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THE POPULATION TURNAROUND IN A TEN COUNTY AREA OF NORTHERN LOWER MICHIGAN SINCE 1970

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THE POPULATION TURNAROUND IN A TEN-COUNTY AREA OF NORTHERN LOWER MICHIGAN SINCE 1970

By

James Douglas Leonard

A THESIS

Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

Department of Sociology

ABSTRACT

THE POPULATION TURNAROUND IN A TEN-COUNTY AREA OF NORTHERN LOWER MICHIGAN SINCE 1970

By

James Douglas Leonard

This research is concerned with population growth and distribution in ten rural Michigan counties: Clare, Crawford, Gladwin, Kalkaska, Missaukee, Montmorency, Oscoda, Ogemaw, Otsego, and Roscommon. All ten counties gained 20 percent or more in population between 1970 and 1975, and all are adjacent to each other but are not adjacent to a SMSA (except Gladwin which has a corner adjacent to Bay County). Population estimates were obtained by questionnaire from all the townships and incorporated places in this area.

The townships were categorized into three types. Type 1 townships are those with at least one incorporated place. Type 2 townships do not have an incorporated place within their boundaries but are adjacent to townships that do. Type 3 townships do not have an incorporated place within their boundaries and also are not adjacent to a township that does. These three types were then compared as to county growth rates. It was found that Type 2 townships are the most rapidly growing of the types. According to informants, persons 60 years old and over accounted for almost one-half of the migrants moving into the ten-county area. Informants reported that about 50 percent of the migrants were moving into vacation homes or mobile homes.

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I would like to express my sincere appreciation to my wife, <u>Sally</u>, who stood by me and helped me throughout this entire project.

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INTRODUCTION

This study is concerned with rates of growth and residential patterns in a rapidly growing nonmetropolitan region in the northern part of Michigan's lower peninsula. A data source unlike those used by the Census Bureau is utilized and the results from the two sources are compared. Special emphasis is placed on the age and residential location of the migrants into this high growth area.

The predominant pattern of population change in the past has been rural-to-urban migration. This pattern, characteristic of the last century in the United States as well as in Michigan, has been especially intense in the past 30 years. Growing urbanization and the plight of rural areas have been studied by rural sociologists, demographers, and others from many disciplines. Social awareness began to develop over rural-to-urban migration in the 1960s because of the impact this movement had on urban areas. Up until this time, because of the defense effort of the 1940s and the need for wage-labor in the 1950s, cities welcomed rural manpower. This need for wage-labor succeeded in attracting 20 million people from the rural areas between 1940 and 1960, the majority of whom moved into large cities. The

increased mechanization of agriculture also helped push the people off the land. The improved highway network also helped the exodus from the rural areas by shortening travel time between regions. Up until the mid-1960s, official sentiment seemed to welcome city growth and reflected little or no concern over population decline in rural areas. Out-migration from rural areas often meant a loss of tax revenue, business failures, and ghost towns. Because of the selective nature of the out-migration, rural areas were left with an elevated dependency ratio, among other problems.

The exodus from rural to urban areas reversed itself in some areas according to the results of the 1970 census. This reversal of the usual trend was first pointed out by Calvin Beale (1). He points out that, for the first time, nonmetropolitan areas grew faster than metropolitan areas. Among the reasons given for this reversal were: decentralization of industry, increased settlement of retired people in rural areas, more recreational activity, and less urban appeal because some of the advantages of urban life had diminished. In the three years between 1970 and 1973, only one of the nation's ten largest cities, Houston, gained in population while many rural areas increased (10).

While 600 counties declined between 1970 and 1973, according to the census, this number represents less than one-half of the 1,300 counties that declined in the 1950s and 1960s. The population turnarounds were clear in such rural regions as the Ozarks, Tennessee Valley, Texas hill country, and the Upper Great Lakes region (1). For the first time in this century, the nonmetropolitan areas realized more rapid growth than the metropolitan areas. Calvin Beale noted that the rate of growth between 1970 and 1973 for nonmetropolitan areas was 4.2 percent, while it was only 2.9 percent for metropolitan areas (1). Certainly the population decline in central cities is not new. It has been going on for at least two decades, during which time the suburbs grew. The suburbs not only picked up the loss from the inner city but were often responsible for total metropolitan population growth (2).

The question arises: Is the current population turnaround genuine, or is it merely a continuation of the suburbanization trend extending even farther into the countryside?

The higher rural growth in Michigan is not due to suburban spillover from urban areas into adjacent rural counties. Only one county out of the twelve which gained 20 percent or more in population between 1970 and 1975 in Michigan, namely Gladwin, was adjacent to an SMSA county.

A standard metropolitan statistical area (SMSA) is a county or group of contiguous counties containing at least one city of 50,000 inhabitants or more.

Thus, it is clear that decentralization in Michigan is not to be viewed as "urban sprawl." The most rapidly growing counties in Michigan since 1970, according to the Bureau of the Census (5), were Clare, Crawford, Gladwin, Kalkaska, Livingston, Mecosta, Missaukee, Montmorency, Ogemaw, Oscoda, Otsego, and Roscommon. (Livingston county was not included as part of this study because it is a part of the Detroit SMSA.) These counties are shown in Figure 1.

