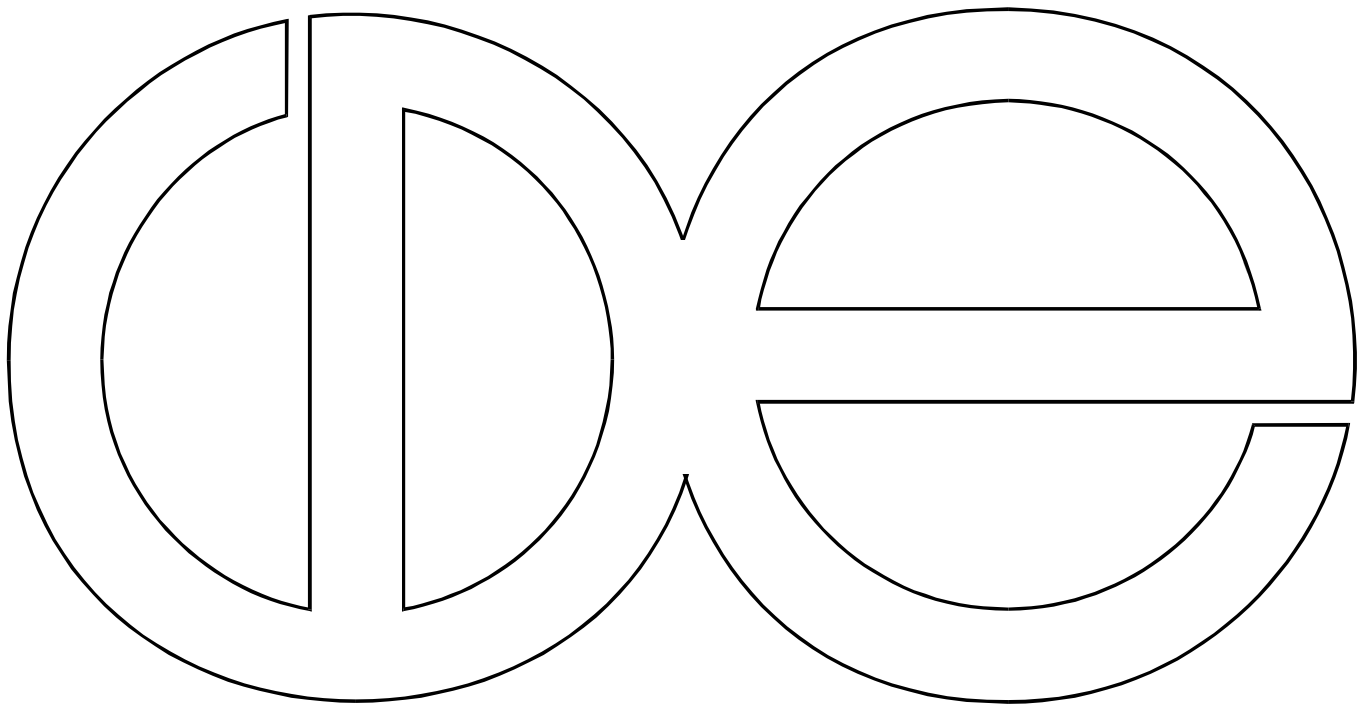


Center for Demography and Ecology
University of Wisconsin-Madison

**Economic Impact of Migrant Workers
on Wisconsin's Economy**

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Economic Impact of Migrant Workers on Wisconsin's Economy

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Abstract

This study aims to determine the impact of migrant workers on Wisconsin's economy, and addresses three questions: How do migrant workers spend their money? What migrant-related investments do employers of migrants make? What amount of federal funds flows into the state? To answer these questions, we interviewed 161 migrant workers, surveyed 56 migrant-worker employers by mail, and analyzed published sources of migrant-related data.

Currently, somewhat over 5,000 migrant workers plus 1,000 dependents arrive in Wisconsin annually. Most are of Mexican heritage with homes in Texas. Two-thirds work in canning or food-processing, and one-third in agricultural fields. About one-half travel singly, the remainder in family groups. In 2001, average weekly pay for singles was \$349, for families \$659. Migrants spent about half their earnings in Wisconsin. Also, about half the singles and one out of seven families sent remittances home.

Growers paid migrants an average hourly wage of \$7.26; the average paid by food processors was \$6.82. About two-thirds of both growers and food processors provided housing for migrants. On average, growers spent \$13,600 on migrant housing; food processors averaged \$37,700. As for costs of recruiting migrant workers, half the growers spent nothing, and half spent an average of \$6,400. Nearly all food processors reported recruiting costs, averaging \$10,328.

Growers and food processors held divergent views on several migrant-related matters, as revealed in a mail survey to employers. Were migrant labor unavailable, growers said they were likely to close their business, go into other lines of work, or sell their land or equipment. But most food processors, faced with the absence of migrant labor, indicated they would be likely to mechanize. Only a few growers, but half the food processors, said that they would raise wages to attract local workers were migrant labor unavailable.

The direct spending of funds by and on migrants, and the indirect, or re-spending, was found to result in an estimated \$14,856,000 of added income to Wisconsin businesses and residents per year and the creation of 417 jobs. The bulk of these employment and income impacts of the migrant workforce was derived from direct spending by migrants. In addition, "special purchases," such as stereos, VCRs, automobiles, tires, and furniture by migrants amounted to \$750 for the season for single workers and \$1,117 for workers with families. Economic analysis was employed to estimate the indirect or re-spending impacts of migrant purchases. The presence of the Wisconsin migrant workforce led to over \$8,700,000 being added to tax revenues for the state and local governments in 2001. The lion's share of these additional tax revenues (about \$7,229,000) came from federal grants that have both direct and secondary effects on local economies.

Economic Impact of Migrant Workers on Wisconsin's Economy

Purpose

The purpose of this project is to describe the Economic Impact of Migrant Workers on the Economy of the State of Wisconsin. It has the following components:

- I. To find out from the workers how they spend their wages.
- II. To find out from employers of migrant workers
 - how much they invest in the migrant workforce, including wages, expenses for recruitment, housing, and other items;
 - what employers would do if this workforce were not available.
- III. To estimate the amount of dollars coming into the State from outside sources as a result of the migrant workforce. Outside funds come primarily from various federal government programs involving the workers and their families.

It was noted in 1986 by Adams and Severson that research on migrant farmworkers had focused almost exclusively on the needs and problems of workers and their families with little attention to the ways that workers benefit the local economy. That focus continues to this day and has concentrated our attention on what migrants get and need from the local economy, omitting what they contribute. Our study asks both migrants and their employers to help us measure the economic impact of migrant farmworkers on a local economy. Only a few studies have attempted such an economic benefit investigation, among them a study in Waushara County, WI (Adams and Severson, 1986); in five southeastern counties in Michigan (Rosenbaum, 2001); Virginia's eastern shore (Sills, Alwang and Driscoll, 1994), and the state of Virginia (Trupo, Alwang and Lamie, 1998).

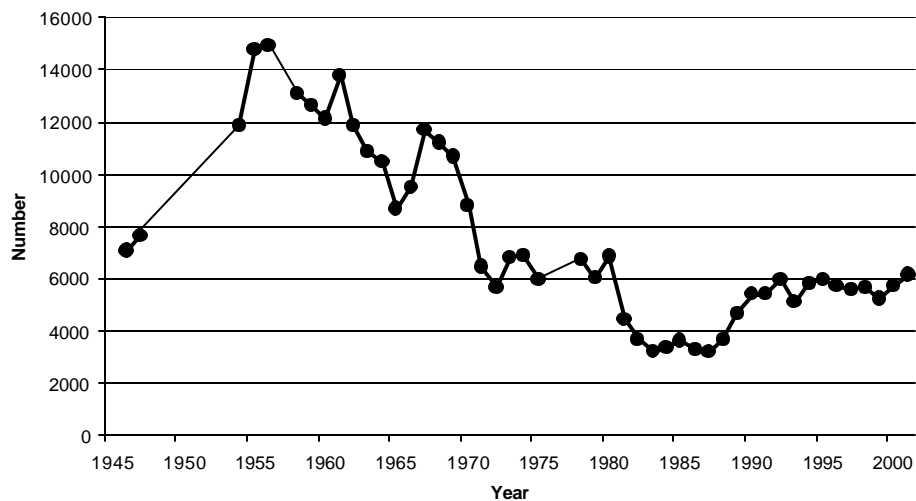
Background¹

Wisconsin farmers used migrant farmworkers since the early 1900s. Most of the workers were of European origin and were recruited from low-income areas of several Midwestern cities, including Sheboygan, Milwaukee, Chicago, St. Louis, and Kansas City. Most were employed to plant and harvest sugar beets and some vegetables. Many of these migrants eventually bought their own farms, settled out of the migrant stream, and became permanent residents of the state.

¹Information in this section is based on Slesinger and Muirragui (1981).

