

**MICHIGAN'S FARMWORKERS:
A Status Report on Employment and Housing**

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Statistical Briefs of the Julian Samora Research Institute are designed to provide facts and figures on Latinos of the Midwest. The data presented are those of the author(s) and are intended for use in further public policy research.

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Related Reading from JSRI Publications

- WP-03 Rochin, Refugio. "The Changing Nature of American Agriculture and Its Impact on Hispanic Farm Labor: Topics for Research and Analysis." 21 pp. (1989) \$3.00
- WP-11 Perez Rosenbaum, Rene. "Success in Organizing, Failure in Collective Bargaining: The Case of Pickle Workers in Wisconsin, 1967-69." 30 pp. (1991) \$3.00
- WP-12 Perez Rosenbaum Rene. "Success in Organizing, Failure in Collective Bargaining: The Case of Tomato Workers in Northwest Ohio, 1967-69." 50 pp. (1991) \$4.00
- WP-18 Bletzer, Keith V., " No Da, No Si Da!: HIV Risk Reduction Education and Latino Farmworkers in Rural Michigan." 40 pp. (1993) \$3.00
- WP-19 Green, Susan. "Settling Out of the Migrant Stream in a Rural Minnesota Community." 20 pp. (1994) \$3.00
- OC-04 Nodin Valdes, Dennis. "Divergent Roots, Common Destinies? Latino Work and Settlement in Michigan." 17 pp. (1992) \$2.00
- RR-01 Rochin, Refugio, Anne Santiago & Karla Dickey. "Migrant and Seasonal Workers in Michigan's Agriculture: A Study of Their Contributions, Needs, Characteristics and Services." 74 pp. (1989) \$6.00
- RR-04 Santiago, Anne M. (Compiler) "A Directory of Migrant Service Agencies in Michigan." 47 pp. (1990) \$5.00

INTRODUCTION

The first research report of the Julian Samora Research Institute, published in 1989, began by noting that:

Michigan's food and fiber system constitutes the second most important industry in the state. More than one in five state jobs stems from agriculture. A critical part of Michigan's farm economy is the availability, timeliness and professional skills of migrant and seasonal farmworkers. According to a USDA report, Michigan is the fifth most agriculturally dependent state on farmworkers in the United States.

Since that report, the symbiotic relationship between agriculture and farm labor has been much the same and indications are that migrant and seasonal farmworkers continue to face many of the same problems in agriculture that they experienced a decade ago: uncertain demand for jobs, problems in finding housing and accommodations for families with children, uncertain incomes and related poverty.

Nationally, an average of 848,000 persons 15 years of age and older did hired farmwork each week in 1992'. Hired farmworkers were more likely to be male, Hispanic, younger, less educated, and never married. They continued to have lower median weekly earnings (\$200) than all wage and salary workers (\$380), and their earnings appeared to fall farther behind all wage and salary workers between 1990 and 1992. The Pacific region (Alaska, California, Hawaii, Oregon, and Washington) employed 26 % of all U.S. hired farmworkers. To a lesser degree, states in the midwest showed similar patterns of employment. Part of the reason for such conditions may be the immigrant content of farm labor.

After a protracted political struggle, the Immigration Reform and Control Act (IRCA) of 1986 recognized agriculture's history of growing dependence on immigrant workers. A separate legalization program called SAWS (for Seasonal Agricultural Workers) assured the legal status for most immigrants to work on farms. With IRCA, close to two million Mexican immigrants were legalized as SAWS.

Given that Michigan's agriculture is composed of many SAWS and Mexican-American workers, this Statistical Brief addresses the issue of how many laborers work in agriculture today and the prevailing trends with regard to employment, housing, wages, and the regional distribution of workers and commodities on farms. More detail and background information can be obtained by Institute Research Report #1, November 1989, by Refugio I. Rochin, Anne M. Santiago, and Karla S. Dickey.

For this report, the authors gratefully acknowledge the helpful information provided by Manuel F. Gonzalez, Director of the Migrant Services Division, Michigan Department of Social Services, and Marv Johansen, Chief of Shelter Environment Section, Division of Environmental Health, Michigan Department of Public Health.

Definitions

Farm labor refers to persons who are either working or looking for work on farms during the calendar year. Farm labor includes owner/operators of farms and family members with regular duties, migrant and seasonal workers, and regular hired workers.

Finding a common and consistent definition of migrant workers is difficult because of the different definitions developed over time by federal and state agencies. In general, we define a "migratory agricultural worker," as "an individual whose principal employment is in agriculture on a seasonal basis, who has been employed within the past twenty-four months, and who establishes for the purpose of such employment, a temporary residence." A "migratory" worker usually has a more permanent residence in another county, state or region, apart from the temporary place of residence and employment in agriculture.

A “seasonal agricultural worker” is defined as “an individual whose employment in agriculture is on a seasonal basis - usually for less than 150 days during the year.”

A “regular hired worker” is usually defined as “an individual whose principal employment is in agriculture for 150 or more days during the year, usually on the same farm.”

“Agriculture” is generally interpreted to exclude those working in the fishing, lumber, and food processing sectors of the rural economy, unless the processing is performed on a farm incident to or in conjunction with the production, collaboration, growing, and harvesting of a farm product. In a more restrictive sense, “agriculture” sometimes excludes operations in dairy, livestock, greenhouse, and/or nursery production.

Farms as Employers (Tables 1 and 2, Figures 1 and 2)

Hired farm labor begins with farms and the number of farms has bearing on the number of farm workers employed at a given point in time. For 45 years the number of farms in Michigan has dropped consistently from 1,111,817 in 1959 to 46,512 in 1992. This precipitous decline would usually result in an equal if not greater reduction in farm labor. As farm size grows on average, usually more machinery and more technology is employed instead of labor.

The decline in farms has not been uniform for all types of owner-operators. In Michigan the greatest decrease in farms has been among white non-Latino farmers and Black farmers. Countering the decline is evident growth in farms operated by Hispanics and American Indians. The decline and rise of Hispanic farms (as shown in Figure 9) is hard to explain with current data.

