1978 Migrant Health Program Target Population Estimates

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Health Services Administration
Bureau of Community Health Services
5600 Fishers Lane
Rockville, Maryland 20857

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PREFACE

The Migrant Health Program, authorized under section 329 of the Public Health Act, is directed to extend health care through comprehensive primary care centers to migrant and seasonal farmworkers (MSFWs) in areas that are impacted seasonally by 4,000 or more MSFWs and their dependents. These areas are referred to in the law as high impact areas.

In order to be able to identify high impact areas, the Migrant Health Program has collected and analyzed nationally available data on MSFWs and dependents to identify where these populations live or establish temporary residence for purpose of employment. The first data collection effort was completed in 1975 and was repeated in 1979. The results of the 1979 study form the body of this publication.

It is important to recognize that these estimates of MSFWs and dependents are not the result of rigorous counts or censuses. They are extrapolations and estimates based on a number of sources at the national level and serve largely as indications of where large number of MSFWs and dependents were at a given period of time. The Migrant Health Program uses these data almost exclusively as a reference point to determine where a high impact area is likely to be and where an effort should be mounted to establish a migrant health center. As part of such an effort, local sources of data are sought to validate whether high concentrations of MSFWs and their dependents continue to be regularly present. The procedure for determining the number

of MSFWs and dependents and designating an area as a high impact area is described in the attached guidance recently issued in the Bureau of Community Health Services Regional Memorandum Series.

While these data are principally for the use of the Migrant Health Program and PHS Regional Offices, it may have some utility to other organizations principally Health System Agencies and State Health Planning and Development Agencies. Accordingly, copies are being forwarded to these institutions for their use. Any use of this data should be made with the full understanding of their limitations and deficiencies.

Jaime L. Manzano
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MEMORANDUM

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH SERVICES ADMINISTRATION
OFFICE OF THE ADMINISTRATOR

TO : Regional Health Administrators, PHS Regions I-X

DATE: JAN 22 1980

FROM : Administrator

SUBJECT: Bureau of Community Health Services (BCHS) Regional Memorandum 80-3
Guidance and Procedure for Determining High Impact Areas (HIAs) Under the Migrant Health Program (MHP)

General

Section 329 of the Public Health Service Act directs the MHP of BCHS to assign priority to the development of migrant health centers and programs in HIAs. This memorandum contains guidance for establishing the procedure through which BCHS proposes to identify HIAs. Regional Offices are requested to make this guidance and procedure known to all migrant health projects, and to the Health Systems Agencies and State Health Planning and Development Agencies for their information and use, as necessary.

Definition

A HIA is defined as a catchment area which has not less than 4,000 migratory agricultural workers, seasonal agricultural workers, and members of the families of such workers residing within its boundaries for more than 2 months in the most recent calendar year for which statistical data acceptable to the Secretary are available. (The number of farmworkers required in a catchment area was reduced from 6,000 to 4,000 by P.L. 95-626, the Health Services and Centers Amendments of 1978.)

Guidance and Procedure

The Regional Offices are to identify areas which are potential HIAs. To assist them in this effort, the Regions may use a study* by Inter-America Research Associates, entitled "1978 Migrant Health Program Target Population Estimates," to estimate the number of migrant and seasonal farmworkers and dependents within counties based on available national data. These estimates, however, are not sufficiently reliable to form the sole basis for determining that a catchment area is a HIA.

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* Copies will be distributed to all Regional Offices.

Nationally available data, particularly for small areas, are questionable because of varying definitions and circumstances affecting these data collection efforts. Even reasonably accurate counts of migrant and seasonal farmworkers and their dependents can vary substantially from one year to another through crop changes, the development of alternative employment opportunities, the introduction of labor-saving devices, or the weather. It is, therefore, essential that estimates of the number of migrant and seasonal farmworkers and their dependents be developed for proposed catchment areas using local sources such as:

1. State agricultural employment agencies;
2. local migrant education agencies;
3. local farmworker and farmer organizations; and
4. other organizations concerned with migrant and seasonal farmworker issues.

Generally, local estimates are made by or on behalf of local organizations intent on establishing or maintaining a migrant health and/or rural health clinic. Assistance may be obtained from Regional Offices, or local Health Systems Agencies in this effort. Once local estimates have been developed, the data and analysis associated with the estimates are to be forwarded to the appropriate Regional Office, and information copies should be sent to local Health Systems Agencies for review and comment as necessary. The Regional Office will review the estimates and forward its comments and recommendations to the MHP, taking into account the views expressed by the Health Systems Agencies. The MHP will evaluate and determine whether the proposed service area is a HIA. Copies of the determination will then be sent to the Region for local distribution to the project and the Health Systems Agencies as well as to other interested parties. The MHP will also send a copy of its decision to the Division of Monitoring and Analysis of BCHS, and to the Bureau of Health Manpower at the Health Resources Administration, for their use in processing requests for Medically Underserved Area or Health Manpower Shortage Area designations.

Should you have any questions relative to this memorandum, please contact Mr. Jaime L. Manzano, Associate Bureau Director, Office for Migrant Health, BCHS, Room 7A-55, Parklawn Building, 5600 Fishers Lane, Rockville, Maryland 20857, 8-1153.

George I. Lythcott, M.D.
Assistant Surgeon General

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A. INTRODUCTION

This document constitutes an update of the Bureau of Community Health Services (HSA/DHEW) publication, 1973 Migrant Health Program Target Population Estimates. That report was prepared in 1975 using 1973 data; this report, published in 1979, uses 1978 data as its base.

There are major problems inherent in attempting to compile national data on a population as mobile and invisible as the farmworker population of this country. This study incorporates all techniques where applicable that were used in the 1975 study and others recently published. It is not, however, a census but an enlightened review of existing, admittedly flawed data. Thus, it presents data to two significant digits or the nearest thousand (whichever is smaller) only, rather than inputing accuracy to figures which are at best approximations.

The national estimates which were derived are presented in Section B-1 of this narrative, and compared to the analogous figures from 1973. Necessary constraints about use of the data in this report are reiterated throughout Section B. Section B-2 presents analyses of "Impact" counties, and B-3 discusses counties and states in which large changes seem to have occurred since 1973. Section C. presents the methodology used in compiling the county, state, regional, and national data, and explains statistical factors used. The Appendix contains the overall table of county-by-county farmworker population estimates.

While the authors acknowledge the obvious need for the best data possible for determining program allocations and other purposes, and present these figures as exactly that -- the best data available -- they do wish to convey to the reader the problems involved in obtaining reliable data on the farmworker population and the great changeability of the actual figures from year to year due to the very nature of the occupation.

The only nationwide, substate data on farmworkers which is collected on an ongoing basis is that of the U.S. Department of Labor's Employment Service (USES). This study first examined USES data, using telephone interviewing to assess the methodology used in compiling the data in each state (the variances in which have been a major source of past criticism and current reform efforts). Corrections have then been made, or other data used. Then, further changes have

been undertaken on this data to correct for non-working family members, unemployment, and the categorical limitations of the USES data.

The data that was collected includes: migrant peak population and annual seasonal population for all counties, and peak month and season length for those counties classified as "High Impact" counties by the Migrant Health Program (having either 4,000 or more migrant farmworkers, or a combination of migrants and seasonal workers totalling more than this number).

B. MAIN FINDINGS

1. Summary of National Estimates and Comparisons with 1973 Data

Overall national estimates for the migrant and seasonal farmworker populations, with dependents, are presented as Table No. 1, below.

TABLE NO. 1: SUMMARY OF NATIONAL ESTIMATES

Total work load (reflects total potential service demand, corrected for labor turnover)	
Migrant farmworkers and dependents: (contains duplication)	1.1 million
Non-migrant seasonals and dependents:[1]	1.9 million
TOTAL	3.0 million
Estimated total individuals (corrected for both mobility of migrants and labor turnover among seasonals)	
Migrant farmworkers and dependents:	.8 million
Non-migrant seasonals and dependents:	1.9 million
TOTAL	2.7 million
Estimated peak totals (total individuals in service demand population at any one time (corrected for mobility)	
Migrant farmworkers and dependents:	.8 million
Non-migrant seasonals and dependents:	1.4 million
TOTAL	2.2 million

Nine hundred ten counties are included in this report as having had migrant farmworker populations or combined farmworker populations consisting of both migrants and seasonals, compared to 900 in the 1975 report. The figures in that report corresponding to the middle category above, chosen for

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[1] Seasonal farmworkers are only included in population estimates in counties which show a significant migrant farmworker population. Thus the "Non-migrant seasonals and dependents" category reflects the seasonal farmworker population in counties which include migrant farmworkers and excludes seasonal farmworker populations where no migrant influx occurs, in accordance with BCHS target area criteria.

its use of both correction factors considered, and as a best estimate of number of persons, demonstrate a .1 million increase in migrants and a .1 million decrease in seasonal farmworkers between 1973 and 1978. This change should not be interpreted as a clear change in the actual population, since changes in reporting methods, error factors in the county estimates and aggregate estimates, and changes in emphasis on identification and reporting of migrant farmworkers must be considered.

2. Impact Counties

The Migrant Health Program uses the concept of "impact," referring to size of the target population, in determining which counties of the U.S. are eligible for its programs. There are two types of impact counties -- those with more than 4,000 migrant farmworkers and dependents, and those with more than 4,000 combined migrant and seasonal farmworkers and their dependents. P.L. 95-626, the Health Services and Centers Amendments of 1978, lowered the eligibility figure from 6,000 to 4,000 farmworkers effective July 1979, therefore affecting this report although the data presented is from 1978. Table No. 2, which follows, presents changes in status information on counties in the combined migrant and seasonal impact category, as this category includes the other as well.

It should be noted that seasonal farmworkers are only included in population estimates in counties which show a significant migrant farmworker population. Thus the "combined" category only includes those counties which had a significant population of migrant farmworkers, and excludes those counties which may have had a significant population of seasonal farmworkers but had no migrant activity.

Impact counties are shown in the Main Table in the Appendix as either Migrant Impact (4,000 or more migrant farmworkers at peak) or Combined Impact (combined total of at least 4,000 migrant and seasonal farmworkers). Peak month and season data are shown for only those counties reflecting impact status. (Please note that counts in all tables include dependents even where not explicitly stated.)

Table No. 2 presents counties in which the target population shifted from below impact level in 1973 to above impact level in 1978, and vice versa.

It can be seen by inspection that the number of counties which attained impact status greatly exceeded the number which lost it. This is due in large part to the shift in the impact level -- 14 of the 65 which attained it would not have done so had the level not shifted; they contained between 4,000 and 6,000 workers and dependents in 1973 and in 1978. In addition, there was a pattern created by what appear to be reporting changes. In North Carolina, for example, the state total changes only minimally while the number of counties reported on increased, with the effect that the count was 'redistributed' -- nine counties went from apparently having no migrants in 1973 to having enough migrant and seasonal workers and dependents in 1978 to qualify for impact status. This is but one reason for differences in North Carolina's population estimates (see further discussion of North Carolina's estimates in Section 3 "Counties and States with Large Target Population Shifts 1973-1978"). Other states show evidence of status changes which may be due to reporting changes as well as crop shift and other factors.

Section B-3, following Table 2, discusses, at the state level, possible reasons for some of the larger changes between 1973 and 1978; many counties with impact changes are in states with large overall changes so their shifts may be due to general statewide factors.

TABLE NO. 2

COUNTIES CHANGING IMPACT STATUS SINCE 1975 REPORT
(Based on Impact Reference Levels of 6,000 Migrant and Seasonal Farmworkers and Dependents at Peak for 1973, and 4,000 for 1978)

STATE & COUNTY	BECAME IMPACT						CEASED TO BE IMPACT					
	1973			1978			1973			1978		
	Migrant	Seasonal	Total	Migrant	Seasonal	Total	Migrant	Seasonal	Total	Migrant	Seasonal	Total
Arkansas												
Mississippi	300	1,200	1,500	860	3,200	4,060						
California												
Napa	1,590	--	1,590	1,900	3,300	5,200						
Orange	--	--	5,639	1,800	8,800	10,600						
San Bernadino							1,124	6,763	7,887	700	2,200	2,900
Santa Cruz*	3,074	2,863	5,937	3,800	2,000	5,800						
Solano	1,484	2,532	4,016	3,600	2,400	6,000						
Sutter	3,731	--	3,731	2,700	2,400	5,100						
Colorado												
Larimer*	1,000	3,894	4,894	700	4,200	4,900						
Connecticut												
Hartford							4,655	8,921	13,576	200	3,500	3,700
Delaware												
Kent	3,315	1,538	4,853	7,700	2,800	10,500						
Florida												
Indian River*	1,800	2,500	4,300	810	5,040	5,850						
Putnam							2,508	3,697	6,205	540	2,400	2,940
St. Johns	627	2,271	2,898	2,700	5,400	8,100						
Sarasota	1,100	1,400	2,500	1,100	3,400	4,500						
Idaho												
Bonneville	259	144	403	3,200	1,000	4,200						
Cassia	912	1,813	2,725	340	3,900	4,240						

TABLE NO. 2 (cont.)

