



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

CA

92-1



Serving the People
of California

CALIFORNIA AGRICULTURAL STUDIES

92-1

Agricultural Employment Pattern Study: 1989

Labor Market Information Division

GIANNINI FOUNDATION OF
AGRICULTURAL ECONOMICS
LIBRARY

JUL 24 1992

Employment
Development
Department



**AGRICULTURAL EMPLOYMENT
PATTERN STUDY**

**STATEWIDE
1989**

**BY
SPECIAL PROJECTS UNIT
OCCUPATIONAL AND SPECIAL REPORTS GROUP**

FEBRUARY 1992

Published by:

**LABOR MARKET INFORMATION DIVISION
EMPLOYMENT DEVELOPMENT DEPARTMENT**

TABLE OF CONTENTS

	<u>Page</u>
Executive Summary	1
Introduction	3
Map of California Agricultural Regions.....	5
Source of Data	6
Difference from Previous AEPS Reports.....	9
Definitions	11
Report Contents and Uses.....	15
Table 1 Analysis.....	17
Table 2 Analysis.....	25
Table 3 Analysis.....	29
Table 4 Analysis.....	35
Statewide Data Tables	39
Table 1 - Agricultural Employees and Earnings by Industry	40
Table 2 - Agricultural Employees Assigned to the Industry of Their Primary Earnings	44
Table 3 - Seasonal Agricultural Employees and Earnings by Industry.....	48
Table 4 - Migrant Agricultural Employees and Earnings by Industry.....	52

EXECUTIVE SUMMARY

The Statewide Agricultural Employment Pattern Study presents industry-specific information on the employment and earnings of all workers engaged in agriculture in 1989 as reported to the Employment Development Department (EDD). Information for this report was extracted from the EDD employer and wage files by workers' Social Security numbers. Data are presented on agricultural employment and wage patterns by Standard Industrial Classification (SIC). Data are segregated into four major groups: *Agricultural Production-Crops, SIC 01*, which includes such commodities as wheat, rice, corn, cotton, grapes, citrus, nuts, vegetables, in addition to horticultural specialties such as nursery products; *Agricultural Production-Livestock, SIC 02*, which includes meat, dairy, poultry, and other livestock industries; *Agricultural Services, SIC 07*, which is the major group heading for a variety of crop and soil services, veterinary services, landscape and horticultural services, and Farm Labor Contractors; and *All Non-agricultural SIC categories, SIC 08-99*. Some of the findings include:

- In 1989, California agricultural employers reported that 881,864 workers were employed in 1,566,867 jobs.
- Forty-nine percent of all agricultural jobs were found in Agricultural Services and 48 percent were in Crops Production. Livestock industries provided only three percent of agricultural jobs in California.
- Forty-five percent of all agricultural employees were employed in the Grapes and Farm Labor Contractor industries.
- Crops Production and Agricultural Services workers had more than a two-to-one chance of working in more than one industry, whereas Livestock workers were more likely to work only in one industry. Thirty-six percent of all agricultural workers had both farm and nonfarm earnings.
- Though the Farm Labor Contractor industry provided 28 percent of all agricultural jobs, it paid only nine percent of the total agricultural wages.
- Thirty-five percent of all agricultural workers were seasonal. Earnings from seasonal jobs amounted to 27 percent of the total agricultural wages in California.
- Twenty-one percent of the state's agricultural jobs were held by migrant workers. Thirty-seven percent of all jobs held by migrant workers were under Farm Labor Contractors.

INTRODUCTION

The California State Employment Development Department (EDD) recognizes the need of planners and decision makers for accurate, specific employment information for all industries. This report presents statewide, industry-specific information on the employment and earnings of workers engaged in agriculture, as reported to EDD through the California Unemployment Insurance (UI) Program. Statewide and regional reports, prepared by the Labor Market Information Division, analyze the size, employment patterns and earnings of California's agricultural workforce. They are available for the years 1987, 1988 and 1989.

The need for accurate information about the agricultural workforce became very apparent with the implementation of the Immigration Reform and Control Act (IRCA). The enactment of this immigration policy escalated concern about the stability of the agricultural workforce and continued supply of workers. However, while labor shortages have failed to materialize, the need for information for planning, decision-making and policy development is greater than ever. The Agricultural Employment Pattern Study (AEPS) was developed to fill gaps in information about this large, though little understood workforce.

The audience for agricultural employment information is diverse. For example, providers who serve agricultural workers consult the AEPS for information on industries and counties which rely heavily on seasonal and migrant workers in order to target areas for the delivery of services. Growers and employers look to AEPS to find specific commodity or industry information, especially as it relates to fluctuations occurring in their areas of specialization.

Researchers, government agencies, growers' associations, lawmakers and members of the media will also find information in the AEPS reports to meet their needs for agricultural data. Employment data are given in a variety of terms such as numbers of workers in a particular industry compared to the number of jobs in that industry, and numbers of workers who were employed in both farm and nonfarm industries. Earnings data are arrayed in several ways, such as total wages paid in an industry, and numbers of workers with earnings less than \$1000, or greater than \$7500.

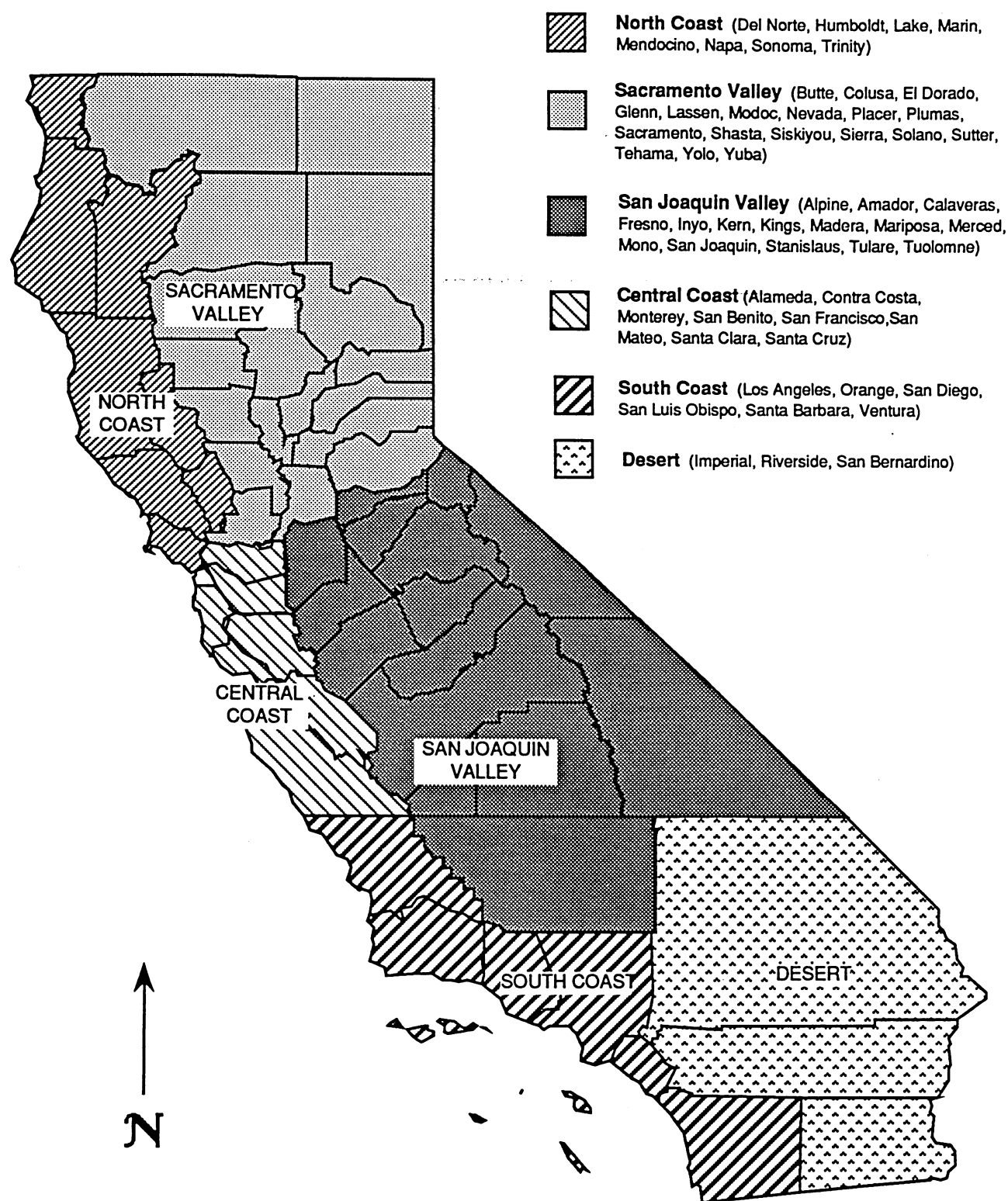
This report has been organized as follows:

- sections defining the source of data and definitions of terms are followed by a short description of the table contents;
- narrative descriptions include an analytical assessment of the data tables, maps and comparative graphics that illustrate outstanding differences and similarities occurring in the data;
- four data tables present total employment and earnings, earning levels of workers by industry, seasonal and migrant worker information.

As mentioned previously, this report includes only statewide data. Data for the six significant agricultural regions are published in a separate report (see map on page five for identification of regions). The regional report and individual county

data may be ordered by contacting the Special Projects Unit, Labor Market Information Division (LMID) of EDD at 7000 Franklin Blvd., Suite 1100, Sacramento, CA 95823, or call (916) 424-7310 or ATSS 466-7310.

CALIFORNIA AGRICULTURAL REGIONS



SOURCE OF DATA

Data base

Data for the 1989 California Agricultural Employment Pattern Study (AEPS) were obtained from the Employment Development Department (EDD) automated base wage file. Contained in the base wage file are data collected from each employer in California; it includes the employer account number (EAN), the Social Security numbers of employees (SSNs), the Standard Industry Classification code (SIC), a county identification code (FIP), quarterly wages paid, and the number of weeks worked by each employee. The data are collected quarterly on tax returns from employers reporting their unemployment insurance taxes.

With some 800,000 employers reporting the work of nearly 14 million employees, the massive base wage file requires substantial review when the data are used for research and analysis purposes. Data about California's agricultural industry, with a diverse and fluid workforce, present special challenges. We try to describe some of the data problems and limitations below. For the AEPS program, we extracted employment data for all those who worked for an agricultural employer during the calendar year 1989.

In extracting data from the base wage file for AEPS, Social Security numbers are coded to protect the identity of all workers and maintain the confidential status of the file.

Filters used to clean the data

Some of the records extracted for the AEPS program contained possible reporting problems or inconsistencies. Records demonstrating the following characteristics were filtered out:

- records reporting 50 or more employers for the same SSN;
- records reporting earnings of less than zero or greater than \$50,000 for an employee in a single quarter;
- records showing one employer reporting three or more names for the same SSN;
- records reporting less than zero or more than 14 weeks worked by an employee in a single quarter;
- records showing that an employee worked during a quarter but no wages were reported for that employee during the quarter;
- records coded with a nonexistent county code.

A total of 2.37 million jobs and 1.05 million discreet SSNs were identified in tax reports of employers assigned to agricultural SICs 01, 02, and 07. After filtering the data to remove records displaying the characteristics listed above, 2.08 million jobs and 881,864 discreet SSNs remained.

Data limitations

The following are data limitations in the coding system making up the base wage file. These create limitations in this report.

- Employers are normally assigned one SIC code; therefore if an employer has several activities (e.g., grows wheat, corn, and grapes, and raises cattle) at the same site, individuals working in these various activities are all coded under the same major SIC of the company.
- Workers in an agricultural establishment may include office workers, supervisors, truck drivers, and mechanics, as well as employees who actually perform the agricultural work.
- We are unable to determine if workers, reported by multi-establishment employers with non-agricultural SICs, were employed in an agricultural capacity while working for that employer. For example, a multi-establishment employer with a manufacturing SIC may employ workers in the production of farm crops.
- Some important individual crops in California are combined under general categories (e.g., lettuce farms are under the general category of Vegetables and Melons).
- Because all Farm Labor Contractors and their employees are assigned a single SIC under Agricultural Services, it cannot be determined in which specific agricultural activity they participated.

DIFFERENCE FROM PREVIOUS AEPS REPORTS

Data contained in the 1989 AEPS report are not comparable to the data in the 1987 and 1988 reports.

Estimates vs. Populations

The data produced in the 1987 and 1988 reports were estimates of employment and earnings based on a 10 percent sample extracted from the total data base. Improved technology allowed us in the 1989 AEPS report to use the entire population of reported agricultural workers.

Duplicate Counts

Agricultural workers tend to work in many different industries. For the AEPS reports, workers are counted in each industry in which they worked. In the 1987 and 1988 reports, SSNs were counted for each specific industry (four-digit SIC) in which they worked. The four-digit industry counts were summed to produce Industry Group (three-digit SICs) and Major Group (two-digit SICs) totals. If a worker appeared in two or more specific industries under an Industry Group (e.g., Wheat, Rice and Corn under Cash Grains), the count for the Industry Group reflected every industry for which the worker had earnings, thus leading to duplicate counts of workers in the earlier reports.

The problem of duplicate counts has been eliminated in the 1989 AEPS report. Each worker is counted in every industry in which s/he worked, but totals for Industry Groups and Major Groups are not derived by summation of industry counts. All totals are discreet counts of SSNs. For example, if a worker was employed in the Wheat, Rice and Corn industries under the Cash Grains Industry Group, s/he would be counted once in each industry, only once in the Industry Group, and only once in the total count for the Major Group.

Count of Jobs vs. Count of Employees

Unlike the earlier reports, the 1989 report makes the distinction between the number of jobs reported by employers for each industry and the discreet number of employees (as identified by SSNs) reported in each industry. For some industries there are sizeable differences between these counts; for example Grapes (SIC 0172) had 184,407 jobs reported and 125,219 employees.

Mixed Workers

The 1989 report does not include a table on workers employed in a farm and a nonfarm industry. These employees were identified as "Mixed Workers" in previous AEPS reports. This report reviews non-agricultural jobs and earnings of farm workers in the Table 1 analysis.

DEFINITIONS

Some of the terms used in the Agricultural Employment Pattern Study (AEPS) should be clarified to assure a common understanding of concepts.

