

*Mendocino County Hired Farm Workers  
Number and Characteristics*

Don Villarejo, Ph.D.

March 4, 2005

Prepared for California Rural Legal Assistance, Inc.

## *Mendocino County Hired Farm Workers – Number and Characteristics*

### **Mendocino County Agriculture**

Mendocino County has a relatively large land area devoted to agriculture – about 707,000 acres (1,100 square miles) – but most is devoted to range and pasture for the production of livestock and livestock products. A little more than 10% of the county’s farmland is cropland, and nearly all crop production is in wine grapes, pears and apples.

The amount of cropland and the area devoted to these three crops and to other categories of crops has increased significantly over the past three decades. This is shown in Table 1 in which agricultural cropland data for 2002 is compared with that for 1974.

The most important changes in this period are the substantial increases of both harvested cropland (+6,940 acres, or +29%) and land in orchards (+6,877 acres, or +48%). Most impressive is the doubling of grape vineyards (+9,261 acres, or +109%). At the same time, both apple and pear acreage have decreased by substantial fractions.

Vegetable acreage is not significant, nor is berry acreage. The large differences between the cropland figures and the corresponding harvested cropland data is attributed to the fact that more than half of the county’s cropland is devoted to pasture.

**Table 1. Land Use (acres), Mendocino County, California, 1974 & 2002**  
Source: *Census of Agriculture*

<i>Land use category</i>	<i>1974</i>	<i>2002</i>	<i>Change (1974-2002)</i>
Cropland	58,184	77,256	+19,072
Harvested cropland	23,952	30,892	+6,940
Land in orchards	14,326	21,203	+6,877
Apples	846	489	-357
Grapes	8,510	17,771	+9,261
Pears	3,809	2,790	-1,019
Other tree crops	568	62	-506
Vegetables	63	326	+263
Berries	10	37	+27

Most of Mendocino County’s apple, grape and pear farms are quite small by California standards. Of the 498 farms reporting land in orchards in 2002, just 3 had 500 acres or more of trees or vines, and 324 (65%) had less than 25 acres.

Average gross revenue from the sale of Mendocino’s crops was about \$137,000 per farm in 2002, only one-third the average for all California farms (\$394,000). Correspondingly, net farm income (gross revenue from commodity sales minus farm production expenses) was quite small. The 402 Mendocino farms reporting net gains from farming operations in 2002 had an average net income of \$76,000 per farm, versus the statewide average of \$212,000 per farm. And 781 farms reported net losses.

## Hired Farm Labor in Mendocino County – How many workers?

### *Census of Agriculture – 2002*

Important insights regarding hired labor demand in Mendocino County, especially as 2002 compares with 1974, can be ascertained from the Census of Agriculture. The data show that farm labor demand has increased substantially during this 28-year period.

Conducted every five years, the federal census of farm businesses provides a unique body of information about hired farm workers. Most importantly, farm operators are asked to provide details on the number of persons they employ, the total cost of hired labor on their farm, and the total cost of contract labor they may utilize. In addition, the 2002 data includes, for the first time, a question regarding whether or not migrant workers are employed on each farm.

Table 2 shows the principal findings for crop year 2002 regarding directly hired farm labor in Mendocino County as well as comparative data for 1974. The term “direct hire labor” refers to workers on the *farm operator payroll*, as distinct from workers on a farm who are on the payroll of a labor contractor or other intermediary.

**Table 2. Hired Farm Labor (Farm Payroll), 1974 & 2002, Mendocino County, California**

Source: *Census of Agriculture*

	1974	2002	Change
Farms, direct hired labor	422	500	+78
Expense, direct hired labor	\$3,710,000	\$28,315,000	(N.A.)
Workers, direct hire, 150 days or more	532	1,308	+776
Workers (Jobs), direct hire, less than 150 days	3,430	6,051	+2,621
Farms with direct hire migrant farm labor	(N.A.)	152	(N.A.)

