		
	In-fants.	Subsequent deaths in year.	Deaths before end of month of life.	In-fants.	Subsequent deaths in year.	Deaths before end of month of life.	In-fants.	Subsequent deaths in year.	Deaths before end of month of life.
Mothers employed after birth of infant.....	2,784	161	15	1,999	104	14	1,036	52	5
Age of infant:									
Under 1 month.....	755	58	2	686	46	2	282	23	.....
1 month.....	537	37	3	351	17	3	192	10	1
2 months.....	293	21	3	171	12	2	98	8	1
3 months.....	269	11	.....	153	3	.....	82	.....	.....
4 months.....	163	9	1	109	7	1	73	4	1
5 months.....	117	11	3	67	9	3	36	2	1
6 months.....	152	3	.....	98	2	.....	54	1	.....
7 months.....	100	4	1	71	2	1	43	2	1
8 months.....	115	1	.....	79	1	.....	50	.....	.....
9 months.....	102	4	1	71	3	1	40	2	.....
10 months.....	107	2	1	84	2	1	44	.....	.....
11 months.....	58	.....	.....	46	.....	.....	35	.....	.....
Not reported.....	13	.....	.....	13	.....	.....	7	.....	.....
Employed at home.....	1,929	87	8	1,564	68	8	801	34	2
Age of infant:									
Under 1 month.....	695	45	2	652	41	2	268	21	.....
1 month.....	405	18	3	305	12	3	165	6	1
2 months.....	194	12	2	141	9	2	80	5	1
3 months.....	140	2	.....	100	.....	.....	57	.....	.....
4 months.....	97	1	.....	72	.....	.....	46	.....	.....
5 months.....	60	4	.....	38	3	.....	26	1	.....
6 months.....	86	.....	.....	62	.....	.....	34	.....	.....
7 months.....	56	1	.....	42	.....	.....	27	.....	.....
8 months.....	49	.....	.....	31	.....	.....	22	.....	.....
9 months.....	56	3	1	42	2	1	25	1	.....
10 months.....	54	1	.....	46	1	.....	30	.....	.....
11 months.....	25	.....	.....	21	.....	.....	14	.....	.....
Not reported.....	12	.....	.....	12	.....	.....	7	.....	.....
Employed away from home.....	855	74	7	435	36	6	235	18	3
Age of infant:									
Under 1 month.....	60	13	.....	34	5	.....	14	2	.....
1 month.....	132	19	.....	46	5	.....	27	4	.....
2 months.....	99	9	1	30	3	.....	18	3	.....
3 months.....	129	9	.....	53	3	.....	25	.....	.....
4 months.....	69	8	1	37	7	1	27	4	1
5 months.....	57	7	3	29	6	3	10	1	1
6 months.....	66	3	.....	36	2	.....	20	1	.....
7 months.....	44	3	1	29	2	1	16	2	1
8 months.....	66	1	.....	43	1	.....	23	.....	.....
9 months.....	46	1	.....	29	1	.....	15	1	.....
10 months.....	53	1	1	38	1	1	14	.....	.....
11 months.....	33	.....	.....	25	.....	.....	21	.....	.....
Not reported.....	1	.....	.....	1	.....	.....	.....	.....	.....

TABLE 109.—Age of infant when mother began work, by place of mother's employment and color and nationality of mother; infants born in 1915 to mothers employed during infant's first year of life, and subsequent infant deaths—Continued.

Age of infant, and place of employment of mother.	Infants of mothers of specified color and nationality who were employed during infant's life.								
	Foreign born.								
	Total.			Italian.			Jewish.		
	In-fants.	Subse-quent deaths in year.	Deaths before end of month of life.	In-fants.	Subse-quent deaths in year.	Deaths before end of month of life.	In-fants.	Subse-quent deaths in year.	Deaths before end of month of life.
Mothers employed after birth of infant.....	963	52	9	172	8	1	298	4	2
Age of infant:									
Under 1 month.....	404	23	2	77	3	1	152	2	.....
1 month.....	159	7	2	35	3	.....	68	1	1
2 months.....	73	4	1	16	1	.....	23	1	1
3 months.....	71	3	.....	16	.....	.....	14	.....	.....
4 months.....	36	3	.....	8	.....	.....	11	.....	.....
5 months.....	31	7	2	3	1	.....	3	.....	.....
6 months.....	44	1	.....	8	.....	.....	6	.....	.....
7 months.....	28	.....	.....	1	.....	.....	6	.....	.....
8 months.....	29	1	.....	1	.....	.....	3	.....	.....
9 months.....	31	1	1	2	.....	.....	6	.....	.....
10 months.....	40	2	1	4	.....	.....	5	.....	.....
11 months.....	11	.....	.....	.....	.....	.....	1	.....	.....
Not reported.....	6	.....	.....	1	.....	.....	.....	.....	.....
Employed at home.....	763	34	6	165	8	1	289	4	2
Age of infant:									
Under 1 month.....	384	20	2	75	3	1	150	2	.....
1 month.....	140	6	2	34	3	.....	67	1	1
2 months.....	61	4	1	15	1	.....	22	1	1
3 months.....	43	.....	.....	15	.....	.....	13	.....	.....
4 months.....	26	.....	.....	8	.....	.....	10	.....	.....
5 months.....	12	2	.....	3	1	.....	3	.....	.....
6 months.....	28	.....	.....	7	.....	.....	6	.....	.....
7 months.....	15	.....	.....	1	.....	.....	6	.....	.....
8 months.....	9	.....	.....	1	.....	.....	2	.....	.....
9 months.....	17	1	1	2	.....	.....	4	.....	.....
10 months.....	16	1	.....	3	.....	.....	5	.....	.....
11 months.....	7	.....	.....	.....	.....	.....	1	.....	.....
Not reported.....	5	.....	.....	1	.....	.....	.....	.....	.....
Employed away from home.....	200	18	3	7	.....	.....	9	.....	.....
Age of infant:									
Under 1 month.....	20	3	.....	2	.....	.....	2	.....	.....
1 month.....	19	1	.....	1	.....	.....	1	.....	.....
2 months.....	12	.....	.....	1	.....	.....	1	.....	.....
3 months.....	28	3	.....	1	.....	.....	1	.....	.....
4 months.....	10	3	.....	.....	.....	.....	1	.....	.....
5 months.....	19	5	2	.....	.....	.....	.....	.....	.....
6 months.....	16	1	.....	1	.....	.....	.....	.....	.....
7 months.....	13	.....	.....	.....	.....	.....	.....	.....	.....
8 months.....	20	1	.....	.....	.....	.....	1	.....	.....
9 months.....	14	.....	.....	.....	.....	.....	2	.....	.....
10 months.....	24	1	1	1	.....	.....	2	.....	.....
11 months.....	4	.....	.....	.....	.....	.....	.....	.....	.....
Not reported.....	1	.....	.....	.....	.....	.....	.....	.....	.....

TABLE 109.—Age of infant when mother began work, by place of mother's employment and color and nationality of mother; infants born in 1915 to mothers employed during infant's first year of life, and subsequent infant deaths—Concluded.

Age of infant, and place of employment of mother.	Infants of mothers of specified color and nationality who were employed during infant's life.								
	Foreign born.						Colored.		
	Polish.			All other.					
	Infants.	Subsequent deaths in year.	Deaths before end of month of life.	Infants.	Subsequent deaths in year.	Deaths before end of month of life.	Infants.	Subsequent deaths in year.	Deaths before end of month of life.
Mothers employed after birth of infant..	262	25	4	231	15	2	785	57	1
Age of infant:									
Under 1 month.....	66	6	.....	109	12	1	69	12	.....
1 month.....	20	2	1	36	1	.....	186	20	.....
2 months.....	15	1	.....	19	1	.....	122	9	1
3 months.....	26	3	.....	15	.....	.....	116	8	.....
4 months.....	11	3	.....	6	.....	.....	57	2	.....
5 months.....	16	5	1	9	1	1	50	2	.....
6 months.....	20	1	.....	10	.....	.....	54	1	.....
7 months.....	12	.....	.....	9	.....	.....	29	2	.....
8 months.....	18	1	.....	7	.....	.....	36	.....	.....
9 months.....	19	1	.....	4	.....	.....	31	1	.....
10 months.....	29	2	1	2	.....	.....	23	.....	.....
11 months.....	8	.....	.....	2	.....	.....	12	.....	.....
Not reported.....	2	.....	.....	3	.....	.....	.....	.....	.....
Employed at home.....	116	9	2	193	13	1	365	19	.....
Age of infant:									
Under 1 month.....	55	4	.....	104	11	1	43	4	.....
1 month.....	11	1	1	28	1	.....	100	6	.....
2 months.....	8	1	.....	16	1	.....	53	3	.....
3 months.....	5	.....	.....	10	.....	.....	40	2	.....
4 months.....	3	.....	.....	5	.....	.....	25	1	.....
5 months.....	2	1	.....	4	.....	.....	22	1	.....
6 months.....	7	.....	.....	8	.....	.....	24	.....	.....
7 months.....	3	.....	.....	5	.....	.....	14	1	.....
8 months.....	2	.....	.....	4	.....	.....	18	.....	.....
9 months.....	8	1	1	3	.....	.....	14	1	.....
10 months.....	7	1	.....	1	.....	.....	8	.....	.....
11 months.....	4	.....	.....	2	.....	.....	4	.....	.....
Not reported.....	1	.....	.....	3	.....	.....	.....	.....	.....
Employed away from home.....	146	16	2	38	2	1	420	38	1
Age of infant:									
Under 1 month.....	11	2	.....	5	1	.....	26	8	.....
1 month.....	9	1	.....	8	.....	.....	86	14	.....
2 months.....	7	.....	.....	3	.....	.....	69	6	1
3 months.....	21	3	.....	5	.....	.....	76	6	.....
4 months.....	8	3	.....	1	.....	.....	32	1	.....
5 months.....	14	4	1	5	1	1	28	1	.....
6 months.....	13	1	.....	2	.....	.....	30	1	.....
7 months.....	9	.....	.....	4	.....	.....	15	1	.....
8 months.....	16	1	.....	3	.....	.....	18	.....	.....
9 months.....	11	.....	.....	1	.....	.....	17	.....	.....
10 months.....	22	1	1	1	.....	.....	15	.....	.....
11 months.....	4	.....	.....	.....	.....	.....	8	.....	.....
Not reported.....	1	.....	.....	.....	.....	.....	.....	.....	.....

TABLE 110.—*Excess mortality among infants of mothers employed during infant's lifetime, by time of resumption of work, place of employment, and color and nationality of mother, over mortality expected when effect of differences in color and nationality of mother is eliminated; infants born in 1915 to mothers employed during infant's lifetime.*

Age of infant when mother began work, and color and nationality of mother.	Infants of mothers employed at home.			Infants of mothers employed away from home.		
	Total.	Deaths.		Total.	Deaths.	
		Actual.	Ex- pected. ¹		Actual.	Ex- pected. ¹
Total.....	1,929	87	92.4	855	74	46.5
Under 3 months.....	1,294	75	72.7	291	41	23.4
3 months, under 6.....	297	7	13.6	255	24	16.2
6 months and over.....	326	5	6.1	308	9	6.9
Age not reported.....	12			1		
Native white mothers.....	801	34	35.0	235	18	6.7
Under 3 months.....	513	32	27.7	59	9	2.2
3 months, under 6.....	129	1	5.0	62	5	2.9
6 months and over.....	152	1	2.3	114	4	1.6
Age not reported.....	7					
Foreign-born white mothers.....	763	34	31.1	200	18	11.0
Under 3 months.....	585	30	26.5	51	4	4.3
3 months, under 6.....	81	2	2.9	57	11	4.1
6 months and over.....	92	2	1.7	91	3	2.6
Age not reported.....	5			1		
Colored.....	365	19	26.3	420	38	28.8
Under 3 months.....	196	13	18.5	181	28	16.9
3 months, under 6.....	87	4	5.7	136	8	9.2
6 months and over.....	82	2	2.1	103	2	2.7

¹ Expected deaths are calculated by applying to the infants of employed mothers in each color and nationality group the average rates of subsequent deaths in the same color and nationality group. The number of infants whose mothers went to work during the first month of the infant's life is multiplied by the rate of subsequent deaths among all survivors of the first month; the number of infants whose mothers went to work during the second month is multiplied by the average of the rates of subsequent deaths among survivors at the beginning and survivors at the end of the second month; and similarly for each later month. The results are then added together to form the groups shown in the table. In calculating expected deaths in the foreign-born white group, calculations were made separately for the Jewish, Polish, Italian, and all other groups and the results added to form the total in the foreign-born white group.

TABLE 111.—*Excess mortality among infants of mothers employed during infant's lifetime, by place of employment, over mortality expected when effect of differences in infants' ages and in fathers' earnings is eliminated; infants born in 1915 to native white and to colored mothers.*

Earnings of father, and color, nativity, and place of employment of mother.	Infants whose mothers' employment began in some previous month. ¹			
	Surviving at beginning of ² —		Infant deaths. ³	
	Second month.	Twelfth month.	Actual.	Expected.
Mothers employed at home.....	296	1,033	47	55.1
Native white mothers.....	257	710	31	31.5
Earnings of father:				
Under \$550.....	50	141	10	10.0
\$550-\$849.....	111	300	7	14.1
\$850-\$1,249.....	71	196	12	6.1
\$1,250 and over.....	25	73	2	1.3
Colored mothers.....	39	323	16	23.6
Earnings of father:				
Under \$550.....	32	238	15	18.4
\$550 and over.....	7	85	1	5.2
Mothers employed away from home.....	30	480	40	28.1
Native white mothers.....	13	157	9	6.2
Earnings of father:				
Under \$550.....	7	95	8	4.6
\$550-\$849.....	5	51	1	1.6
\$850-\$1,249.....	1	9	.....	.....
\$1,250 and over.....	.....	2	.....	.....
Colored mothers.....	17	323	31	21.9
Earnings of father:				
Under \$550.....	15	267	26	18.8
\$550 and over.....	2	56	5	3.1

¹ From this comparison are omitted (1) infants of foreign-born white mothers; (2) infants of native white and of colored mothers in families where the fathers earned nothing or amounts not reported; (3) the lifetime and deaths of infants lived in the months in which the mothers went to work—that is, if the mothers went to work in the tenth month, the lifetime and deaths in that month, and (4) lifetime and deaths of infants in cases where the age of the infant at the time the mother went to work was not reported.

² The numbers for months between the second and the twelfth are omitted.

³ The actual deaths are the sum of the deaths occurring month by month among the "infant survivors" at the beginning of each month. The expected deaths are the sum of the deaths among these infant survivors expected on the basis of monthly death rates among all infants of native white and of colored mothers respectively in the specified fathers' earnings group.

TABLE 112.—*Nationality of mother, by place of her employment and age of infant when mother began work; infants born in 1915 to mothers employed during infant's lifetime.*

Color and nationality of mother and place of employment.	Infants of specified age when mothers began work.				Not reported.
	Under 3 months.		3 months and over.		
	Number.	Per cent distribution.	Number.	Per cent distribution.	
Mothers employed at home.....	1,294	100.0	623	100.0	12
Native white.....	513	39.6	281	45.1	7
Jewish.....	239	18.5	50	8.0	.....
Polish.....	74	5.7	41	6.6	1
Italian.....	124	9.6	40	6.4	1
All other foreign-born white.....	148	11.4	42	6.7	3
Colored.....	196	15.1	169	27.1	.....
Mothers employed away from home.....	291	100.0	563	100.0	1
Native white.....	59	20.3	176	31.3	.....
Polish.....	27	9.3	118	21.0	1
All other foreign-born white.....	24	8.2	30	5.3	.....
Colored.....	181	62.2	239	42.5	.....

TABLE 113.—*Earnings of father, by mother's place of employment, color and nativity; and age of infant when mother began work; infants of mothers employed during infant's lifetime.*

Earnings of father and color and nativity of mother.	Infants of specified age when mothers began work—									
	At home.					Away from home.				
	Under 3 months.		3 months and over.		Age not reported.	Under 3 months.		3 months and over.		Age not reported.
	Number.	Per cent distribution.	Number.	Per cent distribution.		Number.	Per cent distribution.	Number.	Per cent distribution.	
All mothers.....	1,294	100.0	623	100.0	12	291	100.0	563	100.0	1
Earnings of father:										
Under \$450.....	228	17.6	155	24.9	.....	119	40.9	222	39.4	.....
\$450-\$549.....	216	16.7	111	17.8	2	54	18.6	125	22.2	.....
\$550-\$649.....	175	13.5	78	12.5	1	23	7.9	69	12.3	1
\$650 and over.....	612	47.3	247	39.6	7	29	10.0	88	15.6	.....
No earnings.....	26	2.0	17	2.7	.....	50	17.2	34	6.0	.....
Not reported.....	37	2.9	15	2.4	2	16	5.5	25	4.4	.....
Native white.....	513	100.0	281	100.0	7	59	100.0	176	100.0	.....
Earnings of father:										
Under \$450.....	39	7.6	34	12.1	.....	16	27.1	53	30.1	.....
\$450-\$549.....	54	10.5	31	11.0	1	10	16.9	32	18.2	.....
\$550-\$649.....	84	16.4	39	13.9	.....	5	8.5	20	11.4	.....
\$650 and over.....	314	61.2	158	56.2	4	12	20.3	39	22.2	.....
No earnings.....	7	1.4	7	2.5	2	14	23.7	18	10.2	.....
Not reported.....	15	2.9	12	4.3	.....	2	3.4	14	8.0	.....
Foreign-born white.....	585	100.0	173	100.0	5	51	100.0	148	100.0	1
Earnings of father:										
Under \$450.....	123	21.0	44	25.4	.....	22	43.1	48	32.4	.....
\$450-\$549.....	95	16.2	34	19.7	1	10	19.6	33	22.3	.....
\$550-\$649.....	72	12.3	25	14.5	1	2	3.9	30	20.3	1
\$650 and over.....	269	46.0	65	37.6	3	11	21.6	27	18.2	.....
No earnings.....	10	1.7	4	2.3	.....	5	9.8	7	4.8	.....
Not reported.....	16	2.7	1	.6	.....	1	2.0	3	2.0	.....
Colored.....	196	100.0	169	100.0	.....	181	100.0	239	100.0	.....
Earnings of father:										
Under \$450.....	66	33.7	77	45.6	.....	81	44.8	121	50.6	.....
\$450-\$549.....	67	34.2	46	27.2	.....	34	18.8	60	25.1	.....
\$550-\$649.....	19	9.7	14	8.3	.....	16	8.8	19	7.9	.....
\$650 and over.....	29	14.8	24	14.2	.....	6	3.3	22	9.2	.....
No earnings.....	9	4.6	6	3.6	.....	31	17.1	9	3.8	.....
Not reported.....	6	3.1	2	1.2	.....	13	7.2	8	3.3	.....

TABLE 114.—*Interval between cessation of work and confinement, by interval between confinement and resumption of work; infants of mothers employed away both during pregnancy and within year after the birth.*

Interval between cessation of work and confinement.	Infants of mothers employed away during pregnancy and resuming such work within specified time after birth.			
	Under 3 months.		3 months and over.	
	Number.	Per cent distribution.	Number.	Per cent distribution.
Total.....	236	100.0	358	100.0
None.....	80	33.9	40	11.2
Under 2 weeks.....	23	9.7	24	6.7
2 weeks, under 2 months.....	43	18.2	49	13.7
2 months and over.....	88	37.3	241	67.3
Not reported.....	2	.8	4	1.1

TABLE 115.—*Excess mortality among infants of mothers employed away from home during infant's lifetime, by mother's employment during pregnancy and age of infant when mother resumed work, over mortality expected when effect of differences in mother's color and nationality, and father's earnings is eliminated; infants of mothers employed away from home during infant's lifetime.*

Age of infant when mother resumed work.	Infants of mothers employed away during lifetime of infant.					
	Mother employed away during pregnancy.			Mother not employed away during pregnancy.		
	Infants.	Deaths.		Infants.	Deaths.	
		Actual.	Ex-pected. ¹		Actual.	Ex-pected. ¹
All.....	594	56	35.0	260	18	10.7
Under 3 months.....	236	33	19.9	54	8	4.2
3 months, under 6.....	183	17	11.3	72	7	4.1
6 months and over.....	175	6	3.8	² 134	3	2.4

¹ See note 1, Table 110, p. 313.

² Includes 1 infant of a mother whose employment was not reported.

TABLE 116.—*Infant survivors and infant deaths, by type of feeding, month of life, place of mother's employment, and color and nationality of mother; infants of mothers employed during infant's lifetime.*

Month of life of infant, and place of employment, color, and nationality of mother.	Infants of mothers employed during infant's lifetime.								
	Total.		Breast fed.		Mixed fed.		Artificially fed.		Not reported.
	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.
All mothers employed during infant's life:									
Second month.....	753	5	597	2	55	.....	101	3	.....
Third month.....	1,282	7	860	1	177	2	245	4	.....
Fourth month.....	1,565	13	903	1	297	2	364	10	1
Fifth month.....	1,821	13	933	2	428	3	459	8	1
Sixth month.....	1,973	24	915	4	532	3	525	17	1
Seventh month.....	2,063	16	717	2	751	4	594	10	1
Eighth month.....	2,199	15	642	1	894	2	662	12	1
Ninth month.....	2,283	13	500	1	1,059	5	723	7	1
Tenth month.....	2,385	15	385	2	1,195	3	804	10	1
Eleventh month.....	2,471	11	294	.....	1,313	2	863	9	1
Twelfth month.....	2,566	14	242	3	1,405	4	919	7	.....
Employed at home during infant's life:									
Second month.....	693	4	566	2	43	.....	84	2	.....
Third month.....	1,091	3	791	1	110	.....	190	2	.....
Fourth month.....	1,280	9	813	1	192	.....	274	8	1
Fifth month.....	1,411	5	823	1	266	1	321	3	1
Sixth month.....	1,503	12	797	2	344	1	361	9	1
Seventh month.....	1,551	4	624	1	520	1	406	2	1
Eighth month.....	1,633	12	552	1	624	1	456	10	1
Ninth month.....	1,677	8	430	1	751	3	495	4	1
Tenth month.....	1,718	7	330	2	847	1	540	4	1
Eleventh month.....	1,766	9	241	.....	942	1	582	8	1
Twelfth month.....	1,811	6	196	1	997	1	618	4	.....
Employed away from home during infant's life:									
Second month.....	60	1	31	.....	12	.....	17	1	.....
Third month.....	191	4	69	.....	67	2	55	2	.....
Fourth month.....	285	4	90	.....	105	2	90	2	.....
Fifth month.....	410	8	110	1	162	2	138	5	.....
Sixth month.....	470	12	118	2	188	2	164	8	.....
Seventh month.....	512	12	93	1	231	3	188	8	.....
Eighth month.....	566	3	90	.....	270	1	206	2	.....
Ninth month.....	606	5	70	.....	308	2	223	3	.....
Tenth month.....	667	8	55	.....	348	2	264	6	.....
Eleventh month.....	705	2	53	.....	371	1	281	1	.....
Twelfth month.....	755	8	46	2	408	3	301	3	.....
White mothers employed during infant's life:									
Second month.....	684	4	557	2	42	.....	85	2	.....
Third month.....	1,028	5	746	1	97	1	185	3	.....
Fourth month.....	1,192	7	745	.....	177	.....	269	7	1
Fifth month.....	1,338	8	758	1	246	2	333	5	.....
Sixth month.....	1,438	14	732	2	324	2	381	10	1
Seventh month.....	1,488	9	584	2	484	1	419	6	1
Eighth month.....	1,577	9	531	1	581	1	464	7	1
Ninth month.....	1,638	10	420	1	712	4	505	5	1
Tenth month.....	1,707	7	331	2	813	.....	562	5	1
Eleventh month.....	1,770	9	258	.....	908	1	503	8	1
Twelfth month.....	1,844	8	212	2	981	1	651	5	.....
Employed at home during infant's life—									
Second month.....	650	4	533	2	39	.....	78	2	.....
Third month.....	948	3	701	1	82	.....	165	2	.....
Fourth month.....	1,084	6	694	.....	155	.....	234	6	1
Fifth month.....	1,178	4	693	1	208	1	276	2	1
Sixth month.....	1,246	8	665	1	271	1	309	6	1
Seventh month.....	1,276	2	527	1	408	.....	340	1	1
Eighth month.....	1,336	8	474	1	483	.....	378	7	1
Ninth month.....	1,370	7	376	1	584	3	409	3	1
Tenth month.....	1,394	6	294	2	655	.....	444	4	1
Eleventh month.....	1,429	7	218	.....	730	.....	480	7	1
Twelfth month.....	1,468	5	177	1	780	.....	511	4	.....