Hired Farm Labor (Tables 3 and 4A through 4R, Figures 3, 4A and 4B).

Michigan’s hired farm work force can be divided into seasonal (employed less than 150 days in a year) and regular (employed 150 or more days in a year). The division helps to identify a pattern of change in hired farm labor. While the number of seasonal workers has gone down from 109,807 in 1982 to 83,923 in 1992, the number of regular workers has remained the same, about 20,500 workers were employed 150 or more days in the agricultural sector. This pattern has to be compared with the reduction of farms in Michigan from 58,661 in 1982 to 46,562 in 1992.

Thus contrary to expectations, farms are not reducing the employment of regular labor in line with the reduction in farms. In a sense, some farms such as the dairy farms of Michigan appear to employ more labor in their current operations than previously.

Farm Employment by Districts

Michigan is divided into nine (9) Agricultural Statistical Districts for purposes of managing and supporting diverse agricultural conditions of the state. The Districts are outlined in the map. Each district has a unique pattern of farm production and employment.

District 1, for example, hires most seasonal labor for the annual hay harvest which takes place between June and August. District 2 produces many stone fruits (peaches and plums), berries and Christmas Trees. Its annual employment of farm labor begins as early as February (for pruning apples and pears) and lasts as late as November for apples and Christmas Trees harvesting.

Each District’s pattern is presented in Tables 4A through 4R. In addition, Figures 4A and 4B illustrate the range and magnitude of employment. In Figure 4A, we see that in District 7 Michigan farms employ more seasonal workers (working less than 150 days per year) than in any other district, by a margin of 2 to 1. Figure 4A also shows how seasonal employment has declined the most in District 7, from 41,400 in 1982 to 30,200 in 1992. Despite the drop in seasonal employment, Districts 3, 4 and especially 7 have shown growth in the number of reg-

ular workers hired for 150 or more days per year. In District 7, there was an increase from 6,300 regular workers in 1982 to 7,800 workers in 1992.

Despite the fact that all Districts showed a decline in seasonal employment between 1982 and 1992, two Districts showed an increase in regular employment. District 7 shows a marked increase from 6,300 in 1982 to 7,800 in 1992, and District 4 shows an increase from 1,000 to 1,100. As illustrated in Tables 4M and 4N, District 7 is big in fruits, vegetables and Christmas Trees. District 4 has similar production (see Table 4H). District 3 has consider hay production (see Table 4F).

Workers Wages

Wages tend to reflect the cost of labor to farms and the well-being of workers. In Michigan, Table 5 shows that the nominal wages paid by the agricultural sector had been steadily increasing from 1967 to 1994. The nominal wage increased from \$1.39 per hour in 1967 to \$6.52 per hour in 1994, a 369% increase. When inflation is taken into account, by deflating nominal wages by the Detroit's CPI for all consumers, we can observe three clearly defined trends. The first one, between 1967 and 1973 the real wages paid by the agricultural sector in Michigan remained constant. The second trend between 1973 and 1985 showed an abrupt decline in real wages from \$6.75 per hour in 1973 to \$4.66 per hour in 1985, a 31% decline. Finally, in the last 9 years we can observe a steady increase in real wages from \$4.66 per hour in 1985 to \$6.52 in 1994, a 40% increase.

However, in order to express the relative well-being of farm labor to other labor in Michigan, we would need additional information on the wages paid in other sectors of the economy (not done in this report). Nonetheless, if farm workers were paid the average hourly wage of \$6.52 and were employed 40 hours a week, they could earn \$261 per week or \$1,044 per month. For someone working 150 days per year (8 hours a day), their gross earnings, before taxes, would be \$7,824. For a family of four, this income would fall below the poverty threshold and make them qualified for AFDC/VVIC, migrant education, food stamps, Earned Income Tax Credits- and other welfare programs.

Housing

In 1989, housing for migrant and seasonal farmworkers was identified as the number one problem facing Michigan agencies who provide services to farmworkers (see JSKI Research Report No. 1). The most often cited housing problems included unavailability of housing for migrants who arrive early and generally the lack of sufficient housing year round. As one service provider stated:

“When the camps are not open they have no place to stay. Everybody can get food and clothing but not everybody can get a place to sleep.” (JSRI Report 1, p.61).

Between 1966 and 1984, the maximum capacity of licensed camps in Michigan declined from 68,898 to 23,844 spaces for migrants and family. Since 1984, the licensed maximum has ranged from 25,028 to 30,442 spaces (a peak in 1982) to approximately 26,000 spaces in 1994.

Summary

This statistical brief highlights the patterns of employment and the economic status of workers in Michigan's agriculture. Although the employment of seasonal workers has tended to decline, the employment of regular workers has increased. The decline in seasonal farm labor is statewide and the increase in regular workers is notably in Districts 4 and 7, areas with nurseries, fruit and vegetable production.

The relative increase in nominal wages for farmworkers is a positive sign. But the absence of increases in real wages is a sign of concern. Farmworker earnings have not improved in terms of purchasing power. In general, farmworkers with fewer than 150 days of annual employment at going wages, live in poverty. They may need social services and welfare to support their families.

Housing has tended to decline since 1966 but the maximum livable space has tapered off in recent years. Having year round housing may be an increasing problem as farms turn to more regular, year round hired labor, especially in agricultural Districts 4 and 7.

