

Migration and Population Change in Indiana

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In the words of Dudley Kirk, "People are born, they die, or they move; these are the components of population change" (1). In the United States data are readily available on the number of births and deaths each year in each county and in each city of ten thousand persons or more (2), but adequate data on migration are somewhat harder to obtain. This is indeed surprising in view of the traditional mobility of the American people; at the time of the 1950 Census of Population one of every six Americans over one year old had moved to a different house within the preceding year, and one of every sixteen had moved to a different county (3).

It is the purpose of this paper to consider population migration to, from, and within Indiana, insofar as this migration can be estimated from published statistics. We will follow two main lines of attack. First, analysis of the net resultant of migration by all persons living at the time of the 1950 Census of Population is based on the Special Census Report on Mobility of the Population (4). Second, analysis of migration between 1940 and 1950 is based on comparison of population change, as reported in the 1950 Census (5), with vital rates for each year, as reported in Vital Statistics of the United States (2). Two other measures of migration were explored, but have serious flaws for geographic purposes: change in residence between 1949 and 1950 is too heavily weighted for those places with large student populations (6); length of farm tenure is reported for areas too large to have significance in a geographic survey of a single state (7).

The Net Resultant of Migration

In 1950 a total of 4,875,430 people, including 195,655 nonwhite persons, had either been born in Indiana or were living here; these are the "Indiana people" of the first figure (Fig. 1). Only 2,853,140 of these five million people were both natives and residents; 957,750 natives of Indiana were residents of other states in 1950, whereas 940,555 natives of other states were living in Indiana. The resultant net change by inter-state migration (-17,235) was a loss of less than half of one percent of the 1950 population. In contrast, more than half (104,520) of the state's nonwhite population in 1950 was a product of interstate migration. Approximately one-third (67,350) of Indiana's nonwhite people were both natives and residents, whereas little more than ten percent (23,785) were natives who had moved to other states.

Adjacent states were the prime sources of Indiana's migrant population (Fig. 2). Taking the stream of migrants as a whole, more than twenty percent each came from Illinois and Kentucky, more than ten percent from Ohio, and more than five percent each from Tennessee

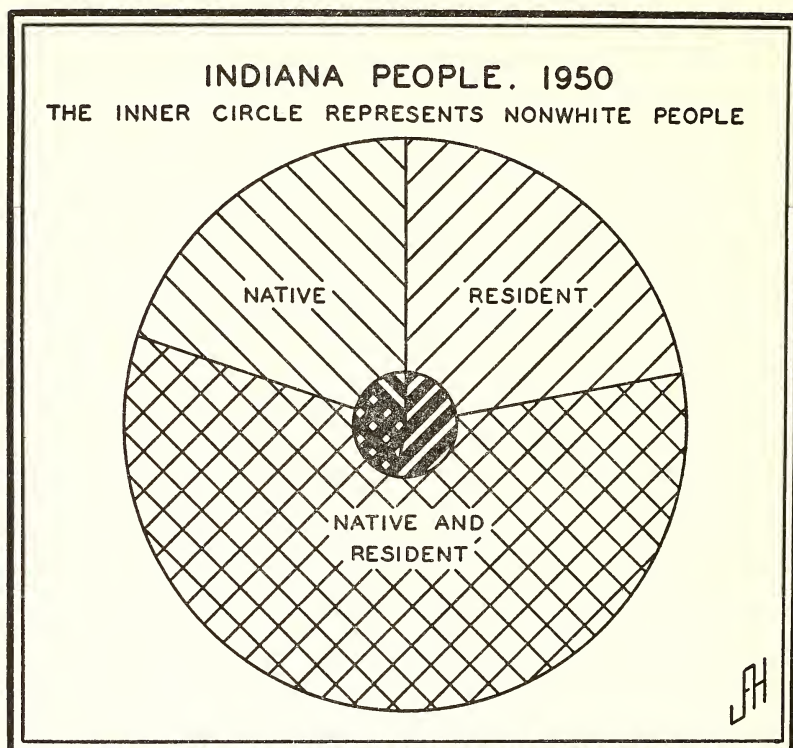


Figure 1

and Michigan. Pennsylvania, Missouri, and Mississippi were the only other states contributing more than two and a half percent. Excluding New England, the majority of states east of the Great Plains contributed at least half of one percent of the total flow, whereas relatively few migrants came from states west of the Rockies.