STATE & COUNTY	BECAME IMPACT						CEASED TO BE IMPACT					
		1973			1978			1973			1978	
	Migrant	Seasonal	Total	Migrant	Seasonal	Total	Migrant	Seasonal	Total	Migrant	Seasonal	Total
Indiana												
Madison	267	18	285	600	6,000	6,600						
Massachusetts												
Hampden	1,000	2,310	3,310	370	6,300	6,670						
Michigan												
Kent*	4,132	1,696	5,828	4,000	490	4,490						
Leelanau*	4,471	588	5,059	4,000	390	4,390						
Manistee							8,500	381	8,881	3,000	370	3,370
Oceana	2,602	462	3,064	4,000	200	4,200						
Minnesoto												
Clay*	3,152	709	3,861	4,400	480	4,880						
Polk*	3,367	777	4,144	5,300	570	5,870						
Rice							6,847	25	6,872	140	20	160
Missouri												
New Madrid	350	3,124	3,474	50	4,100	4,150						
Pemiscot	310	2,815	3,125	135	4,300	4,435						
New Jersey												
Atlantic	1,249	808	2,057	4,000	6,600	10,600						
Burlington	3,417	450	3,867	2,000	3,300	5,300						
Camden	690	911	1,601	2,000	3,300	5,300						
Cumberland	4,370	1,430	5,800	4,000	6,600	10,600						
Gloucester	2,354	140	2,494	3,000	5,000	8,000						
New Mexico												
Dona Ana	1,250	2,280	3,530	2,100	8,500	10,600						
Taos	1,710	--	1,710	90	4,200	4,290						
New York												
Wayne	2,173	1,665	3,838	2,500	1,800	4,300						
North Carolina												
Beaufort	--	--	--	620	11,000	11,620						
Bertie	--	--	--	80	7,200	7,280						

TABLE NO. 2 (cont.)

STATE & COUNTY	BECAME IMPACT						CEASED TO BE IMPACT					
		1973			1978			1973			1978	
	Migrant	Seasonal	Total	Migrant	Seasonal	Total	Migrant	Seasonal	Total	Migrant	Seasonal	Total
North Carolina (cont.)												
Craven							35	9,500	9,535	470	1,300	1,770
Cumberland	--	--	--	160	6,900	7,060						
Franklin	--	--	--	1,600	8,300	9,900						
Greene							450	11,450	11,900	780	1,400	2,180
Halifax	--	--	--	230	4,100	4,330						
Haywood							142	6,000	6,142	310	2,000	2,310
Pender	--	--	--	620	4,700	5,320						
Randolph	--	--	--	30	5,500	5,530						
Rockingham	--	--	--	700	7,400	8,100						
Surrey							120	16,350	16,470	310	20	330
Vance	--	--	--	80	7,200	7,280						
Wilkes							80	7,100	7,180	120	870	990
North Dakota												
Cass	1,204	903	2,107	3,100	2,600	5,700						
Pembina	1,943	303	2,246	4,800	910	5,710						
Richland	2,751	184	2,935	6,600	650	7,250						
Ohio												
Putnam							8,000	281	8,281	2,800	1,100	3,900
Oregon												
Hood River	1,425	1,084	2,509	3,900	850	4,750						
Linn							1,047	8,920	9,967	140	3,100	3,240
Multnomah							102	13,513	13,615	120	3,500	3,620
Polk							1,624	4,889	6,513	470	3,300	3,770
Umatilla	903	1,599	2,502	3,700	1,800	5,500						
Malheur	1,541	2,188	3729	5,898	1,000	6,898						
South Carolina												
Charleston	2,000	1,700	3,700	4,200	1,500	5,700						
Spartanburg	800	1,900	2,700	1,900	4,300	5,200						
Texas												
Castro	4,700	370	5,070	6,000	480	6,480						
Comanche	3,082	145	3,227	4,500	190	4,690						
Dawson*	3,373	920	4,293	4,400	1,200	5,600						

TABLE NO. 2 (cont.)

STATE & COUNTY	BECAME IMPACT						CEASED TO BE IMPACT					
	1973			1978			1973			1978		
	Migrant	Seasonal	Total	Migrant	Seasonal	Total	Migrant	Seasonal	Total	Migrant	Seasonal	Total
Texas (cont.)												
Dimmit	3,000	1,467	4,465	4,900	1,900	5,800						
El Paso	--	--	--	6,900	700	7,600						
Floyd	4,415	1,280	5,695	5,900	1,600	7,500						
Lamb	4,020	1,150	5,170	5,300	1,500	6,800						
Parmer	3,750	615	4,465	11,000	800	11,800						
San Patricio	4,392	820	5,212	5,700	900	6,600						
Uvalde*	3,040	1,195	4,235	1,500	3,900	5,400						
Val Verde	4,425	840	5,265	5,700	1,100	6,800						
Wharton	2,000	560	2,560	3,400	760	4,160						
Willacy	3,437	2,405	5,842	4,500	3,100	7,600						
Virginia												
Accomack	2,402	3,410	5,812	1,900	2,500	4,400						
Washington												
Pierce*	485	4,718	5,203	200	4,200	4,200						
West Virginia												
Berkeley	506	698	1,204	550	5,400	5,950						
Wisconsin												
Waushara							6,000	99	6,099	1,500	1,000	2,500
	63 counties became impact						15 counties ceased to be impact					

* Fourteen of the sixty-five counties gaining impact status do so only because of the impact level change.

-- Not reported.

3. Counties and States with Large Target Population Shifts, 1973-1978

There are many factors involved in collecting and reporting data on the farmworker population which are subject to inaccuracy. This report intentionally made use of a dataset which has been much criticized, simply because it was the only systematic -- local level, monthly -- data available for the whole nation. The validation and correction work undertaken during the course of the project has improved the reliability and the accuracy of this data. In comparing this data with other data, reporting error and changes in reporting technique must be taken into account. It is for this reason that figures in the summary table in the Appendix to this report are rounded to two significant digits or the nearest thousand, whichever is smaller.

In some cases, the data presented in the 1975 report and that shown here differed so much that apparent population changes may not be entirely responsible. In North Carolina, for example, data was not presented in 1975 for many of the counties reported on here; this is due to a combination of population shifts and changes in reporting. An elaboration of North Carolina's population estimates is considered further in this section.

In other cases, attempts to verify 1978 data through local level contacts ended with the realization that many local level users rely on data that is not locally developed -- in many cases requests for local 1978 data produced figures copied from the 1975 BCHS report. In the case of New Jersey, ES-223 data was simply not available so the next best data was used, that furnished by the major farmworker organization in the state. This data turned out to be the state total computed in the 1977 Legal Services Corporation report on the number of farmworkers, which incorporated factors resulting in numbers much higher than from any other source. The figure used was simply disaggregated across the counties with known migrant populations, but due to its source appears to represent a substantial increase in the target population in that state, over the 1973 figures.

There is another overarching concern in presenting "trend" data on farmworkers -- the changes in farmwork itself which may cause massive alterations in the farm labor force and, in the case of migrants, in the "streams" they follow around the country, from one year to the next and the next. Thus, the comparisons made here and in the previous sections between

the 1975 report's figures and the data presented in this document must be used with great caution and in all but the greatest levels of aggregation -- national and to an extent regional totals -- not used as trend predictors. They document past changes based on highly corrected estimates only; next year may be very different. In addition, they do not present information on changes between 1973 and 1978. These yearly changes have been substantial, and to present figures from two points during time, and purport to represent them as typical of events during that entire time is naive. For example, one-third to one-half of the migrating farmworker population was involved in the past three years with the effects of the droughts in the west. In 1976, fear of a widespread drought kept many migrants from traveling in the western states. In 1977, a worse drought was experienced in California and the west than feared the year before, and in 1978 many migrants again stayed home in reaction to the loss of work which trapped many of them upstream without work in 1977. (In fact, in 1978, many migrant work areas in the west had bumper crops but insufficient workers to harvest them.) A study like the present one conducted during any of these three years, if compared to the 1973 data, would on the face of it, have shown a substantial decline in the number of migrant farmworkers and dependents nationally, which could be misinterpreted as a trend, rather than recognized as a result of the common, recognized (by farmers and farmworkers) uncertainties encountered in agricultural work.

Some generalizations, however, can be made and certain specific trends have to be recognized as part of the process of estimating farmworker populations. In the final part of InterAmerica's research effort, an attempt was made to verify large changes, and to explain them on the basis of known factors in data collection or migrating trends. Field investigation was conducted in North Carolina to document the method by which farmworker data is collected and to determine real changes in farmworker populations since 1973. Also, extensive verification surveying was conducted to determine broad trends in the mirgrant stream, and thus, to account for some of the large changes in population estimates as presented in this report. Some of the general conclusions of this research are as follows:

1) In the west, specifically along the Pacific rim, increased mechanization of crop harvesting, two years of drought, and use of "green card" workers in elaborate importation programs, has encouraged "settling out" of

migrant workers into non-agricultural jobs.

2) In home based states -- notably Texas, Florida, and California -- and in high impact areas, an increased official awareness of the migrant farmworkers, over the past ten years, as apparent in state and federal programs which provide services to migrant farmworkers, has meant an increased incentive for farmworkers to remain in the area where these services are provided. This increased awareness has also meant a higher visibility of migrant farmworkers which may go far to explain increases in population estimates.

3) The virtual collapse of the sugar-beet industry in the central-plains area has diverted the migrant stream previously flowing north from Texas, to Idaho and Montana in the northwest and to truck farming crops in the midwest.

4) In the south-east an increased usage of migratory and seasonal farm labor based on crop changes and changes in farming practices, has meant an increase in migrant farmworkers coming from Texas. This has meant an increase in "family type" Hispanic crews rather than traditional single male black crews.

The following three tables present counties and states, respectively, which seem to have experienced a large change in the number of farmworkers to be found at peak, based on simple comparisons of 1973 and 1978 data, although any such comparison must be cautiously done. Large changes in individual counties are in many cases too localized to be investigated, but reasons for large changes which affect whole states, as offered by state level and other data sources contacted, and determined from documentation, are described at the end of this Section (for the states listed in Tables No. 4 and 5).

It should be noted that the criteria used in identifying what constitutes a "large change" in population have been set to include doubling or halving of the 1973 count, with the further constraint that the change numerically exceed 4,000 for counties and 10,000 for states. All changes since the 1973 data are of interest to someone, and very few counties and states exhibit no change. However, the degree of change due solely to reporting error and other factors unrelated to population shifts was so high, that the level of change required before population shifts could be suggested in this report, given its methodology, had to be set high enough to exclude these erroneous factors.

There are many counties which had substantial percentage shifts although fewer than 4,000 workers were involved as can be seen from reviewing the Main Table in the Appendix. In addition, there are a number of states in which,

due to the comparatively large size of the farmworkers population, a change of many thousands of farmworkers constitutes only a small percentage change. States not meeting the "large change" percentage change criteria but still having changes of 10,000 or more are presented in Table No. 5.

In reviewing the states listed in Tables No. 4 and 5, which had both large percentage changes and numerical changes of over 10,000, several possible reasons for these apparent true population shifts can be furnished.

The western states presented in Table No. 5 reflect the general "settling out" trend mentioned earlier in this section. Notably, Oregon's population estimate represents a decrease of 41 percent, due in large part to increased farm mechanization in the Willamette Valley. Washington's population estimate also reflects this trend and bears the influence of a two year drought. Use of imported "green card" labor and other factors including state incentive programs have induced a large population to "settle out" in Arizona and California.

The Governor's Office of Migrant Affairs (GOMA) in Texas has largely influenced the census estimation of migrants homebased in Texas. The growing sophistication of Florida's agricultural industry has provided more demand, service, and attention for the migrant labor force and induced many to stay year-round in Florida rather than migrate northward. Florida and Texas, as home based states, reflect an increased visibility and awareness of migrant farm workers.

The sugar beet industry which has declined in Colorado and flourished of late in Idaho explains the correlative shifts in migrant farmworker populations in those states.

A 25 percent decline in farmworker population in Michigan is probably related to increased mechanization and crop changes in that state.

In North Carolina, an increased demand for migrant and seasonal farm labor, an improved, state-sponsored network for providing services to migrants, and a much more sophisticated population estimating system, account for that state's apparent increase in migrant and seasonal farmworkers. It must be remembered that in this report there are 79 counties reporting migrant activity in North Carolina as opposed to 25 in the 1973 report. This in itself could account for the apparent increase and also accounts for many of the differences in county estimates in North Carolina from 1973 to 1978 (see North Carolina

entries in Tables 2 and 3). Also, verification brought out that a demographic change in farmworker crews, single black males to Hispanic families, has meant an increase in farmworker dependents in North Carolina, thus further validating the apparent increase.

In South Carolina, no source could verify or explain a definite downward trend in migrant population, although the Employment Service did verify a decreased demand for migrant crews in that state. One source cited the increased incentive for crews to migrate directly to North Carolina to take advantage of that state's superior service to migrant farmworkers. Another source cited a decline in crews migrating northward from Florida through South Carolina and an increase in crews from Texas, bypassing South Carolina.

Of the states presented in Table No. 4, three states, Tennessee, Georgia, and New Jersey stand out as states whose population counts reflect drastic change in counting method between 1975 and 1978. Tennessee and Georgia were not reported in the 1975 BCHS study and New Jersey's 1978 count is based upon data prepared by the Legal Services Corporation which, according to the state farmworker agency, most accurately portrays the state's MSFW population.

In addition, New Mexico, Indiana, and West Virginia also reflect changes in counting method from 1975. New Mexico's population includes migrant farmworkers homebased within the state who migrate out of the state during growing season. These workers were excluded in 1975. Indiana's population estimate includes food processing workers, a category included in the ES-223 farmworker reports but excluded in the 1975 BCHS report. West Virginia's 1978 ES-223 data reflects a stepped-up effort on the part of the DOL to account for migrant and seasonal farmworkers in the West Virginia orchards. However, these three states also reported an increase in migrant activity since 1975 and, so, the apparent definitional and methodological differences may not be the only reasons for increases in population counts. Real increases in migrant and seasonal farmworker populations underlie the statistical differences.

In the cases of Montana and North Dakota, these states' population estimates reflect a shift in the "migrant stream." The depression of the sugar-beet industry in Kansas and Colorado (which both show a decline in migrant/seasonal farmworkers) has sent a large migrant stream further

north - to Montana and Idaho (also reflecting a high numerical increase in population) and to North Dakota. Local sources have consistently verified this shift and the data estimates seem to corroborate this analysis.

Virginia and Connecticut population estimates reflect a decline in demand for domestic migrant and seasonal farmworkers. Connecticut, once a major contractor for Puerto Rican migrants, has virtually ceased its contracting for migrant labor. Also, Connecticut's ES-223 data was adjusted downward to account for high school students recruited in other states and known to be counted among the true migrants traveling to Connecticut. Virginia is the site of a current controversy regarding its increased use of imported alien workers as opposed to domestic migrant/seasonal farmworkers. Local sources consistently cite the increased use of foreign workers in Virginia fields, concurrent with a drop in the overall domestic farmworker count there.

