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Population Migration in the Upper Great Lakes Region

Jerome M. Stam



This article shows how Minnesota's population movements fit into the broader migration picture of two larger areas—the 12-state north-central region and the

three upper lakes states of Michigan, Minnesota, and Wisconsin.

The 1950-60 time period is used throughout this issue. It is the latest time period for which final net migration data are available, and it is the only time period for which net migration data are available by age categories. Also, the most accurate net migration data on a county basis are for this time period.¹

Migration can be regarded as a special phase of mobility, though the terms often are used interchangeably. Migration refers to permanent and comparatively long-distance residence changes. Mobility includes both migration and temporary residence changes such as commuting, vacationing, and taking business trips.

Net migration typically is calculated as a residual. The difference between births and deaths is the natural population change. This figure is subtracted from the total intercensal population change to yield the presumed net movement into or out of an area.

Population movements indicate a response to many stimuli. Obviously im-

portant are such economic factors as income, living conditions, and job opportunities. Equally important are the sociological concepts of role, status, motivation, and attitude. The basically biological variables of age, sex, and race also influence migration patterns, as do physiological variables. Even political factors may influence people to move to another area. These factors may act independently or together to change expectations and aspirations to such a degree that people are influenced to migrate.

North-Central States

The north-central region is made up of 12 states (table 1). It can be subdivided into the five-state east north-central region and the seven-state west north-central region. Minnesota is in the latter.

The north-central states have experienced net out-migration. Generally, the east north-central states have been experiencing net in-migration while the west north-central states have been undergoing net out-migration. However, the net out-migration of the west has been greater than the in-migration of the east. During 1940-60, Wisconsin was the only east north-central state to have net out-migration. All the west

north-central states experienced net out-migration during this period.

Among the west north-central states, only Iowa and Missouri had larger total net out-migration figures than Minnesota during 1940-50. However, during 1950-60, only Kansas and South Dakota had smaller total net out-migration figures than Minnesota.

Total net in-migration increased for the east north-central states between the 1940-50 and 1950-60 decades from 652,000 to 699,000. During the same period, net out-migration decreased from 985,000 to 819,000 for the west north-central states. Thus, the north-central states had a decline from 333,000 to 120,000 in total net out-migration between decades.

Among the north-central states, total net out-migration declined between 1940-50 and 1950-60 in all out-migration states except Iowa and South Dakota. Total net in-migration into the four in-migration states increased in Illinois and Ohio and decreased in Indiana and Michigan.

The net migration rate is the total net migration during a given time period expressed as a percentage of the total population of the area at the beginning of the time period. The net migration rate of the north-central region declined from -0.8 to -0.3 percent between 1940-50 and 1950-60. The net migration rate changed from 2.4 to 2.3 percent during the same period for the east north-central states. Comparable figures were -7.3 and -5.8 percent for the west north-central states.

Minnesota's net migration rate declined from -5.8 percent during 1940-50 to -3.3 percent during 1950-60. Among the net out-migration states of the north-central region, Kansas, Missouri, and Wisconsin all had smaller net out-migration rates than Minnesota for the 1940-50 decade. Only Kansas and Wisconsin had lower net out-migration rates than Minnesota during 1950-60.