The major migrant magnets for Indiana natives were adjacent states to the north, and California (Fig. 3). Four states, Illinois, California, Ohio, and Michigan, each took more than twelve percent of all migrants, whereas the next highest, Kentucky, took only four. The other states taking more than two percent of the total flow were Florida, Texas, Missouri, Washington, and New York. There was relatively slight migration to New England or to the South, but considerable movement westward, and especially to the three West Coast states.

The diagram of migratory trends minimizes the effects of migration to and from adjacent states, a movement which may merely represent minor shifts of residence across state lines in many instances (Fig. 3). Ohio, for instance, provides more than ten percent of Indiana's immi-

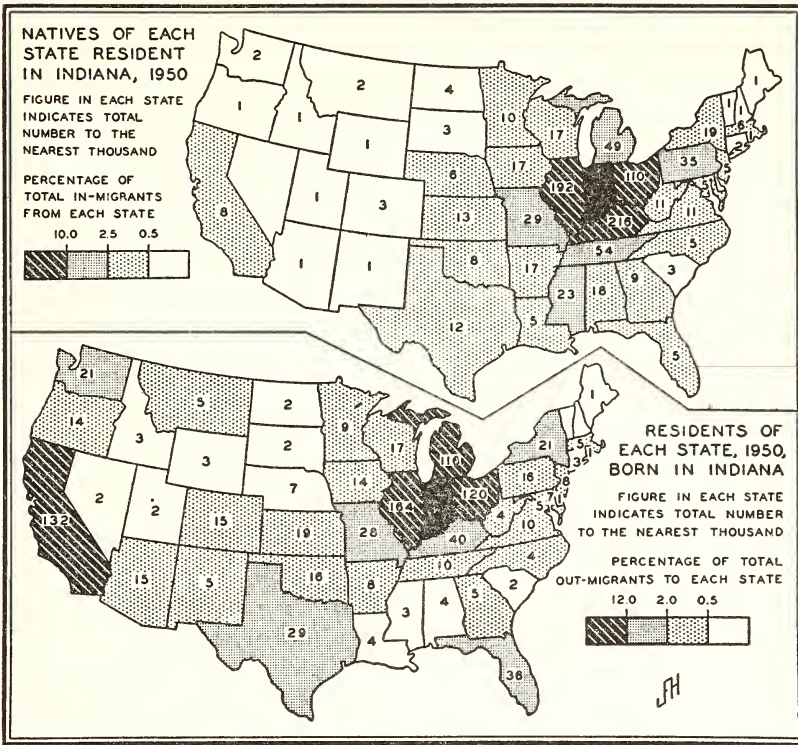


Figure 2

grants, but receives more than ten percent of the state's emigrants; the two movements cancel each other. On the other hand, Kentucky receives few emigrants but provides a large proportion of the immigrants, whereas just the reverse is true of California. When net migration alone is considered, it is evident that the major flow of migrants to Indiana comes from four states in the middle South, with lesser numbers from the east and northern mid-West. The major migratory trend of Indiana natives is westward, with lesser movements to Michigan and Florida, and a small share to the New York and Washington metropolitan areas. It is apparent from this map that the young men and women of Indiana who took Horace Greeley's famous advice have been replaced by immigrants from the South.

Urbanization, Migration, and Rates of Natural Increase

Although precise quantitative correlation is impossible, there are broad general relations between urbanization, migration, and rate of natural increase in Indiana between 1940 and 1950. This fact facilitates discussion of Indiana's cities and counties, insofar as migration and natural increase are concerned, in the following five categories:

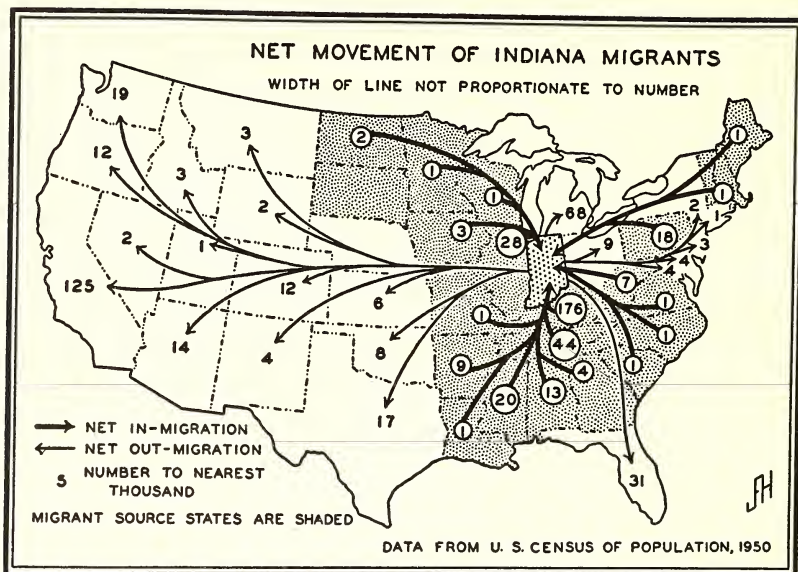


Figure 3

(1) metropolitan cities, including all cities of more than ten thousand persons in standard metropolitan areas.

(2) metropolitan counties, including all counties in standard metropolitan areas.

(3) small cities, including all cities of more than ten thousand people in 1940.

(4) small city counties, including all counties which contain small cities.

(5) rural counties, which had no city as large as ten thousand in 1940.

Natural Increase, 1940-50

The natural increase is the surplus of births over deaths. For comparability with Census data, the number of deaths of residents in every Indiana city and county during the ten intercensal years 1940-49 were totalled, and the total number of deaths was subtracted from the total number of births during this same period (2). The surplus of births over deaths was divided by the total 1940 population to produce a figure representing the rate of natural increase; the rate of natural increase is interpreted equally correctly as a percentage of the 1940 population, or as the average number of new persons each year per thousand persons in 1940.

The highest rates of natural increase in Indiana for the decade 1940-50 were in urban areas (Table I). For the state as a whole the rate of natural increase was 11.4, whereas metropolitan cities had a

TABLE I
INDIANA, 1940-50
POPULATION CHANGE AND MIGRATION BY SIZE OF PLACE

Size of Place	1940 Population	Natural Increase 1940-50	Net Increase 1940-50	Number of Migrants	Rate of Natural Increase	Rate of Migration
The State	3,427,796	392,796	473,534	81,231	11.4	2.4
All urban places	1,567,600	208,465	194,815	-13,650	13.2	-0.9
Metropolitan cities*	1,128,177	153,375	150,708	-2,667	13.6	-0.2
Small cities*	439,423	55,090	44,107	-10,983	12.6	-2.5
All urban counties	693,454	78,922	216,315	137,393	11.3	19.8
Metropolitan counties*	314,387	39,103	151,942	112,839	12.4	36.0
Small city counties*	379,067	39,819	64,373	24,554	10.5	6.5
Rural counties	1,166,742	104,916	62,404	-42,512	9.0	-3.6

*Metropolitan cities: East Chicago, Evansville, Fort Wayne, Gary, Hammond, Indianapolis, Jeffersonville, Mishawaka, Muncie, New Albany, South Bend, Terre Haute, Whiting.

Small cities: Anderson, Bedford, Bloomington, Crawfordsville, Columbus, Connersville, Elkhart, Elwood, Frankfort, Goshen, Huntington, Lafayette, La Porte, Logansport, Kokomo, Marion, Michigan City, New Castle, Peru, Richmond, Shelby, Vincennes.

Metropolitan counties: Allen, Clark, Delaware, Floyd, Lake, Marion, St. Joseph, Vanderburgh, Vigo.

Small city counties: Bartholomew, Cass, Clinton, Elkhart, Fayette, Grant, Henry, Howard, Huntington, Knox, La Porte, Lawrence, Madison, Miami, Montgomery, Shelby, Tippecanoe, Wayne.

rate of 13.6, and small cities had a rate of 12.6. Conversely, although metropolitan counties had a rate of 12.4, other rural areas lagged behind the state rate. In short, if we completely ignore migration, it would appear that the population of urban areas in Indiana was growing at a more rapid rate than the population of rural areas in the decade 1940-50; this conclusion must be qualified, however, by the fact that we cannot tell the degree to which the higher birth rates of urban areas were produced by fecund in-migrants.