TABLE NO. 3

COUNTIES IN WHICH THE COMBINED MIGRANT AND SEASONAL FARMWORKER POPULATION MORE THAN DOUBLED OR DECREASED TO LESS THAN ONE-HALF THE PREVIOUS LEVEL, 1973-1978, BY 4,000 OR MORE FARMWORKERS

STATE & COUNTY	1973			1978			Percent Change (in totals)
	Migrant	Seasonal	Total	Migrant	Seasonal	Total	
Arizona							
Pinal	1,273	7,381	8,654	500	3,700	4,200	- 51%
California							
Los Angeles	1,251	10,142	11,393	1,500	3,100	4,600	- 60
Napa	1,590	--	1,590	1,900	3,300	5,200	+227
San Bernadino	1,124	6,763	7,887	700	2,200	2,900	- 63
Colorado							
Weld	3,337	13,172	16,509	1,500	6,600	8,100	- 51
Connecticut							
Hartford	4,655	8,921	13,576	200	3,500	3,700	- 73
Delaware							
Kent	3,315	1,538	4,853	2,800	7,700	10,500	+116
New Castle	2,685	1,238	3,923	180	1,300	1,480	- 62
Florida							
Palm Beach	34,000	20,000	54,000	7,600	7,200	14,800	- 73
St. Johns	627	2,271	2,898	2,700	5,400	8,100	+180
Indiana							
Madison	267	18	285	600	6,000	6,600	over + 1,000
Michigan							
St. Joseph	105	371	476	7,200	880	8,080	over + 1,000
New Mexico							
Dona Ana	1,250	2,280	3,530	2,100	8,500	10,600	+200
North Carolina							
Beaufort	--	--	--*	620	11,000	11,620	+
Craven	35	9,500	9,535	470	1,300	1,770	- 81

TABLE NO. 3 (cont.)

STATE & COUNTY	1973			1978			Percent Change (in totals)
	Migrant	Seasonal	Total	Migrant	Seasonal	Total	
North Carolina (Cont.)							
Cumberland	--	--	--*	160	6,900	7,060	+ %
Franklin	--	--	--*	1,600	8,300	9,900	+
Greene	450	11,450	11,900	780	1,400	2,180	- 82%
Haywood	142	6,000	6,142	310	2,000	2,310	- 62
Johnston	1,000	27,200	28,200	6,300	2,100	8,400	- 70
Pitt	230	26,550	26,780	1,100	6,900	8,000	- 70
Randolph	--	--	--*	30	5,500	5,530	+
Richmond	--	--	--*	470	1,600	7,250	+147
Rockingham	--	--	--*	700	7,400	8,100	+
Surry	120	16,350	16,470	310	20	330	- 98
Wilson	490	17,850	18,340	3,100	3,440	6,540	- 64
Oregon							
Lane	651	10,800	11,451	100	3,900	4,000	- 65
Linn	1,047	8,920	9,967	140	3,100	3,240	- 67
Multnomah	102	13,513	13,615	120	3,500	3,620	- 73
Wasco	3,581	548	4,129	690	770	1,460	- 65
Texas							
Parmer	3,750	615	4,365	11,000	800	11,800	+170
Val Verde	4,425	840	1,265	5,700	1,100	6,800	+438

* Not Reported

TABLE NO. 4

STATES IN WHICH THE COMBINED MIGRANT AND SEASONAL FARMWORKER POPULATION MORE THAN DOUBLED OR DECREASED TO LESS THAN ONE-HALF THE PREVIOUS LEVEL, 1973-1978, BY 10,000 OR MORE FARMWORKERS (BASED ON ADJUSTED STATE TOTALS)

STATE	1973[1]			1978[1]			Difference	Percent Change
	Migrant	Seasonal	Total	Migrant	Seasonal	Total	(in totals)	(in totals)
Connecticut	5,179	16,885	22,064	750	6,000	6,750	-15,314	- 69%
Georgia	--	--	--*	6,300	5,100	11,400		+
Indiana	7,617	2,861	10,478	10,000	23,000	33,000	+22,522	+215
Montana	4,067	4,415	8,482	13,000	18,000	31,000	+22,518	+265
New Jersey	11,146	15,853	26,999	15,000	41,000	56,000	+29,001	+107
New Mexico	6,519	2,964	9,483	2,300	2,500	27,300	+17,817	+188
North Dakota	5,719	3,939	9,658	16,000	11,000	27,000	+17,342	+180
Tennessee	--	--	--*	840	17,000	17,840		+
Virginia	4,429	18,661	23,090	1,500	10,000	11,500	-11,590	- 50
West Virginia	707	3,203	3,910	940	14,000	14,940	+11,030	+282

* Not Reported
1) Adjusted State Totals

TABLE NO. 5

STATES IN WHICH THE COMBINED MIGRANT AND SEASONAL FARMWORKER POPULATION CHANGED BY 10,000 OR MORE BUT THE PROPORTIONAL CHANGE WAS LESS THAN +100% OR -50%

STATE	1973[1]			1978[1]			Difference (in totals)	Percent Change (in totals)
	Migrant	Seasonal	Total	Mirgrant	Seasonal	Total		
Arizona	4,613	56,871	61,484	8,000	37,000	45,000	- 16,484	- 27%
California	83,233	509,213	592,446	134,000	425,000	559,000	- 33,446	- 6
Florida	76,450	177,034	253,484	70,000	200,000	270,000	+ 16,516	+ 7
Idaho	14,462	24,522	38,984	11,000	44,000	55,000	+ 16,016	+ 41
Michigan	51,776	35,804	87,580	55,000	11,000	66,000	- 21,580	- 25
North Carolina	6,103	288,200	294,303	55,000	249,000	304,450	+ 10,147	+ 3
Oregon	16,749	133,292	150,041	19,000	69,000	88,000	- 62,041	- 41
South Carolina	6,583	49,140	55,723	14,000	28,000	42,000	- 13,723	- 25
Texas	153,731	110,679	264,410	294,000	136,000	430,000	+165,590	+ 63
Washington	28,309	134,666	162,975	43,000	99,000	142,000	- 20,975	- 13

1) Adjusted State Totals

C. METHODOLOGY

1. Data Source

There is no single data source that accurately and uniformly portrays the population of migrant and seasonal farmworkers and their dependents in the entire United States. The migrant and seasonal farmworker population is a constantly changing, poverty-ridden and evasive one, making documentation, for any purpose, a research nightmare.

In the interest of statistical abstraction, however, a data base that expresses uniformity of collection and estimation, as well as a minimum of institutional or other bias, is desirable. To meet the needs of this study, the "ES-223" reports of the Department of Labor's Employment Service (DOL/USES) were found to be the most satisfactory data base. The USES is the only source routinely collecting local and statewide data on the hired farmwork force, migrant and nonmigrant, throughout the nation, every month of the year.

These reports, listing number of workers employed in various aspects of agricultural work, are collected monthly by each state employment agency, either by each "Crop Reporting Area" (CRA), or by county, in the state. A CRA is an area encompassing a large agricultural region, usually comprising several counties although it may not be coterminous with county boundaries. Although state agencies differ in their collecting, estimating and reporting methods, the format of the ES-223 report is uniform and the collection period (the 15th of each month) is strictly enforced. Uniform guidelines for gathering ES-223 data (including criteria for determining migrant or seasonal status) have been published by the DOL and disseminated throughout the Employment Service system, giving strong impetus towards uniformity in collecting methods.

In addition, the ES-223 reports, showing number of workers for each month of the year, provide easily distinguishable peak month and peak season data, which, in the case of migrants, is valuable in determining adjustments and comparisons based on such factors as inter-state/intra-state migration and labor turnover during a growing season.

There are, however, serious limitations to the ES-223 reports and, in several cases, other data had to be found. Some drawbacks to ES-223 data are:

1) The data are essentially work-load estimates accumulated to meet the needs of the employment service. They record actual employment as of a given date, estimates which are often based on crop acreage, growers' requirements for hired farm labor, and experience from previous years. The discretion of county-level manpower service agents in estimating this data, as well as of growers in providing it, is known to be great. In addition, it does not incorporate family size or unemployment data, important in estimating total population size.

2) Data are for the 15th of the month. This is not necessarily the date of peak employment. In some areas, the peak may come and go between the 15th of one month and that of the next, thus risking an undercount.

3) Department of Labor estimates do not allow for the fact that some persons are very casually attached to the hired farmwork force -- e.g., students on vacation. When these persons are included in the counts, they erroneously inflate the figure being used as guidelines for the "population in need" for service programs. This study has sought to identify such workers and exclude them from the counts presented.

4) No attempt is made to identify working dependents in the counts. It is impossible to ascertain whether family members who assist in the field are counted or not, although this is common in migrant and seasonal farmwork.

5) In some cases the DOL national and statewide data is standardized and formatted to the point that it does not accurately portray the migrant/seasonal farmworker population to any degree. Often, local sources (such as state migrant housing authorities, state departments of labor, migrant health projects, or other established "migrant affairs" offices) give a much more detailed review, and offer the advantage of being more closely involved with the migrant population. In other cases, such alternate data simply does not exist.

6) In many areas, ES-223 data is collected by what is known as a Crop Reporting Area (CRA), an area encompassing a large agricultural region, usually comprising several counties although it may not be coterminous with county boundaries. For the purposes of this report, CRA data was disaggregated into county estimates by contacting state Rural Manpower offices to determine the appropriate county estimates, or by applying proportional equations available in other studies to determine each county's share of the CRA total estimate based on known farmworker population estimates for one or more of the counties therein, anecdotal evidence as to relative density, or size/acreage proportions.

In this report, the ES-223 data of the Department of Labor is used as the primary data base, upon which adjustments and estimations are applied to establish a migrant/seasonal population count that includes dependents and accounts for numerous variables in the population data. Where the ES-223 data was determined to be unusable or unavailable, other sources were sought out, and the resulting data were adjusted to be as compatible as possible with ES-223 data. data. Thus, for example, data obtained from state departments of labor, migrant health projects, or other sources are adjusted to account for definitional variances and data reporting differences.

All sources of data other than DOL ES-223 reports are acknowledged in the "Notes" section of each state's data in the overall table in the Appendix of this report. The need for use of alternate sources, where presented, was generally due to one of two reasons: 1) The ES-223 data for that state or substate area was found to be very inaccurate, based on consultation with other sources, or lacking in substantial detail compared to the alternate source; or 2) The alternate source provided a more direct and/or more recent focus on the migrant/seasonal population than did the DOL (e.g., the Governor's Office for Migrant Affairs in Texas or the New York State Department of Labor reports) and thus, holding methodology equal, would plausibly seem to present more accurate data. A mailing to all DHEW Regional Migrant Health Program Officers and the Employment Service Monitor-Advocate in each state early in the project helped identify comparative data and/or alternate sources.

In all cases, and especially where the migrant and seasonal farmworker populations were the highest according to the DOL, the data were compared with other data sources to affirm their validity and to approximate their reflection of the true populations. Furthermore, in counties and states which showed large shifts in population or which changed impact status since the 1975 BCHS report, an effort was made to reconfirm the population estimates by contacting local sources, and by comparing our data with the results of previous studies which utilized other data sources.

2. Adjustments to DOL ES-223 Data

The first priority in assessing the ES-223 data with regard to the needs of this report, was to determine the level of accuracy of the reports insofar as a complete accounting of all migrant and seasonal farmworkers within the reporting area was concerned. By verification from other sources, several

inadequacies, or inherent statistical fallacies became apparent:

1) Unemployment on the date of the report (15th of each month) due to an oversupply of labor, or, in the case of migrants, being enroute from one workplace to the next, is not accounted for in ES-223 reports.

2) Non-reporting or under-reporting by growers due to a desire not to disclose employment of farmworkers is not addressed; under-reporting bias, when methods other than grower surveys are used, is not known.

3) There is up to a 25 percent probability that the reported data does not represent the peak employment for the month. This estimate is based on estimating three weeks as the length of "peak" work -- an average length of stay for migrants who travel from area to area based on the rotating demand for labor at harvest time -- and noting that the 15th may fall outside of this period.

To adjust for these factors contributing to undercount, a constant multiplier of 1.2 or 20 percent increase was determined by sampling several regions. This constant was applied categorically to all ES-223 county data where there was any indication the above-mentioned inadequacies might be found. It should be noted that, considering the effects of the points above when added together, this was a conservative multiplier.

Once this basic factor was computed, the most important modification involved adjusting to account for the dependents or household members to be assigned to each migrant and seasonal farmworker reported by the ES-223 survey. To do this, the ES-223 data were separated into migrant and seasonal categories, and adjusted in a standardized manner as follows:

1) "Migrant" farmworker populations reported by the DOL were given family size adjustments based on ratios developed by BCHS in 1975 for household members per worker. These ratios were verified and updated by local sources. The ratios were particularly applicable in determining migrant dependents by state or local area, as a considerable range of dependents per worker is found throughout the migrant streams in the U.S.

2) "Seasonal" farmworker populations reported by the DOL were adjusted according to these steps:

a) Unattached seasonal workers were separated from each count according to formulas derived from U.S. Bureau of Census statistics for unattached farmworkers living below the poverty level. These

formulas differ according to each state and, so, were independently applied to each state's "seasonal" count.

b) Ratios developed by BCHS in 1975, for persons in each family per "seasonal" worker, were applied to the data after unattached workers were factored out.

c) The number of unattached individuals was added to the total for workers and dependents in families, to obtain total population counts.

The adjusted totals, by county, can thus be viewed as a derived approximation of the county population of migrant and seasonal farmworkers plus dependents and household members (including a 20 percent margin for unemployment, under-reporting, etc.) resident within that county on the peak reporting date of the growing season during 1978.