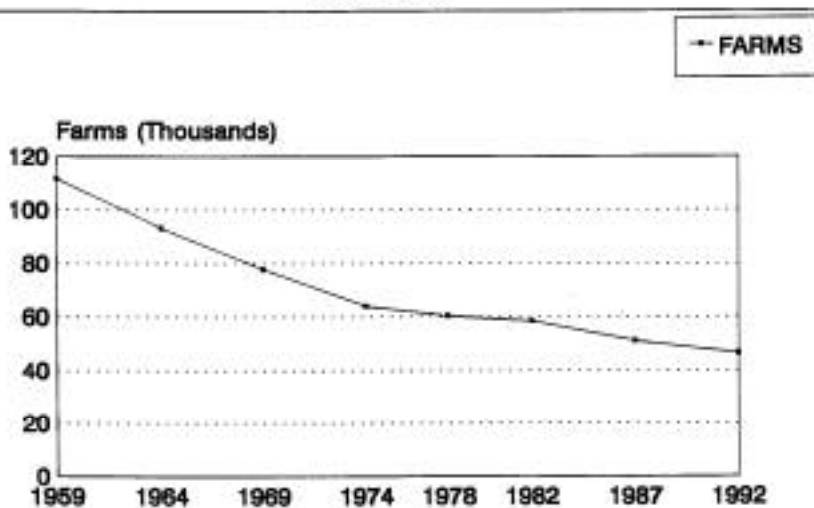
Pending issues concern the lack of consistent and updated information at the state and district level of the supply of and demand for migrant and seasonal farm workers. The state's employment agencies really do not know how many workers enter Michigan on a seasonal basis. Moreover, the agricultural sector does not really know how many workers are needed annually for farm employment. Information on the supply of and demand for farm-workers could assist the state in preparing annual plans for funding programs in areas of public assistance, housing, health, education and so on. More research is needed in this area.

TABLE 1. NUMBER OF FARMS IN MICHIGAN.

YEAR	NUMBER OF FARMS
1959	111,817
1964	93,504
1969	77,946
1974	64,094
1978	60,426
1982	58,661
1987	51,172
1992	46,562

Source: Census of Agriculture.

FIGURE 1. NUMBER OF FARMS IN MICHIGAN
1959 - 1992



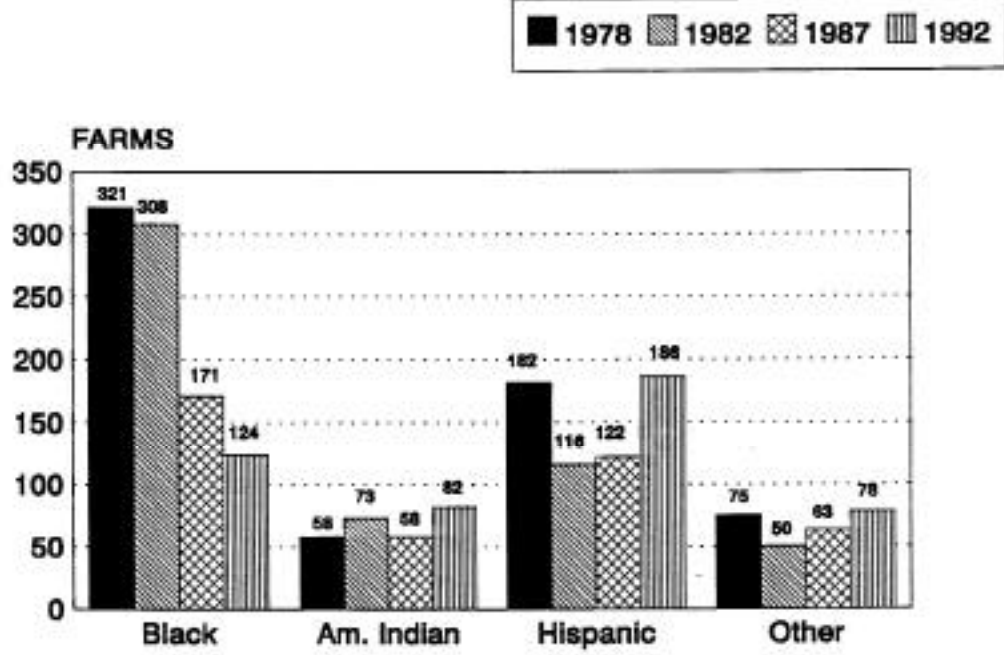
Source: Table 1.
Only Reported Statistics.

TABLE 2. FARMS IN MICHIGAN OPERATED BY SPECIFIED RACIAL GROUPS: 1978 - 1992

RACIAL GROUP	1978	1982	1987	1992
Black	321	308	171	124
American Indian	58	73	58	82
Hispanic	182	116	122	186
Other	75	50	63	78
TOTAL	636	547	414	470

Source: Census of Agriculture.

FIGURE 2. FARMS IN MICHIGAN OPERATED BY SPECIFIED RACIAL GROUPS.
1978 - 1992.



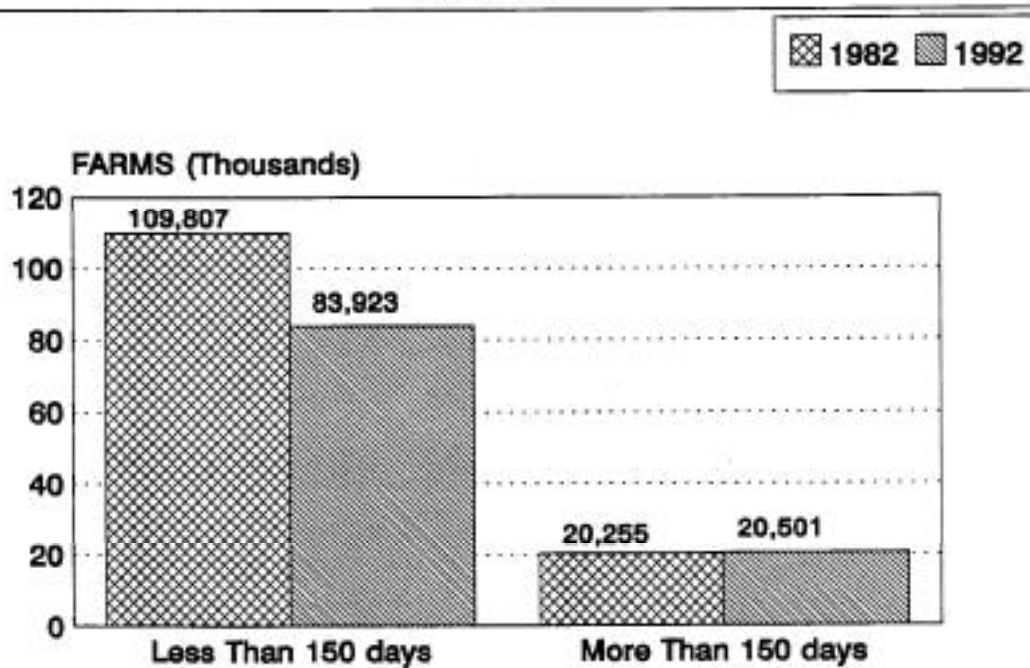
Source: Table 2.

