



## The Growing Importance of the Elderly in Michigan Counties

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KNOWLEDGE OF POPULATION trends is needed to make better decisions about the delivery of goods and the provision of human services in Michigan counties. Data on the elderly population are especially important because they have more need for health and other social services than other population groups. Such knowledge is particularly valuable in developing improved social legislation. Information on the increase in the elderly population in Michigan counties has not been readily available.

This bulletin first presents data on the 1977 total and elderly population in Michigan counties, and then shows changes in the total and elderly population in Michigan counties between 1970 and 1977.<sup>2</sup> The last part focuses on the regional location of counties with high growth in the total and elderly populations.

The population data employed here are based on the decennial census, the most reliable source of information on the population. Estimates of total

population, by county, in non-census years are also made by the U.S. Bureau of the Census.<sup>3</sup> These estimates are based on changes in school enrollment, net migration, vital statistics and other indicators of population change.

The Census Bureau also estimates the number of persons 65 and over in U.S. counties for the Administration on Aging to use in analyzing policy for the elderly. These estimates are based on changes in Medicare enrollees from the census year to the estimate date. Since approximately 87 percent of all people 65 and over were enrolled in the Medicare program in 1976,<sup>4</sup> and since enrollment in the Supplemental Medical Insurance part of Medicare has since become an automatic process for all eligible people when they turn 65, estimates of the older population derived in this fashion are likely to be reliable. These estimates have been published yearly since 1974, with the 1977 estimates being the most recent.<sup>5</sup>

The two series, total population and elderly population, are used here to show the shifts in population. Emphasis is on changes in the elderly and the total population in Michigan counties. To have the years sufficiently separated so as to show meaningful changes, the years 1970 to 1977 were employed to calculate county changes in population (see Appendix for data).

1. Respectively, Research Assistant in the Department of Community Health Science and Professor, both at Michigan State University. The authors appreciate the comments and contributions of J. Allan Beegle, Allan Schmid and Lawrence Libby and the aid of Ruth Ann Berg and Marilyn Boger in carrying out this project. The project was supported in part by Grant Number HS 03760 from the National Center for Health Services Research, DHHS.
2. County data from the 1980 Census is expected to be available in early 1982.
3. *Current Population Reports—Federal-State Cooperative Program for Population Estimates*, U.S. Department of Commerce, Series P-26, yearly from 1973.

4. Department of Health, Education, and Welfare: *Health—United States, 1978*. DHEW Pub. No. (PHS) 78-1232. December 1978, p. 408.
5. *Administration on Aging: The Elderly Population: Estimates by County, 1977*. pp. 58-60. DHHS Pub. No. (OHAS) 80-20248.

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The changes shown here in the elderly population of Michigan are similar to other states. Michigan is unique demographically only in rather minor ways. That is, the birth rate decline and level in the past 10 to 20 years follows the national pattern. And the decline in the birth rate (along with slow advances in longevity) is responsible for the rising number and percentages of elderly. Since 1970, there has been a national trend of more rapid nonmetropolitan than metropolitan area growth. This has been pronounced in Michigan, and the migration of elderly to nonmetropolitan areas on retirement has been especially significant here. (J. Allan Beegle, Personal Communication).

### Population in 1977

Although the Upper Peninsula and northern Michigan together contain half of the counties of Michigan (42) they have less than 10 percent of the population. In contrast, the 41 southern counties have over 90 percent of the state's residents (Figure 1).