Error can occur in double-counting migrant workers who move among different areas within a state (intra-state migration) and in undercounting local seasonal workers who move from farmwork to other jobs, or work only part of the growing season (labor turnover). In sampling several states for estimated intra-state migration and labor turnover, the need for a tailored, appropriate adjustment for this probability of error was ascertained. Adjustments for double-counting due to intra-state migration or labor turnover during the season were made at the state level and are represented by the "Adjusted State Totals" in the overall table in the Appendix. (Further inter-state migration correction factors are incorporated into the regional and national estimates developed.)

A constant multiplier to adjust state totals for intra-state migration and labor turnover of 25 percent between the unadjusted state totals and the adjusted totals was obtained. Thus, all state totals known to be affected by intra-state migration and labor turnover were adjusted by 25 percent. The migrant category for each state total was multiplied by 0.75 to account for intra-state migration, and the seasonal category was multiplied by 1.25 to account for labor turnover during the season. (Some states were exempt from one or both of these adjustments because of a lack of evidence of intra-state migration, inclusion of the correction factor in the data obtained, or a reliable indication of single counting obtained during a relatively short migrant work season -- for example, Maine had a one-month season in total.)

Regional estimates sum state totals, then adjust for inter-state migration among migrant farmworkers. Knowledge of the migrant streams through each region was used in estimating intra-regional mobility. Thus, in Tables No. 6 and 7, the migrant farmworker population estimate is presented as an aggregation of adjusted state totals (adjusted for intra-state migration and labor turnover only) and as an adjusted regional total (reflecting inter-state migration within the region). Table No. 6 lists each reporting state by Region and shows the migrant seasonal, and total farmworker population for each state and region adjusted for intra-state migration and labor turnover. The "Adjusted Regional Total" then shows each region's aggregate migrant (adjusted for intra-region mobility) seasonal, and adjusted total for migrant and seasonal farmworkers. Table 7, identifies the Standard Federal Regions and sums the adjusted regional totals for each category to obtain adjusted national totals. Since each region's migration patterns differ, separate multipliers were used across regions (averaging 12.6 percent).

The following adjustments were made to each region's aggregate total of migrant farmworkers to correct for inter-state migration within the region: Region I = 33%, Region II = 11%, Region III = 8%, Region IV = 10%, Region V = 10%, Region VI = 23%, Region VII = 5%, Region VIII = 11%, Region IX = 5%, Region X = 10%. Seasonal totals, adjusted for labor turnover, were rounded to the nearest thousand.

Inter-regional mobility, then, was considered in aggregating the regional totals to obtain national totals. It was felt that use of regional totals would simplify and clarify the correction for inter-state migration, versus a national factor applied to all individual county or state totals to obtain a national total, as using analysis by Regions permits finer adjustments for mobility. Inter-regional mobility, in addition, is easier to estimate, as for the most part it refers solely to the basic upstream-downstream movement of migrant workers, which patterns are well known. A five percent figure was used.

3. Definitional Variability

A basic discrepancy exists in the framework for defining the migrant farmworker population among several government agencies which deal with migrant/seasonal farmworkers. Relative to this study, an inherent definitional variance exists between the Employment Service requirement for

migrant farmworker status:

> "A seasonal farmworker who performs or has performed during the preceding twelve months agricultural labor which requires travel such that the worker is unable to return to his/her domicile within the same day." 1/

and the definitions set forth by the Department of Health, Education, and Welfare, Migrant Health Program for migrant farmworker status:

> "One whose principal employment is in agriculture on a seasonal basis who has been so employed within the last twenty-four months, and who established for the purpose of such employment a temporary abode." 2/

Obviously, the time periods during which a worker may be engaged in seasonal agricultural labor, twelve months (USES), and twenty-four months (DHEW), create a definitional discrepancy in using one agency's data source to determine the requirements of the other agency. Also, the requirement for establishing a "temporary abode" as determined by DHEW differs in definition, if not in practice, from the DOL requirement that the worker be "unable to return to his/her domicile within one day."

In collecting and reviewing the data on migrant/seasonal farmworkers from all sources, nationwide, it was determined that these definitional discrepancies (USDA and DHEW, Title I ESEA also offered differing definitions of "migrant" farmworkers), while offering a significant obstacle to statistical enumeration in abstract terms, constitute an issue of little relevance to the estimation of the migrant farmworker population in practice, although they may be of real importance in the funding of services. This determination was confirmed by various data collectors who deal with migrant/seasonal farmworkers. In practice, essentially disregarding definitional limits in evaluating "migrant" status for the farmworkers they are responsible for, these agents rely on accepted

1/ Source: DOL/Employment & Training Administration, Migrant & Seasonal Farmworkers Rules & Regulations, Jan. 1977.

2/ U.S. Dept. of Health, Education, and Welfare, Migrant Health Program, Bureau of Community Health Services, 1973 Migrant Health Program Population Estimates, May 1975.

indices such as self-reported migrant status or membership in a registered, inter-state migrant crew.

Therefore, in estimating target populations for the purposes of this report, no attempt was made to adjust for the difference in the Department of Labor's Employment Service definition of a "migrant" farmworker and the DHEW Migrant Health Program's definition where DOL ES-223 data was used as a primary source. It should be noted that in virtually every respect the MHP definition allows a less restrictive interpretation of "migrant" or "seasonal" status than does the DOL. Thus the MHP requirements are inclusive of "eligibles" under the DOL requirements. It should also be noted that such definitional variance may account for a probability of error of $\pm$ 5% in the most disaggregated totals (county estimates) but that such an error factor diminishes to an insignificant proportion as these estimates are compounded. (Neither of these two sources deal with long settled out migrants, as does USOE, so this factor presents no complications for the present counts.)

4. Use of Other Data Sources

In some cases ES-223 data was considered inappropriate for use in determining county-by-county estimates. In such cases other sources were used as primary sources (as footnoted at the bottom of these states' data in the overall table in the Appendix) or were compared with ES-223 data to determine more accurate counts. Severe obstacles exist in transferring data collected under different authorities and for different purposes into one internally consistent count. However, for the purposes of this study, an attempt was made to uniformly estimate dependents and household members, variability due to unemployment, under-reporting, etc., and other considerations of methodology which were used in evaluating ES-223 data as discussed above. Thus, each data source other than ES-223 reports was carefully evaluated and adjusted to correspond with the categories reported by the ES-223 data. These sources, where used, are cited under the "Notes" heading in each state listing in the overall Table in the Appendix.

TABLE NO. 6

Farmworker Population by State and Region

State	Total Migrant Population[1]	Total Seasonal Population[2]	Total MSFW's[3]
Region I			
Connecticut	750	6,000	6,750
Maine	850	1,900	2,750
Massachusetts	800	20,000	20,800
New Hampshire	70	1,200	1,270
Rhode Island	120	300	420
Vermont	NA	NA	NA
Region I Total	2,590	29,400	31,990
Adjusted Regional Total[4]	1,700	29,000	31,000
Region II			
New Jersey	15,000	41,000	56,000
New York	17,000	25,000	42,000
Puerto Rico	44,000	164,000	208,000
Region II Total	76,000	230,000	306,000
Adjusted Regional Total	68,000	230,000	298,000
Region III			
Delaware	3,000	14,000	17,000
Maryland	4,400	5,000	9,400
Pennsylvania	6,400	18,000	24,400
Virginia	1,500	10,000	11,500
West Virginia	940	14,000	14,940
Region III Total	16,240	61,000	77,240
Adjusted Regional Total	15,000	61,000	76,000
Region IV			
Alabama	5,100	5,400	10,500
Florida	70,000	200,000	270,000
Georgia	6,300	5,100	11,400
Kentucky	330	3,000	3,330
Mississippi	NA	NA	NA
North Carolina	55,000	249,000	304,000
South Carolina	14,000	28,000	42,000
Tennessee	840	17,000	17,840
Region IV Total	151,570	507,500	659,070
Adjusted Regional Total	136,000	507,000	643,000

1 Adjusted to account for intra-state migration.

2 Adjusted to account for labor turnover during the growing season.

3 Seasonal farmworkers are only included in population estimates in counties which show a significant migrant farmworker population. Thus the categories "Total Seasonal Population" and "Total MSFW's" reflect the seasonal farmworker population in counties which include migrant farmworkers and excludes seasonal farmworker populations where no migrant activity is indicated.

4 Adjusted for inter-state and inter-region mobility according to formulas derived from sampling all regions (see Methodology Section 2 "Adjustments to DOL ES-223 Data"). Regional migrant totals were adjusted downward to account for inter-state and inter-region mobility, while seasonal totals and total MSFW's were rounded to two significant digits for uniformity of presentation.

NOTE: NA = Not Available.

TABLE NO. 6 (cont.)

State	Total Migrant Population	Total Seasonal Population	Total MSFW's
Region V			
Illinois	30,000	9,200	39,200
Indiana	10,000	23,000	33,000
Michigan	55,000	11,000	66,000
Minnesota	19,000	4,000	23,000
Ohio	14,000	13,000	27,000
Wisconsin	5,000	5,000	10,000
Region V Total	135,000	63,200	198,200
Adjusted Regional Total	122,000	63,000	185,000
Region VI			
Arkansas	5,900	12,000	17,900
Louisiana	14,000	16,000	30,000
New Mexico	2,300	25,000	27,300
Oklahoma	5,200	14,000	19,200
Texas	294,000	136,000	430,000
Region VI Total	321,400	203,000	524,400
Adjusted Regional Total	249,000	203,000	452,000
Region VII			
Iowa	890	5,300	6,190
Kansas	2,400	1,400	3,800
Missouri	550	27,000	27,550
Nebraska	2,500	1,400	3,900
Region VII Total	6,340	35,100	41,440
Adjusted Regional Total	6,000	35,000	41,000
Region VIII			
Colorado	9,900	39,000	48,900
Montana	13,000	18,000	31,000
North Dakota	16,000	11,000	27,000
South Dakota	NA	NA	NA
Utah	3,100	4,600	7,700
Wyoming	4,000	10,000	14,000
Region VIII Total	46,000	82,600	128,600
Adjusted Regional Total	41,000	83,000	124,000
Region IX			
Arizona	8,000	37,000	45,000
California	134,000	425,000	559,000
Nevada	NA	NA	NA
Region IX Total	142,000	462,000	604,000
Adjusted Regional Total	135,000	462,000	597,000
Region X			
Idaho	11,000	44,000	55,000
Oregon	19,000	69,000	88,000
Washington	43,000	99,000	142,000
Region X Total	73,000	212,000	285,000
Adjusted Regional Total	66,000	212,000	278,000

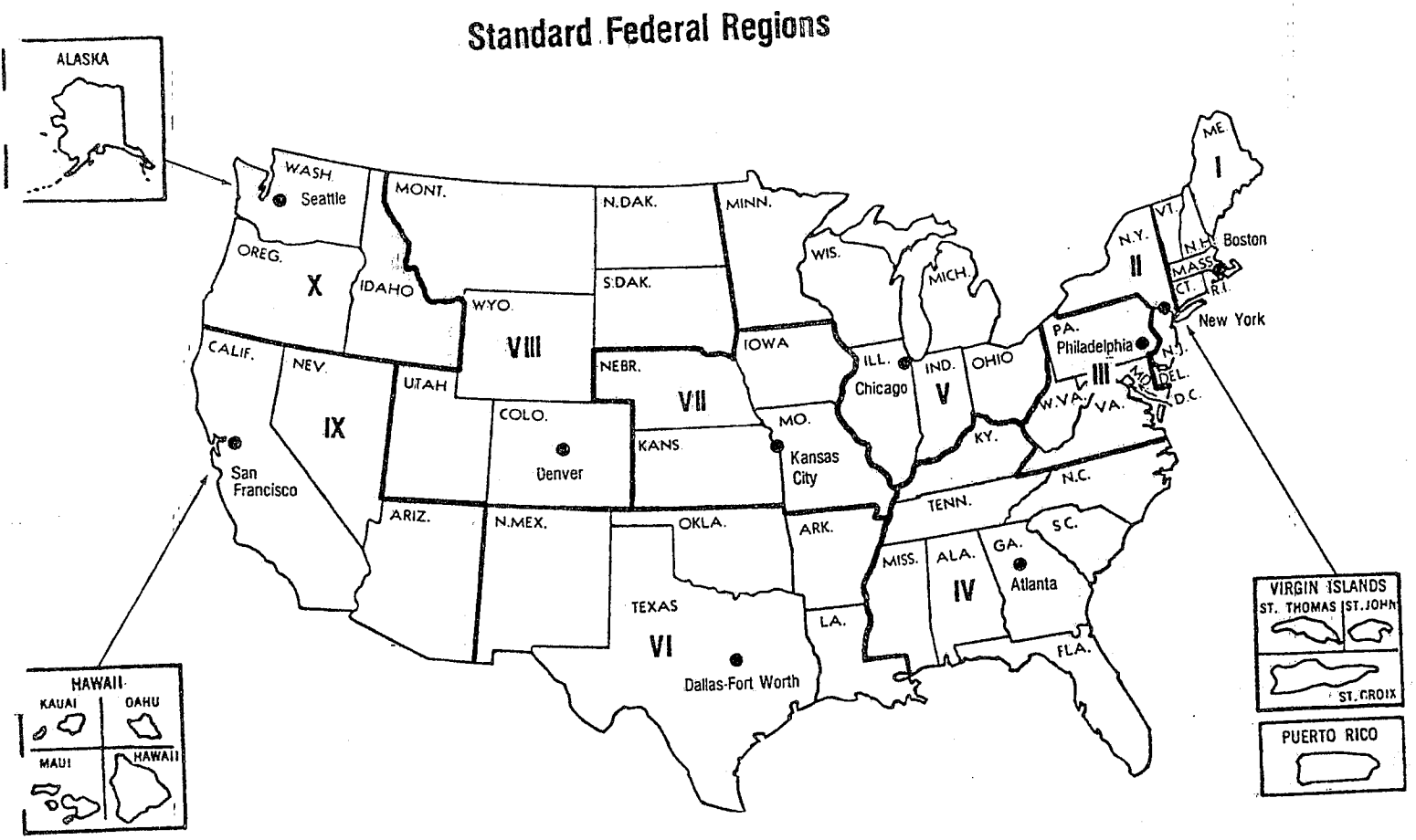

TABLE NO. 7

TOTAL FARMWORKER POPULATION BY REGION
(Corrected for intra- and inter-state mobility and labor turnover)[1]

REGION	MIGRANT	SEASONAL	TOTAL
I	1,700	29,000	31,000
II	68,000	230,000	298,000
III	15,000	61,000	76,000
IV	136,000	507,000	643,000
V	122,000	63,000	185,000
VI	249,000	203,000	452,000
VII	6,000	35,000	41,000
VIII	41,000	83,000	124,000
IX	135,000	462,000	597,000
X	66,000	212,000	278,000
UNADJUSTED TOTALS	839,700	1,885,000	2,725,000
TOTALS (Corrected for inter-regional mobility)	800,000	1,870,000	2,670,000

1 Adjusted according to formulas derived from sampling all regions (see Methodology Section 2, "Adjustments to DOL ES-223 data").

