Staff Paper

Analysis of Socioeconomic Data for the Western UP Cluster of Michigan Counties

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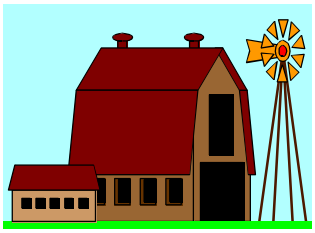

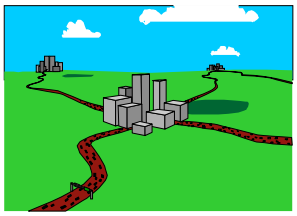

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Analysis of Socioeconomic Data for the Western Upper Peninsula Cluster of Michigan Counties[1]

Abstract

This paper presents an analysis of socioeconomic data for a cluster of six counties in Michigan's upper peninsula. These adjacent counties (Baraga, Gogebic, Houghton, Iron, Keweenaw, and Ontonagon) are part of a three-year rural development project. Data for individual counties as well as averages for the cluster are given. Topics covered include population growth, age of residents, educational attainment, unemployment, employment/jobs, sources of personal income, household income, poverty rates, and household composition. An executive summary is also provided.

Executive Summary

Following is an analysis of socioeconomic data for the Western Upper Peninsula (U.P.) Cluster of Michigan counties, i.e. Baraga, Gogebic, Houghton, Iron, Keweenaw, and Ontonagon. These counties were combined into a group for a Michigan State University economic development project. The project, called Enhancing Rural Economies, involves concentrating extension programming and research programs, as well as using partnering approaches to improve economic conditions in local areas. The key findings of this analysis are listed below.

Population Growth:

This cluster has low population density. The counties of the cluster have had somewhat stagnant populations in recent decades.

Age of Residents:

The median age of residents in the cluster is over seven years older than Michigan's median age. Three cluster counties (Iron, Keweenaw, and Ontonagon) are projected to have a median age older than 50 years by 2020.

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[1] This analysis was prepared by Jon C. Phillips, Graduate Research Assistant, Department of Agricultural Economics, M.S.U. Data for this analysis was organized and provided by Mary Lou McPherson, Extension Specialist, Department of Resource Development. Additional information pertaining to the operation of the Western Upper Peninsula Cluster of the Enhancing Rural Economies project may be obtained from Jerry Murphy, Cluster Administrator, M.S.U. Extension Gogebic County, (906)932-1420.

Educational Attainment:

The cluster lags behind Michigan's average educational attainment. One bright spot is the increase in the percentage of residents of the cluster who are high school graduates.

Unemployment:

The unemployment rate in each of the cluster counties exceeds the average for Michigan. Gogebic and Ontonagon have particularly high unemployment.

Employment/Jobs:

In the past 25 years, job growth has been limited in the cluster. No county in the cluster showed an increase in manufacturing jobs in this period.

Sources of Personal Income:

The percentage of personal income from net earnings is significantly lower in the Western U.P. Cluster than Michigan's average. Furthermore, the percentage of personal income in the other two categories ("Dividends, Interest, and Rent" and "Transfer Payments") is higher than Michigan's average.

Household Income:

The Western U.P. Cluster has a greater percentage in the low income category (and a smaller percentage in the high income category) than Michigan's average and cluster average for each of the other Enhancing Rural Economies clusters.

Poverty Rate:

The poverty rate in 1990 was high throughout the cluster. In fact, this cluster had the highest average poverty rate of any of the Enhancing Rural Economies clusters.

Household Composition:

A decline in the percentage of households in the "Married With Children" and "Married Without Children" categories occurred in the cluster. An increase in the percentage of "Single Parent Families" and "Single Person Households" occurred in the cluster.

A more detailed discussion of each of the variables mentioned above follows.