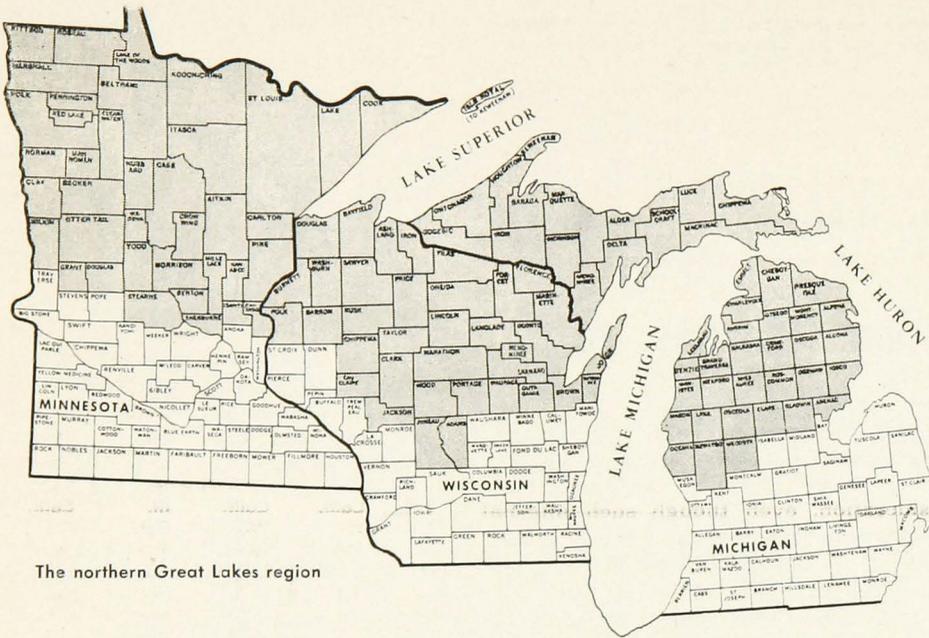
Table 1. Net migration and net migration rates of the north-central states and the United States, 1940-50 and 1950-60

| Area | Net migration | | Net migration rate | |
|---------------------------------|---------------|---------|--------------------|----------|
| | 1940-50 | 1950-60 | 1940-50* | 1950-60† |
| | thousands | | percent | |
| East north-central states | 652 | 699 | 2.4 | 2.3 |
| Ill. | 77 | 124 | 1.0 | 1.4 |
| Ind. | 91 | 63 | 2.7 | 1.6 |
| Ohio | 240 | 409 | 3.5 | 5.1 |
| Mich. | 331 | 156 | 6.3 | 2.4 |
| Wis. | -87 | -53 | -2.8 | -1.5 |
| West north-central states | -985 | -819 | -7.3 | -5.8 |
| Iowa | -207 | -233 | -8.2 | -8.9 |
| Kans. | -96 | -44 | -5.3 | -2.3 |
| Minn. | -163 | -97 | -5.8 | -3.3 |
| Mo. | -192 | -129 | -5.1 | -3.3 |
| Nebr. | -129 | -117 | -9.8 | -8.8 |
| N. Dak. | -120 | -105 | -18.7 | -16.9 |
| S. Dak. | -78 | -94 | -12.1 | -14.4 |
| North-central states | -333 | -120 | -0.8 | -0.3 |
| United States | 1,295 | 2,660 | 1.0 | 1.8 |

* 1940 population base

† 1950 population base

¹Data appearing in this issue are derived from: (1) "Components of Population Change, 1950-60, for Counties, Standard Metropolitan Statistical Areas, State Economic Areas, and Economic Subregions," *Current Population Reports*, Series P-23, No. 7, Bureau of Census, U.S. Department of Commerce, Nov. 1962. (2) *U.S. Census of Population, 1960. Mobility for States and State Economic Areas*, Bureau of Census, U.S. Department of Commerce. (3) Gladys Bowles and James Tarver, *Net Migration of the Population, 1950-60, by Age, Sex, and Color*, Vol. I, Part 2, ERS, USDA; Research Foundation, Okla. State Univ.; and Area Redevelopment Administration, U.S. Department of Commerce, 1965.



The northern Great Lakes region

Northern Lake States

Michigan, Minnesota, and Wisconsin often are referred to as the Upper or Northern Lake States. Although these states have similar geographic, historic, and economic backgrounds, they have many internal differences. For example, the economy of the northern parts of these states has been largely dependent on agriculture, forestry, mining, and tourism. In contrast, manufacturing, construction, trade, and finance have been more important in the southern areas of the states.

Since the basic industries of the northern areas of these three states have experienced economic difficulties in recent decades, one would expect migration patterns to differ between the northern and southern sections. To test this hypothesis, the migration patterns of the two areas were compared (see figure above).

