

MOVEMENT OF OPEN COUNTRY POPULATION IN <sup>THREE</sup> ~~TWO~~  
TOWNSHIPS OF NORTHEASTERN OHIO

by

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Progress Report

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This report aims to make available the major results obtained from a study of the movement of open country population in three townships of northeastern Ohio. The field work was done during August and September 1927. A similar study was made of certain areas in northwestern Ohio, (Rural Sociology Mimeograph No. 3\*) and a study of southeastern Ohio is planned for the summer of this year (1928).

It is the purpose of these studies of population movement in unincorporated territory to arrive at an accurate knowledge of the quantitative and qualitative aspects of such movement. The rate of natural increase in the open country population, the extent of migration to and from the open country, the selective nature of the migration and the manner and circumstances under which the migration occurs, are all subjects which fall within the scope of these studies.

The available data on the status and movement of the rural population is still meagre. Previous to 1926, when Census Monograph VI, "Farm Population of the United States, 1920," was issued, it was impossible to obtain reliable statistics of the farm population on a state and national basis. There is still much to be desired in this direction.

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\*All references to the northwestern Ohio study in this paper are found in this mimeograph.

A few studies of rural migration in the United States have been published\*. These have been made from different points of view and pursued with varied methods of attack. The method herein used is that of the survey of areas representative of the major type conditions found in rural Ohio. The data thus gathered have been supplemented by available statistics from official sources.

The three townships herein discussed are Colebrook, located in southern Ashtabula county, Fowler, in southern Trumbull county, and Spencer in southwestern Medina county. All three of these townships are located in the industrial area of Northeastern Ohio. Urbanization of this section has taken place rapidly with the development of the iron and steel industry in such cities as Warren and Youngstown and with the phenomenal development of the rubber industry in Akron during the past 20 years. Cleveland is an important lake port and manufacturing center and has now grown to nearly one million in population. The Ashtabula and Trumbull areas are located less than 50 miles from three cities of more than 100,000 population and nine cities of 10,000 to 100,000 population. The Medina area is less than 50 miles distance from two cities of more than 100,000 population and twelve cities of 10,000 to 100,000 population.

- \* Gillett, J. M. "A Study in Social Dynamics, etc." Amer. Stat. Assn. Publications, Volume 15 pp. 345-397.  
Hoag, Emily F. "The National Influence of a Single Farm Community" U. S. D. A. Bul. 984, 363 - 8, 1916;  
Young, E. C. "The Movement of Farm Population." Cornell Agr. Exp. Station Bul. 426, 1923.  
Sanderson, Dwight. "A Population Study of Three Townships in Cortland County, New York" Cornell Agr. Exp. Station, Memoir 111, 1928.  
Zimmerman, Carl C. "The migration to Farms and Cities" Amer. Jour. of Sociology, Vol. XXXII, No. 6 and vol. XXXIII, No. 1, 1927.

The soil in Ashtabula and Trumbull counties is highly acid and the natural drainage poor. This, coupled with climatic factors, makes the areas relatively poorly adapted to the growing of corn, wheat or legumes except in isolated instances. The Medina area is of more fertile soil type and is better adapted to the growing of small grains. The chief crops of the areas are timothy hay, buckwheat, potatoes, with corn, wheat and oats in the Medina Area.

Dairying and poultry raising are on the increase in all three areas with some increase in truck crops in certain sections. Milk is the chief dairy product. It is shipped into Cleveland and Pittsburgh. Some cream is shipped into Toledo from the Medina area.

The average size of farm in the areas at the time of the survey was; - Ashtabula, 84.6 acres; Trumbull 80.1 acres and Medina 123.3 acres. The average size of rented farms was, - Ashtabula 124 acres, Trumbull 136.3 acres and Medina 143.9 acres. This difference in size of farm is accounted for by the fact that many of the owners are older men who are living on a small place doing just enough farming to be classed as farmers. The renters are younger men who in order to make farming profitable must cultivate a larger acreage.

#### I. Population Growth and Decline.

Farm population in Ohio has declined both relatively and absolutely over the period for which figures are available (1920-1925). The farm population in 1925 was 1,031,718 persons as compared with 1,139,329 persons in 1920, a decrease of approximately 107,000 persons for the five year period. This decrease should be discounted slightly since farm laborers were included in the 1920 enumeration. It is estimated that at the present time the farm population of Ohio comprises about 16 per cent of the total population as against 20 per cent in 1920 and 26 per cent in 1910.

Table I Open Country Population of the Areas Studied, 1840-1927\*

Area	1840	1850	1860	1870	1880	1890	1900	1910	1920	1927
Ashtabula	530	688	890	800	956	943	773	696	719	726
Trumbull	935	1089	996	871	851	904	764	813	896	1042
Medina	551	1336	1082	929	898	1008	963	987	549	524
Spencer Village									527	
Total	2016	3113	2968	2600	2705	2855	2500	2496	2164	2292

\* Outside incorporated places; figures for 1840 - 1920 computed from Bureau of the Census figures; 1927 from survey of the areas.

Table II, Percentage Increase Over Previous Decade of Population of Areas Studied; 1850 - 1927\*\*

Area	1850	1860	1870	1880	1890	1900	1910	1920	1927**
Ashtabula	30	28	-10	20	-1	-18	-10	3	1
Trumbull	17	-9	-13	-2	6	-15	6	10	16
Medina	242	-19	-14	-3	12	-4	2	-47*	4.5
Total	47.8	-4.7	-12.4	4.0	5.5	-12.4	-0.2	-14.2	6.0

\*\* Seven year period

\* Decrease due to incorporation of one village.

The three areas have had somewhat similar population changes. The Medina area is in some respects similar to the areas studied in Northwest Ohio. Increases in open country population have taken place since 1910 in the Ashtabula area and since 1900 in the Trumbull area. This increase has been due largely to the influx of foreign-born peoples, chiefly Poles and Hungarians, with large families. Another factor tending to bring about an increase, especially in the Trumbull area has been the increasing number of people who occupy farms and work in the cities. Few vacant houses were found in any of the areas.

II. Composition and Characteristics of the Population

The following table gives in detail the nationality composition of the heads of families in the areas:-

Table III. Nativity of Heads of Families in the Areas.

	Total	Ashtabula	Trumbull	Medina
Total	515	162	228	125
Native white	414	108	184	122
Foreign stock*	101	54	44	3
Polish	32	30	0	2
Hungarian	20	4	16	0
Unclassified Slav.	12	3	9	0
German	7	2	5	0
Ukrainian	4	3	1	0
Italian	4	2	2	0
Lithuanian	3	3	0	0
Romanian	3	1	1	1
Croatian	3	1	2	0
Czech	2	2	0	0
English	1	0	1	0
Scotch	2	0	2	0
Swedish	1	0	1	0
Dutch	2	0	2	0
Swiss	1	0	1	0
Norwegian	1	1	0	0
Bohemian	2	1	1	0
Irish	1	1	0	0

\* Foreign born or native born of foreign parentage.