While the shift in relative growth from metropolitan to nonmetropolitan counties in Michigan is clear, the question still remains as to the distribution of growth within these eleven rapidly growing nonmetropolitan counties. Public opinion surveys by Zuiches and Fuguitt consistently show that most people prefer a rural or small town residence within 30 miles of a city of at least 50,000 people (11). In a national survey reported by Zuiches and Fuguitt, the second choice of city dwellers was a small town or rural location in a more remote area (6). A problem with this study is that any place up to 50,000 population was included in the classification of small town.

In the opinion of this writer, a blend of the findings just reported may be used in predicting the



Figure 1. Population change as a percentage, by county, 1970-1975.

population distribution expected in northern lower Michigan. It would seem that the in-migrants would tend to choose locations in or close to the towns in these rural counties. Most of the towns in this area are small, but the largest, Big Rapids, now has a population that exceeds 13,000. All the other towns in this eleven-county area have a population of less than 4,000 people. Because these towns have many services needed to support the county population, it would seem that in-migrants would merely augment the existing pattern. Logically one would expect a pattern of growth in and around incorporated places, and a stable or declining growth rate in the areas which are farther away from these small towns. It should be noted that no area is more than 30 miles from an incorporated place in the counties under study.

Limited access highways running through an area should also cause an area to grow irrespective of the proximity to an incorporated place. The quality of many county roads is poor. One would guess that accessibility to a better transportation network may be an important variable promoting growth (3). Of particular interest is the age composition of in-migrants and the residential patterns of elderly in-migrants. The population in this northern Michigan area tends to be more elderly than the population of the state as a whole. This is explained by

two factors, namely, the long-time out-migration of young people from the areas and the recent influx of elderly, often retired persons (9, 4). One would assume that the elderly in-migrant would generally wish to reside in or near an incorporated place because, in general, the elderly are less mobile and require frequent access to certain services (4).

OBJECTIVES

A major objective of this study is to examine relative rates of growth in terms of minor civil divisions within high growth counties of Michigan's northern lower peninsula. While previous studies demonstrated total county growth, this study is concerned with the distribution of population growth within counties. A second major objective is to secure an alternative source of growth information to compare and contrast with the Federal-State cooperative estimates issued by the Census Bureau. In addition, since alternative growth estimates are obtained from township supervisors and mayors, other objectives included obtaining estimates of age and housing characteristics of in-migrants.

The Study Area

Ten out of the twelve counties which were growing at a rate of 20 percent or more between 1970 and 1975 due to in-migration were selected for study. Livingston County was not included because it is a part of the Detroit SMSA. Mecosta County was also excluded from the study for three reasons. First, it has a larger population than the other ten counties. Second, Big Rapids is a much larger town

than found in any of the other ten counties in the area. Finally, the ten counties included form a contiguous block.

The area under study shows very clearly the reversal of the rural-to-urban migration pattern. The ten counties under study, when taken as a group, had a net loss through migration from 1940 to 1950 as well as from 1950 to 1960. Between 1950 and 1960, only Crawford and Roscommon Counties showed a gain through in-migration while all other counties in the study area showed a net loss. This pattern reversed itself between 1960 and 1970, with all counties gaining population through net in-migration. From 1970 to 1975 this ten-county area has had the largest percentage increase due to migration in the entire state. Details may be found in Table 1.

County	Net Migration 1950 to 1960	Net Migration as a Percent of 1950 Population	Net Migration 1960 to 1970	Net Migration as a Percent of 1960 Population
Clare	-375	-3.7	3,976	34.2
Crawford	144	3.5	1.093	22.0
Gladwin	-172	-1.8	1,885	17.5
Kalkaska	- 639	-13.9	659	15.0
Missaukee	-1,673	-22.4	722	16.3
Montmorency	-318	-7.7	-9	-0.1
Ogemaw	-696	-7.4	1,839	19.0
Oscoda	-130	-4.1	1,136	33.0
Otsego	-35	-0.5	1,801	24.1
Roscommon	510	8.6	2,624	36.4

Table 1. Population change due to migration in the ten-county area under study^a

^aIt should be noted that migration is only one component of population change. The total change of any population is based upon the continuous operation of birth and death rates and the balance of in- and out-migration.

EXISTING CENSUS ESTIMATES AND THEIR CRITIQUE

Our study of population distribution in rapidly growing nonmetropolitan areas of Michigan grew from the difficulty of Census Bureau procedures to accurately estimate population for rural townships and small towns. This led us to solicit estimates (discussed more fully in the next section) for local areas by local informants considered to be in a good position to observe local changes. This section is devoted to a description and critique of the Bureau of Census, State-Federal cooperative estimates for small areas.

The problem with census data for townships and small places is the methodology used to estimate the population. The State-Federal cooperative figures are obtained through the use of birth and death certificates and utility connections. These data are then matched to individual Federal income tax returns to determine if there has been any intercounty movement from one year to the next. A net migration rate based on the number of taxpayers changing residence is derived; this rate is then assumed to apply to the total county population. For persons 65 years of age and over, Medicare statistics are used (5). For any

township that had a population of under 1,000, the net migration rate used in the estimation process is not derived specifically from each area but rather the overall county migration rate is applied to the township (7). The Census report which provides minor civil division estimates is very clear in pointing out the problems associated with measuring population change in some areas. The biggest difference between the estimates and the actual number of people is for places having under 1,000 people (5).