For convenience, the shaded area includes the 119-county Upper Great Lakes Commission Area. This area was designated by the Secretary of Commerce, with concurrence of the states, in accordance with the provisions of the Public Works and Economic Development Act of 1965 (PL 89-136). The act provided enabling legislation for the creation of regional economic development planning commissions. The commissions are federal-state partnerships patterned after the pioneer Appalachian Program. Commissions can be created in areas characterized by general lack of economic growth and opportunity.

The Upper Great Lakes Regional Commission was formally chartered on April 11, 1967. The northern region

(NR) it serves includes 45 counties in northern Michigan, 38 counties in northern Minnesota, and 36 counties in northern Wisconsin. The southern region (SR), comprised of 38 counties in southern Michigan, 49 counties in southern Minnesota, and 36 counties in southern Wisconsin, is not included in the area. These counties appear as the unshaded portion of the figure.

Northern Lake States Migration

Net out-migration from the NR's 119 counties totaled 256,825 during 1950-60. Northern Michigan accounted for 19.7 percent of this figure, northern Minnesota accounted for 37.9 percent, and northern Wisconsin accounted for 42.4 percent. Net migration into the SR's 123 counties totaled 263,221 during 1950-60 (southern Michigan, 78.6 percent; southern Minnesota, 0.3 percent; and southern Wisconsin, 21.1 percent).

Net out-migration from northern Minnesota totaled 97,333 and net in-

migration into southern Minnesota totaled 760 between 1950 and 1960. The same gap between figures occurred in Wisconsin (northern Wisconsin had a net out-migration of 108,785 while southern Wisconsin had a net in-migration of 55,583 between 1950-60). The opposite was true in Michigan during this decade. Southern Michigan's net in-migration of 206,878 people was substantially larger than northern Michigan's net out-migration of 50,707 people.

During 1950-60, the net migration rate was -10.0 percent for the NR and 2.6 percent for the SR. It was -7.7, -10.8, and -10.8 percent in the respective northern areas of Michigan, Minnesota, and Wisconsin. In contrast, the southern areas of Michigan, Minnesota, and Wisconsin had respective net migration rates of 3.6, 0.03, and 2.3 percent.

The net migration of the population of the NR and SR by selected age categories is given in tables 2-3. The age categories were compiled from data involving 5-year age intervals. The age intervals indicated are based on age at the end of 1950-60, not on age at the time migration took place. This fact must be kept in mind when analyzing and interpreting the data in tables 2-3.

In the NR, people age 20-24 and 25-29 accounted for the largest amount of net out-migration. The 30-49 age group experienced a great deal of net out-migration, but this group is composed of four 5-year age categories. People in the 0-14 and 15-19 age categories had a great deal of net out-migration, but their movements are largely tied to the migration patterns of the immediately older groups. As one might expect, those in the 65 and over age group had a substantial amount of net out-migration. The net out-migration pattern of northern Minnesota is quite consistent with the migration patterns of the entire NR for 1950-60. Two age groups—50-64 and 65 and over—exhibited a

Table 2. Net migration by selected age categories, northern lake states region, 1950-60*

| Age in 1960 | Northern Michigan | Northern Minnesota | Northern Wisconsin | Northern region |
|---------------------------------------|-------------------|--------------------|--------------------|-----------------|
| | number | | | |
| 0-14 | -3,185 | -9,176 | -11,704 | -24,065 |
| 15-19 | -8,560 | -12,268 | -15,261 | -36,089 |
| 20-24 | -19,629 | -27,158 | -33,182 | -79,969 |
| 25-29 | -13,202 | -21,316 | -22,717 | -57,235 |
| 30-49 | -2,969 | -17,708 | -18,059 | -38,736 |
| 50-64 | -655 | -4,987 | -3,998 | -9,640 |
| 65 and over | -2,528 | -4,744 | -3,897 | -11,169 |
| Total | -50,707 | -97,333 | -108,785 | -256,825 |
| Percent of northern region's migrants | 19.7 | 37.9 | 42.4 | 100 |
| Net migration rate (percent)† | -7.7 | -10.8 | -10.8 | -10.0 |
| | thousands | | | |
| 1950 population | 661 | 900 | 1,008 | 2,569 |
| 1960 population | 696 | 940 | 1,057 | 2,694 |

* Due to rounding, some subtotals may not add to exactly equal totals.