NOTE: See Table 6 (Farmworker Population by State & Region).

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U.S. Department of Health, Education, and Welfare, Bureau of Community Health Services, 1973 Migrant Health Program Target Population Estimates; DHEW, Washington, D.C., 1975.

U.S. Department of Health, Education and Welfare, Office of Child Development, Migrant Child Welfare; InterAmerica Research Associates, Inc., Washington, D.C., 1977.

1 For a complete listing of documents concerning migrant/seasonal farmworkers consult the Annotated Bibliography included in the Study of Migrant Issues prepared for BCHS by InterAmerica (available in Oct. 1979).

APPENDIX

The Main Table in this Appendix presents in combined form all information presented in the 1975 BCHS report in many different tables -- Peak Migrant Population, Seasonal Population, Impact counties with 4,000 or more migrant farmworkers and dependents, Impact counties with 4,000 or more combined migrant and seasonal workers and dependents, Peak Month, and Season Length. All of this information was consolidated into one table for ease in referencing data on individual jurisdictions.

The Main Table is arranged by Federal Regions, with states and their counties listed alphabetically therein. Adjusted and unadjusted state totals are presented at the end of the county listings for each state. Counties with no migrant population are not listed regardless of the size of their seasonal farmworker population as they are not eligible for BCHS Migrant Health Program funding.

Peak month and Season length data were solicited from local sources contacted for data. It was also obtained from other reports and from the 1975 BCHS report.

Footnotes on the pages of the table identify sources consulted other than the ES-223 forms, as applicable. When figures presented represent large changes from the 1975 figures, further analysis was undertaken to verify the data and attempt to present possible reasons for such large change; these counts are presented and discussed earlier in Section B-3 of this report.

ESTIMATES OF MIGRANT AND SEASONAL FARMWORKERS AND DEPENDENTS
BY COUNTY, 1978

REGION I

CONNECTICUT

MAINE

MASSACHUSETTS

NEW HAMPSHIRE

RHODE ISLAND

VERMONT

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
CONNECTICUT[1]						Aug	Jul-Aug
Hartford	3,700	200	3,500				
Middlesex	1,450	450	1,000				
Tolland	420	100	320				
Total	5,570	750	4,820				
Adjusted Total[2]	6,750	750	6,000				

Notes:

[1] ES-223 data adjusted to account for high school students casually attached to the work force and not travelling with parents.

[2] No adjustment for intra-state migration necessary.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
MAINE[1]						Sep	September
Aroostook	1,250	250	1,000				
Washington	1,100	600	500				
Total	2,350	850	1,500				
Adjusted Total[2]	2,750	850	1,900				

Notes:

[1]Count may include Indians migrating from Canada during berry harvest.

[2]No adjustment for intra-state migration necessary.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
MASSACHUSETTS							
Barnstable	650	30	620				
Bristol	1,110	10	1,100				
Hampden	6,670	370	6,300		x	Jul	May-Sep
Hampshire	1,690	90	1,600				
Middlesex	1,470	70	1,400				
Plymouth	3,830	130	3,700				
Worcester	1,600	100	1,500				
Total	17,020	800	16,220				
Adjusted Total[1]	20,800	800	20,000				

Notes:

[1] No adjustment for intra-state migration necessary.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
NEW HAMPSHIRE						Oct	Jul-Nov
Hillsborough	300	20	280				
Merrimack	150	10	140				
Rockingham	610	40	570				
Total	1,060	70	990				
Adjusted Total[1]	1,270	70	1,200				

Notes:

[1]No adjustment for intra-state migration necessary.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
RHODE ISLAND						N/A	N/A
Newport	120	20	100				
Providence	120	20	100				
Washington	180	80	100				
Total[1]	420	120	300				

Notes:

[1] No adjustment necessary to account for intra-state migration or labor turnover.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
VERMONT[1]	N/A	N/A			N/A	N/A

Notes:

[1] The only available data for migrant/seasonal farmworkers in Vermont shows less than 100 MSFW's within the state during any month.

ESTIMATES OF MIGRANT AND SEASONAL FARMWORKERS AND DEPENDENTS BY COUNTY, 1978

REGION II

NEW JERSEY

NEW YORK

PUERTO RICO

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
NEW JERSEY							
Atlantic	10,600	4,000	6,600	x	x	Aug	Jun-Sep
Burlington	5,300	2,000	3,300		x	Aug	Jun-Sep
Camden	5,300	2,000	3,300		x	Aug	Jun-Sep
Cumberland	10,600	4,000	6,600	x	x	Aug	Jun-Sep
Gloucester	8,000	3,000	5,000		x	Aug	Jun-Sep
Mercer	3,200	1,200	2,000				
Middlesex	3,200	1,200	2,000				
Monmouth	3,200	1,200	2,000				
Salem	3,700	1,400	2,300				
Total	53,100	20,000	33,100				
Adjusted Total	56,000	15,000	41,000				

Notes: Source: Farmworker Corporation of New Jersey (CETA 303 Grantee). This group relies on data prepared by the Legal Services Corporation to base their estimates. ES-223 data not available substate.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State / County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
NEW YORK							
Albany	1,850	1,000	850				
Cattaraugus	280	50	230				
Cayuga	720	40	680				
Chautauqua	1,420	510	910				
Clinton	3,050	250	2,800				
Columbia	1,320	750	570				
Dutchess	1,070	530	540				
Erie	1,700	200	1,500				
Essex	120	110	10				
Genesee	490	40	450				
Greene	40	10	30				
Herkimer	880	200	680				
Livingston	500	300	200				
Madison	500	200	300				
Monroe	500	300	200				
Nassau	880	200	680				
Niagara	1,150	700	450				
Oneida	880	200	680				
Onondaga	470	20	450				
Ontario	290	130	160				
Orange	2,240	1,900	340				
Orleans	1,750	1,300	450				
Oswego	1,060	610	450				
Otsego	260	60	200				
Putnam	170	30	140				
Rockland	160	50	110				
Saratoga	280	50	230				

Notes: Source: State of New York, Department of Labor, Rural Employment Office.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County		Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
NEW YORK							
Seneca	50	20	30				
Steuben	320	160	160				
Suffolk	4,200	1,900	2,300		x	Sep	Jun-Oct
Ulster	1,950	1,500	450				
Wayne	4,300	2,500	1,800		x	Sep	Jun-Oct
Wyoming	2,300	1,400	900				
Yates	50	20	30				
Total	37,200	17,240	19,960				
Adjusted Total[1]	42,000	17,000	25,000				

Notes:

[1]No adjustment for intra-state migration is necessary since intra-state migrants are accounted for in the primary data.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
PUERTO RICO[1]					Mar	Jan-Dec
Estimated agricultural						
workers migrating to the						
mainland plus dependents	44,000					
Estimated local seasonal						
(Non-Migrant) workers plus						
dependents		164,000				
Total 208,000						

Notes:

[1]The best available data for agricultural workers residing in Puerto Rico are from the Commonwealth of Puerto Rico, Department of Labor and Human Resources, Bureau of Employment Security. These data include: total of agricultural workers residing on the island by month, and number of workers referred by the Employment Service to agricultural employers on the mainland. Since labor contracted through the Puerto Rico Department of Labor and Human Resources has shown a significant decline from 1971 (14,119) to 1978 (4,439) it is assumed that this second category is no longer valid as it represents only a portion of the migrating workers in Puerto Rico. The other aspect of the data (totals by month) corresponds with USDOL estimates based on ES-223 returns. These data are based on a household survey each month in which the agricultural workers are identified; they are thus available only on a statewide basis.

These statewide data, adjusted for family size and unemployment, and disaggregated according to previously verified ratios for migrants and non-migrants, are presented above.

ESTIMATES OF MIGRANT AND SEASONAL FARMWORKERS AND DEPENDENTS BY COUNTY, 1978

REGION III

DELAWARE

MARYLAND

PENNSYLVANIA

VIRGINIA

WEST VIRGINIA

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
DELAWARE[1]							
Kent	10,500	2,800	7,700		x	Sep	Jul-Sep
New Castle	1,480	180	1,300				
Sussex	3,400	1,000	2,400				
Total	15,380	3,980	11,400				
Adjusted Total	17,000	3,000	14,000				

Notes:

[1]ES-223 data used as primary source and Delmarva Ecumenical Agency used as secondary source.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
MARYLAND[1]						Aug	May-Nov
Anne Arundel	160	90	70				
Calvert	160	90	70				
Caroline	580	300	280				
Carroll	200	50	150				
Cecil	150	120	30				
Charles	160	90	70				
Dorchester	980	370	610				
Harford	810	20	790				
Howard	80	10	70				
Kent	280	250	30				
Prince Georges	160	90	70				
Queen Annes	280	250	30				
St. Marys	160	90	70				
Somerset	2,040	1,620	420				
Talbot	580	300	280				
Washington	670	510	160				
Wicomico	1,320	900	420				
Worcester	1,070	720	350				
Total	9,840	5,870	3,970				
Adjusted Total	9,400	4,400	5,000				

Notes:

[1]Migrant & Seasonal Farmworkers Association and Department of HEW data used as secondary sources to ES-223 data.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
PENNSYLVANIA[1]						Sep	Aug-Sep
Adams	3,680	2,700	980				
Berks	920	200	720				
Bucks	380	80	300				
Butler	1,010	240	770				
Chester	4,500	1,000	3,500		X		
Columbia	1,040	340	700				
Cumberland	110	20	90				
Dauphin	850	150	700				
Erie	1,660	160	1,500				
Franklin	1,950	1,400	550				
Lackawanna	2,100	900	1,200				
Lancaster	830	170	660				
Lehigh	1,670	370	1,300				
Luzerne	800	360	440				
Montgomery	130	30	100				
Montour	470	170	300				
Northampton	340	70	270				
Northumberland	1,150	450	700				
Potter	210	200	10				
Schuylkill	630	20	610				
Snyder	660	50	610				
Union	660	180	480				
Wyoming	520	80	440				
York	250	180	70				
Total	26,520	9,520	17,000				
Adjusted Total	24,400	6,400	18,000				

Notes:

[1]DHEW Region III office data used as a secondary source to ES-223 primary data.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
VIRGINIA						Sep	May-Oct
Accomack	4,400	1,900	2,500		X		
Albemarle	50	10	40				
Buckingham	150	30	120				
Clarke	50	10	40				
Frederick	660	130	530				
Halifax	50	10	40				
Loudoun	90	20	70				
Lunenburg	30	10	20				
Mecklenburg	100	20	80				
Nelson	50	10	40				
New Kent	50	10	40				
Northampton	4,100	1,400	2,700		X		
Pittsylvania	1,150	220	930				
Rappahannock	520	100	420				
Richmond	50	10	40				
Roanoke	150	30	120				
Rockingham	50	10	40				
Shenandoah	50	10	40				
Warren	520	100	420				
Wythe	50	10	40				
Total	12,320	4,050	8,270				
Adjusted Total	11,500	1,500	10,000				

Notes:

[1]Migrant & Seasonal Farmworkers Association data used as a secondary source to ES-223 primary data.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
WEST VIRGINIA							
Berkeley	5,950	550	5,400		x	Sep	May-Oct
Hampshire	2,150	150	2,000				
Jefferson	2,700	200	2,500				
Morgan	1,040	40	1,000				
Total	11,840	940	10,900				
Adjusted Total[1]	14,940	940	14,000				

Notes:

[1]No adjustment for intra-state migration necessary.