TABLE 116.—*Infant survivors and infant deaths, by type of feeding, month of life, place of mother's employment, and color and nationality of mother; infants of mothers employed during infant's lifetime—Continued.*

Month of life of infant, and place of employment, color, and nationality of mother.	Infants of mothers employed during infant's lifetime.								
	Total.		Breast fed.		Mixed fed.		Artificially fed.		Not reported.
	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.
White mothers employed during infant's life—Con.									
Employed away from home during infant's life—									
Second month.....	34		24		3		7		
Third month.....	80	2	45		15	1	20	1	
Fourth month.....	108	1	51		22		35	1	
Fifth month.....	160	4	65		38	1	57	3	
Sixth month.....	192	6	67	1	53	1	72	4	
Seventh month.....	212	7	57	1	76	1	79	5	
Eighth month.....	241	1	57		98	1	86		
Ninth month.....	268	3	44		128	1	96	2	
Tenth month.....	313	1	37		158		118	1	
Eleventh month.....	341	2	40		178	1	123	1	
Twelfth month.....	376	3	35	1	201	1	140	1	
Native mothers employed during infant's life—									
Second month.....	282	2	220	1	16		46	1	
Third month.....	471	3	325		30	1	116	2	
Fourth month.....	565	6	336		61		168	6	
Fifth month.....	641	6	346	1	90	1	205	4	
Sixth month.....	707	6	342	1	130		235	5	
Seventh month.....	736	3	285	1	197		254	2	
Eighth month.....	787	3	262		246		279	3	
Ninth month.....	826	5	217		307	3	302	2	
Tenth month.....	871	4	172	2	366		333	2	
Eleventh month.....	907	4	131		424	1	352	3	
Twelfth month.....	947	5	105	1	465	1	377	3	
Employed at home during infant's life—									
Second month.....	268	2	210	1	15		43	1	
Third month.....	430	2	303		23		104	2	
Fourth month.....	507	5	311		52		144	5	
Fifth month.....	559	3	318	1	74	1	167	1	
Sixth month.....	602	3	312		102		188	3	
Seventh month.....	625	1	260	1	161		204		
Eighth month.....	658	3	235		202		221	3	
Ninth month.....	682	3	194		252	2	236	1	
Tenth month.....	701	4	157	2	292		252	2	
Eleventh month.....	722	3	113		341		268	3	
Twelfth month.....	749	3	89		378		282	3	
Employed away from home during infant's life—									
Second month.....	14		10		1		3		
Third month.....	41	1	22		7	1	12		
Fourth month.....	58	1	25		9		24	1	
Fifth month.....	82	3	28		16		38	3	
Sixth month.....	105	3	30	1	28		47	2	
Seventh month.....	111	2	25		36		50	2	
Eighth month.....	129		27		44		58		
Ninth month.....	144	2	23		55	1	66	1	
Tenth month.....	170		15		74		81		
Eleventh month.....	185	1	18		83	1	84		
Twelfth month.....	198	2	16	1	87	1	95		
Foreign-born mothers employed during infant's life—									
Second month.....	402	2	337	1	26		39	1	
Third month.....	557	2	421	1	67		69	1	
Fourth month.....	627	1	409		116		101	1	1
Fifth month.....	697	2	412		156	1	128	1	1
Sixth month.....	731	8	390	1	194	2	146	5	1
Seventh month.....	752	6	299	1	287	1	165	4	1
Eighth month.....	790	6	269	1	335	1	185	4	1
Ninth month.....	812	5	208	1	405	1	203	3	1
Tenth month.....	836	3	159		447		229	3	1
Eleventh month.....	863	5	127		484		251	5	1
Twelfth month.....	897	3	107	1	516		274	2	

TABLE 116.—*Infant survivors and infant deaths, by type of feeding, month of life, place of mother's employment, and color and nationality of mother; infants of mothers employed during infant's lifetime—Continued.*

Month of life of infant, and place of employment, color, and nationality of mother.	Infants of mothers employed during infant's lifetime.								
	Total.		Breast fed.		Mixed fed.		Artificially fed.		Not reported.
	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.
Foreign-born mothers employed during infant's life—Continued.									
Employed at home during infant's life—									
Second month.....	382	2	323	1	24		35	1	
Third month.....	518	1	398	1	59		61		
Fourth month.....	577	1	383		103		90	1	1
Fifth month.....	619	1	375		134		109	1	1
Sixth month.....	644	5	353	1	169	1	121	3	1
Seventh month.....	651	1	267		247		136	1	1
Eighth month.....	678	5	239	1	281		157	4	1
Ninth month.....	688	4	182	1	332	1	173	2	1
Tenth month.....	693	2	137		363		192	2	1
Eleventh month.....	707	4	105		389		212	4	1
Twelfth month.....	719	2	88	1	402		229	1	
Employed away from home during infant's life—									
Second month.....	20		14		2		4		
Third month.....	39	1	23		8		8	1	
Fourth month.....	50		26		13		11		
Fifth month.....	78	1	37		22	1	19		
Sixth month.....	87	3	37		25	1	25	2	
Seventh month.....	101	5	32	1	40	1	29	3	
Eighth month.....	112	1	30		54	1	28		
Ninth month.....	124	1	21		73		30	1	
Tenth month.....	143	1	22		84		37	1	
Eleventh month.....	156	1	22		95		39	1	
Twelfth month.....	178	1	19		114		45	1	
Jewish mothers employed during infant's life—									
Second month.....	152		134		10		8		
Third month.....	219		175		30		14		
Fourth month.....	241		155		59		26		1
Fifth month.....	255		147		75		32		1
Sixth month.....	266		135		95		35		1
Seventh month.....	269		92		135		41		1
Eighth month.....	275		80		145		49		1
Ninth month.....	281	1	54		167	1	59		1
Tenth month.....	283	1	40		175		67	1	1
Eleventh month.....	288		29		180		78		1
Twelfth month.....	293		20		187		86		
Employed at home during infant's life—									
Second month.....	150		133		10		7		
Third month.....	216		173		30		13		
Fourth month.....	237		153		59		24		1
Fifth month.....	250		145		74		30		1
Sixth month.....	260		133		94		32		1
Seventh month.....	263		90		134		38		1
Eighth month.....	269		78		144		46		1
Ninth month.....	275	1	54		165	1	55		1
Tenth month.....	276	1	40		172		63	1	1
Eleventh month.....	279		29		175		74		1
Twelfth month.....	284		20		182		82		
Employed away from home during infant's life—									
Second month.....	2		1				1		
Third month.....	3		2				1		
Fourth month.....	4		2				2		
Fifth month.....	5		2				3		
Sixth month.....	6		2		1		3		
Seventh month.....	6		2		1		3		
Eighth month.....	6		1		1		3		
Ninth month.....	6		2		2		4		
Tenth month.....	7				3		4		
Eleventh month.....	9				5		4		
Twelfth month.....	9				5		4		

TABLE 116.—*Infant survivors and infant deaths, by type of feeding, month of life, place of mother's employment, and color and nationality of mother; infants of mothers employed during infant's lifetime—Continued.*

Month of life of infant, and place of employment, color, and nationality of mother.	Infants of mothers employed during infant's lifetime.								
	Total.		Breast fed.		Mixed fed.		Artificially fed.		Not reported.
	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.		Infant survivors.
Polish mothers employed during infant's life—									
Second month.....	66	.....	54	.....	3	.....	9	.....	.....
Third month.....	85	1	63	.....	10	.....	12	1	.....
Fourth month.....	99	.....	68	.....	18	.....	13	.....	.....
Fifth month.....	125	1	77	.....	27	1	21	.....	.....
Sixth month.....	135	4	78	.....	31	1	26	3	.....
Seventh month.....	146	5	63	1	55	1	28	3	.....
Eighth month.....	161	3	66	1	69	1	26	1	.....
Ninth month.....	170	2	50	1	94	.....	26	1	.....
Tenth month.....	186	.....	43	.....	110	.....	33	.....	.....
Eleventh month.....	204	3	41	.....	126	.....	37	3	.....
Twelfth month.....	229	2	36	1	150	.....	43	1	.....
Employed at home during infant's life—									
Second month.....	55	.....	47	.....	2	.....	6	.....	.....
Third month.....	65	.....	52	.....	5	.....	8	.....	.....
Fourth month.....	73	.....	54	.....	10	.....	9	.....	.....
Fifth month.....	78	.....	54	.....	12	.....	12	.....	.....
Sixth month.....	81	1	52	.....	14	.....	15	1	.....
Seventh month.....	82	.....	40	.....	27	.....	15	.....	.....
Eighth month.....	89	2	42	1	32	.....	15	.....	.....
Ninth month.....	90	1	33	1	42	.....	15	1	.....
Tenth month.....	91	.....	25	.....	49	.....	17	.....	.....
Eleventh month.....	98	2	22	.....	57	.....	19	2	.....
Twelfth month.....	103	1	20	1	61	.....	22	.....	.....
Employed away from home during infant's life—									
Second month.....	11	.....	7	.....	1	.....	3	.....	.....
Third month.....	20	1	11	.....	5	.....	4	1	.....
Fourth month.....	26	.....	14	.....	8	.....	4	.....	.....
Fifth month.....	47	1	23	.....	15	1	9	.....	.....
Sixth month.....	54	3	26	.....	17	1	11	2	.....
Seventh month.....	64	5	23	1	28	1	13	3	.....
Eighth month.....	72	1	24	.....	37	1	11	.....	.....
Ninth month.....	80	1	17	.....	52	.....	11	1	.....
Tenth month.....	95	.....	18	.....	61	.....	16	.....	.....
Eleventh month.....	106	1	19	.....	69	.....	18	1	.....
Twelfth month.....	126	1	16	.....	89	.....	21	1	.....
Italian mothers employed during infant's life—									
Second month.....	76	.....	68	.....	6	.....	2	.....	.....
Third month.....	111	1	90	1	12	.....	9	.....	.....
Fourth month.....	126	1	92	.....	16	.....	18	1	.....
Fifth month.....	141	.....	97	.....	25	.....	19	.....	.....
Sixth month.....	149	1	96	1	29	.....	24	.....	.....
Seventh month.....	151	.....	76	.....	47	.....	28	.....	.....
Eighth month.....	159	1	64	.....	58	.....	37	1	.....
Ninth month.....	159	1	54	.....	66	.....	39	1	.....
Tenth month.....	159	.....	45	.....	72	.....	42	.....	.....
Eleventh month.....	161	2	35	.....	83	.....	43	2	.....
Twelfth month.....	163	.....	31	.....	84	.....	48	.....	.....
Employed at home during infant's life—									
Second month.....	74	.....	66	.....	6	.....	2	.....	.....
Third month.....	108	1	87	1	12	.....	9	.....	.....
Fourth month.....	122	1	90	.....	14	.....	18	1	.....
Fifth month.....	136	.....	95	.....	22	.....	19	.....	.....
Sixth month.....	144	1	94	1	26	.....	24	.....	.....
Seventh month.....	146	.....	75	.....	43	.....	28	.....	.....
Eighth month.....	153	1	62	.....	54	.....	37	1	.....
Ninth month.....	153	1	52	.....	62	.....	39	1	.....
Tenth month.....	153	.....	43	.....	68	.....	42	.....	.....
Eleventh month.....	155	2	34	.....	78	.....	43	2	.....
Twelfth month.....	156	.....	30	.....	80	.....	46	.....	.....

TABLE 116.—*Infant survivors and infant deaths, by type of feeding, month of life, place of mother's employment, and color and nationality of mother; infants of mothers employed during infant's lifetime—Continued.*

Month of life of infant, and place of employment, color, and nationality of mother.	Infants of mothers employed during infant's lifetime.								
	Total.		Breast fed.		Mixed fed.		Artificially fed.		Not reported.
	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.
Italian mothers employed during infant's life—Con.									
Employed away from home during infant's life—									
Second month.....	2		2						
Third month.....	3		3						
Fourth month.....	4		2		2				
Fifth month.....	5		2		3				
Sixth month.....	5		2		3				
Seventh month.....	5		1		4				
Eighth month.....	6		2		4				
Ninth month.....	6		2		4				
Tenth month.....	6		2		4				
Eleventh month.....	6		1		5				
Twelfth month.....	7		1		4		2		
All other foreign-born white mothers employed during infant's life—									
Second month.....	108	2	81	1	7		20	1	
Third month.....	142		93		15		34		
Fourth month.....	161		94		23		44		
Fifth month.....	176	1	91		29		56	1	
Sixth month.....	181	3	81		39	1	61	2	
Seventh month.....	186	1	68		50		68	1	
Eighth month.....	195	2	59		63		73	2	
Ninth month.....	202	1	45		78		79	1	
Tenth month.....	208	2	31		90		87	2	
Eleventh month.....	210		22		95		93		
Twelfth month.....	212	1	20		95		97	1	
Employed at home during infant's life—									
Second month.....	103	2	77	1	6		20	1	
Third month.....	129		86		12		31		
Fourth month.....	145		86		20		39		
Fifth month.....	155	1	81		26		48	1	
Sixth month.....	159	3	74		35	1	50	2	
Seventh month.....	160	1	62		43		55	1	
Eighth month.....	167	2	57		51		59	2	
Ninth month.....	170	1	43		63		64	1	
Tenth month.....	173	1	29		74		70	1	
Eleventh month.....	175		20		79		76		
Twelfth month.....	176	1	18		79		79	1	
Employed away from home during infant's life—									
Second month.....	5		4		1				
Third month.....	13		7		3		3		
Fourth month.....	16		8		3		5		
Fifth month.....	21		10		3		8		
Sixth month.....	22		7		4		11		
Seventh month.....	26		6		7		13		
Eighth month.....	28		2		12		14		
Ninth month.....	32		2		15		15		
Tenth month.....	35		2		16		17		
Eleventh month.....	35		2		16		17		
Twelfth month.....	36		2		16		18		
Colored mothers employed during infant's life—									
Second month.....	69	1	40		13		16	1	
Third month.....	254	2	114		80	1	60	1	
Fourth month.....	373	6	158	1	120	2	95	3	
Fifth month.....	483	5	175	1	152	1	126	3	
Sixth month.....	535	10	183	2	208	1	144	7	
Seventh month.....	575	7	133		267	3	175	4	
Eighth month.....	622	6	111		313	1	198	5	
Ninth month.....	645	3	80		347	1	218	2	

TABLE 116.—*Infant survivors and infant deaths, by type of feeding, month of life, place of mother's employment, and color and nationality of mother; infants of mothers employed during mother's lifetime—Concluded.*

Month of life of infant, and place of employment, color, and nationality of mother.	Infants of mothers employed during infant's lifetime.								
	Total.		Breast fed.		Mixed fed.		Artificially fed.		Not reported.
	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.	Deaths in month.	Infant survivors.
Colored mothers employed during infant's life—Con.									
Tenth month.....	678	8	54	.....	382	3	242	5	.....
Eleventh month.....	701	2	36	.....	405	1	260	1	.....
Twelfth month.....	722	6	30	1	424	3	268	2	.....
Employed at home during infant's life—									
Second month.....	43	.....	33	.....	4	.....	6	.....	.....
Third month.....	143	.....	90	.....	28	.....	25	.....	.....
Fourth month.....	196	3	119	1	37	.....	40	2	.....
Fifth month.....	233	1	130	.....	58	.....	45	1	.....
Sixth month.....	257	4	132	1	73	.....	52	3	.....
Seventh month.....	275	2	97	.....	112	1	66	1	.....
Eighth month.....	297	4	78	.....	141	1	78	3	.....
Ninth month.....	307	1	54	.....	167	.....	86	1	.....
Tenth month.....	324	1	36	.....	192	1	96	.....	.....
Eleventh month.....	337	2	23	.....	212	1	102	1	.....
Twelfth month.....	343	1	19	.....	217	1	107	.....	.....
Employed away from home during infant's life—									
Second month.....	26	1	7	.....	9	.....	10	1	.....
Third month.....	111	2	24	.....	52	1	35	1	.....
Fourth month.....	177	3	69	.....	83	2	55	1	.....
Fifth month.....	250	4	45	1	124	1	81	2	.....
Sixth month.....	278	6	51	1	135	1	92	4	.....
Seventh month.....	300	5	36	.....	155	2	109	3	.....
Eighth month.....	325	2	33	.....	172	.....	120	2	.....
Ninth month.....	338	2	26	.....	180	1	132	1	.....
Tenth month.....	354	7	18	.....	190	2	146	5	.....
Eleventh month.....	364	.....	13	.....	193	.....	158	.....	.....
Twelfth month.....	379	5	11	1	207	2	161	2	.....

TABLE 117.—*Excess mortality among infants of mothers employed during infant's lifetime, by place of employment, over mortality expected when effect of differences in type of feeding, in color and nationality and (in native white families) in earnings of father are eliminated; infants of mothers employed during infant's lifetime.*

Type of feeding and color and nationality of mother.	Deaths among infants whose mothers were employed. ¹			
	At home.		Away from home.	
	Actual deaths.	Expected deaths. ²	Actual deaths.	Expected deaths. ²
Total.....	83	96.8	68	53.8
Breast.....	14	20.5	6	4.4
Mixed.....	10	16.7	20	13.2
Artificial.....	59	59.6	42	36.2
Native white.....	32	34.9	15	8.3
Breast.....	5	5.2	2	.4
Mixed.....	3	5.0	4	1.4
Artificial.....	24	24.7	9	6.5
Foreign-born white.....	32	35.2	16	10.9
Breast.....	7	9.4	1	1.4
Mixed.....	2	5.1	4	2.7
Artificial.....	23	20.7	11	6.8
Colored.....	19	26.7	37	34.6
Breast.....	2	5.9	3	2.6
Mixed.....	5	6.6	12	9.1
Artificial.....	12	14.2	22	22.9

¹ Deaths among infants of native white mothers in families where the fathers earned nothing or the amounts were not reported are omitted from the actual and expected deaths; likewise deaths in two very small groups, 11 infants whose mothers worked away from home, in fathers' earnings groups \$850 and over, and 27 infants with mixed feeding whose mothers worked at home, in fathers' earnings groups \$1,250 and over.

² The expected deaths are calculated by applying to the months of lifetime lived by infants fed in each specified way at each age whose mothers were employed at home or away from home in each color and nativity group—for the native white group in each earnings group, and for the foreign-born white in each major nationality group—the rates which prevailed among all infants in the corresponding age, type of feeding, color, and nativity, earnings, and nationality group. These deaths were then added to form the groups shown in the table.

TABLE 118.—*Infant mortality rates, by time of mother's employment away from home, color and nativity of mother, and earnings of father; live births, all pregnancies.*

Earnings of father during year after 1915, birth and color and nativity of mother.	Live births, all pregnancies.								
	Mother never employed away. ¹			Mother employed away before marriage only.			Mother employed away after marriage.		
	Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.	
		Number.	Infant mortality rate. ²		Number.	Infant mortality rate. ²		Number.	Infant mortality rate. ²
All mothers.....	8, 181	812	99. 3	17, 491	1, 825	104. 3	9, 172	1, 521	165. 8
Earnings of father:									
Under \$550.....	2, 053	240	116. 9	3, 616	438	121. 1	4, 919	871	177. 1
\$550-\$849.....	2, 535	271	106. 9	7, 106	785	110. 5	2, 855	448	156. 9
\$850-\$1,849.....	2, 631	223	84. 8	5, 871	534	90. 9	743	91	122. 5
\$1,850 and over.....	589	28	47. 5	498	31	62. 2	47	2	.....
No earnings.....	153	19	124. 2	133	13	97. 7	397	75	188. 9
Not reported.....	220	31	140. 9	267	24	89. 9	211	34	161. 1
Native white mothers..	4, 603	452	98. 2	12, 143	1, 271	140. 7	2, 950	462	156. 6
Earnings of father:									
Under \$550.....	596	74	124. 2	1, 744	229	131. 3	1, 152	183	158. 9
\$550-\$849.....	1, 363	158	115. 9	5, 217	596	114. 2	1, 171	182	155. 4
\$850-\$1,849.....	1, 979	170	85. 9	4, 538	395	87. 0	398	53	133. 2
\$1,850 and over.....	482	27	56. 0	397	26	65. 5	13	1	.....
No earnings.....	60	7	.....	65	10	.....	134	30	223. 9
Not reported.....	123	16	130. 0	182	15	82. 4	82	13	.....
Foreign-born white mothers.....	3, 291	323	98. 2	4, 423	435	98. 3	3, 030	464	153. 1
Earnings of father:									
Under \$550.....	1, 316	148	112. 5	1, 293	133	102. 9	1, 615	268	165. 9
\$550-\$849.....	1, 078	106	98. 3	1, 645	157	95. 4	1, 032	149	144. 4
\$850-\$1,849.....	615	45	73. 2	1, 256	130	103. 5	260	27	103. 8
\$1,850 and over.....	107	1	9. 3	98	5	.....	34	1	.....
No earnings.....	88	12	.....	61	2	.....	66	11	.....
Not reported.....	87	11	.....	70	8	.....	23	8	.....
Colored mothers.....	287	37	128. 9	925	119	128. 6	3, 192	595	186. 4
Earnings of father:									
Under \$550.....	141	18	127. 7	579	76	131. 3	2, 152	420	195. 2
\$550-\$849.....	94	7	.....	244	32	131. 1	652	117	179. 4
\$850-\$1,849.....	37	8	.....	77	9	.....	85	11	.....
\$1,850 and over.....	.....	.....	.....	3	.....	.....	.....	.....	.....
No earnings.....	5	.....	.....	7	1	.....	197	34	172. 6
Not reported.....	10	4	.....	15	1	.....	106	13	122. 6

¹ Includes 12 for whom employment was not reported.² Not shown where base is less than 100.

TABLE 119.—Stillbirth rates, by time of mother's employment away from home, color and nativity of mother, and earnings of father; births, all pregnancies.

Earnings of father during year after 1915 birth and color and nativity of mother.	Births, all pregnancies.								
	Mother never employed away. ¹			Mother employed away before marriage only.			Mother employed after marriage.		
	Births.	Stillbirths.		Births.	Stillbirths.		Births.	Stillbirths.	
		Number.	Per 1,000 births. ²		Number.	Per 1,000 births. ²		Number.	Per 1,000 births. ²
All mothers.....	8,443	262	31.0	17,978	487	27.1	9,626	454	47.2
Earnings of father:									
Under \$450.....	1,187	33	27.8	1,651	58	35.1	3,164	160	50.6
\$450-\$549.....	940	41	43.6	2,085	62	29.7	2,025	110	54.3
\$550-\$649.....	952	29	30.5	2,614	65	24.9	1,557	54	34.7
\$650-\$849.....	1,644	32	19.5	4,681	124	26.5	1,410	58	41.1
\$850-\$1,849.....	2,716	85	31.3	6,024	153	25.4	777	34	43.8
\$1,850 and over.....	613	24	39.2	511	13	25.4	48	1	.....
No earnings.....	163	10	61.3	135	2	14.8	425	28	65.9
Not reported.....	228	8	35.1	277	10	36.1	220	9	40.9
Native white mothers.....	4,750	147	30.9	12,453	310	24.9	3,055	105	34.4
Earnings of father:									
Under \$450.....	242	7	28.9	640	14	21.9	670	19	28.4
\$450-\$549.....	374	13	34.8	1,146	28	24.4	519	18	34.7
\$550-\$649.....	508	10	19.7	1,779	38	21.4	571	22	38.5
\$650-\$849.....	879	14	15.9	3,571	95	26.6	644	22	34.2
\$850-\$1,849.....	2,052	73	35.6	4,655	117	25.1	414	16	38.6
\$1,850 and over.....	502	20	39.8	407	10	24.6	13	.....	.....
No earnings.....	66	6	.....	67	2	.....	141	7	49.6
Not reported.....	127	4	31.5	188	6	31.9	83	1	.....
Foreign-born white mothers.....	3,378	87	25.8	4,542	119	26.2	3,134	104	33.2
Earnings of father:									
Under \$450.....	858	13	15.2	686	17	24.8	1,017	31	30.5
\$450-\$549.....	491	20	40.7	642	18	28.0	653	24	36.8
\$550-\$649.....	421	16	38.0	696	18	25.9	584	12	20.5
\$650-\$849.....	690	17	24.6	993	26	26.2	477	17	35.6
\$850-\$1,849.....	624	9	14.4	1,289	33	25.6	272	12	44.1
\$1,850 and over.....	111	4	36.0	101	3	29.7	35	1	.....
No earnings.....	92	4	.....	61	.....	.....	72	6	.....
Not reported.....	91	4	.....	74	4	.....	24	1	.....
Colored mothers.....	315	28	88.9	983	58	59.0	3,437	245	71.3
Earnings of father:									
Under \$450.....	87	13	.....	325	27	83.1	1,477	110	74.5
\$450-\$549.....	75	8	.....	297	16	53.9	853	68	79.7
\$550-\$649.....	23	3	.....	139	9	64.7	402	20	49.8
\$650 and over.....	115	4	34.8	200	6	30.0	380	25	65.8
No earnings.....	5	.....	.....	7	.....	.....	212	15	70.8
Not reported.....	10	.....	.....	15	.....	.....	113	7	61.9

¹ Includes 12 for whom employment was not reported.
² Not shown where base is less than 100.

TABLE 120.—*Infant mortality rates, by number of births¹ to mother, her employment away from home, and color and nativity; live births, all pregnancies.*

Employment away from home, and color and nativity of mother.	Live births, all pregnancies, to mothers having specified number of births.								
	1-3.			4-6.			7 and over.		
	Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.	
		Num-ber.	Infant mor-tality rate. ²		Num-ber.	Infant mor-tality rate. ²		Num-ber.	Infant mor-tality rate. ²
All mothers.....	11,590	1,106	95.4	11,464	1,239	108.1	11,790	1,813	153.8
Not employed.....	2,259	167	73.9	2,865	247	86.2	3,045	396	130.0
Employed before marriage only.....	7,135	599	84.0	5,704	590	103.4	4,652	636	136.7
Employed after marriage.....	2,190	338	154.3	2,889	402	139.1	4,093	781	190.8
Employment not reported.....	6	2		6					
Native white mothers..	7,888	721	91.4	6,395	689	107.7	5,413	775	143.2
Not employed.....	1,652	113	68.4	1,582	154	97.3	1,360	185	136.0
Employed before marriage only.....	5,278	457	86.6	3,909	405	103.6	2,956	409	138.4
Employed after marriage.....	955	151	158.1	898	130	144.8	1,097	181	165.0
Employment not reported.....	3			6					
Foreign-born white mothers.....	2,624	237	90.3	3,677	356	96.8	4,443	629	141.6
Not employed.....	499	43	86.2	1,209	88	72.8	1,582	191	120.7
Employed before marriage only.....	1,517	109	71.9	1,465	139	94.9	1,441	187	129.8
Employed after marriage.....	607	84	138.4	1,003	129	128.6	1,420	251	176.8
Employment not reported.....	1	1							
Colored mothers.....	1,078	148	137.3	1,392	194	139.4	1,934	409	211.5
Not employed.....	108	11	101.9	74	5		103	20	194.2
Employed before marriage only.....	340	33	97.1	330	46	139.4	255	40	156.9
Employed after marriage.....	628	103	164.0	988	143	144.7	1,576	349	221.4
Employment not reported.....	2	1							

¹ Includes miscarriages.² Not shown where base is less than 100.

TABLE 121.—*Infant mortality rates (by cause of death) and stillbirth rates, by employment of mother away from home, during pregnancy and after birth, and by color and nativity of mother; births in 1915.*

Employment away from home, and color and nativity of mother.	Total births.	Stillbirths.		Live births.	Infant deaths.			
		Num-ber.	Per 1,000 births. ¹		Early infancy.		All other causes.	
					Num-ber.	Infant mortal-ity rate. ¹	Num-ber.	Infant mortal-ity rate. ¹
All mothers.....	11,195	398	35.6	10,797	407	37.7	710	65.8
Not employed.....	2,356	72	30.6	2,284	73	32.0	123	53.9
Employed before birth in 1915:								
Before marriage only.....	6,347	193	30.4	6,154	220	35.7	346	56.2
After marriage and prior to but not during pregnancy of 1915.....	1,144	43	37.6	1,101	43	39.1	84	76.3
During pregnancy of 1915.....	1,317	88	66.8	1,229	70	57.0	151	122.9
Employed only after birth in 1915.....	24	2		22			5	
Employment not reported.....	7			7	1		1	
Native white mothers.....	6,937	198	28.5	6,739	257	38.1	389	57.7
Not employed.....	1,512	43	28.4	1,469	48	32.7	72	49.0
Employed before birth in 1915:								
Before marriage only.....	4,585	127	27.7	4,458	168	37.7	250	56.1
After marriage and prior to but not during pregnancy of 1915.....	463	10	21.6	453	25	55.2	31	68.4
During pregnancy of 1915.....	366	18	49.2	348	16	46.0	33	94.8
Employed only after birth in 1915.....	7			7			3	
Employment not reported.....	4			4				
Foreign-born white mothers.....	2,837	84	29.6	2,753	85	30.9	179	65.0
Not employed.....	735	18	24.5	717	19	26.5	45	62.8
Employed before birth in 1915:								
Before marriage only.....	1,386	43	31.0	1,343	36	26.8	67	49.8
After marriage and prior to but not during pregnancy of 1915.....	387	10	25.8	377	10	26.5	28	74.3
During pregnancy of 1915.....	322	11	34.2	311	20	64.3	37	119.0
Employed only after birth in 1915.....	6	2		4			1	
Employment not reported.....	1			1			1	
Colored mothers.....	1,421	116	81.6	1,305	65	49.8	142	108.8
Not employed.....	109	11	100.9	98	6		6	
Employed before birth in 1915:								
Before marriage only.....	376	23	61.2	353	16	45.3	29	82.2
After marriage and prior to but not during pregnancy of 1915.....	294	23	78.2	271	8	29.5	25	92.3
During pregnancy of 1915.....	629	59	93.8	570	34	59.6	81	142.1
Employed only after birth in 1915.....	11			11			1	
Employment not reported.....	2			2	1			

¹ Not shown where base is less than 100.

TABLE 122.—*Excess mortality among infants of mothers employed away from home, by time of mother's employment, over mortality expected when effect of differences in number of births¹ to mother, color and nativity of mother, and earnings of father are eliminated; live births, all pregnancies.*

Employment of mother away from home before and after marriage.	Live births, all pregnancies.				
	Live births. ²	Actual deaths.		Expected deaths. ³	
		Number.	Infant mortality rate.	Number.	Infant mortality rate.
Total.....	33,463	3,962	118.4	3,960.9	118.4
Not employed after marriage.....	24,892	2,550	102.4	2,740.7	110.1
Never employed.....	7,801	762	97.7	889.5	111.5
Employed before marriage only.....	17,091	1,788	104.6	1,871.2	109.5
Employed after marriage.....	8,564	1,412	164.9	1,220.2	142.5
Employment not reported.....	7				

¹ Includes miscarriages.

² The 1,381 live births and 196 actual deaths in families where fathers earned nothing or the amounts were not reported are omitted from the computation.