Analysis of Socioeconomic Data for the Western Upper Peninsula Cluster of Michigan Counties[2]

Following is an analysis of socioeconomic data for the Western Upper Peninsula (U.P.) Cluster of Michigan counties, i.e. Baraga, Gogebic, Houghton, Iron, Keweenaw, and Ontonagon. These counties were combined into a group for a Michigan State University economic development project. The project, called Enhancing Rural Economies, involves concentrating extension programming and research programs, as well as using partnering approaches to improve economic conditions in local areas.

Population

The primary characteristic of this cluster related to population is its low population density. While the counties that make up this cluster cover a vast geographic area, the population is less than 80,000. Table 1 below contains information on population levels and growth rates for the six counties in the Western U.P. Cluster. Houghton dwarfs the other five counties in this cluster, comprising nearly half of the population of the cluster.

No county in this cluster deviated in population by more than 1,000 people, from 1990 to 1996. Most of the counties stayed within 500 people. In terms of raw numbers, Houghton and Baraga showed the largest increases in population between 1990 and 1996. The other four cluster counties actually had a larger population in 1970 than they had in 1996. The relatively stagnant population of the Western U.P. Cluster contrasts with the state of Michigan, which had a population increase of 3.2% between 1990 and 1996. An implication of these trends is that this part of the state will experience a decrease in its level of representation in state and federal legislatures.[3]

Age of Residents

The median age of residents of the cluster (for 1990 and projections for 2000) and Michigan are listed in Table 2. The cluster average median age was over seven years older than Michigan's average in 1990. This gap is predicted to remain almost constant, with the median age in the cluster and Michigan both projected to increase by just under three years by 2000. Iron,

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[2] This analysis was prepared by Jon C. Phillips, Graduate Research Assistant, Department of Agricultural Economics, M.S.U. Data for this analysis was organized and provided by Mary Lou McPherson, Extension Specialist, Department of Resource Development. Additional information pertaining to the operation of the Western Upper Peninsula Cluster of the Enhancing Rural Economies project may be obtained from Jerry Murphy, Cluster Administrator, M.S.U. Extension Gogebic County, (906)932-1420.

[3] The population of the U.S. grew by 6.6% between 1990 and 1996.

Keweenaw, and Ontonagon are projected to have median ages over 50 years by 2020. This will create needs for added health care and elder care capacity in these counties.

The counties in this cluster tend to be decreasing in people between 5 and 17 years and between 18 and 24. Such a decline could have a negative impact on the availability of workers in the future. A lack of available workers may make the area a less attractive location for potential new employers.

Table 1: Population Changes for the Upper Peninsula Cluster, Michigan, and the United States

Population				
County	1990	1996	Raw Change	% Change
Baraga	7,954	8,472	518	6.5%
Gogebic	18,052	17,704	(348)	-1.9%
Houghton	35,446	36,230	784	2.2%
Iron	13,175	13,121	(54)	-0.4%
Keweenaw	1,701	2,010	309	18.2%
Ontonagon	8,854	8,405	(449)	-5.1%
(Sum)	77,228	77,470	242	
Cluster Average				0.3%
Michigan				3.2%
U.S.				

Educational Attainment

It is customary to analyze the educational attainment of the residents of a region by considering the percentage of residents who have completed various levels of education. Typically, educational levels considered are high school graduates, some college attendance, and having attained a college degree or greater. Table 3 below contains data on the percentages of residents in the Western U.P. cluster who have reached these levels of educational attainment in 1980 and 1990.

The message from Table 3 is somewhat mixed. Although its educational attainment is lower than the state's average, the cluster experienced an increase in educational attainment at all three levels of education during the 1980s. Further, the increase in the percentage of residents who have completed high school increased by ten percentage points, which actually narrowed this particular educational gap with the state. And the cluster fell in the middle to the low end of distribution of educational attainment when compared to the other three clusters of the Enhancing

Rural Economies project[4]. Since an educated, skilled labor force is essential for business retention, expansion, and attraction, efforts to increase the educational attainment of the residents of the Western U.P. Cluster are clearly indicated.

Table 2: Median Age Information for the Upper Peninsula Cluster and Michigan.