ESTIMATES OF MIGRANT AND SEASONAL FARMWORKERS AND DEPENDENTS
BY COUNTY, 1978

REGION IV

ALABAMA

FLORIDA

GEORGIA

KENTUCKY

MISSISSIPPI

NORTH CAROLINA

SOUTH CAROLINA

TENNESSEE

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
ALABAMA						Jun	Jun-Jul
Baldwin	2,800	1,000	1,800				
Cherokee	150	50	100				
Coffee	2,200	1,500	700				
Etowah	150	50	100				
Geneva	2,200	1,500	700				
Mobile	3,000	1,000	2,000				
Total	10,500	5,100	5,400				
Adjusted Total[1]	11,800	5,100	6,700				

Notes:

[1] No adjustment for intra-state migration necessary.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
FLORIDA							
Alachua	2,800	400	2,400				
Brevard	1,000	500	500				
Broward	11,700	5,900	5,800	x	x	May	Oct-Jul
Charlotte	680	200	480				
Collier	24,000	12,000	12,000	x	x	May	Jan-Dec
Dade	16,900	5,900	11,000	x	x	Jan	Jan-Dec
Flagler	2,700	1,300	1,400				
Gilchrist	750	270	480				
Glades	8,300	2,300	6,000		x	Jan	Jan-Dec
Hardee	7,600	4,000	3,600	x	x	Dec	Jan-Dec
Hendry	17,700	8,600	9,100	x	x	Jan	Jan-Dec
Hernando	630	270	360				
Highlands	9,900	2,700	7,200		x	Jan	Jan-Dec
Hillsborough	11,400	5,400	6,000	x	x	May	Jan-Dec
Indian River	5,850	810	5,040		x	May	Nov-Jan
Lake	9,100	1,300	7,800		x	Dec	Jan-Dec
Lee	20,400	9,400	11,000	x	x	Mar	Jan-Dec
Manatee	10,680	1,080	9,600		x	May	Jan-Dec
Marion	1,100	500	600				
Martin	4,300	1,900	2,400		x	Jan	Jan-Dec
Okeechobee	1,500	540	960				
Orange	13,200	8,400	4,800	x	x	Jan	Jan-Dec
Palm Beach	14,800	7,600	7,200	x	x	Jan	Jan-Dec
Pasco	1,900	1,300	600				
Polk	18,300	1,300	17,000		x	Jan	Jan-Dec
Putnam	2,940	540	2,400				
St. Johns	8,100	2,700	5,400		x	Mar	Jan-Dec

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
FLORIDA							
St. Lucie	12,400	4,000	8,400	x	x	Jan	Oct-Jun
Sarasota	4,500	1,100	3,400		x	Jan	Oct-Jul
Seminole	7,800	1,300	6,500		x	Mar	Jan-Dec
Volusia	510	270	240				
Total	253,440	93,780	159,660				
Adjusted Total	270,000	70,000	200,000				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
GEORGIA						Jun	May-Jul
Atkinson	130	100	30				
Brantley	320	220	100				
Brooks	220	100	120				
Burke	750	150	600				
Chatham	210	150	60				
Coffee	110	50	60				
Colquitt	130	100	30				
Cook	150	120	30				
Decatur	280	100	180				
Dodge	240	100	140				
Douglas	30	20	10				
Echols	70	50	20				
Floyd	50	50					
Forsyth	50	10	40				
Fulton	160	100	60				
Habersham	1,220	1,200	20				
Hall	320	140	180				
Houston	170	150	20				
Jackson	130	100	30				
Jeff Davis	20	10	10				
Jefferson	60	10	50				
Jenkins	120	20	100				
Lanier	130	100	30				
Laurens	170	50	120				
Lowndes	510	210	300				
Mitchell	830	600	230				
Peach	1,500	1,200	300				

Notes: Source: Migrant and Seasonal Farmworker's Assosciation data used as a secondary source to ES-223 primary data.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
GEORGIA							
Pierce	150	50	100				
Rabun	40	30	10				
Sumter	440	320	120				
Tattnall	280	220	60				
Telfair	450	400	50				
Tift	1,900	1,700	200				
Toombs	400	120	280				
Ware	550	200	350				
White	170	100	70				
Total	12,460	8,350	4,110				
Adjusted Total	11,400	6,300	5,100				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
KENTUCKY						Sep	May-Sep
Carlisle	580	120	460				
Hickman	1,620	120	1,500				
Trimble	530	90	440				
Total	2,730	330	2,400				
Adjusted Total[1]	3,330	330	3,000				

Notes:

[1] No adjustment for intra-state migration necessary.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
MISSISSIPPI[1]	N/A	N/A			N/A	N/A

Notes:

[1]The only available data for migrant/seasonal farmworkers in Mississippi shows less than 200 MSFW's within the state during any month.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
NORTH CAROLINA[1]							
Alamance	2,530	230	2,300				
Alexander	680	30	650				
Alleghany	310	20	290				
Anson	1,830	230	1,600				
Avery	1,230	30	1,200				
Beaufort	11,620	620	11,000		x	Jul	Jul-Nov
Bertie	7,280	80	7,200		x	Aug	Jul-Nov
Bladen	3,160	160	3,000				
Brunswick	2.120	620	1,500				
Buncombe	3,710	310	3,400				
Burke	2,610	310	2,300				
Caldwell	2,100	100	2,000				
Camden	750	280	470				
Carteret	1,930	1,100	830				
Caswell	1,630	230	1,400				
Chatham	2,150	50	2,100				
Chowan	570	60	510				
Cleveland	3,900	1,200	2,700				
Columbus	3,760	160	3,600				
Craven	1,770	470	1,300				
Cumberland	7,060	160	6,900		x	Aug	Aug-Oct
Currituck	850	250	600				
Davidson	3,350	250	3,100				
Davie	1,830	30	1,800				
Duplin	14,100	4,700	9,400	x	x	Aug	Jun-Aug
Durham	1,350	250	1,100				
Forsyth	3,390	190	3,200				

Notes:

[1] 1978 Migrant & Seasonal Farmworkers Association data used as a secondary source to ES-223 primary data.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State / County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
NORTH CAROLINA							
Franklin	9,900	1,600	8,300		x	Aug	Jul-Oct
Granville	2,110	310	1,800				
Greene	2,180	780	1,400				
Guilford	6,910	310	6,600		x	Jul	Jul-Aug
Halifax	4,330	230	4,100				
Harnett	10,100	2,400	7,700		x	Jul	Jul-Nov
Haywood	2,310	310	2,000				
Henderson	11,700	6,200	5,500	x	x	Jul	Jun-Nov
Hertford	1,390	620	770				
Hoke	1,180	80	1,100				
Hyde	1,190	500	690				
Iredell	60	30	30				
Johnston	8,400	6,300	2,100	x	x	Aug	Jul-Nov
Jones	2,310	310	2,000				
Lenoir	3,440	940	2,500				
Lincoln	3,700	1,200	2,500				
McDowell	1,360	160	1,200				
Macon	1,560	60	1,500				
Madison	2,400	60	2,400				
Martin	3,680	80	3,600				
Mitchell	1,330	130	1,200				
Moore	2,160	160	2,000				
Nash	15,000	7,800	7,200	x	x	Sep	Sep-Oct
New Hanover	2,670	470	2,200				
Northampton	1,020	20	1,000				
Onslow	4,630	230	4,400		x	Aug	Jul-Aug
Orange	2,070	470	1,600				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
NORTH CAROLINA							
Pamlico	1,300	470	830				
Pasquotank	2,020	620	1,400				
Pender	5,320	620	4,700		x	Aug	Jul-Aug
Person	3,900	2,300	1,600				
Pitt	8,000	1,100	6,900		x	Jul	Jul-Aug
Polk	1,290	470	820				
Randolph	5,530	30	5,500		x	Jul	Jul-Aug
Richmond	2,070	470	1,600				
Robeson	3,910	310	3,600				
Rockingham	8,100	700	7,400		x	Aug	Jul-Aug
Rowan	2,690	190	2,500				
Rutherford	2,730	230	2,500				
Sampson	22,000	11,000	11,000	x	x	Jul	Jun-Nov
Scotland	990	160	830				
Stokes	2,750	250	2,500				
Surry	330	310	20				
Transylvania	1,110	310	800				
Vance	7,280	80	7,200		x	Jul	Jun-Sep
Wake	12,600	1,600	11,000		x	Jul	Jul-Oct
Washington	1,300	200	1,100				
Watauga	1,960	60	1,900				
Wayne	16,100	3,100	13,000		x	Jul	Jun-Aug
Wilkes	990	120	870				
Wilson	6,540	3,100	3,440		x	Sep	Sep-Oct
Yadkin	4,800	1,200	3,600		x	Aug	Jul-Oct
Total	322,330	72,880	249,450				
Adjusted Total[1]	304,000	55,000	249,000				

Notes:

[1]No adjustment was made in seasonal total for labor turnover since this figure is believed to involve some duplication resulting from the method of reporting in North Carolina.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
SOUTH CAROLINA							
Aiken	3,200	2,000	1,200				
Allendale	460	160	300				
Bamberg	760	160	600				
Barnwell	2,120	320	1,800				
Beaufort	2,610	2,000	610				
Charleston	5,700	4,200	1,500	x	x	Sep	May-Nov
Cherokee	2,600	1,100	1,500				
Chesterfield	870	260	610				
Edgefield	1,590	980	610				
Florence	2,060	160	1,900				
Hampton	460	160	300				
Horry	1,230	320	910				
Jasper	2,200	1,600	600				
Marlboro	1,420	430	990				
Oconee	1,690	490	1,200				
Orangeburg	1,820	320	1,500				
Saluda	2,910	2,300	610				
Spartanburg	6,200	1,900	4,300		x	Jul	Jun-Oct
Sumter	1,420	320	1,100				
York	90	80	10				
Total	41,410	19,260	22,150				
Adjusted Total	42,000	14,000	28,000				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
TENNESSEE						Jul	Jun-Aug
Bledsoe	440	40	400				
Bradley	280	30	250				
Carter	380	20	360				
Cocke	1,150	50	1,100				
Hamblen	1,150	50	1,100				
Hamilton	160	20	140				
Hancock	510	20	490				
Hawkins	1,880	80	1,800				
Jefferson	1,770	70	1,700				
Johnson	670	30	640				
Loudon	390	40	350				
McMinn	410	60	350				
Marion	280	30	250				
Meigs	230	20	210				
Monroe	540	50	490				
Rhea	230	20	210				
Roane	160	20	140				
Sequatchie	210	20	190				
Sullivan	1,360	60	1,300				
Washington	2,510	110	2,400				
Total	14,710	840	13,870				
Adjusted Total[1]	17,840	840	17,000				

Notes:

[1]No adjustment for intra-state migration necessary.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
ILLINOIS							
Alexander	1,260	1,250	10				
Boone	250	200	50				
Bureau	270	150	120				
Clay	40	30	10				
Clinton	870	860	10				
Cook	3,800	2,800	1,000			Aug	May-Oct
De Kalb	670	600	70				
Du Page	500	200	300				
Effingham	70	50	20				
Fayette	520	500	20				
Ford	380	260	120				
Grundy	110	50	60				
Hancock	140	140	-				
Henderson	600	580	20				
Henry	1,710	1,600	110				
Iroquois	430	250	180				
Jackson	1,360	1,300	60				
Jefferson	3,520	3,500	20			Aug	May-Oct
Jersey	30	10	20				
Jo Daviess	160	80	80				
Johnson	150	130	20				
Kane	950	620	330				
Kankakee	1,900	1,500	400				
Kendall	120	80	40				
Lake	1,340	1,200	140				
La Salle	320	200	120				
Lee	470	430	40				

Notes:

ESTIMATES OF MIGRANT AND SEASONAL FARMWORKERS AND DEPENDENTS BY COUNTY, 1978

REGION V

ILLINOIS

INDIANA

MICHIGAN

MINNESOTA

OHIO

WISCONSIN

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
ILLINOIS							
Livingston	720	570	150				
McHenry	640	480	160				
McLean	950	90	860				
Marion	3,020	3,000	20			Aug	May-Oct
Marshall	1,050	900	150				
Mercer	590	550	40				
Ogle	1,570	1,500	70				
Peoria	3,140	2,800	340				
Pike	30	30	-				
Pulaski	730	710	20				
Rock Island	1,280	1,200	80				
Sangamon	30	30	-				
Stark	110	100	10				
Tazewell	610	200	410				
Union	1,330	1,300	30				
Vermilion	3,230	2,600	630				
Warren	140	70	70				
Washington	820	800	20				
Whiteside	240	150	90				
Will	820	400	420				
Woodford	180	50	130				
Total	46,870	39,500	7,370				
Adjusted Total	39,200	30,000	9,200				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
INDIANA[1]							
Allen	1,730	1,500	230				
Bartholomew	3,310	510	2,800				
Cass	750	740	10				
Dearborn	470	470	-				
Delaware	960	800	160				
LaFayette	2,900	600	2,300				
Grant	3,800	2,400	1,400				
Henry	1,310	620	690				
Howard	1,720	1,700	20				
Knox	1,420	420	1,000				
Lake	2,680	680	3,000				
Madison	6,600	600	6,000		x	Aug	Aug-Sep
Miami	1,420	1,400	20				
St. Joseph	2,550	750	1,800				
Total	32,620	13,190	18,430				
Adjusted Total	33,000	10,000	23,000				

Notes:

[1]Indiana Employment Service data includes food processing workers in counts of MSFW's and therefore may reflect some degree of over-reporting.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
MICHIGAN							
Allegan	2,470	2,200	270				
Alpena	1,680	1,500	180				
Antrim	470	420	50				
Arenac	1,290	1,200	90				
Barry	200	180	20				
Bay	3,260	2,900	360				
Benzie	670	600	70				
Berrien	10,330	9,200	1,130	x	x	Aug	Jun-Oct
Calhoun	340	300	40				
Cass	670	600	70				
Clinton	610	550	60				
Eaton	640	580	60				
Genesee	380	340	40				
Grand Traverse	2,910	2,600	310				
Gratiot	590	530	60				
Huron	430	380	50				
Ingham	870	770	100				
Isabella	1,350	1,200	150				
Jackson	320	290	30				
Kalamazoo	400	360	40				
Kent	4,490	4,000	490	x	x	Aug	Jun-Sep
Lapeer	1,010	900	110				
Leelanau	4,390	4,000	390	x	x	Aug	Jun-Oct
Lenawee	2,360	2,100	260				
Livingston	500	440	60				
Macomb	1,350	1,200	150				
Manistee	3,370	3,000	370				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
MICHIGAN							
Mason	950	850	100				
Missaukee	370	330	40				
Monroe	1,790	1,600	190				
Montcalm	1,010	900	110				
Muskegon	2,020	1,800	220				
Newaygo	1,690	1,500	190				
Oakland	520	460	60				
Oceana	4,200	4,000	200	x	x	July	
Ottawa	3,590	3,200	390				
Saginaw	1,050	940	110				
St. Clair	470	420	50				
St. Joseph	8,080	7,200	880	x	x	Aug	Jun-Sep
Sanilac	1,010	900	110				
Shiawassee	250	220	30				
Tuscola	90	-	90				
Van Buren	9,000	8,000	1,000	x	x	Aug	Jun-Sep
Washtenaw	510	450	60				
Wayne	950	850	100				
Wexford	280	250	30				
Total	85,180	76,210	8,970				
Adjusted Total	66,000	55,000	11,000				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
MINNESOTA							
Anoka	480	440	40				
Big Stone	730	660	70				
Chippewa	1,450	1,300	150				
Clay	4,880	4,400	480	x	x	Jul	Jun-Jul
Faribault	660	600	60				
Freeborn	200	180	20				
Grant	340	310	30				
Hennepin	130	110	20				
Kittson	850	760	90				
Le Sueur	440	400	40				
McLeod	860	770	90				
Marshall	2,170	1,600	570				
Meeker	660	600	60				
Nicollet	460	420	40				
Norman	1,900	1,700	200				
Otter Tail	50	30	20				
Polk	5,870	5,300	570	x	x	Jul	Jun-Jul
Renville	1,550	1,400	150				
Rice	160	140	20				
Sibley	140	120	20				
Steele	2,880	2,600	280				
Traverse	440	400	40				
Watonwan	730	660	70				
Wilkin	1,220	1,100	120				
Total	29,250	26,000	3,250				
Adjusted Total	23,000	19,000	4,000				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
OHIO[1]							
Allen	270	60	210				
Ashtabula	520	310	210				
Champaign	190	30	160				
Columbiana	440	110	330				
Darke	1,780	1,000	780				
Defiance	190	90	100				
Erie	390	200	190				
Fairfield	160	50	110				
Fulton	1,150	870	280				
Hancock	1,260	620	640				
Henry	2,250	1,500	750				
Huron	740	530	210				
Jackson	100	10	90				
Lucas	520	370	150				
Mahoning	520	10	510				
Mercer	820	480	340				
Miami	440	320	120				
Ottawa	2,400	1,900	500				
Paulding	240	140	100				
Portage	510	10	500				
Putnam	3,900	2,800	1,100				
Sandusky	4,200	3,000	1,200		x	Sep	May-Oct
Scioto	80	10	70				
Seneca	870	570	300				
Shelby	280	50	230				
Stark	1,140	500	640				
Van Wert	230	170	60				

Notes:

[1]Ohio's Employment Service data includes dependents in its count of migrant workers. Therefore no adjustment was made for dependents in the migrant category of this data.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
OHIO							
Williams	560	390	170				
Wood	3,250	2,600	650				
Wyandot	140	70	70				
Total	29,540	18,770	10,770				
Adjusted Total	27,000	14,000	13,000				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
WISCONSIN						Jul	Jul-Aug
Adams	330	200	130				
Calumet	60	40	20				
Columbia	550	550	-				
Crawford	60	40	20				
Dane	140	80	60				
Dodge	350	210	140				
Door	380	230	150				
Fond du Lac	140	80	60				
Green Lake	500	300	200				
Jackson	30	20	10				
Jefferson	500	300	200				
Juneau	260	160	100				
Kenosha	60	40	20				
Manitowoc	50	30	20				
Marinette	920	550	370				
Marquette	800	480	320				
Oconto	20	10	10				
Outagamie	550	330	220				
Ozaukee	470	280	190				
Portage	480	290	190				
Racine	120	70	50				
St. Croix	80	50	30				
Sheboygan	250	160	90				
Vilas	120	70	50				
Walworth	30	20	10				
Washington	620	410	210				
Waukesha	150	100	50				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
WISCONSIN							
Waupaca	70	50	20				
Waushara	2,500	1,500	1,000				
Winnebago	80	50	30				
Total	10,670	6,700	3,970				
Adjusted Total	10,000	5,000	5,000				

Notes:

ESTIMATES OF MIGRANT AND SEASONAL FARMWORKERS AND DEPENDENTS BY COUNTY, 1978

REGION VI

ARKANSAS

LOUISIANA

NEW MEXICO

OKLAHOMA

TEXAS

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
ARKANSAS						Jun	Jun-Jul
Ashley	350	20	330				
Chicot	830	30	800				
Desha	830	30	800				
Hempstead	300	300					
Jackson	1,610	640	970				
Johnson	1,810	970	840				
Mississippi	4,060	860	3,200				
Poinsett	3,800	1,900	1.900				
White	1,900	1,200	700				
Total	15,490	5,950	9,540				
Adjusted Total[1]	17,900	5,900	12,000				

Notes:

[1]No adjustment for intra-state migration necessary.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
LOUISIANA[1]							
Assumption	790	760	30				
Caddo	280	250	30				
Livingston	2,200	900	1,300				
St. Charles	600	280	320				
St. James	2,430	830	1,600				
St. John the Baptist	1,620	420	1,200				
St. Mary	8,000	4,000	4,000	x	x	Nov	Oct-Dec
Tangipahoa	9,900	5,700	4,200	x	x	Nov	Oct-Dec
Terrebonne	740	690	50				
Total	26,560	13,830	12,730				
Adjusted Total[2]	30,000	14,000	16,000				

Notes:

[1]Louisiana State Department of Education, Migrant Education Section used as secondary source to ES-223 primary data.

[2]No adjustment for intra-state migration necessary.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State / County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
NEW MEXICO							
Dona Ana	10,600	2,100	8,500		x	Jun	Jun-Aug
Eddy	120	80	40				
Guadalupe	620	70	550				
Lea	360	260	100				
Mora	1,230	130	1,100				
Rio Arriba	3,790	90	3,700				
San Miguel	1,960	260	1,700				
Taos	4,290	90	4,200		x	Jun	Jun-Aug
Total	22,970	3,080	19,890				
Adjusted Total	27,300	2,300	25,000				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
OKLAHOMA						Jun	Jun-Jul
Alfalfa	2,290	690	1,600				
Beaver	600	400	200				
Blaine	710	300	410				
Cimarron	480	320	160				
Creek	130	40	90				
Custer	800	330	470				
Dewey	450	190	260				
Garfield	2,870	870	2,000				
Grant	2,860	860	2,000				
Kay	890	680	210				
Major	1,430	430	1,000				
Osage	200	150	50				
Rogers	270	80	190				
Texas	890	590	300				
Tulsa	230	70	160				
Washita	1,010	420	590				
Woods	1,870	570	1,300				
Total	17,980	6,990	10,990				
Adjusted Total	19,200	5,200	14,000				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
TEXAS							
Atascosa	2,120	1,700	420				
Bailey	5,800	4,600	1,200	x	x	Jul	Jul-Oct
Bandera	110	20	90				
Bee	6,650	6,300	350	x	x	Apr	Dec-May
Bell	1,060	380	680				
Bexar	16,140	15,500	640	x	x	Jun	Jan-Dec
Blanco	110	80	30				
Bosque	190	30	160				
Bowie	830	290	540				
Brazoria	560	40	520				
Brazos	1,080	590	490				
Brewster	270	180	90				
Briscoe	2,020	1,600	420				
Brooks	1,720	1,500	220				
Brown	200	80	120				
Burleson	450	190	260				
Burnet	250	90	160				
Caldwell	1,180	990	190				
Calhoun	3,730	130	3,600				
Cameron	59,300	53,000	6,300	x	x	May	Dec-Jun
Castro	6,480	6,000	480	x	x	Aug	Jul-Oct
Cherokee	230	20	210				
Childress	1,450	1,200	250				
Clay	130	30	100				
Cochran	2,830	2,200	630				
Coke	230	10	220				
Coleman	640	180	460				

Notes: Source: Governor's Office of Migrant Affairs (GOMA), "Farmworker Programs in Texas", revised 1978. DHEW Region VI office data used as a secondary source.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
TEXAS							
Collin	560	160	400				
Collingsworth	1,590	1,200	390				
Colorado	180	80	100				
Comal	530	390	140				
Comanche	4,690	4,500	190	x	x	Jul	Jun-Jul
Concho	520	130	390				
Coryell	140	10	130				
Cottle	460	290	170				
Crane	30	20	10				
Crockett	400	40	360				
Crosby	2,380	1,900	480				
Dallas	620	310	310				
Dawson	5,600	4,400	1,200	x	x	Jul	Jun-Jul
Deaf Smith	12,000	10,000	2,000	x	x	Aug	Jul-Oct
Delta	90	10	80				
Denton	190	10	180				
De Witt	2,280	2,000	280				
Dickens	2,370	1,860	510				
Dimmit	6,800	4,900	1,900	x	x	Apr	Jan-Dec
Donley	270	230	40				
Duval	910	600	310				
Eastland	150	60	90				
Ector	340	280	60				
Edwards	760	360	400				
Ellis	850	130	720				
El Paso	7,600	6,900	700	x	x	Jul	May-Aug
Erath	500	370	130				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
TEXAS							
Falls	670	110	560				
Fannin	1,560	60	1,500				
Fayette	500	260	240				
Fisher	1,070	590	480				
Floyd	7,500	5,900	1,600	x	x	Aug	Jul-Oct
Fort Bend	640	200	440				
Frio	2,060	1,600	460				
Gaines	2,050	1,600	450				
Galveston	470	90	380				
Garza	660	370	290				
Gillespie	280	160	120				
Goliad	1,500	1,200	300				
Gonzales	2,350	1,800	550				
Gray	3,700	3,300	400				
Grimes	300	90	210				
Guadalupe	1,120	820	300				
Hale	12,300	9,700	2,600	x	x	Aug	Jul-Oct
Hall	3,340	3,000	340				
Hamilton	130	30	100				
Hardeman	810	580	230				
Harris	1,330	400	930				
Harrison	70	20	50				
Hartley	420	290	130				
Haskell	1,880	1,700	180				
Hays	2,000	1,700	300				
Hidalgo	77,000	63,000	14,000	x	x	May	Jan-Dec
Hill	615	65	550				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
TEXAS							
Hockley	3,440	2,600	840				
Hood	150	40	110				
Howard	850	210	640				
Hudspeth	1,040	620	420				
Irion	340	20	320				
Jackson	400	210	190				
Jeff Davis	90	40	50				
Jefferson	1,520	20	1,500				
Jim Hogg	370	200	170				
Jim Wells	2,500	2,200	300				
Johnson	440	40	400				
Karnes	1,040	680	360				
Kendall	270	150	120				
Kenedy	330	150	180				
Kerr	310	220	90				
Kimble	130	50	80				
King	100	30	70				
Kinney	670	300	370				
Kleberg	2,100	1,900	200				
Knox	1,530	1,400	130				
Lamb	6,800	5,300	1,500	x	x	Aug	Jul-Oct
Lampasas	850	770	80				
La Salle	2,680	2,200	480				
Lavaca	750	450	300				
Lee	460	200	260				
Leon	180	10	170				
Liberty	320	50	270				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
TEXAS							
Limestone	260	40	220				
Live Oak	1,300	1,100	200				
Llano	50	10	40				
Lubbock	10,900	8,000	2,900	x	x	Aug	Jul-Oct
Lynn	3,590	2,800	790				
McCulloch	520	360	160				
McLennan	1,240	560	680				
McMullen	220	130	90				
Madison	100	10	90				
Martin	840	110	730				
Mason	180	40	140				
Matagorda	820	370	450				
Maverick	10,560	10,000	560	x	x	Mar	Nov-Apr
Medina	2,020	1,600	420				
Menard	440	20	420				
Midland	450	120	330				
Milam	650	160	490				
Mills	180	10	170				
Mitchell	600	230	370				
Moore	370	80	290				
Motley	800	450	350				
Navarro	330	10	320				
Nolan	370	140	230				
Nueces	8,500	6,500	2,000	x	x	Jun	Jan-Dec
Palo Pinto	950	880	70				
Parmer	11,800	11,000	800	x	x	Sep	Jul-Nov
Pecos	120	20	100				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
TEXAS							
Polk	150	70	80				
Potter	380	40	340				
Presidio	240	180	60				
Reagan	350	10	340				
Real	510	110	400				
Refugio	290	90	200				
Robertson	420	250	170				
Runnels	1,060	400	660				
Rusk	80	10	70				
San Patricio	6,600	5,700	900	x	x	May	Apr-Aug
San Saba	430	180	250				
Schleicher	910	550	360				
Scurry	800	500	300				
Shackelford	160	60	100				
Starr	8,500	6,700	1,800	x	x	Jun	Jan-Dec
Stephens	230	160	70				
Sterling	160	10	150				
Stonewall	130	70	60				
Sutton	380	30	350				
Swisher	850	320	530				
Tarrant	630	230	400				
Taylor	750	610	140				
Terry	3,200	2,000	1,200				
Tom Green	2,100	1,700	400				
Travis	2,320	1,900	420				
Trinity	220	40	180				
Tyler	280	20	260				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
TEXAS							
Tascosa	1,760	1,400	360				
Uvalde	5,400	1,500	3,900		x	Jun	Jan-Dec
Val Verde	6,800	5,700	1,100	x	x	Jun	Jan-Dec
Van Zandt	2,910	2,600	310				
Victoria	660	340	320				
Webb	21,000	18,000	3,000	x	x	Jun	Apr-Jun
Wharton	4,160	3,400	760		x	Jul	Jun-Jul
Wheeler	480	60	420				
Wichita	420	190	230				
Wilbarger	500	240	260				
Willacy	7,600	4,500	3,100	x	x	Apr	Mar-Dec
Williamson	1,540	900	640				
Wilson	1,120	820	300				
Yoakum	2,500	2,200	300				
Young	120	90	30				
Zapata	2,880	2,000	880				
Zavala	7,900	6,100	1,800	x	x	Jul	Jan-Dec
Total	482,595	373,495	109,100				
Adjusted Total	430,000	294,000	136,000				

Notes:

ESTIMATES OF MIGRANT AND SEASONAL FARMWORKERS AND DEPENDENTS BY COUNTY, 1978

REGION VII

IOWA

KANSAS

MISSOURI

NEBRASKA

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
IOWA[1]						Aug	Jul-Aug
Buena Vista	60	30	30				
Cerro Gordo	1,840	40	1,800				
Chickasaw	40	20	20				
Grundy	340	70	270				
Hamilton	760	80	680				
Hancock	200	50	150				
Iowa	160	80	80				
Louisa	120	60	60				
Muscatine	600	300	300				
Page	1,080	380	700				
Warren	140	50	90				
Webster	70	30	40				
Total	5,410	1,190	4,220				
Adjusted Total	6,190	890	5,300				

Notes:

[1]Iowa Bureau of Labor data used as secondary source to ES-223 primary source.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
KANSAS[1]						Jun	June
Cheyenne	140	30	110				
Finney	220	90	130				
Grant	180	130	50				
Gray	150	90	60				
Greeley	100	60	40				
Haskell	120	80	40				
Kearny	260	200	60				
Scott	80	10	70				
Sherman	1,530	1,260	270				
Stanton	120	100	20				
Wallace	1,060	900	160				
Wichita	380	240	140				
Total	4,340	3,190	1,150				
Adjusted Total	3,800	2,400	1,400				

Notes:

[1]DHEW Region VII office data used as a secondary source to ES-223 primary data.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
MISSOURI							
Dunklin	3,230	130	3,100				
Mississippi	4,060	360	3,700		x	Aug	Jul-Sep
New Madrid	4,150	50	4,100		x	Jul	Jul-Sep
Pemiscot	4,435	135	4,300		x	Aug	Jul-Sep
Scott	3,520	20	3,500				
Stoddard	3,240	40	3,200				
Total	22,635	735	21,900				
Adjusted Total	27,550	550	27,000				

Notes: Source: Delmo Migrant Health estimates for MSFW's in 1978 (Delmo Migrant Health, Lilbourn, Missouri).