³ Expected deaths are calculated by applying to the live births in each mother's employment, color and nativity, number of issues, and father's earnings group the rates prevailing among all infants (irrespective of mother's employment) in the same color and nativity, number of issues, and father's earnings group.

TABLE 123.—*Employment of mother away from home, by age of mother when she began work, and color and nativity; births (all pregnancies) to mothers employed away from home at some time prior to birth in 1915.*

Employment away from home and color and nativity of mother.	Total births.		Births, all pregnancies, to mothers who began work away from home at specified age.			
	Number.	Per cent distribution.	Under 14.		14-15.	
			Number.	Per cent distribution.	Number.	Per cent distribution.
All mothers.....	27,604	100.0	9,319	100.0	8,002	100.0
Employment away from home:						
Before marriage only.....	17,978	65.1	5,518	59.2	5,618	70.2
After marriage.....	9,626	34.9	3,801	40.8	2,384	29.8
Native white mothers.....	15,508	56.2	5,160	55.4	4,949	61.8
Employment away from home:						
Before marriage only.....	12,453	45.1	3,805	40.8	4,112	51.4
After marriage.....	3,055	11.1	1,355	14.5	837	10.5
Foreign-born white mothers.....	7,676	27.8	2,270	24.4	1,985	24.8
Employment away from home:						
Before marriage only.....	4,542	16.5	1,397	15.0	1,268	15.8
After marriage.....	3,134	11.4	873	9.4	717	9.0
Colored mothers.....	4,420	16.0	1,889	20.3	1,068	13.3
Employment away from home:						
Before marriage only.....	983	3.6	316	3.4	238	3.0
After marriage.....	3,437	12.5	1,573	16.9	830	10.4

Employment away from home and color and nativity of mother.	Births, all pregnancies, to mothers who began work away from home at specified age.						Not reported.
	16-19.		20-24.		25 and over.		
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.	
All mothers.....	7,788	100.0	1,543	100.0	729	100.0	223
Employment away from home:							
Before marriage only.....	5,810	74.6	848	55.0	66	9.1	118
After marriage.....	1,978	25.4	695	45.0	663	90.9	105
Native white mothers.....	4,367	56.1	715	46.3	227	31.1	90
Employment away from home:							
Before marriage only.....	3,889	49.9	561	36.4	33	4.5	53
After marriage.....	478	6.1	154	10.0	194	26.6	37
Foreign-born white mothers.....	2,244	28.8	672	43.6	440	60.4	65
Employment away from home:							
Before marriage only.....	1,549	19.9	255	16.5	33	4.5	40
After marriage.....	695	8.9	417	27.0	407	55.8	25
Colored mothers.....	1,177	15.1	156	10.1	62	8.5	68
Employment away from home:							
Before marriage only.....	372	4.8	32	2.1	.....	.....	25
After marriage.....	805	10.3	124	8.0	62	8.5	43

TABLE 124.—*Employment of mother during pregnancy of 1915, by place of employment, age when she began work away from home, and color and nativity; births in 1915 to mothers employed away from home at some time prior to the birth.*

Place of employment during pregnancy of 1915, and color and nativity of mother.	Total births.		Births in 1915 to mothers who began work away from home at specified age.			
	Number.	Per cent. distribution.	Under 14.		14-15.	
			Number.	Per cent. distribution.	Number.	Per cent. distribution.
All mothers.....	8,809	100.0	2,530	100.0	2,635	100.0
Not employed.....	6,192	70.3	1,595	63.0	1,919	72.8
Employed at home.....	1,299	14.7	436	17.2	359	13.6
Employed away from home.....	1,317	15.0	499	19.7	357	13.5
Employment not reported.....	1					
Native white mothers.....	5,415	100.0	1,501	100.0	1,752	100.0
Not employed.....	4,542	83.9	1,170	77.9	1,481	84.5
Employed at home.....	506	9.3	174	11.6	156	8.9
Employed away from home.....	366	6.8	157	10.5	115	6.6
Employment not reported.....	1					
Foreign-born white mothers.....	2,095	100.0	540	100.0	527	100.0
Not employed.....	1,304	62.2	335	62.0	354	67.2
Employed at home.....	469	22.4	123	22.8	115	21.8
Employed away from home.....	322	15.4	82	15.2	58	11.0
Colored mothers.....	1,299	100.0	489	100.0	356	100.0
Not employed.....	346	26.6	90	18.4	84	23.6
Employed at home.....	324	24.9	139	28.4	88	24.7
Employed away from home.....	629	48.4	260	53.2	184	51.7

Place of employment during pregnancy of 1915, and color and nativity of mother.	Births in 1915 to mothers who began work away from home at specified age.						
	16-19.		20-24.		25 and over.		Not reported.
	Number.	Per cent. distribution.	Number.	Per cent. distribution. ¹	Number.	Per cent. distribution. ¹	
All mothers.....	2,886	100.0	559	100.0	144	100.0	55
Not employed.....	2,177	75.4	396	70.8	72	50.0	33
Employed at home.....	386	13.4	86	15.4	20	13.9	12
Employed away from home.....	323	11.2	77	13.8	52	36.1	9
Employment not reported.....							1
Native white mothers.....	1,777	100.0	301	100.0	60	100.0	24
Not employed.....	1,573	88.5	259	86.0	40		19
Employed at home.....	138	7.8	27	9.0	8		3
Employed away from home.....	66	3.7	15	5.0	12		1
Employment not reported.....							1
Foreign-born white mothers.....	730	100.0	206	100.0	78	100.0	14
Not employed.....	461	63.2	114	55.3	31		9
Employed at home.....	168	23.0	48	*23.3	11		4
Employed away from home.....	101	13.8	44	21.4	36		1
Colored mothers.....	379	100.0	52	100.0	6	100.0	17
Not employed.....	143	37.7	23		1		5
Employed at home.....	80	21.1	11		1		5
Employed away from home.....	156	41.2	18		4		7

¹ Not shown where base is less than 100.

TABLE 125.—*Excess mortality and stillbirth rates among infants of mothers employed away from home, by age of mother when she began work, over average rates after effect of differences of color and nativity is eliminated; births, all pregnancies.*

Age at which mother began work away from home.	Births, all pregnancies.				
	Total.	Stillbirth rates per 1,000 births.		Infant mortality per 1,000 live births.	
		Actual.	Ex-pected. ¹	Actual.	Ex-pected. ¹
Under 14.....	9,319	36.1	35.8	139.6	127.7
14-15.....	8,002	34.5	32.9	122.6	123.7
16-19.....	7,788	30.3	33.8	106.9	125.0
20-24.....	1,543	29.8	32.0	127.6	123.2
25 and over.....	729	41.2	31.8	161.7	123.3

¹ To find expected rates, the births in each group of births to mothers employed, classified by color and nativity and by mother's age at beginning work, are multiplied by the rates prevailing among all infants in each color and nativity group; the sum of the deaths (or stillbirths) in each age of mother group is then divided by the births in that group.

TABLE 126.—*Excess mortality (by cause of death) and stillbirth rates among infants of mothers employed away from home, by age of mother when she began work, over average rates after effect of differences of color and nativity is eliminated; births in 1915.*

Age at which mother began work away from home.	Births in 1915.						
	Total.	Stillbirth rates per 1,000 births.		Infant mortality per 1,000 live births.			
		Actual.	Ex-pected. ¹	Early infancy.		All other causes.	
				Actual.	Ex-pected. ¹	Actual.	Ex-pected. ¹
Under 14.....	2,530	40.7	39.1	38.3	39.8	75.8	70.6
14-15.....	2,635	41.4	36.1	38.0	39.4	72.8	67.5
16-19.....	2,886	31.5	36.0	41.1	39.0	54.7	67.8
20-24.....	559	19.7	34.3	31.0	38.0	74.8	66.8
25 and over.....	144	34.7	27.1	57.6	33.1	64.7	60.4

¹ To find expected rates, the births in each group of births to mothers employed, classified by color and nativity and by mother's age at beginning work, are multiplied by the rates prevailing among all infants in each color and nativity group; the sum of the deaths (or stillbirths) in each age of mother group is then divided by the births in that group.

TABLE 127.—*Infant mortality rates, by literacy of mother, earnings of father, and color and nationality of mother; live births in 1915.*

Earnings of father and color and nationality of mother.	Literate mothers.			Illiterate mothers.		
	Live births.	Infant deaths.		Live births.	Infant deaths.	
		Number.	Infant mortality rate. ¹		Number.	Infant mortality rate. ¹
All mothers.....	9,746	979	100.5	1,041	136	130.6
Earnings of father:						
Under \$450.....	1,193	192	160.9	349	50	143.3
\$450-\$549.....	1,206	145	120.2	241	26	107.9
\$550-\$649.....	1,314	140	106.6	174	22	126.4
\$650-\$849.....	2,273	220	96.8	144	12	83.3
\$850-\$1,249.....	2,186	152	69.5	69	6	.....
\$1,250-\$1,849.....	773	61	78.9	17	2	.....
\$1,850 and over.....	428	16	37.4	3	.....	.....
No earnings.....	177	30	169.5	30	13	.....
Not reported.....	196	23	117.3	14	5	.....
Native white mothers.....	6,610	622	94.1	127	24	189.0
Earnings of father:						
Under \$450.....	421	68	161.5	27	6	.....
\$450-\$549.....	611	75	122.7	33	8	.....
\$550-\$649.....	883	93	105.3	25	5	.....
\$650-\$849.....	1,699	163	95.9	27	2	.....
\$850-\$1,249.....	1,790	125	69.8	11	1	.....
\$1,250 and over.....	993	66	66.5	2	1	.....
No earnings.....	88	16	.....	.....	.....	.....
Not reported.....	125	16	128.0	2	1	.....
Foreign-born white mothers.....	1,987	174	87.6	761	89	117.0
Earnings of father:						
Under \$650.....	912	94	103.1	551	62	112.5
Under \$450.....	333	48	144.1	254	37	145.7
\$450-\$549.....	278	18	64.7	170	10	58.8
\$550-\$649.....	301	28	93.0	127	15	118.1
\$650 and over.....	1,014	73	72.0	177	14	79.1
\$650-\$849.....	466	45	96.6	104	8	76.9
\$850 and over.....	548	28	51.1	73	6	.....
No earnings.....	26	3	.....	24	10	.....
Not reported.....	35	4	.....	9	3	.....
Jewish.....	791	37	46.8	169	12	71.0
Earnings of father:						
Under \$650.....	337	18	53.4	108	4	37.0
\$650 and over.....	421	15	35.6	48	4	.....
No earnings.....	17	1	.....	10	3	.....
Not reported.....	16	3	.....	3	1	.....
Polish.....	339	59	174.0	285	42	147.4
Earnings of father:						
Under \$650.....	219	37	168.9	224	34	151.8
\$650 and over.....	111	21	189.2	52	4	.....
No earnings.....	3	1	.....	7	3	.....
Not reported.....	6	.....	.....	2	1	.....
Italian.....	220	16	72.7	190	20	105.3
Earnings of father:						
Under \$650.....	114	12	105.3	141	15	106.4
\$650 and over.....	100	3	30.0	44	4	.....
No earnings.....	2	1	.....	2	.....	.....
Not reported.....	4	.....	.....	3	1	.....
All other.....	637	62	97.3	117	15	128.2
Earnings of father:						
Under \$650.....	242	27	111.6	78	9	.....
\$650 and over.....	382	34	89.0	33	2	.....
No earnings.....	4	.....	.....	5	4	.....
Not reported.....	9	1	.....	1	.....	.....
Colored mothers.....	1,149	183	159.3	153	23	150.3
Earnings of father:						
Under \$550.....	756	128	169.3	106	15	141.5
\$550 and over.....	294	41	139.5	38	4	.....
No earnings.....	63	11	.....	6	3	.....
Not reported.....	36	3	.....	3	1	.....

¹ Not shown where base is less than 100.

TABLE 128.—Relative mortality among infants of illiterate mothers when effect of differences in mother's color and nationality and father's earnings is eliminated; births in 1915 to illiterate mothers.

Color and nationality of mother.	Deaths among infants of illiterate mothers.	
	Actual. ¹	Expected. ²
Total.....	118	119.9
Native white mothers.....	23	14.9
Jewish mothers.....	8	7.2
Polish mothers.....	38	44.4
Italian mothers.....	19	18.0
All other foreign-born white mothers.....	11	12.9
Colored mothers.....	19	22.5

¹ The 44 live births and 18 actual deaths in families where the father's earnings were "none" or "not reported" are omitted in this computation.

² Expected deaths in each nationality group are the sum of the deaths found by multiplying the births (for illiterate mothers) classified by father's earnings by the rates prevailing among all infants in the corresponding nationality and earnings groups.

TABLE 129.—Infant mortality rates, by mother's ability to speak English, earnings of father, and nationality of mother; live births in 1915 to foreign-born white mothers of non-English-speaking nationalities.

Earnings of father and nationality of mother.	Live births to foreign-born white mothers of non-English-speaking nationalities.					
	Mother able to speak English.			Mother not able to speak English.		
	Live births.	Infant deaths.		Live births.	Infant deaths.	
Number.		Infant mortality rate. ¹	Number.		Infant mortality rate. ¹	
Foreign-born white mothers of non-English-speaking nationalities.....	1,594	125	78.4	1,027	124	120.7
Earnings of father:						
Under \$650.....	711	60	84.4	712	91	127.8
Under \$450.....	244	30	123.0	334	53	158.7
\$450-\$549.....	235	12	51.1	199	15	75.4
\$550-\$649.....	232	18	77.6	179	23	128.5
\$650 and over.....	825	57	69.1	279	21	75.3
\$650-\$849.....	363	33	90.9	171	13	76.0
\$850 and over.....	462	24	51.9	108	8	74.1
No earnings.....	27	3	.....	22	10	.....
Not reported.....	31	5	.....	14	2	.....
Jewish.....	786	39	49.6	175	10	57.1
Earnings of father:						
Under \$650.....	336	18	53.6	110	4	36.4
\$650 and over.....	14	16	38.6	55	3	.....
No earnings.....	19	1	.....	8	3	.....
Not reported.....	17	4	.....	2	.....	.....
Polish.....	223	39	174.9	402	63	156.7
Earnings of father:						
Under \$650.....	144	23	159.7	299	48	160.5
\$650 and over.....	72	15	.....	91	10	.....
No earnings.....	3	.....	.....	7	4	.....
Not reported.....	4	1	.....	5	1	.....
Italian.....	140	11	78.6	272	25	91.9
Earnings of father:						
Under \$650.....	72	7	.....	184	20	108.7
\$650 and over.....	66	4	.....	78	3	.....
No earnings.....	.....	.....	.....	4	1	.....
Not reported.....	2	.....	.....	6	1	.....
All other.....	170	14	82.4	132	18	136.4
Earnings of father:						
Under \$650.....	63	4	.....	91	11	.....
\$650 and over.....	100	9	90.0	37	5	.....
No earnings.....	2	1	.....	3	2	.....
Not reported.....	5	.....	.....	1	.....	.....

¹ Not shown where base is less than 100.

TABLE 130.—*Relative mortality among infants of mothers not able to speak English, as compared with mortality expected on the basis of average rates, when effect of differences in mother's color and nationality and father's earnings is eliminated; live births in 1915 to foreign-born white mothers unable to speak English.*

Nationality of mother.	Deaths among infants of foreign-born white mothers unable to speak English. ¹	
	Actual. ²	Expected. ²
Total.....	112	113.4
Jewish.....	7	8.3
Polish.....	58	62.8
Italian.....	23	23.9
All other.....	24	18.4

¹ Actual and expected deaths in families where the father's earnings were "none" or "not reported" are omitted.

² The expected deaths in each nationality group are the sum of the deaths found by multiplying the births (to mothers unable to speak English) classified by father's earnings by the mortality rates for all infants in the corresponding nationality and earnings group.

TABLE 131.—*Prevalence of infant-welfare work, by ability of mother to speak English and nationality; infants born to Jewish, Polish, and Italian mothers and surviving two weeks.*

Ability to speak English and nationality of mother.	Total infants surviving two weeks.	Infants surviving 2 weeks and having specified postnatal care (institutional).			
		Care graded as better than poor.		No care.	
		Number.	Per cent.	Number.	Per cent.
Jewish:					
Able to speak English.....	768	177	23.0	439	57.2
Not able to speak English.....	169	53	31.4	75	44.4
Italian:					
Able to speak English.....	134	30	22.4	84	62.7
Not able to speak English.....	262	24	9.2	184	70.2
Polish:					
Able to speak English.....	210	14	6.7	156	74.3
Not able to speak English.....	388	20	5.2	308	79.4

TABLE 132.—*Infant mortality and stillbirth rates, by order of birth; births in 1915, and births, all pregnancies.*

Order of birth. ¹	Births in 1915.						Births, all pregnancies.					
	Births.	Stillbirths.		Live births.	Infant deaths.		Births.	Stillbirths.		Live births.	Infant deaths.	
		Number.	Per 1,000 births.		Number.	Infant mortality rate.		Number.	Per 1,000 births.		Number.	Infant mortality rate.
Total.....	11, 195	398	35. 6	10, 797	1, 117	103. 5	36, 047	1, 203	33. 4	34, 844	4, 158	119. 3
First.....	2, 999	131	43. 7	2, 868	272	94. 8	10, 754	427	39. 7	10, 327	1, 196	115. 8
Second.....	2, 471	62	25. 1	2, 409	223	92. 6	7, 698	198	25. 7	7, 500	770	102. 7
Third.....	1, 525	44	28. 9	1, 481	136	91. 8	5, 279	149	28. 2	5, 130	572	111. 5
Fourth.....	1, 164	37	31. 8	1, 127	120	106. 5	3, 812	111	29. 1	3, 701	470	127. 0
Fifth and sixth.....	1, 503	54	35. 9	1, 449	157	108. 4	4, 684	156	33. 3	4, 528	591	130. 5
Seventh to ninth.....	1, 058	42	39. 7	1, 016	129	127. 0	2, 884	109	37. 8	2, 775	395	142. 3
Tenth and later.....	475	28	58. 9	447	80	179. 0	936	53	56. 6	883	164	185. 7

¹ "Order of birth" means order of issue for births in 1915 and order of pregnancy for births, all pregnancies.

TABLE 133.—*Infant mortality and stillbirth rates, by order of birth and color of mother; single births in 1915, and single births, all pregnancies, to mothers who reported no plural births.*

Order of birth ¹ and color of mother.	Single births in 1915.						Births, all pregnancies to mothers who reported no plural births.					
	Births.	Stillbirths.		Live births.	Infant deaths.		Births.	Stillbirths.		Live births.	Infant deaths.	
		Number.	Per 1,000 births.		Number.	Infant mortality rate.		Number.	Per 1,000 births.		Number.	Infant mortality rate.
All mothers.....	10, 915	378	34. 6	10, 537	1, 023	97. 1	33, 612	1, 089	32. 4	32, 523	3, 671	112. 9
Order of birth:												
First.....	2, 956	126	42. 6	2, 830	259	91. 1	10, 330	398	38. 5	9, 932	1, 114	112. 2
Second and third.....	3, 910	103	26. 3	3, 807	334	87. 7	12, 246	322	26. 3	11, 924	1, 208	101. 3
Fourth to sixth.....	2, 570	84	32. 7	2, 486	241	96. 9	7, 740	234	30. 2	7, 506	900	119. 9
Seventh to ninth.....	1, 032	42	40. 7	990	120	121. 2	2, 531	92	36. 3	2, 439	323	132. 4
Tenth and later.....	447	23	51. 5	424	69	162. 7	765	43	56. 2	722	126	174. 5
White mothers.....	9, 529	269	28. 2	9, 260	834	90. 1	29, 205	783	26. 8	28, 422	3, 000	105. 6
Order of birth:												
First.....	2, 699	98	36. 3	2, 601	223	85. 7	9, 184	304	33. 1	8, 880	966	108. 8
Second and third.....	3, 443	75	21. 8	3, 368	268	79. 6	10, 730	220	20. 5	10, 510	984	93. 6
Fourth to sixth.....	2, 189	56	25. 6	2, 133	193	90. 5	6, 631	169	25. 5	6, 462	714	110. 5
Seventh to ninth.....	852	27	31. 7	825	96	116. 4	2, 079	62	29. 8	2, 017	244	121. 0
Tenth and later.....	346	13	37. 6	333	54	162. 2	581	28	48. 2	553	92	166. 4
Colored mothers.....	1, 386	109	78. 6	1, 277	189	148. 0	4, 407	306	69. 4	4, 101	671	163. 6
Order of birth:												
First.....	257	28	108. 9	229	36	157. 2	1, 146	94	82. 0	1, 052	148	140. 7
Second and third.....	467	28	60. 0	439	66	150. 3	1, 516	102	67. 3	1, 414	224	158. 4
Fourth to sixth.....	381	28	73. 5	353	48	136. 0	1, 109	65	58. 6	1, 044	186	178. 2
Seventh to ninth.....	180	15	83. 3	165	24	145. 5	452	30	66. 4	422	79	187. 2
Tenth and later.....	101	10	99. 0	91	15	164. 8	184	15	81. 5	169	34	201. 2

¹ "Order of birth" means order of issue for births in 1915 and order of pregnancy for births, all pregnancies.

TABLE 134.—Stillbirth rates, by number of births¹ to mothers, order of pregnancy, and color of mother; single births, all pregnancies, to mothers who reported no plural births.

Order of pregnancy and color of mother. ²	Total.			Single births, all pregnancies, to mothers who reported no plural births and who reported specified number of total births. ¹					
				1-3.			4-6.		
	Births.	Stillbirths.		Births.	Stillbirths.		Births.	Stillbirths.	
		Number.	Per 1,000 births.		Number.	Per 1,000 births.		Number.	Per 1,000 births.
All mothers.....	33,612	1,089	32.4	11,855	408	34.4	11,226	320	28.5
Order of pregnancy:									
First.....	10,330	398	38.5	6,691	271	40.5	2,385	88	36.9
Second.....	7,312	186	25.4	3,750	98	26.1	2,342	53	22.6
Third.....	4,934	136	27.6	1,414	39	27.6	2,316	57	24.6
Fourth to sixth.....	7,740	234	30.2	.....	.....	.....	4,183	122	29.2
Seventh to ninth.....	2,531	92	36.3	.....	.....	.....	.....	.....	.....
Tenth and later.....	765	43	56.2	.....	.....	.....	.....	.....	.....
White mothers.....	29,205	783	26.8	10,689	311	29.1	9,802	228	23.3
Order of pregnancy:									
First.....	9,184	304	33.1	6,060	209	34.5	2,083	67	32.2
Second.....	6,438	130	20.2	3,372	71	21.1	2,046	34	16.6
Third.....	4,292	90	21.0	1,257	31	24.7	2,021	38	18.8
Fourth to sixth.....	6,631	169	25.5	.....	.....	.....	3,652	89	24.4
Seventh to ninth.....	2,079	62	29.8	.....	.....	.....	.....	.....	.....
Tenth and later.....	581	28	48.2	.....	.....	.....	.....	.....	.....

Order of pregnancy and color of mother. ²	Single births, all pregnancies, to mothers who reported no plural births and who reported specified number of total births. ¹					
	7-9.			10 and over.		
	Births.	Stillbirths.		Births.	Stillbirths.	
		Number.	Per 1,000 births.		Number.	Per 1,000 births.
All mothers.....	6,882	206	29.9	3,649	155	42.5
Order of pregnancy:						
First.....	915	27	29.5	339	12	35.4
Second.....	891	23	25.8	329	12	36.5
Third.....	888	26	29.3	316	14	44.3
Fourth to sixth.....	2,597	82	31.6	960	30	31.3
Seventh to ninth.....	1,591	48	30.2	940	44	46.8
Tenth and later.....	.....	.....	.....	765	43	56.2
White mothers.....	5,900	151	25.6	2,814	93	33.0
First.....	781	21	26.9	260	7	26.9
Second.....	763	18	23.6	257	7	27.2
Third.....	766	14	18.3	248	7	28.2
Fourth to sixth.....	2,236	63	28.2	743	17	22.9
Seventh to ninth.....	1,354	35	25.8	725	27	37.2
Tenth and later.....	.....	.....	.....	581	28	48.2

¹ Includes miscarriages.² The figures and rates for infants of colored mothers are not given separately, since the groups are too small to yield satisfactory comparison.

TABLE 135.—*Infant mortality rates, by number of births¹ to mother, order of pregnancy, and color of mother; single live births, all pregnancies, to mothers who reported no plural births.*

Order of pregnancy and color of mother. ²	Total.			Live births, all pregnancies, to mothers who reported no plural births and who reported specified number of total births. ¹					
	Live births.	Infant deaths.		1-3			4-6		
		Number.	Infant mortality rate.	Live births.	Infant deaths.		Live births.	Infant deaths.	
					Number.	Infant mortality rate.		Number.	Infant mortality rate.
All mothers.....	32,523	3,671	112.9	11,447	1,059	92.5	10,906	1,135	104.1
Order of pregnancy:									
First.....	9,932	1,114	112.2	6,420	637	99.2	2,297	283	123.2
Second.....	7,126	696	97.7	3,652	304	83.2	2,289	212	92.6
Third.....	4,798	512	106.7	1,375	118	85.8	2,259	219	96.9
Fourth to sixth.....	7,506	900	119.9	.....	.....	.....	4,061	421	103.7
Seventh to ninth.....	2,439	323	132.4	.....	.....	.....	.....	.....	.....
Tenth and later.....	722	126	174.5	.....	.....	.....	.....	.....	.....
White mothers.....	28,422	3,000	105.6	10,378	914	88.1	9,574	957	100.0
Order of pregnancy:									
First.....	8,880	966	108.8	5,851	565	96.6	2,016	246	122.0
Second.....	6,308	571	90.5	3,301	255	77.2	2,012	176	87.5
Third.....	4,202	413	98.3	1,226	94	76.7	1,983	184	92.8
Fourth to sixth.....	6,462	714	110.5	.....	.....	.....	3,563	351	98.5
Seventh to ninth.....	2,017	244	121.0	.....	.....	.....	.....	.....	.....
Tenth and later.....	553	92	166.4	.....	.....	.....	.....	.....	.....

Order of pregnancy and color of mother. ²	Live births, all pregnancies, to mothers who reported no plural births and who reported specified number of total births. ¹								
	Live births.	7-9			10 and over.				
		Number.	Infant mortality rate.	Live births.	Infant deaths.		Live births.	Infant deaths.	
					Number.	Infant mortality rate.		Number.	Infant mortality rate.
All mothers.....	6,676	890	133.3	3,494	587	168.0			
Order of pregnancy:									
First.....	888	133	149.8	327	61	186.5			
Second.....	868	123	141.7	317	57	179.8			
Third.....	862	126	146.2	302	49	162.2			
Fourth to sixth.....	2,515	319	126.8	930	160	172.0			
Seventh to ninth.....	1,543	189	122.5	896	134	149.6			
Tenth and later.....	.....	.....	.....	722	126	174.5		
White mothers.....	5,749	715	124.4	2,721	414	152.1			
Order of pregnancy:									
First.....	760	110	144.7	253	45	177.9			
Second.....	745	99	132.9	250	41	164.0			
Third.....	752	99	131.6	241	36	149.4			
Fourth to sixth.....	2,173	253	116.4	726	110	151.5			
Seventh to ninth.....	1,319	154	116.8	698	90	128.9			
Tenth and later.....	.....	.....	.....	553	92	166.4		

¹ Includes miscarriages

² The figures and rates for infants of colored mothers are not given separately, since the groups are too small to yield satisfactory comparisons.

TABLE 136.—*Excess mortality among infants of mothers reporting large numbers of births¹ over mortality expected at average rates when effect of differences in color and nativity and father's earnings is eliminated; live births, all pregnancies.*

Number of births ¹ to mother.	Live births, all pregnancies.				
	Total.	Actual deaths. ²		Expected deaths. ³	
		Number.	Infant mortality rate.	Number.	Infant mortality rate.
Total.....	33,463	3,962	118.4	3,962.1	118.4
1 to 3.....	11,138	1,038	93.2	1,263.5	113.4
4 to 6.....	10,996	1,182	107.5	1,300.4	118.3
7 to 9.....	7,112	990	139.2	866.4	121.8
10 and over.....	4,217	752	178.3	531.8	126.1

¹ Includes miscarriages.