There were 78 more farms reporting hired labor (farm payroll) in 2002 as compared with 1974. Presumably, the doubling of the number of farms with wine grape acreage is largely responsible for the greater reliance on hired labor.

The most striking findings for the 2002 crop year, as compared with 1974 and shown in Table 2, are the sharp increases of the farm labor expense, of the number of workers employed 150 days or more (usually described as “regular” workers), and of the number of workers employed for less than 150 days (usually described as “seasonal” workers).

A critical point about the findings regarding the number of workers is that the aggregate number refers to the sum of reports by all farm operators. If an individual is employed on two different farms, then both jobs are reported, i.e., the number of corresponding “workers” in the tabulation will be two. Therefore, it is more accurate to describe these findings as the *number of jobs*, not the number of workers. Nevertheless, we retain the language reported in the census but add this caveat.

Since it is likely that few, if any, workers are employed for 150 days or more on each of two or more farms, this data item is probably an accurate count of the number of “regular” workers, many of whom are employed on a year-round basis. On the other hand, the reported number of workers employed fewer than 150 days very likely includes many duplicates, and the total of such multiply-counted workers is unknown.

The very large increase of hired labor expense is expressed in current (nominal) dollars and must be adjusted for inflation. Since labor expense corresponds to an input of resources that could, in principal, be equivalent to a mechanized or chemical input, it is usual to adjust farm cash receipts for inflation with the Implicit GDP Deflator (1974 - 34.725; 2002 - 103.945; based on 2000 – 100; Table B-3, page 288, *Economic Report of the President*, 2004). With this adjustment, the reported 1974 Mendocino County Hired Labor (Farm Payroll) Expense is equivalent to \$11,105,000 in 2002 dollars.

The 2002 Mendocino County Hired Labor (Farm Payroll) Expense was \$28,315,000, which means that the real cost of hired farm labor in the county grew by an estimated factor of 2.55 (increase of 155%). No wage surveys are available for Mendocino County hired farm labor for these years, which makes adjustment for changes in wage rates impossible. Nevertheless, it is likely that most of this dramatic increase of hired labor expense is accounted for by a substantial increase in overall labor demand in 2002 as compared with 1974. This conclusion is consistent with both the sharply increased number of workers who were reportedly employed for 150 days or more (+776, or +146%), and the increased number of hired farm labor jobs that reportedly lasted less than 150 days (+2,621, or +76%).

Finally, the newly added question regarding whether the farm operator believes that any employees are migrant workers yields the significant finding that 152 operators thought this to be the case on their place. In other words, about 30% of Mendocino farm operators with hired farm labor (farm payroll) believe that at least some of their employees migrate to the county to find work.

The agricultural census also provides important findings concerning contract labor. These findings demonstrate that contract labor increased in importance in Mendocino County to an even greater degree than did direct hire labor. The main findings are shown in Table 3.

**Table 3. Contract Farm Labor, 1974 & 2002, Mendocino County, California**  
Source: *Census of Agriculture*

	1974	2002	Change
Farms, contract labor	126	321	+195
Expense, contract labor	\$705,000	\$7,686,000	(N.A.)
Workers ( <b>Jobs</b> ), contract labor on farm (83 farms reporting out of 126 farms with contract labor expense)	1,151	(N.A.)	(N.A.)
Farms with only contract labor, migrant farm labor on farm	(N.A.)	11	(N.A.)

Most importantly, the number of farms reporting contract labor more than doubled (+195, or +155%), and the amount of the contract labor expense grew from 16% of total labor expense in 1974 (hired plus contract labor expense) to 21% of the total in 2002.

Adjusting the reported 1974 Mendocino County Contract Labor Expense by the Implicit GDP Deflator yields \$2,110,000 in 2002 dollars. Comparing this figure with the reported 2002 Mendocino County Contract Labor Expense yields the important result that contract farm labor costs rose by a whopping factor of 3.64 (increase of 264%). Again, absent Mendocino County farm labor wage survey data, it is likely that much, if not all, of this increase can be attributed to increased labor demand.