The methodology used by the Bureau of the Census prohibits its use at face value for township and incorporated place population estimates in our ten-county area for a number of reasons. First, a very large percentage of the dwelling units occupied by in-migrants were previously vacation dwellings (7). These vacation dwellings are quite often cottages or mobile homes owned by the migrants and converted into year-round living units, but which had utility connections prior to the migrant changing his residence permanently. Because the ten-county area under study is a vacation area, the method used by the Bureau of the Census is not an appropriate way to ascertain migration data since many dwellings had utility hook-ups prior to becoming year-round homes.

The second problem is that the accuracy decreases with an increasingly rapid growth rate (5). This area in

northern lower Michigan had a very rapid increase in population between 1970 and 1975, with Roscommon and Kalkaska gaining over 40 percent. When one moves the level of analysis down to townships and incorporated places the problems increase. Some areas within the county are growing at a faster rate than the county as a whole while others are growing at a slower rate. The accuracy of census estimates for some of these rapidly growing minor civil division populations must be assumed to be very inaccurate.

The third reason that census estimates are defective is that larger differences between the actual number of people and the census estimates occur in places with a small population. The main problem of the Bureau of the Census had in estimating population was in places having less than 1,000 population. In the ten-county area in this analysis, there are 112 townships and 16 incorporated places; only 29 out of these 128 units had populations of over 1,000, according to the 1970 census (8).

METHODOLOGY

In considering alternative sources of local population information, it was decided to question township supervisors and small town mayors. Both supervisors and mayors in rural townships and small towns are likely to be long-time residents and to have intimate knowledge of local areas, in part because of the roles they play. A short questionnaire requesting population change data and selected characteristics of in-migrants was developed (see Appendix A).

This questionnaire was mailed to each township supervisor and to the mayor of each incorporated place within the ten-county area. The names and addresses of the supervisors were obtained from the Michigan Township Association. By using the home address and first and last names of the supervisors, an attempt was made to personalize the approach. The mayor's questionnaire was sent to the City Hall, in care of the mayor, which seemed relatively impersonal. All of the 17 mayors returned the questionnaires without the need for sending a follow-up questionnaire.

The township supervisors returned 60 out of the 112 questionnaires in the original mailing. A follow-up questionnaire was mailed out five weeks after the first questionnaire, again to the same supervisors. Out of the 56 not answering the first questionnaire, 34 responded to the follow-up mailing. A third attempt was made using the mail. This time the township office clerks were sent the original questionnaire. Of the 22 clerks sent questionnaires, 16 responded. After three mailings, 106 out of the 112 township officials surveyed had responded. The 6 remaining township supervisors were contacted on the telephone and were verbally asked the same questions that appeared on the questionnaires.

When comparing the estimates given by the supervisors to those of the census, disagreements were obvious in the two sets of data. A few townships and incorporated places had a very rapid growth rate based on one source of data and a much slower rate using the other source. Because of severe contradictions, 22 townships and 5 incorporated places were driven through for first-hand observation. While this drive-through was subjective, such things as the number of new homes and the types of housing were observed. This informal survey tended to support our critique, detailed earlier, of the difficulties in estimating small populations exemplified by census methods.

While the estimates given by the local officials tended to be rounded numbers, they seemed much closer to the true population than the census estimates.

FINDINGS

Population Estimates

The purpose of this section is to compare population estimates derived from two separate sources. The first are derived from the methods used in the State-Federal cooperative estimates for minor civil divisions as of July 1, 1975. The second are estimates given by knowledgeable local officials, namely township supervisors and mayors as of 1976 (unspecified as to month). The base data in both instances are census enumerations as of April 1, 1970.

Before examining differences in minor civil division estimates in the ten-county area, let us compare census estimates with local census results for 12 areas. The differences are summarized in Table 2. In five instances, the census estimate was higher than the local census count. While some differences are apparent and to be expected because of the time span variations, differences are very great in five of the cases. In Kalkaska Township, for instance, the census estimate is about 75 percent higher than the local population count. In Kalkaska Village, the local count is more

County	Location	Local Census	Date Taken	1975 Census Estimate
Yalkacka	Clearster Mership	1 500	11/1076	1 162
Kalkaska	Clearwater Township	1,500	11/19/6	1,103
		3,115	4/19/5	2,195
	Kalkaska Township	1,706	1976	2,987
	Rapid River Township	519	10/1976	475
Gladwin	Billings Township	2,849	1976	1,298
	Grim Township	92	10/1976	94
	Secord Township	700	9/1976	640
Ogemaw	Cummings Township	592	8/1976	515
5	Prescott Village	310	10/1976	412
	Rose City, city	530	no date	640
			given	
Otsego	Bagley Township	3,524	4/1976	3,325
-	Dover Township	357	1976	506

Table 2. Census estimates and local census results for twelve locations in the study area

^aState-Federal cooperative estimates as of July 1, 1975.

than 40 percent higher than the census estimate. Thus, while we have no way of evaluating the accuracy of local census efforts, it is difficult to believe that error could be great in such typically small population units.