² Births and actual and expected deaths in families where the earnings of the father were "none" or "not reported" are omitted from this comparison.

³ The expected deaths in each number of issues to mother group are the sum of the deaths found by multiplying the live births (to mothers with specified number of issues), classified by color and nativity of mother and by earnings of father, by the average rates of mortality prevailing among all infants in the corresponding color and nativity and earnings groups.

TABLE 137.—*Infant mortality rates, by order of birth and earnings of father; single live births in 1915 and all live births, all pregnancies.*

Order of birth. ¹	Live births in families where fathers earned specified amount during year after birth in 1915.								
	Under \$550.			\$550-\$849.			\$850 and over.		
	Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.	
Number.		Infant mortality rate.	Number.		Infant mortality rate.	Number.		Infant mortality rate.	
Single births in 1915.									
Total.....	2,914	380	130.4	3,814	356	93.3	3,393	216	63.7
First.....	632	81	128.2	1,079	92	85.3	1,003	68	67.8
Second.....	578	69	119.4	849	77	90.7	847	47	55.5
Third.....	382	42	109.9	502	45	89.6	495	30	60.6
Fourth.....	328	43	131.1	394	36	91.4	340	20	58.8
Fifth and sixth.....	451	56	124.2	504	44	87.3	372	22	59.1
Seventh to ninth.....	377	62	164.5	347	34	98.0	234	19	81.2
Tenth and later.....	166	27	162.7	139	28	201.4	102	10	98.0
Births, all pregnancies.									
Total.....	10,588	1,549	146.3	12,496	1,504	120.4	10,379	909	87.6
First.....	2,741	382	139.4	3,795	460	121.2	3,385	295	87.1
Second.....	2,132	284	133.2	2,707	294	108.6	2,366	154	65.1
Third.....	1,563	205	131.2	1,828	207	113.2	1,538	133	86.5
Fourth.....	1,215	187	153.9	1,310	163	124.4	1,029	99	96.2
Fifth and sixth.....	1,562	226	144.7	1,597	214	134.0	1,175	122	103.8
Seventh to ninth.....	1,049	195	185.9	960	115	119.8	665	71	106.8
Tenth and later.....	326	70	214.7	299	51	170.6	221	35	158.4

¹ "Order of birth" means order of issue births in 1915 and order of pregnancy for births, all pregnancies.

TABLE 138.—*Infant mortality rates, by order of birth,¹ earnings of father, and color and nativity of mother; single live births in 1915.*

Earnings of father and color and nativity of mother.	Single live births of specified order of birth. ¹								
	First to third.			Fourth to sixth.			Seventh and later.		
	Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.	
		Number.	Infant mortality rate. ²		Number.	Infant mortality rate. ²		Number.	Infant mortality rate. ²
Native white mothers..	4,567	372	81.5	1,364	128	93.8	641	85	132.6
Earnings of father:									
Under \$550.....	667	84	125.9	235	31	131.9	153	25	163.4
\$550-\$849.....	1,765	145	82.2	557	55	98.7	249	36	144.6
\$850-\$1,249.....	1,247	72	57.7	354	23	65.0	160	19	118.8
\$1,250 and over.....	735	49	66.7	175	12	68.6	62	3	.....
No earnings.....	65	11	.....	15	5	.....	8	.....	.....
Not reported.....	88	11	.....	28	2	.....	9	2	.....
Foreign-born white mothers.....	1,402	119	84.9	769	65	84.5	517	65	125.7
Earnings of father:									
Under \$550.....	491	42	85.5	306	33	107.8	214	34	158.9
\$550-\$849.....	529	50	94.5	270	20	74.1	178	19	106.7
\$850 and over.....	328	17	51.8	171	7	40.9	108	6	55.6
No earnings.....	26	7	.....	11	4	.....	11	2	.....
Not reported.....	28	3	.....	11	1	.....	6	4	.....
Colored mothers.....	668	102	152.7	353	48	136.0	256	39	152.3
Earnings of father:									
Under \$550.....	434	66	152.1	238	35	147.1	176	30	170.5
\$550 and over.....	171	26	152.0	83	5	.....	65	8	.....
No earnings.....	40	7	.....	22	6	.....	7	1	.....
Not reported.....	23	3	.....	10	2	.....	8	.....	.....

¹ Includes miscarriages.² Not shown where base is less than 100.TABLE 139.—*Infant mortality rates, by order of birth,¹ earnings of father (detailed groups); single live births in 1915 to native white mothers.*

Earnings of father.	Single live births of specified order of birth. ¹					
	First to sixth.			Seventh and later.		
	Live births.	Infant deaths.		Live births.	Infant deaths.	
		Number.	Infant mortality rate. ²		Number.	Infant mortality rate. ²
Total.....	5,931	500	84.3	641	85	132.6
Under \$450.....	364	54	148.4	73	13	.....
\$450-\$549.....	538	61	113.4	80	12	.....
\$550-\$649.....	792	72	90.9	94	13	.....
\$650-\$849.....	1,530	123	83.7	155	23	148.4
\$850-\$1,249.....	1,601	95	59.3	160	19	118.8
\$1,250-\$1,849.....	569	47	82.6	44	3	.....
\$1,850 and over.....	341	14	41.1	18	.....	.....
No earnings.....	80	16	.....	8	.....	.....
Not reported.....	116	13	112.1	9	2	.....

¹ Includes miscarriages.² Not shown where base is less than 100.

TABLE 140.—*Premature birth, by order of birth; ¹ live births in 1915.*

Order of birth. ¹	Live births in 1915.			Order of birth. ¹	Live births in 1915.		
	Total.	Premature.			Total.	Premature.	
		Number.	Per cent. ²			Number.	Per cent. ²
Total.....	10,797	591	5.5	Sixth.....	631	28	4.4
First.....	2,868	230	8.0	Seventh.....	440	16	3.6
Second.....	2,409	128	5.3	Eighth.....	337	15	4.5
Third.....	1,481	69	4.7	Ninth.....	239	13	5.4
Fourth.....	1,127	41	3.6	Tenth.....	172	8	4.7
Fifth.....	818	22	2.7	Eleventh.....	90	4	.....
				Twelfth and later..	185	17	9.2

¹ Includes miscarriages.² Not shown where base is less than 100.TABLE 141.—*Premature birth, by interval since preceding birth; ¹ live births in 1915, second and later in order of birth.¹*

Interval since preceding birth. ¹	Live births in 1915, second and later in order of birth. ¹		
	Total.	Premature.	
		Number.	Per cent. ²
Total.....	7,929	361	4.6
1 year.....	2,072	132	6.4
2 years.....	2,950	105	3.6
3 years.....	1,364	50	3.7
4 years and over	1,496	69	4.6
Not reported.....	47	5	.....

¹ Includes miscarriages.² Not shown where base is less than 50.TABLE 142.—*Infant mortality (specified causes) and stillbirth rates, by order of birth; ¹ single births in 1915.*

Order of birth.	Single births in 1915.									
	Total.	Stillbirths.		Live births.	Infant deaths.					
		Number.	Per 1,000 births.		Total.		Early infancy.		All other causes.	
					Number.	Infant mortality rate.	Number.	Infant mortality rate.	Number.	Infant mortality rate.
Total.....	10,915	378	34.6	10,537	1,023	97.1	357	33.9	666	63.2
First.....	2,956	126	42.6	2,830	259	91.5	104	36.7	155	54.8
Second.....	2,432	60	24.7	2,372	208	87.7	85	35.8	123	51.9
Third.....	1,478	43	29.1	1,435	126	87.8	52	36.2	74	51.6
Fourth.....	1,129	34	30.1	1,095	104	95.0	25	22.8	79	72.1
Fifth and sixth.....	1,441	50	34.7	1,391	137	98.5	37	26.6	100	71.9
Seventh to ninth.....	1,032	42	40.7	990	120	121.2	32	32.3	88	88.9
Tenth and later.....	447	23	51.5	424	69	162.7	22	51.9	47	110.8

¹ Includes miscarriages.

TABLE 143.—*Infant mortality rates, by age, color, and nativity of mother; live births in 1915 and live births, all pregnancies.*

Age of mother.	Total.			Live births to mothers of specified color and nativity.								
				Native white.			Foreign-born white.			Colored.		
	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.		
	Live births.	Number.		Mortality rate. ¹	Number.		Mortality rate. ¹	Live births.		Number.	Mortality rate. ¹	Live births.	Number.	Mortality rate.^{1}
Births in 1915.												
Total.....	10,797	1,117	103.5	6,739	646	95.9	2,753	264	95.9	1,305	207	158.6
Under 20.....	947	120	126.7	666	77	115.6	111	17	153.2	170	26	152.9
20-24.....	3,283	336	102.3	2,195	208	94.8	662	50	75.5	426	78	183.1
25-29.....	2,987	270	90.4	1,890	154	81.5	795	73	91.8	302	43	142.4
30-34.....	1,958	187	95.5	1,132	104	91.9	608	51	83.9	218	32	146.8
35 and over.....	1,618	203	125.5	856	103	120.3	576	72	125.0	186	28	150.5
35-39.....	1,206	153	126.9	630	77	122.2	432	55	127.3	144	21	145.8
40 and over.....	412	50	121.4	226	26	115.1	144	17	118.1	42	7	.....
Not reported.....	4	1	.....	.....	.....	.....	1	1	.....	3	.....	.....
Births, all pregnancies.												
Total.....	34,844	4,158	119.3	19,696	2,185	110.9	10,744	1,222	113.7	4,404	751	170.5
Under 20.....	4,105	608	148.1	2,507	343	136.8	780	125	160.3	818	140	171.1
20-24.....	12,583	1,492	118.6	7,370	812	110.2	3,652	406	111.2	1,561	274	175.5
25-29.....	9,851	1,061	107.7	5,513	550	99.8	3,281	334	101.8	1,057	177	167.5
30-34.....	5,441	614	112.8	2,817	284	100.8	1,989	219	110.1	635	111	174.8
35 and over.....	2,807	358	127.5	1,472	185	125.7	1,018	126	123.8	317	47	148.3
35-39.....	2,281	289	126.7	1,189	152	127.8	833	103	123.6	259	34	131.3
40 and over.....	526	69	131.2	283	33	116.6	185	23	124.3	58	13	.....
Not reported.....	57	25	.....	17	11	.....	24	12	.....	16	2	.....

¹ Not shown where base is less than 100.

TABLE 144.—*Stillbirth rates, by age, color, and nativity of mother; births in 1915.*

Age of mother.	Births to mothers of specified color and nativity.											
	Total.			Native white.			Foreign-born white.			Colored.		
	Stillbirths.		Births.	Stillbirths.		Births.	Stillbirths.		Births.	Stillbirths.		
	Number.	Per 1,000 births. ¹		Number.	Per 1,000 births. ¹		Number.	Per 1,000 births. ¹		Number.	Per 1,000 births. ¹	
Total....	11,195	398	35.6	6,937	198	28.5	2,837	84	29.6	1,421	116	81.6
Under 20.....	995	48	48.2	688	22	32.0	116	5	43.1	191	21	109.9
20-24.....	3,382	99	29.3	2,251	56	24.9	676	14	20.7	455	29	63.7
25-29.....	3,087	100	32.4	1,942	52	26.8	820	25	30.5	325	23	70.8
30-34.....	2,029	71	35.0	1,162	30	25.8	622	14	22.5	245	27	110.2
35 and over.....	1,698	80	47.1	894	38	42.5	602	26	43.2	202	16	79.2
35-39.....	1,250	53	42.1	660	30	45.5	447	15	33.6	152	8	52.6
40 and over.....	439	27	61.5	234	8	34.2	155	11	71.0	50	8	.....
Not reported.....	4	.....	.....	.....	.....	.....	1	.....	.....	3	.....	.....

¹ Not shown where base is less than 100.

TABLE 145.—*Stillbirth rates, by age of mother and earnings of father; single births in 1915 and all births, all pregnancies.*

Age of mother.		Births in families where fathers earned specified amount during year after birth in 1915.								
		Under \$550.			\$550-\$849			\$850 and over.		
		Stillbirths.		Births.	Stillbirths.		Births.	Stillbirths.		
		Births.	Number.		Per 1,000 births. ¹	Births.		Number.	Per 1,000 births. ¹	Births.	Number.	Per 1,000 births.^{1}
Single births in 1915.										
Total.....	3,054	140	45.8	3,936	122	31.0	3,487	94	27.0	
Under 20.....	379	24	63.3	394	10	25.4	172	10	58.1	
20-24.....	923	35	37.9	1,302	33	25.3	949	18	19.0	
25-29.....	737	35	47.5	1,056	33	31.3	1,101	25	22.7	
30-34.....	494	28	56.7	653	21	32.2	744	19	25.5	
35 and over.....	517	18	34.8	531	25	47.1	521	22	42.2	
Not reported.....	4									
Births, all pregnancies.										
Total.....	11,052	464	42.0	12,858	362	28.2	10,689	310	29.0	
Under 20.....	1,628	88	54.1	1,609	45	28.0	859	30	34.9	
20-24.....	3,948	161	40.8	4,833	117	24.2	3,680	97	26.4	
25-29.....	2,858	107	37.4	3,552	92	25.9	3,360	96	28.6	
30-34.....	1,668	64	38.4	1,854	63	34.0	1,881	52	27.6	
35 and over.....	908	36	39.6	997	41	41.1	891	31	34.8	
Not reported.....	42	8		13	4		18	4		

¹ Not shown where base is less than 100.

TABLE 146.—*Infant mortality rates, by age of mother and earnings of father; single live births in 1915 and all live births, all pregnancies.*

Age of mother.	Live births in families where fathers earned specified amount during year after birth in 1915.								
	Under \$550.			\$550-\$849.			\$850 and over.		
	Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.	
		Number.	Infant mortality rate. ¹		Number.	Infant mortality rate. ¹		Number.	Infant mortality rate. ¹
Single births in 1915.									
Total.....	2,914	380	130.4	3,814	356	93.3	3,393	216	63.7
Under 20.....	355	52	146.5	384	43	112.0	162	10	61.7
20-24.....	888	115	129.5	1,269	103	81.2	931	68	73.0
25-29.....	702	82	116.8	1,023	90	88.0	1,076	56	52.0
30-34.....	466	56	120.2	632	56	88.6	725	47	64.8
35 and over.....	499	74	148.3	506	64	126.5	499	35	70.1
Not reported.....	4	1							
All births, all pregnancies.									
Total.....	10,588	1,549	146.3	12,496	1,504	120.4	10,379	909	87.6
Under 20.....	1,540	261	169.5	1,564	239	152.8	829	80	96.5
20-24.....	3,787	552	145.8	4,716	537	113.9	3,583	335	93.5
25-29.....	2,751	371	134.9	3,460	392	113.3	3,264	249	76.3
30-34.....	1,604	223	139.0	1,791	214	119.5	1,829	149	81.5
35 and over.....	872	132	151.4	956	116	121.3	860	87	101.2
Not reported.....	34	10		9	6		4	9	

¹Not shown where base is less than 100.TABLE 147.—*Infant mortality rates from specified causes, by age of mother; single live births in 1915.*

Age of mother.	Single live births in 1915.						
	Total.	Infant deaths.					
		Total.	Infant mortality rate. ¹	Early infancy.		All other causes.	
				Number.	Infant mortality rate. ¹	Number.	Infant mortality rate. ¹
Total.....	10,537	1,023	97.1	357	33.9	666	63.2
Under 20.....	940	114	121.3	45	47.9	69	73.4
20-24.....	3,224	309	95.8	101	31.3	208	64.5
25-29.....	2,910	242	83.2	94	32.3	148	50.9
30-34.....	1,896	169	89.1	54	28.5	115	60.7
35 and over.....	1,563	188	120.3	62	39.7	126	80.6
35-39.....	1,164	141	121.1	48	41.2	93	79.9
40 and over.....	399	47	117.8	14	35.1	33	82.7
Not reported.....	4	1		1			

¹Not shown where base is less than 100.

TABLE 148.—*Premature births, by age, color, and nativity of mother; live births in 1915.*

Age of mother.	Live births to mothers of specified color and nativity.								
	Native white.			Foreign-born white.			Colored.		
	Total live births.	Premature live births.		Total live births.	Premature live births.		Total live births.	Premature live births.	
		Number.	Per cent. ¹		Number.	Per cent. ¹		Number.	Per cent. ¹
Total.....	6,739	415	6.2	2,753	97	3.5	1,305	79	6.1
Under 20.....	666	59	8.9	111	8	7.2	170	14	8.2
20-24.....	2,195	147	6.7	662	21	3.2	426	29	6.8
25-29.....	1,890	103	5.4	795	31	3.9	302	15	5.0
30-34.....	1,132	61	5.4	608	16	2.6	218	10	4.6
35 and over.....	856	45	5.3	576	21	3.6	186	10	5.4
35-39.....	630	36	5.7	432	15	3.5	144	6	4.2
40 and over.....	226	9	4.0	144	6	4.2	42	4	.....
Not reported.....	.....	.....	.....	1	.....	.....	3	1	.....

¹ Not shown where base is less than 100.TABLE 149.—*Stillbirth rates, by order of birth and age of mother; births in 1915, and births, all pregnancies.*

Age of mother.	Births of specified order of birth. ¹											
	First.			Second and third.			Fourth to sixth.			Seventh and later.		
	Births.	Stillbirths.		Births.	Stillbirths.		Births.	Stillbirths.		Births.	Stillbirths.	
		Number.	Per 1,000 births. ²		Number.	Per 1,000 births. ²		Number.	Per 1,000 births. ²		Number.	Per 1,000 births. ²
Births in 1915.												
Total.....	2,999	131	43.7	3,996	106	26.5	2,667	91	34.1	1,533	70	45.7
Under 20.....	741	35	47.2	246	12	48.8	8	1	.....	.....	.....	.....
20-24.....	1,449	53	36.6	1,588	35	22.0	337	11	32.6	8	.....	.....
25-29.....	561	26	46.3	1,409	33	23.4	966	34	35.2	151	7	46.4
30-34.....	187	16	85.6	546	14	25.6	853	23	27.0	443	18	40.6
35 and over.....	61	1	.....	207	12	58.0	500	22	44.0	930	45	48.8
35-39.....	54	1	.....	176	11	62.5	408	18	44.1	621	23	37.0
40 and over.....	7	.....	.....	31	1	.....	92	4	.....	309	22	71.2
Not reported.....	.....	.....	.....	.....	.....	.....	3	.....	.....	1	.....	.....
Births, all pregnancies.												
Total.....	10,754	427	39.7	12,977	347	26.7	8,496	267	31.4	3,820	162	42.4
Under 20.....	3,181	117	36.8	1,054	51	48.4	41	3	.....	.....	.....	.....
20-24.....	5,371	197	36.7	6,197	154	24.9	1,367	40	29.3	41	2	.....
25-29.....	1,681	73	43.4	4,153	90	21.7	3,755	120	32.0	571	26	45.5
30-34.....	414	33	79.7	1,228	29	23.6	2,490	74	29.7	1,502	57	37.9
35 and over.....	99	5	.....	316	15	47.5	817	27	33.0	1,696	74	43.6
35-39.....	89	4	.....	277	13	46.9	709	22	31.0	1,293	48	37.1
40 and over.....	10	1	.....	39	2	.....	108	5	46.3	403	26	64.5
Not reported.....	8	2	.....	29	8	.....	26	3	.....	10	3	.....

¹ "Order of birth" means order of issue for births in 1915, and order of pregnancy for births, all pregnancies.² Not shown where base is less than 100.

TABLE 150.—*Infant mortality rates, by order of birth and age of mother; live births in 1915, and live births, all pregnancies.*

Age of mother.	Births of specified order of birth. ¹														
	First.			Second and third.			Fourth to sixth.			Seventh to ninth.			Tenth and later.		
	Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.	
		Num-ber.	Infant mor-tality rate. ²		Num-ber.	Infant mor-tality rate. ²		Num-ber.	Infant mor-tality rate. ²		Num-ber.	Infant mor-tality rate. ²		Num-ber.	Infant mor-tality rate. ²
Births in 1915.															
Total.....	2,868	272	94.8	3,890	359	92.3	2,576	277	107.5	1,016	129	127.0	447	80	179.0
Under 20.....	706	79	111.9	234	38	162.4	7	3	.....	.....	.....	.....	.....	.....	.....
20-24.....	1,396	125	89.5	1,553	160	103.0	326	47	144.2	8	4	.....	.....	.....	.....
25-29.....	535	44	82.2	1,376	95	69.0	932	102	109.4	139	29	208.6	5	.....	.....
30-34.....	171	14	81.9	532	45	84.6	830	76	91.6	350	36	102.9	75	16	.....
35 and over.....	60	10	.....	195	21	107.7	478	48	100.4	518	60	115.8	367	64	174.4
35-39.....	53	8	.....	165	18	109.1	390	41	105.1	396	45	113.6	202	41	203.0
40 and over.....	7	2	.....	30	3	.....	88	7	.....	122	15	123.0	165	23	139.4
Not reported.....	.....	.....	.....	.....	.....	.....	3	1	.....	1	.....	.....	.....	.....	.....
Births, all pregnancies.															
Total.....	10,237	1,196	115.8	12,630	1,342	106.3	8,229	1,061	128.9	2,775	395	142.3	883	164	185.7
Under 20.....	3,064	414	135.1	1,003	181	180.5	38	13	.....	.....	.....	.....	.....	.....	.....
20-24.....	5,174	568	109.8	6,043	686	113.5	1,327	225	169.6	37	11	.....	2	2	.....
25-29.....	1,608	153	95.1	4,063	337	82.9	3,635	465	127.9	514	101	196.5	31	5	.....
30-34.....	881	39	102.4	1,199	102	85.1	2,416	262	108.4	1,207	154	127.6	238	57	239.5
35 and over.....	94	19	.....	301	32	106.3	790	84	106.3	1,010	123	121.8	612	100	163.4
35-39.....	85	16	.....	264	29	109.8	687	73	106.3	848	106	125.0	397	65	163.7
40 and over.....	9	3	.....	37	3	.....	103	11	106.8	162	17	104.9	215	35	162.8
Not reported.....	6	3	.....	21	4	.....	23	12	.....	7	6	.....	.....	.....	.....

¹ "Order of birth" means order of issue for births in 1915 and order of pregnancy for births, all pregnancies.

² Not shown where base is less than 100.

TABLE 151.—*Infant mortality rates, by order of birth and age and color of mother; single live births in 1915, and all live births, all pregnancies.*

Age and color of mother.	Live births of specified order of birth. ¹											
	First.			Second and third.			Fourth and sixth.			Seventh and later.		
	Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.	
		Number.	Mortality rate. ²		Number.	Mortality rate. ²		Number.	Mortality rate. ²		Number.	Mortality rate. ²
Single births in 1915.												
White mothers.	2,601	223	85.7	3,368	268	79.6	2,133	193	90.5	1,158	150	129.5
Under 20.....	604	65	107.6	166	24	144.6	3	1	.....	.....	.....	.....
20-24.....	1,282	96	74.9	1,303	114	87.5	220	26	118.2	3	2	.....
25-29.....	504	39	77.4	1,251	76	60.8	766	68	88.8	93	18	.....
30-34.....	163	14	91.5	475	36	75.8	729	59	80.9	325	32	98.5
35 and over.....	58	9	.....	173	18	104.0	414	38	91.8	737	98	133.0
35-39.....	51	7	.....	147	15	102.0	330	32	97.0	496	68	137.1
40 and over.....	7	2	.....	26	3	.....	84	6	.....	241	30	124.5
Not reported.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....
Colored mothers	229	36	157.2	439	66	150.3	353	48	136.0	256	39	152.3
Under 20.....	98	11	.....	66	12	.....	3	1	.....	.....	.....	.....
20-24.....	93	22	.....	226	35	154.9	94	13	129.5	3	1	.....
25-29.....	21	2	.....	87	12	.....	139	18	.....	49	9	.....
30-34.....	15	.....	.....	38	4	.....	77	12	.....	84	12	.....
35 and over.....	2	1	.....	22	3	.....	38	4	.....	119	17	142.9
35-39.....	2	1	.....	18	3	.....	34	3	.....	86	12	.....
40 and over.....	.....	.....	.....	4	.....	.....	4	1	.....	33	5	.....
Not reported.....	.....	.....	.....	.....	.....	.....	2	.....	.....	1	.....	.....
Births, all pregnancies.												
White mothers.	9,225	1,035	112.2	11,131	1,098	98.6	7,080	841	118.8	3,004	433	144.1
Under 20.....	2,523	336	133.2	745	127	170.5	19	5	.....	.....	.....	.....
20-24.....	4,755	501	105.4	5,245	557	106.2	1,000	152	152.0	22	8	.....
25-29.....	1,516	143	94.3	3,766	293	77.8	3,130	379	121.1	382	69	180.6
30-34.....	340	35	102.9	1,090	88	80.7	2,187	219	100.1	1,189	161	135.4
35 and over.....	87	17	.....	270	29	107.4	729	76	104.3	1,404	189	134.6
35-39.....	78	14	.....	239	26	108.8	631	68	107.8	1,074	147	136.9
40 and over.....	9	3	.....	31	3	.....	98	8	.....	330	42	127.3
Not reported.....	4	3	.....	15	4	.....	15	10	.....	7	6	.....
Colored mothers	1,102	161	146.1	1,499	244	162.8	1,149	220	191.5	654	126	192.7
Under 20.....	541	78	144.2	258	54	209.3	19	8	.....	.....	.....	.....
20-24.....	419	67	160.0	798	129	161.7	327	73	223.2	17	5	.....
25-29.....	92	10	.....	297	44	148.1	505	86	170.3	163	37	227.0
30-34.....	41	4	.....	109	14	128.4	229	43	187.8	256	50	195.3
35 and over.....	7	2	.....	31	3	.....	61	8	.....	218	34	156.0
35-39.....	7	2	.....	25	3	.....	56	5	.....	171	24	140.4
40 and over.....	.....	.....	.....	6	.....	.....	5	3	.....	47	10	.....
Not reported.....	2	.....	.....	6	.....	.....	8	2	.....	.....	.....	.....

¹ "Order of birth" means order of issue for births in 1915 and order of pregnancy for births, all pregnancies.
² Not shown where base is less than 100.

TABLE 152.—*Infant mortality rates, by order of birth, age of mother, and earnings of father; live births, all pregnancies.*

Age of mother and earnings of father during year after birth in 1915.	Live births, all pregnancies, of specified order of pregnancy. ¹											
	First.			Second and third.			Fourth to sixth.			Seventh and later.		
	Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.	
		Number.	Infant mortality rate. ²		Number.	Infant mortality rate. ²		Number.	Infant mortality rate. ²		Number.	Infant mortality rate. ²
Under \$850...	6,536	842	128.8	8,230	990	120.3	5,684	790	139.0	2,634	431	163.6
Age of mother:												
Under 20.....	2,280	332	145.6	793	156	196.7	31	12	.....	.....	.....	.....
20-24.....	3,239	389	120.1	4,216	500	118.6	1,013	188	185.6	35	12	.....
25-29.....	796	88	110.6	2,427	245	100.9	2,572	342	133.0	416	88	211.5
30-34.....	168	18	107.1	647	72	111.3	1,554	185	119.0	1,026	162	157.9
35 and over.....	48	13	.....	132	15	113.6	497	56	112.7	1,151	164	142.5
Not reported...	5	2	.....	15	2	.....	17	7	.....	6	5	.....
\$850 and over.	3,385	295	87.1	3,904	287	73.5	2,204	221	100.3	886	106	119.6
Age of mother:												
Under 20.....	657	62	94.4	166	17	102.4	6	1	.....	.....	.....	.....
20-24.....	1,738	155	89.2	1,573	149	94.7	268	30	111.9	4	1	.....
25-29.....	749	55	73.2	1,492	78	52.3	907	99	109.2	116	17	146.6
30-34.....	197	17	86.3	511	27	52.8	755	62	82.1	366	43	117.5
35 and over.....	43	5	.....	156	14	89.7	262	24	91.6	399	44	110.3
Not reported...	1	1	.....	6	2	.....	6	5	.....	1	1	.....