The 1974 agricultural census asked farm operators to report the number of contract workers on their farm. As with the number of workers, this figure includes an unknown number of individuals who were counted multiple times. On the other hand, just 83 of the 126 farms (66%) that reported contract labor expense provided a response to this question. The total contract labor expense reported by these 83 farms was \$590,000, or about 84% of the total for all 126 farms with this type of production expenses. Hence, it is likely that the 1,151 workers (**Jobs**) is a significant undercount. The true total is likely between 1,370 and 1,740 workers (**Jobs**). This question was not asked in the 2002 agricultural census.

Using the data on jobs for all types of hired farm labor, it is possible to estimate the total number of jobs and the share filled by contract labor in 1974. The aggregate total of 1974 Mendocino County farm jobs, direct hire and contract labor, regardless of duration is therefore estimated to be between 5,332 and 5,702 jobs, of which about 26% to 30% were filled by contract labor.

Finally, the 2002 agricultural census reports the number of farm operators who only utilized contract labor (no workers on the farm payroll) to indicate if any of those workers were migrant laborers. There were 11 farm operators who indicated that their contract laborers included at least some migrant workers.

Some farm operators may have been unaware if persons working on their farm were migrant workers. Thus, it is possible to conclude that at least 163 Mendocino County farm operators, or nearly one-third of those with either hired or contract workers, utilized migrant labor during 2002.

#### *U.S. Department of Labor, Current Employment and Wage (CEW) Reports – 2002*

The U.S. Department of Labor reports county-level employment data by industry. These summaries are based on quarterly wage and employment reports submitted by individual employers. Data for 2001-2003 was obtained via Internet downloading. Available data items include the following:

- Number of establishments (annual average of four quarterly reports)
- Employment (annual average of 12 monthly reports; each monthly report is of the number of persons on the payroll during the pay period that includes the 12<sup>th</sup> day of the month)
- Total Wages (total of four quarterly reports)
- Average weekly wage (average of four quarterly reports)

For present purposes, the 2002 data is particularly useful. Table 4 presents the findings of these CEW reports for Mendocino County farms with the exception of the weekly wage data.

**Table 4. Agricultural Employment, 2002, Mendocino County, California**

Source: www.bls.gov

<i>Type of Employer</i>	<i>Establishments</i>	<i>Employment</i>	<i>Total Wages</i>
Crop production	197	1,592	\$23,919,000
Livestock production	32	106	\$2,351,000
Support activities for crop production	16	494	\$9,107,000
Support activities for livestock production	(N.A.)	(N.A.)	(N.A.)

There are several key findings that are of interest in these reports. First, the Total Wages paid by both crop and livestock production employers is \$26,270,000, which slightly less than the Hired Labor Expense reported in the 2002 agricultural census. Since the latter figure includes payroll taxes, workers compensation insurance premiums and paid benefits, but the former figure refers to wages only, it is likely that the two figures are in reasonably close agreement.

Second, annual average direct hire employment on Mendocino County farms is 1,698. Of course, there is a large monthly variation in farm employment and it is expected that peak season employment is very much larger than this annual average.

Third, the CEW reports for Mendocino County finds that support activities for crop production (farm labor contractors, farm management companies, custom harvesters, off-farm fresh produce packers and similar firms) represent \$9,107,000 in Total Wages and 494 in annual average employment. The 2002 agricultural census finds contract labor costs paid by farm operators to be \$7,686,000. The larger figure from the CEW Total Wages is likely attributable to the inclusion of non-farm businesses, such as off-farm produce packers. This possibility is considered in more detail in a later section of this report.