TABLE 3. HIRED FARM LABOR IN MICHIGAN FARMS: 1982 - 1992.

DAYS WORKED	1982	1992
Less Than 150 Days	109,807	83,923
More Than 150 Days	20,255	20,501
TOTAL	130,062	104,424

Source: Census of Agriculture.

FIGURE 3. HIRED FARM LABOR IN MICHIGAN FARMS
1982 - 1992.



Source: Table 3.

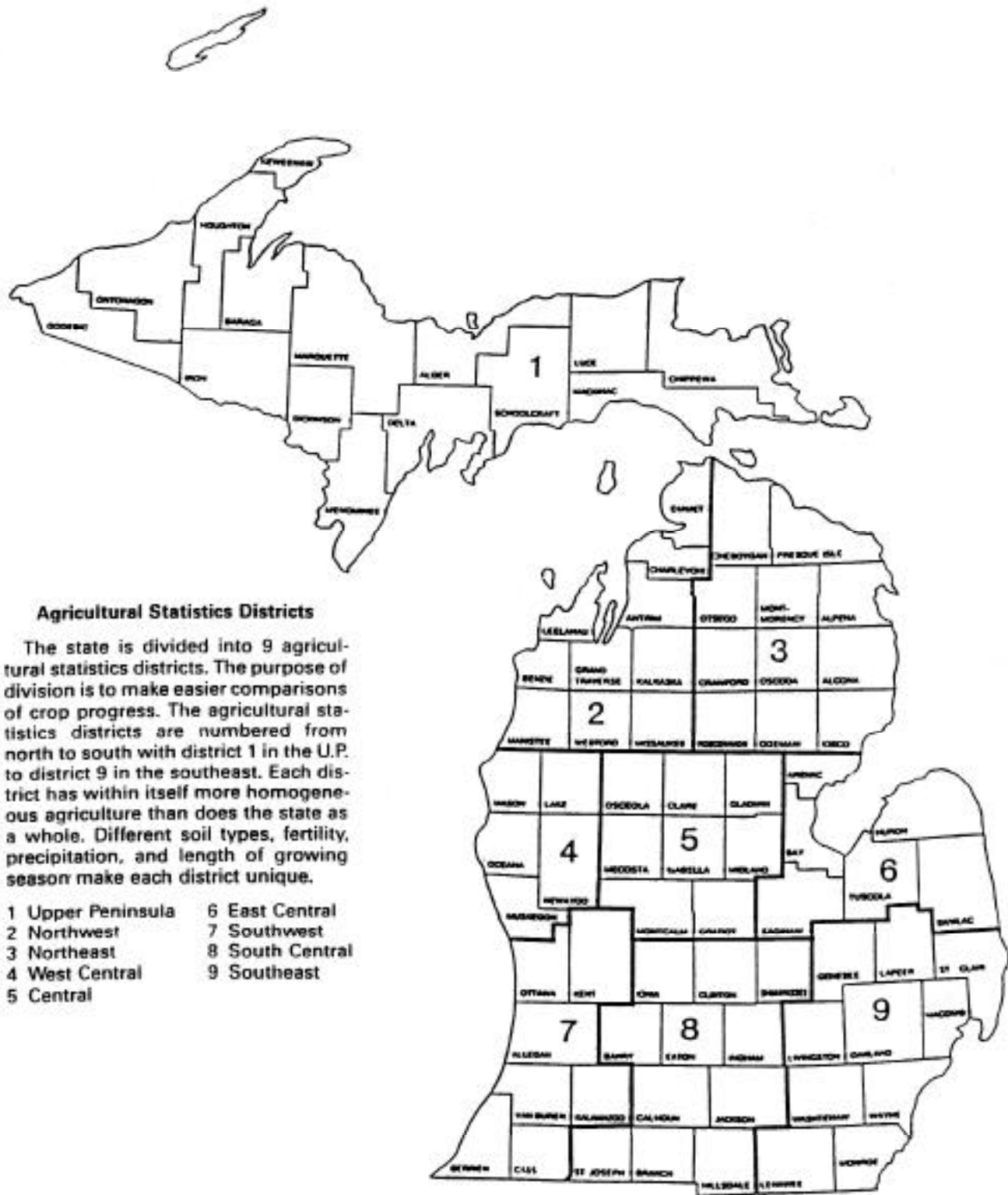


TABLE 4A. HIRED FARM LABOR IN AGRICULTURAL DISTRICT 1 - UPPER PENINSULA

COUNTIES	1982		1992	
	LT 150 DAYS*	MT 150 DAYS**	LT 150 DAYS	MT 150 DAYS
Alger	113	23	75	18
Baraga	97	14	D	D
Chippewa	573	96	240	53
Delta	355	81	493	57
Dickinson	198	77	159	41
Gogebic	49	10	D	D
Houghton	564	26	115	37
Iron	153	24	64	20
Keweenaw	—	—	—	—
Luce	D	D	51	3
Mackinaw	78	25	46	23
Marquette	101	22	79	22
Menominee	328	211	171	85
Ontonagon	113	15	84	22
Schoolcraft	40	4	75	11
TOTAL	2,762	628	1,652	392

Source: Census of Agriculture, 1982 - 1992

D - Withheld to avoid disclosing data for individual farms.