Median Age (years)				
County	1990	2000	Raw Change	% Change
Baraga	36.6	40.2	3.6	9.8%
Gogebic	40.1	42.7	2.6	6.5%
Houghton	31.7	31.9	0.2	0.6%
Iron	43.6	46.8	3.2	7.3%
Keweenaw	46.4	50.6	4.2	9.1%
Ontonagon	40	43.8	3.8	9.5%
Cluster	39.7	42.7	2.9	7.1%
Michigan	32.5	35.3	2.8	8.6%

Unemployment and Labor Force Participation Rate

Three counties, Houghton, Baraga and Iron, have shown a steady decrease in their rates of unemployment since the '91 recession. They do not have a problem with particularly high unemployment, although the unemployment rate in each county in the cluster in 1997 was higher than Michigan's unemployment rate. (See Table 4 below for 1997 unemployment information for the Western U.P. Cluster and Michigan). The Houghton/Hancock area stands out as a pocket of low unemployment. Gogebic and Ontonagon, on the far western edge of the state, show high unemployment, on the other hand. These two counties had a peak in their unemployment rates occur in 1996. Effort should be undertaken to determine the cause of this phenomenon.

[4] The other three clusters are the Value-Added Agriculture Cluster (Gratiot, Mecosta, and Montcalm), the Southern Tier Cluster (Branch, Lenawee, Hillsdale, and St. Joseph), and the I-75 Cluster (Cheboygan, Crawford, Ogemaw, Otsego, and Roscommon).

Table 3: Educational Attainment for the Upper Peninsula Cluster and Michigan

Educational Attainment						
County	High School Grad		Some College		College+	
	1980	1990	1980	1990	1980	1990
Baraga	65.9%	70.5%	14.4%	20.2%	8.2%	8.3%
Gogebic	65.6%	76.3%	15.6%	25.0%	9.6%	11.4%
Houghton	63.2%	73.9%	14.1%	21.0%	14.4%	18.0%
Iron	63.4%	73.0%	10.9%	18.9%	10.1%	10.0%
Keweenaw	49.8%	64.3%	9.7%	14.7%	7.1%	11.1%
Ontonagon	64.6%	74.7%	12.7%	20.3%	8.9%	9.2%
Cluster Average	62.1%	72.1%	12.9%	20.0%	9.7%	11.3%
Michigan	68.0%	76.8%	15.7%	27.1%	14.3%	17.4%

All six counties have had a labor force participation rate that is somewhat below Michigan's rate for the past seven years. A possible reason for this is that in a low population density area, the cost of commuting to an available job makes it uneconomical for marginal workers to join the labor force. Houghton, Gogebic, and Baraga have exhibited increasing labor force participation rates from 1990 to 1997.

Employment/Jobs

All of the counties in this cluster showed at least some increase in the amount of jobs, between 1985 and 1996. Houghton performed a bit better than the others, however. Jobs there increased by 30.7%, which represents nearly 4,000 jobs. Over the past 25 years, the job growth in Houghton is comparable to that of counties in other clusters. In this time period, the job growth of the other counties appears somewhat dismal, leaving the impression of stagnant economies. Table 5 presents information related to changes in jobs in the Western U.P. Cluster counties between 1990 and 1996. The table indicates that Houghton added roughly the same number of jobs in this period as the other five counties combined.

A few comments pertaining to the economic sectors of the cluster are in order. Farming is not a significant source of jobs in the Western U.P. None of the counties in this cluster showed an increase in the amount of manufacturing jobs over the past 25 years. Possible reasons for this include the remoteness of the area and the lack of high quality transportation infrastructure. Some growth was experienced in the service sector, however, especially in Houghton and Gogebic.

Table 4: Unemployment Information for the Upper Peninsula Cluster and Michigan

Unemployment			
County	Number 1997	Rate 1997	% Change in Number 1990 to 1997
Baraga	325	7.6%	-7.1%
Gogebic	800	9.8%	33.3%
Houghton	1,000	5.8%	-11.1%
Iron	425	7.3%	-5.6%
Keweenaw	75	10.4%	-25.0%
Ontonagon	425	13.0%	88.9%
Cluster Average		9.0%	12.2%
Michigan		4.2%	-39.1%

Table 5: Change, Both in Number and on a Percentage Basis, in Full- and Part-time Employment in the Upper Peninsula Cluster and in Michigan.

