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Agricultural Economic Report No. 77

TERMINATION of the BRACERO PROGRAM

SOME EFFECTS on FARM LABOR and MIGRANT HOUSING NEEDS

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PREFACE

This report was prepared at the request of the Farmers Home Administration (FHA), U. S. Department of Agriculture, which administers a program of loans for rural housing, including housing for migratory farmworkers.

FHA's concern leading to the request was the pending expiration of Public Law 78, the legislation governing the Mexican National (bracero) Program. This program was the chief source in recent years of foreign supplemental farmworkers. Mexican contract workers entered the United States without families and were housed as single men. Aware of the differing housing needs of braceros and domestic migrant families who are potential bracero replacements, FHA foresaw the possibility that discontinuance of P.L. 78 could have a major impact on its housing program.

No national inventory of either the amount or the quality of farm labor housing exists, and none is attempted herein. Because of the urgent need and the short time involved, use has been made of all available secondary data. These were supplemented with field trips by the authors to selected areas for firsthand observations and discussions with growers, workers, and other informed persons.

Lawrence W. Rogers, Jr., Division of Research and Wage Activities, Bureau of Employment Security, U. S. Department of Labor, assisted in assembling and evaluating employment information on foreign agricultural workers. The Statistical Reporting Service, U. S. Department of Agriculture, provided production data.

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Washington, D. C. June 1965

SUMMARY

The very seasonal nature of work required for agricultural production, particularly for the more labor-intensive crops, has generated the supplementary farmworker system in the United States. This system, intensified in recent years by technological innovation, has resulted in a large and fluctuating seasonal demand for supplementary farm labor. Supplementary farmworkers are classified into two major groups, domestic and foreign. Domestic workers are further categorized as local and migrant, depending upon their mobility; foreign workers are classified according to nationality.

Except in the 1930's, legally imported foreign workers have made up some portion of the supply of supplemental workers for many decades. From its enactment in 1951 to its termination at the end of 1964, Public Law 78 was the chief law enabling entry of these workers. Termination of this law has caused concern in agriculture and in related segments of the economy.

The number of Mexican workers (commonly known as braceros) contracted annually under P.L. 78 declined from a high of 445,197 in 1956 to 186,865 in 1963. Only 16,132 employers used braceros in 1963; the number contracted during the year constituted about 5.9 percent of the total number of persons who did supplemental farmwork. The average number of Mexicans employed during the year accounted for about 0.7 percent of the farmwork force. Thus, they made up a very small portion of the national farm labor force.

In States where they were concentrated, however, bracero employment was far more significant. About 95 percent of their total man-months of labor was used in 7 States: Arizona, Arkansas, California, Colorado, New Mexico, Michigan, and Texas. Although some braceros worked on a variety of crops, they were employed primarily on vegetables, fruits, cotton, and sugarbeets.

Mechanization of cotton and sugarbeets, combined with other laborsaving innovations, has reduced the need for supplemental labor in these crops. The development of laborsaving technology for use on vegetable crops is advancing rapidly, but will not be sufficient to replace bracero labor in 1965; replacement workers will be needed. Also, replacement workers will be needed for fruit crops, for which laborsaving innovations are proceeding considerably less rapidly.

The estimated number of bracero replacements needed for peak work periods of 1965, after allowing for the maximum possible replacement of workers by increased mechanization and other technology, is about 45,000 to 50,000 for the California fruit and vegetable harvest; 11,000 for the Michigan cucumber harvest; 5,000 to 6,000 for harvesting vegetables and citrus fruit in Arizona; and up to 5,000 for harvesting vegetables in Texas. In the absence of increased mechanization and with equal worker productivity, the number of replacement workers needed would be about 178,000, about the number of Mexican workers employed in the United States in 1964. However, mechanization will replace some supplemental workers, so the number of domestic laborers needed will increase, but by an amount less than the number of braceros.

Domestic migrants and foreign workers are the categories of supplemental workers for which housing is provided. Housing for workers has developed along with the migratory system and varies by type and quality. Housing designed for families is also usable for single workers, but that designed specifically for single workers, which includes foreign-worker housing, requires conversion before it is usable for families.

Growers, either as individuals or through associations, provide most migratory housing. However, some is provided by others, including public housing authorities and commercial operators.

The number of possibilities and the varied alternatives which arise with the termination of Public Law 78 make it impossible to determine the extent to which braceros will be replaced by other workers or to determine the composition, and consequently the housing requirements, of replacement workers. Thus, the additional housing required, if any, cannot be determined. However, some estimates can be made, based on assumed alternative sources of labor.

No additional housing will be required if braceros are replaced by (1) local workers who do not require housing or (2) single workers for which existing foreign-worker housing would suffice. If braceros are replaced to the extent estimated to be possible by technology and then by migrant families, the estimated additional number of persons (workers and dependents) for which housing would be required, after conversion of foreign-worker housing, is from 1,500 to 6,500 in California; 1,000 to 3,000 in Michigan; and about 600 in Arizona. If there were no increase in the use of technology, and all braceros were replaced by migrant families, the additional persons requiring housing after conversion of foreign-worker housing would approximate 29,000 in California; 7,000 in Michigan; 3,000 in Colorado; 1,700 in Arizona; and 700 in New Mexico. A combination of the foregoing alternatives is the most likely possibility; thus, the actual amount of additional housing required is expected to be between the estimated extremes.

TERMINATION OF THE BRACERO PROGRAM: SOME EFFECTS ON FARM LABOR AND MIGRANT HOUSING NEEDS

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INTRODUCTION

From its enactment in 1951 to its termination on December 31, 1964, the bracero program was the chief source of foreign farm labor in the United States. The program (under Public Law 78) enabled entry of Mexican nationals for temporary farmwork. Its expiration has caused concern in agriculture and in related segments of the economy over possible subsequent effects.

Hearings and discussions have been held on the subject by various farm organizations and others, including the Congress of the United States, the U. S. Department of Labor, and the California Senate Fact Finding Committee on Labor and Welfare. These have covered many varied but interrelated questions which arise with termination of the program, ranging from the highly complex question of the possible economic consequences to the equally difficult aspect of social status for farmworkers. Largely, however, they have centered around the need for and the ability to obtain workers for replacing the braceros, employment opportunities and fair wages for domestic farmworkers, and satisfactory housing and working conditions. The activities of these organizations and others have made it clear that termination of the program has important implications for growers, farmworkers, and policymakers.

To growers using braceros, termination of the program presents the necessity of obtaining replacement workers or making adjustments in production. Foreign workers other than braceros enter the United States under authority of Public Law 414, the Immigration and Nationality Act; to growers employing the relatively small number of these workers, termination of P.L. 78 also portends restriction of activities under P.L. 414. To growers who have been employing only domestic workers, the end of P.L. 78 means increased competition for domestic workers as the previous users of braceros seek replacements. To farmworkers, termination of the program and the resulting increase in grower competition for domestic workers mean increased employment opportunities and improved working conditions.

Public officials are faced with developing programs to provide maximum employment opportunities for domestic supplemental workers and at the same time helping growers meet their peak seasonal labor needs. The U.S. Department of Labor has already launched an intensive recruiting program to meet these needs.

Housing requirements differ for braceros and their potential replacements, the domestic migrant families. The Mexican contract workers entered the United States without families, regardless of family status, and were housed as single men. Housing provided for them was usually of the barracks type, with central bath and mess facilities, and was therefore not readily usable for families. The Farmers Home Administration (FHA), U. S. Department of Agriculture, administers the rural housing loans program that includes loans for migratory farmworker housing. The agency foresaw the possibility that discontinuance of P.L. 78 could affect its housing program. Thus, it asked the Economic Research Service for an appraisal of the situation.

Discontinuance of the program may also create situations, such as a tight labor market resulting in curtailment of or shifts in production. These situations, if severe enough, could affect housing.

OBJECTIVES

The objectives of this study are:

1. To determine the cause of and requirements for supplemental farm labor.
2. To estimate the extent to which braceros can be replaced by greater mechanization and use of other laborsaving innovations applicable to production operations.
3. To estimate the number of replacement workers that would be needed to prevent disruption of the present pattern of production, after allowing for maximum replacement of braceros by technology.
4. To determine how migrant housing is provided for the segment of supplemental labor which requires it.
5. To estimate additional numbers of workers, if any, for which housing will be required as a result of the expiration of Public Law 78.

Effects of terminating the program are, of course, difficult to predict; any estimates will necessarily reflect assumptions made. The assumptions are that an importation program will not be reinstated; that migrant housing needs are dependent upon the numbers and types of workers involved; and that the effects of farm labor, including consideration of grower alternatives to P.L. 78 labor, must be evaluated before the impact on housing can be assessed.

SUPPLEMENTAL FARM LABOR

Development

To evaluate effects of terminating the bracero program, it is necessary to understand the conditions which led to the development of the supplemental farm labor system and the enactment of P.L. 78 and the provisions of the Act.