Standard Industrial Classification (SIC): a system of classifying all employers by type of business (industry) devised by the federal government to permit comparison of industry data in all facets of the U.S. economy. **Major Groups**, such as Agricultural Production-Crops 01, are identified by two-digit SICs; **Industry Groups**, such as Cash Grains 011, are identified by three-digit SICs; and specific **Industries**, such as Wheat 0111, are identified by four-digit SICs. Agricultural SICs are comprised of Agricultural Production-Crops (SIC code 01), Agricultural Production-Livestock and Animal Specialties (SIC code 02), and Agricultural Services (SIC code 07).

Crops Production (SIC 01): one of the three Major Groups of agricultural industries accounting for about half of all agricultural jobs in California. This broad classification includes such commodities as wheat, rice, corn, cotton, and other field crops, vegetables, grapes, citrus, nuts, flowers and horticultural specialties such as nursery products.

Livestock (SIC 02): one of the three Major Groups of agricultural industries. Livestock includes such industries as beef cattle feedlots, hogs, sheep, goats, dairy, chicken, eggs, turkeys, and various other animal specialties, and employs about four percent of California's agricultural workforce.

Agricultural Services (SIC 07): the third Major Group of agricultural industries is not commodity-specific as are Crops Production and Livestock. Agricultural Services includes such industries as soil preparation services, crop planting, protection, machine harvesting, market preparation services, veterinary and livestock services, landscaping services, and most significantly, farm labor contractor and management services.

Seasonal Agricultural Services (SICs 01, 071, 072, and 076): highly seasonal agricultural industries used in identifying farm worker eligibility for the Special Agricultural Worker (SAW) legalization program. SAW totals have been included on the third page of each of Tables 1 through 4.

Employer: the legal entity that reports wages and pays unemployment insurance taxes to the Employment Development Department. Employer can mean a single establishment, or it can refer to several establishments operating as a single entity for employment purposes. SICs are assigned to employers on the basis of the primary economic activity in which they are engaged.

Agricultural Establishment: any business unit, employer or entity in the SIC Major Groups 01, 02 or 07. An establishment can be a store, farm, packinghouse, etc., where operations are performed, goods are produced, or services provided. It usually operates at a single physical location and is

engaged primarily in one type of business activity. An SIC code is assigned to the establishment on the basis of its primary economic activity.

Non-agricultural Industries: all industries classified by SICs other than 01, 02, or 07.

Multi-establishments: large employers with establishments in more than one county and/or in more than one standard industrial classification. A multi-establishment employer has 50 or more employees at the largest site and the sum of 50 or more employees at all other sites. A multi-establishment might employ workers in a variety of capacities such as food production, packaging, trucking, warehousing, and retailing. Dole is a familiar example of a multi-establishment employer with an agricultural SIC.

Agricultural Employees: all employees reported by at least one employer in industries identified by SICs 01 (Crops Production), 02 (Livestock) or 07 (Agricultural Services) to the Employment Development Department for unemployment insurance purposes. An "agricultural employee" may have worked in a variety of capacities including office worker, supervisor, truck driver, mechanic, as well as fieldwork or livestock work. The SIC (01, 02, 07) industry identification is carried by the employer and not the employee; therefore, anyone employed by a Grapes employer, in any capacity, is counted as an agricultural employee in industry SIC 0172.

Farm Employees: the great majority of agricultural employees. This subset of agricultural employees includes workers in all agricultural industries except 0742 (Pet Veterinary Services), 0752 (Pet Services), and 078 (Total Landscape and Horticultural Services). Although these employees are considered agricultural workers, they are not included as farm employees for this report.

Nonfarm Employees: all employees of non-agricultural employers with SICs from 08 to 99 and workers employed in SICs 0742 (Pet Veterinary Services), 0752 (Other Pet Services), 078 (Total Landscape and Horticultural Services).

Seasonal Workers: employees who worked 5 to 30 weeks for one or more farm employers, and earned \$1000 or more in agricultural wages.

Migrant Workers: a subset of seasonal workers, and for the purposes of this report, include those who worked for at least two farm employers in at least two counties, worked for 5 to 30 weeks, and earned \$1000 or more in agricultural wages. This definition recognizes the movement of workers between counties within California.

Combined Earnings: earnings from employment in both agricultural and non-agricultural industries. For example, the earnings of a dairy worker with other income as a construction laborer would be identified as combined earnings for the purposes of this report.

Primary Earnings: a method of associating workers with only the specific industry in which they had their greatest earnings. Any additional wages earned in other industries are not counted. Total primary earnings on Table 2 account for approximately 90 percent of total earnings on Table 1, indicating that most workers have most of their earnings in a single industry.

REPORT CONTENTS AND USES

The AEPS report is written to be accessible to a wide range of readers.

The AEPS report is a resource that providers of health, housing, educational and legal services can use to locate the counties and industries that rely heavily on migrant/seasonal farm labor. Summary information on migrant and seasonal workers and their earnings is displayed on Tables 3 and 4.

Growers and growers' associations, on the other hand, seek more commodity or industry specific information. Tracking the number of workers and total earnings in a particular industry, county or region from year to year provides information about expansion or contraction that may be going on in the industry, as well as providing an indication how the labor supply and wages may be fluctuating.

Farm workers can look to the AEPS reports to determine the size of an industry in terms of employment or to find where the largest concentration of employment by industry occurs. The AEPS can also help in determining the industries with the highest and lowest primary earnings and therefore, the greatest employment stability.

Format of the Report

Tables

The key to all information contained in the AEPS is the tabulated data in Tables 1 through 4 found on pages 40 to 55. These tables provide a variety of information about employment and earnings by industry.

Each of the four tables provides a different perspective on agricultural employment and earnings data.

Table 1 provides a listing of all agricultural industries by SIC classification, followed by the number of jobs that were reported by employers and the number of individual workers employed in each industry. These two categories are interesting for comparison because the variance between numbers of jobs and numbers of workers can differ significantly from industry to industry. For example, in Total Crop Services (SIC 072) 127,249 workers were employed in 141,564 jobs, a difference of about ten percent. In contrast, in Total Fruits and Nuts (SIC 017) 273,541 workers were employed in 412,954 jobs, a difference of about 34 percent.

Table 2 looks at which industries provided workers with their greatest earnings. For this table, workers are identified only with the industry in which they had their greatest or primary earnings. Primary earnings account for approximately 90 percent of total earnings from Table 1.

Table 3 is the source of information about seasonal workers and the industries that employ them. Seasonal workers are defined as employees who worked from 5 to 30 weeks for one or more farm employers, and earned \$1000 or more.

This table contains the same data categories found in Table 1, with the exception that Table 1 quantifies information for the whole agricultural workforce and Table 3 looks exclusively at seasonal workers. Table 3 can be compared to Table 1 to determine proportions of workers, jobs and earnings in each industry that are attributed to seasonal workers as defined for the purposes of AEPS.

Table 4 is the source of information about migrant workers and the industries that employ them. Migrant workers are a subset of seasonal workers and are defined as employees who worked from 5 to 30 weeks for at least two farm employers in at least two counties, and earned \$1000 or more.

This table contains the same data categories found in Tables 1 and 3; however, Table 1 presents information for the whole agricultural workforce, Table 3 relates seasonal worker data, and Table 4 looks exclusively at migrant workers. Table 4 can be compared to Tables 1 and 3 to determine proportions of workers, jobs and earnings in each industry that are attributed to migrant workers as defined for the purposes of AEPS.

Narrative

An explanation and analysis of each of the tables can be found in the narrative section beginning on page 17. This section examines some of the interesting relationships found in the data and makes analytical comparisons of the data within and between tables. Graphics are used to help illustrate the relationships being discussed.

TABLE 1 - Agricultural Employees and Earnings by Industry

Table 1 presents data for all employees who worked in at least one agricultural industry in California in 1989. The detailed table is found in the Data Tables section at the back of this report, and a summary is below. The workers are counted in each industry in which they were employed, both agricultural and if applicable, non-agricultural.

This table can be regarded as an overview of the agricultural labor market, demonstrating the size and economic significance of each industry as it relates to workers and wages. The table displays a count of jobs, workers and earnings by industry, as well as indicating the percentage of workers who were employed in single or multiple agricultural industries, or also had nonfarm jobs. The focal point of this table is the comparison of job counts to employee counts and the relative total wages paid in each industry. The following table briefly summarizes these relationships.

Summary of Table 1 - Agricultural Employees & Earnings

SIC	Industry	Total Jobs in This SIC	Employees in This SIC	Earnings in This SIC (\$ Millions)	Worked Only in This SIC	Also Had Other Farm Jobs	Also Had Nonfarm Jobs
011	Total Cash Grains	11,396	10,423	\$43.67	31%	52%	38%
013	Total Field Crops	38,150	34,620	\$169.57	36%	50%	33%
0161	Vegetables & Melons	98,696	89,604	\$421.68	35%	51%	35%
017	Total Fruits & Nuts	412,954	273,541	\$829.53	35%	46%	39%
018	Total Horticultural Specialties	64,129	60,838	\$447.77	51%	23%	37%
0191	General Crop Farms	118,950	105,107	\$367.49	28%	59%	38%
01	Crops Production	744,275	490,792	\$2,279.72	45%	32%	37%
021	Total Meat Livestock	9,794	9,473	\$59.97	52%	22%	35%
0241	Dairy	22,757	20,758	\$208.99	62%	19%	27%
025	Total Poultry & Eggs	9,671	9,184	\$75.35	56%	18%	35%
027	Total Animal Specialties	3,424	3,390	\$23.00	53%	13%	41%
0291	General Livestock Farms	2,176	2,167	\$11.47	41%	40%	35%
02	Livestock	47,822	44,549	\$378.79	58%	19%	32%
0711	Soil Preparation Services	2,340	2,317	\$17.64	37%	35%	44%
072	Total Crop Services	141,564	127,249	\$568.87	33%	49%	39%
074	Total Veterinary Services	25,415	22,810	\$195.11	56%	2%	43%
075	Total Livestock & Pet Services	10,764	10,442	\$63.13	50%	9%	46%
076	FLC & Management Services	481,301	291,853	\$584.13	34%	50%	37%
078	Total Landscape & Hort Services	113,386	104,321	\$710.52	52%	11%	43%
07	Agricultural Services	774,770	518,133	\$2,139.39	43%	32%	39%
01,02, 07	Total Agriculture	1,566,867	881,864	\$4,797.89	64%	0%	36%

The column "Total Jobs in This SIC" counts every worker reported by every agricultural employer, which means an individual worker holding more than one job was counted for every job s/he held. It is important to note that this column provides a duplicated count of workers employed in agriculture, as well as an accurate count of the agricultural jobs in the state.

By contrast, the column "Employees in This SIC" is a single count of each worker in each industry where they were employed. If a worker was employed by two or more employers in the same industry, s/he would be counted only once in that industry so all duplicate counting of workers is eliminated. As a result, the totals at the three-digit SIC level are not a summation of four-digit SICs, nor are two-digit SIC totals summed from three-digit totals. These totals represent discreet counts of social security numbers appearing within each Industry (four-digit SIC), Industry Group (three-digit SIC), and Major Group (two-digit SIC) and thus provide an accurate picture of the number of agricultural workers in the state.

Total wages paid in each industry are represented in the column "Earnings in This SIC." This information is useful in determining the relative economic importance of industries and Industry Groups within the agricultural employment arena. These data become more significant when compared to the number of jobs and workers within industries. For example, the comparison table on page 23 shows that the industries with the largest percentage of jobs and workers, Grapes and Farm Labor Contractors, have low total earnings relative to the proportion of jobs and workers. In contrast, both Flowers & Nursery Products and Dairy show a relatively small share of jobs and workers, but earnings that are proportionately higher.

A discussion of jobs, workers and total earnings follows.

Jobs

Crops Production (SIC 01) and Agricultural Services (SIC 07) are evenly represented in terms of jobs, reporting 48 and 49 percent of jobs respectively. The remaining three percent of jobs are reported in Livestock (SIC 02).

The largest single industry employer was Farm Labor Contractors (SIC 0761) generating 28 percent of the jobs in agriculture. This growing industry gained importance in the agricultural labor market of the 1980s, and is expected to continue to grow into the 1990s. Labor Contractors may have one or many crews of workers in the fields on any given day performing a variety of tasks needed by growers. These employers are not required to specify the industries or activities in which their employees work, therefore Farm Labor Contractor data cannot be isolated by type of crop or nature of job worked.

The second largest single industry employer of agricultural workers is the Grapes (SIC 0172) industry with 12 percent of all agricultural jobs. No distinction is made here between table grapes, wine grapes, or raisin grapes, though it is widely recognized that the largest short term demand for farm workers in California occurs

at the end of the summer in the San Joaquin Valley when an estimated 50,000 to 80,000 workers are needed during a three-week period to harvest raisin grapes.

An interesting point surfaces when jobs are compared to workers in these two industries. There are about a third less workers than jobs in Grapes and the gap is even wider for Farm Labor Contractor employment, indicating that many of the workers find employment with two or more employers. This pattern is particularly evident in the Total Fruits & Nuts Industry Group which includes Berries, Tree Nuts, Citrus Fruits, and Deciduous Tree Fruits, in addition to Grapes. (See Figure 1)

Livestock jobs and workers account for a relatively small proportion of agricultural employment in the state. Though Livestock accounts for only three percent of agricultural jobs, wages paid to Livestock workers amount to eight percent of total agricultural earnings.

Agricultural workers were also employed in approximately 517,000 jobs in the non-agricultural sector. These jobs were primarily in the Trade, Services, Manufacturing and Construction industries. Though employment in these industries is considered nonfarm, it is not necessarily unrelated to agriculture. Many of the nonfarm jobs worked by agricultural workers could have been directly related to the processing, movement and storage of agricultural products. For example, some Manufacturing, Trade and Transportation industry classifications deal specifically with farm goods: Manufacturing includes food and dairy product processing, canning and packing establishments; Trade industries include the wholesaling of nondurable food products--dairy, fruit, vegetables, meat, fish, grains, poultry and livestock; and Transportation includes the warehousing, storage and trucking of farm products. Construction and Services industries, though not related to agriculture, lend themselves to seasonal fluctuations and, as such, are attractive to combined workers who seek nonagricultural employment during slow farm demand periods.