In the late 1920s and early 1930s, migrant workers of Spanish-speaking origin began replacing the European workers. Some were of Mexican heritage living in Texas; others were Mexican nationals. We know that about 3,000 Texas-Mexicans came to Wisconsin annually during the 1930s (Huber, 1967:8); by 1950 they were the majority of out-of-state agricultural workers (Slesinger and Muirragui, 1981). Today, over 90 percent of Wisconsin migrants are of Spanish-speaking origin. They are primarily from the Rio Grande Valley in south Texas, although some come directly from Mexico and other countries. Figure 1 displays the numbers of migrant workers in Wisconsin from 1945 to 2001. It shows that the numbers peaked in the late 1950s, primarily due to the Bracero program, which passed Congress in 1951 and lasted until 1964. This program was designed specifically to alleviate the shortage of farm labor by permitting farm workers to enter the United States from foreign countries without work permits.

Figure 1
Estimates of Migrant Farmworker
Population in Wisconsin: 1945-2001

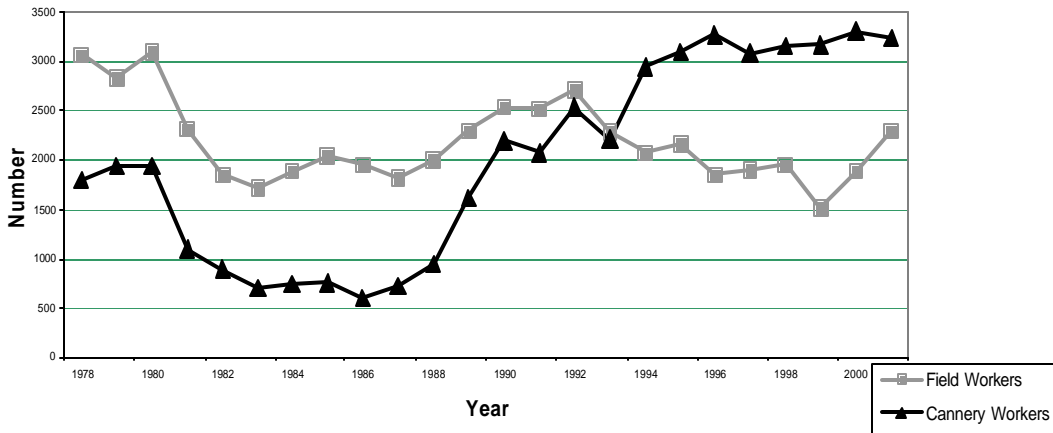


The number of farm workers has declined since the mid-1960s because of two major advances in technology: the mechanization of planting, hoeing, and picking of certain crops, and the development of various effective herbicides that reduced the need for workers to hand weed. Mechanization of the harvest of sugar beets, potatoes, and snap beans can be traced to the early 1950s. Between 1950 and 1960 essentially complete mechanization of the harvesting of peas, green beans, and corn was also achieved. The cherry harvest was also mechanized by 1980, when mechanical “tree shakers” supplanted much of the labor needed for hand picking. Weed control is especially important in the growth of onions and in mint hay, and both require a great deal of hand weeding. However, by 1970, this labor was supplanted by effective chemical herbicides.

Why do migrant workers still come to Wisconsin? Hand labor is still needed in the cucumber industry, in apple orchards, and in picking peppers, cabbage, and other vegetable crops that have not been mechanized. Also, because many crops are processed and canned in the state, large numbers of workers are needed in food processing plants during the peak of harvest. Today, as in many past years, Wisconsin ranks first among the states in the production of snap beans for processing (USDA, 2001). Sufficient local labor is not available. Farm wives used to help during harvest; now many are likely to have year-round, off-farm jobs. High school students who used to help during the vacation summer months now may get employment in comfortable air-conditioned malls, stores, and restaurants. Thus, employers turn to out-of-state, seasonally available workers.

Field work was the primary source of employment for migrant workers in the early and mid 20th century. However, by the late 1960s, more migrant workers were employed in food processing plants (i.e., canneries) than in field work. Today, about two-thirds of migrant workers who come to Wisconsin are employed by food processors. Figure 2 shows the change in the ratio of field to cannery workers from 1978 to the present.

Figure 2
Migrant Workers in Field vs. Cannery Work: 1978-2001



How many migrants come to work each year? Following a peak in the late 1950s at about 15,000 workers, the number has declined; since the early 1970s it has fluctuated around 5,000 to 6,000 workers annually.

Methodology

This investigation used three sources of data:

- 1) Interviews with migrant workers about their earnings and spending patterns
- 2) Mail survey of employers of migrant workers to gain information about their migrant-related expenses, and opinions about hiring this temporary workforce; and
- 3) Published sources to estimate the amount of dollars coming in to Wisconsin from government programs related to migrant workers.

The impact assessment is conducted using an input-output model of the Wisconsin economy. Input-output modeling is a standard modeling tool used by economists to describe the structure of a regional economy. By mapping the flow of dollars between buyers (demand) and sellers (supply) in a local economy, economists can track the impact of changes in that economy. For this analysis, IMPLAN was used to construct a model of the Wisconsin economy for 1999, the most current year for which data are available. By “shocking” the model by the level of migrant expenditures, we are able to trace the ripple or multiplier effect of migrants throughout the entire economy. Direct effects within an input-output model are the initial spending of the migrants themselves. Indirect effects represent the re-spending of dollars by those businesses affected by the migrants and any businesses associated with those initial businesses. The induced effects are those impacts associated with the re-spending of wages earned in the indirect effect.

Data analysis was performed using SPSS for Windows, Version 10.0.

The Interview Schedule and the Employers’ Survey are included in Appendix C.

Results

I. Interviews with Migrant Workers

In the summer of 2001, personal interviews with migrant workers in Wisconsin were conducted by bilingual interviewers in the migrants' housing camps. Interviews took, on average, about 25 minutes. We planned to get about the same number of workers in field work and in food processing, as well as equal numbers of males and females and workers who came to Wisconsin as "singles" (alone or with non-relatives), and with family members. This method is known as "quota sampling".

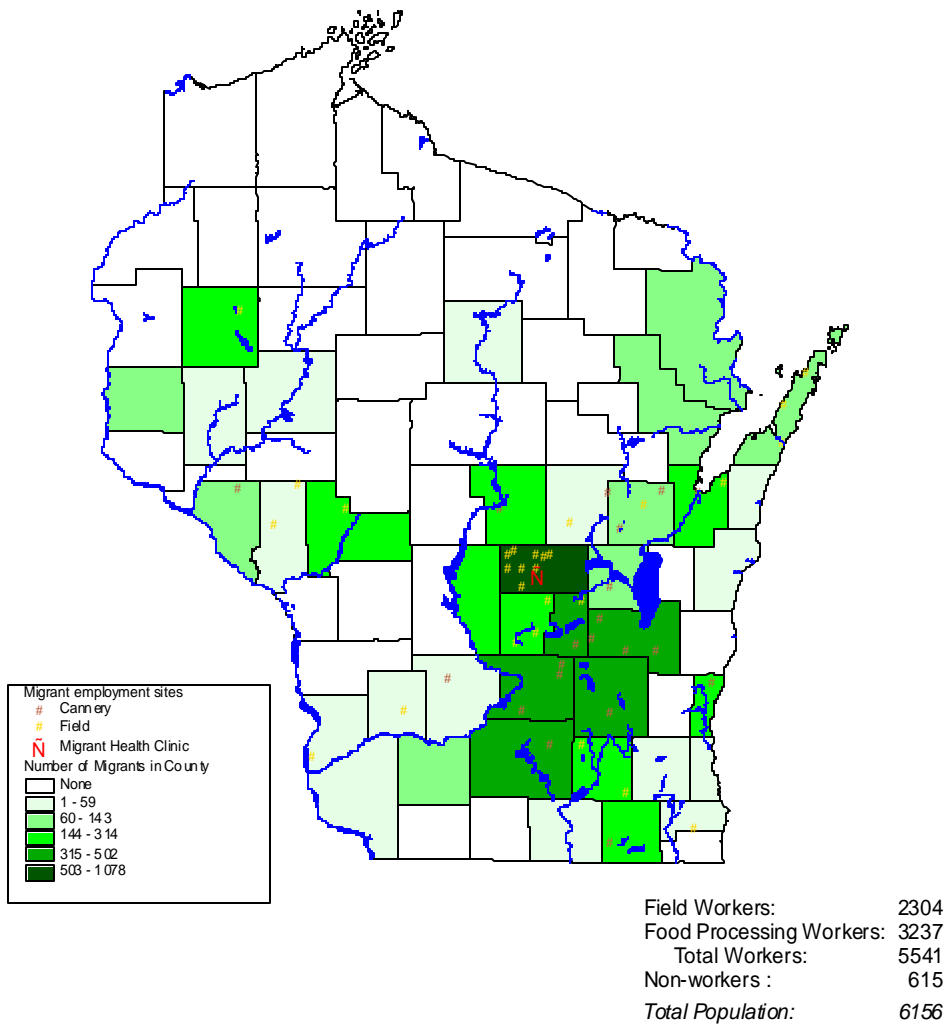
It is difficult to estimate whether the sample was representative of all migrant workers. The Bureau of Migrant Services, Wisconsin Department of Workforce Development, reported that migrants were employed in 39 counties, of which 10 counties had 25 or fewer migrants. We interviewed migrants in 17 counties with the larger numbers of workers. These 17 counties represented about 67 percent of all migrants in the state. We believe that the sample we achieved is representative of type of work, location, gender, and family status, although we missed the nursery workers in early Spring, and the apple pickers in the southwest corner of the state in late September.