Although the United States is now a highly developed industrial society, throughout the greater part of its history it was essentially an agricultural economy based chiefly on highly diversified farms, family owned and operated. The lack of transportation and refrigeration in earlier days required that local farmers supply an area with all of the perishable and most of the staple foods it consumed. Farmers raised livestock and poultry, grew corn, vegetables, fruit, berries, livestock feed, and whatever else they could feasibly produce in their soil and climate. Therefore, the various crops--with different planting times, differing and ever-changing cultivation needs, differing harvest periods, and labor requirements--kept the farmer, his family, and occasionally a hired man employed from early spring until late fall. This farm family work force was occupied during the winter by such jobs as feeding and caring for livestock; preparing land, pruning trees, and repairing equipment, buildings, and fencing.

But even under this highly diversified type of agriculture, the annual workload was less than steady. At harvesttime it was exacting, at planting time less so but heavy. At other times, there was work to be done, but there was also considerable leisure. Both planting and harvesting, then and now, call for timely operations and are greatly influenced by weather. A crop planted either too early or too late may be damaged or killed by frost or freeze. A day's delay in harvesting may result either in reduced production or in the output of crops of reduced quality. In either case, there is a loss of income.

As farmers strove to produce more and, at the same time, to guard against loss by employing additional help for peak work periods, they began using supplementary farmworkers. Mexican workers were used in neighboring Western U. S. areas over 100 years ago. Their labor was supplemented by that of immigrants from China, Japan, the Philippines, and Europe, and by domestic migrant workers. Even so, as late as 1910, the farmwork force consisted primarily of farm operators and their families, when one out of every three persons in the United States lived on a farm he or his family owned.

Then came the technological revolution with tractors, motortrucks, cornpickers, and grain combines. As their numbers increased, so did those of other laborsaving machines such as pick-up balers, field forage harvesters, cottonpickers and strippers, cornpicker-shellers, and power elevators. Use of such equipment greatly increased productivity and displaced farm people. Also contributing to labor savings and to increased product yields were improved fertilizers, seeds, seeding and tillage equipment, herbicides, and flame cultivation; use of airplanes for spreading pesticides; and improvements in irrigation equipment and other technological innovations. Thus, the farmer was able to work a greater number of higher yielding acres. This resulted in the trend towards fewer but larger farms using larger equipment, thereby further reducing labor needs.

Concurrently with farm innovations came rapid, refrigerated transportation and frozen food preservation, making possible a year-round supply of fresh fruits and vegetables to consumers in all parts of the Nation. This resulted not only in increasing the production of these heavy labor-using crops; it also enabled growers to specialize in producing the crops best suited to the soil and climate of their farms. The workload on these specialized farms then became more seasonal than on diversified farms, and a hectic planting and harvest season developed, requiring large numbers of supplemental workers. These urgent peak labor needs have made farmers speed the emphasis on development of machinery and other laborsaving technology.

Thus, the high seasonality of work required for agricultural production, particularly of the more labor-intensive crops, has generated our supplementary farmworker system; intensified over time by technological innovations, it has resulted in a large and fluctuating demand for seasonal farmworkers.

The Immigration and Nationality Act

With the exception of the 1930's, legally imported foreign workers have constituted some portion of the supply of supplemental farmworkers for many years. With a tight domestic labor market during World War I, approximately 73,000 Mexican citizens in 1917-21 were contracted for employment in U. S. agriculture under the Immigration and Nationality Act. In the 1920's, legal immigration from Mexico occurred at the rate of about 50,000 per year, and illegal entries were at an estimated rate of 10,000 per year or more. Widespread unemployment during the Depression of the 1930's, however, turned thousands of citizens to farms in search of livelihoods, and many Mexican workers in the United States suffered great distress. While some returned to Mexico voluntarily, many required aid from the Mexican Government to do so; others were deported by U. S. authorities. 1/

World War II Importation Agreements

Following the outbreak of World War II, a tightening labor market caused growers who had previously used Mexican workers to attempt direct negotiations with the Mexican Government for employment of Mexican nationals. Mexico was still sensitive to the plight of its citizens during the Depression, however, and the negotiations failed. By 1942, pressure on the U. S. labor market was so intense that formal negotiations between the United States and Mexican Governments were begun. An agreement was reached on August 4, 1942. 2/

Agreements were also formulated with the Bahamian, British West Indian, and Canadian Governments. In these agreements, however, representatives of those countries were to deal directly with U. S. employers, rather than with the U. S. Government. The number of foreign workers legally contracted and imported during World War II was highest in 1944, when 84,419 were admitted, mostly Mexicans (table 1).

Postwar Importation

Following several extensions and amendments which kept it alive, the World War II agreement with Mexico terminated on December 31, 1947. This marked the end of U. S. Department of Agriculture participation in foreign labor importation programs. Subsequent recruitment has been handled by the Bureau of Employment Security, first as part of the Federal Security Agency, and later in the U. S. Department of Labor.

1/ Study of Population and Immigration Problems, Administration Presentation (III) "Admission of Aliens into the United States for Temporary Employment." House of Representatives, Committee on Judiciary, Subcommittee No. 1, Washington, p. 27, 1963.

2/ See footnote 1.

Table 1.--Foreign workers admitted for temporary employment in U.S. agriculture, by year and nationality 1/

Year	Total	Mexicans	British West Indians	Bahamians	Canadians	Others
1942 2/	4,203	4,203	---	---	3/	---
1943	65,624	52,098	8,828	4,698	3/	---
1944	84,419	62,170	16,574	3,048	1,414	4/ 1,213
1945	73,422	49,454	17,291	2,100	4,055	4/ 522
1946	51,347	32,043	11,081	2,690	5,533	---
1947	30,775	19,632	1,017	2,705	7,421	---
1948 5/	44,916	35,345	2,421	1,250	5,900	---
1949	112,765	107,000	1,715	1,050	3,000	---
1950	76,525	67,500	4,425	1,800	2,800	---
1951	203,640	192,000	6,540	2,500	2,600	---
1952	210,210	197,100	4,410	3,500	5,200	---
1953	215,321	201,380	4,802	2,939	6,200	---
1954	320,737	309,033	2,159	2,545	7,000	---
1955	411,966	398,650	3,651	2,965	6,700	---
1956	459,850	445,197	4,369	3,194	6,700	6/ 390
1957	452,205	436,049	5,707	2,464	7,300	6/ 685
1958	447,513	432,857	5,204	2,237	6,900	6/ 315
1959	455,420	437,643	6,622	2,150	8,600	6/ 405
1960	334,729	315,846	8,150	1,670	8,200	6/ 863
1961	310,375	291,420	8,875	1,440	8,600	6/ 40
1962	217,010	194,978	11,729	1,199	8,700	6/ 404
1963	209,218	186,865	11,856	1,074	8,500	6/ 923
1964	200,022	177,736	7/ 14,361	7/	7,900	25

1/ This does not include small number of Basques and other workers.
2/ Data for 1942-47 were obtained from USDA reports.
3/ Not available.
4/ Newfoundlanders transported.
5/ Data for 1948-61 were compiled by Bureau of Employment Security, U.S. Department of Labor.
6/ Includes 390 Japanese in 1956; 652 Japanese and 33 Filipinos in 1957; 315 Japanese in 1958; 400 Japanese and 5 Filipinos in 1959; Japanese only in 1960 and 1961; 279 Japanese and 125 Filipinos in 1962; and Japanese only in 1963-64.
7/ Bahamians included with British West Indians.

Source: "The Migratory Farm Labor Problem in the United States," 87th Congress, 2d Session, Senate Report No. 1225, Washington, p. 10, 1962; and "Farm Labor Market Developments," Bureau of Employment Security, U.S. Department of Labor, Jan. 1964 and Jan. 1965.

With discontinuance of the emergency labor program in 1947, the Immigration and Nationality Act was again used to continue the Mexican farm labor program until 1951, but in a substantially altered form. Under the new arrangement, the individual farm employer was the contractor rather than the U. S. Government. In 1947-49, some 74,600 Mexican workers were recruited and contracted from Mexico. A greater number that had entered the United States illegally during the preceding period were legalized by putting them under contract.

Public Law 78, 1951-63

The Korean conflict created another movement of U. S. workers to defense plants, thereby causing a scarcity of farmworkers and stimulating the illegal movement of workers from Mexico. Public concern in the United States mounted over the possible adverse effects on domestic farmworkers of imported labor; Mexican officials insisted on a government-to-government agreement that would legalize and protect its workers from exploitation. Consequently, Public Law 78 was enacted in 1951 to meet the wartime need for supplemental farm labor and to meet the objections of Mexican and U. S. groups to the current practices.