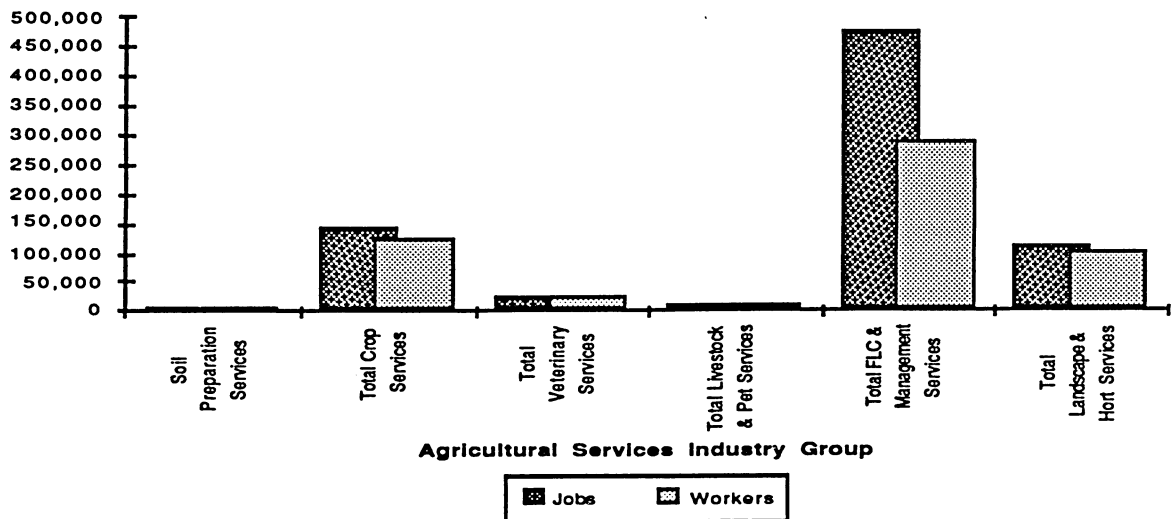
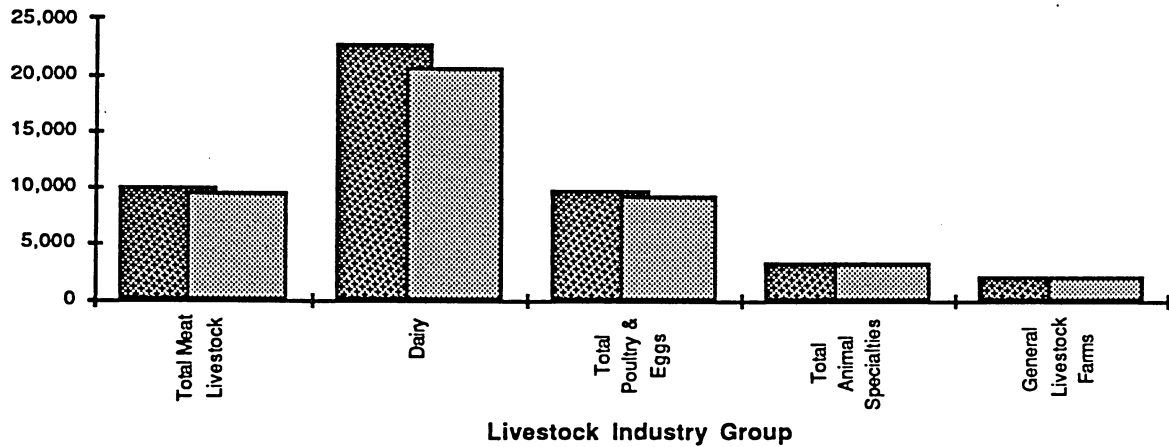
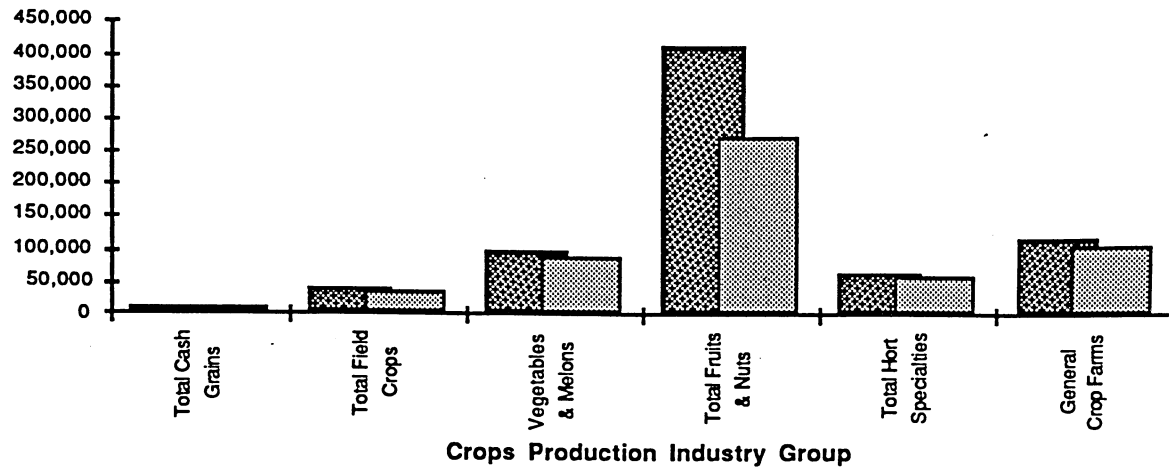
Workers

For the purpose of this report, "workers" and "employees" are synonymous and refer to a discreet number of SSNs reported by all agricultural employers in the state. A single worker may have earned wages working for one or many employers in one or many industries. Crops Production and Agricultural Services workers, for example, had more than a two-to-one chance of working in more than one industry. Additionally, these workers had close to a forty percent chance of also working in nonfarm industries.

Livestock workers were more likely to work in only one industry. For example, among Dairy workers, 62 percent worked only for dairies while 27 percent also held nonfarm jobs. The difference between jobs and workers in the Dairy industry is only nine percent. A similar pattern can be observed across all industries in Livestock.

FIGURE 1

Number of Agricultural Jobs Compared to Number of Workers



The probability that agricultural employees will work exclusively in one industry, or move freely between industries, both agricultural and non-agricultural, varies a good deal based on the type of work, the seasonal nature of the job, and the transferability of skills. The comparison table that follows is extracted from Table 1 and shows the level of variance between industries.

The Likelihood of Working in More Than One Farm and/or Nonfarm Industry

SIC	Industry	Worked Only in This SIC	Also Had Other Farm Jobs	Also Had Nonfarm Jobs
01	Crops Production	45%	32%	37%
0161	Vegetables & Melons	35%	51%	35%
0172	Grapes	26%	59%	42%
0175	Deciduous Tree Fruit	25%	61%	44%
0181	Flowers & Nursery Prod.	51%	23%	37%
0191	General Crop Farms	28%	59%	38%
02	Livestock	58%	19%	32%
0211	Beef Cattle Feedlots	57%	23%	26%
0241	Dairy	62%	19%	27%
0252	Eggs	58%	14%	36%
0291	General Livestock Farms	41%	40%	35%
07	Agricultural Services	43%	32%	39%
0722	Crop Harvesting by Machine	26%	62%	36%
074	Veterinary Services	56%	2%	43%
0761	Farm Labor Contractors	33%	52%	38%
0782	Lawn & Garden Services	50%	11%	45%

From this brief summary table, we observe that Livestock workers were least likely to work in nonfarm jobs, while those working in Grapes, Deciduous Tree Fruits, General Crop Farms and Crop Harvesting by Machine were most likely to hold jobs in other farm industries.

Interestingly, approximately 422,000 agricultural workers, or almost half of those included in Table 1, also worked in non-agricultural industries. Eighty percent of these workers were employed in Trade, Services, Manufacturing or Construction industries. Additionally, over half of the seasonal and migrant workers from Tables 3 and 4 are included among the workers with combined earnings in both agricultural and non-agricultural industries. However, the earnings from non-agricultural employment amounted to only 28 percent of the total earnings from all reported employment of agricultural workers. This suggests that while half of the

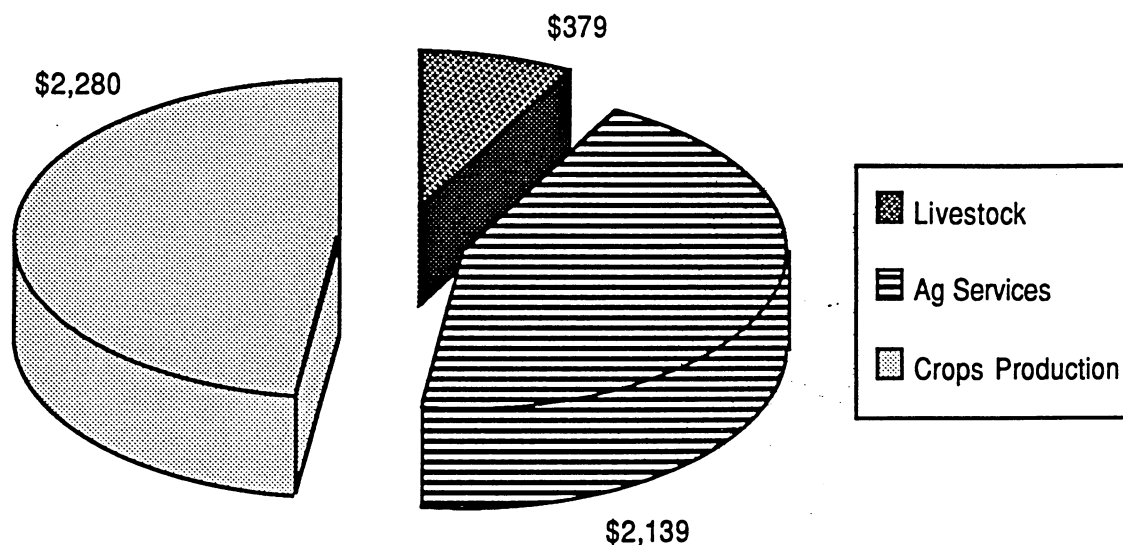
agricultural workers were also employed in non-agricultural industries, such employment was short term and primary earnings came from agriculture.

Earnings

The relative economic importance of various industries to agricultural employment is demonstrated in Figure 2. At the two-digit SIC level, Crops Production pays 48 percent of total wages, Agricultural Services pays 45 percent and Livestock pays eight percent.

FIGURE 2

Total Earnings in Major Industry Groups Dollars in Millions



Earnings data become more interesting when viewed in relation to jobs and workers. The gap between jobs and earnings in specific industries is even more pronounced than the discrepancy between jobs and workers. One example is the Grapes industry, which provides 12 percent of the state's agricultural jobs, but pays only six percent of the total wages. While Total Fruits & Nuts is responsible for 26 percent of all agricultural jobs, it pays only 17 percent of total wages. And Farm Labor Contractors, who report 28 percent of agricultural jobs, pay only nine percent of total wages. Conversely, Lawn & Garden Services has only six percent of agricultural jobs, but pays 11 percent of the state's agricultural wages. On average, the wages paid in California agriculture are highest in Beef Cattle Feedlots and

lowest in Farm Labor Contractors. These relationships can be viewed graphically in Figure 3.

The following summary table looks at the number of jobs in selected SICs in relation to the number of total jobs in agriculture. A comparison is made between the number of workers and the number of jobs within the selected SICs, and earnings within SICs are related to total earnings in agriculture.

Comparison of Jobs, Workers and Earnings In Selected Industries

SIC	Industry	Jobs in This SIC	% of Total Ag Jobs	Employees in This SIC	Employees as a % of Jobs in this SIC	Earnings in This SIC (Millions)	% of Total Ag Earnings
01	Crops Production	744,275	48%	490,792	66%	\$2,279.72	48%
0112	Rice	5,281	.3%	4,675	89%	\$22.00	.5%
0131	Cotton	20,510	1%	18,448	90%	\$105.73	2%
0161	Veg. & Melons	98,696	6%	89,604	91%	\$421.68	9%
0172	Grapes	184,407	12%	125,219	68%	\$296.96	6%
0173	Tree Nuts	29,387	2%	25,239	86%	\$65.86	1%
0175	Dec. Tree Fruits	80,870	5%	64,999	80%	\$140.50	3%
0181	Flowers & Nursery	60,773	4%	57,781	95%	\$421.61	9%
02	Livestock	47,822	3%	44,549	93%	\$378.79	8%
0212	Beef Cattle	6,703	.4%	6,486	97%	\$38.94	.8%
0241	Dairy	22,757	1%	20,758	91%	\$208.99	4%
0252	Eggs	6,149	.4%	5,777	94%	\$48.44	1%
027	Animal Specialties	3,424	.2%	3,390	99%	\$23.00	.5%
07	Ag Services	774,770	49%	518,133	67%	\$2,139.39	45%
072	Crop Services	141,564	9%	127,249	90%	\$568.87	12%
0742	Pet Vet Services	24,953	2%	22,408	90%	\$190.70	4%
0761	Farm Labor Cont.	442,814	28%	270,864	61%	\$453.49	9%
0782	Lawn & Garden	91,987	6%	85,036	92%	\$529.74	11%