† 1950 population base

Table 3. Net migration by selected age categories, southern lake states region, 1950-60*

| Age in 1960 | Southern Michigan | Southern Minnesota | Southern Wisconsin | Southern region |
|---------------------------------------|-------------------|--------------------|--------------------|-----------------|
| | number | | | |
| 0-14 | 63,758 | 9,661 | 26,049 | 99,468 |
| 15-19 | 11,970 | -1,740 | 5,162 | 15,392 |
| 20-24 | 12,701 | 4,677 | 7,226 | 24,604 |
| 25-29 | 60,435 | 7,557 | 12,303 | 80,295 |
| 30-49 | 95,825 | -9,197 | 13,183 | 99,811 |
| 50-64 | -2,550 | -2,624 | 3,161 | -2,013 |
| 65 and over | -35,284 | -7,664 | -11,518 | -54,466 |
| Total | 206,878 | 760 | 55,583 | 263,221 |
| Percent of southern region's migrants | 78.6 | 0.3 | 21.1 | 100 |
| Net migration rate (percent)† | 3.6 | 0.03 | 2.3 | 2.6 |
| | thousands | | | |
| 1950 population | 5,711 | 2,083 | 2,426 | 10,220 |
| 1960 population | 7,127 | 2,474 | 2,894 | 12,495 |

* Due to rounding, some subtotals may not add to exactly equal totals. † 1950 population base

slightly greater amount of net out-migration in northern Minnesota than in the entire NR.

Net migration patterns among age groups were quite different in the SR between 1950 and 1960. The 0-14 and 30-49 age groups had the greatest amount of migration. Next in importance were those age 25-29. Net migration activity of those in the 15-19 and 20-24 year age groups was much weaker compared with the other age categories in the SR. Only the 50-64 and 65 and over age groups experienced net out-migration in the SR during this decade. Net out-migration of individuals in the 65 and over age category was surprisingly significant in the SR.

The net migration patterns for southern Minnesota differed considerably from those for the entire SR when considered on an age basis. Southern Minnesota experienced net in-migration in only three of seven age categories (0-14, 20-24, and 25-29) between 1950 and 1960. By contrast, the entire SR had net in-migration in five out of seven age categories. As noted previously, only the two oldest age categories had net out-migration in the entire SR. In total, southern Minnesota experienced almost no net migration during this decade, while the SR had a significant amount of in-migration.

Destination of Migrants

The 10 states receiving the most migrants from the NR during 1955-60 are listed in table 4. The states are ranked in descending order by the number of migrants they received from the portions of Michigan, Minnesota, and Wisconsin that are included in the NR and from the NR as a whole. The possibility of migrating from one part of a state to another and the possibility of migrating from the NR to any part of the three northern lake states were not considered. Thus, table 4 focuses on out-migration that is not internal to the particular state or region under con-

sideration, even though such internal migration was the most important for both the individual state portions and the entire NR.

For the NR, the importance of Illinois, Ohio, Iowa, and Indiana as migrant-receiving states was not surprising, nor was the importance of California, Texas, and Arizona when one considers their attractiveness for retirees. However, the importance of North Dakota and Washington was interesting. The large number of migrants from northern Minnesota pulled these states into a high rank for the NR. Another interesting fact was the large number of migrants from northern