This law authorized the U. S. Secretary of Labor to arrange with the Mexican Government to recruit Mexican workers for temporary employment in U. S. agriculture, when:

1. Sufficient domestic workers who were able, willing, and qualified were not available at the time and place needed;
2. Their employment would not adversely affect the wages and working conditions of domestic agricultural workers; and
3. Reasonable efforts had been made by employers to attract domestic workers at wages, hours, and working conditions comparable to those offered foreign workers.

A standard work contract for protecting Mexican workers required that they be:

1. Paid the prevailing wage for domestic workers in the area;
2. Guaranteed employment for three-fourths of their contract period;
3. Provided adequate and sanitary housing free;
4. Furnished adequate meals at a charge not to exceed $1.75 per day, or provided with cooking facilities so as to enable them to prepare their own;
5. Provided with occupational insurance by, and at the expense of, the employer; and
6. Furnished with free transportation from the migrant center in Mexico to the employer's farm and, after completion of the contract, back to Mexico.

Imported workers were restricted to work only in activities for which they were contracted and for which the employer was authorized to use imported labor. Individual work contracts ranged from 6 weeks to 6 months (4-week contracts were possible until the 1962 extension). Contracts could be extended for as long as 18 months. If a worker quit and went home, he had to pay his own way. If he "skipped," he became a "wetback" and was subject to deportation.

Originally, Public Law 78 was to last only 2 years. At the end of that time, however, and at subsequent intervals since, the law was extended. Operation of the international agreement was reviewed by both the United States and Mexican Governments at about the time of each extension, and additional refinements were made.

The number of imported workers rose rapidly in the early 1950's. In 1956, the number reached a peak of almost 460,000, of which 445,197 were Mexicans (table 1). Much of the increase in those years was in the cotton areas of Texas, New Mexico, Arkansas, and Arizona; there was also a general increase in the number working on vegetable and field crops in many parts of the Nation. By 1959, when the number had declined only slightly from the peak of 1956, workers were employed in 38 States; most worked on labor-intensive specialty crops in New Mexico, Arizona, California, Texas, Colorado, Arkansas, Florida, and Michigan.

The number of braceros began falling rapidly after 1959, mainly because of increased laborsaving technology--particularly the mechanization of the cotton harvest, a tightening of the certification of need for braceros, and more rigid enforcement of wage guarantees to imported and domestic workers. Also, the movement of immigrant "green card" workers (so-called because of the color of the identification card) from Mexico under Public Law 414 has contributed some additional Mexican labor which is not accounted for in the statistics on foreign agricultural workers. However, these workers are not restricted to agriculture after entry, and the number in farmwork is believed to be in the minority.

Composition and Size of the Supplemental Farmwork Force in 1963

In 1963, agriculture in the 48 contiguous States was comprised of about 3.6 million farms on almost 1.2 billion acres. A total of 8,821 million man-hours, 2.6 percent less than in the previous year, was used on these farms to produce the largest farm output on record--12 percent above the 1957-59 average.

Employment on farms in 1963 ranged from a low of 4.6 million persons in January to a high of 8.2 million in September; average for the year was 6.5 million (table 2). The number of supplemental farmworkers (those not regularly employed on the same farm) fluctuated widely during the year, since they were employed in the seasonal farm jobs. In total, 3,185,218 persons supplemented the regular farmwork force by working on farm jobs during 1963.3/

3/ The Hired Farm Work Force of 1963, U. S. Dept. Agr., Agr. Econ. Rpt. 76, May 1965.

Table 2.--Number of workers on farms in high and low months of employment, annual average and proportion of total, by kind of worker, United States, 1963 1/

Item	Range in employment				Annual average	Proportion of total workers
	Low		High			
	Thousand	Month	Thousand	Month	Number	Percent
Total (USDA-SRS) 2/	4,649	Jan.	8,187	Sept.	6,518,000	100.0
Operator and family	3,785	Jan.	5,528	Sept.	4,738,000	72.7
Hired	864	Jan.	2,768	July	1,780,000	27.3
Seasonal hired (USDL-BES) 3/:						
Total	260.2	Feb.	1,119.6	July	674,200	10.3
Domestic	229.8	Feb.	1,061.6	July	617,900	9.5
Local	198.5	Feb.	822.1	July	502,450	7.7
Migratory	31.4	Feb.	239.6	July	115,450	1.8
Interstate	15.3	Feb.	80.1	July	41,850	.6
Intrastate	16.1	Feb.	159.4	July	73,600	1.1
Foreign	30.3	Feb.	97.9	Oct.	56,300	.9
Mexican	15.1	Feb.	87.0	Oct.	45,775	.7
British West Indian	2.6	July	14.4	Jan.	8,642	.1
Canadian	0	Nov.-Apr.	2.9	Oct.	592	.01
Japanese and Filipino	1.2	Apr.	1.4	Aug.-Sept.	1,291	.02

1/ Both U.S. Department of Agriculture and U.S. Department of Labor data are shown in order to present farm employment as comprehensively as possible; neither series, alone, contains all categories of farmworkers. This and the following footnotes explain the reason for differences in the total number of workers reported.

2/ Data from national survey which obtains numbers of workers on farms by two categories: (1) family and (2) hired; family includes operators and family members, hired includes year-round and seasonal workers.

3/ Data are for seasonal workers only and are from in-season reports of 274 Bureau of Employment Security delineated agricultural reporting areas throughout the country. Reports are received from each area when, (1) 500 or more seasonal hired farmworkers are employed, (2) an area has either a shortage or a surplus of 100 or more seasonal hired workers, and (3) legally admitted foreign workers are employed.

Thus, complete U.S. coverage is not obtained and all areas do not report each month, so the total number of workers reported for the United States differs from the number reported by the U.S. Department of Agriculture from its national survey.

Supplemental workers are divided, on the basis of residence, into two major groups--domestic and foreign. Domestic workers are further categorized as local and migrant, depending upon their mobility; foreign workers are classified according to nationality. The numbers and types of all persons hired for farmwork in 1963 were as follows:

Types	Number
All hired persons on farms	3,806,218
Regular farmworkers 1/	621,000
All supplemental workers	3,185,218
Domestic	2,976,000
Local	2,590,000
Migrant	386,000
Foreign 2/	209,218
Mexican (P.L.78)	186,865
British West Indian	11,856
Canadian	8,500
Bahamian	1,074
Japanese	923

1/ Nonmigratory workers who did 150 days or more of farmwork during the year.

2/ Numbers, by nationality, who entered the United States during 1963. In addition, 20,060 Mexicans were employed on Dec. 31, 1962; the length of their stay into 1963 is not known. The numbers of Japanese and British West Indians employed in 1963 (table 3) indicate some of these workers were also held over from the previous year. In addition, 120 Filipino workers were employed in California in 1963, but they entered in 1962 and, therefore, are not listed with 1963 contract workers.

The numbers of domestic and foreign supplemental workers and the season of peak employment varied greatly by State (table 3). California and Texas had the largest employment of both domestic and foreign supplemental workers in 1963. These States plus Michigan, Arizona, and Colorado employed most of the Mexican workers contracted during the year.

Domestic Workers

Numbers of domestic supplemental workers have fluctuated but have not changed greatly since 1949, before Public Law 78. The sharp drop from 1949 through the early 1950's coincided with increased industrial employment opportunities during the Korean conflict and the inception of the bracero program and increased numbers of imported workers under the program. By 1957, the number of domestic farmworkers surpassed the 1949 figure, and the total number of foreign workers, which had been increasing, declined slightly (table 1). The reverse was true in 1959. From 1961 through 1963, the latest period for which numbers of both foreign and domestic

Table 3.--Number of domestic and foreign supplemental hired workers and time of seasonal peak employment, by States, 1963