Each of the areas are predominantly native white. Most of the people are descendents of immigrants from the New England states. Ashtabula and Trumbull, in the order named, have large percentages of foreign stock in their makeup. These people are chiefly Polish, Hungarian (Magyar) and Slav. The Poles predominate in Ashtabula, the Hungarians in Trumbull. It is of note here that one-third of the families and 44 per cent of the persons in the Ashtabula area are of foreign stock. In nearly every case the foreign population in these areas came into the areas from cities where they had first located upon immigration into the United States. Most of them came from Cleveland. Because of the small number (3) of families in

Modina of foreign stock, the native-foreign classification has been disregarded for this area in some of the following tables. Further analysis of the nature of the population follows.

Table IV. Number of Families and Persons in the Areas.

	Total	Ashtabula	Trumbull	Medina
Number of families visited	515	162	228	125
Number persons in families visited	2154	700	976	478
Number families in area	548	168	243	137
Estimated total population	2292	726	1042	524
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Number habitable houses vacant	14	9	3	2

Of the 548 families in the three areas, 515 were visited. The average size of the household for the Ashtabula county area was 4.3 persons: for the Trumbull county area 4.3 and for the Medina county area 3.8 persons.

The occupations pursued by the heads of the 515 families are given below:

Table V. Tenure and Occupation of the Heads of Families in the Areas.

Occupation or Tenure	All Areas	Ashtabula	Trumbull	Medina
Total	515	162	228	125
Farmers	397	134	163	100
Owners	338	118	152	68
Renters	59	16	11	32
Laborers	71	13	42	16
Farm	8	1	2	5
Other	63	12	40	11
Others	47	15	23	9
Retired farmers	21	5	13	3
Gen'l storekeeper	6	3	2	1
Physicians	3	1	1	1
Ministers	1	1	-	-
Feed & coal dealers	1	-	1	-
Flour-mill owners	1	-	1	-
Undertakers	1	-	1	-
Salesmen	1	-	1	-
Contractors	1	-	-	1
All others*	11	5	3	3

\* Consists chiefly of widows, spinsters and others who have no employment.

Table VI. Percentage of Heads of Families in Each Occupation and Tenure Group; by Native and Foreign

	All Areas			Ashtabula			Trumbull			Medina		
	To- tal	Na- tive	For- eign	To- tal	Na- tive	For- eign	To- tal	Na- tive	For- eign	To- tal	Na- tive	For- eign
Total	100	100	100	100	100	100	100	100	100	100	100	--
Farmers	77	73	95	83	75	98	71	67	91	80	80	--
Laborers	14	16	3	8	11	2	18	22	5	13	13	--
All others*	9	11	2	9	14	0	11	11	4	7	7	--
Percentage of Tenancy	15	17	9	12	12	11	7	7	5	32	32	--

\* 68 per cent of this group is retired farmers and widows of farmers.



Seventy-seven per cent of the families in these areas were farm operator families. Ninety-five per cent of the families of foreign stock were farmers, as against 73 per cent for the native white families. Trumbull had the lowest percentage of farmers. This is largely due to its nearness to industrial cities. The center of the area is less than 15 miles distance from Youngstown and Warren, Ohio, and Sharon Pa. Many families live on farms and work in the steel mills and other industries.

The highest percentage of tenancy was found in the Medina Area. In the other two areas, tenancy was lower in the foreign group than in the native. Out of the 397 farmers in these areas but 11 hired farm labor for 12 months of the year. Most of the hired farm labor was locally supplied.

Table VII Cumulative Percentage Distribution of Place of Residence of Heads of Families at Time of Marriage: by Sex

Place of Residence at time of marriage	Male Percentage															
	TOTAL				OWNER				RENTER				ALL OTHERS			
	Tot	A	T	M	T	A	T	M	T	A	T	M	T	A	T	M
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
U. S.	88	87	82	99	87	83	83	100	98	100	100	97	96	96	95	100
Ohio	74	72	65	93	70	67	59	95	83	75	64	94	82	84	79	86
Same Co.	49	47	45	57	44	50	38	58	56	63	36	59	58	52	64	50
Same Area	31	27	27	45	28	21	23	49	39	50	27	38	38	36	36	45
	Female Percentage															
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
U. S.	91	88	89	99	88	84	86	100	100	100	100	100	94	96	93	95
Ohio	74	69	66	92	71	65	62	97	81	75	64	90	78	85	74	82
Same Co.	42	34	40	56	36	27	35	54	53	50	27	65	52	54	52	50
Same Area	24	25	20	32	20	18	15	34	33	44	18	32	32	42	30	27

Since marriage among farm folk appears to be the event most frequently coincident with the leaving of the parental home, Table VII gives a kind of answer to the question, "From whence came the persons who now live in these areas?". More wives of operators than operators came from outside the area in which they now live. This held for each area and for each group in the areas. One reason for this is the fact that the "home" farm was more often taken over by the son than by the daughter.

Some differences among the areas are noticeable. More of the farmoperators and their wives in Trumbull and Ashtabula came from outside the area and county in which they now live, than in Medina. This difference is explained by the difference in composition of the populations. The latter two areas have large percentages of immigrants of foreign stock who have come into the areas during the past 10 years. Many of these people were married before leaving Europe; others were married while living in cities in this country. In addition to this factor some few native families in Ashtabula and Trumbull have recently entered farming from other occupations. This situation differs widely from that found in northwestern Ohio.

Table VIII. Percentage of Families \* Who Had Always Lived On Same Farm, In Same Area, In Same County, by Occupation and Tenure

	Total Group			Owner			Renter			All Others						
	To- tal	A	T	M	To- tal	A	T	M	To- tal	A	T	M	To- tal	A	T	M
Total																
Number	515	162	228	125	338	118	152	68	59	16	11	32	118	28	66	
Per cent	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Always																
Lived in:																
Same Co.	36	30	35	47	30	24	29	43	49	44	36	56	48	46	49	48
Same Area	28	24	24	42	23	19	19	40	42	38	27	50	36	39	35	30
Same Farm	17	18	18	14	15	15	15	13	19	25	9	19	21	25	25	0

\* "Family," in this and following tables is said to exist only from the time of the marriage of the individuals even though both parties may have lived in the same area previously

Contrary to the situation found in northwestern Ohio more renters than owners were found to have always lived in the same township (area) and county since marriage. This was partially due to the preponderance of native white families in the renter group as compared with the foreign stock of recent immigration and found in the owner group. No account of the number of years spent on the same farm, in the same area or in the same county, is given in Table VII. The following table takes the number of years the family had existed into account.