¹ For total rates, all orders of pregnancy combined, see Table 150, page 345.

² Not shown where base is less than 100.

TABLE 153.—*Infant mortality rates from specified causes, by age of mother and order of birth;¹ single live births in 1915.*

Age of mother.	Infant mortality rates ² from specified causes among births of specified order of birth. ¹											
	All births.		First.		Second and third.		Fourth to sixth.		Seventh to ninth.		Tenth and later.	
	Early in-fancy.	All other causes.	Early in-fancy.	All other causes.	Early in-fancy.	All other causes.	Early in-fancy.	All other causes.	Early in-fancy.	All other causes.	Early in-fancy.	All other causes.
Total.....	33.9	63.2	36.7	54.8	36.0	51.7	24.9	72.0	32.3	88.9	51.9	110.8
Under 20.....	47.9	73.4	45.6	62.7	56.0	99.1	.....	.....	.....	.....	.....	.....
20-24.....	31.1	64.0	28.4	57.5	32.7	64.7	35.0	89.2	.....	.....	.....	.....
25-29.....	32.2	50.7	38.1	40.0	32.9	32.9	23.2	71.8	65.7	131.4	.....	.....
30-34.....	28.5	60.7	47.6	35.7	37.0	40.9	17.4	70.7	26.3	70.2	59.7	104.5
35 and over.....	39.4	80.1	83.3	83.3	56.4	51.3	32.5	58.4	25.8	87.3	51.1	113.6
35-39.....	41.2	79.9	94.3	56.6	60.6	48.5	32.9	63.2	28.4	79.9	51.5	144.3
40 and over	34.2	80.7	.....	.....	.....	.....	34.1	45.5	17.2	112.1	50.6	75.9

¹ Includes miscarriages.

² Not shown where base is less than 100.

TABLE 154.—Stillbirth and infant mortality rates, by interval since preceding birth,¹ earnings of father, and color and nativity of mother; births in 1915, second and later in order of birth.¹

Earnings of father and color and nativity of mother.	Births in 1915 (second and later in order of birth) ¹ after specified interval since preceding birth. ¹					
	Under 2 years.					
	Births.	Stillbirths.		Live births.	Infant deaths.	
		Number.	Per 1,000 births. ²		Number.	Infant mortality rate. ²
All mothers.....	2,149	77	35.8	2,072	304	146.7
Earnings of father:						
Under \$550.....	714	37	51.8	677	128	189.1
\$550-\$849.....	783	25	31.9	758	101	133.2
\$850-\$1,249.....	391	6	15.3	385	63	111.7
\$1,250 and over.....	176	2	11.4	174	14	80.5
No earnings.....	41	6	.....	35	10	.....
Not reported.....	44	1	.....	43	8	.....
Native white mothers.....	1,195	21	17.6	1,174	162	138.0
Earnings of father:						
Under \$550.....	216	2	9.3	214	44	205.6
\$550-\$849.....	507	12	23.7	495	69	139.4
\$850-\$1,249.....	293	3	10.2	290	33	113.8
\$1,250 and over.....	139	2	14.4	137	9	65.7
No earnings.....	16	2	.....	14	4	.....
Not reported.....	24	.....	.....	24	3	.....
Foreign-born white mothers.....	554	16	28.9	538	74	137.5
Earnings of father:						
Under \$550.....	212	5	23.6	207	31	149.8
\$550-\$849.....	204	7	34.3	197	24	121.8
\$850 and over.....	118	3	25.4	115	11	95.7
No earnings.....	9	1	.....	8	3	.....
Not reported.....	11	.....	.....	11	5	.....
Colored mothers.....	400	40	100.0	360	68	188.9
Earnings of father:						
Under \$550.....	286	30	104.9	256	53	207.0
\$550 and over.....	89	6	.....	83	12	.....
No earnings.....	16	3	.....	13	3	.....
Not reported.....	9	1	.....	8	.....	.....

¹ Includes miscarriages.

² Not shown where base is less than 100.

TABLE 154.—Stillbirth and infant mortality rates, by interval since preceding birth,¹ earnings of father, and color and nativity of mother; births in 1915, second and later in order of birth¹—Continued.

Earnings of father and color and nativity of mother.	Births in 1915 (second and later in order of birth) ¹ after specified interval since preceding birth ¹ —Continued.									
	2 years and over.						Not reported.			
	Births.	Stillbirths.		Live births.	Infant deaths.		Births.	Stillbirths.	Live births.	Infant deaths.
		Number.	Per 1,000 births. ²		Number.	Infant mortality rate. ²				
All mothers.....	5,999	189	31.5	5,810	536	92.3	48	1	47	5
Earnings of father:										
Under \$550.....	1,717	57	33.2	1,660	197	118.7	16	1	15	4
\$550-\$849.....	2,111	68	32.2	2,043	195	95.4	13		13	
\$850-\$1,249.....	1,236	31	25.1	1,205	69	57.3	14		14	
\$1,250 and over.....	699	22	31.5	677	38	56.1	3		3	1
No earnings.....	117	5	42.7	112	23	205.4	1		1	
Not reported.....	119	6	50.4	113	14	123.9	1		1	
Native white mothers.....	3,508	99	28.2	3,409	302	88.6	23		23	1
Earnings of father:										
Under \$550.....	562	10	17.8	552	74	134.1	2		2	
\$550-\$849.....	1,348	45	33.4	1,303	125	95.9	7		7	
\$850-\$1,249.....	947	21	22.2	926	54	58.3	12		12	
\$1,250 and over.....	546	19	34.8	527	33	62.6	1		1	1
No earnings.....	41	2		39	7		1		1	
Not reported.....	64	2		62	9					
Foreign-born white mothers.....	1,740	46	26.4	1,694	134	79.1	17		17	2
Earnings of father:										
Under \$550.....	664	13	19.6	651	58	89.1	8		8	2
\$550-\$849.....	605	18	29.8	587	50	85.2	5		5	
\$850 and over.....	407	10	24.6	397	16	40.3	4		4	
No earnings.....	35	1		34	8					
Not reported.....	29	4		25	2					
Colored mothers.....	751	44	58.6	707	100	141.4	8	1	7	2
Earnings of father:										
Under \$550.....	491	34	69.2	457	65	142.2	6	1	5	2
\$550 and over.....	193	8	41.5	185	24	129.7	1		1	
No earnings.....	41	2		39	8					
Not reported.....	26			26	3		1		1	

¹ Includes miscarriages.² Not shown where base is less than 100.

TABLE 155.—*Infant mortality and stillbirth rates, by interval since preceding birth¹ and period of gestation; births in 1915.*

Interval since preceding birth ¹ and period of gestation.	Births.	Stillbirths.		Live births.	Infant deaths.	Infant mortality rate.
		Number.	Per cent.			
Total.....	11,195	398	3.6	10,797	1,117	103.5
No previous birth.....	2,999	131	4.4	2,868	272	94.8
Interval:						
1 year.....	2,149	77	3.6	2,072	304	146.7
2 years.....	3,045	95	3.1	2,950	291	98.6
3 years.....	1,398	34	2.4	1,364	118	86.5
4 years and over.....	1,556	60	3.9	1,496	127	84.9
Not reported.....	48	1	2.1	47	5	106.4
Full-term births.....	10,430	234	2.2	10,196	792	77.7
No previous birth.....	2,726	90	3.3	2,636	173	65.6
Interval:						
1 year.....	1,979	41	2.1	1,938	219	113.0
2 years.....	2,891	49	1.7	2,842	219	77.1
3 years.....	1,332	20	1.5	1,312	88	67.1
4 years and over.....	1,459	33	2.3	1,426	91	63.8
Not reported.....	43	1	2.3	42	2	47.6
Premature births.....	755	164	21.7	591	322	544.8
No previous birth.....	271	41	15.1	230	98	426.1
Interval:						
1 year.....	158	36	21.4	132	85	643.9
2 years.....	151	46	30.5	105	70	666.7
3 years.....	64	14	21.9	50	30	600.0
4 years and over.....	96	27	28.7	69	36	521.7
Not reported.....	5	.....	.....	5	3	600.0
Term not reported.....	10	.....	.....	10	3	300.0
No previous birth.....	2	.....	.....	2	1	500.0
Interval:						
1 year.....	2	.....	.....	2	.....	.....
2 years.....	3	.....	.....	3	2	666.7
3 years.....	2	.....	.....	2	.....	.....
4 years and over.....	1	.....	.....	1	.....	.....
Not reported.....	.....	.....	.....	.....	.....	.....

¹ Includes miscarriages.

TABLE 156.—*Interval since preceding birth,¹ by earnings of father and color and nativity of mother; live births in 1915, second and later in order of birth.¹*

Earnings of father and color and nativity of mother	Live births in 1915 second and later in order of birth. ¹		
	Total.	Interval under 2 years since preceding birth. ¹	
		Number.	Per cent. ²
All mothers.....	7,929	2,072	26.1
Native white mothers.....	4,606	1,174	25.5
Earnings of father:			
Under \$550.....	768	214	27.9
\$550-\$849.....	1,805	495	27.4
\$850-\$1,249.....	1,228	290	23.6
\$1,250 and over.....	665	137	20.6
No earnings.....	54	14	.....
Not reported.....	86	24	.....
Foreign-born white mothers.....	2,249	538	23.9
Earnings of father:			
Under \$550.....	866	207	23.9
\$550-\$849.....	789	197	25.0
\$850-\$1,249.....	337	81	24.0
\$1,250 and over.....	179	34	19.0
No earnings.....	42	8	.....
Not reported.....	36	11	.....
Colored mothers.....	1,074	360	33.5
Earnings of father:			
Under \$550.....	718	256	35.7
\$550 and over.....	269	83	30.9
No earnings.....	52	13	.....
Not reported.....	35	8	.....

¹ Includes miscarriages.² Not shown where base is less than 100.

TABLE 157.—*Number of mother's pregnancies, by duration of mother's married life and earnings of father; live births, all pregnancies.*

Duration of mother's married life and earnings of father during year after 1915 birth.	Live births, ¹ all pregnancies, to mothers reporting specified number of pregnancies.			
	2 and 3	4-6	7-9	10 and over.
Earnings of father under \$550.....	2,142	3,508	2,731	1,521
Years married:				
Under 6 years.....	1,535	277	7	.....
6-10 years.....	504	1,801	290	.....
11-15 years.....	74	1,036	1,080	248
16 and over.....	29	394	1,354	1,273
Earnings of father \$550-\$849.....	3,209	4,228	2,525	1,429
Years married:				
Under 6 years.....	2,251	273	.....	.....
6-10 years.....	808	2,247	215	.....
11-15 years.....	135	1,376	1,172	143
16 and over.....	15	332	1,138	1,286
Earnings of father \$850-\$1,249.....	2,050	2,174	1,271	720
Years married:				
Under 6 years.....	1,265	107	.....	.....
6-10 years.....	621	1,085	100	.....
11-15 years.....	138	774	673	61
16 and over.....	26	208	498	659
Earnings of father \$1,250 and over.....	1,154	1,111	563	310
Years married:				
Under 6 years.....	588	31	.....	.....
6-10 years.....	466	577	50	5
11-15 years.....	74	369	201	20
16 and over.....	26	134	312	285

¹ Omitting those for which earnings of father during year after 1915 birth were "none" or "not reported."

TABLE 158.—*Infant mortality rates, by number of mother's pregnancies, duration of married life and earnings of father; live births, all pregnancies.*

Number of mother's pregnancies, and earnings of father during year after 1915 birth.	Live births, all pregnancies, to mothers reporting specified duration of married life.											
	Under 6 years.			6-10 years.			11-15 years.			16 years and over		
	Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.	
		Number.	Infant mortality rate. ¹		Number.	Infant mortality rate. ¹		Number.	Infant mortality rate. ¹		Number.	Infant mortality rate. ¹
Earnings of father under \$550.....	2,450	346	141.2	2,602	330	126.8	2,441	407	166.7	3,050	457	149.8
Number of mother's pregnancies:												
1-3.....	2,166	286	132.0	511	36	70.5	77	14	.....	29	4	.....
4-6.....	277	58	209.4	1,801	224	124.4	1,036	120	115.8	394	40	101.5
7-9.....	7	2	.....	290	70	241.4	1,080	192	177.8	1,354	164	121.1
10 and over.....	.....	.....	.....	.....	.....	.....	248	81	326.6	1,273	249	195.6
Earnings of father, \$550-\$849.....	3,597	399	110.9	3,283	398	121.2	2,831	354	125.0	2,771	350	126.3
Number of mother's pregnancies:												
1-3.....	3,324	349	105.0	821	73	88.9	140	13	92.9	15	1	.....
4-6.....	273	50	183.2	2,247	278	123.7	1,376	133	96.7	332	30	90.4
7-9.....	.....	.....	.....	215	47	218.6	1,172	173	147.6	1,138	125	109.8
10 and over.....	.....	.....	.....	.....	.....	.....	143	35	244.8	1,286	194	150.9
Earnings of father, \$850 or over.	2,959	236	79.8	2,951	228	77.3	2,312	204	88.2	2,150	241	112.1
Number of mother's pregnancies:												
1-3.....	2,821	222	78.7	1,134	59	52.0	214	14	65.4	54	5	.....
4-6.....	138	14	101.4	1,662	136	81.8	1,143	79	69.1	342	22	64.3
7-9.....	.....	.....	.....	150	33	220.0	874	100	114.4	810	79	97.5
10 and over.....	.....	.....	.....	5	.....	.....	81	11	.....	944	135	143.0
Earnings of father, none.	167	30	179.6	160	26	162.5	170	19	111.8	185	32	173.0
Number of mother's pregnancies:												
1-3.....	159	30	188.7	42	5	.....	5	.....	.....	.....	.....	.....
4-6.....	8	.....	.....	108	21	194.4	102	11	107.8	24	6	.....
7-9.....	.....	.....	.....	10	.....	.....	63	8	.....	64	13	.....
10 and over.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	97	13	.....
Earnings of father, not reported....	222	31	139.6	120	7	58.3	162	17	104.9	175	29	165.7
Number of mother's pregnancies:												
1-3.....	198	27	136.4	35	3	.....	12	1	.....	.....	.....	.....
4-6.....	24	4	85	4	116	12	103.4	15	3
7-9.....	34	4	73	10
10 and over.....	87	16

¹ Not shown where base is less than 100.

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TABLE 159.—*Infant mortality rates, by interval between birth in 1915 and preceding birth,¹ live births in 1915, second and later in order of birth,¹ and live births preceding single births in 1915.*

Interval between 1915 birth and preceding birth.	Live births preceding single births in 1915. ²			Live births in 1915.		
	Total.	Infant deaths.		Total.	Infant deaths.	
		Number.	Infant mortality rate. ³		Number.	Infant mortality rate. ³
Total.....	7,062	753	106.6	7,929	845	106.6
1 year.....	1,661	336	202.3	2,072	304	146.7
2 years.....	2,716	241	88.7	2,950	291	98.6
3 years.....	1,257	72	57.3	1,364	118	86.5
4 years and over.....	1,417	97	68.5	1,496	127	84.9
Not reported.....	11	7	.....	47	5	.....

¹ Includes miscarriages.

² These figures are approximate only, since if preceding birth resulted in plural live births only the one which lived the longer was included.

³ Not shown where base is less than 100.

TABLE 160.—*Stillbirth rates, by interval between birth in 1915 and preceding birth; births in 1915, second and later in order of birth, and births preceding single births in 1915.¹*

Interval between 1915 births and preceding birth. ¹	Births ¹ preceding single births in 1915. ²			Births ¹ in 1915.		
	Total.	Stillbirths and miscarriages.		Total.	Stillbirths and miscarriages.	
		Number.	Per 1,000 issues. ³		Number.	Per 1,000 issues. ³
Total.....	7,959	897	112.7	8,539	610	71.4
1 year.....	2,101	440	209.4	2,268	196	86.4
2 years.....	2,953	237	80.3	3,152	202	64.1
3 years.....	1,348	91	67.5	1,443	79	54.7
4 years and over.....	1,509	92	61.0	1,624	128	78.8
Not reported.....	48	37	.....	52	5	.....

¹ Includes miscarriages.

² These figures are approximate only, since if preceding issue resulted in plural issues, only the one resulting in a live birth or, if none resulted in a live birth, that one having the longer period of gestation was included.

³ Not shown where base is less than 100.

TABLE 161.—*Mother reported pregnant within first year after birth, by age of infant when the pregnancy began, by color and nationality of mother; live births in 1915 to mothers reported pregnant within year after the birth in 1915 and infant deaths subsequent to commencement of pregnancy.*

Color and nationality of mother.	Total.		Mother not reported pregnant within 1 year.		Mother reported pregnant in 1 year.		Mother reported pregnant in specified month in first year after birth of infant.							
	Live births.	Infant deaths.	Live births.	Infant deaths.	Live births.	Infant deaths.	First.		Second.		Third.		Fourth.	
							Live births.	Infant deaths.	Live births.	Infant deaths.	Live births.	Infant deaths.	Live births.	Infant deaths.
Total.....	10,797	1,117	9,234	711	1,563	406	7	6	16	10	64	29	127	54
White.....	9,492	910	8,192	583	1,300	327	4	3	13	9	51	21	106	44
Native.....	6,739	646	5,899	426	840	220	1	1	10	6	38	14	74	30
Foreign.....	2,753	264	2,293	157	460	107	3	2	3	3	13	7	32	14
Jewish.....	961	49	871	33	90	16	.....	.....	.....	.....	2	1	6	2
Polish.....	625	102	481	51	144	51	.....	.....	1	1	6	4	11	5
Italian.....	412	36	294	19	118	17	3	2	.....	.....	2	1	9	3
All other.....	755	77	647	54	108	23	.....	.....	2	2	3	1	6	4
Colored.....	1,305	1,207	1,042	128	263	79	3	3	3	1	13	8	21	10

Color and nationality of mother.	Mother reported pregnant in specified month in first year after birth of infant.																	
	Fifth.		Sixth.		Seventh.		Eighth.		Ninth.		Tenth.		Eleventh.		Twelfth.		Month not reported.	
	Live births.	Infant deaths.	Live births.	Infant deaths.	Live births.	Infant deaths.	Live births.	Infant deaths.	Live births.	Infant deaths.	Live births.	Infant deaths.	Live births.	Infant deaths.	Live births.	Infant deaths.	Live births.	Infant deaths.
Total.....	205	63	186	44	221	59	174	34	161	24	136	28	112	24	76	13	78	18
White.....	174	49	144	33	182	52	140	27	136	17	121	25	96	22	67	11	66	14
Native.....	116	30	92	17	122	38	83	17	87	12	79	19	53	17	43	10	42	9
Foreign.....	58	19	52	16	60	14	57	10	49	5	42	6	43	5	24	1	24	5
Jewish.....	10	1	9	3	11	2	15	3	6	.....	10	2	13	1	3	.....	5	1
Polish.....	19	11	12	7	25	9	21	6	16	3	13	3	10	1	6	.....	4	1
Italian.....	11	1	17	4	14	2	11	1	12	1	13	1	11	.....	8	.....	7	1
All other.....	18	6	14	2	10	1	10	.....	15	1	6	.....	9	3	7	1	8	2
Colored.....	31	14	42	11	39	7	34	7	25	7	15	3	16	2	9	2	12	4

TABLE 162.—*Infant deaths, by age at death, relation of infant death to mother's pregnancy after the birth, and color and nativity of mother; live births in 1915 to mothers pregnant within year after birth.*

Age at death of infant and color and nativity of mother.	Deaths among infants whose mothers became pregnant within year after birth.			
	Died in a previous month.	Died in the same month.	Died in a succeeding month.	Month of pregnancy not reported. ¹
All mothers.....	300	27	74	5
Under 1 month.....	178	2	.....	.....
1 month, under 2.....	19	1	.....	.....
2 months, under 3.....	24	.....	2	1
3 months, under 4.....	23	3	1	1
4 months, under 5.....	19	3	4	1
5 months, under 6.....	16	4	10	.....
6 months, under 7.....	7	3	7	.....
7 months, under 8.....	5	2	7	2
8 months, under 9.....	6	2	9	.....
9 months, under 10.....	2	5	11	.....
10 months, under 11.....	1	1	12	.....
11 months, under 12.....	.....	1	11	.....
Native white mothers.....	160	15	41	4
Under 1 month.....	93	.....	.....	.....
1 month, under 2.....	7	.....	.....	.....
2 months, under 3.....	13	.....	.....	1
3 months, under 4.....	14	2	1	1
4 months, under 5.....	12	2	2	.....
5 months, under 6.....	7	1	5	.....
6 months, under 7.....	5	2	4	.....
7 months, under 8.....	3	1	4	2
8 months, under 9.....	4	2	6	.....
9 months, under 10.....	1	3	6	.....
10 months, under 11.....	1	1	6	.....
11 months, under 12.....	.....	1	7	.....
Foreign-born white mothers.....	75	9	22	1
Under 1 month.....	47	1	.....	.....
1 month, under 2.....	7	1	.....	.....
2 months, under 3.....	8	.....	1	.....
3 months, under 4.....	1	1	.....	.....
4 months, under 5.....	3	.....	1	1
5 months, under 6.....	6	2	3	.....
6 months, under 7.....	1	1	1	.....
7 months, under 8.....	1	1	2	.....
8 months, under 9.....	.....	.....	2	.....
9 months, under 10.....	1	2	4	.....
10 months, under 11.....	.....	.....	6	.....
11 months, under 12.....	.....	.....	2	.....
Colored mothers.....	65	3	11	.....
Under 1 month.....	38	1	.....	.....
1 month, under 2.....	5	.....	.....	.....
2 months, under 3.....	3	.....	1	.....
3 months, under 4.....	8	.....	.....	.....
4 months, under 5.....	4	1	1	.....
5 months, under 6.....	3	1	2	.....
6 months, under 7.....	1	.....	2	.....
7 months, under 8.....	1	.....	1	.....
8 months, under 9.....	2	.....	1	.....
9 months, under 10.....	.....	.....	1	.....
10 months, under 11.....	.....	.....	.....	.....
11 months, under 12.....	.....	.....	2	.....

¹ Of the 18 infant deaths for which the month in which the mother became pregnant was not reported, 11 which occurred in the first month and 2 in thesecond have been classified in this table as "died in a previous month."

TABLE 163.—*Monthly death rates, by month of life and by pregnancy of mother during infant's first year of life; live births in 1915.*

Month of life.	Infants born in 1915. ¹					
	Total.			Mother pregnant during infant's lifetime.		
	Surviving at beginning of month.	Deaths in month.		Surviving at beginning of month. ²	Deaths in month.	
		Number.	Per 1,000.		Number. ³	Per 1,000.
First.....	10,528	208	19.8	.....	.....	.....
Second.....	10,320	65	6.3	12	.....	.....
Third.....	10,255	63	6.1	51	3	58.8
Fourth.....	10,192	62	6.1	139	1	7.2
Fifth.....	10,130	71	7.0	298	4	13.4
Sixth.....	10,059	76	7.6	445	10	22.5
Seventh.....	9,983	56	5.6	608	7	11.5
Eighth.....	9,927	56	5.6	746	6	8.0
Ninth.....	9,871	51	5.2	879	9	10.2
Tenth.....	9,820	49	5.0	980	11	11.2
Eleventh.....	9,771	45	4.6	1,057	12	11.4
Twelfth.....	9,726	46	4.7	1,108	11	9.9

¹ Excludes 269 infants who died immediately after birth, not fed.

² Includes infants surviving at the beginning of each month, whose mothers had previously become pregnant.

³ Includes only deaths among infants shown in preceding column.

TABLE 164.—*Computed infant mortality rates, by mother's pregnancy during infant's lifetime; infants born in 1915.*

Period.	Computed mortality rate per 1,000 infants fed.	
	All mothers.	Mothers pregnant during infant's lifetime.
Second to twelfth month.....	60.4	154.5

TABLE 165.—*Prevalence of interval under two years between births, by order of birth; single live births in 1915, second and later in order of birth,¹ and all live births, all pregnancies.²*

Order of birth.	Single live births in 1915.			Number of pregnancies.	All live births, all pregnancies. ¹		
	Total.	Interval under 2 years since preceding birth. ¹			Total.	Average interval under 2 years between pregnancies.	
		Number.	Per cent.			Number.	Per cent.
Second.....	2,372	703	29.6	2	4,658	3,378	72.5
Third.....	1,435	381	26.6	3	4,237	2,680	63.3
Fourth.....	1,095	242	22.1	4	4,218	1,908	45.2
Fifth.....	795	174	21.9	5	3,832	1,670	43.6
Sixth.....	596	137	23.0	6	3,453	1,601	46.4
Seventh.....	426	114	26.8	7	2,899	1,425	49.2
Eighth.....	329	81	24.6	8	2,383	899	37.7
Ninth.....	235	64	27.2	9	2,052	947	46.2
Tenth to fourteenth.....	393	113	28.8	10-14	3,861	2,440	63.2
Fifteenth or later.....	31	17	54.8	* 15	303	303	100.0

¹ Includes miscarriages.

² Omits live births to mothers reporting but a single pregnancy.

³ Or more.

TABLE 166.—Interval between births,¹ by age of mother; single live births in 1915, second and later in order of birth.¹

Interval since preceding birth. ¹	Single live births (second and later in order of birth ¹) to mothers of specified ages.							
	Total.		Under 20.		20-24.		25-29.	
	Live births.	Per cent distribution.	Live births.	Per cent distribution.	Live births.	Per cent distribution.	Live births.	Per cent distribution.
Total.....	7,707	100.0	238	100.0	1,849	100.0	2,385	100.0
1 year.....	2,026	26.3	142	59.7	703	38.0	592	24.8
2 years.....	2,867	37.2	84	35.3	778	42.1	941	39.5
3 years.....	1,316	17.1	12	5.0	249	13.5	410	17.2
4 years and over.....	1,451	18.8	.....	.....	114	6.2	432	18.1
Not reported.....	47	.6	.....	.....	5	.3	10	.4

Interval since preceding birth. ¹	Single live births (second and later in order of births ¹) to mothers of specified ages.						
	30-34.		35-39.		40 and over.		Not reported, live births.
	Live births.	Per cent distribution.	Live births.	Per cent distribution.	Live births.	Per cent distribution.	
Total.....	1,728	100.0	1,111	100.0	392	100.0	4
1 year.....	356	20.6	187	16.8	45	11.5	1
2 years.....	373	33.4	378	34.0	108	27.6	.....
3 years.....	341	19.7	222	20.0	81	20.7	1
4 years and over.....	438	25.3	313	28.2	154	39.2	.....
Not reported.....	15	.9	11	1.0	4	1.0	2

¹ Includes miscarriages.TABLE 167.—Infant mortality rates from specified causes and stillbirth rates, by order of birth¹ and interval since preceding birth;¹ single births in 1915, second and later in order of birth.¹

Interval since preceding birth and order of birth. ¹	Single births in 1915 second and later in order of birth. ¹										
	Total births.	Stillbirths.			Live births.	Infant deaths.					
		Number.	Per 1,000 births. ²	Live births.		Total.	Infant mortality rate. ²	Early infancy.		All other causes.	
								Number.	Infant mortality rate. ²	Number.	Infant mortality rate. ²
Total.....	7,959	252	31.7	7,707	764	99.1	253	32.8	511	66.3	
Second and third births.....	3,910	103	26.3	3,807	334	87.7	137	36.0	197	51.7	
1 year.....	1,118	34	30.4	1,084	129	119.0	49	45.2	80	73.8	
2 years.....	1,410	29	20.5	1,381	106	76.8	41	29.7	65	47.1	
3 years.....	572	13	22.7	559	40	71.6	17	30.4	23	41.1	
4 years and over.....	802	27	33.7	775	59	76.1	30	38.7	29	37.4	
Interval not reported.....	8	.....	.....	8	.....	.....	.....	.....	.....	.....
Fourth to sixth births.....	2,570	84	32.7	2,486	241	96.9	62	24.9	179	72.0	
1 year.....	578	25	43.3	553	82	148.3	18	32.5	64	115.7	
2 years.....	972	30	30.9	942	85	90.2	19	20.2	66	70.1	
3 years.....	513	9	17.5	504	35	69.4	9	17.9	26	51.6	
4 years and over.....	489	20	40.9	469	36	76.8	13	27.7	23	49.0	
Interval not reported.....	18	.....	.....	18	3	.....	3	.....	.....	.....
Seventh and later births.....	1,479	65	43.9	1,414	189	133.7	54	38.2	135	95.5	
1 year.....	405	16	39.5	389	68	174.8	14	36.0	54	138.8	
2 years.....	571	27	47.3	544	62	114.0	22	40.4	40	73.5	
3 years.....	263	10	38.0	253	35	138.3	10	39.5	25	98.8	
4 years and over.....	218	11	50.5	207	22	106.3	8	38.6	14	67.7	
Interval not reported.....	22	1	.....	21	2	.....	.....	.....	2	.....