Demographic Profile of Wisconsin Sample

Figure 3 (a map showing the distributions of migrant workers by county), and Table 1 (number of migrant workers by county) show the counties with employment of migrant workers in 2001. Waushara County for many years employed and continues to employ the largest number of migrant workers, mostly in field work, followed by Columbia, Fond du Lac, Green Lake, and Dodge counties, with migrants all employed in food processing.

Figure 3

Total Migrant Population in Wisconsin, 2001



Data Source: State of Wisconsin, Bureau of Migrant Services, 2001.

Map prepared at the University of Wisconsin-Madison, Department of Rural Sociology (2002)

Table 1. Migrant Worker Population in Wisconsin by County of Employment, 2001.

County*	Agricultural Workers	Food Processing Workers	Total Workers	Non-Workers	Total Migrants
Adams	123	0	123	21	144
Barron	2	265	288	6	294
Brown	30	231	261	0	261
Buffalo	39	55	94	31	125
Calumet	0	0	0	0	0
Chippewa	7	0	7	0	7
Columbia	38	403	441	38	479
Crawford	37	0	37	0	37
Dane	153	170	323	24	347
Dodge	13	338	351	98	449
Door	77	0	77	20	97
Dunn	2	0	2	0	2
Eau Claire	0	0	0	0	0
Fond du Lac**	0	404	404	51	455
Grant	6	0	6	0	6
Green Lake	40	389	429	0	429
Iowa	123	0	123	0	123
Jackson	193	0	193	0	193
Jefferson	138	0	138	17	155
Kewanee	3	0	3	0	3
Lincoln	30	0	30	0	30
Manitowoc	0	13	13	0	13
Marinette	10	75	85	0	85
Marquette	113	0	113	39	152
Milwaukee	3	0	3	0	3
Oconto	0	90	90	0	90
Outagamie	35	98	133	0	133
Ozaukee	7	107	114	40	154
Portage	25	177	202	1	203
Racine	28	0	28	10	38
Richland	32	0	32	0	32
Rock	42	0	42	0	42
Sauk	0	33	33	0	33
St. Croix	6	110	116	0	116
Trempealeau	15	0	15	0	15
Walworth	4	142	146	0	146
Waukesha	6	0	6	6	12
Waupaca	28	0	28	10	38
Waushara	875	0	875	203	1078
Winnebago	0	137	137	0	137
Total	2,304	3,237	5,541	615	6,156

*Migrant interviews were conducted in counties whose names are in bold type.

**There are four processing plants in Fond du Lac County, but their migrant housing is located in Oconto County.

Source: Wisconsin Department of Workforce Development. *2001 Migrant Population Report*.

By the beginning of October 2001, when the interviewing ended, we had collected 161 interviews. Forty-five percent worked in food processing (N=73), 32 percent (N= 51) were field workers; and 23 percent (N=37) reported having worked in both field and food processing during the season.

About half the workers were male (N=82) and half were female (N=79). About one-half of the workers traveled with family members, and the others traveled alone or with non-relatives. Three out of five families had children under 18 traveling with them, and had, on average, 2.61 children under 18 years old per family. There were 2.72 workers on average in family households.

Eighty-five percent of the interviews were conducted in Spanish; 15 percent in English. Seventy-five percent of migrant workers considered Texas as their “home”; 17 percent said “Mexico”, and an additional 8 percent gave other areas in the United States. Workers’ ages ranged from 17 to 67 years, with a mean of 42 years.

Income and Expenditures of Wisconsin Migrants

In order to examine the income and expenditures of migrant workers, we divided the workers into two groups: SINGLE--those who came to Wisconsin as individual workers, and earned and spent money as single individuals; and WITH FAMILY--those who migrated as a family unit with two or more workers, and pooled their earnings and expenditures.

Wages of Wisconsin Migrant Workers

The average weekly pay for an alone or single Wisconsin worker was \$349, ranging from \$150 to \$800. For a family, the average weekly income was \$659, ranging from \$200 to \$2,800. Workers in families tended to work in Wisconsin about 3.5 weeks longer than single workers.

Single workers projected their earnings from migrant work for 2001 to be \$6,282, whereas the family units expected to earn, on average, about \$14,103 (see Table 2). We must note that this level of income falls below the Federal Poverty Guidelines, which in 2001, for a single person under 65 years was \$9,214, and for a family with two children under 18 was \$17,960.

Table 2. Migrant Income and Expenses Per Week for Single and Family Households.

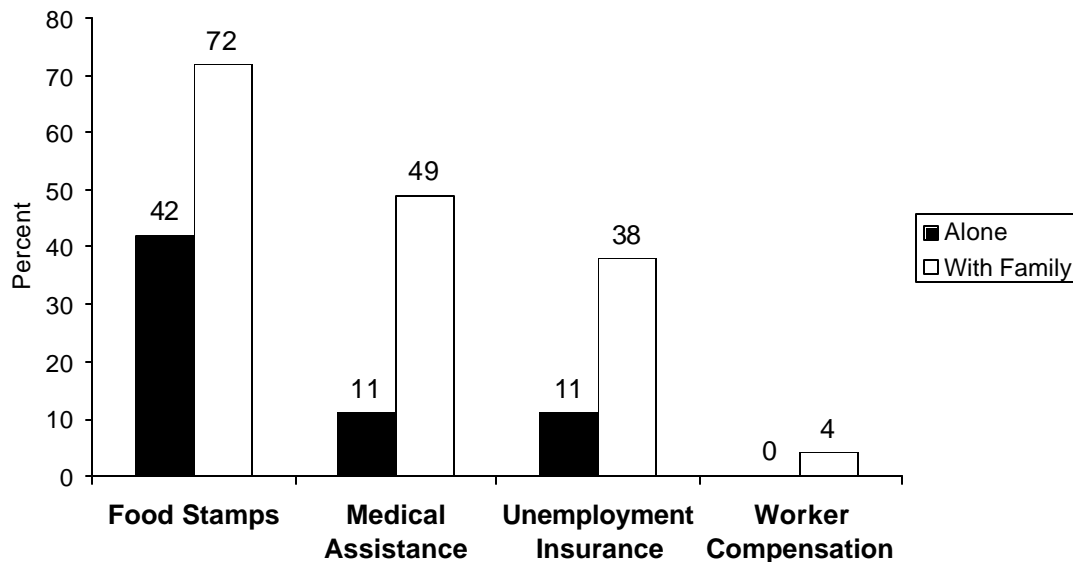
	Single (Average)	With Family* (Average)
Income		
Pay per week	\$349	\$659
Weeks plan to be in Wisconsin	18 weeks	21.4 weeks
Income for 2001 season	\$6,282	\$14,103
Spend per week		
Groceries	\$47	\$112
Clothes	19	41
Laundry	3	6
Household supplies	1	7
Children supplies	7	24
Transportation	7	26
Recreation	7	19
Work supplies	2	4
Personal care	8	9
Health care	2	6
Rent	10	8
Utilities/telephone	9	9
Total expenses per week	\$119	\$271
Percent spent of total income per week	34.1%	41.1%

*Average number in family is 3.92 persons.

Of the 161 individuals interviewed, 100 had also worked in Wisconsin in the previous year (2000). From these persons we learned that their total earnings in 2000 ranged from \$3,500 to \$40,000, and that from 28 percent to all (100%) of their yearly income was from migrant work. Of this money, they estimated that just under one-half (47%) was spent in Wisconsin.

We also asked if the respondent and family were recipients of some of the social benefit programs available to the poor. Figure 4 indicates that family units were much more likely to receive some of the federal benefits. For example almost three-fourths of the families received food stamps, half had some form of medical assistance, and one third received funds from unemployment insurance. Except for food stamps (42%), single workers rarely received the other benefits.

Figure 4
Receipt of Social Benefits in 2000



How Workers Spend Their Wages

Daily expenses may include groceries, clothing, laundry, transportation, recreation, personal care, health care, rent, electricity, and supplies for the home, work, and children. How much money is spent locally depends in part on the family structure of the individual worker. Married workers who are traveling alone tend to remit a significant amount of their income to their family in their home of origin. However, single workers (with no family) and families traveling together spend a significant amount of their income locally (Trupo, Alwang and Lamie, 1998). In addition to the influence of family structure, spending is increased when the workers are only short distances from, or have transportation to, places to spend money. In these cases, money is often spent on leisure activities, restaurants, alcohol, and other recreational items.

Table 2 also provides information about the items that migrants purchased during an average week in Wisconsin. Expenditures for single persons averaged about \$119 per week, compared to \$271 for those in family units. For both individual and family units, groceries were the major expense, and accounted for about 40 percent of all expenses. For both, this was followed by the purchase of clothes. For families, sizeable amounts of money went for child expenses, transportation, and recreation. The low amount spent on “rent” may be surprising to the reader. However, many migrants pay nothing for housing provided by the growers/food processors (i.e.,

one-third of workers living alone, and two-thirds of workers with families paid no rent), and migrants may be responsible only for utilities and telephone.