Table IX. Number of Years Native White Families Had Lived in the Areas, by Area\*

Years in the Area	Number of Families											
	Total			Ashtabula			Trumbull			Medina		
	To- tal	Area only	Some Res- idence Else- where	To- tal	Area only	Some Res- idence Else- where	To- tal	Area only	Some Res- idence Else- where	To- tal	Area only	Some Res- idence Else- where
0 - 1	56	15	41	8	8	0	32	4	28	16	3	13
2 - 4	51	17	34	9	8	1	27	3	24	15	6	9
Under 5	107	32	75	17	16	1	59	7	52	31	9	22
5 - 9	69	23	46	14	12	2	30	4	26	25	7	18
10-14	57	25	32	21	15	6	22	6	16	14	4	10
15-19	50	27	23	17	13	4	17	4	13	16	10	6
20-24	33	15	18	19	5	4	15	5	10	9	5	4
25-29	21	8	13	8	1	7	9	4	5	4	3	1
30-34	17	9	8	4	2	2	8	5	3	5	2	3
35-39	12	8	4	4	2	2	4	3	1	4	3	1
40-44	12	6	6	5	1	4	5	4	1	2	1	1
45-49	8	5	3	1	0	1	3	2	1	4	3	1
50-54	10	7	3	3	1	2	6	5	1	1	1	0
55-59	5	4	1	1	1	0	1	1	0	3	2	1
60-	3	1	2	3	1	2	0	0	0	0	0	0
Total	404	170	234	106	70	36	179	50	129	118	50	68
Median	12.3	15.9	9.5	15.5	12.3	26.4	10.2	24.0	7.5	11.1	17.5	8.3

\* Includes only families for which the information was available.

Table X. Number of Years Families of Foreign Stock Have Lived in The Areas, by Place of Residence, Ashtabula & Trumbull Areas\*

Years in Area	Number of Families		
	Total	Area Only	Some Residence Elsewhere
0 - 1	21	0	21
2 - 4	21	0	21
Under 5	42	0	42
5 - 9	40	5	35
10-14	10	1	9
15-19	0	0	0
20-24	2	1	1
25-29	1	1	0
30-34	0	0	0
35-39	0	0	0
40-44	1	0	1
Total Families	96	8	88
Median	5.8	8.8	5.3

Tables IX and X give, by 5 year groups, the number of years the families in the areas at the time of the survey had lived there. The population is divided into two groups: (1) those families which always lived in the area and (2) those families which had lived elsewhere previous to moving into the area in which they lived at the time of the survey. This division was made in order to ascertain the influence of families that had existed for only a few years upon the average number of years of residence. That is, the persons making up the family may have always lived in the area but if they had married within the previous 5 years, the median number of years the family had lived there as given in the tables would be low.

Examination of Table IX indicates that in the case of native whites in the Ashtabula area the median age is lowered considerably by the recent marriage of persons living in the area. In neither of the other areas is this true, however, since the median number of years those families indigenous to the area had lived in the area is higher than for those families who had previous residence elsewhere. Sixty per cent of the families now in the areas within five years preceding the survey migrated into the areas from elsewhere, while only 30 per cent of these new families were formed by the marriage of persons within the areas.

It will be noted in Table X that most of the foreign families had moved into the area from other locations. The median number of years they had lived in the area was 5.8 years, while the largest single group were immigrants of the last 5 years.

Table XI. Age Distribution of Farm Operators\* - By Tenure

Age in Years	Number of Operators in Each Group											
	All Areas			Ashtabula			Trumbull			Medina		
	Total	Own	Rent	Total	Own	Rent	Total	Own	Rent	Total	Own	Rent
20-29	16	5	11	5	1	4	4	2	2	7	2	5
30-39	87	65	22	35	30	5	24	23	1	28	12	16
40-49	95	76	19	34	28	6	44	39	5	17	9	8
50-59	92	88	4	27	27	0	43	41	2	22	20	2
60-69	57	54	3	16	15	1	27	26	1	14	13	1
70-	25	25	0	9	9	0	9	9	0	7	7	0
Total	372	313	59	126	110	16	151	140	11	95	63	32
Mean	48.9	50.8	38.6	47.7	49.1	38.1	50.8	51.4	43.5	47.4	52.7	37.1

\* Includes only male operators; no retired farmers.

About 2 per cent of the owners and 19 per cent of the renters were under 30 years of age. The mean age for owners was highest in Medina and lowest in Ashtabula while the mean age for renters was highest in Trumbull and lowest in Medina. Since the renters were a younger group (Table XI) and had been married fewer years on the average there was less probability of movement by them as compared with the owners. Native white owners had a mean age of 53.9 years as compared with 43.2 years for foreign owners. Stated in another manner, 64 per cent of the native white owners were 50 years of age and over as compared with 21 per cent of the foreign owners. Fifty per cent of the farm owners in the northwestern Ohio township studied were 50 years of age or more.

The following table gives the relationship of the farm operators and the owners of the rented farms in the areas.

Table XII. Relationship of Owner to Renter.

	Total		Ashtabula		Trumbull		Medina	
	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent
Total number renters	59	100	16	100	11	100	32	100
No relation to owner	40	68	10	62	8	73	22	69
Related to owner	19	32	6	38	3	27	10	31
Son	14	24	4	25	3	27	7	22
Sister-in-law	4	7	2	13	0	0	2	6
Other relation	1	1	0	0	0	0	1	3

Thirty-two per cent of the renters were related to the owners of the land as the above table shows. None of the foreign renters was related to the owner of the land.

A picture of the age and sex distribution of the population of the two areas is given by Tables XIII, XIV and XV.

Table XIII. Age Distribution By Sex.

	Grand Total		Total				Owner				Renter				Laborer				All Others			
			Native		Foreign		Native		Foreign		Native		Foreign		Native		Foreign		Native		Foreign	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Under 1	14	16	10	11	4	5	6	4	4	5	2	1	0	0	2	5			0	1	0	0
Under 5	99	103	67	71	32	32	35	35	29	30	15	21	3	2	15	13			2	2	0	0
5-9	136	134	81	85	55	49	45	46	46	47	16	20	8	2	19	18			1	1	1	0
10-14	139	140	88	81	51	59	60	56	42	51	11	14	9	5	16	8	0	2	1	3	0	1
15-19	96	92	71	66	25	26	49	48	19	20	10	5	2	3	7	10	1	2	5	3	3	1
20-24	55	53	48	49	7	4	31	21	5	4	5	8	0	0	10	18			2	2	2	0
25-29	53	49	50	35	3	14	25	17	3	13	10	8	0	1	10	9			5	1	0	0
30-34	52	66	40	42	12	24	17	20	12	21	13	11	0	2	10	11	0	1	0	0	0	0
35-39	86	84	62	59	24	25	34	40	22	18	11	8	1	4	14	8	1	1	3	3	0	2
40-44	74	62	52	48	22	13	32	32	14	11	10	9	4	1	8	4	1	0	2	4	3	1
45-49	67	57	44	42	23	15	28	36	19	13	3	0	3	0	10	5	0	1	3	1	1	1
50-54	63	60	52	55	11	5	46	35	10	4	2	5			2	5			2	10	1	1
55-59	45	37	42	33	3	4	31	27	3	3	3	0			5	6			3	0	0	1
60-64	41	37	36	36	25	12	30	26	4	1	3	4			2	3			1	3	1	1
65-69	35	40	33	39	2	1	26	28	2	1	2	4			1	3			4	4	0	0
70-74	27	14	24	11	3	3	15	4	0	1	2	0			2	0	1	0	5	7	2	2
75-79	20	17	19	16	1	0	10	10	1	0	2	1			2	4			5	2	0	0
80-84	12	7	12	6	0	1	7	2	0	1	0	1			1	0			4	3	0	0
85 & over	1	1	1	1	0	0	1	1	0	0	0	0										
Total	1101	1053	822	776	279	277	522	483	231	239	18	119	30	20	134	125	4	7	48	49	14	11