State	Peak date	Total	Domestic	Foreign workers 1/					
				Total	Mexican	BWI and Bahamians	Canadians	Japanese	Filipinos
		Number							
California	9-15	211,600	157,600	54,000	52,650	0	0	1,230	120
Texas	7-31	174,740	161,511	13,229	13,229	0	0	0	0
North Carolina	7-31	142,365	142,365	0	0	0	0	0	0
Michigan	7-31	83,447	74,799	2/8,648	8,648	0	0	0	0
Florida	3-15	79,959	67,012	12,947	0	3/12,947	0	0	0
Oregon	8-15	74,815	74,815	2/0	0	0	0	0	0
Washington	6-30	70,234	70,234	0	0	0	0	0	0
Mississippi	9-30	53,515	53,515	0	0	0	0	0	0
Arkansas	9-30	47,876	45,676	2,200	2,200	0	0	0	0
Georgia	6-15	35,215	35,215	0	0	0	0	0	0
New York	9-30	35,061	34,551	510	0	490	20	0	0
South Carolina	6-30	34,650	34,650	0	0	0	0	0	0
Maine	9-30	31,850	24,244	7,606	0	0	7,606	0	0
Tennessee	10-15	31,382	31,382	0	0	0	0	0	0
Kansas	6-30	28,900	28,791	109	109	0	0	0	0
Ohio	9-30	28,075	28,075	0	0	0	0	0	0
Louisiana	9-30	26,225	26,225	0	0	0	0	0	0
Arizona	11-30	25,384	17,274	8,110	8,110	0	0	0	0
Kentucky	8-31	25,031	25,031	0	0	0	0	0	0
New Jersey	7-31	24,925	24,925	2/0	0	0	0	0	0
Oklahoma	9-30	23,075	23,075	0	0	0	0	0	0
Alabama	9-30	22,710	22,710	0	0	0	0	0	0
Pennsylvania	9-15	20,047	20,047	0	0	0	0	0	0
Missouri	5-31	19,950	19,950	0	0	0	0	0	0
Colorado	6-15	16,692	10,141	6,551	6,551	0	0	0	0
Connecticut	8-15	16,540	15,250	1,290	0	1,290	0	0	0
Virginia	7-15	16,210	16,210	2/0	0	0	0	0	0
Idaho	6-30	16,200	16,200	0	0	0	0	0	0
Massachusetts	8-15	14,864	14,505	2/359	0	359	0	0	0
Wisconsin	7-31	14,799	14,530	269	269	0	0	0	0
Minnesota	6-30	12,636	12,636	2/0	0	0	0	0	0
North Dakota	8-15	12,475	12,475	0	0	0	0	0	0
Indiana	9-15	10,320	10,306	14	14	0	0	0	0
Iowa	7-15	10,295	10,295	0	0	0	0	0	0
Montana	6-15	9,925	7,762	2,163	2,163	0	0	0	0
Maryland	7-31	9,247	9,247	2/0	0	0	0	0	0
Illinois	5-31	8,411	8,411	2/0	0	0	0	0	0
Utah	7-15	8,075	7,574	501	501	0	0	0	0
Nebraska	6-30	7,811	5,980	1,831	1,831	0	0	0	0
Delaware	7-31	6,866	6,866	0	0	0	0	0	0
Wyoming	6-15	6,043	4,475	1,568	1,568	0	0	0	0
New Mexico	9-30	4,831	3,576	1,255	1,255	0	0	0	0
South Dakota	7-31	4,400	4,400	2/0	0	0	0	0	0
New Hampshire	9-15	2,750	2,308	442	0	38	404	0	0
Vermont	9-30	1,700	1,622	78	0	0	78	0	0
West Virginia	9-30	976	663	313	0	313	0	0	0
Rhode Island	10-15	418	365	53	0	0	53	0	0
Nevada	4-15	352	352	2/0	0	0	0	0	0
United States	6-30	1,146,421	1,076,944	69,477	64,669	3,211	287	1,190	120

1/ Foreign workers were those actually working at the time of peak employment of all supplemental labor. Numbers do not correspond with data in tables 4 and 5, which show peaks of employment in domestic migratory labor and foreign labor separately.

2/ Foreign workers employed in these States at different dates were as follows: Massachusetts--Canadian; Virginia--BWI; Minnesota--Mexican, BWI, and Bahamian; Maryland, Michigan, and New Jersey--BWI and Bahamian; Illinois, South Dakota, Nevada, and Oregon--Mexican.

3/ Number of BWI's and Bahamians in Florida at the peak exceed by 17 the total number admitted for the year, indicating some were finishing out their contract from the previous year.

Source: From administrative and published reports of the Bureau of Employment Security, U.S. Department of Labor.

workers are available, the number of domestic workers increased faster than foreign workers declined. Total numbers of domestic supplemental workers and numbers by component groups, for specified years, 1949-63, follow:

Year	Total 1/	Local	Migratory
	----------Thousand----------		
1949----------	3,173	2,751	422
1952----------	2,260	1,908	352
1954----------	2,175	1,810	365
1956----------	2,797	2,370	427
1957----------	3,307	2,880	427
1959----------	2,777	2,300	477
1961----------	2,803	2,408	395
1962----------	2,896	2,516	380
1963----------	2,976	2,590	386

1/ Some foreign workers might have been counted in these surveys along with domestic workers. Since the surveys are made in December, the low period in foreign worker employment, the possibility of obtaining any significant number probably is very slight.

Source: The Hired Farm Work Force, Farm Population Branch, Econ. Res. Serv., U. S. Dept. Agr. (for indicated years).

Domestic employment (both migratory and local) by type of crop in 1963 ranged from mushrooms, berries, and fruits to field crops and livestock enterprises. However, vegetables, fruits, cotton, and sugarbeets continued to be the major users of all domestic as well as foreign supplemental labor. Tobacco is also a heavy user of supplemental labor, but mostly from local supplies.

Local

This category includes all persons doing supplemental farmwork except domestic intrastate and interstate migrants and foreign contract workers. Therefore, it includes groups generally referred to as "day-hauls," "walk-ins," "drive-ins," and workers in organized youth groups.

An estimated 2,590,000 local persons did some supplemental farmwork in 1963. Of these, 1,127,000 did more than 25 days of farmwork, and 1,463,000 did less. 4/

All of the 48 contiguous States employed some local farmworkers in 1963. The period of greatest employment varied, as usual, from South to North and South again with the seasons; from mid-March in vegetables, citrus, and sugarcane in Florida to mid-October for New England's apple and potato harvest, and then to winter vegetables in Arizona.

4/ See footnote 3.

Migratory

About 386,000 domestic migrants (both interstate and intrastate) worked for farm wages in 1963. This was 8,000 more than in 1962, reversing a declining trend from the peak of 477,000 in 1959. Seventy-eight thousand (20 percent) worked 150 days or more during the year, 200,000 worked between 25 and 150 days, and the remaining 108,000 worked less than 25 days.

In 1963, migrants were employed in all 48 contiguous States except Rhode Island. The number at the time of estimated peak employment ranged from 200 in Maine and Vermont to 47,700 in California (table 4). Twenty-three States employed less than 5,000, 11 States from 5,000 to 10,000, 8 States from 10,000 to 20,000, and 5 States employed over 20,000.

Foreign Workers

The 209,218 foreign workers admitted for work on U. S. farms in 1963 were less than 7 percent of the total 3,189,218 persons who did seasonal farmwork during the year. By nationality, foreign workers numbered as follows:

Worker	Number	Percent
Total	209,218	100.0
Mexican	186,865	89.3
British West Indians and Bahamians 1/	12,930	6.2
Canadian	8,500	4.1
Japanese	923	.4

1/ This number is exceeded slightly by the peak number employed in Florida on March 15 (table 3), indicating that some of those contracted before 1963 were still employed in March 1963. Also, a small number of Japanese and Filipino workers were already in the United States at the beginning of the year. Workers admitted under P.L. 414 (all other than Mexicans who entered under P.L. 78) can stay as long as 3 years on temporary visas. Japanese and Filipino workers especially have tended to stay the maximum length of time.

These workers were employed in 31 States, 1 less than in 1962. Mexican contract workers were employed in 19 States, British West Indians (BWI's) in 8, Canadians in 3, Bahamians in 1. Both Mexican and BWI workers were employed in 4 States; in California, Mexican, Japanese, and Filipino workers were used (table 3).

The number of foreign workers employed at the estimated peak period ranged from 10 in Maryland in January to 65,100 in California in September (table 5). Thirteen States employed more than 1,000 workers at the peak and 4 of these--California, Texas, Florida, and Michigan--employed more than 10,000.

Table 4.--Estimated peak employment and period of employment of domestic migrant labor in agriculture, 1963 1/