* Less Than 150 days worked.

** More Than 150 days worked.

TABLE 4B. LIST OF CROPS IN WHICH MIGRANTS WORK IN DISTRICT 1.

MAJOR CROP	LENGTH OF SEASON
Hay Harvest	June - August

Source: MSD/MDSS - September 1994.

TABLE 4C. HIRED FARM LABOR IN AGRICULTURAL DISTRICT 2 - NORTHWEST

COUNTIES	1982		1992	
	LT 150 Days*	MT 150 Days**	LT 150 Days*	MT 150 Days
Antrim	747	97	573	145
Benzie	543	48	589	48
Charlevoix	434	84	108	34
Emmet	172	20	227	31
Grand Traverse	1,237	148	1,000	127
Kalkasha	62	16	153	9
Leelanau	1,792	181	1,863	189
Manistee	1,910	147	897	133
Missaukee	243	129	289	162
Wexford	80	24	90	29
TOTAL	7,220	894	5,789	907

Source: Census of Agriculture, 1982 - 1992

* Less Than 150 days worked.

** More Than 150 days worked.

TABLE 4D. LIST OF CROPS IN WHICH MIGRANTS WORK IN DISTRICT 2.

MAJOR CROP	LENGTH OF SEASON
Apples	Mid-August - Mid November
Apples - Pruning	February - April
Asparagus	Mid-April - Late June
Blackberries	Early June - Late July
Cherries	Early July - Mid-August
Grapes	Late August - Early October
Hay Harvest	June - August
Peaches	Mid-August - Mid September
Peaches - Pruning	February - April
Pears	Mid-August - Late September
Pears - Pruning	February - April
Plums	Mid-August - Mid September
Plums - Pruning	February - April
Raspberries	Early June - Late July
Strawberries	Early June - Late July
Sugar Snap Bean	July - August
Christmas Trees - Pruning	Late June - August
Christmas Trees - Harvesting	November

Source: MSD/MDSS - September 1994.

TABLE 4E. HIRED FARM LABOR IN AGRICULTURAL DISTRICT 3 - NORTHEAST

COUNTIES	1982		1992	
	LT 150 Days*	MT 150 Days**	LT 150 Days*	MT 150 Days
Alcona	279	34	98	29
Alpena	701	81	186	51
Cheboygan	286	35	132	32
Crawford	D	D	D	D
Iosco	168	63	197	23
Montmorency	101	26	85	16
Ogenaw	112	62	230	139
Oscoda	82	27	75	13
Otsego	200	33	144	22
Presque Isle	390	75	431	181
Roscommon	D	D	11	5
TOTAL	2,319	436	1,589	511

Source: Census of Agriculture, 1982 - 1992

D = Withheld to avoid disclosing data for individual farms.

* Less Than 150 days worked.

** More Than 150 days worked.

TABLE 4F. LIST OF CROPS IN WHICH MIGRANTS WORK IN DISTRICT 3.

MAJOR CROP	LENGTH OF SEASON
Hay Harvest	June - August

Source: MSD/MDSS - September 1994.

TABLE 4G. HIRED FARM LABOR IN AGRICULTURAL DISTRICT 4 - WEST CENTRAL

COUNTIES	1982		1992	
	LT 150 Days*	MT 150 Days**	LT 150 Days*	MT 150 Days
Lake	132	5	71	14
Mason	1,617	127	1,609	123
Muskegon	2,650	272	1,072	296
Newaygo	1,546	253	949	292
Oceana	4,292	364	3,967	413
TOTAL	10,237	1,021	7,668	1,138

Source: Census of Agriculture, 1982 - 1992

* Less Than 150 days worked.

** More Than 150 days worked.

TABLE 4H. LIST OF CROPS IN WHICH MIGRANTS WORK IN DISTRICT 4

MAJOR CROP	LENGTH OF SEASON
Apples	Mid-August - Mid-November
Apples - Pruning	February - April
Asparagus	Mid-April - Late June
Bedding Plants	Early January - Late July
Blackberries	Early June - Late July
Blueberries	Mid-July - Late August
Broccoli	July - September
Bulbs	Early May - Late September
Cabbage	Mid-May - Late September
Cantaloupe	Mid-May - Early September
Carrots	Early May - Mid-October
Celery	Early April - Early October
Cherries	Early July - Mid August
Cucumbers	Early June - Mid September
Hay Harvest	June - August
Nursery Plants	Early March - Late November
Onions	Early May - Late September
Peaches	Mid-August - Mid-September
Peaches - Pruning	February - April
Pears	Mid-August - Late September
Pears - Pruning	February - April
Plums	Mid-August - Mid-September
Plums - Pruning	February - April
Raspberries	Early June - Late July
Sod	Early May - Late September
Soybeans	Early June - Late July
Strawberries	Early June - Late July
Tomatoes	Late May - Late September
Christmas Trees	Late June - August
Christmas Trees - Harvesting	November
Zucchini	July - Early September

Source: MSU/MSSS - September 1994.

TABLE 4I. HIRED FARM LABOR IN AGRICULTURAL DISTRICT 5 - CENTRAL

COUNTIES	1982		1992	
	LT 150 Days*	MT 150 Days**	LT 150 Days*	MT 150 Days
Clare	238	67	95	58
Gladwin	284	44	255	48
Gratiot	1,306	281	1,683	265
Isabella	1,335	264	1,162	310
Mecosta	745	116	812	104
Midland	812	69	508	55
Montcalm	1,635	396	1,059	426
Osceola	607	137	269	98
TOTAL	6,962	1,374	5,843	1,364

Source: Census of Agriculture, 1982 - 1992

* Less Than 150 days worked.

** More Than 150 days worked.

TABLE 4J. LIST OF CROPS IN WHICH MIGRANTS WORK IN DISTRICT 5.