¹ Includes miscarriages.² Not shown where base is less than 100.

TABLE 168.—*Infant mortality rates from specified causes and stillbirth rates, by age of mother and interval since preceding birth;¹ single births in 1915, second and later in order of birth.¹*

Age of mother and interval since preceding birth. ¹	Single births in 1915 second and later in order of birth. ¹									
	Total births.	Stillbirths.		Live births.	Infant deaths.					
		Number.	Per 1,000 births. ²		Total.		Early infancy.		All other causes.	
					Number.	Infant mortality rate. ²	Number.	Infant mortality rate. ²	Number.	Infant mortality rate. ²
Interval 1 year.....	2,101	75	35.7	2,026	279	137.7	81	40.0	198	97.7
Under 20.....	152	10	65.8	142	24	169.0	10	70.4	14	98.6
20-24.....	721	18	25.0	703	87	123.8	27	38.4	60	85.3
25-29.....	612	20	32.7	592	81	136.8	26	43.9	55	92.9
30-34.....	369	13	35.2	356	45	126.4	8	22.5	37	103.9
35 and over.....	246	14	56.9	232	42	181.0	10	43.1	32	137.9
35-39.....	199	12	60.3	187	37	197.9	9	48.1	28	149.7
40 and over.....	47	2	.....	45	5	.....	1	.....	4	.....
Not reported.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....
Interval 2 years.....	2,953	86	29.1	2,867	253	88.3	82	28.6	171	59.6
Under 20.....	86	2	.....	84	11	.....	3	.....	8	.....
20-24.....	794	16	20.2	778	72	92.5	23	29.6	49	63.0
25-29.....	967	26	26.9	941	66	71.2	22	23.4	44	46.8
30-34.....	602	24	39.9	578	42	72.7	17	29.4	25	43.3
35 and over.....	504	18	35.7	486	62	127.6	17	35.0	45	92.6
35-39.....	390	12	30.8	378	44	116.4	14	37.0	30	79.4
40 and over.....	114	6	52.6	108	18	166.7	3	27.8	15	138.9
Interval 3 years.....	1,348	32	23.7	1,316	110	83.6	36	27.4	74	56.2
Under 20.....	12	.....	.....	12	3	.....	.....	.....	3	.....
20-24.....	251	5	19.7	249	22	88.4	9	36.1	13	52.2
25-29.....	420	10	23.8	410	25	61.0	9	22.0	16	39.0
30-34.....	345	4	11.6	341	26	76.2	7	20.5	19	55.7
35 and over.....	316	13	41.1	303	34	112.2	11	36.3	23	75.9
35-39.....	230	8	34.8	222	23	103.6	7	31.5	16	72.1
40 and over.....	86	5	.....	81	11	.....	4	.....	7	.....
Not reported.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....
Interval 4 years and over.....	1,509	58	38.4	1,451	117	80.6	51	35.1	66	45.5
20-24.....	118	4	33.9	114	9	78.9	2	17.5	7	61.4
25-29.....	447	15	33.6	432	29	67.1	17	39.4	12	27.8
30-34.....	451	13	28.8	438	40	91.3	13	29.7	27	61.6
35 and over.....	493	26	52.7	467	39	83.5	19	38.5	20	42.8
35-39.....	330	17	51.5	313	28	89.5	13	41.5	15	47.9
40 and over.....	163	9	55.2	154	11	71.4	6	39.0	5	32.5
Interval not reported..	48	1	.....	47	5	.....	3	.....	2	.....
20-24.....	5	.....	.....	5	1	.....	1	.....	.....	.....
25-29.....	10	.....	.....	10	.....	.....	.....	.....	.....	.....
30-34.....	16	1	.....	15	2	.....	1	.....	1	.....
35 and over.....	15	.....	.....	15	1	.....	.....	.....	1	.....
35-39.....	11	.....	.....	11	1	.....	.....	.....	1	.....
40 and over.....	4	.....	.....	4	.....	.....	.....	.....	.....	.....
Not reported.....	2	.....	.....	2	1	.....	1	.....	.....	.....

¹ Includes miscarriages.² Not shown where base is less than 100.

TABLE 169.—*Infant mortality rates from specified causes, by age of mother, order of birth,¹ and interval since preceding birth;¹ single live births in 1915, second and later in order of birth.¹*

Age of mother and order of birth. ¹	Single births (second and later in order of birth ¹) following preceding birth ¹ by specified interval.												
	1 year.					2 years and over.				Interval not reported.			
	Live births.	Infant deaths.				Live births.	Infant deaths.				Live births.	Infant deaths.	
		Early infancy.		All other causes.			Early infancy.		All other causes.			Early infancy.	All other causes.
		Number.	Infant mortality rate. ²	Number.	Infant mortality rate. ²		Number.	Infant mortality rate. ²	Number.	Infant mortality rate. ²			
Second and third ¹ births ¹	1,084	49	45.2	80	73.8	2,715	88	32.4	117	43.1	8	.....	.....
Under 20.....	137	10	73.0	12	87.6	95	3	.....	11	.....	.....	.....	.....
20-24.....	554	22	39.7	46	83.0	972	28	28.8	53	54.5	3	.....	.....
25-29.....	292	13	44.5	17	58.2	1,042	31	29.8	27	25.9	4	.....	.....
30-34.....	83	3	.....	4	.....	429	16	37.3	17	39.6	1	.....	.....
35 and over.....	18	1	.....	1	.....	177	10	56.5	9	50.8	.....	.....	.....
Fourth to sixth births ¹	553	18	32.5	64	115.7	1,915	41	21.4	115	60.1	18	3	.....
Under 20.....	5	.....	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....
20-24.....	144	4	27.8	13	90.3	168	6	35.7	15	89.3	2	1	.....
25-29.....	225	8	35.6	27	120.0	674	13	19.3	38	56.4	6	.....	.....
30-34.....	137	2	14.6	18	131.4	661	11	16.6	39	59.0	8	1	.....
35 and over.....	41	4	.....	4	.....	410	11	26.8	23	56.1	1	.....	.....
Age not reported.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	1	1	.....
Seventh to ninth births ¹	259	11	42.5	34	131.3	719	21	29.2	52	72.3	12	.....	2
20-24.....	5	1	.....	1	.....	1	.....	.....	1	.....	.....	.....	.....
25-29.....	71	5	(?)	11	.....	66	4	.....	7	.....	.....	.....	.....
30-34.....	106	2	18.9	9	84.9	232	7	30.2	14	60.3	4	.....	1
35 and over.....	77	3	(?)	13	.....	420	10	23.8	30	71.4	7	.....	1
Age not reported.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Tenth and later births ¹	130	3	23.1	20	153.8	285	19	66.7	27	94.7	9	.....	.....
25-29.....	4	0	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
30-34.....	30	1	.....	6	.....	35	3	.....	1	.....	.....	.....	.....
35 and over.....	96	2	.....	14	.....	249	16	64.3	26	104.4	7	.....	.....

¹ Includes miscarriages.
² Not shown where base is less than 100.

TABLE 170.—Prevalence of plural births,¹ by color and nativity of mother; births¹ in 1915 and births,¹ all pregnancies.

Color and nativity of mother.	Births in 1915. ¹			Births, all pregnancies. ¹		
	Total.	Plural.		Total.	Plural.	
		Number.	Per cent.		Number.	Per cent.
Total.....	11,613	296	2.5	38,630	830	2.1
Native white.....	7,210	183	2.5	21,752	465	2.1
Foreign-born white.....	2,894	74	2.6	11,632	250	2.1
Colored.....	1,509	39	2.6	5,246	115	2.2

¹ Includes miscarriages.TABLE 171.—Infant mortality, stillbirth, and miscarriage rates, by color and nativity of mother; single and plural births¹ in 1915.

Color and nativity of mother.	Births in 1915. ¹					
	Miscarriages per 100 births. ¹		Stillbirths per 100 births.		Infant mortality rate (per 1,000 live births).	
	Single.	Plural.	Single.	Plural.	Single.	Plural.
Total.....	3.6	5.4	3.5	7.1	97.1	361.5
White.....	3.2	4.7	2.8	5.3	90.1	327.6
Native.....	3.8	4.9	2.8	4.0	89.0	365.3
Foreign born.....	1.9	4.1	2.8	8.5	92.6	230.8
Colored.....	5.7	10.3	7.9	20.0	148.0	642.9

¹ Includes miscarriages.TABLE 172.—Infant mortality, stillbirth, and miscarriage rates, by color and nativity of mother; single and plural births,¹ all pregnancies.

Color and nativity of mother.	Births, all pregnancies. ¹					
	Miscarriages per 100 births.		Stillbirths per 100 births.		Infant mortality rate (per 1,000 live births).	
	Single.	Plural.	Single.	Plural.	Single.	Plural.
Total.....	6.6	10.6	3.3	7.3	113.5	407.0
White.....	6.1	10.3	2.7	6.4	106.5	383.3
Native.....	6.8	11.0	2.7	5.8	105.3	389.7
Foreign born.....	4.9	9.2	2.7	7.5	108.6	371.4
Colored.....	9.7	12.2	6.9	12.9	162.4	568.2

¹ Includes miscarriages.

TABLE 173.—*Infant mortality, stillbirth, and miscarriage rates, by character of plural birth,¹ plural births¹ in 1915 and all pregnancies.*

Character of plural births. ¹	Plural births. ¹								
	Total births. ¹	Miscariages.		Births.	Stillbirths.		Live births.	Infant deaths.	
		Number.	Per cent. ²		Number.	Per cent. ²		Number.	Infant mortality rate. ²
Plural births in 1915.....	296	16	5.4	280	20	7.1	260	94	361.5
Twin.....	281	15	5.3	266	18	6.8	248	86	346.8
Triplet.....	15	1	.....	14	2	.....	12	8	.....
Plural births, all pregnancies.....	830	88	10.6	742	54	7.3	688	280	407.0
Twin.....	806	83	10.3	723	52	7.2	671	270	402.4
Triplet.....	24	5	.....	19	2	.....	17	10	.....

¹ Includes miscarriages.² Not shown where base is less than 100.³ One twin (miscarriage) was born in 1914 prior to schedule year.TABLE 174.—*Prevalence of plural births, by age of mother; births in 1915 and births, all pregnancies.*

Age of mother.	Births in 1915.			Births, all pregnancies.		
	Total.	Plural		Total.	Plural.	
		Number.	Per cent.		Number.	Per cent.
Total.....	11,195	280	2.5	36,047	742	2.1
Under 20.....	995	11	1.1	4,276	41	1.0
20-24.....	3,382	64	1.9	12,976	193	1.5
25-29.....	3,087	80	2.6	10,160	228	2.2
30-34.....	2,029	62	3.1	5,634	158	2.8
35-39.....	1,259	45	3.6	2,368	98	4.1
40 and over.....	439	18	4.1	560	24	4.3
Not reported.....	4	.....	.....	73	.....	.....

TABLE 175.—*Prevalence of plural births, by order of birth; births in 1915 and births, all pregnancies.*

Order of birth. ¹	Births in 1915.			Births, all pregnancies.		
	Total.	Plural		Total.	Plural.	
		Number.	Per cent.		Number.	Per cent.
First.....	2,999	43	1.4	10,754	140	1.3
Second and third.....	3,996	86	2.2	12,977	211	1.6
Fourth to sixth.....	2,667	97	3.6	8,496	263	3.1
Seventh and later.....	1,533	54	3.5	3,820	128	3.4

¹ "Order of birth" means order of issue for births in 1915 and order of pregnancy births, all pregnancies.

TABLE 176.—Prevalence of plural births, by age of mother and order of birth;¹ births in 1915.

Age of mother.	Births of specified order of birth. ¹														
	First.			Second and third.			Fourth to sixth.			Seventh to ninth.			Tenth and later.		
	Total births	Plural births.		Total births	Plural births.		Total births	Plural births.		Total births	Plural births.		Total births	Plural births.	
		Num. ber.	Per ct. ²		Num. ber.	Per ct. ²		Num. ber.	Per ct. ²		Num. ber.	Per ct. ²		Num. ber.	Per ct. ²
Total.....	2,999	43	1.4	3,996	86	2.2	2,667	97	3.6	1,058	26	2.5	475	28	5.9
Under 20.....	741	7	.9	246	2	.8	8	2	.....	.....	.....	.....	.....	.....	.....
20-24.....	1,449	23	1.6	1,588	27	1.7	337	12	3.6	8	2	(1)	.....	.....	.....
25-29.....	561	10	1.8	1,409	38	2.7	966	30	3.1	144	2	1.4	7	.....	.....
30-34.....	187	3	1.6	546	19	3.5	853	24	2.8	363	8	2.2	80	8	10.0
35-39.....	54	.....	.....	176	.....	.....	408	29	7.1	412	8	1.9	209	8	3.8
40 and over..	7	.....	.....	31	.....	.....	92	.....	.....	130	6	4.6	179	12	6.7
Not reported	.....	.....	.....	.....	.....	.....	3	.....	.....	1	.....	.....	.....	.....	.....

¹ Includes miscarriages.² Not shown where base is less than 50.

TABLE 177.—Prevalence of plural births, by occurrence of previous plural births; all pregnancies.

Occurrence of previous plural birth.	Pregnancies.		
	Total.	Resulting in plural birth. ¹	
		Number.	Per cent.
Total.....	38,211	411	1.1
Subsequent to plural births ¹	734	27	3.7

¹ Includes miscarriages.

TABLE 178.—Prevalence of prematurity, by single and plural births; births in 1915.

Single and plural births.	Total births.	Premature births.	
		Number.	Per cent.
All births:			
Single.....	10,915	690	6.3
Plural.....	280	65	23.2
Live births:			
Single.....	10,537	534	5.1
Plural.....	260	57	21.9

TABLE 179.—*Infant mortality rates, by single and plural births and prematurity; births in 1915.*

Single and plural live births.	Infant mortality rate.	
	Full term.	Premature.
Single.....	73.9	528.1
Plural.....	266.0	¹ 701.8

¹ Based on 57 live births.TABLE 180.—*Type of feeding, by month of life; infants born of plural births in 1915.*

Month of life.	Total twins and triplets.	Infant survivors having specified type of feeding.					
		Breast feeding.		Mixed feeding.		Artificial feeding.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
First.....	1 237	133	56.1	29	12.2	75	31.6
Second.....	218	102	46.8	38	17.4	78	35.8
Third.....	211	66	31.3	48	22.7	97	46.0
Fourth.....	203	48	23.6	52	25.6	103	50.7
Fifth.....	194	43	22.2	50	25.8	101	52.1
Sixth.....	189	38	20.1	48	25.4	103	54.5
Seventh.....	187	36	19.3	41	21.9	110	58.8
Eighth.....	184	27	14.7	46	25.0	111	60.3
Ninth.....	172	23	13.4	44	25.6	105	61.0
Tenth.....	168	17	10.1	46	27.4	105	62.5

¹ Excludes 23 infants who died immediately after birth, not fed.TABLE 181.—*Infant mortality and stillbirth rates, by period of gestation; births ¹ in 1915.*

Period of gestation.	Total births. ¹	Miscarriages and stillbirths.		Live births.	Infant deaths.				
		Num-ber.	Per cent of issues. ²		Total.		Under 1 month.	1 month, under 3 months.	3 months and over.
					Num-ber.	Infant mortality rate.			
Total.....	11,613	816	7.0	10,797	1,117	103.5	477	128	512
Full term.....	10,430	234	2.2	10,196	792	77.7	207	108	477
Premature.....	1,173	582	49.6	591	322	544.8	268	19	35
Under 7 months.....	507	418	82.4	89	86	.....	85	.....	1
7 months and over.....	664	164	24.7	500	234	468.0	181	19	34
Not reported.....	2	.....	.....	2	2	.....	2	.....	.....
Not reported.....	10	.....	.....	10	3	.....	2	1	.....

¹ Includes miscarriages.² Not shown where base is less than 100.

TABLE 182.—*Infant mortality rates, by period of gestation and color and nativity of mother; live births in 1915.*

Color and nativity of mother.	Full-term live births.			Premature live births.		
	Total.	Infant deaths.		Total.	Infant deaths.	
		Number.	Infant mortality rate. ¹		Number.	Infant mortality rate. ¹
Total.....	10,196	792	77.7	591	322	544.8
Native white.....	6,322	432	68.3	415	213	513.3
Foreign-born white.....	2,654	209	78.7	97	55	.....
Colored.....	1,220	151	123.8	79	54	.....

¹ Not shown where base is less than 100.TABLE 183.—*Infant mortality and stillbirth rates, by sex of infant and color and nativity of mother; births¹ in 1915.*

Sex of infant and color and nativity of mother.	Total births. ¹	Miscarriages.		Births.	Stillbirths.		Live births.	Infant deaths.	Infant mortality rate.
		Number.	Per 1,000 births. ²		Number.	Per 1,000 births. ²			
All mothers.....	11,613	418	36.0	11,195	398	35.6	10,797	1,117	103.5
Male.....	5,922	199	33.6	5,723	215	37.6	5,508	634	115.1
Female.....	5,559	88	15.8	5,471	182	33.3	5,289	483	91.3
Not reported.....	132	131	992.4	1	1	.....	.....	.....	.....
White mothers.....	10,104	330	32.7	9,774	282	28.9	9,492	910	95.9
Male.....	5,177	144	27.8	5,033	155	30.8	4,878	526	107.8
Female.....	4,802	62	12.9	4,740	126	26.6	4,614	384	83.2
Not reported.....	125	124	992.0	1	1	.....	.....	.....	.....
Native.....	7,210	273	37.9	6,937	198	28.5	6,739	646	95.9
Male.....	3,695	116	31.4	3,579	110	30.7	3,469	377	108.7
Female.....	3,408	51	15.0	3,357	87	25.9	3,270	269	82.3
Not reported.....	107	106	990.7	1	1	.....	.....	.....	.....
Foreign born.....	2,894	57	19.7	2,837	84	29.6	2,753	264	95.9
Male.....	1,482	28	18.9	1,454	45	30.9	1,409	149	105.7
Female.....	1,394	11	7.9	1,383	39	28.2	1,344	115	85.6
Not reported.....	18	18	.....	.....	.....	.....	.....	.....	.....
Colored mothers.....	1,509	88	58.3	1,421	116	81.6	1,305	207	158.6
Male.....	745	55	73.8	690	60	87.0	630	108	171.4
Female.....	757	26	34.3	731	56	76.6	675	99	146.7
Not reported.....	7	7	.....	.....	.....	.....	.....	.....	.....

¹ Includes miscarriages.² Not shown where base is less than 100.

TABLE 184.—*Masculinity, by color and nationality of mother; births¹ in 1915.*

Color and nationality of mother.	Total births. ¹				Live births.		
	Male.	Female.	Masculinity. ²	Sex not reported.	Male.	Female.	Masculinity. ²
Total.....	5,922	5,559	1,065.3	132	5,508	5,289	1,041.4
White.....	5,177	4,802	1,078.1	125	4,878	4,614	1,057.2
Native.....	3,695	3,408	1,084.2	107	3,469	3,270	1,060.9
Foreign born.....	1,482	1,394	1,063.1	18	1,409	1,344	1,048.4
Jewish.....	507	497	1,020.1	7	481	480	1,002.1
Polish.....	337	312	1080.1	6	322	303	1062.7
Italian.....	236	200	1180.0	4	221	191	1157.1
German.....	173	158	1094.9	.....	167	151	1106.0
Irish, English, Scotch, and English-Canadian ³	69	69	.....	.....	66	66	.....
Bohemian.....	54	58	.....	.....	51	56	.....
Lithuanian.....	55	49	.....	1	53	47	.....
All other ⁴	51	51	.....	.....	48	50	.....
Colored.....	745	757	984.1	7	630	675	933.3

Color and nationality of mother.	Stillbirths.				Miscarriages.		
	Male.	Female.	Masculinity. ²	Sex not reported.	Male.	Female.	Sex not reported.
Total.....	215	182	1,181.3	1	199	88	131
White.....	155	126	1,230.2	1	144	62	124
Native.....	110	87	.....	1	116	51	106
Foreign born.....	45	39	.....	.....	28	11	18
Jewish.....	17	13	.....	.....	9	4	7
Polish.....	12	6	.....	.....	3	3	6
Italian.....	6	8	.....	.....	9	1	4
German.....	4	5	.....	.....	2	2	.....
Irish, English, Scotch, and English-Canadian ³	1	2	.....	.....	2	1	.....
Bohemian.....	1	2	.....	.....	2	.....	.....
Lithuanian.....	2	2	.....	.....	.....	.....	1
All other ⁴	2	1	.....	.....	1	.....	.....
Colored.....	60	56	.....	.....	55	26	7

¹ Includes miscarriages.² Number of male births per 1,000 female births among those for whom sex is reported; not shown where base is less than 100.³ Includes 101 Irish, 19 English, 8 Scotch, and 10 English-Canadian.⁴ Includes 24 Russian, 19 Greek, 13 Magyar, 8 Norwegian, 6 Serbian, 5 French, 5 Slovak, 4 Rumanian, 4 Ruthenian, 3 French-Canadian, 3 Dutch, 2 Slavic (n. o. s.), 2 Spanish, 2 Swedish, 1 Danish, and 1 Arabian.

TABLE 185.—Miscarriages, stillbirths, and infant deaths, by interval between confinement and death of mother and by period of gestation; births ¹ in 1915 to mothers who died within year following confinement.

Interval between confinement and death of mother and period of gestation.	Births ¹ in 1915 to mothers who died within year following confinement.							
	Total births. ¹	Miscarriages.	Births.	Stillbirths.	Live births.	Infant deaths.		
						Total.	Gastric and intestinal diseases.	Early infancy.
All mothers who died year after confinement.....	106	13	93	21	72	35	7	18
Period:								
Full term.....	69		69	14	55	19	7	3
Premature.....	37	13	24	7	17	16		15
Under 7 months.....	16	13	3		3	3		3
7 months and over.....	21		21	7	14	13		12
Mothers who died in month following confinement.....	47	8	39	17	22	15	2	10
Period:								
Full term.....	24		24	13	11	5	2	
Premature.....	23	8	15	4	11	10		10
Under 7 months.....	9	8	1		1	1		1
7 months and over.....	14		14	4	10	9		9
Mothers who died in year but after first month following confinement.....	59	5	54	4	50	20	5	8
Period:								
Full term.....	45		45	1	44	14	5	3
Premature.....	14	5	9	3	6	6		5
Under 7 months.....	7	5	2		2	2		2
7 months and over.....	7		7	3	4	4		3

¹ Includes miscarriages.TABLE 186.—Death of mother, by period elapsing after confinement and cause of mother's death; births ¹ in 1915 to mothers who died within year following confinement.

Cause of mother's death.	Births ¹ to mothers who died within year following confinement.					
	Total.		Within 3 months.		3 months or after.	
	Number.	Per 1,000 births. ¹	Number.	Per 1,000 births. ¹	Number.	Per 1,000 births. ¹
All causes.....	106	9.1	62	5.3	44	3.8
Connected with childbirth.....	50	4.3	44	3.8	6	.5
All other causes.....	56	4.8	18	1.5	38	3.3

¹ Includes miscarriages.

TABLE 187.—*Stillbirths, miscarriages, and infant deaths, by color and nationality of mother; births¹ in 1915 and births,¹ all pregnancies.*

Color and nationality of mother.	Births ¹ in 1915.			Births, ¹ all pregnancies.		
	Births ¹	Stillbirths and miscarriages.	Infant deaths.	Births ¹	Stillbirths and miscarriages.	Infant deaths.
Total	11,613	816	1,117	38,630	3,786	4,158
Native white.....	7,210	471	646	21,752	2,056	2,185
Jewish.....	1,011	50	49	3,870	309	232
Polish.....	655	30	102	2,858	177	439
Italian.....	440	28	36	1,883	182	189
All other foreign-born white.....	788	33	77	3,021	220	362
Colored.....	1,509	204	207	5,246	842	751

¹ Includes miscarriages.TABLE 188.—*Stillbirth and miscarriage rates, by color and nationality of mother; births¹ in 1915 and births,¹ all pregnancies.*

Color and nationality of mother.	Miscarriage rates (per 100).		Stillbirth rates (per 100).	
	Births ¹ in 1915.	Births, ¹ all pregnancies.	Births ¹ in 1915.	Births, ¹ all pregnancies.
Total	3.6	6.7	3.6	3.3
Native white.....	3.8	6.9	2.9	2.8
Jewish.....	2.0	5.5	3.0	2.6
Polish.....	1.8	3.8	2.8	2.5
Italian.....	3.2	6.6	3.3	3.2
All other foreign-born white.....	1.4	4.3	2.9	3.1
Colored.....	5.8	9.7	8.2	7.0

¹ Includes miscarriages.TABLE 189.—*Miscarriage rates, by earnings of father and color and nativity of mother; births¹ in 1915 and births,¹ all pregnancies.*

Earnings of father during year after 1915 birth.	Miscarriage rate ² (per 100 births ¹).					
	Native white mothers.		Foreign-born white mothers.		Colored mothers.	
	Births ¹ in 1915.	Births, ¹ all pregnancies.	Births ¹ in 1915.	Births, ¹ all pregnancies.	Births ¹ in 1915.	Births, ¹ all pregnancies.
Total	3.8	6.9	2.0	5.0	5.8	9.7
Under \$450.....	3.6	7.3	1.8	5.4	7.8	10.6
\$450-\$549.....	3.4	6.2	3.1	5.5	3.2	10.2
\$550-\$649.....	3.6	6.1	1.3	5.3	3.5	7.4
\$650-\$849.....	3.5	7.0	1.8	4.1	7.4	10.8
\$850-\$1,049.....	3.4	6.7	2.4	5.1	.....	8.4
\$1,050-\$1,249.....	4.2	6.8	1.9	3.6	.....	.....
\$1,250 and over.....	4.4	7.9	0.9	4.9	.....	.....
\$1,250-\$1,449.....	5.3	8.5	1.0	5.4	.....	.....
\$1,450-\$1,849.....	4.7	7.7	.....	3.6	.....	.....
\$1,850-\$2,249.....	2.6	5.2	.....	5.7	.....	.....
\$2,250-\$2,849.....	3.4	6.4	.....	.....	.....	.....
\$2,850 and over.....	3.7	9.5	.....	.....	.....	.....
No earnings.....	7.8	7.7	.....	3.4	.....	6.7
Not reported.....	6.4	5.9	.....	6.0	.....	8.0

¹ Includes miscarriages.² Not shown where base is less than 100.