State	Peak number of migrants employed	Period in which migrants were employed	Date of peak employment
California	47,700	Jan.-Dec.	Aug. 31
Michigan	44,600	Apr.-Nov.	July 31
Texas	29,700	Jan.-Dec.	Oct. 31
New York	22,000	May-Nov.	Sept. 30
Oregon	20,500	Mar.-Nov.	Aug. 15
Washington	19,100	Jan.-Dec.	June 30
Florida	18,200	Jan.-Dec.	Mar. 15
Kansas	15,800	Apr.-Nov.	June 30
North Carolina	14,000	Apr.-Dec.	July 31
New Jersey	12,300	Apr.-Nov.	Aug. 15
Ohio	12,100	May-Oct.	Sept. 15
Wisconsin	10,900	May-Oct.	July 31
Virginia	10,200	May-Nov.	July 15
Idaho	9,600	Mar.-Nov.	June 15
Oklahoma	8,600	Jan.-Dec.	May 31
South Carolina	8,300	Apr.-Oct.	June 15
Indiana	8,300	May-Oct.	Sept. 15
Colorado	7,800	Apr.-Nov.	Sept. 30
North Dakota	7,100	Apr.-Oct.	Aug. 15
Arkansas	6,500	Apr.-Oct.	May 15
Illinois	6,300	May-Oct.	May 31
Pennsylvania	6,300	May-Nov.	Sept. 15
Minnesota	6,200	May-Nov.	June 30
Montana	5,100	Jan.-Dec.	June 15
Missouri	4,200	Apr.-Nov.	June 15
Delaware	3,900	Apr.-Nov.	Aug. 15
Connecticut	3,300	Jan.-Dec.	July 31
Maryland	3,000	May-Oct.	July 31
Nebraska	2,900	May-Oct.	June 30
Arizona	2,800	Jan.-Dec.	Nov. 30
South Dakota	2,200	May-Aug.	July 31
Louisiana	2,200	Jan.-Dec.	Apr. 30
Wyoming	2,200	May-Aug.	June 15
Utah	1,900	May-Oct.	July 31
Mississippi	1,800	May-Dec.	July 15
Massachusetts	1,700	Mar.-Dec.	July 31
New Mexico	1,600	Jan.-Dec.	Sept. 15
Alabama	1,400	May-Oct.	May 31
Kentucky	1,200	May-Sept.	May 15
Iowa	800	Apr.-Nov.	Aug. 31
West Virginia	800	Sept.-Oct.	Sept. 30
Tennessee	500	Apr.-July; Sept.-Nov.	Oct. 15
Nevada	300	Jan.-Sept.	Apr. 15
New Hampshire	300	May-Oct.	Sept. 30
Georgia	300	Apr.-Oct.	May 31
Maine	200	May-Oct.	Sept. 30
Vermont	200	May-Oct.	Sept. 15

1/ Migrants include intrastate, interstate, and Puerto Rican workers.

Source: Bureau of Employment Security, U. S. Department of Labor, March 1964.

Table 5.--Estimated peak employment and period of employment of foreign workers in agriculture, 1963 1/

State	Peak number of foreign workers employed	Period in which foreign workers were employed	Date of peak employment
California	65,100	Jan.-Dec.	Sept. 30
Texas	17,700	Jan.-Dec.	Oct. 31
Florida	14,300	Jan.-Dec.	Jan. 31
Michigan	13,500	July-Dec.	Aug. 15
Arizona	8,100	Jan.-Dec.	Nov. 30
Maine	7,600	May-Oct.	Sept. 30
Colorado	6,600	May-Nov.	June 15
Arkansas	4,800	May-July; Sept.-Oct.	June 30
Nebraska	2,200	May-Oct.	June 15
Montana	2,200	May-July	June 15
Wyoming	1,600	May-July	May 31
New Mexico	1,400	Jan.-Dec.	Oct. 15
Connecticut	1,300	Jan.-Dec.	Aug. 15-31
Virginia	800	Sept.-Oct.	Sept. 30
New Jersey	800	Aug.-Nov.	Oct. 15
Wisconsin	600	July-Oct.	Aug. 31
Massachusetts	600	Jan.-Dec.	Sept. 15
New York	500	Sept.-Nov.	Sept. 30
Utah	500	May-Oct.	July 15
New Hampshire	500	May-Oct.	Sept. 30
Indiana	400	July-Sept.	July 31-Aug. 15
West Virginia	300	September	Sept. 30
Kansas	200	May-Oct.	May 31-June 15
Minnesota	100	Aug.-Nov.	Sept. 15
Vermont	100	Sept.-Oct.	Sept. 30
Nevada	100	May-Sept.	May 31-June 15
Oregon	100	September	Sept. 15
Rhode Island	100	Sept.-Nov.	Sept. 15-30
Illinois	50	Sept.-Oct.	Sept. 15
South Dakota	50	May-July	May 31-July 15
Maryland	10	January	Jan. 31

1/ Foreign nationals legally contracted for temporary farmwork in the United States.

Source: Bureau of Employment Security, U.S. Department of Labor, March 1964.

There was, however, considerable variation among States in the length of period in which foreign workers were employed, ranging from 1 month in Maryland to year-round in some heavier-using States (table 5). Consequently, about 95 percent of the total 678,000 man-months of foreign labor employed was used in 8 States--California, Texas, Florida, Arizona, Michigan, Colorado, Arkansas, and New Mexico. 5/

Mexican contract workers admitted under the now-expired Public Law 78 were the largest segment of foreign workers in 1963; they accounted for about 550,000 man-months, or 81 percent of the man-months of foreign labor used. Intensive recruiting efforts to obtain replacements for these workers are currently underway. If the replacements are to be migrants, they will require housing; housing used by the braceros that they would replace was primarily designed for single workers and therefore is not usable by domestic migrant families without conversion. Thus, the extent to which migrant families can be recruited for this work may be limited by the available housing.

A total of 16,132 farm employers used Mexicans under contract during 1963; 15,652 of them were user-members of grower associations, and the remaining 480 were individual farm contractors. Assuming one employer per farm, only 0.45 percent of all farms in the 48 contiguous States employed Mexican workers in 1963.

While the average number of Mexicans (45,775) employed on U. S. farms during the year accounted for only 0.7 percent of the total farmwork force (table 2), the 186,865 contracted during the year constituted about 5.9 percent of the total number of persons who did supplemental farmwork. In States where these workers were concentrated, however, they constituted a more significant proportion of the supplemental farm labor force. About 57 percent of the 1963 total man-months of Mexican labor was used in California, 20 percent in Texas, and 10 percent in Arizona. Michigan, Colorado, Arkansas, and New Mexico combined accounted for almost 11 percent, and the remaining user States accounted for less than 1 percent each (table 6).

British West Indians and Bahamians constituted the second largest segment of foreign workers, accounting for slightly over 15 percent (103,900 man-months) of total foreign labor. This, combined with the 81 percent supplied by braceros, accounts for 96 percent of total foreign labor; the remaining 4 percent (23,744 man-months) was supplied by workers of all other foreign nationalities combined. All foreign workers other than the braceros entered under Public Law 414.

British West Indian and Bahamian workers were employed primarily for work on the Florida sugarcane and citrus crops, which used about 84 percent of their total man-months of labor. The remaining portion was divided among 10 other States, with major shares of it being used in the Connecticut tobacco and Virginia fruit harvests. The Canadians were employed primarily for the potato harvest in Maine; all Japanese were employed in California.

5/ Farm Labor Market Developments, Bureau of Employment Security, U. S. Dept. of Labor, March 1964.

Table 6.--Man-months of Mexican labor, by State, 1963

Total and State	Man-months	Percentage of total
U.S. total	550,356	100.0
California	315,915	57.4
Texas	108,762	19.8
Arizona	53,276	9.7
Michigan	20,452	3.7
Colorado	19,932	3.6
Arkansas	11,942	2.2
New Mexico	6,655	1.2
Montana	3,576	.6
Nebraska	3,288	.6
Wyoming	2,465	.4
Utah	1,649	.3
Wisconsin	1,064	.2
All others	1,380	.3

Source: Bureau of Employment Security, U.S. Department of Labor, March 1964.

FOREIGN-WORKER EMPLOYMENT BY CROPS AND ESTIMATED REPLACEMENT LABOR NEEDED

If established production patterns are to remain substantially unaltered, replacement workers will be needed for braceros, even if maximum use is made of mechanical and other laborsaving technology. Evaluation of total employment and the contribution of foreign workers by individual crops, and the status of laborsaving technology applicable to production of these crops lead to the following estimated numbers of replacement workers needed after maximum adoption of existing technology:

	Replacement workers needed	Usual peak dates
Vegetables		
Tomatoes	20,000	October
Cucumbers	17,500	August
Lettuce	11,000	October
Other vegetables	5,000	June
Fruits		
Strawberries	10,000	June
Citrus	7,000	March
Melons	6,700	June
Other fruits	8,500	October

The following discussion is the basis for these estimates. It emphasizes the use of foreign workers by crops and the status of mechanization and other technology applicable for significantly reducing labor inputs.

In 1963, foreign laborers worked on a variety of crops and accounted for 8 percent of the total man-months of seasonal hired labor used for crops on which they worked. They worked primarily on vegetables, fruits, sugar crops, and cotton. These crops collectively accounted for 82 percent of their total man-months of labor (table 7).

Table 7.--Man-months of seasonal hired labor, foreign labor, and foreign labor as a percentage of total seasonal labor and percentage of foreign labor used by crop for selected labor-intensive crops, United States, 1963

Crop	Man-months of seasonal hired labor			
	Total	Foreign	Percentage of foreign	
			Of total	Used by crop
	Thousand	Thousand	Percent	Percent
All farmwork	8,095.5	678.3	8.4	100.0
All vegetables	1,874.7	273.7	14.6	40.4
Tomatoes	324.0	80.6	24.9	11.9
Cucumbers	102.0	31.4	30.8	4.6
Lettuce	122.2	72.5	59.3	10.7
Potatoes	237.4	9.4	4.0	1.4
Beans	248.9	8.5	3.4	1.3
Other vegetables	840.2	71.3	8.5	10.5
All fruits	1,533.0	161.1	10.5	23.7
Citrus	351.0	80.3	22.9	11.8
Strawberries	252.0	43.5	17.3	6.4
Melons	68.9	20.3	29.5	3.0
Other fruits	861.1	17.0	2.0	2.5
Cotton	1,668.5	46.1	2.8	6.8
Sugar crops	235.7	75.3	31.9	11.1
Cane	85.3	46.1	54.0	6.8
Beets	150.4	29.2	19.4	4.3
All other 1/	2,783.6	122.1	4.4	18.0

1/ Includes labor used on livestock, hay, grain, tobacco, and all other crops.