Table XIV. Percentage Age Distribution of Population by Sex & Nativity  
All Areas

Age in Years	Total		Native White		Foreign	
	M	F	M	F	M	F
Under 5	9.0	9.8	8.2	9.1	11.5	11.6
5 - 9	12.4	12.7	9.9	11.0	19.7	17.7
10-14	12.6	13.3	10.7	10.4	18.3	21.3
15-19	8.7	8.7	8.6	8.5	9.0	9.4
20-24	5.0	5.0	5.8	6.3	2.5	1.4
25-29	4.8	4.7	6.1	4.5	1.1	5.1
30-34	4.7	6.3	4.9	5.4	4.3	8.7
35-39	7.8	8.0	7.5	7.6	8.6	9.0
40-44	6.7	5.8	6.3	6.2	7.9	4.7
45-49	6.1	5.4	5.4	5.4	8.1	5.4
50-54	5.7	5.7	6.3	7.1	3.9	1.8
55-59	4.1	3.5	5.1	4.3	1.1	1.4
60-64	3.7	3.6	4.4	4.6	1.8	0.7
65-69	3.2	3.8	4.0	5.0	0.7	0.4
70-74	2.5	1.3	2.9	1.4	1.1	1.1
75-79	1.8	1.6	2.3	2.3	0.4	0.0
80-84	1.1	.7	1.5	0.8	0.0	0.4
85 & over	0.1	0.1	0.1	0.1	0.1	0.0
Total	100	100	100	100	100	100

Table XV. Percentage of Native and of Foreign in Each Age Group,  
By Five Year Groups

Age in Years	Per cent in each Age Group	
	Native	Foreign
Under 5	68	32
5- 9	61	39
10-14	61	39
15-19	73	27
20-24	90	10
25-29	83	17
30-34	69	31
35-39	71	29
40-44	74	26
45-49	69	31
50-54	87	13
55-59	91	9
60-64	91	9
65-69	96	4
70-74	85	15
75-79	97	3
80-84	95	5
85-	100	0
Total	1461	339

The Ashtabula area had a large deficiency of persons in the 20-29 year age group. This was due to two sets of factors: (1) emigration of native whites between the ages of 20-25 years and (2) immigration of foreign families with few persons in the 20-29 year group. Most of the foreign families had come into the area within the previous 10 years. Most of the heads of families were over 30 years of age, while their children were under 20 years. ( Chart III).

The age distribution of the Trumbull area was somewhat similar to the age distribution of the United States. It differed from the other two areas in that the smallest group of persons occurred in the 30-34 year age group. The age distribution of the foreign stock

showed the same characteristics as that of Ashtabula. The native white population in Ashtabula is barely replacing itself. Note the large proportion of the foreign stock in the younger age groups. (Chart III and Table XV).

"According to Sundbarg\* one of the striking features of a normal age distribution is the fact that about one-half of the population are between 15 and 50 years of age. He distinguishes three types of age distribution. The first is the Progressive type, the second the Stationary type and the third the Regressive Type." These are illustrated by the typical groupings in Table XVI.

Table XVI. Theoretical Types of Population Based on Age distribution.\*

Age	Per cent of population		
	Progressive	Stationary	Regressive
0-14	40	53.33	20
15-49	50	50	50
50 & over	10	17	30

"It will be noticed that in all cases, the proportion of middle-aged persons is the same, and that the classification depends upon the proportion of persons under 15 years to those more than 50 years of age." To this Whipple\*\* adds that if the percentage of persons between 15 and 50 years of age is much less than 50. It indicates that the population has lost by emigration; if the percentage of persons between 15 and 50 years of age is greater than 50 it indicates that there has been accessions to the population by immigration.

\* Whipple, G. C. Vital Statistics ( Sec. Ed. ) pp. 189.

\*\*Ibid, pp. 190.

Table XVII. Age Distribution of Population According to Theoretical Types: By Areas

Age	Per cent of population		
	Ashtabula Area	Trumbull Area	Medina Area
0-14	40	33	32
15-49	40	45	46
50 & over	20	22	22

From the distributions in Table XVII we might conclude that the Ashtabula area is of the Progressive Type with some immigration since it has 40 per cent of its population under 15 years of age and but 40 per cent between the ages of 15 and 50 years.

The Trumbull and Medina areas show very similar distributions. They are somewhat typical of stationary populations, with some migration of adults. Analysis of the populations of these areas according to nationality and occupation gives a better picture of population composition. The following table illustrates this.

Table XVIII. Age Distribution of Population According to Theoretical Types; By native and foreign, by occupation; All Areas.

Age	Per cent of population					
	Total		Farmer		Other	
	Native	Foreign*	Native	Foreign*	Native	Foreign*
0-14	30	50	30	53	28	11
15-49	44	43	44	41	47	61
50 & over	26	7	26	6	25	28

\* All in the Ashtabula and Trumbull areas.

Marked differences between the native whites and those of foreign stock are evident. The migration of native white adults from areas has resulted in lowered birth rates, and a large proportion of persons 50 years of age and over. The counter movement has been by foreign families of middle age or less. These families have many children. One-half of the foreign stock in these areas is under 15 years of age, while

but seven per cent is 50 years of age and over. In the Ashtabula area the native white population is nearly that of a regressive population, while in Trumbull it approaches the stationary. In the native white population there were 760 children under 15 years per 1000 persons 20-44 years of age; in the foreign stock 1397. Seventy-six per cent of the male heads of families were the sons of farmers, as compared with 69 per cent of the females.

Table XIX. Per cent of families, by Sex who Had Parents in Each Occupation Group: All Areas by Occupation and Tenure.