TABLE 190.—*Stillbirth and miscarriage rates, by employment of mother away from home and color and nativity; births,¹ all pregnancies.*

Employment of mother away from home.	Stillbirths and miscarriage rates.		
	Native white mothers.	Foreign-born white mothers.	Colored mothers.
Miscarriage rates per 100 births. ¹			
Total.....	6.9	5.0	9.7
Never employed away.....	6.9	5.4	13.1
Employed before marriage only.....	6.1	4.9	6.7
Employed after marriage.....	9.6	4.7	10.3
Stillbirth rates (per 100 births).			
Total.....	2.8	2.8	7.0
Never employed away.....	3.1	2.6	8.9
Employed before marriage only.....	2.5	2.6	5.9
Employed after marriage.....	3.4	3.3	7.1

¹ Includes miscarriages.TABLE 191.—*Legitimacy of birth¹ and scheduling of illegitimate births,¹ by color of mother; total registered births¹ in 1915.*

Legitimacy of birth ¹ and scheduling of illegitimate births.	Registered births ¹ in 1915.								
	White mothers.			Colored mothers.			Color of mothers not reported.		
	Stillbirths and miscarriages.	Live births.	Infant deaths.	Stillbirths and miscarriages.	Live births.	Infant deaths.	Stillbirths and miscarriages.	Live births.	Infant deaths.
Total registered.....	755	11,290	1,136	372	2,183	414	32	4	1
Legitimate.....	709	10,916	1,018	249	1,602	251	4	4	1
Illegitimate.....	46	374	118	123	581	163	.....	.....	.....
Scheduled.....	29	163	52	78	409	120	.....	.....	.....
Not scheduled.....	17	211	66	45	172	43	.....	.....	.....
Legitimacy not reported.....	.....	.....	.....	.....	.....	.....	28	.....	.....

¹ Includes miscarriages.² Includes 133 white live births and 123 colored live births whose condition at 1 year of age was unknown.

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TABLE 192.—*Employment of mother during pregnancy, by color of mother; scheduled legitimate and illegitimate births¹ and total illegitimate births¹ in 1915.*

Employment of mother during pregnancy, and color.	Legitimate births ¹ (scheduled).		Illegitimate births. ¹			
	Number.	Per cent distribu- tion.	Total. ²		Scheduled.	
			Number.	Per cent distribu- tion.	Number.	Per cent distribu- tion.
All mothers.....	11,613	100.0	1,124	100.0	679	100.0
Not employed.....	8,391	72.3	122	10.9	119	17.5
Employed at home.....	1,819	15.7	57	5.1	43	6.3
Employed away from home.....	1,400	12.1	716	63.7	499	73.5
Employment not reported.....	3	.....	229	20.4	18	2.7
White mothers.....	10,104	100.0	420	100.0	192	100.0
Not employed.....	7,934	78.5	52	12.4	49	25.5
Employed at home.....	1,445	14.3	14	3.3	6	3.1
Employed away from home.....	723	7.2	223	53.1	126	65.6
Employment not reported.....	2	.....	131	31.2	11	5.7
Colored mothers.....	1,509	100.0	704	100.0	487	100.0
Not employed.....	457	30.3	70	9.9	70	14.4
Employed at home.....	374	24.8	43	6.1	37	7.6
Employed away from home.....	677	44.9	493	70.0	373	76.6
Employment not reported.....	1	.1	98	13.9	7	1.4

¹ Includes miscarriages.² Information about the mothers of the 445 issues for which no schedules were secured is based on the birth certificates.TABLE 193.—*Occupation of mother during pregnancy, by color of mother; illegitimate births¹ in 1915.*

Occupation of mother during pregnancy.	Illegitimate births ¹ in 1915.					
	Total.		White mothers.		Colored mothers.	
	Number.	Per cent distribu- tion.	Number.	Per cent distribu- tion.	Number.	Per cent distribu- tion.
Total.....	1,124	100.0	420	100.0	704	100.0
Domestic.....	331	29.4	66	15.7	265	37.6
Factory operative.....	142	12.6	102	24.3	40	5.7
Textile and clothing.....	52	4.6	39	9.3	13	1.8
Cannery and food.....	41	3.6	30	7.1	11	1.6
Other factory and factory n. s.....	49	4.4	33	7.9	16	2.3
Laundress.....	94	8.4	8	1.9	86	12.2
Waitress, cook, or kitchen girl.....	66	5.9	7	1.7	59	8.4
Charwoman.....	57	5.1	1	.2	56	8.0
Nursemaid.....	21	1.9	5	1.2	16	2.3
Stenographer or clerk.....	13	1.2	13	3.1	.....	.....
Seamstress.....	11	1.0	10	2.4	1	.1
Chambermaid.....	10	.9	.....	.2	9	1.3
Saleswoman.....	6	.5	6	1.4	.....	.....
Nurse.....	4	.4	4	1.0	.....	.....
School-teacher.....	3	.3	3	.7	.....	.....
Telephone operator.....	3	.3	3	.7	.....	.....
All other ²	12	1.1	8	1.9	4	.6
Not employed.....	122	10.9	52	12.4	70	9.9
Schoolgirl.....	17	1.5	5	1.2	12	1.7
Other.....	105	9.3	47	11.2	58	8.2
Not reported.....	229	20.4	131	31.2	98	13.9

¹ Includes miscarriages.² Includes 1 each of the following: Chorus girl, companion, hair-dresser, demonstrator, peddler, florist's helper, proprietor of grocery store, farm worker, maid in hospital, maid in department store, lady's maid, and prostitute.

TABLE 194.—Occupation of mother during pregnancy, by occupation during year after birth; scheduled illegitimate births¹ in 1915.

Occupation of mother during pregnancy.	Illegitimate births ¹ to mothers reporting specified occupation during year after birth in 1915.									
	Total.	Not employed.	Employed.						Employment not reported.	
			Total.	Domes- tic.	Fac- tory oper- ative.	Laun- dress.	Char- woman.	Wait- ress, cook, or kitchen girl.		All others.
All occupations.....	679	127	522	168	109	90	68	45	42	30
Domestic.....	190	16	167	128	9	10	7	6	7	7
Factory operative.....	115	19	96	5	81	3	4	1	2	.....
Textile and clothing.....	44	5	39	1	36	1	.....	1	.....	.....
Cannery and food.....	38	6	32	3	25	1	2	.....	1	.....
Other factory and fac- tory n. s.....	33	8	25	1	20	1	2	.....	.....	.....
Laundress.....	88	5	83	7	2	62	8	.....	1	.....
Charwoman.....	56	3	53	8	1	1	42	3	1	.....
Waitress, cook, or kitchen girl.....	42	2	40	4	1	1	3	29	2	.....
All other.....	51	12	34	4	2	2	1	.....	25	5
Not employed.....	119	70	47	12	13	10	3	.....	4	2
Schoolgirl.....	14	10	3	.....	1	1	.....	5	1	1
Other.....	105	60	44	12	12	9	3	5	3	1
Not reported.....	18	.....	2	.....	.....	1	.....	1	.....	16

¹ Includes miscarriages.TABLE 195.—Occupation during pregnancy, by age of mother; illegitimate births¹ in 1915.

Occupation of mother during pregnancy.	Illegitimate births ¹ in 1915.				
	Total.	Age of mother.			
		Under 16.	16-20	20 and over.	Not reported.
All occupations.....	1,124	55	454	610	5
Domestic.....	331	13	152	165	1
Factory operative.....	142	1	65	76	.....
Textile and clothing.....	52	1	24	27	.....
Cannery and food.....	41	.....	17	24	.....
Other factory and factory n. s.....	49	.....	24	25	.....
Laundress.....	94	2	23	25	.....
Waitress, cook, or kitchen girl.....	66	1	22	69	.....
Charwoman.....	57	2	13	43	.....
Nursemaid.....	21	2	13	42	.....
Stenographer or clerk.....	13	.....	6	6	.....
Seamstress.....	11	.....	4	9	.....
Chambermaid.....	10	.....	4	7	.....
Saleswoman.....	6	2	5	3	.....
Nurse.....	4	.....	.....	6	.....
School-teacher.....	3	.....	.....	4	.....
Telephone operator.....	3	.....	2	1	.....
All other ²	3	.....	.....	3	.....
Not employed.....	12	.....	4	7	1
Schoolgirl.....	122	22	65	35	.....
Other.....	17	6	9	2	.....
Not reported.....	105	16	56	33	.....
	229	10	82	134	3

¹ Includes miscarriages.² Includes 1 of each of the following: Chorus girl, companion, hair-dresser, demonstrator, peddler, florist's helper, proprietor of grocery store, farm worker, maid in hospital, maid in department store, lady's maid, and prostitute.

TABLE 196.—Age of mother, by color; illegitimate births¹ in 1915.

Age of mother.	Illegitimate births ¹ in 1915.					
	Total.		White mothers.		Colored mothers.	
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.
Total.....	1,124	100.0	420	100.0	704	100.0
Under 20.....	509	45.3	149	35.5	360	51.1
Under 16 ²	55	4.9	10	2.4	45	6.4
16-17.....	180	16.0	44	10.5	136	19.3
18-19.....	274	24.4	95	22.6	179	25.4
20-24.....	373	33.2	185	44.0	188	26.7
25-29.....	114	10.1	48	11.4	66	9.4
30-34.....	62	5.5	17	4.0	45	6.4
35-39.....	45	4.0	13	3.1	32	4.5
40 and over.....	16	1.4	6	1.4	10	1.4
Not reported.....	5	.4	2	.5	3	.4

¹ Includes miscarriages.² Sixteen years is the age of consent in Maryland.TABLE 197.—Marital condition at confinement and one year later, by color of mother; scheduled illegitimate births¹ in 1915.

Marital condition at confinement and color of mother.	Scheduled illegitimate births ¹ in 1915.													
	Total.		Marital condition of mother at 1 year after confinement.											
	Number.	Per cent distribution.	Un-changed.		Married.						Mother died.		Not reported.	
					To father of child.		To another.		Not reported to whom married.					
Number.	Per cent distribution.	Number.	Per ct. ²	Number.	Per ct. ²	Number.	Per ct. ²	Number.	Per ct. ²	Number.	Per ct. ²	Number.	Per ct. ³	
White mothers....	192	100.0	142	74.0	19	9.9	12	6.3	1	0.5	3	1.6	15	7.8
Single.....	149	77.6	117	78.5	16	10.7	9	6.0	.....	.....	1	.7	6	4.0
Widowed, divorced, or separated.....	29	15.1	20	.....	3	.....	3	.....	.....	.....	1	.....	2	.....
Married.....	7	3.6	5	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
Not reported.....	7	3.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	.....
Colored mothers....	487	100.0	406	83.4	37	7.6	16	3.3	1	.2	11	2.3	16	3.3
Single.....	426	87.5	351	82.4	37	8.7	16	3.8	.....	.....	10	2.3	12	2.8
Widowed, divorced, or separated.....	52	10.7	50	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....
Married.....	5	1.0	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Not reported.....	4	.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....

¹ Includes miscarriages.² Not shown where base is less than 100.

TABLE 198.—Order of birth,¹ by color of mother; total and scheduled illegitimate births¹ in 1915.

Order of birth ¹ and color of mother.	Illegitimate births ¹ in 1915.			
	Total.		Scheduled.	
	Number.	Per cent distribution.	Number.	Per cent distribution.
White mothers.....	420	100.0	192	100.0
First.....	345	82.1	140	72.9
Second.....	42	10.0	26	13.5
Third.....	13	3.1	11	5.7
Fourth to sixth.....	10	2.4	7	3.6
Seventh or later.....	9	2.1	8	4.2
Not reported.....	1	.2		
Colored mothers.....	704	100.0	487	100.0
First.....	407	57.8	268	55.0
Second.....	139	19.7	95	19.5
Third.....	50	7.1	41	8.4
Fourth to sixth.....	61	8.7	45	9.2
Seventh or later.....	43	6.1	38	7.8
Not reported.....	4	.6		

¹ Includes miscarriages.

TABLE 199.—Order of birth,¹ by color of mother and legitimacy; scheduled illegitimate births¹ in 1915, and previous births¹ to mothers of scheduled illegitimate births¹ in 1915.

Order of birth ¹ and color of mother.	Scheduled illegitimate births in 1915.	Previous births ¹ to mothers of scheduled illegitimate births ¹ in 1915.				Legitimacy not reported.
		Total.	All previous births ¹ illegitimate.	All previous births ¹ legitimate.	Previous births ¹ divided as to legitimacy.	
All mothers.....	679	792	399	131	189	73
First.....	408					
Second.....	121	121	106	11		4
Third.....	52	104	82	12	8	2
Fourth.....	17	51	30	12	6	3
Fifth.....	20	80	36	16	24	4
Sixth.....	15	75	45	15	15	
Seventh.....	14	84	54	12	18	
Eighth.....	11	77	14	28	28	7
Ninth.....	9	72		16	40	16
Tenth.....	5	45	9	9	18	9
Eleventh.....	2	20			20	
Twelfth.....	1	11	11			
Thirteenth.....	2	24	12		12	
Fourteenth.....	1	13				13
Sixteenth.....	1	15				15
White mothers.....	192	142	33	33	51	25
First.....	140					
Second.....	26	26	16	9		1
Third.....	11	22	14	4	2	2
Fourth.....	3	9	3	6		
Fifth.....	3	12		8	4	
Sixth.....	1	5			5	
Seventh.....	2	12		6	6	
Eighth.....	2	14			14	
Ninth.....	1	8			8	
Tenth.....	1	9				9
Thirteenth.....	1	12			12	
Fourteenth.....	1	13				13
Colored mothers.....	487	650	366	98	138	48
First.....	268					
Second.....	95	95	90	2		3
Third.....	41	82	68	8	6	
Fourth.....	14	42	27	6	6	3
Fifth.....	17	68	36	8	20	4
Sixth.....	14	70	45	15	10	
Seventh.....	12	72	54	6	12	
Eighth.....	9	63	14	28	14	7
Ninth.....	8	64		16	32	16
Tenth.....	4	36	9	9	18	
Eleventh.....	2	20			20	
Twelfth.....	1	11	11			
Thirteenth.....	1	12	12			
Sixteenth.....	1	15				15

¹ Includes miscarriages.

TABLE 200.—*Legitimacy of previous births,¹ by order of birth,¹ scheduled illegitimate births¹ in 1915.*

Legitimacy of previous births. ¹	Scheduled illegitimate issues in 1915.						
	Total.	Order of birth. ¹					
		First.	Second and later.				
			Total.	Second.	Third.	Fourth to sixth.	Seventh and later.
All mothers.....	679	408	271	121	52	52	46
All previous births ¹ illegitimate.	189	189	189	106	41	28	14
All previous births ¹ legitimate..	37	37	37	11	6	11	9
Previous births ¹ divided.....	32	32	32	4	4	11	17
Legitimacy not reported.....	13	13	13	4	1	2	6
White mothers.....	192	140	52	26	11	7	8
All previous births ¹ illegitimate.	24	24	24	16	7	1	1
All previous births ¹ legitimate..	16	16	16	9	2	4	1
Previous births ¹ divided.....	8	8	8	1	1	2	5
Legitimacy not reported.....	4	4	4	1	1	2	2
Colored mothers.....	487	268	219	95	41	45	38
All previous births ¹ illegitimate.	165	165	165	90	34	27	14
All previous births ¹ legitimate..	21	21	21	2	4	7	18
Previous births ¹ divided.....	24	24	24	3	3	9	12
Legitimacy not reported.....	9	9	9	3	2	2	4

¹ Includes miscarriages.TABLE 201.—*Occupation of father, by color of mother; illegitimate births¹ in 1915.*

Occupation of father.	Illegitimate births ¹ in 1915.			Occupation of father.	Illegitimate births ¹ in 1915.		
	Total.	White mothers.	Colored mothers.		Total.	White mothers.	Colored mothers.
All occupations..	1,124	2,420	3,704	Professional pursuits ⁴ ..	20	13	7
Laborers.....	308	31	277	Sailors.....	19	3	16
Teamsters, chauffeurs, and deliverymen.....	110	22	88	Railway employees....	19	18	1
Factory operatives.....	63	34	29	Proprietors and dealers.	12	9	3
Farmers.....	58	27	31	Barbers.....	11	5	6
Cooks and waiters.....	36	36	36	Janitors and elevator men.....	10	.....	10
Servants.....	34	4	30	Public employees ⁵	9	7	2
Porters.....	30	30	30	Other occupations ⁶	29	14	15
Clerks.....	26	20	6	No occupation.....	21	7	14
Salesmen.....	26	22	4	Students.....	6	1	5
Skilled mechanics, building trades.....	25	15	10	Others.....	3	2	1
Others in mechanical industries.....	26	20	6	Father dead.....	12	4	8
				Not reported.....	232	149	83

¹ Includes miscarriages.² Includes 2 issues with colored fathers; 1 occupation not reported; 1 dead.³ Includes 2 issues with white fathers—1 teamster, etc., and 1 clerk—and 15 issues with fathers' color and occupation not reported.⁴ Includes 4 physicians, 4 musicians, 3 school-teachers, 2 photographers, 2 jockeys, 1 lawyer, 1 dentist, 1 artist, 1 draftsman, and 1 editor.⁵ Includes 2 soldiers, 1 policeman, 1 postman, 1 detective, 1 officer in a reformatory, and 3 whose occupations are not specified.⁶ Includes 7 tailors, 7 fishermen or oystermen, 6 hospital orderlies, 5 saloon keepers or bartenders, 2 telephone operators, 1 butcher, and 1 baker.

TABLE 202.—Age of mother, by age of father and color of mother; illegitimate births¹ in 1915.

Age of mother.	Illegitimate births ¹ in 1915.													Not re-ported.
	Total.	Age of father.											50 and over.	
		Under 20.					20-24	25-29	30-34	35-39	40-44	45-49		
		Total.	16	17	18	19								
All mothers.....	1,124	110	3	17	43	47	408	195	83	76	29	20	12	191
Under 20.....	509	101	3	16	40	42	243	67	9	9	5	4		66
12.....	2						2							
13.....	4	3		1		2								1
14.....	12	4	1	1	2		3	1				1		3
15.....	37	13	2	3	4	4	14	2	1					7
16.....	66	23		3	15	5	25	4		1				13
17.....	114	29		6	9	14	54	10	1	1		1		18
18.....	144	22		2	7	13	78	23	3	4	2	1		11
19.....	130	7			3	4	72	27	4	3	3	1		13
20-24.....	373	9		1	3	5	139	72	38	22	3	2	2	86
25-29.....	114						18	35	20	16	4	2	2	17
30-34.....	62							11	11	16	9	5	1	9
35-39.....	45						1	8	4	12	7	5	3	5
40 and over.....	16						1	2	1	1	1	2	4	4
Not reported.....	5						1							4
White mothers.....	420	19	1	3	4	11	133	84	29	18	7	4	2	124
Under 20.....	149	16	1	2	3	10	63	27	2	2				39
12.....														
13.....														1
14.....	3	2	1	1										3
15.....	7						3		1					6
16.....	15	2			1	1	6	1						10
17.....	29	3		1		2	13	3						10
18.....	46	5			1	4	20	8	1	2				9
19.....	49	4			1	3	21	15						63
20-24.....	185	3		1	1	1	63	34	12	7	2	1		12
25-29.....	48						6	13	9	4	2	2		4
30-34.....	17							5	2	4	2			4
35-39.....	13							4	3	1		1		4
40 and over.....	6							1	1		1		2	1
Not reported.....	2						1							1
Colored mothers.....	704	91	2	14	39	36	275	111	54	58	22	16	10	67
Under 20.....	360	85	2	14	37	32	185	40	7	7	5	4		27
12.....	2						2							
13.....	4	3		1		2								1
14.....	9	2			2		3	1				1		2
15.....	30	13	2	3	4	4	11	2						4
16.....	51	21		3	14	4	19	3		1				7
17.....	85	26		5	9	12	41	7	1	1		1		8
18.....	98	17		2	6	9	58	15	2	2	2	1		1
19.....	81	3			2	1	51	12	4	3	3	1		4
20-24.....	188	6			2	4	76	38	26	15	1	1	2	23
25-29.....	66						12	22	11	12	2		2	5
30-34.....	45							6	9	12	7	5	1	5
35-39.....	32						1	4	1	11	7	4	3	1
40 and over.....	10						1	1		1		2	2	3
Not reported.....	3						1			1				3

¹ Includes miscarriages.

TABLE 203.—Place of confinement, by legitimacy of birth,¹ total and scheduled births¹ in 1915.

Place of confinement and legitimacy of birth. ¹	Births ¹ in 1915.			
	Total.		Scheduled.	
	Number.	Per cent distribution.	Number.	Per cent distribution.
Illegitimate ²	1,124	100.0	679	100.0
Hospital.....	517	46.0	245	36.1
Institution.....	56	5.0	10	1.5
Private house.....	551	49.0	424	62.4
Legitimate.....	13,484	100.0	11,613	100.0
Hospital.....	1,735	12.9	1,105	9.5
Other.....	11,749	87.1	10,508	90.5

¹ Includes miscarriages.² Includes 420 white and 704 colored issues; hospital, 218 white and 299 colored; institution, 54 white and 2 colored; private house, 148 white and 403 colored. The "private houses" include boarding and lodging houses, one house of prostitution, several homes of midwives, and the waitresses' home connected with a hospital. Maternity homes in Baltimore send all confinement cases to hospitals.TABLE 204.—Attendant at birth, by color of mother; scheduled legitimate and illegitimate births¹ in 1915.

Attendant at birth and color of mother.	Legitimate births. ¹		Illegitimate births. ¹	
	Number.	Per cent distribution.	Number.	Per cent distribution.
All mothers.....	11,463	100.0	679	100.0
Physician.....	7,721	67.4	571	84.1
In hospital.....	1,088	9.5	245	36.1
Outside hospital.....	6,633	57.9	326	48.0
Midwife.....	3,713	32.4	100	14.7
Other or none.....	29	.3	8	1.2
White mothers.....	9,974	100.0	192	100.0
Physician.....	6,620	66.4	151	78.6
In hospital.....	887	8.9	76	39.6
Outside hospital.....	5,733	57.5	75	39.1
Midwife.....	3,328	33.4	39	20.3
Other or none.....	26	.3	2	1.0
Colored mothers.....	1,489	100.0	487	100.0
Physician.....	1,101	73.9	420	86.2
In hospital.....	201	13.5	169	34.7
Outside hospital.....	900	60.4	251	51.5
Midwife.....	385	25.9	61	12.5
Other or none.....	3	.2	6	1.2

¹ Includes miscarriages.

TABLE 205.—*Prenatal care, by color of mother; mothers of scheduled legitimate and illegitimate births¹ in 1915.*

Legitimacy of birth ¹ and color of mother.	Total mothers.	Births ¹ in 1915 to mothers having specified prenatal care.			
		No care.		Care of grades A and B.	
		Number.	Per cent.	Number.	Per cent.
All mothers:					
Legitimate.....	11,463	5,443	47.5	2,551	22.3
Illegitimate.....	670	263	39.3	199	29.7
White mothers:					
Legitimate.....	9,974	4,806	48.2	2,095	21.0
Illegitimate.....	191	93	48.7	37	19.4
Colored mothers:					
Legitimate.....	1,489	637	42.8	456	30.6
Illegitimate.....	479	170	35.5	162	33.8

¹ Includes miscarriages.TABLE 206.—*Mother's mode of living during whole or greater part of year after confinement, by color of mother; scheduled illegitimate births¹ in 1915.*

Mother's mode of living during whole or greater part of year after confinement.	Scheduled illegitimate births ¹ in 1915.					
	Total.				White mothers.	
	Number.	Per cent distribution.	Still-births, miscarriages, and infant deaths under 2 weeks. ²	Infants surviving 2 weeks. ²	Number.	Per cent distribution.
Total.....	679	100.0	151	528	192	100.0
Parental home.....	275	40.5	57	218	79	41.1
With other relatives or friends.....	68	10.0	9	59	12	6.3
With father of child.....	111	16.3	30	81	25	13.0
Married.....	45	6.6	(³)	(³)	17	8.9
Unmarried.....	66	9.7	(³)	(³)	8	4.2
Own establishment or boarding.....	83	12.2	15	68	23	12.0
At service.....	21	3.1	3	18	6	3.1
In institution or hospital.....	19	2.8	2	17	19	9.9
With husband or other man (not father of child).....	16	2.4	8	8	5	2.6
Died.....	14	2.1	6	8	3	1.6
Not reported.....	72	10.6	21	51	20	10.4

¹ Includes miscarriages.² For per cent distribution, see text table, p. 161.³ Not tabulated.

TABLE 206.—*Mother's mode of living during whole or greater part of year after confinement, by color of mother; scheduled illegitimate births¹ in 1915—Continued.*

Mother's mode of living during whole or greater part of year after confinement.	Scheduled illegitimate births ¹ in 1915.					
	White mothers.		Colored mothers.			
	Still-births, miscarriages, and infant deaths under 2 weeks. ²	Infants surviving 2 weeks. ²	Number.	Per cent distribution.	Still-births, miscarriages, and infant deaths under 2 weeks. ²	Infants surviving 2 weeks. ²
Total.....	39	153	487	100.0	112	375
Parental home.....	17	62	196	40.2	40	156
With other relatives or friends.....	2	10	56	11.5	7	49
With father of child.....	6	19	86	17.7	24	62
Married.....	(³)	(³)	28	5.7	(³)	(³)
Unmarried.....	(³)	(³)	58	11.9	(³)	(³)
Own establishment or boarding.....	4	19	60	12.3	11	49
At service.....		6	15	3.1	3	12
In institution or hospital.....	2	17				
With husband or other man (not father of child).....	3	2	11	2.3	5	6
Died.....	2	1	11	2.3	4	7
Not reported.....	3	17	52	10.7	18	34

¹ Includes miscarriages. ² For per cent distribution, see Text Table III, p. 162. ³ Not tabulated.

TABLE 207.—*Earnings of father or contributions to the support of mother or child during year following birth of infant, and mode of living, by color of mother; scheduled illegitimate births¹ in 1915.*

Earnings of father or contributions to the support of mother or child during year following birth of infant, and mode of living.	Scheduled illegitimate births ¹ in 1915.					
	Total.		White mothers.		Colored mothers.	
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.
Total.....	679	100.0	192	100.0	487	100.0
Did not live with mother ²	526	77.5	144	75.0	382	78.4
Contributed:						
Nothing.....	305	44.9	94	49.0	211	43.3
Under \$5.....	18	2.7	1	.5	17	3.5
\$5-\$24.....	23	3.4	2	1.0	21	4.3
\$25-\$49.....	19	2.8	7	3.6	12	2.5
\$50-\$99.....	49	7.2	19	9.9	30	6.2
\$100 and over.....	58	8.5	13	6.8	45	9.2
Amount not reported.....	54	8.0	8	4.2	46	9.4
Lived with mother ²	111	16.3	25	13.0	86	17.7
Earned:						
Under \$450.....	51	7.5	4	2.1	47	9.7
\$450-\$649.....	35	5.2	8	4.2	27	5.5
\$650-\$849.....	8	1.2	4	2.1	4	.8
\$850-\$1,249.....	6	.9	5	2.6	1	.2
\$1,250 and over.....	1	.1	1	.5		
Amount not reported.....	10	1.5	3	1.6	7	1.4
Mode of living not reported.....	42	6.2	23	12.0	19	3.9

¹ Includes miscarriages.

² During entire or greater part of year.