Source: Bureau of Employment Security, U.S. Department of Labor, January 1964.

Man-months of foreign labor shown in table 7 represented the total supplied by all nationalities and were inseparable for crops on which more than one nationality was employed. Except for the following, however, they were primarily Mexicans. British West Indian and Bahamian workers employed in Florida accounted for the total man-months of foreign labor used on sugarcane. BWI's were also employed in Florida on citrus crops, and, to a lesser extent, on tomatoes and other vegetables; thus, they contributed some to the total foreign labor used on these crops. They were also employed in the Virginia and West Virginia apple and the Connecticut and Massachusetts tobacco harvests; consequently, they supplied a portion of the foreign labor in the "other fruits" and "all other" groups. Canadians employed in the Maine potato harvest accounted for foreign labor used on that crop.

BWI's employed in Florida on citrus, sugarcane, and vegetable crops and Canadians working the Maine potato harvest entered the country to do work under the provisions of Public Law 414. All other foreign workers, except Mexicans who entered under the now-expired P.L. 78, came into the country under P.L. 414.

Vegetables

In 1963, hired foreign workers performed about 15 percent of the nearly 1.9 million man-months of seasonal hired labor on vegetables (table 7). Lettuce was the only crop for which foreign workers accounted for more than half of the work done by supplemental workers (59 percent). Foreign workers also supplied a substantial portion of the work performed by supplemental workers on cucumbers (31 percent) and tomatoes (25 percent).

In the estimates which follow, it is recognized that such percentages do not measure fully the contribution of foreign workers to production of the labor-intensive crops on which they are employed, since they customarily have performed critical peak-labor operations in the production process. All estimates are short-run, and allowance is not made for possible long-range geographical shifts in production to areas with adequate labor supplies.

Whether any decrease in production of crops that have depended heavily on foreign labor occurs as a result of the termination of foreign worker programs depends largely on the extent to which the domestic farmwork force is increased. Consequently, no attempt is made to estimate the impact, if any, on production; otherwise, the prospective situation is as follows:

Tomatoes

Assuming mechanization of the tomato harvest continues at about the same rate as it did in 1963 and 1964, and there is no change in the production pattern, about 20,000 workers will be needed in California at the peak for replacing braceros previously employed in this crop.

California produces over half of the U. S. tomato crop, about 60 percent of which is used for processing. In 1963, when about 34,000 braceros were employed in the California tomato harvest, 25 machines harvested about 5 percent of the State's processing tomato crop. In 1964, there were about 100 machines in operation, harvesting about 20 percent of the processing crop. As more machines become

available and the quality of the mechanizable-processing tomato is improved, machine harvesting will expand; but harvest labor will continue to be needed for some processing tomatoes and for all fresh-market tomatoes, which cannot now be machine-harvested.

The expiration of the bracero program coincides with 2 years of successful use of the tomato harvester. Thus, there is reason to anticipate that production and adoption of the machine may become more rapid. Should this occur, the number of replacement workers required will, of course, decline.

In 1963, 22 California counties used seasonal hired labor on tomatoes and most of them may require some bracero replacements. San Joaquin and Yolo Counties will likely have the greatest need, since almost half of the seasonal labor on this crop was employed there in 1963.

Cucumbers

An estimated 11,000 replacements for braceros will be needed in the 1965 Michigan cucumber harvest, plus about 6,500 in Western States that use braceros in cucumber production. East Coast States producing cucumbers do not use foreign workers on this crop. Machines have been developed for harvesting cucumbers for pickles; but a sufficient number to replace 20,600 braceros, which made up about half of the 1963 peak supplemental work force, are not available.

Lettuce

Evaluation of the contribution of Mexican workers to lettuce production and of the available methods for reducing the labor input lead to an estimate of 11,000 replacement workers needed to prevent disrupting production of this crop. This approximates the number of braceros employed at the peak harvest period in 1963. Mechanical harvesters probably will not be available to replace braceros in 1965, although their development is progressing rapidly.

California and Arizona are the principal lettuce-producing States and are the ones in which this replacement labor will be needed. California counties in the order of the greatest number of braceros employed on lettuce in 1963 are Monterey, Imperial, Riverside (East), Contra Costa, Alameda, Stanislaus, Santa Barbara, and Ventura. In Arizona, lettuce is grown primarily in Maricopa and Yuma Counties.

Potatoes

The end of P.L. 78 will not affect foreign workers employed on this crop. They are Canadians working in the Maine potato harvest and entering under P.L. 414. In 1963, they numbered about 7,600 at the September peak. Should this program be restricted, they would probably be replaced by increased use of mechanical harvesters in areas having less stony soils.

Snap Beans

About 3,400 foreign workers, 3 percent of all seasonal labor employed on beans, were engaged in this crop at the 1963 peak. With exception of pole beans, this crop can be mechanically harvested. Terminating the use of P.L. 78 workers will probably result in further mechanization of this crop.

Other Vegetables

About 5,000 bracero replacements will be needed for the asparagus harvest in California, which produces slightly over half of the U. S. crop. Mechanical harvesters cannot be used to replace these workers; machines are still in the experimental stage.

Except for asparagus, discontinuation of foreign worker programs should not materially alter production of vegetables other than those already discussed.

Fruits

Foreign-worker employment on all fruit crops amounted to 161,000 man-months in 1963, about 10 percent of the total seasonal hired labor on fruits (table 7). Citrus, strawberries, and melons were the major fruit crops in which foreign workers were employed.

Terminating the use of foreign workers on fruits may, as in vegetables, reduce production and have a depressing effect on some of the individual crops, unless replacement labor is obtained. Any prolonged shortage of workers for fruits would produce effects somewhat different from those for vegetables. Annual production adjustments of tree fruits and vineyards to the size of the labor force are impossible. If cared for, trees and vines will yield about the same whether harvest labor is available or not; some production from more than 1 year's crop could be lost. Reductions in planting would affect production only in future years.

Citrus

About 7,000 bracero replacements will be needed in the citrus harvest--about 6,000 in California and 1,000 in Arizona--since mechanical harvesting is not yet feasible. Termination of P.L. 78 does not directly affect the annual importation of about 3,500 BWI's and Bahamians, under P.L. 414, for work in Florida's citrus harvest; but similar numbers of replacements will be required for these workers if importation of this off-shore labor is restricted.

Strawberries

The strawberry harvest is not yet mechanized; consequently, termination of P.L. 78 creates an immediate need for about 10,000 replacement workers if production of this crop is not to be disrupted. About 9,600 foreign workers, primarily Mexicans employed in California, were handpicking strawberries at the harvest peak in June 1963. Principal California counties affected are Monterey, Santa Clara, and San Joaquin.

Melons

About 6,700 bracero replacements will be required for harvesting cantaloups, honeydews, and watermelons, if present production patterns are not to be disrupted. These crops are not yet mechanically harvestable. Replacements will be needed primarily in Arizona and California, although a few will be needed in Texas.

Other Fruits

At the peak of the 1963 harvest, 2,850 Mexican nationals were employed for work on grapes. This is a small proportion of the total number of workers used in harvesting the more than 450,000 acres of grapes, but the braceros were important where used. Some replacements may be required to prevent disrupting production, since a satisfactory wine-grape harvester is not in commercial production.

Apples, peaches, pears, and other fruits used a total of 17,000 man-months of foreign labor in 1963. This was only 2 percent of the total seasonal employment. Loss of foreign workers should have little national effect on these crops. However, little mechanization of the harvest of these crops is yet possible; consequently, replacements for the braceros will be needed.

Cotton

While cotton remained the heaviest user of supplemental labor of any crop in 1963, it was also the crop in which the displacement of labor by machines and chemicals has been most dramatic. A continuation of this trend is likely for the next few years and indicates that the termination of the bracero program will not adversely affect total production. Rather, a continuation of the annual displacement rate of about 52,000 workers indicates a number of potential workers available for use in other crops.

In 1958, when 34 percent of the cotton crop was machine-harvested, 627,000 seasonal workers (455,000 domestic and 172,000 foreign) were employed at the peak of harvest. In 1963, 72 percent of the crop was machine-harvested and 366,000 workers (350,000 domestic and 16,000 foreign) were employed at the peak. This change amounted to a decline of 261,000 (105,000 domestic and 156,000 foreign) for an annual decline of about 52,000. Foreign workers used in 1963 were less than 10 percent of the number employed 5 years earlier.