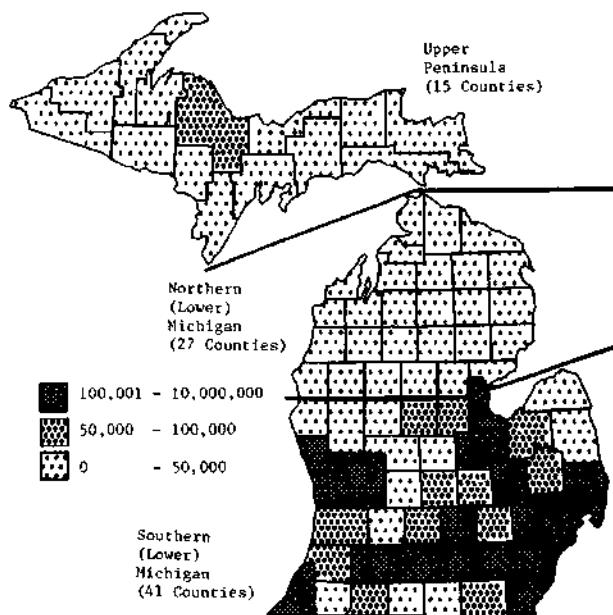


Fig. 1 — Total population of the counties of Michigan and the three geographic divisions of Michigan used in this study — 1977.

The pattern of distribution of people aged 65 and over is similar, with most of the elderly population also concentrated in southern Michigan (Figure 2). In Michigan, the elderly averaged 9 percent of the total population in 1977. However, many counties, especially the more rural and those in the Upper Peninsula and in northern Michigan, had much higher proportions of elderly (Figure 3), reaching 21 percent in Lake County.

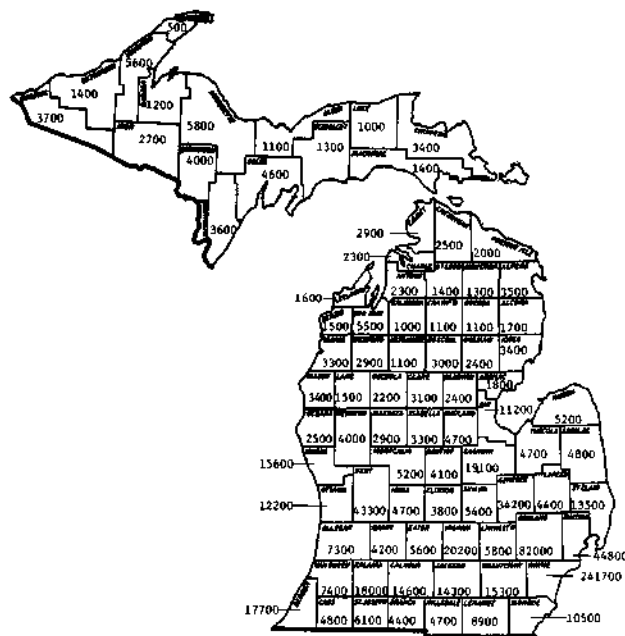


Fig. 2 — Population 65 and older by county in Michigan, 1977.

### Population Changes—1970 to 1977

Focusing on total population, in upper and northern Michigan only Marquette and Grand Traverse Counties increased total population by more than 6,300 persons in the 1970 to 1977 period (Figure 4). Other counties with large population increases were mostly southern suburban counties. Declines in total population are estimated to have occurred only in

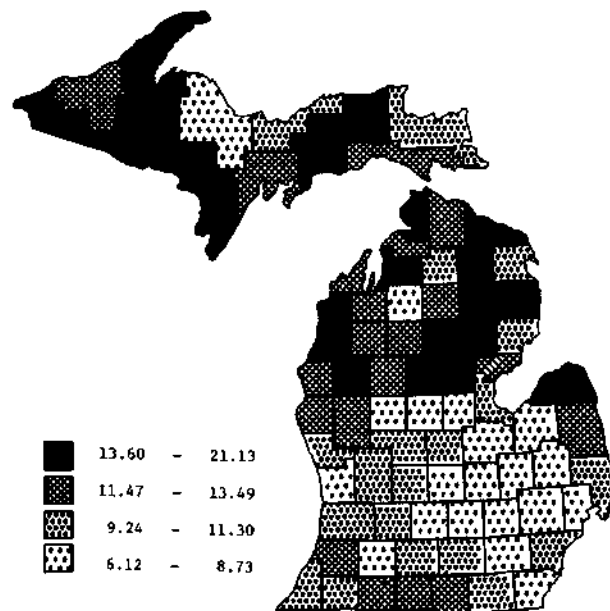


Fig. 3—Percent elderly (65 or older) in Michigan counties 1977.