MAJOR CROP	LENGTH OF SEASON
Apples	Mid-August - Mid-November
Apples Pruning	February - April
Asparagus	Mid-April - Late June
Beans, Dry Edible	Early June - Mid August
Bedding Plants	Early January - Late July
Blueberries	Mid-July - Late August
Bulbs	Early May - Late September
Cabbage	Mid-May - Late September
Cantaloupe	Mid-May - Early September
Carrots	Early May - Mid-October
Cauliflower	Early August - Early November
Celery	Early April - Early October
Cucumbers	Early June - Mid-September
Grapes	Late August - Early October
Hay Harvest	June - August
Lettuce	Mid-May - Mid-September
Mushrooms	Year Round
Nursery Plants	Early March - Late November
Onions	Early May - Late September
Peaches	Mid-August - Mid-September
Peaches - Pruning	February - April
Pears	Mid-August - Late September
Pears - Pruning	February - April
Peppers, Bell	Mid-May - Mid-September
Plums	Mid-August - Mid-September
Sod	Early May - Late September
Soybeans	Early June - Late July
Sugar Beets	Early June - Late July
Tomatoes	Late May - Late September

Source: MSD/MDSS - September 1994.

TABLE 4K. HIRED FARM LABOR IN AGRICULTURAL DISTRICT 6 - EAST CENTRAL

COUNTIES	1982		1992	
	LT 150 Days*	MT 150 Days**	LT 150 Days*	MT 150 Days
Arenac	740	103	793	48
Bay	2,884	242	2,391	237
Huron	2,560	733	1,998	589
Saginaw	2,150	270	1,601	292
Sanilac	1,458	790	1,321	634
Tuscola	2,423	426	2,452	405
TOTAL	12,215	2,564	10,556	2,205

Source: Census of Agriculture, 1982 - 1992

* Less Than 150 days worked.

** More Than 150 days worked.

TABLE 4L. LIST OF CROPS IN WHICH MIGRANTS WORK IN DISTRICT 6.

MAJOR CROP	LENGTH OF SEASON
Beans, Dry Edible	Early June - Mid August
Bedding Plants	Early January - Late July
Cabbage	Mid-May - Late September
Cauliflower	Early August - Early November
Hay Harvest	June - August
Mushrooms	Year Round
Onions	Early May - Late September
Sod	Early May - Late September
Soybeans	Early June - Late July
Sugar Beets	Early June - Mid August

Source: MSD/MDSS - September 1994.

TABLE 4M. HIRED FARM LABOR IN AGRICULTURAL DISTRICT 7 - SOUTHWEST.

COUNTIES	1982		1992	
	LT 150 Days*	MT 150 Days**	LT 150 Days*	MT 150 Days
Allegan	4,503	1,055	3,062	1,293
Berrien	12,142	1,105	6,398	1,014
Cass	1,848	278	1,386	349
Kalamazoo	2,242	413	1,541	704
Kent	5,026	866	4,439	1,019
Ottawa	6,376	1,610	6,426	2,160
Van Buren	9,027	979	6,950	1,257
TOTAL	41,364	6,306	30,202	7,796

Source: Census of Agriculture, 1982 - 1992

* Less Than 150 days worked.

** More Than 150 days worked.

TABLE 4N. LIST OF CROPS IN WHICH MIGRANTS WORK IN DISTRICT 7.

MAJOR CROP	LENGTH OF SEASON
Apples	Mid-August - Mid-November
Apples - Pruning	February - April
Asparagus	Mid-April - Late June
Blackberries	Early June - Late July
Blueberries	Mid-July - Late August
Cabbage	Mid-May - Late September
Cantaloupe	Mid-May - Early September
Cauliflower	Early August - Early November
Cherries	Early July - Mid-August
Cherries - Pruning	February - April
Cucumbers	Early June - Mid-September
Grapes	Late August - Early October
Hay Harvest	June - August
Lettuce	Mid-May - Mid-September
Onions	Early May - Late September
Peaches	Mid-August - Mid-September
Peaches - Pruning	February - April
Pears	Mid-August - Late September
Pears - Pruning	February - April
Peppers, Bell	Mid-May - Mid-September
Plums	Mid-August - Mid-September
Plums - Pruning	February - April
Raspberries	Early June - Late July
Strawberries	Early June - Late July
Tomatoes	Late May - Late September
Christmas Trees	June - August
Christmas Trees - Harvesting	November

Source: MSD/MDSS - September 1994.

TABLE 4O. HIRED FARM LABOR IN AGRICULTURAL DISTRICT 8 - SOUTH CENTRAL.

COUNTIES	1982		1992	
	LT 150 Days*	MT 150 Days**	LT 150 Days*	MT 150 Days
Barry	1,618	210	728	209
Branch	687	223	1,004	331
Calhoun	1,781	392	858	348
Clinton	1,670	450	1,087	378
Eaton	897	245	1,125	225
Hillsdale	1,013	320	740	311
Ingham	1,205	358	1,143	434
Ionia	1,461	451	1,123	422
Jackson	827	374	865	233
Shiawassee	758	260	508	152
St. Joseph	1,025	237	800	196
TOTAL	13,942	3,520	9,981	3,239

Source: Census of Agriculture, 1982 - 1992

* Less Than 150 days worked.

** More Than 150 days worked.

TABLE 4P. LIST OF CROPS IN WHICH MIGRANTS WORK IN DISTRICT 8.

MAJOR CROP	LENGTH OF SEASON
Apples	Mid-August - Mid-November
Apples - Pruning	February - April
Asparagus	Mid-April - Late June
Bedding Plants	Early January - Late July
Blueberries	Mid-July - Late August
Cabbage	Mid-May - Late September
Cantaloupe	Mid-May - Early September
Carrots	Early May - Mid October
Cherries	Early July - Mid-August
Cherries - Pruning	February - April
Cucumbers	Early June - Mid-September
Hay Harvest	June - August
Lettuce	Mid-May - Mid-September
Nursery Plants	Early March - Late November
Peaches	Mid-August - Mid-September
Peaches - Pruning	February - April
Pears	Mid-August - Late September
Pears Pruning	February - April
Plums	Mid-August - Mid-September
Plums - Pruning	February - April
Sod	Early May - Late September
Tomatoes	Late May - Late September

Source: MSD/MDSS - September 1994.