Table 4. Rank of states receiving migrants from the northern Great Lakes region, 1955-60

| Rank of receiving state | Area of out-migration | | | |
|-------------------------|-----------------------|--------------------|--------------------|-----------------|
| | Northern Michigan | Northern Minnesota | Northern Wisconsin | Northern region |
| | receiving states* | | | |
| 1 | Wis. | Calif. | Ill. | Calif. |
| 2 | Calif. | N. Dak. | Minn. | Ill. |
| 3 | Ill. | Wis. | Calif. | N. Dak. |
| 4 | Fla. | Wash. | Mich. | Fla. |
| 5 | Minn. | Ill. | Fla. | Wash. |
| 6 | Ohio | Iowa | Wash. | Ohio |
| 7 | Ind. | Fla. | Iowa | Iowa |
| 8 | Tex. | Mont. | Ind. | Tex. |
| 9 | Ariz. | Colo. | Tex. | Ariz. |
| 10 | Va. | Mich. | Ariz. | Ind. |

* Other than the same state for individual northern lake states and other than any of the three northern lake states for the NR

Minnesota who went to Montana and Colorado.

The 10 leading states receiving migrants from the SR during 1955-60 are listed in table 5. The procedure for compiling this table was the same as that used for table 4.

Table 5. Rank of states receiving migrants from the southern Great Lakes region, 1955-60

| Rank of receiving state | Area of out-migration | | | |
|-------------------------|-----------------------|--------------------|--------------------|-----------------|
| | Southern Michigan | Southern Minnesota | Southern Wisconsin | Southern region |
| | receiving states* | | | |
| 1 | Calif. | Calif. | Ill. | Calif. |
| 2 | Fla. | Wis. | Calif. | Ill. |
| 3 | Ohio | Iowa | Minn. | Fla. |
| 4 | Ill. | Ill. | Fla. | Ohio |
| 5 | Ind. | S. Dak. | Mich. | Ind. |
| 6 | Tenn. | Fla. | Iowa | Tex. |
| 7 | N.Y. | Wash. | Ariz. | Ariz. |
| 8 | Tex. | Ariz. | Tex. | N.Y. |
| 9 | Ariz. | N. Dak. | Ohio | Iowa |
| 10 | Mo. | Tex. | Ind. | Mo. |

* Other than the same state for individual northern lake states and other than any of the three northern lake states for the SR

In the SR, Missouri and New York were important migrant-receiving states. North Dakota was not one of the top 10, and Arizona, Florida, Indiana, Iowa, Ohio, and Texas declined in importance. For southern Minnesota, Arizona, South Dakota, and Texas entered the list, and Colorado, Montana, and Michigan were eliminated. North Dakota and Washington declined considerably in importance, while Iowa's importance increased considerably.

Implications

The environmental settings that affect migration have not been altered to a sufficient degree since 1960 to greatly change the general migration patterns and trends outlined above. Redistributions of population create problems of social organization, community adjustment, land use, and agricultural production and policy. Areas in which population is increasing have heavier service, institutional, and utility burdens. In areas of decreasing population, retrenchments and reorganization become necessary.

Available Publications

Milk Supply Response in the United States: An Aggregate Analysis, Larry J. Wipf and James P. Houck, Dept. of Agr. Econ. Rpt. 532, July 1967.

What's Ahead for Minnesota Farmers, Farm Management Series FM-1, Fall-Winter Crop and Livestock Outlook, 1967-68.

For copies, write to: Agricultural Economics Extension, Temporary South of Coffey, University of Minnesota, St. Paul, Minnesota 55101.

In Perspective

Net Population Migration: Minnesota, 1950-60

Jerome M. Stam

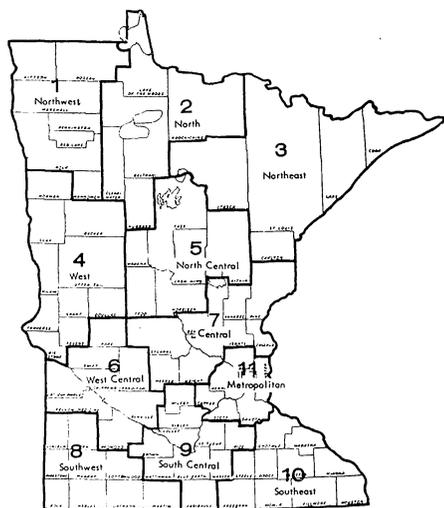
Minnesota experienced a significant shift in population location between 1950-60—the latest period for which data are available. The state followed national trends in urbanization and rural depopulation. Migration played an important role in this process, but its magnitude varied considerably.