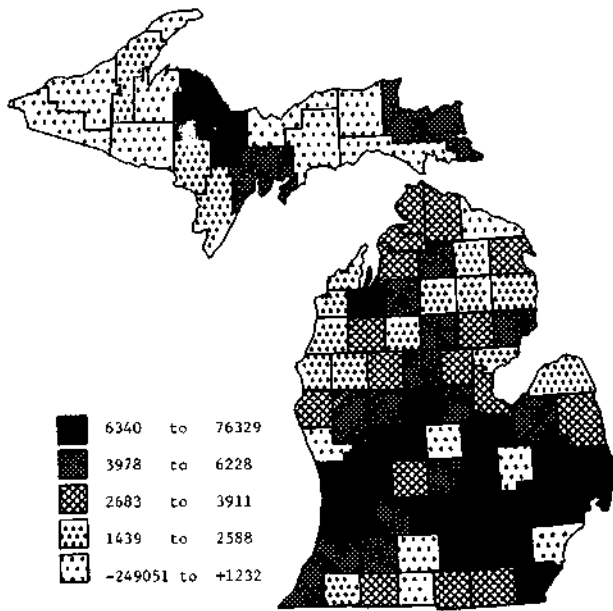


Fig. 4—Change in total population in Michigan counties, 1970-1977.

three counties, Gogebic (1 percent), Calhoun (1 percent), and Wayne (8 percent), with Wayne experiencing by far the greatest decline (249,000) during this period. The percent change in total population in each county is provided in the Appendix.

Of particular interest is the change in the elderly population. How much did the elderly group increase and where were the greatest increases? In the 1970 to 1977 period the population of Michigan is estimated to have increased by 3 percent (see Appendix). During the same period, the elderly population increased from an estimated 750,000 to 850,000 persons, or 13 percent. The increase in the number of elderly by county was highly variable, with most of the relatively large increases occurring in the large-population counties in southern lower Michigan (Figure 5). Wayne was the only county with a decline in elderly population.

#### Changes in the Elderly as a Proportion of the Total Population

As a proportion of the total population in Michigan, the elderly are estimated to have increased by almost one percentage point (.87), from 8 to 9 percent, in the short span of 7 years. The location of changes in this proportion was greatly variable over Michigan, with the distribution of counties with high, medium and low changes evenly distributed among regions (Figure 6).

Many counties, mostly rural, had a more than 1.24 percentage point increase in the elderly relative to

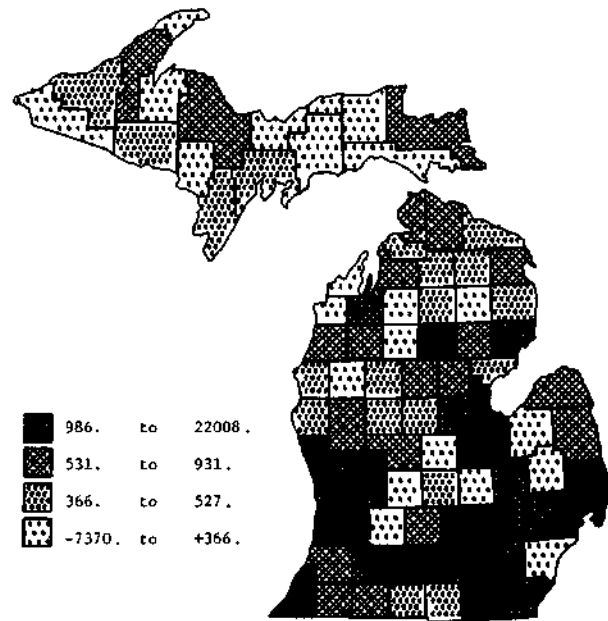


Fig. 5—Change in Elderly (65 and older) Population in Michigan counties, 1970-1977.

the total population, while others had little or no change. The changes of the proportions of elderly to total population in all counties except Wayne were due to differential growth rates of the elderly as compared to the total population. In Wayne county, the increase in the proportion of the elderly was due to a slower decrease in elderly persons (2 percent) as compared to all persons (8 percent).