We now turn to a comparison of the two sets of estimates for minor civil divisions in the ten-county area. For each data set, we have attempted to equalize by calculating the annual percentage change in population. As one can see in Table 3, the estimated population varies greatly depending upon the data source. When comparing the census estimates to the questionnaire estimates, based upon annual percentage change, the census data show a larger growth rate than the questionnaire data in 62 out of 112 townships. The greatest difference in the two sources of information is in the estimates for incorporated places. The census showed higher annual percentage growth rates in 14 out of the 17 cases.

Table 3 shows that few patterns seem to emerge in the two sources of population estimates. Both sources almost invariably indicate growth in all minor civil divisions. While the two estimates infrequently coincide, the annual rates do not differ markedly in many cases. However, in the instance of Gladwin City, the estimated annual increase by the local informant was nearly four times that of the census. In the instance of Grayling,

County and Minor	Census	Questionnaire April 1, 1970	Census April 1, 1970
Civil Divisions	1960-70	to Oct. 15, 1976	to July 1, 1975
Clare			
Arthur	1.3	3,5	5.7
Franklin	4.9	3.5	4.9
Freeman	6.7	3.9	12.2
Frost	8.0	0.0	6.5
Garfield	3.7	1.3	5.1
Grant	3.2	17.5	5.0
Greenwood	4.2	1.8	8.1
Hamilton	5.5	9.4	4.2
Hatton	5.6	3.6	6.9
Hayes	22.0	4.3	3.8
Lincoln	8.7	12.9	6.7
Redding	4.1	5.9	1.1
Sheridan	2.1	1.9	3.1
Summerfield	8.0	3.8	6.1
Surry	4.1	5.0	7.1
Winterfield	1.8	2.4	1.3
Clare	0.8	1.2	3.0
Harrison ^a	3.6	5.7	9.2
Farwell ^a	0.5	3.2	5.9
Crawford			
Beaver Creek	2.5	6.4	6.2
Frederic	3.6	9.6	5.2
Grayling	6.1	12.6	10.5
Lovells	0.6	52.7	5.0
Maple Forest	0.6	4.6	4.3
South Branch	7.2	26.6	7.4
Grayling ^a	0.6	2.7	-0.3
Gladwin			
Beaverton	4.8	3.1	3.5
Bentley	0.8	2.8	5.3
Billings	1.7	16.7	7.1
Bourret	-6.5	16.7	5.7
Buckeye	1.9	8.0	1.5
Butman	-0.1	3.7	5.5
Clement	7.7	2.8	6.4
Gladwin	1.0	3.5	5.3

Table 3. Average annual percentage change for townships and incorporated places in the ten-county area as indicated by the census 1960-70 and 1970-75, and by questionnaire responses, 1970-76

County and Minor Civil Divisions	Census 1960-70	Questionnaire April 1, 1970 to Oct. 15, 1976	Census April 1, 1970 to July 1, 1975
Gladwincont.			
Grim	2.7	7.3	10.3
Grout	2.3	2.2	3.7
Нау	5.8	4.9	7.2
Sage	3.9	16.9	1.5
Secord	13.1	12.5	12.2
Sherman	1.6	2.0	1.9
Tobacco	4.4	2.9	6.3
Beaverton	0.3	0.7	4.2
Gladwin ^a	-0.7	19.3	5.5
Kalkaska			
Bear Lake	7.5	17.9	16.2
Blue Lake	16.7	2.8	9.2
Boardman	0.5	13.4	10.7
Clearwater	3.9	13.4	6.3
Coldsprings	6.7	10.4	14.4
Excelsior	0.0	17.9	14.3
Garfield	-1.0	14.8	4.4
Kalkaska	1.7	9.8	102.1
Oliver	3.5	4.3	10.4
Orange	1.3	2.3	10.0
Rapid River	2.8	18.1	18.2
Springfield	-1.0	2.4	8.4
Kalkaska ^a	1.2	2.5	9.8
Missaukee			
Aetna	-1.0	2.1	-2.2
Bloomfield	0.6	10.0	3.8
Butterfield	-0.1	8.3	7.0
Caldwell	1.7	9.7	4.6
Clam Union	0.7	0.9	3.8
Enterprise	-2.0	0.0	-2.0
Forest	3.3	2.8	4.2
Holland	1.5	5.4	9.4
Lake	2.3	8.0	8.8
Norwich	0.5	13.0	8.0
Pioneer	1.2	0.0	4.4
Reeder	0.5	5.4	8.4
Richland	0.2	0.0	1.0