Special Purchases

In addition to their daily outlays, migrants often buy expensive goods prior to returning to their home of origin, such as clothing, shoes, jewelry, electronics, and used cars. As noted in the Virginia study, “With the purchase of used cars, additional economic activity is generated through sales of gasoline, tires, auto supplies, and mechanical services” (Trupo, Alwang and Lamie, 1998:13).

Table 3 presents the information that migrants provided about the purchase of specific special items they planned to buy before leaving Wisconsin. About 32 percent of the single workers and almost 60 percent of the families expected to purchase a major item. On average, the single worker expected to spend about \$750 for these items in Wisconsin, and the families anticipated spending \$1,117.

Table 3. Migrants’ Expenditures for Special Purchases.

	Single	With Family
Special Purchases	31.7% of singles	58.7% of families
Bought	\$441 [\$5-\$1,600]	\$ 432 [\$5-\$7,080]
Planned to buy	\$308 [\$50-\$1,000]	\$ 685 [\$30-\$2,500]
Total for season	\$750	\$1,117
Specific Item	Total Number of Persons	
Stereo/VCR	45	
TV dish & cable hookup	6	
Used car	22	
Appliances	5	
Tires	7	
Clothes	7	
Computer	2	
Furniture, sewing machine, fan	3	
Play station	1	
Tools	1	

Table 3 shows that the most popular “big ticket” purchases were stereos, VCRs, and TV satellite dishes, followed by used cars. Appliances and computers were also on the list, as were other consumer goods.

Almost 50 percent of the money earned is spent locally, in the form of daily expenses and medium to large purchases, or collected in the form of taxes, social security, etc. We calculated that single workers spend about 46 percent and families about 49 percent of their earnings in Wisconsin (see Table 4; see Appendix A for a summary of the literature review on local spending).

Table 4. Total Amount of Migrants’ Earnings and Expenditures in Wisconsin, 2001.

	Single (Average)	With Family (Average)
Income for season	\$6,282	\$14,103
Expenditures in Wisconsin		
For season	\$2,142 (\$119 x 18 weeks)	\$5,800 (\$271 x 21.4 weeks)
Special purchases	\$750	\$1,117
Total	\$2,892	\$6,916
Percent of income spent on purchases in Wisconsin	46.0% (\$2,892/\$6,282)	49.0% (\$6,916/\$14,103)

Remittances to “Home”

Remittances are often cited as an economic drain on states and cities with migrant farmworkers. However, as we have seen above, about 45 to 50 percent of earned wages is spent locally. Recent studies show that migrant farmworkers tend to remit between 25 and 50 percent of their income (Sills, et al., 1994; Barger and Reza, 1994; Palerm, 1992).

Wisconsin migrants reported they were remitting, or were planning to remit by season’s end, on average, \$2,985 (47% of season’s earnings) for single workers and \$1,994 (14% of season’s earnings) for workers with families. Often the money goes to support family members who are at home. Other funds are sent back in order to pay the monthly mortgage payments on their houses, or other outstanding loans.

Taxes

Lastly, all workers are required to pay local sales tax as well as state, federal, and social security taxes (Guttmacher, 1984). This is true whether or not their home of origin is in the United States, so many migrants never collect on the money that they invest in the American system.

From the information migrants have provided, we can conservatively estimate that they paid \$105,024 in the 5% Wisconsin sales tax for various items. This is a relatively small number because such a high percentage of local spending is on non-taxable items such as groceries.

Economic Impact of Migrants' Expenditures and Special Purchases

The induced spending by migrants is spending of their wages for such things as transportation, groceries, housing, and recreation. It is important as we think about this form of spending that we work with the total number of migrant workers estimated in the state. Information on weekly expenditures was collected for a sample of workers, both alone and with family members. In this analysis, we excluded remittances to Texas, Mexico or other places (see above).

Migrants' Expenditures

This analysis required computing an average expenditure pattern per migrant worker per week, that included both migrants traveling alone and with their families, averaging the two groups (see Table 2). The average number of weeks spent in Wisconsin is 19.7, the average per capita expenditure level is \$95.57, and the population of migrant workers is 5,541. Hence the estimated total expenditure of migrants is \$10.4 million annually ($19.7 * \$95.57 * 5,541$). The details of this impact are shown in Appendix Table A2.

Total economic impact of weekly expenditures is: the creation of 185 jobs, \$5.4 million in income, and \$0.8 million in public revenues flowing to state and local governments.

Special Purchases

The special purchases by migrants in this survey represent one-time purchases of items that probably occur infrequently. From Table 4, we note that the average single worker spent \$750 on special purchases and for a family \$1,117 or \$285 per person ($\$1,117/3.92$). An average across these two is \$517. But not all migrants make special purchases. That is, 31.7 percent of single workers and 58.7 percent of families made special purchases in the 2001 season. Averaging the two groups calculates to 45.2 percent of the migrant population making a special purchase at \$517 per person. In 2001 there were 6,156 migrants in the state, including children (See Table 1). This results in about \$1.4 million spent in Wisconsin by migrants for special purchases ($6,156 * 45.2\% * \$517$). The impact is shown in Appendix Table A3.

In summary, special purchases by migrants results in the creation of about 13 jobs for Wisconsin residents, generating about \$460,000 income and \$84,000 in revenues flowing to state and local governments.

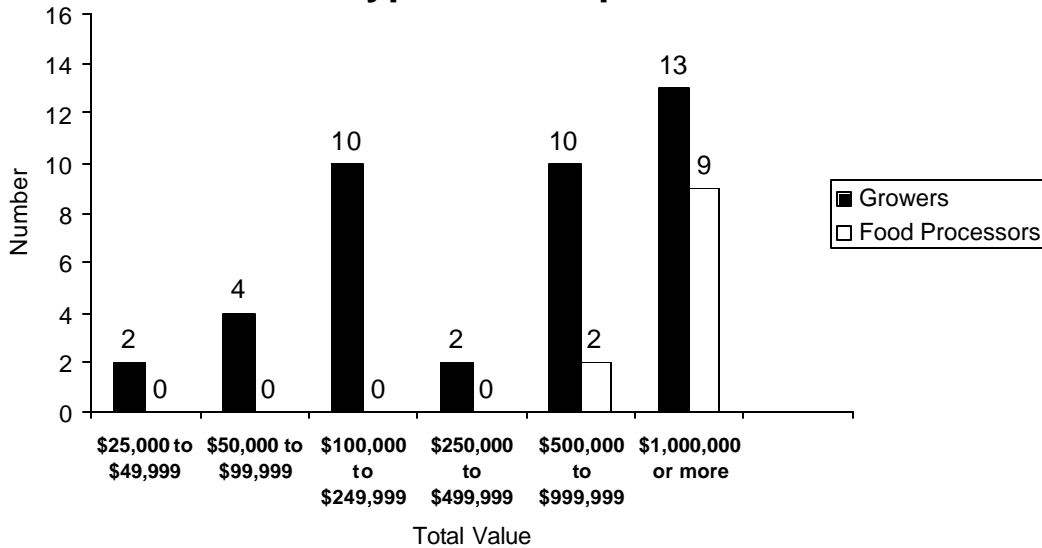
II. Survey of Employers of Migrant Workers in Wisconsin

Beginning in December 2001, and ending in mid-February 2002, questionnaires were mailed to 159 employers of migrant workers listed by the Bureau of Migrant Services, Department of Workforce Development. The list included all employers of migrant workers in Wisconsin known to the Bureau, and was based on the requirements of the 1977 Migrant Labor Law. However, some of the persons on the list did not themselves employ migrant workers, but instead provided housing, helped with recruitment, etc. Thus, the first mailing consisted of a letter asking the recipient to be on the look-out for the questionnaire that was to follow, and in addition, gave them an opportunity to indicate if they did not employ migrant workers by checking a box marked, "Did not employ migrant workers in 2001", and returning the letter in a stamped return envelope. This permitted us to first delete 24 employers who did not employ migrants, and then to send the questionnaire to 135 employers. We gave employers a second opportunity to indicate that they did not employ migrants in 2001 on the cover letter explaining the questionnaire. About two weeks later we sent out a duplicate mailing, in order to remind the employers about the survey. Our final tally was 56 employers who filled out the questionnaire; two employers refused, and sent back a blank questionnaire, 13 additional employers said they did not employ migrants in 2001; and 64 employers from whom we heard nothing. Thus, our response rate was 47.5% (58/122), a reasonable response rate from mail-out, mail-back surveys.

Forty-one employers indicated that they were farmer/growers, and 12 were food processors. Three were both growers and food processors (two were owners of orchards, one grew cabbages and processed sauerkraut), which, for this analysis we classified as "growers." Thus, we provide data from 43 growers and 13 food processors. This sample is about the same ratio as the total number of growers and food processors, i.e., 80 percent growers and 20 percent food processors, reported by the Bureau of Migrant Services. Respondents indicated that they had been employing migrant workers from one to 51 years, with an average of 17 years. Employers hired one to 322 migrants in 2001, with an average of 48 migrant workers.

In order to roughly estimate the size of each establishment, we asked growers the approximate total gross value of sales for their enterprise in the year 2000. Each food processor was asked to provide the total value of vegetable contracts from the facility in 2000. Dollar amounts were grouped into eight categories. Growers' gross sales ranged from \$25,000 to \$1,000,000 or more, whereas the food processors ranged from \$500,000 to over \$1,000,000. Figure 5 displays these distributions.