Occupation of Heads of Families	Total Group	Occupation of parents of heads of families							Pro- fession- al	Occu- pation- unkno
		Farmer	L A B O R E R	tal Farm	Skilled	Other	Bus- iness			
<b>Male Percentage</b>										
Total	100	76	15	*	9	6	2	3	4	
Farmer	100	79	13	1	7	5	2	2	4	
Owner	100	81	11	*	7	4	2	1	5	
Renter	100	69	23	0	12	11	2	3	3	
Laborer	100	62	26	0	15	11	1	5	6	
All Other	100	70	14	0	12	2	2	12	.	
<b>Female Percentage</b>										
Total	100	69	19	0	11	8	6	2	4	
Farmer	100	71	18	0	11	7	6	1	4	
Own	100	71	18	0	10	8	6	2	3	
Rent	100	66	18	0	14	4	5	2	9	
Laborer	100	58	28	0	11	17	8	3	3	
All Other	100	74	19	0	12	7	2	0	5	

\* Less than 1 per cent.

This corroborates the findings in northwestern Ohio that more women come into farming from other occupation groups through marriage than is the case for men. More than 20 per cent of the renters were children of non-farm laborers. Only 11 per cent of male heads of families in the owner group were the sons of non-farm laborers, and virtually no farmers or farmers' wives were the children of farm laborers.

III. Geographic and Occupational Distribution of Children Born to Families Living in the Areas at the Time of Survey..

The Trumbull area, situated near several industrial towns had the largest percentage of children 18 years of age and over, at home. Many of these children were living at home and working in town, since the distance to any one of three mill towns is 15 miles or less. As in the northwestern Ohio areas a larger percentage of the males than of the females were at home after the age of 18 years. A larger percentage of the farmers than of the non-farmers children 18 years of age and over were at home.

Table XX. Location of Children 18 years of age and over with reference to parental home:- All Areas, by sex.

Percentage in each location	Grand Total		F A R M E R						All Others	
	Total		Owner		Renter		Others			
	M	F	M	F	M	F	M	F	M	F
<u>Ashtabula County</u>										
Total Group	100	100	100	100	100	100	100	100	100	100
At parental home	26	14	29	14	29	15	*	*	7	22
Away from parental home	74	86	71	86	71	85	*	*	93	78
<u>Trumbull County</u>										
At parental home	43	31	47	40	47	38	*	*	32	10
Away from parental home	57	69	53	60	53	62	*	*	69	90
<u>Medina County</u>										
At parental home	28	26	26	27	23	32	*	*	38	21
Away from parental home	72	74	74	73	77	68	*	*	62	79
<u>All Areas.</u>										
At parental home	34	25	36	28	35	28	36	22	28	14
Away from parental home	66	75	64	72	65	72	44	78	72	86

\* Too few cases to make percentages significant.

The age at marriage and the age at starting for themselves differed for the male and female children. The table below gives the averages for these items.

Table XXI. Age at marriage and at time of starting for themselves for 572 children, by sex.

	Mean		Median	
	Male	Female	Male	Female
Starting for self	21.3	20.6	20.1	19.8
Marriage	23.5	21.2	22.9	20.5

\* "Starting for Self" means here the age at which the child ceased to be dependent upon the parental family.

The mean age at starting life for themselves was 21.3 years for the males and 20.6 years for the females, a difference of 0.7 years. The median age at starting for themselves was 20.1 and 19.8 years respectively, a difference of 0.3 years. The mean age at marriage was 22.9 for the males and 20.5 for the females. It will be noticed that the age at marriage and the age at starting for themselves more nearly coincide in the case of the females than in the case of the males. Marriage is yet the one event for females, most often coincident with their leaving the parental home. Of the 277 male children who had started for themselves, 63 per cent were married at the time of the survey; of the 295 female children who had started for themselves, 81 per cent were married.

A complete record was obtained of the location at the time of the survey, of those children born to families found in the areas. Table XXII gives their location by distance from the parental home.

Table XXII. Distance from parental home of children who have started for themselves; by place of residence.

Distance in Miles	Number and per cent of children								
	Total		Open country		Village		City		Location Unknown
Less than;	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	
10	223	40	186	75	34	59	3	13	0
20	332	59	211	85	47	81	74	31	0
40	404	72	228	92	56	86	126	53	0
60	474	84	230	93	51	88	193	80	0
80	480	85	231	94	51	88	190	83	0
100	486	86	234	95	52	90	200	83	0
120	493	87	234	95	52	90	203	85	4
140	495	88	235	95	52	90	204	85	4
160	506	90	236	96	53	91	212	88	5
200	512	91	238	96	56	97	213	89	5
500	547	97	245	99	58	100	232	97	12
1000	551	98	246	99	58	100	234	98	13
No information	8		3		0		0		5
Total No.	572		250		58		240		24
Per cent	100		43.7		10.1		42.0		4.2

Of the 572 children who had started for themselves at the time of the survey, 43.7 per cent was located in the open country, 10.1 per cent in villages and 42.0 per cent in cities. Ninety-five per cent of those located in the open country, 90 per cent of those located in villages and 83 per cent of those located in cities were living less than 100 miles from the parental home. This relationship between open country, village and city exists for all distances except that all of those living in villages were less than 500 miles from the parental home. These figures are much the same as for the northwestern Ohio areas studied. While the percentages living in open country, village and city are much the same as for the northwestern Ohio areas the percentage engaged in agriculture is much lower in these northwestern areas.



Table XXIII. Occupation of children who had started for themselves; by occupation of their parents, by sex of children.

Occupation OF Children	Number and per cent of children by occupation of parents									
	All Occupations		Total		Owner		Renter		All Others	
	M	F	M	F	M	F	M	F	M	F
Total										
Number	275	296	208	233	204	218	4	15	67	63
Percent	100	100	100	100	100	100	100	100	100	100
Farmer*										
Per cent	20	18	24	18	25	17	0	40	4	16
Non-farmer										
Per cent	80	82	76	82	75	83	100	60	96	84

\* Includes farm laborers.

Twenty per cent of all males and 18 per cent of all females were engaged in agriculture. The corresponding figures for children from farm families are 24 and 18 per cent, respectively. In Table XXII we noted that 43.7 per cent of all children were living in the open country. Hence it may be calculated that only 42 per cent of the children who took up residence in the open country were engaged in agriculture at the time of the survey. This is quite a different situation than that found in the northwestern Ohio areas where approximately 80 per cent of the children residing in the open country were engaged in agriculture, at the time of the survey.

Few persons of foreign extraction are included in the group of children who had started for themselves because most of the children of foreign parentage were too young to leave the parental home. The average number of children born to native white married farm women who had consummated the childbearing period was about five. But 19 per cent of the children born, or less than one person per family, went into agriculture. For the family system of farming where one man and one woman operate the farm, not enough of the children of the native white occupants of the farms in these areas, are entering agriculture to replace the present generation.