County	Change (number) '90-96	% Change '90-'96
Baraga	810	25.90%
Gogebic	965	13.60%
Houghton	2,318	16.00%
Iron	301	5.90%
Keweenaw	254	57.70%
Ontonagon	(606)	-13.80%
Cluster Average		17.55%
Michigan		9.90%

Personal Income

With respect to sources of personal income, three categories are often used in an analysis. The first category is "net earnings", which is income received from working. Another is "dividends, interest and rent". The final category is "transfer payments". This type of income includes pensions and government benefits such as social security. Sources of income, by category, for the Western U.P. Cluster and Michigan are given in Table 6. A couple of key facts from this table should be highlighted. First, the percentage of personal income from net earnings is significantly lower in the Western U.P. Cluster than Michigan's average. Second, the percentage of personal income in the other two categories[5] is higher than Michigan's average. This indicates that residents of the Western U.P. Cluster receive a relatively large fraction of their incomes from sources other than work. This is probably due, at least in part, to the large number of retirees (per capita) who live in this region. It is also possible that younger people in this cluster receive a greater portion of their incomes in the form of government benefits than is received elsewhere in the state.

Table 6: Major Sources of Personal Income for the Upper Peninsula Cluster and Michigan

Major Sources of Personal Income			
Percent of Total Personal Income - 1996			
County	Net Earnings	Dividends, Interest, & Rent	Transfer Payments
Baraga	56.8%	27.8%	15.4%
Gogebic	47.7%	32.3%	20.0%
Houghton	55.7%	26.1%	18.2%
Iron	46.2%	34.8%	18.9%
Keweenaw	47.4%	30.2%	22.5%
Ontonagon	52.1%	31.5%	16.4%
Cluster Average	51.0%	30.4%	18.6%
Michigan	67.0%	17.5%	15.4%

[5] "Dividends, Interest, and Rent" and "Transfer Payments".

Household Income

The level of income received by household in a region is an important indicator of its economic well being. Incomes in the Western U.P. Cluster lag behind Michigan's average. All six cluster counties had more than 35% of their household earning less than $15,000 in 1989.[6] Furthermore, each county except for Ontonagon had a median household income less than $20,000 in 1990. Table 7 illustrates the household income gap. It presents data on the percentage of households in the Western U.P. Cluster with incomes less than $25,000 and the percentage of households with incomes greater than $50,000.

As shown in the table, household incomes in the Western U.P. Cluster are lower than average in the state of Michigan in two respects. First, a greater proportion of the households in the Western U.P. Cluster have incomes less than $25,000 than the average for Michigan. In fact, the percentage of households in this category exceeds the state's percentage by over 62%.[7] The second measure that indicates that household incomes in the Western U.P. Cluster are lower than average for Michigan relates to the upper income category, households with income more than $50,000 per year. The percentage of households in the Western U.P. Cluster with incomes in this category is over 71% less than average for the state of Michigan. The Western U.P. Cluster even has a greater percentage in the low income category (and a smaller percentage in the high income category) than the other Enhancing Rural Economies clusters. In summary, two points should be noted with respect to household income levels. In the Western U.P. Cluster, there is a disproportionately high percentage of households with low incomes. And there is a relatively small percentage of households in the high income category.

Poverty Rate

The poverty rate in 1990 was high throughout the cluster. In fact, the Western U.P. Cluster had the highest average poverty rate of any of the Enhancing Rural Economies clusters. Poverty rates for the Western U.P. Cluster and Michigan are given in Table 8 below. The cluster average[8] poverty rate was nearly one third higher than Michigan's overall poverty rate.[9] Counties

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[6] Keweenaw had 53.2% of its household earning less than $15,000 in 1989.