Foreign workers employed in the 1963 cotton harvest were Mexicans contracted under P.L. 78. Distribution of foreign-worker employment at the 1963 peak in the major user States was about 11,000 in Texas, 4,500 in Arkansas, and 700 in New Mexico. In total, they supplied about 46,000 man-months of cotton-producing labor, 2.8 percent of the seasonal hired-labor total (table 7). This labor was employed primarily in the cotton harvest. Very few were used in preharvest weeding and thinning jobs; most of this work was performed by local labor. Increased use of herbicides and flame cultivation for controlling weeds is rapidly reducing the amount of preharvest work required.

Sugar Crops

Beets

In view of the small number of foreign workers employed on sugarbeets and the ready alternatives to their use, termination of P.L. 78 should have little aggregate effect on production.

Most sugarbeets are harvested mechanically, and the seasonal labor employed on this crop is primarily for thinning and weeding. About 12,400 Mexican contract

workers were employed in these jobs in June, the peak of the 1963 season. Peak employment of Mexican workers, by States, was about 5,000 workers in Colorado, 2,500 in California, about 2,000 each in Nebraska and Montana, 1,500 in Wyoming, and less than 100 in South Dakota and Utah combined. About 29,000 man-months of Mexican labor were used on this crop in 1963.

Use of herbicides for controlling weeds, monogerm beet seed, and other changes in production practices have materially reduced the amount of labor used for this crop. Mechanical sugarbeet thinners are available, although they have not been widely accepted by growers. Many believe that yield loss resulting from mechanical thinning is greater than the cost of labor for hand thinning. Experiments with "precision planting" appear successful and give promise of eliminating thinning labor.

Cane

Florida and Louisiana are the mainland cane-producing States; in neither of them is Mexican labor used. Louisiana has succeeded in mechanizing the harvest; Florida has not, and uses a considerable number of British West Indians for hand harvesting, which is the heavy labor-using operation. About 6,000 BWI's were employed at the peak of harvesting Florida's 1962-63 crop, and a total of 46,000 man-months of BWI labor was used. This constituted about 63 percent of total seasonal employment in the Florida cane crop.

While the ending of the bracero program will have no direct effect on production of sugarcane, discontinuance of foreign-worker programs under P.L. 414 could have a pronounced effect unless mechanical harvesters are quickly adapted to the Florida crop or about 6,000 replacement workers are obtained.

From the foregoing discussion, it is clear that even after braceros are replaced to the maximum extent possible by mechanization and other laborsaving technology, replacement workers will still be needed if production patterns are to remain essentially unchanged. Among the foremost potential replacements are domestic migratory workers. The crops requiring replacements, excepting citrus, have relatively short harvest seasons. Workers are not needed year-round, but are of critical importance during harvesting. Thus, domestic migrant farmworkers are among those most likely to fit this demand schedule.

An intensive recruitment effort has been underway since the middle of December 1964, trying to increase the size of the domestic farmwork force. To increase materially the domestic migrant segment of the work force will require adequate housing in addition to a recruitment program. Without housing, migratory workers cannot be recruited successfully.

MIGRANT HOUSING

Like food and clothing, housing is a basic necessity. In the case of migratory farmworkers, however, it is a special problem and a key element in the migratory system. The average citizen resides in a permanent home throughout the year, but not the migrant. Interstate migrants occupy a series of temporary quarters in their seasonal march. The majority leave their Southern home bases and move northward, then back with the season, through the areas of labor-intensive crops where they live

and work for varying but relatively short periods of time. The intrastate migrant leaves his home for temporary employment in one or more agricultural production areas within his home State.

Both interstate and intrastate migrants obtain their own home-base housing, usually residences they or members of their family own, or some type of low-rent accommodations in the area of their choosing. The nature of migrancy, however, requires that they move from their home bases, then from one area of agricultural activity to another, as the farmwork they follow commences and ends with the advancing season. They, and family members in the case of family groups, require housing in each such area.

The kind and amount of migrant housing needed depend on the number of workers employed and whether they are single or family workers. There are no data on the proportion of family workers or single workers in the total migrant population; nor are there known trends in proportions of these two groups. A 1963 Oregon survey in areas where foreign workers were not used indicated, however, that there was about one single migrant worker to every three migrant families. 6/

Development of Migrant Housing

Early Period

Developing along with the migratory system have been the various types of housing and the methods by which housing has been provided. For example, the bunkhouse, provided by the rancher for his cowboys, has been much publicized and is well known. The less picturesque and, therefore, less publicized occasional hired man often lived with the farm family or in housing it provided for him; immigrant and foreign seasonal farmworkers were usually provided some type of accommodations by growers to insure the availability of workers when needed.

Depression Developments and Subsequent Effects

During the Depression and Dust Bowl years of the 1930's, large numbers of citizens turned to the farms to make a living. They displaced the imported workers, overfilled existing housing, and swelled the farm labor ranks. Many lived out of automobiles, tents, crudely constructed huts, and whatever else they could improvise. Mostly, they lived in clusters under trees, which afforded some protection from the sun, and along the banks of streams or irrigation canals, which afforded a water supply. The Federal Government, attempting to improve the living conditions of migrant workers, entered the picture in 1935. By 1941, the Farm Security Administration of the U. S. Department of Agriculture operated a total of 74 camps which could serve more than 13,000 families at one time. 7/ With the tight labor supply which developed during World War II and the resulting importation of foreign agricultural workers, Federal housing was used for imported as well as for domestic workers.

6/ Oregon State University—USDA cooperative study of The Economics of Housing Migrant Farmworkers. (In process.)

7/ A History of the Emergency Farm Labor Supply Program, by Wayne D. Rasmussen. Agr. Mono. No. 13, Bur. Agr. Econ., U. S. Dept. Agr., pp. 10-20, Sept. 1951.

In 1947, Congress authorized disposal of the housing facilities and equipment used in the farm labor supply program to any public or semipublic agency or nonprofit association of farmers in the community that would agree to operate and maintain them for the principal purpose of housing persons engaged in agricultural work. The Department had a total of 53 permanent and about 110 temporary camps when the program ended on December 31, 1947. These camps, some now operated by local housing authorities and others by grower associations, constitute a significant portion of the present supply of migrant housing.

This housing--usually termed either migrant or camp housing--varies in type of construction and facilities, as do the methods by which it is provided. Because of the variations in camp living quarters among States, among producing areas of the same State, within a given producing area, and often within the same camp, the President's Committee on Migratory Labor found it necessary in their work to define a camp. 8/ Their definition, which follows, described the situation in 1956:

> Agricultural labor camps, hereinafter referred to as "camp", includes one or more buildings or structures, tents, trailers, or vehicles, together with the land appertaining thereto, established, operated or used as living quarters for five or more seasonal or temporary workers engaged in agricultural activities, including related food processing.

Although there has been some upgrading of migrant accommodations since then, they yet run the gamut from a location for pitching tents to modern cabins or apartments with electric appliances.

Methods by Which Housing is Provided

Migrant housing is provided by local housing authorities; commercial operators of obsolete hotels, motels, and rooming houses; owners of surplus houses; and by the migrant pulling his housetrailer or carrying a tent. Notwithstanding all of these, growers provide the majority of housing for migrant workers.

Grower Camps

Faced with the problem of obtaining and keeping enough workers at the times needed to produce and harvest their crops, growers have largely assumed the responsibility of providing housing to accommodate the kind and number of workers they employ. This housing may be provided by the individual grower who operates his own private camp or by a group of growers who form an association to construct or obtain and operate a camp or camps, usually central to the membership. Living quarters in these camps are designed for either single persons or for families depending on which of these the growers employ.

In areas employing both singles and families, it is not uncommon for growers to provide housing for each group in the same camp. The Oregon survey of migrants in 1963 indicated that migrants tend to return each year and to the same grower when

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8/ Suggested Language for Regulations of Agricultural Labor Camps, the President's Committee on Migratory Labor, U. S. Dept. Labor, p.5, May 4, 1956.

treated well and when earnings and housing are relatively good. 9/ Yet, they sometimes alter the course of their migration for such reasons as anticipation of lower earnings or reduced job opportunities in an area as a result of increased mechanization, shifts in crop production, or low yields due to pests or weather. Also, some workers find steady employment and stop migrating.

Thus, by having housing for both singles and families, growers reduce somewhat the risk of being without workers. Family housing can always be used to house single workers by simply assigning one or more of them to a family-type unit. On the other hand, the usual barracks or dormitory-type camp, built specifically for single workers, lacks the privacy required for families. In addition, they usually have central toilets, bath, and mess facilities which further limit use for family groups without modification.