Unless the men and women can find, in other occupation groups, wives and husbands who are willing to enter farming as an occupation, the farms of this section of Ohio must be repopulated with immigrants to the area or abandoned as farms. Because of the proximity to cities, however, these farms are being used as residences by persons who work largely at urban occupations. In this connection it is to be noted that 26 per cent of the children in these areas who had started for themselves were living at home. Inquiry into this situation revealed that many of the children still lived at the parental home and worked in urban industry. Thus many of the farmers were of advanced age in these areas since they were able with the help of their children's income to remain on the farm while cultivating only a small area.

Fifty-eight per cent of the children who were living in the open country were engaged in occupations other than farming. Many of them found it cheaper to buy or rent a small farm (land is relatively cheap) and use it merely as a residence, than to rent a residence in the city. The automobile has made this possible.

No detailed study of the relation of school training to occupational distribution is given in this paper. A detailed analysis of this factor will be made in the final report of these studies. The following table shows the grade in school finished, by broad groups.

Rable XXIV. Number and Per Cent of Male Children Who Had Started for Themselves, Finishing Different Grades in School; by Occupation

Grade in school finished	Grand Total		Farm		<i>Non-farm</i> Total		Laborer		All Others	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Total	275	100	53	100	222	100	160	100	62	100
Less than 9th	111	40	25	47	86	39	75	47	10	16
Ninth or more	149	54	28	53	121	54	75	47	47	76
Unknown	15	6	0	0	15	7	10	6	6	8

Forty seven per cent of the farmers and 39 per cent of the non-farmers had an eighth grade education or less. This would indicate that there is a slight tendency for those who had an eighth grade education or less to remain on the farm rather than to enter other occupations. Much less difference exists here than in the northwestern Ohio areas where the one-room country school still persists.

Consolidation of rural school in the northeastern counties studied began some time before 1905, and in 1914 the majority of the townships were either wholly or partially consolidated; in 1922, Medina county had but 15 one-room schools, Ashtabula ( the largest county in the state) 66 while Trumbull county had but one. With consolidation came rural high schools. In the northwestern counties studied the one-room school has been until recently, the rule with few rural higher schools. These facts probably have some bearing on the relative amount of school training secured by those entering farming and other occupations. Before the advent of the rural high school the children who got more than an eighth grade education were forced to attend school in towns where the majority of the pupils were urban in their attitudes.

Eleven per cent of the daughters who had started for themselves were employed before their marriage while 18 per cent were employed but unmarried, a total of 29 per cent that had had at sometime employment other than that of homemaker ( i. e., housewife). A large part of this group

Table XXV. Status of Daughters Who Had Started for Themselves.

	Total		Ashtabula		Trumbull		Medina	
	No	Pct.	No	Pct.	No.	Pct.	No.	Pct.
Total	296	100	103	100	136	100	57	100
Married	244	<u>82</u>	82	80	118	87	44	<u>77</u>
Employed								
Before marriage	32	11	19	18	5	4	8	14
After marriage	3	1	2	2	1	1	0	0
Unmarried	52	18	21	20	18	13	13	23

who were employed previous to marriage worked as domestics and as factory workers, while teaching, nursing and stenographic work was the occupation of about half of them.

IV. Factors of Population Change.

It will be seen from Chart I. that the Medina area is the only area that has shown any decrease in population since 1910; Spencer village located in this area has been incorporated since 1920. The Ashtabula and Trumbull areas both show increases, the former since 1910 and the latter since 1900.

Table XXVI. Births, Deaths and Natural Increase: All Areas, 1920-1926\*

	1920	1921	1922	1923	1924	1925	1926	Total	Average
<u>Ashtabula County Area</u>									
Births	14	20	17	12	13	14	11	101	14.4
Deaths	8	8	8	5	10	6	10	55	7.9
Nat. Increase	6	12	9	7	3	8	1	46	6.5
<u>Trumbull County Area</u>									
Births	23	16	16	13	17	17	15	117	16.7
Deaths	11	10	8	12	6	10	8	65	9.3
Nat. Increase	12	6	8	1	11	7	7	52	7.4
<u>Medina County Area</u>									
Births		21	18	8	7	8	10	72	12.0
Deaths		12	5	10	4	4	6	41	6.9
Nat. Increase		9	13	-2	3	4	4	31	5.1
<u>All Areas</u>									
Births		57	51	33	37	39	36	253	42.2
Deaths		30	21	27	20	20	24	142	23.7
Nat. Increase		27	30	6	17	19	12	111	18.5

\* Data from Division of Vital Statistics, Ohio State Department of Health.

The average rates for the three areas based upon the estimated population for ,1923 were:

	Total	Ashtabula	Trumbull	Medina
Birth Rate	19.0	19.9	17.4	22.5
Death rate	10.7	10.9	9.7	12.8
Natural increase rate	8.3	9.0	7.7	9.7
"Vital Index"*	178.0	184.0	180.0	176.0

\* Births per 100 deaths for the period.

No significant changes in birth or death rates for the areas are discernible from the above tables. The Vital Index for the areas is practically the same for the state as a whole for the same period. Changes in population over the period for which we have data are evidently due to other factors.

A comparison of the number of children born to married females 45 years of age and over in the areas, with the number born to their mothers reveals an average difference of two less children born per family in the present generation. This may be in part compensated for by the decrease in infant mortality.

Although we do not have sufficient data to figure birth and death rates for the native and foreign elements of the population separately, the following table shows some striking differences between the two populations. We have listed the total number of children born; the number living and the number living at home at the time of the survey, for each family in the area. Reduced to the number per 100 families the figures are as follows:-

	Number of children per 100 families		
	Born	Living	Living at home
Native white	304	266	164
Foreign stock	528	397	333

Reference to Graphs II and III will recall that more of the foreign stock fall into younger age groups than do the native whites. Despite the fact that more of the native white mothers than the mothers of foreign

stock in the area had consummated the childbearing period, the number of children per 100 families was much higher among the latter. Though the mean age of the native white children was considerably higher than that of the foreign, the percentages of those born who were living at the time of the survey were 87.5 and 75, respectively. Stated in another way, the percentage of deaths among the foreign children was at least twice that of the native white children. No doubt this is due largely to a high infant mortality and a high death rate among young children in the foreign group. But even with this high death rate the foreign group had, at the time of the survey, approximately 50 per cent more children per 100 families living than did the native white group. With this differential in the birth rate the foreign stock will eventually displace the native whites, unless there is a much higher migration, from the area, of the children of foreign parents. Especially is this true in Ashtabula where 33 per cent and in Trumbull where 20 per cent of the families in the area at the time of the survey were of foreign stock. There was little difference in the amount of emigration in the two groups at the time of the survey.