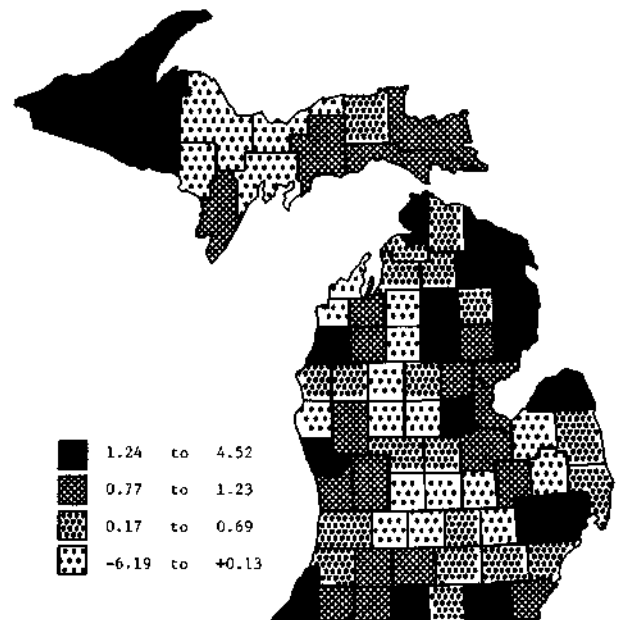
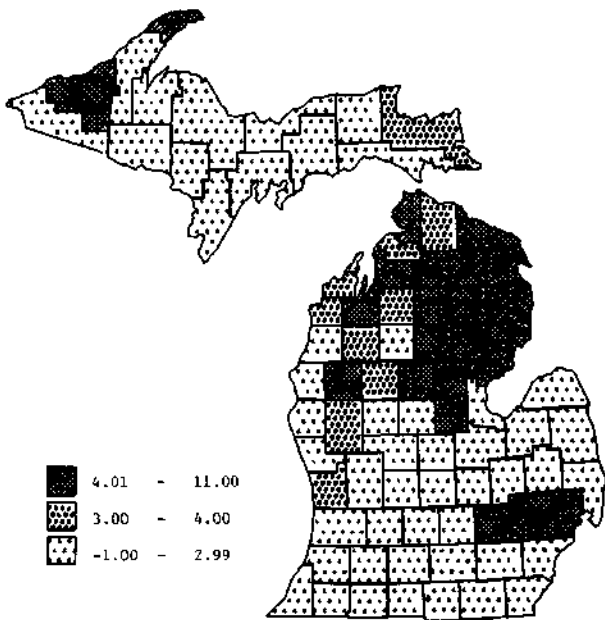


Fig. 6—Change in Proportion of Elderly (65 and older) to total population in Michigan, 1970-1977 (percentage point change).

**Table 1 — Regional Location of Counties with Different Average Annual Rates of Change in Total and Elderly Population in Michigan.**

Change in	Average annual rate of change			No. of
	Less than 3 percent	3-4 percent	Over 4 percent	
<b>Change in Total population</b>				
Upper Peninsula . . . .	14	0	1	15
Northern Lower M. . . .	10	9	8	27
Southern Lower M. . . .	38	2	1	41
TOTAL . . . . .	62	11	10	83
<b>Change in elderly population</b>				
Upper Peninsula . . . .	11	1	3	15
Northern Lower M. . . .	4	6	17	27
Southern Lower M. . . .	35	2	4	41
TOTAL . . . . .	50	9	24	83

A decline in the proportion of elderly in the population occurred in a number of counties also. These proportionate declines occurred even though the total number of elderly in the county rose, because of a net immigration of younger age groups into these counties. As an extreme example, the elderly population in Kalkaska county in northern Michigan grew by 27 percent from 1970 to 1977. At the same time, the total population in the county grew by 118 percent, netting a 6.19 percentage point decline in the proportion of the elderly to population (see Appendix).