FIGURE 3

Percent of Jobs Compared to Earnings in Selected Agricultural Categories

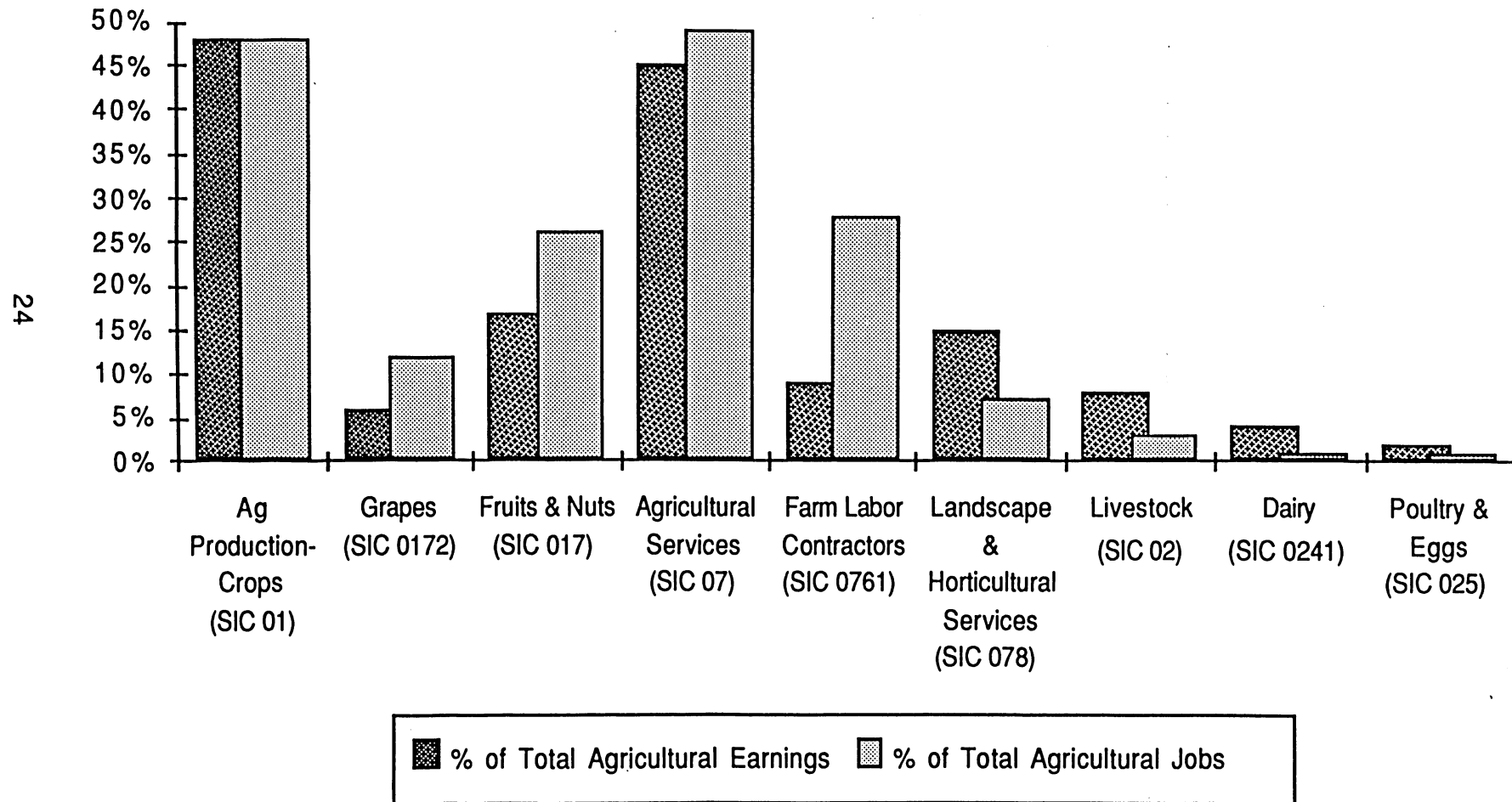


TABLE 2 - Agricultural Employees Assigned to the Industry of Their Primary Earnings

Table 2 categorizes employees who have held at least one job in agriculture by the industry in which they earned their highest income. That industry may, or may not, be an agricultural industry (SIC 01, 02, 07). Any additional wages earned, outside of the industry of primary earnings, are not counted. Primary earnings are ranked into three categories, under \$1,000, \$1,000 to \$7,499, and over \$7,500. These income categories will be referred to as lowest, middle and highest respectively.

Table 2 is useful for the purpose of demonstrating earnings and how they are distributed within the agricultural sector of the economy. This information can be used to help gauge the stability of various industries in agriculture, assuming that more stable industries will have a higher percentage of workers with earnings sufficient to sustain them. As in the Table 1 discussion, the categories that will be used are Industry (four-digit SIC), Industry Group (three-digit SIC), and Major Group (two-digit SIC). A summary of Table 2 follows.

Summary of Table 2 - Employees Assigned to the Industry of Their Primary Earnings

SIC	Industry	Employees		% of Employees & Earnings This SIC					
		W/Primary Earnings This SIC	Earnings This SIC (Millions \$)	Income < 1000		Income 1000 - 7499		Income = > 7500	
				EES	Earn	EES	Earn	EES	Earn
011	Total Cash Grains	5,384	\$37.71	18%	1%	43%	20%	40%	79%
013	Total Field Crops	20,021	\$155.35	19%	1%	39%	17%	42%	82%
0161	Vegetables & Melons	53,600	\$385.79	15%	1%	44%	22%	41%	77%
017	Total Fruits & Nuts	161,207	\$707.75	28%	2%	50%	37%	22%	61%
018	Total Hort Specialties	42,995	\$422.30	11%	0%	35%	14%	54%	86%
0191	General Crops Farms	51,517	\$322.94	23%	1%	43%	23%	34%	76%
01	Crops Production	334,724	\$2,031.85	22%	1%	45%	25%	33%	73%
021	Total Meat Livestock	6,608	\$55.70	15%	1%	39%	16%	47%	83%
0241	Dairy	16,285	\$200.59	9%	0%	28%	9%	64%	91%
025	Total Poultry & Eggs	6,864	\$71.38	10%	0%	33%	12%	57%	88%
027	Total Animal Specialties	2,454	\$21.52	13%	1%	39%	16%	48%	84%
0291	General Livestock Farms	1,367	\$10.55	16%	1%	43%	19%	41%	81%
02	Livestock	33,578	\$359.74	11%	0%	32%	11%	57%	88%
0711	Soil Prep Services	1,384	\$16.17	13%	0%	34%	10%	53%	89%
072	Total Crop Services	73,866	\$509.57	17%	1%	47%	24%	36%	75%
074	Total Vet Services	17,105	\$185.78	13%	1%	40%	13%	47%	86%
075	Total Livestock & Pet Services	7,392	\$58.58	15%	1%	43%	19%	41%	80%
076	FLC & Mgmt Services	169,316	\$480.43	40%	4%	47%	49%	13%	48%
078	Total Landscape & Hort Svcs	74,644	\$658.58	13%	1%	41%	17%	46%	83%
07	Agricultural Services	343,707	\$1,909.10	27%	1%	45%	27%	27%	71%
01,02, 07	Total Agriculture	712,009	\$4,300.69	24%	1%	45%	25%	31%	74%

The column "Employees With Primary Earnings in This SIC" counts each worker who earned their greatest wages in the identified industries. Workers are counted only in the industry of their primary earnings. The "Earnings in This SIC" column sums the earnings of the workers counted in the first column. The columns headed "Percent of Employees and Earnings in This SIC" display how employees (EES) and earnings (EARN) are distributed across the three income levels. For clarification, "wages" and "earnings" are used interchangeably in this report.

Workers

In general the pattern of employment levels by industry matched the overall employment pattern shown in Table 1. In Table 2, the largest numbers of workers occur in Agricultural Services (48 percent) and Crops Production (47 percent) with the residual five percent in Livestock. It is noteworthy that Table 2 shows Fruits & Nuts and Farm Labor Contractors as the largest employers when primary earnings are the determining identifier. Fruits & Nuts employed 48 percent of Crops Production workers and 23 percent of the total agricultural employment. Farm Labor Contractors employed 44 percent of Agricultural Services workers and 21 percent of total agricultural employment.

For over half of the workers employed in Farm Labor Contractors, Total Fruits & Nuts, Vegetables & Melons, Total Field Crops, and Total Crop Services, this was their primary source of earnings. Three-fourths of those employed in the Dairy industry received their primary earnings in this industry.

Earnings

Using income level as a measure of stability, more stable employment was found in Livestock, Horticultural Specialties and Soil Preparation Services where the majority of workers had earnings in the highest earnings category. Less stable employment was experienced by employees of Farm Labor Contractors. Forty two percent of workers who received their primary earnings working for Farm Labor Contractors earned less than \$1,000, and close to 90 percent earned less than \$7,499.

One-third of the workers in Crops Production had primary earnings in the highest category and they received almost three-fourths of the \$2 billion in wages paid. Forty-five percent of the workers in this Major Group earned total incomes in the middle income range.

In Livestock, a majority of the workers (57 percent) were in the highest earnings category and they earned 88 percent of the \$360 million in wages paid.

Twenty-seven percent of the Agricultural Services employees earned \$7,500 or more. The lowest wage group, those earning less than \$1,000, amounted to 27 percent of the workers and they earned only about one percent of the wages paid in this Major Group. The bulk of the workers, 45 percent of the total, had earnings

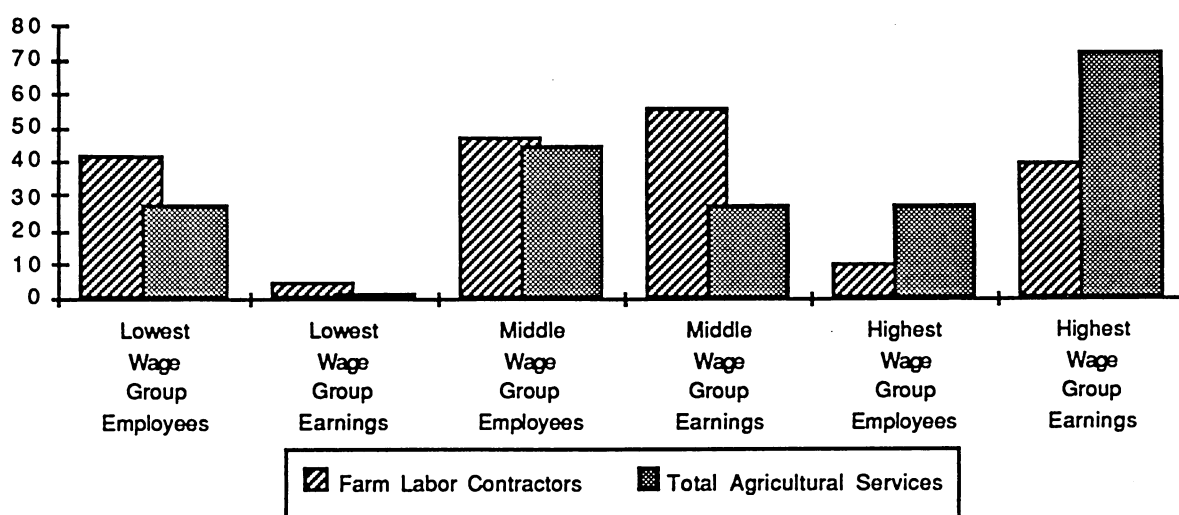
between \$1,000 and \$7,499. This group's total income was 27 percent of the total income earned in Agricultural Services.

The Fruits & Nuts Industry Group had a pattern of earnings distribution that is different from most other categories. Those in the highest wage category earned about 60 percent of the income in the industry group compared to around 80 percent of the income for most other groups. However, the Citrus Fruits Industry varies from the rest of the Fruits & Nuts Group since the highest income category in Citrus Fruits follows the trend and accounts for 81 percent of the total income in the group. This may be a reflection of the relatively small workforce that had primary earnings in Citrus Fruits--only 9,600 of the 161,200 workers with primary earnings in Total Fruits & Nuts.

Another industry showing an unusual pattern of income distribution is Farm Labor Contractors. More workers received their primary earnings in this category than in any other four-digit industry. The pattern of wage distribution differs in that the ten percent of employees who were in the highest income group earned about 40 percent of the wages; whereas, for all of Agricultural Services 27 percent of the workers earned 71 percent of the income in the highest wage group. At the opposite end of the earnings scale, the lowest wages earners, who constitute 42 percent of Farm Labor Contractor employees, earned only four percent of the income. (See Figure 4)

FIGURE 4

Comparison of the Income Distribution Pattern of Farm Labor Contractors and Agricultural Services



**TABLE 3 - Seasonal Agricultural Employees and Earnings
by Industry**

Seasonal agricultural workers are the subject of Table 3. In this report, seasonal employees are identified as those who worked from five to 30 weeks, and earned \$1,000 or more while working for one or more farm employers. Farm employers include all agricultural employers with the exception of Pet Veterinary Services (SIC 0742), Other Pet Services (SIC 0752), and Total Landscape and Horticultural Services (SIC 078). The jobs and earnings of all workers meeting these criteria are counted for each industry in which they were employed.

It is important to acknowledge that the definition of seasonal employee for this report has been modified from prior AEPS reports. The 1987 and 1988 reports included an earnings ceiling of \$7,499 which has been deleted from the definition for the 1989 report. To demonstrate the reporting difference that resulted from this criterion change, the 1987 report identified 417,134 seasonal workers, and the 1988 report put the number at 484,447. With the earnings ceiling removed, the number of seasonal agricultural workers in 1989 was 720,531. These numbers clearly are not comparable.

The following summary table shows the relationship between seasonal jobs, workers, earnings and multiple industry employment for Crops Production, Livestock and Agricultural Services industry groups.

**Summary of Table 3 - Seasonal Agricultural Employees and
Earnings by Industry**

SIC	Industry	Total Jobs Reported in This SIC	Employees in This SIC	Earnings in This SIC (\$ Millions)	Worked Only in This SIC	Also Employed in Other Farm Jobs	Also Employed in Nonfarm Jobs
011	Total Cash Grains	5,360	4,810	\$13.47	22%	65%	45%
013	Total Field Crops	17,537	15,806	\$42.39	23%	65%	40%
0161	Vegetables & Melons	51,112	46,052	\$149.71	28%	60%	39%
017	Total Fruits & Nuts	218,092	129,939	\$343.12	26%	60%	43%
018	Total Horticultural Specialties	24,963	23,282	\$82.81	35%	37%	47%
0191	General Crops Farms	58,595	50,608	\$110.76	17%	74%	44%
01	Crops Production	375,659	218,989	\$742.26	35%	44%	41%
021	Total Meat Livestock	3,377	3,237	\$12.23	41%	33%	42%
0241	Dairy	7,955	7,204	\$39.84	47%	30%	38%
025	Total Poultry & Eggs	3,412	3,250	\$12.19	40%	27%	49%
027	Total Animal Specialties	1,368	1,349	\$5.95	43%	20%	48%
0291	General Livestock Farms	905	903	\$2.30	28%	56%	42%
02	Livestock	17,017	15,750	\$72.51	44%	29%	42%

table continued on next page...