Figure 5
Total Value of Sales/Contracts in 2000 by
Type of Enterprise



Employers' Investment in the Migrant Workforce

Studies of migrant earnings in the last decade estimate the mean hourly income to be between \$4.87 to \$5.19 per hour (Zabin et al., 1993 and Martin and Martin, 1994 respectively). A recent study in Wisconsin found the average seasonal income to be \$9,520 per worker (Slesinger and Wheatley, 1999). (See Appendix B for a summary of recent research on migrant income.)

Rosenbaum noted that in Michigan,

...growers spend approximately \$75 monthly in utilities and labor camp maintenance per living unit during the period of occupancy (May, 2000) which averaged 5.5 months over the six county region. It is estimated that total housing and utility expenditures in the region for the season are at about \$79,534. (2001:20)

From the present survey, based on responses from 43 growers and 13 food processors, we obtained information about their employment of migrants (see Table 5) and the expenditures involved in having migrants on their payroll (Table 6). We learned that on average, growers have employed migrants for 18.2 years and food processors for 14.9 years (see Table 6). Growers in the sample paid \$460,299 in wages and salaries in 2001 of which \$140,679, or 30.6 percent were for migrant wages. Food processors had a total payroll of \$2,475,749, and of that

\$586,890, or 23.7 percent were paid to migrant workers. Migrants worked, on average, 17.8 weeks for growers and 13.5 weeks for food processors (see Table 5).

Table 5. Employment Information from Growers and Food Processors Concerning Migrant Workers, 2001.

Item	Growers (N=43)	Food Processors (N=13)
Mean No. of years employed migrants	18.2 years (43)	14.9 years (12)
Total wages/salaries (average)	\$460,299 (34)	\$2,475,749 (11)
Total paid to migrants (average)	\$140,679 (37)	\$586,890 (11)
Mean No. of year-round employees	8.7 (42)	51.8 (12)
Mean No. of seasonal employees	38.6 (42)	187.7 (13)
Mean No. of migrant employees	26.7 (43)	116.4 (13)
Mean No. of weeks migrants worked	17.8 weeks (42)	13.5 weeks (13)
Average hourly wage	\$7.26 (40)	\$6.82 (13)
Range of hourly pay	\$4.35–\$20.00	\$5.25–\$12.00

Wages

Information from the Wisconsin Employers' Survey in 2001 indicated that the average hourly wage paid by growers was \$7.26, ranging from \$4.35 to \$20.00 per hour. The food processors paid somewhat less: food processors paid \$6.82 on average, with an hourly rate that ranged from \$5.25 to \$12.00 per hour.

Recruitment

About half of growers spent nothing on recruitment of migrant workers, and half spent on average, \$6,428 (See Table 6). Almost all food processors had expenses for recruiting workers. Only 8.3 percent said they spent nothing on recruitment. The others averaged \$10,328 per company. Recruitment expenses may include hiring a service or person to recruit labor, advertising, and travel expenses.

Table 6. Amount Expended by Growers and Food Processors for Migrant Workers in 2001.

Item	Growers		Food Processors	
	Percent Who Spent Nothing	Average Amount*	Percent Who Spent Nothing	Average Amount*
Average amount expended in 2001 for:				
A. Recruitment	48.8	\$ 6,428	8.3	\$10,328
B. Housing	53.5	13,604	16.7	37,723
Provide housing?		69% yes		62% yes
Own/rent housing?		96% own		100% own
Provide furnishings?		71% yes		62% yes
C. Gas, Electricity, Telephone	30.8	\$2,273	27.3	\$6,288
D. Health education, preventive care	95.0	\$650	75.0	\$5,167
E. Medical care, insurance	87.2	\$1,617	90.9	\$25,000
F. On job training, work safety equipment, clothing	55.0	\$1,184	0.0	\$9,099
G. Food/cafeteria	82.9	\$1,053	60.0	\$25,519
H. Other**	80.5	\$6,485	58.3	\$36,200
Total of average expenses		\$33,294		\$201,324
Average per establishment		\$793		\$16,777
Percent of expenses migrant related (Q7)		15.4%		3.4%
Range		[0-68%]		[1-15%]

*Average amount excludes employers who spent nothing in the category.

**“Other” expenses mentioned included bonus pay, remodeling/building maintenance costs, transportation, appliances, and furniture. Thirteen of the 53 employers mentioned one or more of these “other expenses. However, the data are skewed by one employer, a food processor, whose \$110,000 entry included: sewer, water, waste disposal, leased vehicle, TV, room rent (mobile office), supplies, maintenance, bus for interplant travel, and camp staff salaries.

Housing

About 70 percent of the growers and 62 percent of the food processors provide housing, and almost all own (rather than rent) their housing stock (See Table 6). In other words, two out of three employers provide housing for their migrant employees. Of those who provide housing to their migrant workers, two-thirds provide some furnishings in the units. Average housing outlays for growers was \$13,603; and for food processors outlays averaged \$37,723. Added to that were utility expenses of \$2,273 for growers and \$6,288 for canneries.

Other Investments

Employers were also provided with an area to dictate “other” costs that they did not feel belonged in any of the provided categories. Thirteen of the 53 employers took advantage of this additional space, listing items which included remodeling/building maintenance costs, appliances, furniture, and transportation. Table 6 presents these details.

The average total expenses for these 43 growers totaled \$33,294, and for the 13 food processors, \$201,324.

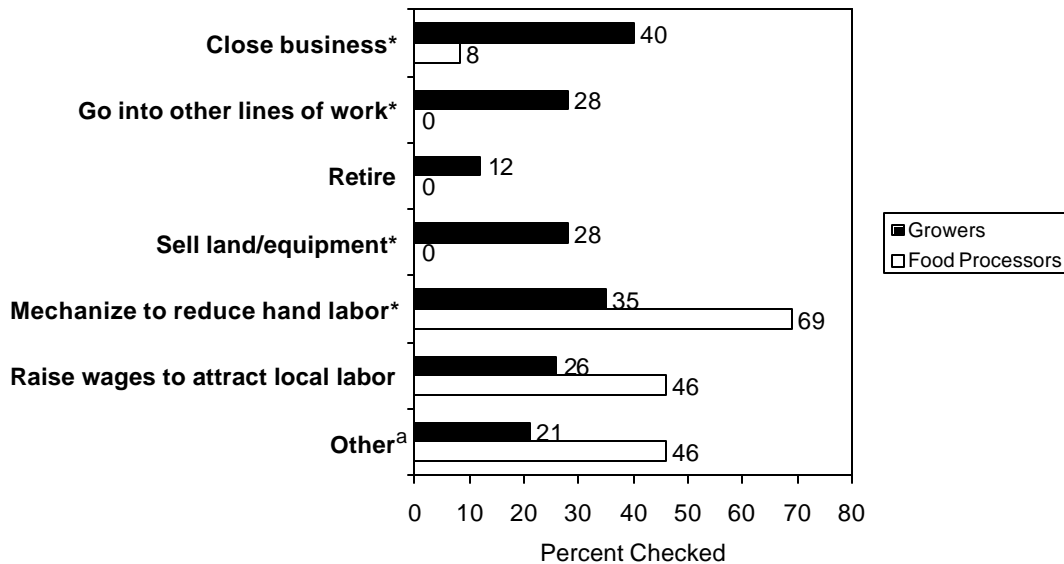
Employers were asked what proportion of their total business expenses was migrant-related. Growers estimated from one to 68 percent; food processors from one to 15 percent.

Employers' Dependence on Migrant Workers

We also attempted to measure employers' reliance on migrant farmworkers. However, unlike much previous research (e.g., Sills et al., 1994), we surveyed the employers directly in the hopes of revealing an especially new and interesting perspective.

Figure 6 presents the answers the employers gave to the question, "Please indicate what you would do if migrant labor were not available." Growers and food processors have different perspectives on this issue. Growers differ significantly from food processors in stating that if migrant labor were unavailable they would be more likely to close their business (49% vs. 8%); to go into other lines of work (28% vs. 0%); or sell their land or equipment (28% vs. 0%). Food processors, on the other hand, would be more likely than growers to mechanize to reduce hand labor (69% vs. 35%). About 12 percent of the growers said they would retire, compared to none of the food processors. Almost half the food processors, compared to one-fourth of the growers, said they would raise wages to attract local labor. Neither of these differences was statistically significant, however.

Figure 6
Q11. What would you do if migrant labor were not available?