Table 3--Continued

County and Minor Civil Divisions	Census 1960-70	Questionnaire April 1, 1970 to Oct. 15, 1976	Census April 1, 1970 to July 1, 1975
Missaukee-cont.			
Riverside	0.3	3.9	5.6
West Branch	0.7	2.1	4.0
aa	••••		
Lake City	-0.2	1.2	5.0
McBain ⁻	-0.6	1.0	5.0
Montmorency			
Albert	4.9	16.0	10.2
Avery	3.8	21.6	8.0
Briley	2.8	2.1	6.4
Hillman	0.4	3.4	3.6
Loud	1.0	2.3	7.0
Montmorency	1.5	2.9	3.8
Rust	-0.2	0.0	6.4
Vienna	2.8	4.8	9.0
Hillman ^a	-1.8	1.8	4.4
Ogemaw			
Churchill	1.5	3.0	2.8
Cummings	2.3	6.7	4.4
Edwards	1.6	2.4	2.4
Foster	15.7	16.7	1.5
Goodar	5.3	3.4	5.1
Hill	5.3	4.2	5.7
Horton	2.5	5.2	5.2
Klacking	1.4	7.6	3.1
Logan	0.6	12.3	8.9
Mills	12.9	7.9	5.7
Ogemaw	1.2	7.8	2.4
Richland	-0.1	1.2	10.4
Rose	4.2	2.1	4.8
West Branch	1.5	1.7	3.8
Prescott ^a	-0.1	0.2	6.9
Rose City ^a	2.2	0.0	4.1
West Branch ^a	-0.6	1.7	3.8
Oscoda			
Big Creek	4.9	15.0	6.0
Clinton	3.4	8.4	3.2
Comins	1.8	1.4	3.2
Elmer	3.2	2.0	5.0

Table 3--Continued

County and Minor Civil Divisions	Census 1960-70	Questionnaire April 1, 1970 to Oct. 15, 1976	Census April 1, 1970 to July 1, 1975
Oscodacont.			
Greenwood	8.9	6.3	15.2
Mentor	3.5	11.3	6.4
Otsego			
Bagley	9.3	8.9	8.8
Charlton	1.8	2.8	6.8
Chester	0.5	0.0	4.2
Corwith	2.0	4.1	4.6
Dover	2.5	2.6	11.8
Elmira	2.6	17.7	5.0
Hayes	20.1	16.7	9.0
Livingston	5.0	6.0	8.6
Otsego Lake	3.8	14.6	6.9
Gavlord ^a	1.7	1.1	1.8
Vanderbilt ^a	0.3	0.1	-0.8
Roscommon			
Ausable	-0.1	4.7	-1.0
Backus	10.0	8.7	1.8
Denton	3.6	9.1	11.4
Gerrish	6.2	4.4	8.4
Higgins	0.5	6.1	13.2
Lake	2.0	7.6	9.4
Lyon	2.4	4.4	6.0
Markey	3.6	6.3	13.0
Nester	11.4	3.7	12.0
Richfield	18.6	28.8	11.6
Roscommon	1.4	6.1	3.3
Houghton Heights ^a	0.5	5.3	6.6
Roscommon ^a	-0.7	8.6	9.4

Table 3--Continued

^aIncorporated place.

<u>Note</u>: The data above are not uniformly accurate to the month. The census data are figured for five years exactly, even though the raw data were from April 1970 to July 1975. The questionnaire data were collected between October 15, 1976 and December 15, 1976 and the average annual percentage change figures are for a six-year period, from April 1970 to April 1976. The reason these figures were not equalized to the month is twofold. First, the township supervisors often based their figures on data before October 1976. Second, the table above is only to show large variations between the two sources of data. the annual increase was positive as estimated by the local informant but was negative in the census estimate.

Population Growth and Distribution

In order to examine population distribution patterns in each of these ten counties, minor civil divisions (townships and incorporated places) are used (3). Each incorporated place is viewed as a unique case, excluding the population characteristics of the township population around it. Townships were also examined within each county, and were classified into three types. The first township type includes any township which has an incorporated place within its boundaries (Type 1). The second township classification groups townships that did not have an incorporated place within its boundaries, but was adjacent to a township which did have an incorporated place (Type 2). The last type includes those townships that do not have an incorporated place and also are not adjacent to a township that does (Type 3). Unincorporated places which were not listed by the Bureau of the Census were also examined. The logic behind the township types is that proximity to incorporated places is an important variable in residential growth patterns. Theoretically, if in-migrants do prefer living close to an incorporated place, Type 1 townships should show the highest growth

rates, Type 2 townships should have a slower growth rate, and Type 3 townships should have a stable or declining growth rate.

In order to determine the growth patterns in the study area, each county was treated as unique. This was done because each county had a different growth rate. The percentage per year growth rate for each county was compared to the percentage per year growth rate of the townships and incorporated places within it. Any township or incorporated place that had a yearly growth rate larger than that of the county was classified as a "fast grower," and any area which had a percentage per year growth rate which was less than the county in which it was located was classified as a "slow grower." Using this system, all the townships and incorporated places may be compared regardless of the county growth rate in which they are located. Then by placing the townships into three categories (Type 1, townships with incorporated places; Type 2, adjacent to Type 1 townships; and Type 3, nonadjacent to Type 1 townships) a pattern or patterns were sought. Hypothetically, one would expect to find that Type 1 townships would be made up largely of fast growers, that Type 2 townships would be mixed, while Type 3 townships would be made up largely of slow growers (see County Maps in Appendix B).

As Table 4 shows, the growth patterns are not as The incorporated places have a majority of hypothesized. slow growers. Type 1 and Type 3 townships are about equal in terms of slow and rapid growth, and Type 2 townships have the most fast growers (48.5 percent) when compared to the Type 1 and 3 townships, using township supervisors' estimates. With almost one-half of the Type 2 townships growing faster than the county in which they are located, a new pattern emerges; a rapidly growing township ring around the townships which contains an incorporated place (Type 1). It would seem that using townships as the unit of analysis causes the same pattern to develop that one would expect to find at the county level. That pattern being very similar to the suburban ring around the central cities of SMSAs but at a much smaller scale.