Summary of Table 3 continued

SIC	Industry	Total Jobs Reported in This SIC	Employees in This SIC	Earnings in This SIC (\$ Millions)	Worked Only in This SIC	Also Employed in Other Farm Jobs	Also Employed in Nonfarm Jobs
0711	Soil Preparation Services	994	981	\$3.49	27%	43%	54%
072	Total Crop Services	69,378	61,418	\$176.59	23%	60%	43%
074	Total Veterinary Services	332	282	\$1.33	25%	53%	51%
075	Total Livestock & Pet Services	1,030	1,010	\$4.06	28%	47%	52%
0761	Farm Labor Contractors	230,416	123,388	\$236.20	19%	72%	43%
078	Total Landscape & Hotr Serv	5,874	5,434	13.65	0%	100%	51%
07	Agricultural Services	327,855	177,434	\$476.62	27%	57%	43%
01,02, 07	Total Agriculture	720,531	307,067	\$1,291.39	61%	0%	39%

The column "Total Jobs Reported in This SIC" counts every worker, reported by all agricultural employers, who meet the definition for "seasonal." Therefore, an individual worker holding more than one job was counted for every job s/he held. By contrast, the column "Employees in This SIC" is a single count of each seasonal worker in each industry where they were employed. Total wages paid in each industry to seasonal workers are represented in the column "Earnings in This SIC." The percentage of seasonal employees working only in that one industry is indicated in the next column, followed by a column showing the percent of seasonal employees who had additional farm jobs in other industries. The last column gives the proportion of seasonal farm workers who also held nonfarm jobs.

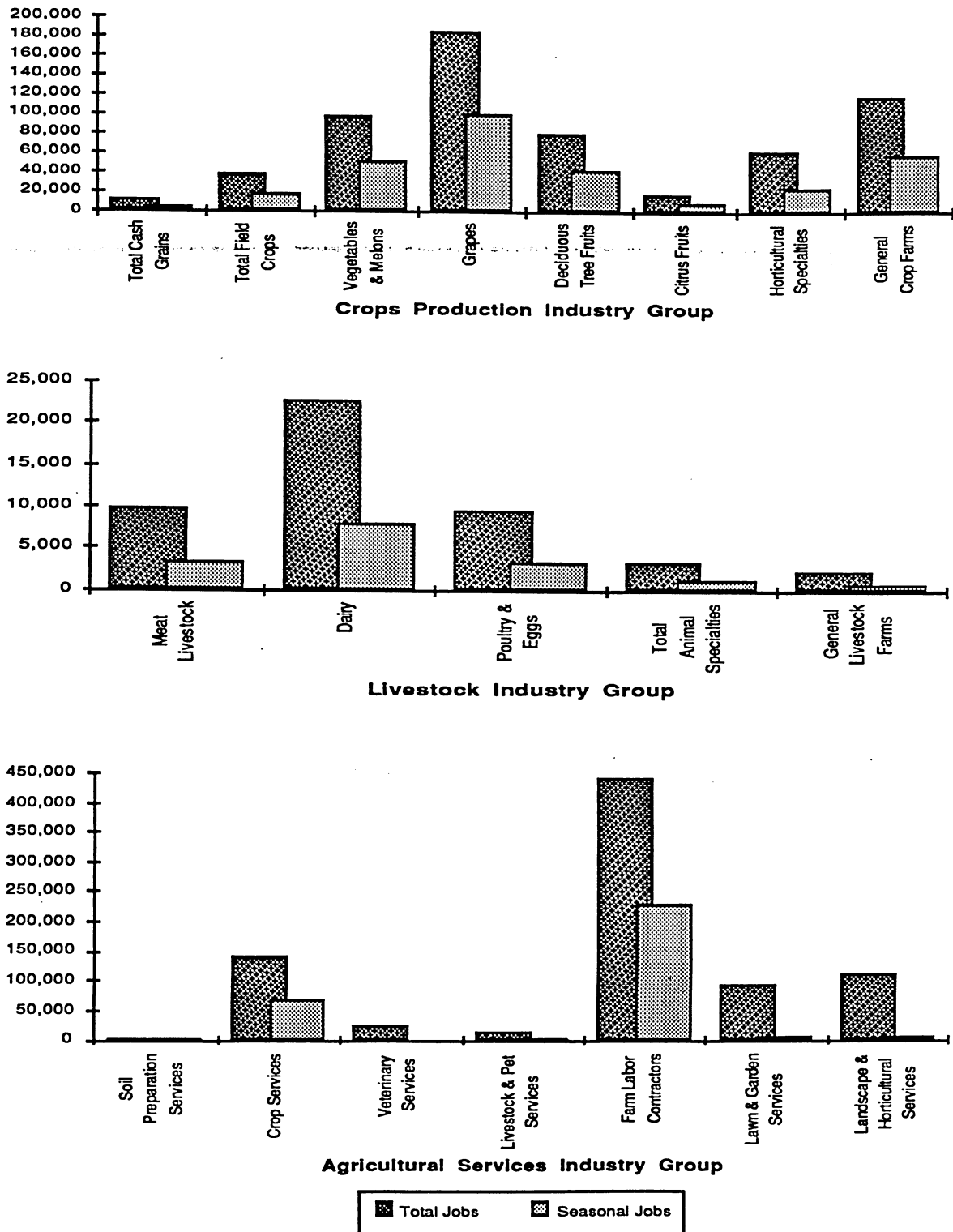
Seasonal Jobs

Approximately 35 percent of all agricultural jobs (Table 1) are held by seasonal workers, and earnings from these jobs amount to 27 percent of total agriculture earnings in California. The majority of seasonal jobs are found in Crops Production (52 percent), with an additional 46 percent occurring in Agricultural Services. Close to half of all seasonal jobs can be isolated in two industries, Farm Labor Contractors with 32 percent and Grapes with 14 percent. Other farm industries that rely heavily on seasonal workers are Vegetables & Melons, Berries, Deciduous Tree Fruits, and Crop Preparation for Market. Seasonal jobs in these six industries account for 69 percent of all seasonal farm jobs.

Fifty percent of all jobs in Crops Production are held by seasonal workers and in some industries the ratio of seasonal to year-round jobs is even higher. The following table shows some of the industries with particularly high reliance on seasonal workers and Figure 5 shows the relative number of seasonal jobs in the three main groups.

FIGURE 5

Seasonal Jobs as a Proportion of Total Jobs in Selected Industries



Seasonal Workers

Thirty-five percent of California's agricultural employees fit the definition of seasonal workers. In general, less than one-third of seasonal workers in Crops Production and Agricultural Services industries work in only one industry. Between one-half and two-thirds of these workers were also employed in other farm and nonfarm industries. For example, 65 percent or more of the workers in Cash Grains, Field Crops, General Crop Farms, and Farm Labor Contractors worked in more than one farm industry, while between 40 and 50 percent of these workers also found employment in nonfarm industries.

The exception is found in Berries where 40 percent of the workers were employed only in this industry. This is unusual by comparison to other industries in the same Industry Group in which about 15 percent work only in one industry.

Only five percent of all seasonal workers were employed in Livestock industries. The relatively few seasonal workers in Livestock industries who supplement their earnings in other industries are more likely to work in nonfarm jobs than in other farm jobs. The exception in Livestock occurs in Poultry industries where seasonal workers have a higher probability of working other jobs, both farm and nonfarm, than working only in Poultry.

Farm Labor Contractor Jobs and Employees

While 32 percent of seasonal jobs and 40 percent of seasonal workers were reported by Farm Labor Contractors, only 19 percent of seasonal workers worked solely for Farm Labor Contractors. Compare this to Table 1 which shows that 33 percent of the year-round Farm Labor Contractor employees worked solely for Farm Labor Contractors. Other comparisons are shown in the table below.

Comparison Between Seasonal and Year-Round Farm Labor Contractor Employees

Farm Labor Contractor Employees SIC 0761	Seasonal Employee Data Table 3	Year-round Employee Data Table 1
FLC jobs as % of total seasonal agricultural jobs	32%	N/A
FLC jobs as % of total agricultural jobs	N/A	28%
FLC employees as % of total seasonal agricultural employees	40%	N/A
FLC employees as % of total agricultural employees	N/A	31%
% of FLC employees who worked only in this SIC	19%	33%
% of FLC employees who also had farm jobs outside this SIC	72%	52%
% of FLC employees who also had nonfarm jobs	43%	38%

Clearly, seasonal workers employed by Farm Labor Contractors were more likely to work for multiple employers in multiple industries than year-round workers employed by Farm Labor Contractors. Seasonal workers seem to be more likely to pursue whatever work is available to them, regardless of crop type. They might pick grapes, melons, vegetables, citrus fruit, apples, and tree nuts while working directly for growers, and they might pick the same crops while working for Farm Labor Contractors. We are unable to identify what crops they work while in the employ of Farm Labor Contractors.

Earnings

Majority shares of seasonal jobs do not necessarily equate with shares of seasonal earnings. Crops Production provides 52-percent of seasonal jobs and pays out 57 percent of seasonal earnings. Agricultural Services, on the other hand, has 46 percent of seasonal jobs but contributes only 37 percent of seasonal wages. A large portion of the discrepancy between jobs and earnings in Agricultural Services can be attributed to Farm Labor Contractors with 32 percent of seasonal jobs and only 18 percent of seasonal earnings. The comparison table below demonstrates some of these relationships.

Interestingly, seven percent of seasonal jobs were in Vegetables & Melons and the compensation for these jobs was 12 percent of seasonal wages, suggesting that relatively higher wages or longer terms of employment are available to seasonal workers in this industry. Similar conclusions can be drawn for wages in Flowers & Nursery Products and Crop Preparation for Market. Even as wages are relatively higher in these industries, by comparison, wages are considerably lower for seasonal workers in the Farm Labor Contractors and Grapes industries.

Comparison of Seasonal Jobs to Earnings in Selected Industries

SIC	Industry	% of Seasonal Farm Jobs	% of Seasonal Farm Earnings
0161	Vegetables & Melons	7%	12%
0171	Berries	4%	6%
0172	Grapes	14%	10%
0175	Deciduous Tree Fruit	6%	5%
0179	Other Fruits & Nuts	3%	3%
0181	Flowers & Nursery Prod.	3%	6%
0191	General Crop Farms	8%	9%
0723	Crop Prep for Market	6%	9%
0761	Farm Labor Contractors	32%	18%
01	Crops Production	52%	57%
02	Livestock	2%	6%
07	Agricultural Services	46%	37%

TABLE 4 - Migrant Agricultural Employees and Earnings by Industry

Table 4 provides information about California's migrant agricultural worker population. Migrant workers are generally thought of as people who travel not only between counties, but also across state and national borders for employment. However, migrant employees for this report, are defined as those who worked for at least two farm employers in at least two counties for five to 30 weeks and earned \$1,000 or more in agricultural wages. The jobs and earnings of all workers meeting these criteria are counted for each industry in which they were employed.

The definition of migrant employees for the 1989 report has been modified from prior AEPS reports. The 1987 and 1988 reports included an earnings ceiling of \$7,499 which has been deleted from the definition for the 1989 report. To demonstrate the reporting difference that resulted from this change, the 1987 report identified 174,257 migrant workers, and the 1988 report put the number at 191,649. With the earnings ceiling removed, the number of migrant agricultural workers reported in 1989 was 331,182. These numbers clearly are not comparable.

It is planned that, as resources permit, the migrant agricultural workers identified below will be studied in greater detail. Information about movement between industries and counties will help to answer questions frequently asked about California's migrant farm workers.

The summary table that follows shows the relationship between migrant jobs, workers, earnings and multiple industry employment for Crops Production, Agricultural Services and Livestock industry groups.

Summary of Table 4 - Migrant Agricultural Employees and Earnings by Industry

SIC	Industry	Total Jobs Reported in This SIC	Employees in This SIC	Earnings in This SIC (\$ Millions)	Worked Only in This SIC	Also Employed in Other Farm Jobs	Also Employed in Nonfarm Jobs
011	Total Cash Grains	2,350	2,052	\$3.89	3%	94%	47%
013	Total Field Crops	7,099	6,265	\$11.00	3%	96%	42%
0161	Vegetables & Melons	21,748	18,638	\$38.21	4%	95%	43%
017	Total Fruits & Nuts	99,624	55,766	\$113.42	10%	84%	46%
018	Total Horticultural Specialties	7,361	6,238	\$12.46	6%	91%	47%
0191	General Crops Farms	25,919	22,056	\$33.48	2%	97%	47%
01	Crops Production	164,101	81,382	\$212.47	18%	72%	44%

table continued on next page...

Summary of Table 4 continued

SIC	Industry	Total Jobs Reported in This SIC	Employees in This SIC	Earnings in This SIC (\$ Millions)	Worked Only in This SIC	Also Employed in Other Farm Jobs	Also Employed in Nonfarm Jobs
021	Total Meat Livestock	816	704	\$1.69	6%	91%	43%
0241	Dairy	2,213	1,704	\$5.36	14%	79%	43%
025	Total Poultry & Eggs	716	613	\$1.38	7%	91%	54%
027	Total Animal Specialties	205	191	\$.48	3%	95%	53%
0291	General Livestock Farms	304	304	\$.44	0%	100%	47%
02	Livestock	4,254	3,384	\$9.35	11%	83%	46%
0711	Soil Preparation Services	284	274	\$.47	1%	97%	51%
072	Total Crop Services	29,412	24,868	\$48.05	3%	95%	44%
074	Total Veterinary Services	39	38	\$.08	0%	100%	58%
075	Total Livestock & Pet Services	227	220	\$.43	1%	98%	57%
0761	Farm Labor Contractors	121,045	61,778	\$100.88	8%	87%	46%
078	Total Landscape & Hort Serv	2,214	2,055	3.80	0%	100%	59%
07	Agricultural Services	162,827	77,775	\$166.85	14%	77%	45%
01,02, 07	Total Agriculture	331,182	100,134	\$388.67	58%	0%	42%

The column "Total Jobs Reported in This SIC" counts every worker, reported by all agricultural employers, who meet the definition for "migrant." By contrast, the column "Employees in This SIC" is a single count of each migrant worker in each industry where they were employed. Total wages paid in each industry to migrant workers are represented in the column "Earnings in This SIC." The proportion of migrant employees working only in one industry is indicated in the next column, followed by a column showing the percent of migrant employees who had additional farm jobs in other industries. The last column gives the percentage of migrant farm workers who also held nonfarm jobs.