TABLE 4Q. HIRED FARM LABOR IN AGRICULTURAL DISTRICT 9 - SOUTH EAST.

COUNTIES	1982		1992	
	LT 150 Days*	MT 150 Days**	LT 150 Days*	MT 150 Days
Genesee	879	301	1,131	172
Lapeer	1,866	521	1,375	341
Lenawee	1,924	369	1,641	335
Macomb	1,615	429	830	413
Monroe	1,239	444	1,278	409
Oakland	1,429	229	1,113	375
St. Clair	659	321	608	206
Wastenaw	1,518	347	1,072	276
Wayne	542	233	1,001	233
TOTAL	12,719	3,507	10,547	2,941

Source: Census of Agriculture, 1982 - 1992

* Less Than 150 days worked.

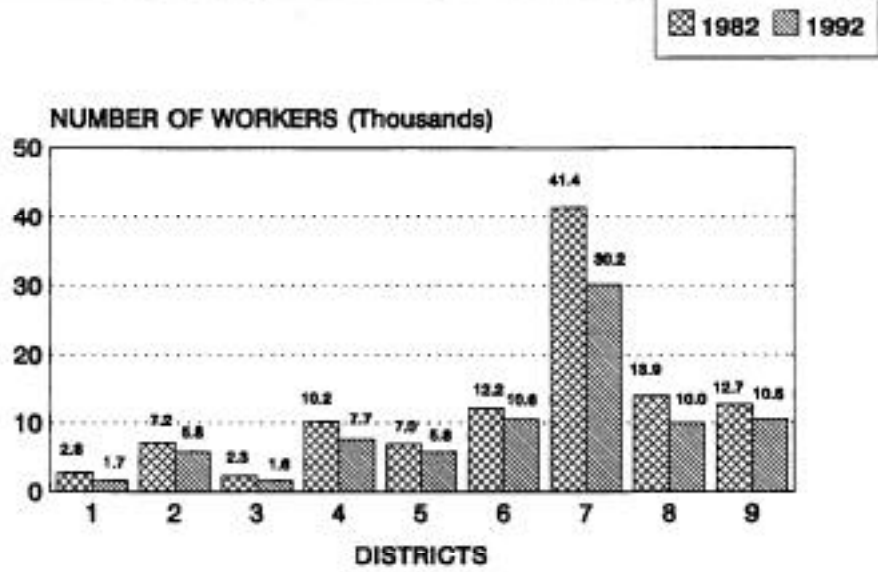
** More Than 150 days worked.

TABLE 4R. LIST OF CROPS IN WHICH MIGRANTS WORK IN DISTRICT 9.

MAJOR CROP	LENGTH OF SEASON
Apples	Mid-August - Mid-November
Apples - Pruning	February - April
Asparagus	Mid April - Late June
Beans (Snap, Pole and Green)	Early July - Frost
Blackberries	Early June - Late July
Broccoli - Transplanting, Weeding	July - September
Broccoli - Harvesting, Packaging	Late June - Mid-October
Cabbage	Mid-May - Late September
Cantaloupe	Mid-May - Early September
Carrots	Early May - Mid-October
Cauliflower	Early August - Early November
Celery	Early April - Early October
Corn, sweet	Mid-July - Mid-September
Cucumbers	Early June - Mid September
Greens	Mid June - Freeze
Hay Harvest	June - August
Lettuce	Mid-May - Mid September
Nursery Plants	Early March - Late November
Peaches	Mid-August - Mid-September
Peaches - Pruning	February - April
Potatoes	August - End of October
Pumpkins	Early July - Mid-October
Radishes	June - Freeze
Raspberries	Early June - Late July
Squash - summer	July - Mid-September
Squash - winter	July - End of October
Strawberries	Early June - Late July
Tomatoes	Late May - Late September

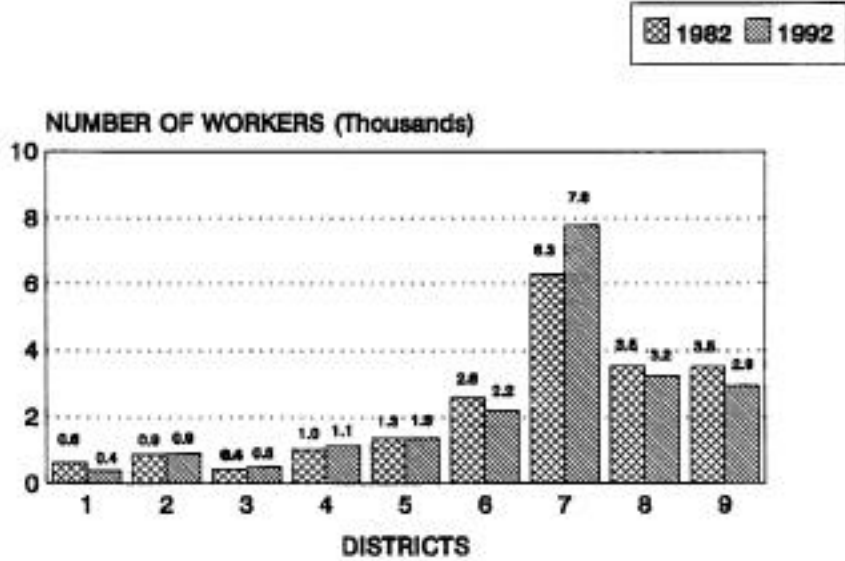
Source: MSD/MDSS - September 1994.