Table 4. Number and percentage of fast and slow growing townships in incorporated places in the ten-county area of northern lower Michigan

	Total		Fast-Growing		Slow-Growing	
	No.	Percent	No.	Percent	No.	Percent
Incorporated places	17	13.8	7	41.2	10	58.8
Type 1 townships	24	19.5	9	37.5	15	62.5
Type 2 townships	68	55.3	33	48.5	35	51.5
Type 3 townships	14	11.4	5	35.7	9	64.3
Total	123	100.0	49	40.5	72	59.5

Age

One of the most important variables examined in this study is age. A large migration of elderly persons into this ten-county area will have several effects upon the social structure. The dependency ratio increases, meaning that there are fewer adults between the ages of 15 to 64 (taken as a working age) in relation to the number of young and aged. The retired and elderly guite often are on fixed incomes and normally in a lower income tax bracket. In general, the elderly require more tax supported services such as hospitals, public transportation, and other special needs. Changing the dependency ratio may change the county priorities for community improvements. The incorporated places within each county are traditionally where these improvements are located, and for this reason proximity to incorporated places for the elderly is important. With the condition of many rural roads one would expect that the elderly would move into incorporated places or to Type 1 townships. Another question which was investigated was: Are the elderly migrants moving into fast-growing or slowgrowing townships? As Table 5 shows, proportions of elderly immigrants are unrelated to whether townships are fast- or slow-growing. The fast- and slow-growing townships received approximately the same proportions of elderly in-migrants.

Percentage of		Total		Fast-Growing		Slow-Growing	
of Age or Over	No.	Percent	No.	Percent	No.	Percent	
0 to 25	31	25.6	10	20.4	21	29.2	
25 to 50	51	42.1	23	46.9	28	38.9	
50 to 75	31	25.6	12	24.5	19	26.4	
75 or more	8	6.6	4	8.2	4	5.6	
Total	121	100.0	49	40.5	72	59.5	

Table 5. Percentage of in-migrants aged 60 years of age and over for fast-growing and slow-growing townships and incorporated places

Table 5 shows also that the age structure of the in-migrants in this ten-county area tends to be elderly. Between 25 and 50 percent of the in-migrants are 60 years of age or over.

One of the questions on the questionnaire asked: Where were the migrants coming from? Almost all of the township supervisors and mayors, when given a choice between from outside, or within the county, answered that most of the migrants were coming from outside the county. This finding is consistent with the notion of a large retirement population from non-local areas moving into this ten-county area.

The proximity of elderly in-migrants to incorporated places was examined. This is of special interest in view of the need for specialized services on the part of elderly. When the elderly residential migration patterns were compared between living in an incorporated place versus a township, as shown in Table 6, it was found that incorporated places did not attract an elderly population when compared with townships.

Percentage of		Total		Incorporated		Townships	
of Age or Over	No.	Percent	No.	Percent	No.	Percent	
0 to 25	31	25.6	6	40.0	25	26.3	
25 to 5 0	51	42.1	5	33.3	46	43.4	
50 to 75	31	25.6	3	20.0	28	26.4	
75 or more	8	6.6	1	6.7	7	6.6	
Total	121	100.0	15	12.4	106	87.6	

Table 6. Percentage of in-migrants aged 60 and over for incorporated places and townships

Townships, or more rural areas, attracted the older in-migrants. This finding alone is not too important, however, because the elderly in-migrant population may be living just outside of town. This would be equal to living in a Type 1 township. In order to examine the elderly inmigration proximity to incorporated places, the townships were broken down by types as shown in Table 7.

Percentage of In-Migrants	of s Total		Type 1		I	Type 2		Туре 3	
Age or Over	No.	Percent	No.	Percent	No.	Percent	No.	Percent	
0 to 25	25	23.6	9	37.5	13	19.1	3	21.4	
25 to 50	46	43.4	10	41.7	33	48.5	3	21.4	
50 to 75	28	26.4	5	20.8	17	25.0	6	42.9	
75 or more	7	6.6	0	0.0	5	7.4	2	14.3	
Total	106	100.0	24	22.6	68	64.2	14	13.2	

Table 7. Percentage of in-migrants 60 years of age or over in relationship to township type

As Table 7 shows, the proportion of the in-migrants who were elderly was lowest for Type 1 townships, and intermediate for Type 2 townships and greatest for Type 3 townships. Only one-fourth (20.5 percent) of the respondents for Type 1 townships estimated that more than half of the in-migrants were elderly (over 60 years of age). In contrast, about one-third (32.1 percent) of the respondents for Type 2 townships and nearly two-thirds (57.2 percent) of the respondents from Type 3 townships indicated that more than three-quarters of the immigrants were 60 years of age or over.

In summary, the younger the in-migrants, the more likely they are to move into an incorporated place and the older the in-migrant population, the farther from an incorporated place they tend to reside. This pattern is logical if one considers that the younger in-migrants are dependent upon the urban areas quite often for employment, while the older migrants tend to be retired and more dependent on the urban places for services rather than employment.