Although there is some diversity, housing is generally provided without cost to the worker in individually owned grower camps; a small weekly rent is usually charged in association camps. Workers often obtain more days of work without moving when occupying association housing, as all crops do not require attention at the same time; workers may move from one association member's crops to those of another as needed. In some instances, however, individual growers allow workers to live in their private camps and work for neighboring growers before and after employment in their own crops. In these cases, the camp operator does not usually charge the worker rent, but the using neighbor sometimes contributes to the operation of the camp.

Some of the old Farm Security Administration camps, discussed earlier, are operated by grower associations and community housing authorities.

Housing Authorities

Some agricultural communities have formed housing authorities for acquiring and operating camps to provide housing for migrant workers. These operations are similar to grower-association housing in that the camps are usually centrally located in the farming community, often in or near the area trade center, and workers are charged rent. These are nonprofit operations, however, and rent charges are relatively small.

Commercial Housing

Because of the cost of providing housing, the short time it is used each year, the low income of migrants, and consequently the small amount of rent they can afford to pay, there are very few commercial camps catering to migrants. But, some do exist--usually taking any other tenants they can obtain, such as processing plant workers. Several such operations were found in the Oregon survey of migrant housing in 1963. 10/

There are several other types of commercial operations that house some migrants. Some workers live in obsolete and rundown hotels and roominghouses in deteriorated urban areas within commuting distance, usually by grower bus or truck, of seasonal farm jobs. These workers are principally single males.

Obsolete tourist courts, motels, and surplus houses in those producing areas where they are available are used by some workers. Workers using this kind of housing are usually those who seek areas where there are shortages of workers and piece-rate jobs with growers whose crops might offer the greatest potential earnings.

9/See footnote 6.
10/ See footnote 6.

Then, without the restraint of a housing tie, they can change jobs as often as they think it profitable to do so. The fact that this is not widely practiced is reason to question whether or not the increased earnings for the amount of time worked offsets time lost looking for new jobs and the generally higher cost of this type of housing than that furnished by growers at little or no cost. Also, most growers, being concerned with the whole crop--not just that part in which the worker believes he can earn the most--take a dim view of such a practice. When there is a shortage of workers and the crop requires immediate attention, however, growers have few alternatives.

In California, houses built by the workers have been of some importance. They developed along with the resettlement which resulted from the Depression. Many of the dust and Depression victims who went to California found quarters in Government camps in the early 1940's. Some remained until a stimulated economy facilitated their movement into the war production plants of World War II. Others managed to build their own permanent homes piecemeal in the valleys of California where they had concentrated. Areas of such settlements in the San Joaquin Valley now reflect the varied but increased economic status of the inhabitants. Many of these homes have been improved and now are comfortable homes of working people. A joint U. S. Department of Agriculture—University of California survey in 1962 showed that many of the residents had moved out of farmwork over the years into processing plants and industry, and others had become owner-operators of small businesses such as service stations, groceries, and restaurants. However, on the back of many of the lots in this settlement and facing onto the alleys are small one- or two-room cabins, usually of weatherboard or board and batten exterior, that reflect the owners' intimacy with migrancy. These cabins and some of the houses fronting on the streets are rented to migrant families who now flow through the heart of California's labor-intensive farming area on closeby Route 99, the main artery of the Western migrant stream.

Within this area, this type of migrant housing predominates. However, it accounts for only a small proportion of total migrant housing.

Foreign-Worker Housing

Large areas of vegetable farming have developed, with Mexican nationals as the principal supplemental workers. To continue production on the same scale, housing for migrant families will be required. Two examples of existing housing may be cited.

In one area, housing is provided by a large number of grower camps for single workers, built to meet the requirements of P.L. 78 and used primarily for Mexican workers. Two county housing authority camps constitute all of the housing available for domestic migrant families. One of these camps also has a large barracks for housing single migrants.

The other area is much closer to the mainstream of the domestic migrants but has provided housing for single workers only.

These areas approximate others where large numbers of braceros have been employed. Most of the housing represents a considerable outlay of private and association funds, but it is adequate only for single workers.

To attract and hold domestic migrants, much of the former bracero housing needs to be made suitable for family use.

Other Housing

Migrants sometimes choose their quarters from whatever rental housing is available to them. Or, they may provide their own, and a few do, by taking along a house-trailer, camp wagon, or tent, and camping on a grower's farm or in public parks or camps.

Usually, corporations and large companies growing and processing foodstuffs provide their own private camps for migrants they employ.

Housing Requirements by Alternatives to the Use of Braceros

In addition to the partial replacement of braceros by available technology, other alternatives to their use include: (1) Replacement by other workers; (2) curtailment of production to the present supply of domestic hired and family labor, which in time would probably result in some shifting of labor-intensive crops to areas with adequate domestic labor; (3) combinations of alternatives; and (4) in the long run, further development and adoption of laborsaving technology.

Among these alternatives, only those involving replacement of braceros by other workers would result in an immediate need for additional housing--and then only if the replacements were by migrant families.

The alternatives chosen lie largely with individual growers. The uncertainty of obtaining replacement labor, which has prevailed since the termination of P.L. 78, has focused attention on mechanization and other technology. Many producers of crops on which further use of technology is possible may have decided on this as the most feasible solution. The decisions of others probably will be influenced considerably by the results of efforts to recruit domestic labor.

Therefore, the extent to which replacement labor will be obtained and used cannot be accurately predicted. Neither can the composition, and consequently the housing requirements, of those workers who are obtained be determined. However, the additional amount of housing required in the event of maximum bracero replacement by technology or by migrant families can be estimated.

Estimates in the following sections indicate minimums and maximums of additional housing that will be immediately required if replacement is by migrant families. Since survey data on the quality of existing farm labor housing are not available, the extent to which existing housing should be replaced because of its substandard quality is not known and therefore could not be accounted for in these estimates.

Technology

The analysis of bracero use by crop indicated that many but not all P.L. 78 workers could be replaced by mechanization and other available technology. The areas and crops where the greatest number of replacements would be required to prevent disruption of production patterns, after the estimated replacement by technology, are estimated as follows:

About 11,000 workers would be needed at the peak in August for the Michigan cucumber harvest. The peak number needed is used, because this indicates the maximum amount of housing required. The Michigan labor market areas of greatest need would be Bay City, Benton Harbor, Lansing, Manistee, and Muskegon.

About 45,000 to 50,000 replacements would be needed in California at the peak around the first of October for harvesting vegetables and fruit. Except for the North Coast area which has not used braceros in recent years, all of the California farm labor market areas would require some replacements.

Up to 5,000 replacements may be needed in the Texas vegetable crops in October, and 5,000 to 6,000 in Arizona at the peak, about December 1, for harvesting vegetables and citrus in Maricopa and Yuma Counties.

If these replacements are migrant families, some additional housing will be required. Most of the bracero housing is convertible, at a cost, for family use. However, a reduction in the number of workers that could be housed in these camps would accompany the change. While some reduction would result from space lost in conversion, the major reduction would result from the number of nonworking dependents who accompany family workers.

Although estimates vary as to the number of nonworking family members of migrant workers, the evidence available indicates that the ratio of total migrant population to migrant workers is about three to two. On the basis of this ratio, the number of braceros housed in 1963, and the previous estimate of replacements needed in 1965 after maximum use of technology, the additional number of persons for which housing would be required is as follows:

State	Number
California	1,500-6,500
Michigan	1,000-3,000
Arizona	600

Migrant Families

The possibility that all braceros will be replaced by migrant families is unlikely; it is used here only for the purpose of estimating the maximum additional number of persons for which housing may be required as a result of the bracero program's expiration. Under this assumption, the number of additional persons for which housing would be required after conversion of bracero housing, at the 3:2 ratio in principal bracero-using States, is estimated as follows:

State	Number
California	29,000
Michigan	7,000
Colorado	3,000
Arizona	1,700
New Mexico	700
Texas	None
Arkansas	None

Areas in which the additional housing would be required in California, Michigan, and Arizona are the same as those enumerated under the technology alternative. Colorado areas requiring additional housing under this alternative would be Northern Colorado, San Luis Valley, Arkansas Valley, and the Western Slope. New Mexico areas would be Silver City, Carlsbad, Roswell, and possibly a few units in the Las Cruces and Hobbs areas.

While some additional housing may be required in States other than those indicated, the number of braceros employed at the peak in other States, as shown in table 5, indicates that the amount would not be great.

As previously indicated, however, some combination of alternatives to the use of braceros--some replacement by mechanization, some by other workers, and possibly some curtailment of production--is the most likely result. Consequently, the additional number requiring housing will probably be somewhere between the estimated extremes.

Housing estimates, like those involving replacement by mechanization, are based on 1963 production and bracero employment data. Detailed knowledge of available housing could not be used in making these estimates, as there is no inventory of housing. Therefore, these estimates do not, except where indicated, account for changes that occurred in the number of workers, production, use of technology, or housing during 1964.