Migration data are presented here for the 11 economic regions of Minnesota shown on the map. Each of the regions was designated by use of several selected economic criteria. Individual regions are somewhat autonomous economic areas. Within each region, there is a town or city considered to be the growth center for the area.

Ten out of the 11 economic regions experienced net out-migration during the 1950-1960 time period. Within these 10 areas, total net out-migration ranged from a low of 4,581 in region 3, the northeast region, to a high of 26,608 in region 6, the west central region. Region 11, the only in-migrant area, had a net in-migration of 94,228 during 1950-1960.

Five regions—1, 2, 5, 6, and 8—had net migration rates ranging between -15 and -25 percent for the 1950-60 decade. Within this group, total net out-migration ranged from a low of 13,426 in region 2, the north region, to a high of 26,594 in region 6, the west central region.

Net migration rates between -5 and -14.9 percent for the 1950-60 period were experienced by regions 4, 7, and 9. Total net out-migration ranged from a low of 16,580 for region 9, the south central region, to a high of 26,608 for region 4, the west region. The presence of population centers such as Moorhead



Minnesota economic regions

in region 4, St. Cloud in region 7, and Mankato in region 9 reduced the net out-migration rate in each of these three areas.

Regions 3 and 10 experienced a total net migration rate between 0 and -4.9 percent for the 1950-60 period. Region 3,

the northeast region, had a total of 4,581 net out-migrants. Net out-migrants from region 10, the southeast region, totaled 12,614. Net out-migration from region 3 was reduced to a considerable extent by the development of the taconite industry during this period. The growth of Rochester and, to a lesser extent, Austin helped reduce out-migration from region 10.

As noted previously, region 11, the metropolitan region, was the only region to experience net in-migration. Its 94,228 total net in-migrants gave it a net migration rate of +7.9 percent for the 1950-60 period.

Only 12 of Minnesota's 87 counties experienced net in-migration during the 1950-60 period, and only six of these were counties outside the seven-county metropolitan area. These counties were Clay, Isanti, Lake, Olmsted, Sherburne, and Steele. Ramsey was the only county in the metropolitan area to experience net out-migration during this period. Otter Tail County had the greatest net out-migration in absolute terms—8,251 people. It also led with 4,023 male and 4,228 female out-migrants. Hennepin County led in total in-migration with 35,349. It also led with 20,359 female in-migrants, while Anoka County had the greatest number of male in-migrants (17,796).

Minnesota economic regions, net migration and net migration rates, 1950-60

| Region | 1950 population | 1960 population | Net migration | Net migration rate* |
|-----------------|-----------------|-----------------|---------------|---------------------|
| | | number | | percent |
| 1—Northwest | 103,009 | 95,580 | -23,035 | -22.4 |
| 2—North | 68,116 | 64,745 | -13,426 | -19.7 |
| 3—Northeast | 274,648 | 314,605 | -4,581 | -1.7 |
| 4—West | 189,607 | 191,804 | -26,608 | -14.0 |
| 5—North central | 128,728 | 122,975 | -24,090 | -18.7 |
| 6—West central | 150,987 | 146,977 | -26,594 | -17.6 |
| 7—Central | 211,307 | 226,835 | -18,347 | -8.7 |
| 8—Southwest | 152,644 | 154,535 | -24,919 | -16.3 |
| 9—South central | 231,205 | 248,966 | -16,582 | -7.2 |
| 10—Southeast | 286,538 | 321,544 | -12,614 | -4.4 |
| 11—Metropolitan | 1,185,694 | 1,525,297 | 94,228 | 7.9 |
| Minnesota | 2,982,483 | 3,413,864 | -96,573 | -3.3 |

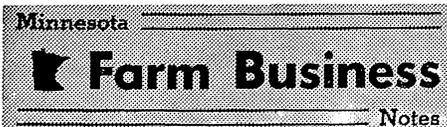
* 1950 population base

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