Rather than a decrease in open country population as was the case in northwestern Ohio areas studied the chief changes in these areas were changes of occupation and nationality composition. In these areas, located near large industrial centers as they are, the population has been turning from agriculture to industry but has been keeping its residence in the areas to a large extent. Land is relatively cheap except in the suburbs of the cities, and farming relatively unprofitable because of soil type. While the open country population shows no decline (in fact it has increased in two areas) farming has been declining until but 77 per cent of the families in the areas at the time of the survey were engaged in farming. While 40 per cent of the children born to the families now living in the areas were

located in open country within a radius of less than 10 miles from the parental home, only about 20 per cent were engaged in farming. Of the families listed as farmers in this paper, many of them had one or more persons working in the city full or part time. Many of the foreign group farm only when other work is not available, or the farming is carried on by the females and younger children of the household.

The relatively better wages paid by industry as compared to farming has resulted in the migration of the original settlers of these areas cityward leaving the farms to others who were willing to subsist at a lower monetary standard. Many persons of European birth migrated into these areas. Most of them in these areas were Polish and Hungarian (Magyar), with a sprinkling of various Slavic peoples. The Poles in the Ashtabula area had become numerous enough that they were becoming segregated into certain sections. In many instances they had their own threshing rings etc. Most of the Poles were Roman Catholics and thus they did not associate with the Protestant population in their worship. The chief assimilative agencies at work were the school and the Extension Service of the Ohio State University with its Boys' and Girls' clubs. However, the Heterogeneity of the population had hampered social organization to a large extent. The native whites held themselves generally aloof and looked upon the foreign element that had come into their community as an inferior group socially.

Many of the foreign group bought farms from unscrupulous land agents of their own nationality at an exorbitant price and as a result were having a hard time to make a living. Despite this handicap many of them were paying for their farms and there is a good reason to believe that they will remain permanently on the land.

Factors that may affect migration, such as income of the family, standard of living and education of the parents have been discussed here

only in a general way. They will be discussed more fully in the final report of these studies.

Summary.

The sample areas chosen for this study lie in the urban-industrial section of northeastern Ohio. One of the areas, Medina, lies in the better farming section of that part of the state and in some respects is similar to the areas surveyed in northwestern Ohio. Its one characteristic in common with the Ashtabula and Trumbull areas is that it is located in the same highly urbanized section of the state. Ashtabula and Trumbull with a soil and climate ill adapted to extensive agriculture are rapidly undergoing a change in population composition. Because of their proximity to cities they are becoming the residence of increasing numbers of people whose occupations are non-agricultural. Because of the low land values it is much cheaper for them to live on farms where they can grow a part of their food supply than to live in the urban districts in which they work.

All three of the areas were originally settled very largely by immigrants from the New England states. Medina has a good percentage of families of German origin. The relative unprofitableness of farming in these areas has led to a heavy drift of the youth of these original settlers into urban industry. Not enough of them are remaining in Agriculture to keep the farms under cultivation. Because of this situation many of the farms have been sold. The buyers in most of the cases especially in Ashtabula and Trumbull are recent immigrants from Europe, chiefly Polish and Hungarians with a smattering of other Eastern Europeans. As the number of these "Foreigners" has increased the desirability of the areas as a place to live has decreased, from the standpoint of the original settlers. This has served to accentuate the emigration of the descendants of the original settlers.

Not all of the families who have recently moved into the areas are of foreign birth, however. Especially in Trumbull there has been immigration



of native white families whose farming is only desultory and incidental to a job in a nearby city when the steel mills and factories furnish employment.

A resume of some of the figures given in the text illustrate the situation described above:- In Ashtabula 33 per cent of the families and 44 per cent of the people were foreign; in Trumbull 24 per cent of the families and 20 per cent of the people were foreign and in Medina less than 3 per cent of the families were of foreign origin. The Medina area was the only one that showed a decrease in population since 1920. The highest increase came in Trumbull. This area had 16 per cent more people than at the time of the 1920 Census enumeration.

The percentage of the families who lived on farms\* was as follows:- Ashtabula 83, Trumbull 71, Medina 80. For native white families the figures were Ashtabula 75, Trumbull 67, Medina 80, and for foreign families the figures for Ashtabula were 98 and for Trumbull 91 per cent. The percentage of tenancy was, - Ashtabula, 12, Trumbull 7, and Medina 32. Tenancy among the native whites was higher than among the foreign.

Fifty-one per cent of the male and 58 per cent of the female heads of families at the time of their marriage, resided outside the county in which they were living at the time of the survey. Comparable figures for those who lived outside the township at the time of their marriage, are 69 for males and 76 for females. Comparison of these figures with those of the northwestern Ohio areas studied indicate the relatively greater population changes that have taken place in these areas.

The median number of years that the native white families that had migrated into the areas, had lived there, was for Ashtabula 26.4, Trumbull 7.5 and Medina 8.3. For the foreign families the median number of years of residence in the areas was 5.8 years.

\* "Farm" defined as in United States Census of Agriculture: 1925.

Twenty per cent of the male and 18 per cent of the female children who had started for themselves were engaged in farming. Forty-three and seven-tenths per cent. of these children were located in the open country, 26 per cent of them residing with their parents. Thus only 42 per cent of those children living in the open country were engaged in agriculture. Of the male children 40 per cent had an eighth grade education or less. There were only slight differences between the amount of schooling obtained by those going into various occupations.