#### *Farm Labor Contractor and Other Contract Farm Service Employment - 2000*

The author prepared a special research report to the Labor Statistics and Research Branch of the California Department of Industrial Relations (Villarejo, *Who's In Charge? Labor Market Intermediaries in California Employment*, 2003). The report included a detailed examination of labor market intermediaries (labor contractors, custom service providers, employment agencies, etc.) in all industry sectors, including agriculture.

One of the principal findings of the report was that only a portion of farm labor contractor (FLC) wages and employment were properly enumerated by the Employment Development Department (EDD) in their statistical data bases. In particular, many FLCs submit wage reports that were incorrectly classified by industry, and a substantial share

of FLCs operate in two or more counties, but their wage reports are only attributed to a single county, most often the county where their headquarters is located.

For Mendocino County, it is found that there were 19 FLCs registered with the Mendocino County Agricultural Commissioner in 2000. Since registration requires payment of a registration fee, it is likely that only FLCs who intend to be active in the county would undertake this process.

However, Mendocino County EDD wage reports for 2000 show wage and employment reports of just five FLCs, including one that was no longer in business and had zero wages and employment. Another of the five was registered only with the Sonoma County Agricultural Commissioner, but the wage and employment report was solely attributed to Mendocino County.

Thus, there were 16 FLCs registered with the Mendocino County Agricultural Commissioner for whom there were no EDD wage reports attributed to Mendocino County. Of these 16 FLCs, just two were registered only in Mendocino County. Each of the other 14 FLCs were registered in two or more counties, including one FLC with registrations in 16 counties! Of these 14 FLCs, four did not report either employment or wages paid during 2000.

Wage and employment reports for the 12 additional Mendocino County FLC registrants were found in EDD files, but all were attributed solely to the headquarters county of the business, in no case to Mendocino County. For the two FLCs registered only in Mendocino County but with employment and wages attributed to their "home" county, there is no ambiguity in re-assigning the report to Mendocino County.

In the case of the 10 FLCs with multiple county registrations, including Mendocino County, but reporting employment and wages only in their "home" county, it is not possible to precisely determine the portion that should be attributed to Mendocino County. Instead, an estimate has been constructed by attributing equal fractional shares of each month's reported employment and each quarter's reported wages to every county in which they were registered. Absent first-hand information from each FLC, which might not even be recorded in their employment records, there is little alternative.

The results of this analysis demonstrates that Mendocino County FLC employment was *more than three times larger* in 2000 than was reported in EDD Mendocino County files (annual average of monthly FLC Employment was 142 in the EDD Mendocino County file, but was an estimated 448 when the additional registered FLCs were taken into account, as described above).

There were six additional employers who provided contract farm services or off-farm fresh produce packing in Mendocino County during 2000 but were neither registered nor licensed as FLCs. EDD records classified two of them as farm management firms, three as custom harvest companies and one as fresh produce packing. The combined annual average of monthly employment for these six firms was 276.

In conclusion, it was found that (corrected) annual average Mendocino County FLC employment was 448, and for other contract farm service employers, including off-farm fresh produce packing, the corresponding figure is 276. Previously, it was shown that Mendocino County direct-hire farm employment was 1,698 during 2002. Since the present analysis of FLC and other contract farm service employment was based on 2000 data, it is necessary to utilize data for the corresponding year for direct-hire employment.

It was determined that Mendocino County annual average of monthly direct-hire farm employment during 2000 was 1,800.

The findings of the present analysis are presented in Table 5, which also indicates peak season employment figures as well.

**Table 5. Agricultural Employment, 2000, Mendocino County, California**  
Source: Employment Development Department

<i>Type of Employer</i>	<i>Establishments</i>	<i>Annual Average of Monthly Employment</i>	<i>Peak Season (Sept) Employment</i>
Crop and Livestock Production	230	1,800	2,649
Farm Labor Contractors (corrected)	16	448	730
Other Farm Contract Services	6	276	382
<i>Total</i>	252	2,524	3,761

These findings demonstrate that the annual average of Mendocino County Agricultural Employment is 2,524 and corresponding peak season employment is 3,761.