FIGURE 4A. FARM LABOR HIRED FOR LESS THAN 150 DAYS IN MICHIGAN
BY AGRICULTURAL STATISTICAL DISTRICTS



Source: Tables 4A Through 4R.

FIGURE 4B. FARM LABOR HIRED FOR 150 AND MORE DAYS IN MICHIGAN
BY AGRICULTURAL STATISTICAL DISTRICTS



Source: Tables 4A Through 4R.

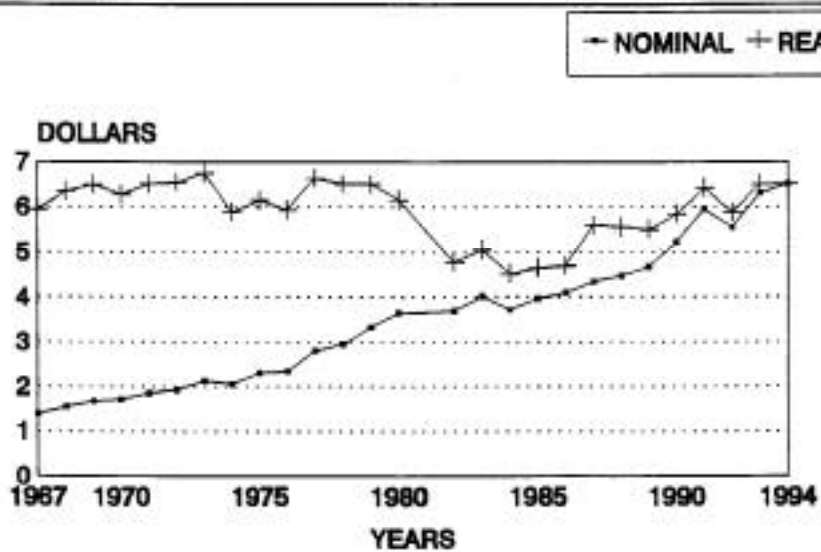
TABLE 5. NOMINAL AND REAL WAGES FOR MICHIGAN FARM WORKERS

YEAR	NOMINAL (\$/Hr.)	REAL* (\$/Hr.)	YEAR	NOMINAL (\$/Hr.)	REAL* (\$/Hr.)
1967	1.39	5.95	1981	—	—
1968	1.55	6.36	1982	3.70	4.78
1969	1.68	6.50	1983	4.03	5.06
1970	1.72	6.27	1984	3.72	4.52
1971	1.85	6.51	1985	3.97	4.66
1972	1.93	6.55	1986	4.10	4.71
1973	2.12	6.75	1987	4.35	5.60
1974	2.05	5.89	1988	4.49	5.56
1975	2.30	6.15	1989	4.68	5.50
1976	2.34	5.93	1990	5.23	5.85
1977	2.80	6.64	1991	5.95	6.43
1978	2.95	6.51	1992	5.55	5.88
1979	3.33	6.51	1993	6.31	6.50
1980	3.65	6.16	1994	6.52	6.52

Source: Michigan Agricultural Statistics - Various Issues.

FIGURE 5. WAGES FOR MICHIGAN FARM WORKERS

1967 - 1994



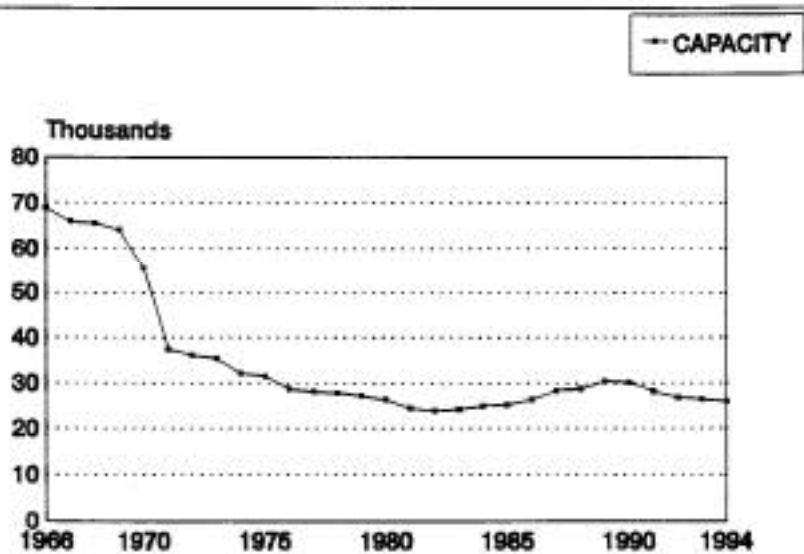
Source: Table 5.
* In 1994 Dollars

TABLE 6. NUMBER OF LICENSED CAMPS FOR MIGRANTS IN MICHIGAN AND THEIR MAXIMUM CAPACITY.

YEAR	NUMBER OF LICENSED CAMPS	LICENSED MAX. CAPACITY	YEAR	NUMBER OF LICENSED CAMPS	LICENSED MAX. CAPACITY
1966	2,610	68,898	1981	796	24,492
1967	2,438	65,907	1982	768	23,844
1968	2,443	65,526	1983	781	24,283
1969	2,178	63,984	1984	764	25,028
1970	1,881	55,475	1985	771	25,225
1971	1,331	37,541	1986	806	26,305
1972	1,282	36,158	1987	864	28,385
1973	1,163	35,420	1988	877	28,744
1974	1,129	32,180	1989	922	30,442
1975	1,086	31,492	1990	906	30,077
1976	971	28,785	1991	902	28,280
1977	937	28,157	1992	853	26,855
1978	914	27,951	1993	851	26,494
1979	898	27,320	1994	850	25,973
1980	863	26,418			

Source: MDPH/BEH/ENVIR. HEALTH. - December 1994.

FIGURE 6. LICENSED MAXIMUM CAPACITY OF MIGRANT CAMPS IN MICHIGAN
1966 - 1994



Source: Table 6.