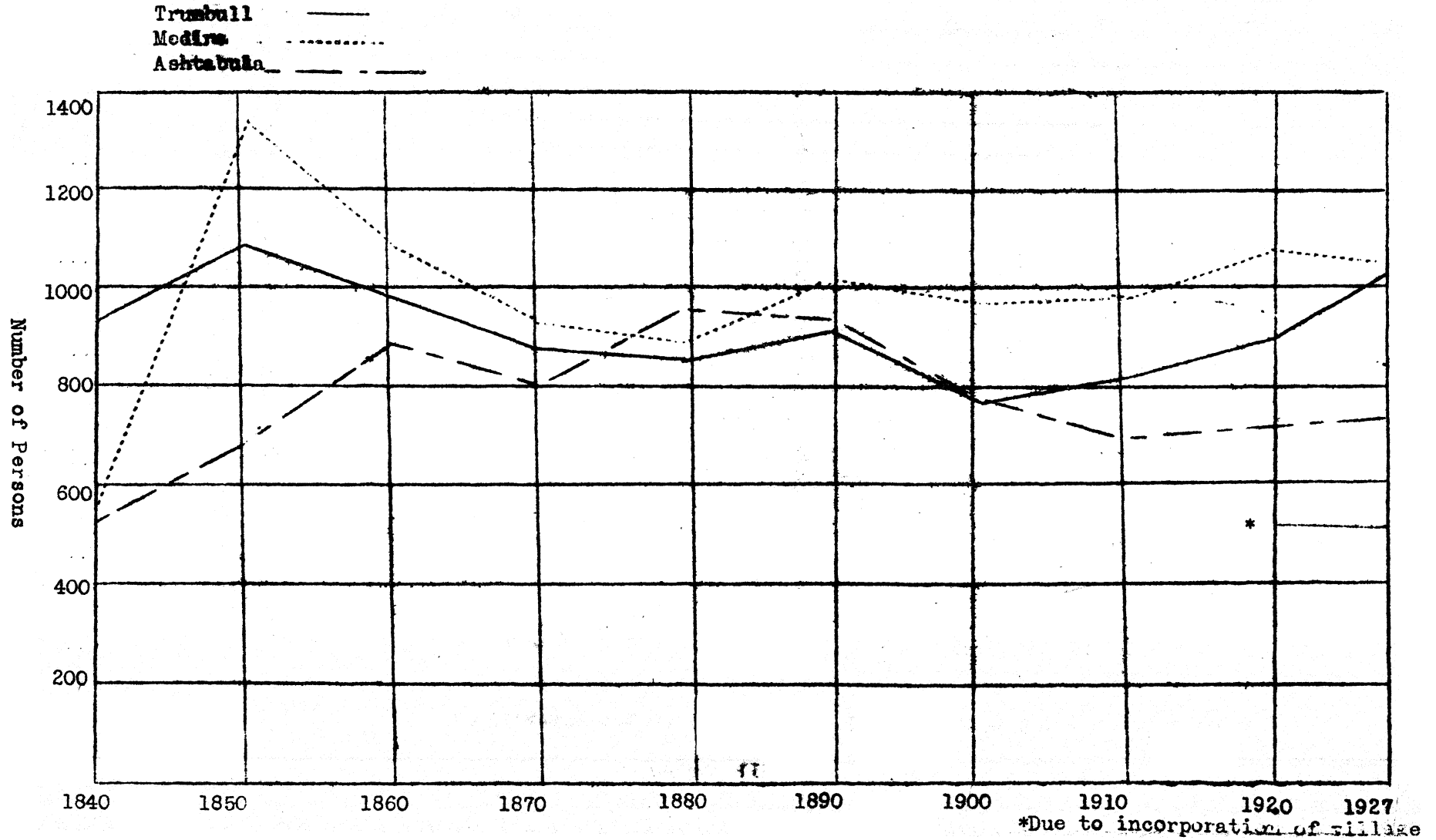
Twenty-nine per cent of the female children who had started for themselves had either worked before marriage or were working and unmarried. Few of them continued to work after marriage.

The birth rate among the foreign families is much higher than among the native white families. Ashtabula with 33 per cent of its families foreign had 52 per cent of its children under 10 years of age in the foreign group. In Trumbull the same situation exists to a less extent.

That there is an actual decrease in the number of births is indicated by the fact that the native white married women in the areas, 45 years of age and over, gave birth on the average to two less children than did their mothers. Much the same situation was found in northwestern Ohio except that the number of births per mothers is on an average one less than in northeastern Ohio.

CHART I

Open Country Population of Colebrook Township, Ashtabula County, Fowler  
 Township, Trumbull County and Spencer Township, Medina County - 1840- 1927  
 (See Table II)



Number Persons

CHART III //

Age Distribution of Native White Population by Sex : All Areas

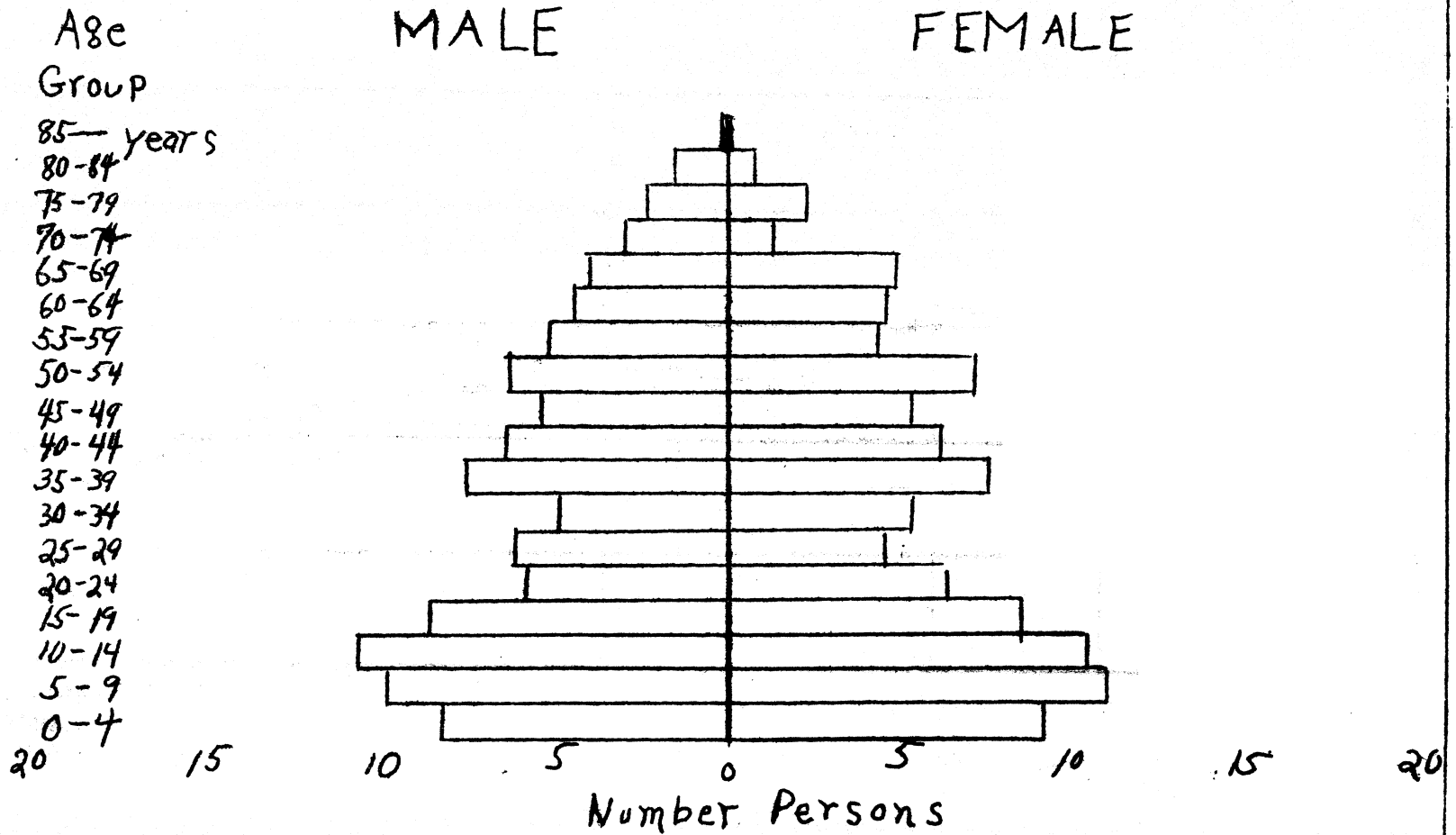


CHART III

Age Distribution of Foreign Born White Population; All Areas.