Since the reported monthly employment refers to the number of persons on the payroll during the pay period that includes the 12<sup>th</sup> day of the month, the September 2000 Peak Season figure is not likely to include very many persons who worked for two or more employers during that pay period. Hence, we conclude that the *minimum number* of Mendocino County hired farm workers and off-farm fresh produce packing workers is very likely in the range of 3,700.

#### *Census of Population and Housing – 2000*

The decennial census provides some useful information about hired farm labor in Mendocino County. First, the Census 2000 finds that a total of 472 persons reported employment during the week prior to April 1, 2000, in the occupational category “Farmers and Farm Managers” (Census 2000, Table P50). Another 1,550 individuals were employed as hired workers during the week prior to April 1, 2000, in “Farming, fishing, and forestry occupations” (Census 2000, Table P50). While the number reporting “fishing and forestry occupations” was not separately reported by the Census, some 320 persons were reported by the California Department of Employment Development (EDD) to be working in Mendocino County within “Natural resource and mining” industries during the pay period that included March 12, 2000. Hence, it can be inferred that 1,330 persons were likely employed as hired farm workers at this time.

The present report finds that California Department of Employment Development (EDD) files indicated that 1,780 persons were employed as hired farm workers in the Mendocino County agricultural industry during the pay period that included March 12, 2000. The difference between the EDD report for March 2000 and the Census 2000 finding is likely due to the fact that the Census has considerable difficulty obtaining information from non-English speaking or undocumented workers, who very likely



comprise the majority of Mendocino County's hired farm laborers. Gabbard, Kissam and Martin (1993) find a systematic Census undercount of migrant Hispanic farm workers.

Interestingly, the inferred Census finding of 1,330 persons employed as hired farm laborers in Mendocino County is very close to the 2002 agricultural census finding that 1,308 persons were employed by Mendocino County farm operators for at least 150 days or more. It is certainly the case that "regular" farm laborers are far more likely to be enumerated in the Census of Population and Housing than are migrant or short-term temporary workers.

A little noticed finding of the 2000 Census of Population and Housing is Vacancy Status (Table H8). One of the categories of vacant housing units is "For migrant workers." In the case of Mendocino County, the Census finds this sub-total to be just 24 units. In other words, as of April 1, 2000, well before the arrival of peak season, the Census finds only 24 units available for the many hundreds, if not thousands, of migrant workers expected to arrive later that year for peak season agricultural employment.

#### *Larson (Migrant Health Services) – 1997*

There has never been a direct determination of the number of hired farm workers employed in Mendocino County. However, Larson (2000) *estimated* the number of migrant and seasonal farm workers (according to Federal migrant health program definitions of these categories, which includes food processing workers) during the 1997 to be 4,788 individuals. In addition, Larson estimates there were 815 non-farmworkers (mostly accompanying children and spouses) in migrant laborer households.

This estimate was constructed using the demand-for-labor method. It is based on crop-specific harvested cropland data from the 1997 Census of Agriculture and approximate numerical values of harvest labor requirements in hours per acre, duration of the work day in hours, and harvest season length in days, adjusted for possible duplication. Average figures for the latter three data items are used on a statewide basis and do not take account of possible regional variations. These data items were obtained from reports by knowledgeable experts (for example, county farm advisors) and most often refer to observations made prior to the 1997 crop year.

The strength of Larson's estimate is that it relies on objective data obtained from knowledgeable experts, and the method is applied in exactly the same way for each crop in every county in the state. Second, all of the key data items are published and can be subjected to scrutiny by competent authorities.