[7] This number was calculated by first taking the difference between the Western U.P. Cluster average in the "less than $25,000" category Michigan's percentage (66.1% - 40.6% = 25.5%). The difference was then divided by the percentage of Michigan households in this category, i.e. 25.5% ÷ 40.6% = 62.8%. The same method was used for the higher income category.

[8] The cluster average was calculated by taking an arithmetic average of the rates for each of the six cluster counties.

[9] The cluster average poverty rate was actually 32% higher than Michigan's rate. This figure was calculated as follows: (17.3% - 13.1%) ÷ 13.1% = 32%.

with large areas of high poverty include: Keweenaw, Houghton, Baraga, and Iron. In contrast, Gogebic and Ontonagon had poverty rates that were close to the average Michigan rate. Poverty data on a sub-county (e.g. township) level is listed in the Enhancing Rural Economies "All Cluster Counties" data book.[10]

Table 7: Percentages of Households in the Southern Tier and Michigan in Certain Income Categories

Household Income - 1990		
County	% of Households $0 - $24,999	% of Households $50,000+
Baraga	62.9%	7.4%
Gogebic	65.8%	7.1%
Houghton	64.5%	8.9%
Iron	69.0%	5.5%
Keweenaw	76.3%	5.0%
Ontonagon	58.1%	9.4%
Cluster Average	66.1%	7.2%
Michigan	40.6%	25.5%

[10] Data pertaining to the Western U.P. Cluster may be obtained by contacting Jerry Murphy, Cluster Administrator, M.S.U. Extension Gogebic County, (906)932-1420.

Table 8: Poverty Rate in 1990 for the Upper Peninsula Cluster and Michigan

Poverty Rate	
County	Rate (in Percent)
Baraga	16.8%
Gogebic	14.9%
Houghton	21.0%
Iron	17.1%
Keweenaw	20.6%
Ontonagon	13.2%
Cluster Average	17.3%
Michigan	13.1%

Household Composition

Economic development insight may be obtained by examining the composition of households in a region. It is especially useful to consider changes in household composition over time. Table 9 below contains household composition data for the Western U.P. Cluster. Every cluster county exhibited a decrease in the percentage of household in the "Married, With Children" category from 1980 to 1990. And, with the exception of Ontonagon, the percentage of households in the "Married, Without Children" decreased. There was an increase in the percentage of single parent families in each of the cluster counties. The final point that should be noted from the table is that the percentage of Single Person Households increased in each of the cluster counties.

Table 9: Household Composition for the Upper Peninsula Cluster for the Years 1980 and 1990

Household Composition						
	Married w/Children		Married w/o Children		Single Parent Family	
County	1980	1990	1980	1990	1980	1990
Baraga	33.0%	24.7%	30.7%	29.6%	5.4%	8.6%
Gogebic	25.7%	21.2%	34.7%	32.1%	4.1%	6.7%
Houghton	25.3%	22.5%	30.4%	27.5%	4.2%	5.9%
Iron	24.8%	20.6%	38.5%	35.5%	4.3%	6.0%
Keweenaw	19.1%	18.0%	41.9%	34.2%	2.3%	4.0%
Ontonagon	33.7%	25.2%	32.6%	33.7%	4.2%	5.5%
Cluster Average	26.9%	22.0%	34.8%	32.1%	4.1%	6.1%
	Other Family HH		Single Person HH		Other Non Family	
County	1980	1990	1980	1990	1980	1990
Baraga	4.9%	5.6%	23.7%	28.0%	2.3%	3.5%
Gogebic	6.4%	5.5%	27.4%	31.8%	1.7%	2.7%
Houghton	6.6%	5.5%	25.6%	31.5%	7.9%	7.0%
Iron	5.5%	4.3%	25.6%	31.0%	1.3%	2.5%
Keweenaw	7.3%	5.1%	27.4%	34.5%	2.0%	4.1%
Ontonagon	5.5%	4.6%	22.0%	27.9%	1.9%	3.0%
Cluster Average	6.0%	5.1%	25.3%	30.8%	2.8%	3.8%