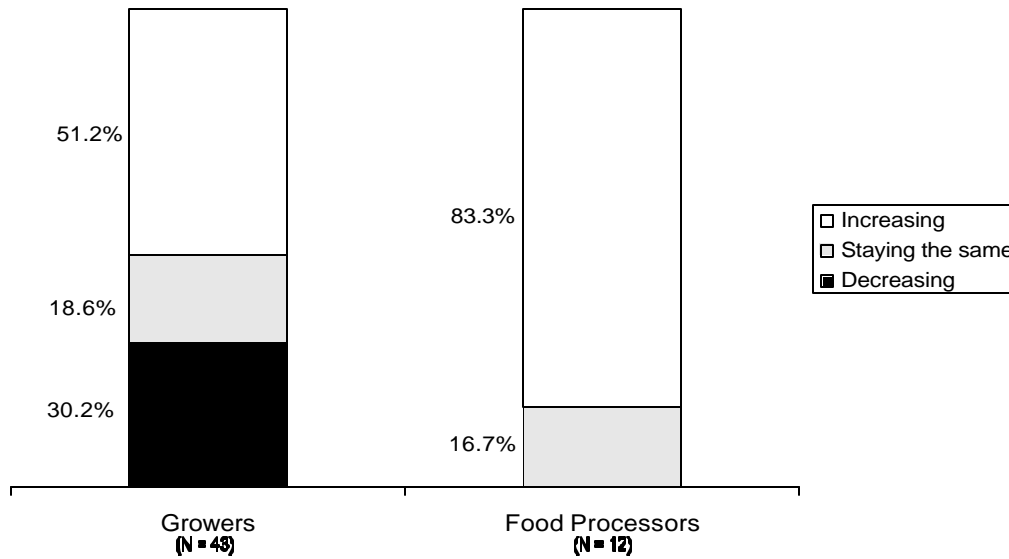
* p < .05

^a e.g., downsize, move plant, hire resident aliens, hire Hmong.

Employers' Outlook on Future Use of Migrant Labor

Employers were also asked, “In your opinion, would you say the trend for the use of migrant labor in Wisconsin is increasing, decreasing, or staying the same?” Figure 7 shows that over half of the growers and 83 percent of food processors believe that the use of migrant labor is increasing in Wisconsin. None of the food processors believed that there will be a decrease in the use of this labor force.

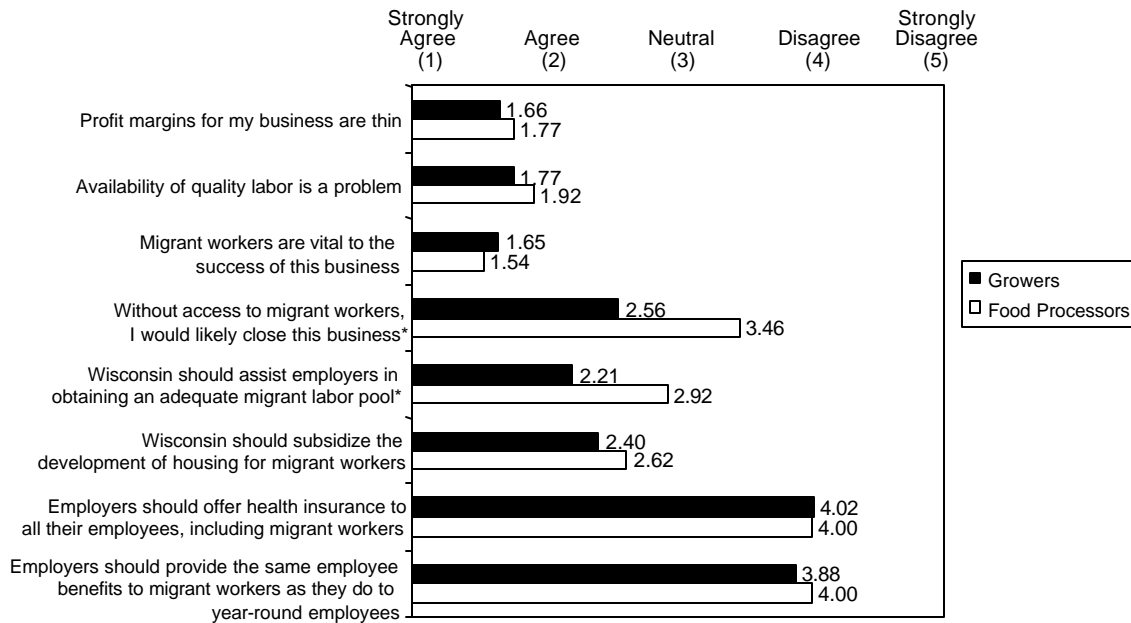
Figure 7
Q9. In your opinion, would you say the trend for the use of migrant labor in Wisconsin is increasing, decreasing, or staying the same?



Employers' Business Opinions

Figure 8 shows the opinions of growers and food processors on a set of statements. The respondents indicated whether they agreed or disagreed with the statements. Figure 8 shows the average score on each statement, separately for growers and food processors. The two types of employers agreed closely, except for one item: “Without access to migrant workers, I would likely close this business.” Here, food processors were much more likely to disagree with this statement than the growers (see Figure 8).

Figure 8
Q8. Business Opinions of Employers

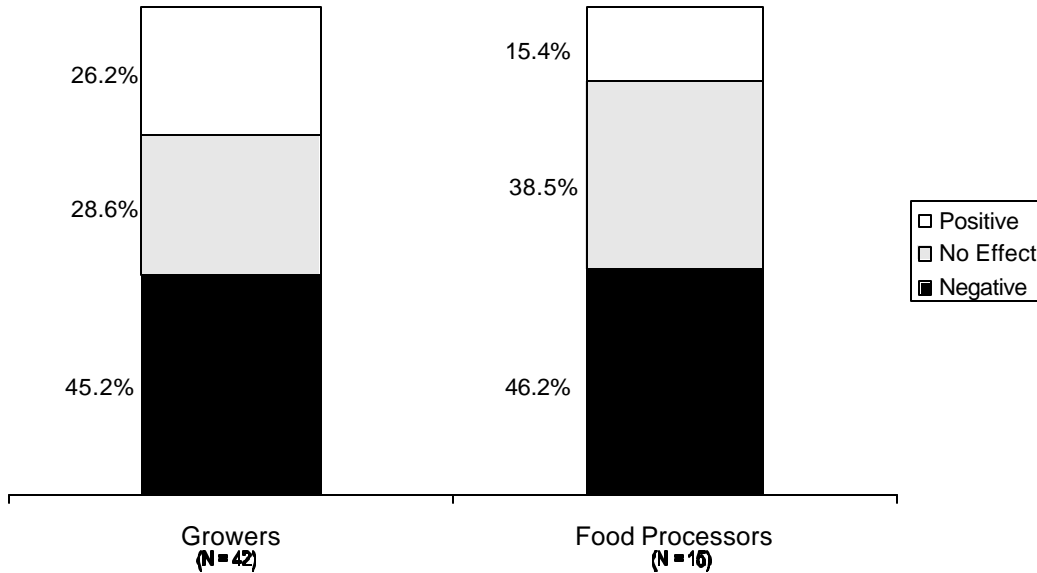


* p < .05

In general, employers were pessimistic about profit margins and availability of quality labor. They tended to approve getting some help from the Wisconsin government in obtaining an adequate pool of labor, and subsidizing the development of housing. They also were in agreement about not extending health or other benefits to migrant workers.

We also asked if complying with the 1977 Migrant Labor Law has had an effect on their business (see Figure 9). About 45 percent of both groups felt it had a negative effect, whereas less than one fourth felt it had a positive effect.

Figure 9
Q10. Complying with the Migrant Labor Law has a positive, negative, or no effect on my business



The reactions of employers to the 1977 Migrant Labor Law varied considerably, and ranged from the very positive to the very negative:

The positive attitudes concerned the migrants and their work:

- “All migrants help out our business *very* much. They are the best workers we have!”
- “Inspectors are generally becoming more helpful. They used to make a big deal over a small crack that may let a fly in.”
- “It does help me to process the incoming cabbage during the fall months. However, it does increase the paper work.”
- “Migrant employees are just like any other employee—they must be treated right to stay on the job. We would treat ours right even if there were no migrant labor law.”

The negative comments concerned the bureaucracy involved with various contracts and regulations:

- “We are so afraid of doing something wrong that we are trying to decrease our migrant labor as soon as possible, re: contracts, forms, housing restrictions.”
- “We do not hire families because houses they rent would need to be certified—at our expense.”
- “Some of the migrant laws supercede local zoning laws and are not logical.”
- “Paying make-up pay to 12-17 year olds without any experience is intolerable (Guaranteed wages).”
- “One more bureaucracy to keep happy.”

III. Federal Funds Received by Wisconsin for Support of Migrant Programs

Because of their precarious economic position due to low earnings, migrant farmworkers often require assistance for a number of basic needs, such as food, medical care, job services, unemployment and worker's compensation, and child care. Much of this assistance is funded by the federal government. In this way, states and local economies benefit from the presence of migrant workers because they receive federal monies that they otherwise would not. Virginia, for example, received about \$5 million federal dollars for its migrant programs in 1996. Ninety-eight full-time equivalent jobs were created (Sills et al., 1994) and 71 percent of the transfer payments from the federal government went to personnel who, as local residents, most likely spent the majority of their money locally (Trupo, Alwang and Lamie, 1998).

In southeastern Michigan, Rosenbaum (2001:21) noted:

Seven public and non-profit organizations were identified as providing services to migrant and seasonal farmworkers in the region in 1997. These agencies administered at least \$1,238,391 in revenue to service the farm labor population. Over 72 percent of the funds were administered through state departments although the funds represent federal as well as state funds.