There are some limitations in applying these data to estimate the number of current hired farm workers in Mendocino County. The *labor demand co-efficient* for wine grapes published by Larson is 66.48 hours of *hand labor* per acre. But the most recent "Costs and Returns Survey" for North Coast vineyards published by the University of California Cooperative Extension Service assumes *mechanical harvest* (California, *Sample Costs to Establish a Vineyard and Produce Wine Grapes*, 2004). Depending upon the current extent of mechanical versus hand labor harvest of Mendocino's wine grapes, the overall harvest labor requirement for grapes may be quite different today.

On the hand, Larson only considers harvest labor requirements for wine grapes, not those for other important tasks, such as pruning, suckering, leaf removal and thinning. Published "Costs and Returns Survey" data for North Coast vineyards show that the

combined labor costs for these activities are actually greater than those for mechanical harvest. Moreover, Larson does not consider at all those plantings that were not harvested in 1997. There were about 2,000 acres of non-bearing wine grapes reportedly farmed in Mendocino County in that year (13.5% of all standing vineyards), mainly newly planted vineyards. Labor required for the planting of new vineyards or for pruning and cultivating established non-bearing vineyards was not considered by Larson.

### Hired Farm Labor in Mendocino County – Demographics and Discussion

There is no report in the literature of the demographics and characteristics of Mendocino County's current hired farm laborers. However, two recent surveys of California's hired farm workers provide some data that may be useful in this context. Both surveys – the on-going U.S. Department of Labor's National Agricultural Workers Survey (NAWS) and the 1999 California Agricultural Worker Health Survey (CAWHS) – randomly sampled hired farm workers on a statewide basis. Mendocino County was included in the sample frame of both surveys, but no worker from that county was included in the CAWHS, nor was any from that county included in the NAWS sample prior to 1999. In subsequent years, Mendocino County was included in the NAWS sample counties, but the nature of the sampling process precludes separate reporting of findings that exclusively pertain to any geographical scope smaller than the state of California as a whole. However, in a private communication (Gabbard, 2005), the author was informed that no Mendocino County hired farm workers have been interviewed in the NAWS survey.

The most recently released NAWS findings for California, not yet published and not available for citation in the published literature, are shown in Table 6. The most striking data items shown are that nearly two-thirds of all workers (64%) told government interviewers that they were undocumented, one-half (51%) are migrant workers, one-half (49%) are working for farm labor contractors and median personal income is just \$7,500 - \$9,999. Also, the mean number of days of farm work is 158.

**Table 6. Crop Farm Worker Characteristics, NAWS, 1999-2000, California**  
Source: U.S. Department of Labor, private communication

<i>Characteristic</i>	<i>Percent or value</i>
Mexico-born	95%
Migrant	51%
Unauthorized	64%
Male	77%
Median personal income	\$7,500 - \$9,999
Employed by farm labor contractor	49%
One farm employer – last 12 months	68%
Two farm employers – last 12 months	21%
Three farm employers – last 12 months	8%
Mean number of farm work days – last twelve months	158 days

The latter figure, the mean number of days of hired farm work is equal to 158 days, can be applied to the findings regarding farm employment in Mendocino County. The present report finds that annual average of monthly farm worker employment in the county during 2000 was 2,524. Next, it is assumed that there are 26 Saturdays of farm work available during a typical year, so that the number of potential farm work days is 286. But only an average of 158 days provide crop farm employment, which is equivalent to  $(158/286) 0.5524$  of the total available.

Hence, we can estimate that, on average, there were  $(2,524/0.5524) 4,569$  individual farm laborers who worked on Mendocino County farms during 2000. Of course, a much more reliable estimate could be obtained if first-hand information was available from hired farm workers in the county.

The NAWS findings imply that about one-half of these 4,569 workers, or 2,284 individuals, migrated to Mendocino County to obtain farm employment during 2000. The remaining 2,284 either reside on a permanent basis in the county, or commute from a nearby area, most likely Lake County, when performing farm jobs in the county.