Migrant Jobs

Table 4 shows that 331,182, or 21 percent of California's agricultural jobs are held by migrant workers, and earnings from these jobs amount to eight percent of total agriculture earnings in California. One-half of migrant jobs are found in Crops Production, with an additional 49 percent occurring in Agricultural Services. Thirty-seven percent of all migrant jobs were held by Farm Labor Contractor employees. Other farm industries that rely heavily on migrant workers are Grapes, Vegetables & Melons, General Crop Farms, Deciduous Tree Fruits, and Crop Preparation for Market. Only one percent of jobs held by migrant workers were found in Livestock industries.

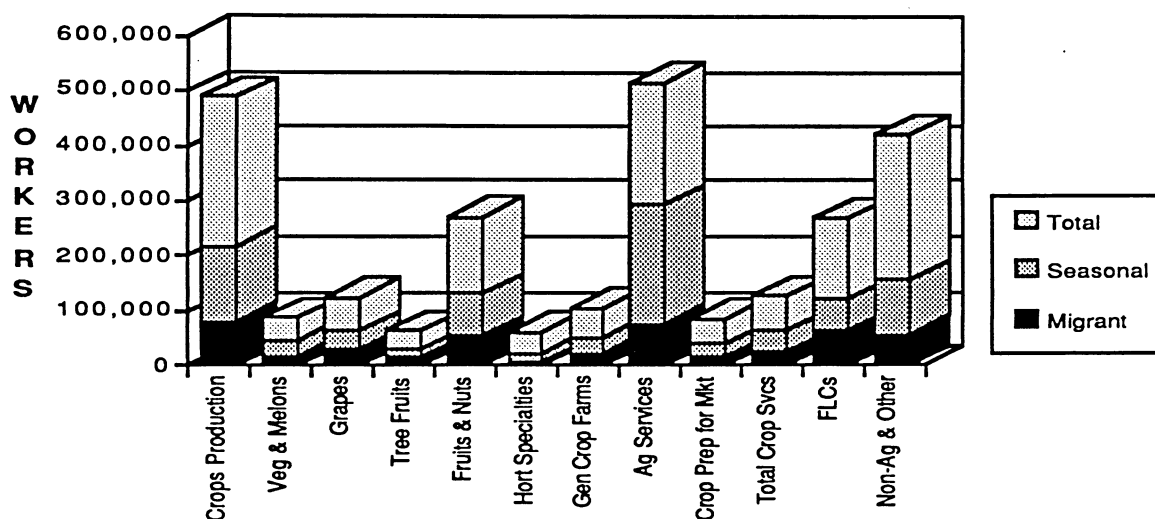
Migrant Workers

Migrant workers are a subset of seasonal workers, and make up one-third of the seasonal workforce. The major difference in the criteria for identifying seasonal and migrant employees is that migrant employees were reported to have worked for two or more employers in two or more counties, whereas seasonal employees could have worked for one or more employers and location is not a consideration. Nearly all migrant employees worked in more than one industry, whether farm or nonfarm. The highest incidence of workers working in only one industry was found in Berries where 15 percent of the workers were employed only in this industry. However, the norm in the Total Fruits & Nuts Industry Group was for about three to five percent to work only in one industry.

Over half of the migrant as well as seasonal agricultural workforce were employed in nonfarm industries in 1989. Of the 100,134 migrant agricultural workers, 57,470 also held jobs in nonfarm industries; 158,543 of 307,067 seasonal agricultural workers were also employed in nonfarm industries. This pattern of farm and nonfarm employment is worth tracking over time and raises interesting questions about the ease of movement between farm and nonfarm jobs. Figure 6 shows how the count of seasonal and migrant workers relates to total agricultural workers in a few selected industries.

FIGURE 6

Seasonal and Migrant Workers Compared to Total Agricultural Workers in Selected Industries



Of the 881,864 agricultural workers in the state, only 3,384 were migrant Livestock workers, 81,382 were migrant workers in Crops Production and 77,775 were migrant workers in Agricultural Services. There were more than twice as many migrant jobs as workers reported for both Agricultural Services and Crops Production.

Earnings

Majority shares of migrant jobs do not necessarily equate with shares of migrant earnings. Crops Production provides 50 percent of migrant jobs and pays out 55 percent of migrant earnings. Agricultural Services has 49 percent of migrant jobs but contributes only 43 percent of migrant wages. The discrepancy between jobs and earnings in Agricultural Services can largely be attributed to Farm Labor Contractors with 37 percent of migrant jobs and only 26 percent of migrant earnings. The comparison table below demonstrates some of these relationships.

As was seen on the seasonal table, Vegetables & Melons has a proportionately larger compensation rate than job count, suggesting that relatively higher wages are available to both migrant and seasonal workers in this industry. Similar conclusions can be drawn for wages in Berries and Crop Preparation for Market. Even as wages are relatively higher in these industries, by comparison, wages are considerably lower for both migrant and seasonal workers in the Farm Labor Contractors and Grapes industries. Thirty-two percent of seasonal jobs and 37 percent of migrant jobs are under Farm Labor Contractors, but they pay only 18 and 26 percent respectively of total seasonal and migrant earnings.

Comparison of Migrant Jobs to Earnings in Selected Industries

SIC	Industry	% of Migrant Farm Jobs	% of Migrant Farm Earnings
0161	Vegetables & Melons	7%	10%
0171	Berries	4%	6%
0172	Grapes	14%	12%
0175	Deciduous Tree Fruit	6%	6%
0179	Other Fruits & Nuts	3%	3%
0181	Flowers & Nursery Prod.	2%	3%
0191	General Crop Farms	8%	9%
0723	Crop Prep for Market	6%	8%
0761	Farm Labor Contractors	37%	26%
01	Crops Production	50%	55%
02	Livestock	1%	2%
07	Agricultural Services	49%	43%

Data Tables

TABLE 1 - AGRICULTURAL EMPLOYEES AND EARNINGS BY INDUSTRY
Statewide - Calendar Year 1989

Standard Industrial Code (SIC)	Industry Title	Total Jobs Reported in This SIC	Employees in This SIC (1)	Earnings in This SIC (\$ Millions)	Employees Who Only Worked in This SIC	Employees Who Also Had Farm Jobs (2) Outside This SIC	Employees Who Also Had Nonfarm Jobs (2) Outside This SIC
0111	Wheat	1,237	1,231	\$3.96	23%	68%	32%
0112	Rice	5,281	4,675	22.00	34%	44%	41%
0115	Corn	437	427	2.37	33%	50%	37%
0119	Other Cash Grains (3)	4,441	4,286	15.28	26%	62%	37%
011	Total Cash Grains	11,396	10,423	43.67	31%	52%	38%
0131	Cotton	20,510	18,448	105.73	37%	50%	31%
0133	Sugar Crops	912	899	3.47	29%	58%	37%
0134	Potatoes	2,858	2,615	8.18	36%	47%	39%
0139	Other Field crops	13,870	13,446	52.18	32%	54%	36%
013	Total Field Crops	38,150	34,620	169.57	36%	50%	33%
0161	Vegetables & Melons	98,696	89,604	421.68	35%	51%	35%
0171	Berries	51,214	42,242	137.71	42%	39%	34%
0172	Grapes	184,407	125,219	296.96	26%	59%	42%
0173	Tree Nuts	29,387	25,239	65.86	28%	56%	44%
0174	Citrus Fruits	18,899	17,609	78.74	35%	53%	34%
0175	Deciduous Tree Fruits	80,870	64,999	140.50	25%	61%	44%
0179	Other Fruits & Nuts	48,177	42,697	109.76	26%	62%	41%
017	Total Fruits & Nuts	412,954	273,541	829.53	35%	46%	39%
0181	Flowers & Nursery Products	60,773	57,781	421.61	51%	23%	37%
0182	Food Crops Under Cover	3,356	3,157	26.16	53%	22%	35%
018	Total Hort Specialties	64,129	60,838	447.77	51%	23%	37%
0191	General Crop Farms	118,950	105,107	367.49	28%	59%	38%
01	Ag Production-Crops	744,275	490,792	\$2,279.72	45%	32%	37%

TABLE 1 - AGRICULTURAL EMPLOYEES AND EARNINGS BY INDUSTRY
Statewide - Calendar Year 1989

Standard Industrial Code (SIC)	Industry Title	Total Jobs Reported in This SIC	Employees in This SIC (1)	Earnings in This SIC (\$ Millions)	Employees Who Only Worked in This SIC	Employees Who Also Had Farm Jobs (2) Outside This SIC	Employees Who Also Had Nonfarm Jobs (2) Outside This SIC
0211	Beef Cattle Feedlots	1,485	1,460	\$14.22	57%	23%	26%
0212	Other Beef Cattle	6,703	6,486	38.94	51%	21%	37%
0213	Hogs	192	191	1.06	45%	27%	46%
0214	Sheep & Goats	1,295	1,264	5.15	52%	32%	31%
0219	General Meat Livestock	119	119	0.61	55%	24%	33%
021	Total Meat Livestock	9,794	9,473	59.97	52%	22%	35%
0241	Dairy	22,757	20,758	208.99	62%	19%	27%
0251	Broiler Chickens	262	262	1.74	39%	38%	39%
0252	Eggs	6,149	5,777	48.44	58%	14%	36%
0253	Turkeys	2,256	2,214	18.52	53%	28%	31%
0254	Poultry Hatcheries	548	547	3.31	41%	33%	41%
0259	Other Poultry & Eggs	456	455	3.34	52%	15%	40%
025	Total Poultry & Eggs	9,671	9,184	75.35	56%	18%	35%
0272	Horses	1,550	1,534	9.91	55%	11%	40%
0279	Other Animal Specialties (4)	1,874	1,303	9.10	51%	16%	40%
027	Total Animal Specialties	3,424	3,390	23.00	53%	13%	41%
0291	General Livestock Farms	2,176	2,167	11.47	41%	40%	35%
02	Ag Production-Livestock	47,822	44,549	\$378.79	58%	19%	32%

TABLE 1 - AGRICULTURAL EMPLOYEES AND EARNINGS BY INDUSTRY
Statewide - Calendar Year 1989

Standard Industrial Code (SIC)	Industry Title	Total Jobs Reported in This SIC	Employees in This SIC (1)	Earnings in This SIC (\$ Millions)	Employees Who Only Worked in This SIC	Employees Who Also Had Farm Jobs (2) Outside This SIC	Employees Who Also Had Nonfarm Jobs (2) Outside This SIC
0711	Soil Preparation Services	2,340	2,317	\$17.64	37%	35%	44%
0721	Crop Planting & Protection	14,534	14,174	73.16	32%	49%	39%
0722	Crop Harvesting by Machine	33,746	31,915	101.52	26%	62%	36%
0723	Crop Preparation for Market	90,371	84,029	376.67	32%	49%	40%
0724	Cotton Ginning	2,913	2,881	17.52	29%	53%	38%
072	Total Crop Services	141,564	127,249	568.87	33%	49%	39%
0741	Livestock Veterinary Services	462	460	4.41	49%	3%	49%
0742	Pet Veterinary Services	24,953	22,408	190.70	56%	2%	44%
074	Total Veterinary Services	25,415	22,810	195.11	56%	2%	43%
0751	Other Livestock Services	1,852	1,821	13.89	45%	23%	44%
0752	Other Pet Services	8,912	8,628	49.24	51%	7%	46%
075	Total Livestock & Pet Services	10,764	10,442	63.13	50%	9%	46%
0761	Labor Contractors & Crew Leaders (FLCs)	442,814	270,864	453.49	33%	52%	38%
0762	Farm Management Services	38,487	37,192	130.63	24%	66%	39%
076	Total-FLC & Management Services	481,301	291,853	584.13	34%	50%	37%
0781	Landscape Planning	12,796	12,535	114.39	48%	10%	47%
0782	Lawn & Garden Services	91,987	85,036	529.74	50%	11%	45%
0783	Ornamental Tree Services	8,603	8,245	66.38	54%	6%	43%
078	Total Landscape & Hort Services	113,386	104,321	710.52	52%	11%	43%
07	Total Agricultural Services	774,770	518,133	2,139.39	43%	32%	39%
01, 071-2, 076	Seasonal Agricultural Services (5)	1,369,480	720,766	\$3,450.35	64%	1%	36%

TABLE 1 - AGRICULTURAL EMPLOYEES AND EARNINGS BY INDUSTRY
Statewide - Calendar Year 1989

Standard Industrial Code (SIC)	Industry Title	Total Jobs Reported in This SIC	Employees in This SIC (1)	Earnings in This SIC (\$ Millions)	Employees Who Only Worked in This SIC	Employees Who Also Had Farm Jobs (2) Outside This SIC	Employees Who Also Had Nonfarm Jobs (2) Outside This SIC
01, 02, 07	Agriculture	1,566,867	881,864	\$4,797.89	64%	0%	
08&09	Forestry & Fishing	1,520	1,464	2.70	0%	92%	59%
10 - 14	Mining	1,402	1,248	8.98	0%	86%	63%
15 - 17	Construction	55,697	41,410	184.50	0%	73%	65%
20 - 39	Manufacturing	103,864	85,519	438.48	0%	89%	49%
40 - 49	Transportation	21,454	19,353	100.15	0%	88%	55%
50 - 59	Trade	137,288	107,853	404.63	0%	81%	55%
60 - 69	Fire	13,958	13,163	80.77	0%	75%	64%
70 - 89	Services	125,007	98,883	430.32	0%	79%	58%
90 - 99	Public Administration	14,904	13,732	84.04	0%	84%	58%
	All Other SICs	41,693	39,786	100.76	0%	92%	48%
	Non-Ag & All Other SICs	516,787	422,411	1,835.33	0%	83%	
Total		2,083,654	881,864	\$6,633.22			

Source: This table is based on all useable records for employees reported at least once by an agricultural employer to California UI authorities in 1989.

(1) An employee may be counted in more than one Standard Industrial Classification (SIC) code.