The areas of greatest natural increase were in the northern tier of counties, from Elkhart to Chicago, in the belt running northwestward from Richmond to Kokomo, and in the central southern part of the state (Fig. 4). Smaller areas with comparably high rates of natural

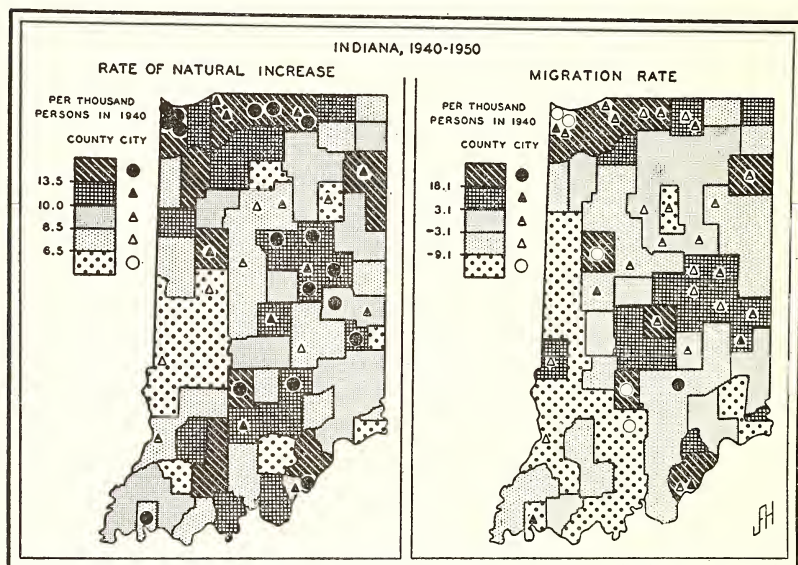


Figure 4

increase were found near Fort Wayne, Lafayette, and Indianapolis. The rate of natural increase was relatively low throughout the rest of the state, with a decline to the west; the lowest rates of all were found in the west central part of the state in the counties around Terre Haute and Crawfordsville.

Migration, 1940-50

If there were no migration, the rate of natural increase would be identical with the rate of population growth. Comparison of the two rates, however, indicates considerable variance, which is assumed a product of migration. The migration rate for each city and county, therefore, is computed by subtracting the total natural increase from the net change in population (2, 5, 8), and dividing the resultant figure by

the 1940 population. The total enrollment in Indiana colleges in the third week of the Fall Term, 1939, was 32,894 students. The different enumeration of students in the 1950 Census requires that the increase in population be adjusted; here the adjustment was made by subtracting the number of students in 1939 from the total increase of counties or cities with institutions of higher education. The migration rate, therefore, like the rate of natural increase, is the annual average number of migrants per thousand persons in the 1940 population, or the decennial total of migrants as a percentage of the 1940 population.

In the decade 1940-50, rural areas lost population by migration, suburban areas gained, and urban areas lost, but only slightly (Table I). The loss rate was only -0.2 in metropolitan cities, -2.5 in small cities; and -3.6 in rural counties. Small city counties, conversely, had an in-migration rate of 6.5, and metropolitan counties had the astonishing rate of 36.0; the metropolitan counties, in short, increased their population by more than a third as a result of in-migration between 1940 and 1950.

The greatest in-migration between 1940 and 1950 occurred in the northern tier of counties between Elkhart and Chicago, in a crescent-shaped group of counties from Richmond through Indianapolis to Bloomington, and near such metropolitan centers as Fort Wayne, Lafayette, Terre Haute, and Louisville (Fig. 4). It must be noted at once, however, that only six Indiana cities experienced significant in-migration, and only three of these were in the counties with heaviest in-migration. Only seven Indiana cities had higher in-migration rates than the counties in which they are located. It would appear, in fact, that the majority of Indiana's cities were doing little better than holding their own, population-wise, between 1940 and 1950, and that their natural population increase was being steadily siphoned into adjacent rural areas. In short, Indiana cities experienced "the flight to the suburbs."

The heaviest loss through out-migration occurred in the western and southwestern portion of the state, where the majority of counties experienced migration losses equivalent to more than ten percent of the 1940 population. Migration losses were smaller in the central south, whereas the eastern portion of the state registered relatively slight change by migration.

Migration as a Factor in Population Change, 1940-50

Comparison of migration rates and rates of natural increase indicates the importance of migration as a factor in population change in Indiana during the last intercensal decade. Where the rate of out-migration exceeds the rate of natural increase, the population will decrease, whereas it will increase if the rate of natural increase exceeds the rate of out-migration. The division of Indiana cities and counties into seven categories is based on the relation between these two rates.