Like Michigan, Wisconsin also receives money from the federal government because migrant workers are in the state. Between 1996 and 2000 Wisconsin received an average of \$7,229,566 per year in federal funding for the explicit purpose of servicing migrants (see Table 7 and Appendix Table A1). About 54 percent of this money was for educational programs, with another 31 percent for employment-related services, followed by health services and housing funds. This money not only assists many migrants, but it also creates jobs for local Wisconsin residents. For example, in order to run a Head Start program for migrant children, the contractee, United Migrant Opportunity Services, Inc. (UMOS) increased its staff by 196 persons, including 11 year-round staff persons and 185 seasonal (5 month) jobs in 2001 (Vidas, 2002).

Table 7. Federal Funds Received by Wisconsin in Support of Migrants, 1996-2000 (in thousands).

Program	1996	1997	1998	1999	2000	Total	5- Year Average	Percent
Education	\$3,779	\$3,444	\$4,021	\$3,970	\$4,276	\$19,490	\$3,898	53.9
Employment	2,089	3,967	2,117	1,470	1,501	11,144	2,229	30.8
Health Care	1,012	743	1,091	890	922	4,658	932	12.9
Housing	33	242	18	385	177	855	171	2.4
Total	\$6,914	\$8,396	\$7,247	\$6,715	\$6,876	\$36,148	\$7,230	100.0

Source: See Appendix Table 1.

In addition to these funds, La Clinica de los Campesinos, Inc. received about \$14,000 in 1997–99 from the W. K. Kellogg Foundation, based in Michigan, for various pesticide education programs, and \$16,000 in 1998–99 for a special food system program. Other funds that originated outside of the State were for various research projects. Examples of some of these are research projects for migrant workers funded by the National Cancer Institute and the National Institute of Occupational Safety and Health.²

Finally, we should mention that a sizeable amount of federal funds is given to the State of Wisconsin, and are “passed through” to agencies that provide special services to migrants. Examples are HIV/AIDS, TB, and STD funds given to UMOS for capacity building and culturally competent training for personnel in the Division of Health, county Nursing and Public Health departments. These funds were part of a larger grant shared with 12 other Midwestern states from 1988–1997. Wisconsin received about \$60,000 each year (Bormann, 2002). Another example is “Violence Against Women” funds from the Office of Migrant Health for programs such as direct assistance, counseling, helping with restraining orders, etc. aimed at migrant women.

IV. Economic Impact of Inflow of Federal Funds

The economic impact includes such things as jobs, income, tax revenue, and any expenditure, basically public, that are incurred because of the inflow of federal funds, i.e., building rent, utilities, etc. We estimated only the jobs, income, and tax revenues. We did not estimate any additional public expenditures caused by the federal grant to generate a net economic impact.

It is important to remember that federal grants represent an inflow of outside income into the local or state economy. This inflow of income has the same effect as increased manufacturing sales, the sale of dairy products, and tourism. The impact can be divided into direct and secondary effects. The direct impact is the actual grant that comes into the state. This amounted to an average of \$7.2 million per year for the last five years. While this is not a major inflow of federal grant money to the state as a whole, those counties that have a large migrant population benefit noticeably. The secondary impacts are of two forms. The indirect spending is the re-spending of the grant by the agency or organization that received it. This can be spending for utilities, wages, benefits, other inputs, etc. The induced spending is the spending of the wages received by employees of the agency or organization that received the grant. The implication is that workers also spend money received for food, housing rental, medical expenses, etc.

² The National Farm Medicine Center at Marshfield, WI, as well as individual researchers such as Dr. Doris Slesinger at the University of Wisconsin–Madison are recipients. These funds go mainly to the employment of Wisconsin full time residents as researchers. The funds also help to support students in their graduate work. From 1996–98, Dr. Slesinger received about \$130,000 in research grants, and the National Farm Medicine Center and the National Children’s Center for Rural Agricultural Health and Safety received about \$25,000 to generate a consensus report of recommendations for improving working conditions for adolescent migrant farmworkers (Vela Acosta and Lee, 2001).

Three measures of economic impact are reported: (1) jobs created, (2) income, and (3) tax revenues. Jobs in this model are a mixture of part- and full-time and are not full-time equivalent. Income is a comprehensive measure that includes wage and salary income, interest income and profits, and is akin to gross state product. Tax revenues are the flow of funds going to state and local governments in Wisconsin. Note that public education is not included, hence the tax flow estimates are a bit conservative.

Based on Table 7 of the report using the five-year (1996–2000) average of \$7,229,566 in education, employment, health care grants, and housing, the annual impacts are presented in Appendix Table A4.

Total annual impacts of federal grants flowing to Wisconsin are: the creation of 221 jobs, \$9 million in income, and \$8.4 million in revenues flowing to state and local governments in Wisconsin.

Summary of the Total Economic Impact of Migrant Labor

If we combine the three sources of economic impact shown in Appendix Tables A4, A5, and A6 (migrant workers' purchases, special purchases, and federal grants), we can estimate the total economic impact. Table 8 shows that the direct spending of funds by and on migrants, and the indirect, or re-spending by 5,541 migrants working in Wisconsin and spending part of their wages, results in about 417 jobs for Wisconsinites created annually, generating about \$14.9 million in income to Wisconsin residents and businesses per year and the creation of \$8.7 million in revenues flowing to Wisconsin state and local governments.

Table 8. Total Impact* of Migrant Expenditures, Special Purchases, and Federal Grants.

Industry	<u>Jobs</u>	<u>Total Income</u>
Agriculture	1	\$ 26,165
Mining	0	1,945
Construction	4	220,265
Manufacturing	4	263,874
Transportation, Public Utilities	7	710,593
Trade	110	3,247,067
Finance, Insurance, Real Estate	9	1,634,096
Services	144	3,031,277
Government	138	5,720,567
Total	417	\$14,855,848
Public Revenues		<u>Tax Revenue</u>
Federal Grants		\$ 7,229,566
Property Tax		459,378
Sales Tax		384,218
Income Tax		354,372
Other State and Local Revenues		275,265
State/Local Government (Non-education) Sub-total		\$ 1,473,232
Total		\$ 8,702,798

*Three measures of economic impact are reported: (1) jobs created, (2) income, and (3) tax revenues. Jobs are a mixture of part and full time, and are not full-time equivalent. Income is a comprehensive measure that includes wage and salary income, interest income and profits, and is akin to gross state product. Tax revenues are the flow of funds going to state and local governments in Wisconsin (excluding public education).

Summary and Conclusions

This study has aimed to determine the impact of migrant workers on Wisconsin's economy and addresses three questions: How do migrant workers spend their money? What migrant-related investments do employers of migrants make? What amount of migrant-related federal funds flows into the state? In so doing, migrant workers were interviewed, migrant-worker employers were mail-surveyed, and published sources on migrant-related federal funds entering Wisconsin were analyzed.

Currently, somewhat over 5,000 migrant workers plus 1,000 dependents arrive in Wisconsin annually. Most are of Mexican heritage with homes in Texas. Two-thirds work in canning, or food-processing, one-third in agricultural fields. Some travel singly, others in family groups. In 2001, the average single worker received \$6,282 in income. Weekly pay for singles was \$349, for families \$659. Migrants spent an estimated \$105,000 in Wisconsin in 2001, representing about half their earnings. Also, about half the singles and one out of seven families sent remittances home.

Local economies depend on migrant workers in numerous ways. As a reliable and hardworking workforce, employers count on them to help plant, harvest and pack perishable produce, work double shifts in canneries, and accept wages that are above minimum but below a "living wage."

While in Wisconsin, migrants spend about half of their pay checks for various living expenses, such as food and clothes. This money is usually spent in local stores, thus re-entering the local economy. Migrants also make special purchases while in Wisconsin, which average \$750 for a worker traveling alone, and over \$1,100 for a family, and may include a used car, stereo and VCR, various home appliances and computers.

About two-thirds of employers own and provide housing for the workers. However, one third of the workers living alone and two-thirds of workers with families pay no rent.

Wisconsin's 1977 Migrant Labor Law, which is still in effect, provides a number of safeguards for both the employer and the employee. It includes the requirement for a labor contract that is signed by both the employer (or recruiter) and the employee. This guarantees specific start and end dates, and an agreed-upon wage. If housing is provided by the employer, it also requires that housing be inspected for various health and safety standards before it is occupied and again during the harvest season.

Many employers still find the requirements of the law burdensome. Nearly half of both growers and processors felt it had a negative effect on their business. However, most (50% of growers and 83% of processors) believe that the need for migrant labor is increasing in Wisconsin. Without an adequate supply of migrant labor, growers said they are likely to close their business, or go into other lines of work, or sell their land or equipment. Food processors, however, would be likely to mechanize to reduce hand labor, or raise wages to attract more local labor.

Most research on migrant labor emphasizes the problems associated with this labor force, or concentrates on migrants' unmet needs for various services. This report attempts to show the positive impact of hiring this work force, by pumping a sizable amount of income into local communities, not only from the spending of their wages, but also from federal programs that support their welfare (e.g., Migrant Head Start programs, Migrant Community Health Centers, etc.).

The direct spending of these funds, and the indirect, or re-spending, results in about \$14,856,000 added income to Wisconsin businesses and residents per year, the creation of 417 jobs, and over \$8,700,000 added to tax revenues for the state and local governments.