**Fig. 7—Percent Annual Change in Elderly (65 and over) in Michigan counties, 1970-1977.**

**The Regional Location of Counties with High Growth in Total and Elderly Population**

The regional location of counties with high proportional increases in total population and elderly are highlighted in Table 1. Examining total population first, 17 of 21 counties which had 3 percent or more annual population growth from 1970 to 1977 were in northern Michigan. The state as a whole had an average annual increase in population of 0.4 percent over this period. For the elderly population, the county percentage increase was equally sharply focused on northern Michigan (Figure 7). This region contained 23 out of the 33 counties which experienced annual increases in the elderly population of 3 percent or more over the 1970 to 1977 period. The three-county area of Livingston, Oakland and Macomb in southern Michigan also showed high rates of growth in the elderly population (greater than 4 percent per year).

A high percentage increase in population does not necessarily imply a large absolute increase. Turning to total population first, the regional location of the counties with high absolute increases in population shows a pattern different from that in Table 1. Thirty-four of the 65 counties with a population growth of over 1,500 persons from 1970 to 1977 were in southern Michigan (Table 2).

**Table 2 — Regional Location of Counties with Different Amounts of Increase in Total and Elderly Population in Michigan, 1970 to 1977.**

Total population	Less than 750	751 to 1500	More than 1500	No. of counties
	Upper Peninsula . . . .	7	2	
Northern Michigan . .	0	2	25	27
Southern Michigan . .	6	1	34	41
TOTAL . . . . .	13	5	65	83
<b>Elderly persons</b>				
Upper Peninsula . . . .	14	1	0	15
Northern Michigan . .	22	5	0	27
Southern Michigan . .	16	12	13	41
TOTAL . . . . .	52	18	13	83

Similarly for the elderly population, only counties in southern Michigan (13) had an absolute increase of over 1,500 elderly persons from 1970 to 1977. In northern Michigan, absolute increases of over 750 elderly persons during this time period were limited to 5 counties—Alpena, Clare, Grand Traverse, Iosco and Roscommon.

## Summary and Policy Implications

Many groups in government and the private sector need better knowledge of where the elderly (65 and older) live in Michigan and where their numbers are increasing most rapidly. This information should aid in improving the delivery of goods and services to this important group. The elderly need and demand a large amount of certain types of services, such as health services.

**Changes in Total Population**—Nearly 90 percent of the total population and of the elderly resided in southern Michigan in 1977.

Southern Michigan had the greatest increase in absolute number of people in the 1970 to 1977 period. However, proportionately greater numbers of counties in northern Michigan experienced more rapid growth in total population than the counties in the other two regions of the state. Seventeen of the 21 counties in the state which experienced an annual population increase of 3 percent or more were in northern Michigan.

**Changes in the Elderly Population**—In 1977, most of the counties which contained a high proportion of elderly persons were located in the Upper Peninsula and in northern Michigan.

The elderly are growing as a proportion of the population in most counties. The proportion of elderly increased by almost one percentage point to 9 percent in the 1970 to 1977 period in Michigan.

Rates of growth in the elderly in Michigan were highest in northern Michigan in the 1970 to 1977 period. Northern Michigan had 23 of the 33 counties experiencing annual growth rates of 3 percent or more in elderly persons. Rates of growth in elderly were highest (above 4 percent) in a group of counties in the eastern half of northern Michigan, as well as in a three-county cluster north of Detroit.

However, large absolute increases in the elderly population occurred in many counties in southern

Michigan even though they represented small percentage increases.

**Policy Implications**—The unusually rapid growth of the elderly part of the population in certain counties of Michigan has a large number of policy implications. The primary implication is that larger than usual increases in demand for the goods and services used by the elderly can be expected; these services include health care and banking in the private sector, for example. Among public sector services, increased demand can be expected in road maintenance, snow plowing, fire protection and emergency medical services, to name a few.