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
NEBRASKA[1]						Jun	May-Jun
Box Butte	550	400	150				
Chase	150	100	50				
Dawson	250	150	100				
Deuel	200	100	100				
Garden	250	150	100				
Keith	210	150	60				
Lincoln	200	150	50				
Morrill	450	350	100				
Perkins	150	100	50				
Scotts Bluff	2,050	1,700	350				
Total	4,460	3,350	1,110				
Adjusted Total	3,900	2,500	1,400				

Notes:

[1]DHEW Region VII office data as secondary source to ES-223 primary data.

ESTIMATES OF MIGRANT AND SEASONAL FARMWORKERS AND DEPENDENTS BY COUNTY, 1978

REGION VIII

COLORADO

MONTANA

NORTH DAKOTA

SOUTH DAKOTA

UTAH

WYOMING

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
COLORADO							
Adams	3,900	900	3,000				
Alamosa	620	500	120				
Baca	310	110	200				
Bent	800	600	200				
Conejos	410	250	160				
Costilla	590	400	190				
Crowley	310	210	100				
Delta	1,170	510	660				
Kit Carson	710	410	300				
Larimer	4,900	700	4,200		x	Jul	May-Aug
Logan	3,820	720	3,100				
Mesa	1,030	410	620				
Montezuma	1,900	200	1,700				
Montrose	600	400	200				
Morgan	5,500	1,000	4,500		x	Jul	May-Aug
Otero	2,200	1,300	900				
Prowers	800	500	300				
Pueblo	1,320	920	400				
Rio Grande	1,180	600	580				
Saguache	510	210	300				
Sedgwick	850	250	600				
Weld	8,100	1,500	6,600		x	Jul	May-Aug
Yuma	3,150	650	2,500				
Total	44,680	13,250	31,430				
Adjusted Total	48,900	9,900	39,000				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
MONTANA						Jul	May-Jul
Big Horn	650	230	420				
Blaine	640	410	230				
Broadwater	1,680	830	850				
Carbon	470	140	330				
Cascade	710	460	250				
Chouteau	1,830	1,200	630				
Custer	2,150	1,400	750				
Daniels	840	540	300				
Dawson	1,730	1,400	330				
Deer Lodge	340	170	170				
Flathead	2,000	1,000	1,000				
Granite	800	400	400				
Hill	1,550	1,000	550				
Jefferson	850	420	430				
Judith Basin	500	320	180				
Lake	2,000	1,000	1,000				
Lewis and Clark	180	110	70				
Meagher	1,320	660	660				
Missoula	750	370	380				
Phillips	680	440	240				
Powell	1,690	840	850				
Prairie	140	70	70				
Richland	590	170	420				
Roosevelt	1,090	700	390				
Rosebud	620	170	450				
Sheridan	1,040	670	370				
Stillwater	860	290	570				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
MONTANA							
Teton	860	560	300				
Treasure	420	140	280				
Valley	1,050	680	370				
Yellowstone	1,180	400	780				
Total	31,210	17,190	14,020				
Adjusted Total	31,000	13,000	18,000				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
NORTH DAKOTA							
Cass	5,700	3,100	2,600		x	Sep	Jul-Oct
Grand Forks	3,000	1,700	1,300				
McKenzie	1,050	530	520				
Pembina	5,710	4,800	910	x	x	Jun	May-Jul
Richland	7,250	6,600	650	x	x	Jun	May-Jul
Steele	2,460	2,200	260				
Traill	1,770	1,200	570				
Walsh	2,660	960	1,700				
Williams	1,000	480	520				
Total	30,600	21,570	9,030				
Adjusted Total	27,000	16,000	11,000				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
SOUTH DAKOTA[1]	N/A	N/A			N/A	N/A

Notes:

[1]The only available data for migrant/seasonal farmworkers in South Dakota shows less than 100 MSFW's within the state during any month.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
UTAH						Jun	May-Jul
Box Elder	1,500	1,200	300				
Cache	470	50	420				
Davis	1,150	330	820				
Iron	1,160	680	480				
Salt Lake	260	130	230				
Utah	3,000	1,700	1,300				
Weber	200	100	100				
Total	7,740	4,190	3,650				
Adjusted Total	7,700	3,100	4,600				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
WYOMING						Jun	May-Jun
Big Horn	2,900	1,100	1,800				
Fremont	1,620	960	660				
Goshen	1,600	600	1,000				
Hot Springs	1,280	480	800				
Park	2,900	1,100	1,800				
Platte	640	240	400				
Washakie	2,560	960	1,600				
Total	13,500	5,440	8,060				
Adjusted Total	14,000	4,000	10,000				

Notes:

ESTIMATES OF MIGRANT AND SEASONAL FARMWORKERS AND DEPENDENTS BY COUNTY, 1978

REGION IX

ARIZONA

CALIFORNIA

NEVADA

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
ARIZONA							
Cochise	1,500	600	900				
Maricopa	8,100	2,100	6,000		x	Dec	Jan-Dec
Pinal	4,200	500	3,700		x	Dec	Jan-Dec
Yuma	26,500	7,500	19,000	x	x	Dec	Jan-Dec
Total	40,300	10,700	29,600				
Adjusted Total	45,000	8,000	37,000				

Notes: Source: State of Arizona Employment Training Administration, 1978 report.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
CALIFORNIA							
Butte	4,100	1,500	2,600				
Colusa	2,700	1,400	1,300				
El Dorado	600	400	200				
Fresno	114,000	39,000	75,000	x	x	Sep	Jan-Dec
Glenn	2,800	1,700	1,100				
Imperial	17,700	1,700	16,000		x	Sep	Jan-Dec
Kern	37,000	7,000	30,000	x	x	Sep	Jan-Dec
Kings	11,500	3,100	8,400		x	Sep	Jan-Dec
Lake	1,460	1,200	260				
Los Angeles	4,600	1,500	3,100		x	Sep	Jan-Dec
Madera	20,400	8,400	12,000	x	x	Sep	Jan-Dec
Mendocino	3,000	2,000	1,000				
Merced	24,000	6,000	18,000	x	x	Jun	Jan-Dec
Modoc	840	340	500				
Monterey	13,300	3,800	9,500		x	Jun	Jan-Dec
Napa	5,200	1,900	3,300		x	Sep	Jan-Dec
Orange	10,600	1,800	8,800		x	Sep	Jan-Dec
Placer	1,400	800	600				
Riverside	25,000	12,000	13,000	x	x	Jun	Jan-Dec
Sacramento	8,550	5,500	3,050	x	x	Sep	Jan-Dec
San Benito	7,700	4,500	3,200	x	x	Sep	Jan-Dec
San Bernardino	2,900	700	2,200				
San Diego	7,550	950	6,600		x	Jun	Jan-Dec
San Joaquin	21,400	12,000	9,400	x	x	Sep	Jan-Dec
San Luis Obispo	2,400	300	2,100				
San Mateo	2,100	800	1,300				
Santa Barbara	8,200	3,600	4,600		x	Sep	Jan-Dec

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
CALIFORNIA							
Santa Clara	13,500	6,700	6,800	x	x	Jun	Jan-Dec
Santa Cruz	5,800	3,800	2,000		x	Jul	Jan-Dec
Shasta	1,960	560	1,400				
Siskiyou	1,200	450	750				
Solano	6,000	3,600	2,400		x	Jun	Jan-Dec
Sonoma	7,600	1,900	5,700		x	Sep	Jan-Dec
Stanislaus	17,800	7,800	10,000	x	x	Sep	Jan-Dec
Sutter	5,100	2,700	2,400		x	Sep	Jan-Dec
Tehama	3,400	1,900	1,500				
Tulare	57,400	6,400	51,000	x	x	Sep	Jan-Dec
Ventura	21,000	8,000	13,000	x	x	Jun	Jan-Dec
Yolo	15,000	10,000	5,000	x	x	Jul	Jan-Dec
Yuba	2,000	1,000	1,000				
Total	518,760	178,700	340,060				
Adjusted Total	459,000	134,000	425,000				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
NEVADA[1]	N/A	N/A			N/A	N/A

Notes:

[1]The only available data for migrant/seasonal farmworkers in Nevada shows less than 100 MSFW's within the state during any month.

ESTIMATES OF MIGRANT AND SEASONAL FARMWORKERS AND DEPENDENTS BY COUNTY, 1978

REGION X

IDAHO

OREGON

WASHINGTON

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
IDAHO							
Ada	660	200	460				
Adams	290	50	240				
Bannock	720	140	580				
Bear Lake	370	70	300				
Bingham	2,690	290	2,400				
Blaine	620	80	540				
Boise	255	25	230				
Bonneville	4,200	3,200	1,000		x	May	May-Sep
Butte	520	300	220				
Canyon	9,000	2,400	6,600		x	Jun	May-Sep
Caribou	470	70	400				
Cassia	4,240	340	3,900		x	Jul	May-Sep
Clark	320	160	160				
Elmore	1,360	830	530				
Franklin	320	70	250				
Freemont	1,170	70	1,100				
Gem	1,900	1,100	800				
Gooding	960	90	870				
Idaho	770	40	730				
Jefferson	1,960	1,200	760				
Jerome	1,800	200	1,600				
Lemhi	1,050	50	1,000				
Lewis	940	40	900				
Lincoln	500	120	380				
Madison	2,650	450	2,200				
Oneida	240	70	170				
Owyhee	3,800	1,300	2,500				

Notes:

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
IDAHO							
Payette	1,630	330	1,300				
Power	690	130	560				
Teton	430	30	400				
Twin Falls	2,330	530	1,800				
Washington	950	420	530				
*Minidoka	3,581	2,273	1,308				
Total	53,386	16,668	36,718				
Adjusted Total	55,000	11,000	44,000				

Notes: Source: State of Idaho, Department of Employment (Annual Rural Employment Report - 1977).

*This county added because of data submitted by the Regional Office.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
OREGON[1]							
Baker	620	50	570				
Clakamas	14,100	2,100	12,000		x	Jun	May-Jul
Deschutes	850	530	320				
Douglas	760	30	730				
Hood River	4,750	3,900	850		x	Sep	Jun-Oct
Jackson	2,720	2,300	420				
Klamath	420	100	320				
Lake	280	30	250				
Lane	4,000	100	3,900		x	Jun	Jun-Jul
Lincoln	40	10	30				
Linn	3,240	140	3,100				
Malheur	6,898	5,898	1,000	x	x		
Marion	13,733	7,833	5,900	x	x		
Multnomah	3,620	120	3,500				
Polk	3,770	470	3,300				
Umatilla	5,500	3,700	1,800		x	Jun	Jun-Jul
Union	950	470	480				
Wasco	1,460	690	770				
Washington	19,600	6,600	13,000	x	x	Sep	Jun-Oct
Yamhill	5,365	2,765	2,600		x		
Total	92,676	37,836	54,840				
Adjusted Total	85,000	19,000	69,000				

Notes:

[1]Oregon's EES-223 data was adjusted downward to account for high school students casually attached to the work force but included in Employment Service estimates.

INTERAMERICA RESEARCH ASSOCIATES FARMWORKER POPULATION ESTIMATE 1978 FOR BCHS/HSA/DHEW

State County	Total	Peak Migrant Population	Seasonal Population	Migrant Impact	Combined Impact	Peak Month	Season Length
WASHINGTON[1]							
Chelan	12,700	10,000	2,700	x	x	Sep	Aug-Oct
Douglas	8,800	6,800	2,000	x	x	Sep	Aug-Oct
Franklin	230	30	200				
Grant	7,350	1,612	5,738		x		
King	6,300	300	6,000		x	Sep	Aug-Oct
Okanogan	3,721	2,400	1,321			Sep	Aug-Oct
Pierce	4,200	200	4,000		x	Jul	Jun-Jul
Skagit	25,500	4,500	21,000	x	x	Jul	Jun-Jul
Skamania	190	160	30				
Whatcom	20,860	860	20,000		x	Jul	Jun-Aug
Yakima[2]	39,900	19,800	20,100	x	x	Sep	Apr-Sep
Adams[3]	2,123	525	1,598				
Total	131,874	47,187	84,687				
Adjusted Total	142,000	43,000	99,000				

Notes:

[1]Migrant Health Project offices contacted as secondary data source to ES-223 primary source.

[2]Migrant Education, Identification and Recruitment Office, Sunnyside, Washington used as primary source for Yakima County.

[3]County has been added because of data submitted by Regional Office.