TABLE 208.—*Contribution of father to the support of mother or child during year following birth of infant, by mode of living, and by color of mother; scheduled illegitimate births¹ in 1915.*

Contribution of father to the support of mother or child during year following birth of infant, mode of living, and color of mother.	Scheduled illegitimate births ¹ in 1915.					
	Total.		Live births.		Stillbirths and miscarriages.	
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution. ²
All mothers.....	679	100.0	572	100.0	107	100.0
Father's mode of living:						
Did not live with mother—						
Contributed nothing.....	305	44.9	242	42.3	63	58.9
Contributed.....	221	32.5	199	34.8	22	20.6
Lived with mother ³	111	16.3	92	16.1	19	17.8
Not reported.....	42	6.2	39	6.8	3	2.8
White mothers.....	192	100.0	163	100.0	29	100.0
Father's mode of living:						
Did not live with mother—						
Contributed nothing.....	94	49.0	72	44.2	22	.....
Contributed.....	50	26.0	48	29.4	2	.....
Lived with mother ³	25	13.0	22	13.5	3	.....
Not reported.....	23	12.0	21	12.9	2	.....
Colored mothers.....	487	100.0	409	100.0	78	100.0
Father's mode of living:						
Did not live with mother—						
Contributed nothing.....	211	43.3	170	41.6	41	52.6
Contributed.....	171	35.1	151	36.9	20	25.6
Lived with mother ³	86	17.7	70	17.1	16	20.5
Not reported.....	19	3.9	18	4.4	1	1.3

¹ Includes miscarriages.

² Not shown where base is less than 50.

³ During entire or greater part of year.

TABLE 209.—*Mortality among mothers during year after confinement, by cause of death and color; mothers of scheduled legitimate and illegitimate births¹ in 1915.*

Color of mother and legitimacy of birth. ¹	Mothers who died in year following confinement.								
	Total.	Causes due to pregnancy and confinement.						Puerperal septicemia.	
		Total.			Puerperal septicemia.				
		Number.	Per 1,000 live births.	Per 1,000 confinements.	Number.	Per 1,000 live births.	Per 1,000 confinements.		
Mothers of legitimate births ¹	² 105	50	4.6	4.4	18	1.7	1.6		
White.....	90	45	4.7	4.5	13	1.4	1.3		
Colored.....	15	5	3.8	3.4	5	3.8	3.4		
Mothers of illegitimate births ¹	14	6	10.5	9.0	2	3.5	3.0		
White.....	3	1	6.1	5.2	1	6.1	5.2		
Colored.....	11	5	12.2	10.4	1	2.4	2.1		

Color of mother and legitimacy of birth. ¹	Mothers who died in year following confinement.								
	Causes due to pregnancy and confinement.						All other causes.		
	Puerperal albuminuria and convulsions.			Other causes due to confinement.					
	Number.	Per 1,000 live births.	Per 1,000 confinements.	Number.	Per 1,000 live births.	Per 1,000 confinements.				Number.	Per 1,000 live births.	Per 1,000 confinements.
Mothers of legitimate births ¹	14	1.3	1.2	18	1.7	1.6	55	5.1	4.8
White.....	14	1.5	1.4	18	1.9	1.8	45	4.7	4.5
Colored.....							10	7.7	6.7
Mothers of illegitimate births ¹	1	1.7	1.5	3	5.2	4.5	8	14.0	11.9
White.....							2	12.3	10.5
Colored.....	1	2.4	2.1	3	7.3	6.3	6	14.7	12.5

¹ Includes miscarriages.² The number of mothers was 1 less than the number of issues, since 1 birth resulted in plural issues.

TABLE 210.—*Earnings of mother, by period worked during year after confinement and type of remuneration; scheduled illegitimate births¹ in 1915.*

Earnings of mother and period worked during year after confinement.	Illegitimate births ¹ to working mothers receiving specified type of remuneration.					
	Cash alone.		Cash plus meals.		Room and board only. ¹	Not reported.
	Number.	Per cent distribution. ²	Number.	Per cent distribution. ²		
9 months and over	102	100.0	183	100.0	2	10
Under \$50.....	3	2.9	4	2.2		
\$50-\$149.....	27	26.5	77	42.1		
\$150-\$249.....	39	38.2	86	47.0		
\$250-\$349.....	22	21.6	15	8.2		
\$350 and over.....	11	10.8	1	0.5		
Room and board only.....					2	
Not reported.....						10
6 months, under 9 months.....	48	100.0	47	100.0		3
Under \$50.....	2		2			
\$50-\$149.....	29		40			
\$150-\$249.....	11		5			
\$250-\$349.....	6					
\$350 and over.....						
Room and board only.....						
Not reported.....						3
Under 6 months.....	59	100.0	43	100.0	2	2
Under \$50.....	33	55.9	23			
\$50-\$149.....	24	40.7	20			
\$150-\$249.....	2	3.4				
Room and board only.....					2	
Not reported.....						2
Period not reported.....	3				1	17
Under \$50.....	2					
\$50-\$149.....	1					
Room and board only.....					1	
Not reported.....						17

¹ Includes miscarriages.² Rate not shown where base is less than 50.

TABLE 211.—*Mother's and infant's mode of living during year after birth, by color of mother; scheduled illegitimate infants born in 1915 and surviving at least two weeks.*

Mother's mode of living during entire or greater part of year following confinement, and color.	Illegitimate infants born during 1915 and surviving at least 2 weeks.								
	Total.	Living during greater part of first year of life.							
		With mother.	Away from mother.						With others.
			Total.	With mother's relatives.	With foster parents.	In institution or hospital.	Boarding.		
						In boarding home.	In private home.		
All mothers.....	528	429	99	13	10	17	39	18	2
Parental home.....	218	201	17	.....	4	5	7	1	.....
With other relatives or friends.....	59	48	11	3	1	.....	7	.....	.....
With father of child.....	81	79	2	1	.....	.....	1	.....	.....
With husband or man other than father.....	8	8	.....	.....	.....	.....	.....	.....	.....
At service.....	18	6	12	3	1	.....	3	5	.....
In institution or hospital.....	17	16	1	.....	.....	1	.....	.....	.....
Own establishment or boarded.....	68	62	6	.....	.....	.....	5	1	.....
Died.....	8	4	4	3	1	.....	.....	.....	.....
Not reported.....	51	5	46	3	3	11	16	11	2
White mothers.....	153	120	33	.....	6	16	8	3	.....
Parental home.....	62	52	10	.....	3	5	2	.....	.....
With other relatives or friends.....	10	9	1	.....	1	.....	.....	.....	.....
With father of child.....	19	19	.....	.....	.....	.....	.....	.....	.....
With husband or man other than father.....	2	2	.....	.....	.....	.....	.....	.....	.....
At service.....	6	3	3	.....	.....	.....	2	1	.....
In institution or hospital.....	17	16	1	.....	.....	1	.....	.....	.....
Own establishment or boarded.....	19	17	2	.....	.....	.....	1	1	.....
Died.....	1	1	.....	.....	.....	.....	.....	.....	.....
Not reported.....	17	1	16	.....	2	10	3	1	.....
Colored mothers.....	375	309	66	13	4	1	31	15	2
Parental home.....	156	149	7	.....	1	.....	5	1	.....
With other relatives or friends.....	49	39	10	3	.....	.....	7	.....	.....
With father of child.....	62	60	2	1	.....	.....	1	.....	.....
With husband or man other than father.....	6	6	.....	.....	.....	.....	.....	.....	.....
At service.....	12	3	9	3	1	.....	1	4	.....
In institution or hospital.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Own establishment or boarded.....	49	45	4	.....	.....	.....	4	.....	.....
Died.....	7	3	4	3	1	.....	.....	.....	.....
Not reported.....	34	4	30	3	1	1	13	10	2

TABLE 212.—*Infant mortality and stillbirth rates, by employment of mother away from home during pregnancy, and color of mother; scheduled legitimate and illegitimate births¹ and total illegitimate births¹ in 1915.*

Legitimacy of birth, ¹ employment away from home during pregnancy, and color of mother.	Total births. ¹	Miscarriages.		Births.	Stillbirths.		Live births.			Infant deaths.	Infant mortality rate.	
		Number.	Per cent.		Number.	Per cent.	Total.	Condition at 1 year.			Based on live births, "condition known."	Based on total live births.
								Known.	Un-known.			
All mothers:												
Legitimate births ¹ (scheduled).....	11,613	418	3.6	11,195	398	3.6	10,797	10,797	.....	1,117	103.5	103.5
Illegitimate births ¹ —												
Total.....	1,124	61	5.4	1,063	108	10.2	955	699	256	281	402.0	294.2
Scheduled.....	679	46	6.8	633	61	9.6	572	572	.....	172	300.7	300.7
Employed away from home during pregnancy—												
Legitimate births ¹ (scheduled).....	1,400	83	5.9	1,317	88	6.7	1,229	1,229	.....	221	179.8	179.8
Illegitimate births ¹ —												
Total.....	716	45	6.3	671	77	11.5	594	458	136	170	371.2	286.2
Scheduled.....	499	37	7.4	462	52	11.3	410	410	.....	129	314.6	314.6
White mothers:												
Legitimate births ¹ (scheduled).....	10,104	330	3.3	9,774	282	2.9	9,492	9,492	.....	910	95.9	95.9
Illegitimate births ¹ —												
Total.....	420	24	5.7	396	22	5.6	374	241	133	118	489.6	315.5
Scheduled.....	192	16	8.3	176	13	7.4	163	163	.....	52	319.0	319.0
Employed away from home during pregnancy—												
Legitimate births ¹ (scheduled).....	723	35	4.8	688	29	4.2	659	659	.....	106	160.8	160.8
Illegitimate births ¹ —												
Total.....	223	18	8.1	205	14	6.8	191	126	65	55	436.5	288.0
Scheduled.....	126	14	11.1	112	10	8.9	102	102	.....	36	352.9	352.9
Colored mothers:												
Legitimate births ¹ (scheduled).....	1,509	88	5.8	1,421	116	8.2	1,305	1,305	.....	207	158.6	158.6
Illegitimate births ¹ —												
Total.....	704	37	5.3	667	86	12.9	581	458	123	163	355.9	280.6
Scheduled.....	487	30	6.2	457	48	10.5	409	409	.....	120	293.4	293.4
Employed away from home during pregnancy—												
Legitimate births ¹ (scheduled).....	677	48	7.1	629	59	9.4	570	570	.....	115	201.8	201.8
Illegitimate births ¹ —												
Total.....	493	27	5.5	466	63	13.5	403	332	71	115	346.4	285.4
Scheduled.....	373	23	6.2	350	42	12.0	308	308	.....	93	301.9	301.9

¹ Includes miscarriages.

TABLE 213.—Age at death, by color of mother; deaths among illegitimate live births in 1915.

Age at death.	Deaths of illegitimate infants.			Age at death.	Deaths of illegitimate infants.		
	All mothers.	White mothers.	Colored mothers.		All mothers.	White mothers.	Colored mothers.
Total.....	281	118	163	Under 1 month—Con. 2 weeks, under 1 month.....	24	9	15
Under 1 month.....	102	33	69	1 month, under 2.....	43	25	18
Under 1 day.....	34	10	24	2 months, under 3.....	29	13	16
1 day, under 2.....	14	4	10	3 months, under 6.....	48	23	25
2 days, under 3.....	5	1	4	6 months, under 9.....	33	14	19
3 days, under 7.....	10	2	8	9 months, under 12....	26	10	16
1 week, under 2....	15	7	8				

TABLE 214.—Deaths per 1,000 live births, by age at death and color of mother; total illegitimate and scheduled legitimate live births in 1915.

Age at death.	Deaths per 1,000 live births.					
	All mothers.		White mothers.		Colored mothers.	
	Legiti- mate.	Illegiti- mate. ¹	Legiti- mate.	Illegiti- mate. ¹	Legiti- mate.	Illegiti- mate. ¹
Total.....	103.5	294.2	95.9	315.5	158.6	280.5
Under 1 month.....	44.2	106.8	41.5	88.2	63.6	118.8
Under 2 weeks.....	37.1	81.7	35.2	64.1	50.6	92.9
2 weeks, under 1 month.....	7.1	25.1	6.3	24.1	13.0	25.8
1 month, under 2.....	6.0	45.0	5.4	66.8	10.7	31.0
2 months, under 3.....	5.8	30.4	5.5	34.8	8.4	27.5
3 months, under 6.....	19.4	50.3	16.8	61.5	38.3	43.0
6 months, under 9.....	15.1	34.6	14.5	37.4	19.2	32.7
9 months, under 12.....	13.0	27.2	12.2	26.7	18.4	27.5

¹ Based on total illegitimate live births (374 white, 581 colored) and probably an understatement of the true rate, since condition at 1 year was not known for 133 white and 123 colored illegitimate infants.

TABLE 215.—Cause of death, by color of mother; deaths among illegitimate live birth in 1915.

Cause of death.	Deaths of illegitimate infants.		
	All mothers.	White mothers.	Colored mothers.
All causes.....	281	118	163
Gastric and intestinal diseases.....	67	37	30
Malformations.....	10	1	9
Early infancy.....	104	50	54
Premature birth.....	39	14	25
Congenital debility.....	62	34	28
Injuries at birth.....	3	2	1
Respiratory and other communicable diseases.....	79	26	53
Respiratory.....	52	17	35
Syphilis.....	17	5	12
Other communicable.....	10	4	6
All other causes ¹	21	4	17

¹ Includes 5 deaths, "cause ill-defined or unknown."

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TABLE 216.—*Infant mortality rates, by cause of death and color of mother; total illegitimate and scheduled legitimate live births in 1915.*

Cause of death.	Infant mortality rates.					
	All mothers.		White mothers.		Colored mothers.	
	Legitimate.	Illegitimate. ¹	Legitimate.	Illegitimate. ¹	Legitimate.	Illegitimate. ¹
All causes.....	103.5	294.2	95.9	315.5	158.6	280.5
Gastric and intestinal diseases.....	29.1	70.2	28.9	98.9	30.7	51.6
Malformations.....	3.6	10.5	3.8	2.7	2.3	15.5
Early infancy.....	37.7	108.9	36.0	133.7	49.8	92.9
Premature birth.....	20.8	40.8	19.3	37.4	32.2	43.0
Congenital debility.....	12.8	64.9	12.5	90.9	14.6	48.2
Injuries at birth.....	4.1	3.1	4.2	5.3	3.1	1.7
Respiratory and other communicable diseases.....	26.4	82.7	21.0	69.6	65.9	91.2
Respiratory.....	19.7	54.5	15.7	45.5	49.0	60.2
Syphilis.....	1.3	17.8	.4	13.4	7.7	20.7
Other communicable.....	5.4	10.5	4.9	10.7	9.2	10.3
All other causes.....	6.6	22.0	6.1	10.7	10.0	29.3

¹ Based on total illegitimate live births (374 white, 581 colored) and probably an understatement of the true rate, since condition at 1 year was not known for 133 white and 123 colored infants.

TABLE 217.—*Cause of death, by age at death; infant deaths among illegitimate live births in 1915.*

Cause of death.	Deaths among illegitimate infants born in 1915.														
	Occurring in specified month of age.														
	Total.	First.													
		Total.	Under 2 weeks.	Under 2 weeks, under 1 month.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	Ninth.	Tenth.	Eleventh.	Twelfth.
All causes.....	281	102	78	24	43	29	17	12	19	6	16	11	11	9	6
Gastric and intestinal diseases.....	67	6	2	4	9	10	4	5	8	2	9	4	6	3	1
Malformations.....	10	6	6	...	1	2	2
Early infancy.....	104	70	57	13	16	4	7	2	2	...	1	2	...	...
Respiratory diseases.....	52	9	5	4	6	3	4	3	6	2	5	4	3	...	
Other communicable diseases.....	27	6	4	2	4	3	...	1	2	1	...	1	2	4	
External causes.....	3	...	...	...	3	...	...	...	...	...	...	...	...	...
Diseases ill-defined or unknown.....	5	1	1	...	2	2	...	...	1	...	...	...	...	1
All other causes.....	13	4	3	1	2	2	1	1	...	1	1	...	...	1

TABLE 218.—Age of infant when mother began work, by color of mother; scheduled legitimate and illegitimate infants born in 1915.

Age of infant when mother began work, and color of mother.	Legitimate infants.				Illegitimate infants of mothers employed.	
	Total mothers employed.		Mothers employed away from home.		Number.	Per cent distribution.
	Number.	Per cent distribution.	Number.	Per cent distribution.		
All mothers employed.....	2,784	100.0	855	100.0	371	100.0
Under 1 month.....	755	27.1	60	7.0	41	11.1
1 month, under 2.....	537	19.3	132	15.4	95	25.6
2 months, under 3.....	293	10.5	99	11.6	70	18.9
3 months, under 6.....	552	19.8	255	29.8	78	21.0
6 months and over.....	634	22.8	308	36.0	83	22.4
Not reported.....	13	.5	1	.1	4	1.1
White mothers employed.....	1,999	100.0	435	100.0	91	100.0
Under 1 month.....	686	34.3	34	7.8	18	19.8
1 month, under 2.....	351	17.6	46	10.6	15	16.5
2 months, under 3.....	171	8.6	30	6.9	15	16.5
3 months, under 6.....	329	16.5	119	27.4	22	24.2
6 months and over.....	449	22.5	205	47.1	19	20.9
Not reported.....	13	.7	1	.2	2	2.2
Colored mothers employed.....	785	100.0	420	100.0	280	100.0
Under 1 month.....	69	8.8	26	6.2	23	8.2
1 month, under 2.....	186	23.7	86	20.5	80	28.6
2 months, under 3.....	122	15.5	69	16.4	55	19.6
3 months, under 6.....	223	28.4	136	32.4	56	20.0
6 months and over.....	185	23.6	103	24.5	64	22.9
Not reported.....					2	.7

TABLE 219.—Per cent of premature births and stillbirths and infant mortality rates among full-term births, by employment of mother during pregnancy; scheduled legitimate and illegitimate births¹ in 1915.

Employment of mother during pregnancy and legitimacy of birth. ¹	Births ¹ in 1915.							
	Total. ²	Premature.		Births.	Full term.			
		Number.	Per cent of total issues. ³		Stillbirths.		Infant deaths.	
					Number.	Rate per 100 births. ³	Number.	Rate per 1,000 live births. ³
Allillegitimate births ¹	679	138	20.3	517	26	5.0	119	242.4
Mother employed.....	542	115	21.2	417	24	5.8	97	246.8
Mother not employed.....	119	21	17.6	96	2	2.1	19	202.1
Employment not reported.....	18	2		4			3	
All single legitimate births ¹	11,316	1,092	9.7	10,215	222	2.2	738	73.9
Mother employed away from home.....	1,375	188	13.7	1,184	43	3.6	162	142.0
Mother not employed away from home.....	9,933	903	9.1	9,026	179	2.0	575	65.0
Employment not reported.....	8	1		5			1	

¹ Includes miscarriages.² For 24 illegitimate births and 9 legitimate births the period of gestation was not reported.³ Not shown where base is less than 50.

TABLE 220.—*Infant mortality and stillbirth rates, by literacy and color of mother; scheduled illegitimate births*¹ in 1915.

Literacy and color of mother.	Scheduled illegitimate births ¹ in 1915.								
	Total births. ¹	Miscarriages.		Births.	Stillbirths.		Live births.	Infant deaths.	
		Number.	Per cent of total. ²		Number.	Per cent of total. ²		Number.	Infant mortality rate. ²
All mothers.....	679	46	6.8	633	61	9.6	572	172	300.7
Literate.....	553	29	5.2	524	52	9.9	472	128	271.2
Illiterate.....	100	17	17.0	83	9	.....	74	28	.....
Not reported.....	26	.....	.....	26	.....	.....	26	16	.....
White mothers.....	192	16	8.3	176	13	7.4	163	52	319.0
Literate.....	155	12	7.7	143	12	8.4	131	38	290.1
Illiterate.....	21	4	.....	17	1	.....	16	8	.....
Not reported.....	16	.....	.....	16	.....	.....	16	6	.....
Colored mothers.....	487	30	6.2	457	48	10.5	409	120	293.4
Literate.....	398	17	4.3	381	40	10.5	341	90	263.9
Illiterate.....	79	13	.....	66	8	.....	58	20	.....
Not reported.....	10	.....	.....	10	.....	.....	10	10	.....

¹ Includes miscarriages.² Not shown where base is less than 100.TABLE 221.—*Infant mortality rates, by mode of living and earnings of father or contributions to the support of mother or child during year following birth of infant; scheduled illegitimate live births* in 1915.

Earnings of father or contributions to the support of mother or child during year following birth of infant, and mode of living.	Scheduled illegitimate live births in 1915.		
	Total.	Infant deaths.	
		Number.	Infant mortality rate. ²
Total.....	572	172	300.7
Father did not live with mother ¹	441	121	274.4
Contributed to her support.....	199	46	231.2
Under \$50.....	56	10	178.6
\$50-\$99.....	46	5	.....
\$100 and over.....	54	14	259.3
Amount not reported.....	43	17	.....
Did not contribute to her support.....	242	75	309.9
Father lived with mother ¹	92	32	347.8
Earned:			
Under \$650.....	69	26	376.8
\$650 and over.....	13	4	.....
Amount not reported.....	10	2	.....
No report on father's mode of living.....	39	19	.....

¹ During entire or greater part of year.² Not shown where base is less than 50.

TABLE 222.—Per cent of infant deaths, by separation of infant from mother, and color of mother; illegitimate infants born in 1915 and surviving at 3 months and at 6 months of age.

Separation of infant from mother and color of mother.	Illegitimate infants born in 1915 and surviving at—					
	3 months of age.			6 months of age.		
	Infants.	Subsequent deaths.		Infants.	Subsequent deaths.	
		Number.	Per cent.		Number.	Per cent.
Total.....	475	75	15.8	448	48	10.7
With mother.....	383	46	12.0	365	28	7.7
Away from mother.....	92	29	31.5	83	20	24.1
Colored.....	337	48	14.2	319	30	9.4
With mother.....	273	28	10.3	262	17	6.5
Away from mother.....	64	20	31.3	57	13	22.8

TABLE 223.—Infant mortality rates, by place of confinement; total and scheduled illegitimate live births in 1915.

Place of confinement and nature of group.	Illegitimate live births in 1915.					
	Live births.			Infant deaths.		
	Total.	Condition at 1 year.		Number.	Infant mortality rate. ¹	Under 2 weeks of age.
		Known.	Un-known.			
Total registered.....	955	699	256	281	294.3	78
Hospital.....	460	269	191	106	230.4	(²)
Institution.....	56	47	9	35	625.0	(²)
Private house.....	439	383	56	140	318.9	(²)
Total scheduled.....	572	572	.....	172	300.7	44
Hospital.....	216	216	.....	64	296.3	11
Institution.....	10	10	.....	2	200.0	2
Private house.....	346	346	.....	106	306.4	31

¹ Rate in total group is a minimum rate, based on known infant deaths and total live births.² Not tabulated.

TABLE 224.—*Infant mortality rates, by infant's place of residence and color of mother; scheduled illegitimate live births in 1915.*

Infant's place of residence.	Scheduled illegitimate live births in 1915.								
	Total.			White mothers.			Colored mothers.		
	Live births.	Infant deaths.		Live births.	Infant deaths.		Live births.	Infant deaths.	
		Number.	Infant mortality rate. ¹		Number.	Infant mortality rate. ¹		Number.	Infant mortality rate. ¹
Total.....	572	172	300.7	163	52	319.0	409	120	293.4
Institution or boarded at sometime during first year of life.....	124	45	362.9	54	18	333.3	70	27	385.7
Institution only.....	33	15	.....	29	12	.....	4	3	.....
Institution and boarded.....	7	.....	.....	6	.....	.....	1	.....	.....
Boarding home.....	54	25	463.0	15	5	.....	39	20	.....
Boarded in private home.....	26	5	.....	3	1	.....	23	4	.....
Boarding home and private home.....	4	.....	.....	1	.....	.....	3	.....	.....
Never inmate of institution or boarded.....	447	127	284.1	108	34	314.8	339	93	274.3
Not reported.....	1	.....	.....	1	.....	.....	.....	.....	.....

¹ Not shown where base is less than 50.

TABLE 225.—*Death rate per 1,000 infants, by removals of infant; scheduled illegitimate infants born in 1915 and surviving at 3 months and at 6 months of age.*

Removals of infant. ¹	Illegitimate infants born in 1915 and surviving at—					
	3 months of age.			6 months of age.		
	Total.	Subsequent deaths.		Total.	Subsequent deaths.	
		Number.	Per 1,000. ²		Number.	Per 1,000. ²
Total.....	475	75	157.9	448	48	107.1
Noremovals.....	201	28	139.3	186	13	69.9
One or more removals.....	253	42	166.0	241	30	124.5
Removals not reported.....	21	5	.....	21	5	.....

¹ Exclusive of removal from hospital after birth or visits to hospital of under 1 month's duration.

² Not shown where base is less than 50.

³ Includes in survivors at 6 months of age 139 infants who moved once, 65 infants who moved twice, 25 infants who moved 3 times, and 12 infants who moved 4 times or more during year.

TABLE 226.—*Type of feeding, by month of life, and by color of mother; scheduled legitimate and illegitimate infants born in 1915.*

Month of life and color of mother.	Infants born in 1915 and surviving at specified ages.					
	Breast fed.		Mixed fed.		Artificially fed.	
	Illegitimate.	Legitimate.	Illegitimate.	Legitimate.	Illegitimate.	Legitimate.
All mothers:						
First month.....	78.6	88.2	2.5	2.7	19.0	9.1
Second month.....	54.7	79.3	14.6	5.9	30.7	14.8
Third month.....	43.8	72.2	18.6	8.2	37.6	19.6
Sixth month.....	25.4	53.2	25.6	19.7	49.0	27.1
Ninth month.....	11.6	28.6	35.4	39.4	53.0	32.0
White mothers:						
First month.....	65.3	87.9	2.0	2.6	32.7	9.4
Second month.....	47.9	79.4	9.0	5.3	43.1	15.2
Third month.....	42.2	72.6	10.4	7.2	47.4	20.1
Sixth month.....	24.2	54.1	17.2	18.3	58.6	27.7
Ninth month.....	11.4	29.6	25.4	38.1	63.2	32.3
Colored mothers:						
First month.....	83.8	90.2	2.7	2.8	13.5	6.9
Second month.....	57.5	78.0	16.9	10.1	25.6	11.9
Third month.....	44.4	68.9	21.9	15.7	33.7	15.4
Sixth month.....	25.9	46.8	29.0	30.4	45.2	22.8
Ninth month.....	11.7	21.1	39.1	49.8	49.2	29.1

TABLE 227.—*Computed mortality rates for first 10 months of life, by type of feeding and color of mother; scheduled legitimate and illegitimate live births in 1915.*

Type of infant feeding and color of mother.	Scheduled live births in 1915.							
	Legitimate.				Illegitimate.			
	Survivors at beginning of specified month.		Total months of feeding. ¹	Computed rate (for 10 months) per 1,000 fed. ²	Survivors at beginning of specified month.		Total months of feeding. ¹	Computed rate (for 10 months) per 1,000 fed. ²
	First.	Tenth.			First.	Tenth.		
White mothers:								
Infant feeding—								
Not fed, died at birth.....	234	(³)	(³)	24.7	6	(³)	36.8	
Breast feeding.....	8,137	1,904	49,397	34.1	98	10	68.6	
Mixed feeding.....	245	3,816	17,650	72.3	3	31	108.7	
Artificial feeding.....	870	2,975	22,238	158.6	49	71	419.7	
Not reported.....	6	3	47	(⁴)	7	5	(⁴)	
Colored mothers:								
Infant feeding—								
Not fed, died at birth.....	35	(³)	(³)	26.8	22	(³)	53.8	
Breast feeding.....	1,146	152	5,880	74.6	316	20	145.3	
Mixed feeding.....	36	617	3,436	138.6	10	126	182.4	
Artificial feeding.....	88	353	2,455	333.7	51	155	353.4	
Not reported.....					10	2	(⁴)	

¹ Number of infants fed in specified way times number of months so fed during first 10 months of life.

² Rate is per 1,000 fed, except for "not fed, died at birth," which is based on total live births in group. For method of computation see Appendix V, p. 199.

³ Inapplicable.

⁴ Not shown where base is less than 100.

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