The rapid increases in elderly in communities also provide an often unexplored opportunity for communities to tap experienced human resources for contribution to and leadership in the community. Many elderly people have a large number of needed skills which could improve community life and are often available at moderate or little cost.

In a period of severe financial constraint such as the present, the increasing demands of growing numbers of elderly come up against very limited local government resources, particularly in certain rural areas of Michigan. Hence, certain counties with high growth rates of elderly as indicated in this report are likely to have great difficulty in meeting the needs of their elderly.

A final implication focuses on the settlement pattern of the elderly in rural areas. If they are widely scattered, the costs of local government services will be much higher, and their costs of transportation will be higher. These considerations suggest that ways to encourage more clustering of retirement homes for the elderly would be cost effective for the individuals involved and local government.

To help provide more equitable services to the elderly, state government units may also need to make additional effort to reallocate resources to those counties experiencing the most rapid increases in the elderly and in the total population.

## Acknowledgement

*Figures 1 through 7 were prepared by the Department of Community Health Science, Colleges of Human and Osteopathic Medicine, Michigan State University.*

## Appendix

### Total and Elderly Population in Michigan Counties, 1970-1977 (Number and Percent Change).

COUNTY	ESTIMATED TOTAL POPULATION 1970	ESTIMATED TOTAL POPULATION 1977	PERCENT CHANGE IN POPULATION 1970-1977	POPULATION 65 OR OLDER 1970	POPULATION 65 OR OLDER 1977	PERCENT POPULATION 65 OR OLDER 1977	PERCENT CHANGE IN POPULATION 65 OR OLDER 1970-1977	PERCENTAGE POINT CHANGE IN PROPORTION OF ELDERLY POPULATION 1970-1977
ALCONA	7113	8900	25	1213	1700	19	40	2.05
ALGER	8568	9800	14	951	1100	11	16	.13
ALLEGAN	66575	73800	11	6250	7300	10	17	.50
ALPENA	30708	33600	9	2600	3500	10	35	1.95
ANTRIM	12612	15800	23	1749	2300	15	32	.69
ARENAC	11149	13600	22	1387	1800	13	30	.79
BARAGA	7789	8400	8	1000	1200	14	20	1.45
BARRY	38166	42200	11	3834	4200	10	10	-.09
BAY	117339	120200	2	9496	11200	9	18	1.23
BENZIE	8593	10500	22	1221	1500	14	23	.08
BERRIEN	163875	169200	3	15069	17700	10	17	1.27
BRANCH	37906	37600	0	3873	4400	12	14	1.48
CALHOUN	141963	139800	-1	13254	14600	10	10	1.11
CASS	43312	44800	3	4239	4800	11	13	.93
CHARLEVOIX	16541	19500	18	1868	2300	12	23	.50
CHEBOYGAN	16573	20300	22	1954	2500	12	28	.53
CHIPPewa	32412	36800	14	2673	3400	9	27	.99
CLARE	16695	22800	37	2196	3100	14	41	.44
CLINTON	48492	54500	12	3349	3800	7	13	.07
CRAWFORD	6482	9000	39	707	1100	12	56	1.32