The few studies that have reported on the impact of migrant labor have been limited in geographic scope to no more than one (Cf. Adams and Severson, 1986) or several (Cf. Rosenbaum, 2001) specific rural counties, where the local impact can be more strongly felt. To the authors' knowledge, this research attempt is only the second in the nation (Cf. Trupo, Alwang, and Lamie, 1998) to estimate the economic impact on an entire state.

To fine tune this information, additional data would be needed, such as more complete data from federal grants to states, additional information from employers, and efforts made to obtain relevant information from local chambers of commerce, banks, mayors, and other informed persons.

In sum, the migrant workforce continues to play a significant role in Wisconsin agriculture, its food industries, and its economy as a whole. Moreover, due to migrants' spending in the state and the tax revenues that migrants make possible, there are significant positive economic impacts of migrant workers and their families in the State of Wisconsin.

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Appendices

Appendix A. Supplementary Tables

Table A1. Federal Funds Received by Wisconsin for the Support of Migrants (1996–2000).

Table A2. Annual Impact of Migrants' In-state Expenditures.

Table A3. Impact of Migrants' Special Purchases.

Table A4. Impact of Average Annual Income (1996–2000) of Federal Grants to Wisconsin: \$7,229,566.

Appendix B: Review of Previous Research

Table B1. Summary of Research on Local Spending.

Table B2. Summary of Research on Migrant Income.

Appendix C: Copies of Research Instruments.

Economic Impact of Migrants in Wisconsin, 2001

(Interview Schedule for Migrant Workers)

Survey of Employers of Migrant Workers, 2001 (Mail-out/Mail-back Questionnaire)

Appendix Table A1. Federal Funds Received by Wisconsin for the Support of Migrants (1996–2000).

Key	Agency	Program	1996	1997	1998	1999	2000	Total	5-Year Avg.	Percent
EDUCATION										
84.011 ^a	DOEd	Mig. Ed. State Formula Grant	\$ 655,195	\$ 594,576	\$ 546,046	\$ 661,653	\$ 629,649			
84.141 ^a	DOEd	Mig. Ed. HS Equivalency (HEP)	281,946	281,946	289,256	393,756	393,756			
84.149 ^a	DOEd	College Asst. Mig. Prog. (CAMP)	0	0	0	0	361,248			
93.600	DHHS	Migrant Head Start	2,842,253	2,567,169	3,185,949	2,914,773	2,891,328			
		Subtotal	\$3,779,394	\$3,443,691	\$4,021,251	\$3,970,182	\$4,275,981	\$19,490,499	\$3,898,100	53.92
EMPLOYMENT										
17.247 ^a	DOL	Migrant and Seas FW JTPA	\$1,999,223	\$1,199,223	\$1,369,249	\$1,417,746	\$1,491,068 ^b			
17.249	DOL	JTPA	18,000	13,028	0	0	0			
17.250	DOL	MATC	71,698	67,727	15,249	51,818	10,033			
93.561	DHHS	Job Opportunities/Basic Skills Training	0	268,732	732,884	0	0			
		Subtotal	\$2,088,921	\$3,967,300	\$2,117,382	\$1,469,564	\$1,501,101	\$11,144,268	\$2,228,854	30.83
HEALTH CARE										
WIC ^c	USDA	Women, Infant, Children Nutr. Prog.	\$ 2,836	\$ 3,309	\$ 2,345	\$ 3,284	\$ 2,052			
10.561	USDA	Food Stamp Outreach	67,605	0	74,814	0	0			
16.588	DOJustice ^c	Violence Against Women	0	17,023	36,253	66,418	89,651			
93.003	DHHS	Comprehensive Crisis Relief-Flood	78,735	0	0	0	0			
93.246 ^a	DHHS	Migrant Health Centers Grant	407,444	470,064	587,606 ^c	544,797	569,797			
93.137	DHHS	Migrant Health Promotion	30,601	0	0	0	0			
93.569	DHHS	Comprehensive Crisis Relief	222,757	184,118	195,527	27,5961	260,655			
93.570	DHHS	Assistance for Mig. Farm Workers	194,992	64,218	194,025	0	0			
93.572	DHHS	Emergency Services for Homeless	6,847	4,575	0	0	0			
		Subtotal	\$1,011,817	\$ 743,307	\$1,090,570	\$ 890,460	\$ 922,155	\$ 4,658,309	\$ 931,662	12.89
HOUSING										
10.405 ^a	USDA	Farm Labor Housing Loans and Grants	\$ 0	\$ 195,140	\$ 0	\$ 367,200	\$ 173,000			
14.231	DHUD	Migrant Housing	21,273	36,701	13,690	14,457	0			
83.523	FEMA	Fed. Emergency Management Agency	12,197	9,692	4,562	2,944	3,900			
		Subtotal	\$ 33,470	\$ 241,533	\$ 18,252	\$ 384,601	\$ 176,900	\$ 854,756	\$ 170,951	2.36
TOTAL			\$6,913,602	\$8,395,831	\$7,247,455	\$6,714,807	\$6,876,137	\$36,147,832	\$7,229,566	100.00

^aSource: U.S. Census Bureau. Consolidated Federal Funds Report. Fiscal Years 1996–2000.

^bUnited Migrant Opportunity Services, Inc., Milwaukee, WI. Schedule of Expenditures of Federal Awards. 1996–2000.

^cLa Clinica de los Campesinos, Wautoma, WI. Financial Report. 1996–2000.

Appendix Table A2. Annual Impact of Migrants' In-state Expenditures.

Industry	<u>Jobs</u>	<u>Total Income</u>
Agriculture	1	\$ 11,044
Mining	0	667
Construction	2	84,911
Manufacturing	2	95,367
Transportation, Public Utilities	5	515,470
Trade	78	2,206,393
Finance, Insurance, Real Estate	4	917,019
Services	93	1,513,986
Government	1	38,366
Total	185	\$5,383,222
Public Revenues		<u>Tax Revenue</u>
Federal Grants		n/a
Property Tax		\$ 301,236
Sales Tax		251,950
Income Tax		105,024
Other State and Local Revenues		125,736
State/Local Government (Non-education) Sub-total		\$ 783,946
Total		\$ 783,946

n/a = not applicable

Appendix Table A3. Impact of Migrants' Special Purchases.

	<u>Jobs</u>	<u>Total Income</u>
Industry		
Agriculture	0	\$ 653
Mining	0	47
Construction	0	4,110
Manufacturing	0	8,119
Transportation, Public Utilities	0	10,895
Trade	11	361,405
Finance, Insurance, Real Estate	0	33,737
Services	1	38,108
Government	0	3,255
Total	13	\$460,330
Public Revenues		<u>Tax Revenue</u>
Federal Grants		n/a
Property Tax		\$ 34,308
Sales Tax		28,694
Income Tax		9,037
Other State and Local Revenues		12,337
State/Local Government (Non-education) Sub-total		\$ 84,376
Total		\$ 84,376

n/a = not applicable

**Appendix Table A4. Impact of Average Annual Income (1996–2000)
of Federal Grants to Wisconsin: \$7,229,566.**

	<u>Jobs</u>	<u>Total Income</u>
Industry		
Agriculture	0	\$ 14,468
Mining	0	1,231
Construction	3	131,245
Manufacturing	3	160,388
Transportation, Public Utilities	3	184,299
Trade	21	679,269
Finance, Insurance, Real Estate	5	683,340
Services	50	1,479,183
Government	137	5,678,946
Total	221	\$9,012,297
Public Revenues		<u>Tax Revenue</u>
Federal Grants		\$7,229,566
Property Tax		123,834
Sales Tax		103,575
Income Tax		240,311
Other State and Local Revenues		137,191
State/Local Government (Non-education) Sub-total		\$ 604,908
Total		\$8,439,384

Table B1: Summary of Research on Local Spending.

Source	Location	Amount of Income Spent Locally (\$)	Percent of Income Spent Locally (%)
Adams and Severson (1986)	Waushara County		52
Barger and Reza (1994) ¹	South	1,500	50
Barger and Reza (1984)	Midwest	1,650	49
Palerm (1992) ¹	West Coast	1,898	58
Rosenbaum (2001)	Michigan		47
Trupo, Alwang, and Lamie (1998)	Virginia		73

¹Case Study.

Table B2: Summary of Research on Migrant Income.

Source	Location	Income		
		Hourly (\$)	Weekly (\$)	Seasonal (\$)
Bade (1993) ¹	California			7,819
Barger and Reza (1994) ¹	South			3,000
Basok (2000) ²	Canada		240	
Chi (1991)	New York State		190	
Eastman (1996)	New Mexico			6,000 ²
Massey and Basem (1992)	United States		103	
Palerm (1992) ¹	West Coast			3,248
Perilla et al. (1998)	Georgia			6,000
Rosenbaum (2001)	Michigan			2,228
Slesinger and Wheatley (1999)	Wisconsin			9,520
U.S. Department of Agriculture ³	MI, MN, WI	5.19		
U.S. Department of Agriculture ³	United States	5.52		
White-Means (1991)	New York State			5,756
Zabin et al. (1993)	California	4.87		

¹Case study.

²Estimated.

³Cited in Martin and Martin (1994).

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