(2) Farm means SIC 01, 02, and 071, 072, 0741, 0751, and 076; agriculture means 01, 02, and 07; nonfarm includes SIC 0742, 0752, 078, 08-99, and multi-establishment reporting units.

(3) SIC 0119 includes 0116 Soy beans.

(4) SIC 0279 includes 0271 Fur bearing animals and rabbits, and 0273 Animal aquaculture.

(5) Employment data for Seasonal Agricultural Services industries is used to monitor the SAW program.

Note: Percent totals may not equal 100% because of rounding.

**TABLE 2 - AGRICULTURAL EMPLOYEES ASSIGNED TO THE
INDUSTRY OF THEIR PRIMARY EARNINGS**
Statewide - Calendar Year 1989

Standard Industrial Code (SIC)	Industry Title	Employees With Primary Earnings (1) in This SIC	Earnings in This SIC (\$ Millions)	Percent of Total Employees and Earnings in This SIC (2)					
				Income Less Than \$1000		Income of \$1000 - \$7499		Income of \$7500 and Above	
				Employees	Earnings	Employees	Earnings	Employees	Earnings
0111	Wheat	528	\$3.38	20%	1%	39%	21%	40%	78%
0112	Rice	2,528	19.28	16%	1%	43%	18%	41%	81%
0115	Corn	244	2.16	16%	1%	32%	13%	52%	86%
0119	Other Cash Grains (3)	2,068	12.84	19%	1%	45%	23%	37%	76%
011	Total Cash Grains	5,384	37.71	18%	1%	43%	20%	40%	79%
0131	Cotton	10,935	98.11	16%	1%	35%	14%	49%	85%
0133	Sugar Crops	468	3.10	18%	1%	41%	23%	41%	76%
0134	Potatoes	1,519	7.21	27%	2%	53%	37%	20%	61%
0139	Other Field crops	7,099	46.93	23%	1%	40%	21%	37%	78%
013	Total Field Crops	20,021	155.35	19%	1%	39%	17%	42%	82%
0161	Vegetables & Melons	53,600	385.79	15%	1%	44%	22%	41%	77%
0171	Berries	28,072	124.32	19%	1%	61%	50%	21%	49%
0172	Grapes	61,719	249.01	31%	2%	49%	38%	20%	60%
0173	Tree Nuts	11,570	55.25	31%	2%	43%	28%	26%	70%
0174	Citrus Fruits	9,577	71.78	20%	1%	37%	18%	43%	81%
0175	Deciduous Tree Fruits	30,700	114.06	31%	2%	50%	41%	19%	56%
0179	Other Fruits & Nuts	19,569	93.34	27%	2%	47%	31%	27%	67%
017	Total Fruits & Nuts	161,207	707.75	28%	2%	50%	37%	22%	61%
0181	Flowers & Nursery Products	40,635	397.48	11%	0%	35%	14%	53%	86%
0182	Food Crops Under Cover	2,360	24.82	8%	0%	34%	12%	58%	87%
018	Total Hort Specialties	42,995	422.30	11%	0%	35%	14%	54%	86%
0191	General Crop Farms	51,517	322.94	23%	1%	43%	23%	34%	76%
01	Ag Production-Crops	334,724	\$2,031.85	22%	1%	45%	25%	33%	73%

**TABLE 2 - AGRICULTURAL EMPLOYEES ASSIGNED TO THE
INDUSTRY OF THEIR PRIMARY EARNINGS
Statewide - Calendar Year 1989**

Standard Industrial Code (SIC)	Industry Title	Employees With Primary Earnings (1) in This SIC	Earnings in This SIC (\$ Millions)	Percent of Total Employees and Earnings in This SIC (2)					
				Income Less Than \$1000		Income of \$1000 - \$7499		Income of \$7500 and Above	
				Employees	Earnings	Employees	Earnings	Employees	Earnings
0211	Beef Cattle Feedlots	1,131	\$13.55	10%	0%	28%	9%	63%	90%
0212	Other Beef Cattle	4,431	35.88	16%	1%	39%	16%	45%	83%
0213	Hogs	132	1.00	17%	1%	37%	16%	46%	84%
0214	Sheep & Goats	828	4.71	12%	1%	54%	34%	34%	65%
0219	General Meat Livestock	86	0.57	22%	1%	40%	20%	38%	79%
021	Total Meat Livestock	6,608	55.70	15%	1%	39%	16%	47%	83%
0241	Dairy	16,285	200.59	9%	0%	28%	9%	64%	91%
0251	Broiler Chickens	154	1.66	11%	0%	29%	10%	60%	89%
0252	Eggs	4,425	45.87	8%	0%	34%	12%	58%	87%
0253	Turkeys	1,592	17.63	11%	0%	30%	10%	59%	89%
0254	Poultry Hatcheries	348	3.07	15%	1%	36%	15%	49%	84%
0259	Other Poultry & Eggs	345	3.16	17%	1%	30%	12%	54%	87%
025	Total Poultry & Eggs	6,864	71.38	10%	0%	33%	12%	57%	88%
0272	Horses	1,124	9.18	12%	1%	42%	18%	46%	81%
0279	Other Animal Specialties (4)	1,330	12.34	14%	1%	36%	13%	50%	86%
027	Total Animal Specialties	2,454	21.52	13%	1%	39%	16%	48%	84%
0291	General Livestock Farms	1,367	10.55	16%	1%	43%	19%	41%	81%
02	Ag Production-Livestock	33,578	\$359.74	11%	0%	32%	11%	57%	88%

**TABLE 2 - AGRICULTURAL EMPLOYEES ASSIGNED TO THE
INDUSTRY OF THEIR PRIMARY EARNINGS**
Statewide - Calendar Year 1989

Standard Industrial Code (SIC)	Industry Title	Employees With Primary Earnings (1) in This SIC	Earnings in This SIC (\$ Millions)	Percent of Total Employees and Earnings in This SIC (2)					
				Income Less Than \$1000		Income of \$1000 - \$7499		Income of \$7500 and Above	
				Employees	Earnings	Employees	Earnings	Employees	Earnings
0711	Soil Preparation Services	1,384	\$16.17	13%	0%	34%	10%	53%	89%
0721	Crop Planting & Protection	7,703	66.75	17%	1%	40%	16%	43%	83%
0722	Crop Harvesting by Machine	15,660	88.10	23%	1%	46%	27%	31%	72%
0723	Crop Preparation for Market	48,835	339.66	15%	1%	49%	25%	36%	74%
0724	Cotton Ginning	1,668	15.06	9%	0%	47%	19%	44%	80%
072	Total Crop Services	73,866	509.57	17%	1%	47%	24%	36%	75%
0741	Livestock Veterinary Services	316	4.13	17%	1%	40%	10%	43%	89%
0742	Pet Veterinary Services	16,789	181.65	12%	1%	40%	13%	47%	86%
074	Total Veterinary Services	17,105	185.78	13%	1%	40%	13%	47%	86%
0751	Other Livestock Services	1,244	13.11	15%	1%	34%	12%	51%	87%
0752	Other Pet Services	6,148	45.47	15%	1%	45%	21%	39%	78%
075	Total Livestock & Pet Services	7,392	58.58	15%	1%	43%	19%	41%	80%
0761	Labor Contractors & Crew Leaders (FLCs)	152,248	365.98	42%	4%	47%	56%	10%	40%
0762	Farm Management Services	17,068	114.45	20%	1%	45%	23%	35%	76%
076	Total-FLC & Management Services	169,316	480.43	40%	4%	47%	49%	13%	48%
0781	Landscape Planning	8,792	107.11	11%	0%	36%	10%	53%	89%
0782	Lawn & Garden Services	59,808	488.61	13%	1%	43%	18%	44%	81%
0783	Ornamental Tree Services	6,044	62.86	12%	0%	36%	13%	52%	87%
078	Total Landscape & Hort Services	74,644	658.58	13%	1%	41%	17%	46%	83%
07	Total Agricultural Services	343,707	1,909.10	27%	1%	45%	27%	27%	71%
01, 071-2, 076	Seasonal Agricultural Services (5)	577,906	\$3,021.85	27%	2%	46%	29%	27%	69%

**TABLE 2 - AGRICULTURAL EMPLOYEES ASSIGNED TO THE
INDUSTRY OF THEIR PRIMARY EARNINGS**
Statewide - Calendar Year 1989

Standard Industrial Code (SIC)	Industry Title	Employees With Primary Earnings (1) in This SIC	Earnings in This SIC (\$ Millions)	Percent of Total Employees and Earnings in This SIC (2)					
				Income Less Than \$1000		Income of \$1000 - \$7499		Income of \$7500 and Above	
				Employees	Earnings	Employees	Earnings	Employees	Earnings
01, 02, 07	Agriculture	712,009	\$4,300.69	24%	1%	45%	25%	31%	74%
008&09	Forestry & Fishing	479	1.81	7%	1%	70%	52%	23%	47%
10 - 14	Mining	607	7.76	2%	0%	33%	9%	65%	91%
15 - 17	Construction	18,358	140.85	5%	0%	47%	19%	48%	81%
20 - 39	Manufacturing	44,848	355.14	3%	0%	50%	21%	47%	79%
40 - 49	Transportation	7,432	84.03	4%	0%	37%	11%	59%	89%
50 - 59	Trade	47,321	306.91	6%	0%	54%	24%	39%	75%
60 - 69	Fire	5,701	67.25	4%	0%	34%	10%	62%	90%
70 - 89	Services	40,192	340.03	6%	0%	47%	17%	47%	82%
90 - 99	Public Administration	5,141	74.31	5%	0%	37%	8%	58%	92%
	All Other SICs	0	0	0%	0%	0%	0%	0%	0%
	Non-Ag & All Other SICs	170,079	1,378.09	5%	0%	49%	19%	46%	81%
Total (6)		882,088	\$5,678.77						

Source: This table is based on all useable records for employees reported at least once by an agricultural employer to California UI authorities in 1989.

(1) Primary earnings were determined by comparing total wages from jobs in each Standard Industrial Classification (SIC); workers are counted only in the SIC of their greatest earnings.

(2) Percent totals may not equal 100% because of rounding.

(3) SIC 0119 includes 0116 Soy Beans.

(4) SIC 0279 includes 0271 Fur Bearing Animals & Rabbits, and 0273 Animal Aquaculture.

(5) Employment data for Seasonal Agricultural Services industries is used to monitor the SAW program.

(6) Total number of employees exceeds total from Table 1 by 224 because some employees have equal maximum earnings in more than one industry.

TABLE 3 - SEASONAL AGRICULTURAL EMPLOYEES AND EARNINGS BY INDUSTRY *
Statewide - Calendar Year 1989

Standard Industrial Code (SIC)	Industry Title	Total Jobs Reported in This SIC	Employees in This SIC (1)	Earnings in This SIC (\$ Millions)	Employees Who Only Worked in This SIC	Employees Who Also Had Farm Jobs (2) Outside This SIC	Employees Who Also Had Nonfarm Jobs (2) Outside This SIC
0111	Wheat	545	543	\$1.03	11%	79%	41%
0112	Rice	2,408	2,065	6.75	25%	56%	48%
0115	Corn	193	189	0.49	19%	67%	48%
0119	Other Cash Grains (3)	2,214	2,135	5.18	18%	74%	43%
011	Total Cash Grains	5,360	4,810	13.47	22%	65%	45%
0131	Cotton	9,089	8,215	23.21	23%	65%	39%
0133	Sugar Crops	477	474	1.42	21%	70%	43%
0134	Potatoes	1,430	1,270	3.16	25%	60%	44%
0139	Other Field crops	6,541	6,317	14.60	20%	70%	42%
013	Total Field Crops	17,537	15,806	42.39	23%	65%	40%
0161	Vegetables & Melons	51,112	46,052	149.71	28%	60%	39%
0171	Berries	30,421	24,304	77.58	40%	44%	33%
0172	Grapes	100,349	62,455	132.39	16%	75%	45%
0173	Tree Nuts	13,996	11,613	21.61	16%	75%	50%
0174	Citrus Fruits	7,599	7,029	15.34	20%	70%	42%
0175	Deciduous Tree Fruits	41,755	31,749	59.79	14%	78%	48%
0179	Other Fruits & Nuts	23,972	20,779	36.41	15%	77%	47%
017	Total Fruits & Nuts	218,092	129,939	343.12	26%	60%	43%
0181	Flowers & Nursery Products	23,694	22,101	77.98	34%	37%	48%
0182	Food Crops Under Cover	1,269	1,228	4.83	42%	30%	43%
018	Total Hort Specialties	24,963	23,282	82.81	35%	37%	47%
0191	General Crop Farms	58,595	50,608	110.76	17%	74%	44%
01	Ag Production-Crops	375,659	218,989	\$742.26	35%	44%	41%

*All employment and earnings data in this table refers to Seasonal Employees who worked 5 to 30 weeks for one or more farm employers, and earned \$1000 or more.

TABLE 3 - SEASONAL AGRICULTURAL EMPLOYEES AND EARNINGS BY INDUSTRY *

Statewide - Calendar Year 1989

Standard Industrial Code (SIC)	Industry Title	Total Jobs Reported in This SIC	Employees in This SIC (1)	Earnings in This SIC (\$ Millions)	Employees Who Only Worked in This SIC	Employees Who Also Had Farm Jobs (2) Outside This SIC	Employees Who Also Had Nonfarm Jobs (2) Outside This SIC
0211	Beef Cattle Feedlots	408	400	\$1.73	42%	33%	38%
0212	Other Beef Cattle	2,287	2,184	8.52	40%	31%	44%
0213	Hogs	63	63	0.23	33%	43%	56%
0214	Sheep & Goats	585	575	1.66	44%	42%	33%
0219	General Meat Livestock	34	34	0.09	32%	47%	41%
021	Total Meat Livestock	3,377	3,237	12.23	41%	33%	42%
0241	Dairy	7,955	7,204	39.84	47%	30%	38%
0251	Broiler Chickens	99	99	0.27	15%	64%	54%
0252	Eggs	2,194	2,080	8.33	43%	20%	50%
0253	Turkeys	763	747	2.47	35%	44%	43%
0254	Poultry Hatcheries	205	205	0.58	29%	44%	54%
0259	Other Poultry & Eggs	151	150	0.55	39%	17%	53%
025	Total Poultry & Eggs	3,412	3,250	12.19	40%	27%	49%
0272	Horses	638	627	2.57	47%	17%	48%
0279	Other Animal Specialties (4)	730	513	2.37	41%	26%	44%
027	Total Animal Specialties	1,368	1,349	5.95	43%	20%	48%
0291	General Livestock Farms	905	903	2.30	28%	56%	42%
02	Ag Production-Livestock	17,017	15,750	\$72.51	44%	29%	42%

*All employment and earnings data in this table refers to Seasonal Employees who worked 5 to 30 weeks for one or more farm employers, and earned \$1000 or more.