The greatest increases through in-migration occurred in rural areas in the northwestern corner of the state, in the crescent-shaped group

of counties from Richmond through Indianapolis to Bloomington, and adjacent to Fort Wayne, Lafayette, Terre Haute, and Louisville; in each of these areas more than a third to a half of the population increase was a product of in-migration (Fig. 5). Interestingly enough,

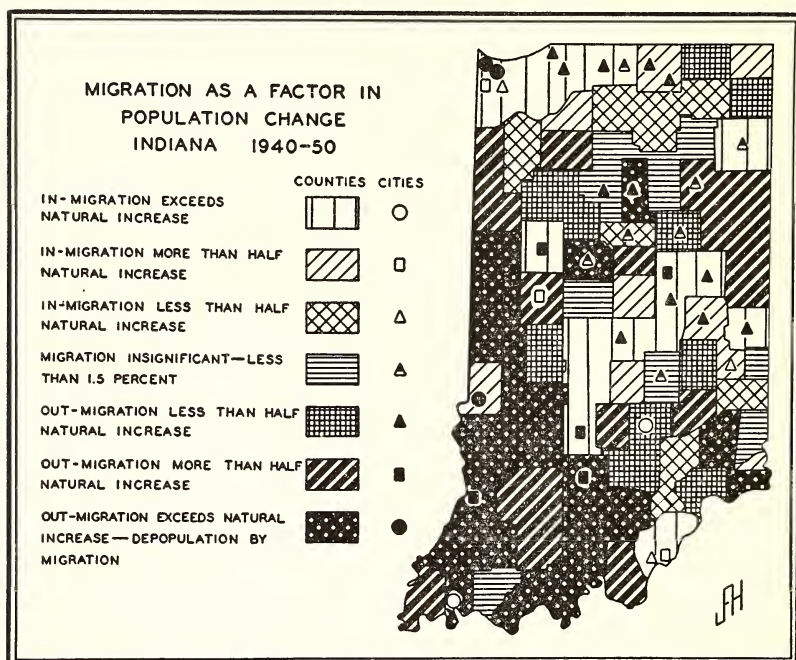


Figure 5

however, it would appear that a large portion of this increase in rural areas was a result of flight from the city, because sixteen of the twenty-four cities in these areas experienced significant out-migration, and these areas contained all but two of the cities where out-migration removed more than half the natural increase. On the other hand, both Evansville and Columbus had in-migration which more than equalled natural increase, and Hammond, Crawfordsville, and Jeffersonville had in-migration rates at least half as high as the rate of natural increase. One wonders why these five cities, together with Gary, Connersville, and New Albany, were the only Indiana cities to attract significant numbers of migrants between 1940 and 1950.

Counties and cities which experienced only slight net migration, either in or out, are largely in the center of the state. Out-migration removed less than half the natural increase in twelve cities in the central north and central east, but only five cities lost more than half their natural increase by out-migration, and only three, Whiting, East Chicago, and Terre Haute, were actually depopulated by migration.

On the other hand, eighteen counties along the southwestern edge of the state were being depopulated by migration, and depopulation by migration is imminent in those eighteen scattered counties where out-migration removed more than half the natural increase.

It is noteworthy that migration was a more important aspect of population change in rural areas than in urban areas in Indiana between 1940 and 1950. Twenty-two of the state's thirty-five cities (63 percent) are in the three middle categories, whereas only 27 of the state's 92 counties (20 percent) are in these categories. In other words, where migration as a factor in population change is concerned, Indiana's urban areas tend toward the means, but her rural areas tend toward the extremes.

Certain other conclusions might profitably be drawn from this study:

First, westward migration of Indiana natives has been replaced by in-migration from the South.

Second, the traditional demographic division of Indiana into northern, middle, and southern tiers of counties is of slight value in consideration of natural increase and migration, as gradients appear as steep in an east west direction as north-south.

Third, the natural increase of Indiana cities is being siphoned into adjacent rural areas.

Finally, let me suggest that we require investigation of the southwestern part of the state to discover whether there are not some areas which migration has bled white of young people in the reproductive age groups; if this is indeed the case, and I suspect it is, these areas face even more rapid depopulation in the future than has been their lot in the past.

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