A problem with trying to show growth patterns that have developed between different township types exists due to State and Federally owned land. While this has no effect upon the percentage of people 60 years and over migrating in, it does have a large effect on the overall growth patterns within this ten-county area. Many township supervisors commented that much of the land in their township was owned by the government and that growth was impaired by this ownership. Because of this governmental ownership effect on population distribution, a township map was attached to the back of each township supervisor's questionnaire. Each supervisor was asked to show which areas within their township had gained, remained the same, or lost in population. This was an attempt to find areas within each township that were remaining the same in population which could be due to State-owned land. Many supervisors did not fill out this part of the questionnaire and this data could not be used.

Limited access highways were also considered in this study. It was felt that township growth patterns may

be effected by the accessibility to freeways by the residents in this ten-county area. Interstate 75 and US-27 both run through the center of the area under study. It was hypothesized that regardless of the proximity to an incorporated place, a freeway running through the township may cause growth because of the condition of many rural roads.

When township growth was related to the presence of an Interstate freeway, it was found that only 32 percent of the fast-growing townships had an Interstate highway running through them. Sixty-eight percent of the slowgrowing townships, on the other hand, had a freeway that ran through them. This finding, however, is not very important at the township level because the normal township is only six miles square. While the townships may not have a freeway running through them, they all have fairly good accessibility to the freeways in this ten-county area.

Housing

The type of housing that the in-migrants were moving into was studied for two reasons. First, the problems that were mentioned earlier with utility hook-ups as a way of estimating populations by the census. If the estimates were indeed inaccurate, one would expect to find many vacation homes being converted to year-round use which

would not require a new utility hook-up. Second, a pattern was expected due to breaking townships into types. The mayors of incorporated places also had a question on their questionnaire concerning housing type.

The data collection method used in the questionnaire with regard to housing type was not clear to the respondents (see Questionnaire in Appendix A). Many supervisors and mayors would check more than one type of housing, while others would not check any. The usable data which did come in, however, show that vacation homes and mobile homes are very popular in this lower northern Michigan rural area. Building new homes and buying existing homes only totaled 86 responses, while mobile and vacation homes totaled 88 responses out of the 174 responses.

Mayors of incorporated places showed through their responses that the most common type of housing was either buying existing homes or building new ones. Of the 19 responses, 14 answered new or existing homes, while only 5 answered that vacation and mobile homes were the most common. When I spoke to the mayor of Kalkaska Village, he informed me that most towns in his area had passed zoning ordinances barring mobile homes within the city limits.

Unincorporated places in each township were also studied. The township supervisors were asked to supply

information concerning these places within their townships. Thirty-two unincorporated places were investigated and, because of the small size of the place or the lack of familiarity the supervisors had with the place, the data could not be used. The biggest problem came from the supervisors rounding numbers when asked to give population estimates or stating that there was no such place in their township. It was hypothesized that the migrants may have been moving in or around unincorporated places in the Type 2 and Type 3 townships. But because of poor data this question is still open for further study.

SUMMARY AND DISCUSSION

This study focuses upon population growth in a ten-county nonmetropolitan area of northern lower Michigan. Until recently, this area was characterized by high rates of out-migration. Portions of the area are heavily timbered and contain numerous lakes. The soils are generally sandy, of medium to low fertility, and are not ideally suited to modern, large-scale agricultural production.

The methodology used in producing Federal-State cooperative population estimates for small political units in such an area is known to be fraught with difficulties. As a consequence, this study sought estimates directly from township supervisors and mayors. A questionnaire was prepared and mailed to all supervisors and mayors in the ten-county area. Other information, in addition to current population, included origin and age of in-migrants. Responses were obtained from all informants, either from questionnaires returned or from a small number of telephone calls to those who failed to return the questionnaire.

Estimates of population based upon survey results differed markedly from the Federal-State cooperative estimates in a fairly large number of cases. The methods used

in the census estimates, it was concluded, are not very accurate for small, rapidly growing areas such as northern lower Michigan. The census methods now used should be supplemented with other sources of data, such as the first-hand knowledge of local supervisors and small town mayors. Contrary to expectation, the most rapid growth was not occurring in the villages and small towns. Rather, outlying townships that were adjacent to townships containing a village or small town were most rapidly growing.

Other findings in this study showed that a large majority of all the migrants were coming from counties outside the area of northern lower Michigan. Many of the migrants were found to be elderly. A large proportion of these were fixing up vacation homes for year-round use or moving into mobile homes. Retirement migration was clearly a large factor in the growth of this area.

An elderly population in a rural area such as the ten counties studied place special demands upon the community. The special needs of an elderly population are likely to include need for public transportation, for social security services, for hospitals with cardiac and intensive care units, and many other tax supported services. The retired and elderly individuals quite often live on fixed incomes and are often in a lower income tax bracket. With a need for more services and with less tax money per person,

planning for and provision of needed services in these counties could become a complex problem.

The impact should not be assumed to be negative for communities receiving elderly population. Many elderly migrants bring with them new ideas, talents, and important resources to a community. Job opportunities should increase from the new demand for services, which should serve to attract an influx of younger people. Housing alone for the migrants, young and old, should increase construction employment. Population growth should increase each community's economic status and could make each community a better place to live if the elderly are allowed to be productive. Communities should promote programs that allow the retired individuals to share their skills and experience with others.