TABLE 3 - SEASONAL AGRICULTURAL EMPLOYEES AND EARNINGS BY INDUSTRY *
Statewide - Calendar Year 1989

Standard Industrial Code (SIC)	Industry Title	Total Jobs Reported in This SIC	Employees in This SIC (1)	Earnings in This SIC (\$ Millions)	Employees Who Only Worked in This SIC	Employees Who Also Had Farm Jobs (2) Outside This SIC	Employees Who Also Had Nonfarm Jobs (2) Outside This SIC
0711	Soil Preparation Services	994	981	\$3.49	27%	43%	54%
0721	Crop Planting & Protection	6,693	6,505	20.89	22%	62%	44%
0722	Crop Harvesting by Machine	16,783	15,813	37.42	18%	73%	40%
0723	Crop Preparation for Market	44,353	40,888	112.18	23%	60%	45%
0724	Cotton Ginning	1,549	1,533	6.10	20%	63%	43%
072	Total Crop Services	69,378	61,418	176.59	23%	60%	43%
0741	Livestock Veterinary Services	149	148	0.62	37%	4%	61%
0742	Pet Veterinary Services	183	160	0.72	0%	100%	54%
074	Total Veterinary Services	332	282	1.33	25%	53%	51%
0751	Other Livestock Services	752	742	3.43	38%	28%	52%
0752	Other Pet Services	278	271	0.63	0%	100%	52%
075	Total Livestock & Pet Services	1,030	1,010	4.06	28%	47%	52%
0761	Labor Contractors & Crew Leaders (FLCs)	230,416	123,388	236.20	19%	72%	43%
0762	Farm Management Services	19,831	19,056	41.30	15%	77%	44%
076	Total-FLC & Management Services	250,247	132,580	277.51	20%	69%	43%
0781	Landscape Planning	642	637	2.42	0%	100%	49%
0782	Lawn & Garden Services	4,987	4,623	10.23	0%	100%	52%
0783	Ornamental Tree Services	245	243	0.99	0%	100%	47%
078	Total Landscape & Hort Services	5,874	5,434	13.65	0%	100%	51%
07	Total Agricultural Services	327,855	177,434	476.62	27%	57%	43%
01, 071-2, 076	Seasonal Agricultural Services (5)	696,278	295,204	\$1,199.84	59%	2%	40%

*All employment and earnings data in this table refers to Seasonal Employees who worked 5 to 30 weeks for one or more farm employers, and earned \$1000 or more.

TABLE 3 - SEASONAL AGRICULTURAL EMPLOYEES AND EARNINGS BY INDUSTRY *

Statewide - Calendar Year 1989

Standard Industrial Code (SIC)	Industry Title	Total Jobs Reported in This SIC	Employees in This SIC (1)	Earnings in This SIC (\$ Millions)	Employees Who Only Worked in This SIC	Employees Who Also Had Farm Jobs (2) Outside This SIC	Employees Who Also Had Nonfarm Jobs (2) Outside This SIC
01, 02, 07	Agriculture	720,531	307,067	\$1,291.39	61%	0%	
08&09	Forestry & Fishing	730	709	1.25	0%	100%	55%
10 - 14	Mining	497	446	2.61	0%	100%	58%
15 - 17	Construction	16,199	12,962	47.05	0%	100%	51%
20 - 39	Manufacturing	41,525	34,719	145.36	0%	100%	42%
40 - 49	Transportation	9,117	8,314	34.29	0%	100%	49%
50 - 59	Trade	46,270	38,015	126.75	0%	100%	44%
60 - 69	Fire	4,376	4,196	20.92	0%	100%	53%
70 - 89	Services	40,795	33,717	121.49	0%	100%	47%
90 - 99	Public Administration	5,758	5,436	23.17	0%	100%	50%
	All Other SICs	21,101	20,029	39.54	0%	100%	41%
	Non-Ag & All Other SICs	186,368	158,543	562.44	0%	100%	
Total		906,899	307,067	\$1,853.83			

Source: This table is based on all useable records for employees reported at least once by an agricultural employer to California UI authorities in 1989.

(1) Seasonal employees were those reported by one or more farm reporting units to have done 5 to 30 weeks of work, and earned \$1000 or more.

(2) Farm means SIC 01, 02, and 071, 072, 0741, 0751, and 076; agriculture means 01, 02, and 07; nonfarm includes SIC 0742, 0752, 078, 08-99, and multi-establishment reporting units.

(3) SIC 0119 includes 0116 Soy beans.

(4) SIC 0279 includes 0271 Fur bearing animals and rabbits, and 0273 Animal aquaculture.

(5) Employment data for Seasonal Agricultural Services industries is used to monitor the SAW program.

Note: Percent totals may not equal 100% because of rounding.

TABLE 4 - MIGRANT AGRICULTURAL EMPLOYEES AND EARNINGS BY INDUSTRY *
Statewide - Calendar Year 1989

Standard Industrial Code (SIC)	Industry Title	Total Jobs Reported in This SIC	Employees in This SIC (1)	Earnings in This SIC (\$ Millions)	Employees Who Only Worked in This SIC	Employees Who Also Had Farm Jobs (2) Outside This SIC	Employees Who Also Had Nonfarm Jobs (2) Outside This SIC
0111	Wheat	255	254	\$0.36	0%	100%	43%
0112	Rice	981	800	1.62	4%	91%	50%
0115	Corn	91	89	0.16	0%	99%	46%
0119	Other Cash Grains (3)	1,023	979	1.74	1%	99%	46%
011	Total Cash Grains	2,350	2,052	3.89	3%	94%	47%
0131	Cotton	3,602	3,205	6.11	3%	96%	41%
0133	Sugar Crops	182	182	0.33	0%	100%	49%
0134	Potatoes	586	507	0.81	1%	99%	46%
0139	Other Field crops	2,729	2,610	3.75	1%	98%	43%
013	Total Field Crops	7,099	6,265	11.00	3%	96%	42%
0161	Vegetables & Melons	21,748	18,638	38.21	4%	95%	43%
0171	Berries	12,844	9,026	22.57	15%	80%	35%
0172	Grapes	46,067	29,309	46.64	5%	93%	48%
0173	Tree Nuts	6,470	5,292	7.09	3%	95%	54%
0174	Citrus Fruits	3,040	2,817	3.66	1%	98%	45%
0175	Deciduous Tree Fruits	19,959	14,686	21.60	3%	95%	51%
0179	Other Fruits & Nuts	11,244	9,563	11.86	2%	97%	50%
017	Total Fruits & Nuts	99,624	55,766	113.42	10%	84%	46%
0181	Flowers & Nursery Products	7,049	5,983	11.73	6%	91%	48%
0182	Food Crops Under Cover	312	285	0.73	7%	91%	38%
018	Total Hort Specialties	7,361	6,238	12.46	6%	91%	47%
0191	General Crop Farms	25,919	22,056	33.48	2%	97%	47%
01	Ag Production-Crops	164,101	81,382	\$212.47	18%	72%	44%

*All employment and earnings data in this table refers to Migrant Employees who worked for at least two farm employers in at least two counties, worked 5 to 30 weeks, and earned \$1000 or more.

TABLE 4 - MIGRANT AGRICULTURAL EMPLOYEES AND EARNINGS BY INDUSTRY *
Statewide - Calendar Year 1989

Standard Industrial Code (SIC)	Industry Title	Total Jobs Reported in This SIC	Employees in This SIC (1)	Earnings in This SIC (\$ Millions)	Employees Who Only Worked in This SIC	Employees Who Also Had Farm Jobs (2) Outside This SIC	Employees Who Also Had Nonfarm Jobs (2) Outside This SIC
0211	Beef Cattle Feedlots	109	101	\$0.27	4%	95%	35%
0212	Other Beef Cattle	543	461	1.14	7%	91%	44%
0213	Hogs	13	13	0.02	0%	100%	77%
0214	Sheep & Goats	143	138	0.24	1%	99%	46%
0219	General Meat Livestock	8	8	0.02	0%	100%	13%
021	Total Meat Livestock	816	704	1.69	6%	91%	43%
0241	Dairy	2,213	1,704	5.36	14%	79%	43%
0251	Broiler Chickens	29	29	0.03	0%	100%	52%
0252	Eggs	369	294	0.71	10%	86%	58%
0253	Turkeys	249	236	0.53	3%	96%	48%
0254	Poultry Hatcheries	56	56	0.09	0%	100%	63%
0259	Other Poultry & Eggs	13	13	0.02	0%	100%	54%
025	Total Poultry & Eggs	716	613	1.38	7%	91%	54%
0272	Horses	84	76	0.17	3%	92%	59%
0279	Other Animal Specialties (4)	121	85	0.26	4%	95%	42%
027	Total Animal Specialties	205	191	0.48	3%	95%	53%
0291	General Livestock Farms	304	304	0.44	0%	100%	47%
02	Ag Production-Livestock	4,254	3,384	\$9.35	11%	83%	46%

*All employment and earnings data in this table refers to Migrant Employees who worked for at least two farm employers in at least two counties, worked 5 to 30 weeks, and earned \$1000 or more.

TABLE 4 - MIGRANT AGRICULTURAL EMPLOYEES AND EARNINGS BY INDUSTRY *
Statewide - Calendar Year 1989

Standard Industrial Code (SIC)	Industry Title	Total Jobs Reported in This SIC	Employees in This SIC (1)	Earnings in This SIC (\$ Millions)	Employees Who Only Worked in This SIC	Employees Who Also Had Farm Jobs (2) Outside This SIC	Employees Who Also Had Nonfarm Jobs (2) Outside This SIC
0711	Soil Preparation Services	284	274	\$0.47	1%	97%	51%
0721	Crop Planting & Protection	2,568	2,463	4.27	1%	98%	46%
0722	Crop Harvesting by Machine	7,702	7,195	11.60	1%	99%	42%
0723	Crop Preparation for Market	18,650	16,579	30.70	3%	96%	45%
0724	Cotton Ginning	492	485	1.49	1%	99%	38%
072	Total Crop Services	29,412	24,868	48.05	3%	95%	44%
0741	Livestock Veterinary Services	4	4	0.02	0%	100%	50%
0742	Pet Veterinary Services	35	34	0.06	0%	100%	59%
074	Total Veterinary Services	39	38	0.08	0%	100%	58%
0751	Other Livestock Services	140	134	0.29	2%	97%	54%
0752	Other Pet Services	87	86	0.14	0%	100%	62%
075	Total Livestock & Pet Services	227	220	0.43	1%	98%	57%
0761	Labor Contractors & Crew Leaders (FLCs)	121,045	61,778	100.88	8%	87%	46%
0762	Farm Management Services	9,606	9,182	13.14	1%	99%	47%
076	Total-FLC & Management Services	130,651	65,072	114.01	9%	85%	46%
0781	Landscape Planning	172	171	0.33	0%	100%	64%
0782	Lawn & Garden Services	1,968	1,835	3.31	0%	100%	60%
0783	Ornamental Tree Services	74	74	0.16	0%	100%	51%
078	Total Landscape & Hort Services	2,214	2,055	3.80	0%	100%	59%
07	Total Agricultural Services	162,827	77,775	166.85	14%	77%	45%
01, 071-2, 076	Seasonal Agricultural Services (5)	324,448	99,547	\$375.01	56%	3%	43%

*All employment and earnings data in this table refers to Migrant Employees who worked for at least two farm employers in at least two counties, worked 5 to 30 weeks, and earned \$1000 or more.

TABLE 4 - MIGRANT AGRICULTURAL EMPLOYEES AND EARNINGS BY INDUSTRY *
Statewide - Calendar Year 1989

Standard Industrial Code (SIC)	Industry Title	Total Jobs Reported in This SIC	Employees in This SIC (1)	Earnings in This SIC (\$ Millions)	Employees Who Only Worked in This SIC	Employees Who Also Had Farm Jobs (2) Outside This SIC	Employees Who Also Had Nonfarm Jobs (2) Outside This SIC
01, 02, 07	Agriculture	331,182	100,134	\$388.67	58%	0%	
08809	Forestry & Fishing	342	334	0.50	0%	100%	62%
10 - 14	Mining	109	98	0.47	0%	100%	57%
15 - 17	Construction	5,278	4,293	12.54	0%	100%	57%
20 - 39	Manufacturing	15,230	12,386	42.47	0%	100%	47%
40 - 49	Transportation	2,803	2,646	7.19	0%	100%	56%
50 - 59	Trade	14,835	11,848	31.21	0%	100%	50%
60 - 69	Fire	1,276	1,234	4.49	0%	100%	58%
70 - 89	Services	14,032	11,690	29.84	0%	100%	52%
90 - 99	Public Administration	2,172	2,086	5.49	0%	100%	55%
	All Other SICs	11,552	10,855	16.67	0%	100%	42%
	Non-Ag & All Other SICs	67,629	57,470	150.87	0%	100%	
Total		398,811	100,134	\$539.54			

Source: This table is based on all useable records for employees reported at least once by an agricultural employer to California UI authorities in 1989.

(1) Migrant employees were those reported by at least two farm reporting units in at least two counties, performed 5 to 30 weeks of work, and earned \$1000 or more.

(2) Farm means SIC 01, 02, and 071, 072, 0741, 0751, and 076; agriculture means 01, 02, and 07; nonfarm includes SIC 0742, 0752, 078, 08-99, and multi-establishment reporting units.

(3) SIC 0119 includes 0116 Soy beans.

(4) SIC 0279 includes 0271 Fur bearing animals and rabbits, and 0273 Animal aquaculture.

(5) Employment data for Seasonal Agricultural Services industries is used to monitor the SAW program.

Note: Percent totals may not equal 100% because of rounding.