DELTA	35924	40100	12	4128	4600	11	11	-.02
DICKINSON	23753	25400	7	3746	4000	16	7	-.02
EATON	68892	79600	14	4887	5600	7	15	-.04
EMMET	18331	21300	16	2213	2900	14	31	1.54
GENESEE	444341	444900	0	28959	34200	8	18	1.17
GLADWIN	13471	17200	28	1730	2400	14	39	1.11
GOBEC	20676	20300	-1	3354	3700	18	10	2.00
GRAND TRAVERSE	39175	46600	19	4238	5500	12	30	.98
GRATIOT	39246	39700	1	3955	4100	10	4	.25
HILLSDALE	37171	40600	9	4184	4700	12	12	.32
HOUGHTON	34652	37000	7	4728	5600	15	18	1.49
HURON	34083	36600	7	4334	5200	14	20	1.49
INGHAM	261039	272000	4	17638	20200	7	15	.67
IOWA	45848	49000	7	4412	4700	10	7	-.03
IOSCO	24905	30600	23	2414	3400	11	41	1.42
IRON	13813	14500	5	2281	2700	19	18	2.11
ISABELLA	44594	51700	16	2842	3300	6	16	.01
JACKSON	143274	149900	5	13049	14300	10	10	.43
KALAMAZOO	201550	206200	2	15526	18000	9	16	1.03
KALKASKA	5272	11500	118	785	1000	9	27	-6.19
KENT	411044	429500	4	38078	43300	10	14	.82
KEWEENAW	2264	2600	15	333	500	19	50	4.52
LAKE	5661	7100	25	1167	1500	21	29	.51
LAPEER	52317	64500	23	4036	4400	7	9	-.89
LEELANAU	10872	13100	20	1320	1600	12	21	.07
LENAWEE	81409	85400	5	7491	8900	10	19	1.24
LIVINGSTON	58967	86200	46	4500	5800	7	29	-.90
LUCE	6789	7200	6	922	1000	14	8	.31
MACQUINAC	9660	10800	12	1170	1400	13	20	.85
MACOMB	625309	686000	10	29673	44800	7	51	1.79
MANISTEE	20094	21800	8	2742	3300	15	20	1.49
MARQUETTE	64686	73200	13	5164	5800	8	12	-.04
MASON	22612	25200	11	2957	3400	13	15	.41
MECOSTA	27992	34200	22	2415	2900	8	20	-.15
MENOMINEE	24587	26100	6	3202	3600	14	12	.77
MIDLAND	63769	69600	9	3443	4700	7	16	1.35
MISSAUKEE	7126	9400	32	916	1100	12	20	-1.15
MONROE	118479	129100	9	8720	10500	8	20	.77
MONTCALM	39660	46000	16	4417	5200	11	18	.17
MONTMORENCY	5247	7300	39	825	1300	18	58	2.08
MUSKOGON	157426	158100	0	13303	15600	10	17	1.42
NEWAG	27992	32200	15	3231	4000	12	24	.88
OAKLAND	907871	984200	8	59992	62000	8	37	1.72
OCEANA	17984	21000	17	2120	2500	12	18	.12
OGEMAW	11903	14900	25	1783	2400	16	34	1.11
ONTONAGON	10548	11100	5	1028	1400	13	36	2.87
OSCEOLA	14838	18500	25	1795	2200	12	23	-.21
OSCODA	4726	6400	35	803	1100	17	37	.20
OTSEGO	10422	14400	38	984	1400	10	42	.28
OTTAWA	128181	146100	14	9657	12200	8	35	.82
PRESQUE ISLE	12836	14000	9	1482	2000	14	26	2.74
RUSCONON	9892	15700	59	1699	3000	19	77	1.93
SAGINAW	219743	226700	3	16780	19100	8	14	.79
SAINTE CLAIR	120175	131600	10	11877	13500	10	14	.38
SAINTE JOSEPH	47392	50900	7	5169	6100	12	18	1.08
SANILAC	34889	38800	11	4209	4800	12	14	.31
SCHOOLCRAFT	8226	8900	8	1126	1300	15	15	.92
SHIawassee	63075	69500	10	5077	5400	8	6	-.28
TUSCOLA	48603	54100	11	4334	4700	9	8	-.23
VANBUREN	56173	61800	10	6475	7400	12	14	.45
WASHTENAW	234103	250200	7	13535	15300	6	13	.33
WAYNE	2666751	2417700	-8	249070	241700	10	-2	.66
WEXFORD	19717	22400	14	2369	2900	13	22	.93
MICHIGAN (TOTAL)	8875083	9129300	3	749679	850660	9	13	.87