PAGE A

EAST LANSING . MICHIGAN . 48824

DEPARTMENT OF SOCIOLOGY

29 October 1976

Dear

I am a graduate student at Michigan State University doing research in population studies. I am interested in the recent trend of many people moving from urban to rural areas. Preliminary data shows that in a number of counties in Michigan the population has grown very rapidly since the 1970 census. My research is concerned with identifying local areas in central Michigan that are growing, remaining stable, or declining.

I am sending short questionnaires to local officials since they are especially well informed as to population changes in their area. I would appreciate it if you would please answer the enclosed questions and mail them back to MSU in the stamped, selfaddressed envelope. Any comments about population change since 1970 in your area will be very helpful. I will be grateful for your assistance.

Thank you.

Sincerely,

James D. Leonard Graduate Student Michigan State University

JDL/om

enc

DEPARTMENT OF SOCIOLOGY . BERKEY HALL

Nov. 17 1976

Dear

I am sending a follow-up questionnaire to you because it is very important that my research include all of the areas of your county. This information is necessary, even if your area has remained stable, for me to complete this project in population studies.

I would appreciate it if you would please give me a few minutes of your time and answer the enclosed questions and mail them back to M.S.U. in the envelope provided. This project is very important to me and I have most areas within your county now, please help so I can complete this research. I will be very grateful for your assistance.

> Thank You Sincerely

James D Leonard Michigan State University

PAGE C (Front)

FAST LANSING + MICHIGAN + 49874

Please Note:

DEPARTMENT OF SOCIOLOGY

This questionnaire is concerned with the permanent (year round) population residing in your township in the period 1970 to 1976. Please exclude the population in any incorporated place within the township. The population in your township according to the 1970 census was:

1. Would you say that your township (between 1970 and 1976) has:

gained in total population remained the same lost in total population

- 2. If the answer to question 1 was <u>gained</u>, approximately how many people would you say have moved in since 1970?
- If the answer to question 1 was lost, approximately how many people would you say have moved out since 1970?
- 4. If your township has gained, about what proportion of the people moving in since 1970 would you say are 60 years of age or over?

0 to 1/4

1/2 to 3/4 3/4 or more

If your township has gained in population would you say that most have come from:

____ with-in the county
____ from outside the county

 If your township has gained in population from people moving in since 1970, would you say that the majority are:

Please check most and least common:

Most Common Least Common (check one) (check one)

 	building new homes
 	fixing-up vacation homes
 	moving into mobile homes
 	other (please explain)
 	other (prease exprain)

PAGE C (Back)

- 7. Your township map is divided into areas (red lines). Would you please mark a:

 - + in the area where population has increased
 0 in the area where population has remained the same
 in the area where population has declined

(A blank area will be assumed to mean that you were not sure of the 1970 to 1976 population change)



*If possible estimate the gains or losses in population in each area. Please put the number next to the + or - in the area on the map where the change occurred.

MICHIGAN STATE UNIVERSITY

DEPARTMENT OF SOCIOLOGY

EAST LANSING . MICHIGAN . 48824

PAGE D

Please note:

This questionnaire is concerned with the permanent (year round) population residing in your town in the period 1970 to 1976. Please exclude any homes outside the incorporated city limits. The population of your town according to the 1970 census was:

1. Would you say that the population in your town (between 1970 and 1976) has:

gained in total population remained the same lost in total population

- If the answer to question 1 was gained, approximately how many people would you say have moved in since 1970?
- 3. If the answer to question 1 was <u>lost</u>, approximately how many people would you say have moved out since 1970?
- 4. If your town has gained, about what proportion of the people moving in since 1970 would you say are 60 years of age or over?

	0 to 1/4	1/4		to	3/4
	1/4 to 1/2		3/4	or	more

5. If your town has gained in population since 1970 would you say that most have come from?

with-in the county from outside the county

6. If your town has gained in population from people moving in, would you say that the majority are:

Please check most and least common:

Most Common Least Common (check one) (check one)

 	building new homes
 	fixing-up vacation homes
 	huving mich mobile homes
 	other (please explain)

7. According to our data ______ is an unincorporated place in your township and was estimated to have a population in 1970 of

8. Is there an unincorporated place with this name in your township?

_____ Yes _____ No

9. Was the estimated number of people living in this place in 1970 about accurate? (please exclude those people living 1/4 mile or more from this settlement)

If no, how many people would you say lived in this place in 1970 _____?

_____ Yes _____ No

10. Would you say this place (between 1970 and 1976) has:

gained in total population remained the same lost in total population

- 11. If the answer to question 10 was <u>gained</u>, approximately how many people would you say have moved in since 1970?
- 12. If the answer to question 10 was <u>lost</u>, approximately how many people would you say have moved out since 1970?

13. If this place has gained in population, would you say that most have come from:

with-in the county
from outside the county

PAGE E

CLARE COUNTY











GLADNIN COUNTY







MISSAUKEE COUNTY













APPENDICES

APPENDIX A

ORIGINAL COVER LETTER;

FOLLOW-UP COVER LETTER;

TOWNSHIP QUESTIONNAIRE;

INCORPORATED PLACE QUESTIONNAIRE; AND

UNINCORPORATED PLACE QUESTIONNAIRE (not used in this study)

APPENDIX B

COUNTY MAPS

(Each cross-hatched township represents faster growth than the county)

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