It is possible that there are unlicensed farm labor contractors operating in Mendocino County who do not report to EDD or register with the County Agricultural Commissioner. Absence concrete evidence of their activities in the county, no estimate of the number of workers can include those employed in this fashion.

The 1999 California Agricultural Worker Health Survey (CAWHS; Villarejo et al, *Suffering in Silence*, 2000) included a large section on housing conditions. The main findings regarding dwellings in which male farm laborers reside are shown in Table 7. Thus, about one-fifth of male hired farm laborers were found to be living in some type of informal dwelling (garage, shed, abandoned vehicle, tent, in-the-open), roughly two-fifths were unaccompanied by any family member, and roughly two-fifths reside with unrelated persons.

**Table 7. Dwelling Characteristics, Male, CAWHS, California, 1999, N=626**

<i>Dwelling characteristic</i>	<i>Number of male CAWHS participants</i>	<i>Percent of male CAWHS participants</i>
Resides in informal dwelling	129	21%
Unaccompanied by family member	261	42%
Occupant density (persons per room used for sleeping, mean)	2.11	n.a.
Resides with unrelated persons	267	43%
Number of unrelated residents per dwelling with unrelated residents (mean)	3.6	n.a.
Lives alone	88	14%

## Conclusion

The most important findings of the present report regarding Mendocino County's hired farm workers are as follows:

- About 1,300 persons were employed as “regular” or year-round farm laborers in 2002.
- At least 3,700 persons were employed as hired farm workers during 2000.
- Estimates of the total number of hired farm workers and off-farm fresh produce packing workers are in the range of 4,788 during 1997 (Larson) to 4,569 during 2000 (Villarejo).
- An estimated 2,284 individuals migrated to the county to obtain farm work during 2000.
- EDD employment reports seriously understate the number of persons employed by farm labor contractors in the county.
- Only 24 vacant housing units for migrant workers were available as of April 1, 2000.
- About one-fifth of dwellings occupied by male hired farm workers may be informal and may be out of compliance with generally accepted housing standards.
- About two-fifths of male hired farm workers may share their dwelling with unrelated persons.
- Agricultural labor demand has increased substantially during the past three decades.
- Wine grape production has shown the largest increase of any crop in recent years.
- Both apple and pear production have declined significantly in recent years.
- Most farms in the county are quite small by California standards and have below-average net income from farming operations.

## *References*

California. Employment Development Department, Labor Market Information Division. [www.calmis.cahwnet.gov](http://www.calmis.cahwnet.gov)

California. *Sample Costs to Establish a Vineyard and Produce Wine Grapes. Chardonnay. North Coast Region, Sonoma County.* University of California Cooperative Extension, 2004.

Gabbard, Susan, Edward Kissam & Philip Martin, "The Impact of Migrant Travel Patterns on the Undercount of Hispanic Farm Workers," pp. 207-245, *Proceedings of the 1993 Research Conference on Undercounted Populations*, Bureau of the Census, Washington, D.C., 2003.

Gabbard, Susan, NAWS counties, California, private communication, February 11, 2005.

Larson, Alice, *Migrant and Seasonal Farmworker Enumeration Profile Studies. California*, Migrant Health Program, Bureau of Primary Health Care, Health Resources and Services Administration, Washington, D.C., September 2000.

United States. *2002 Census of Agriculture. Volume I, Geographic Area Series, Part 5. California State and County Data*, Department of Agriculture, National Agricultural Statistics Service, Washington, D.C., June 2004.

United States. *1974 Census of Agriculture. Volume I, Part 5. California State and County Data*, Department of Commerce, Bureau of the Census, Washington, D.C., April 1977.

United States. Department of Commerce, Census Bureau. [www.census.gov](http://www.census.gov)

United States. Department of Labor, Bureau of Labor Statistics. [www.bls.gov](http://www.bls.gov)

United States. *National Agricultural Workers Survey, 1999-2000, California*, Department of Labor, Office of Assistant Secretary for Policy, private communication, February 7, 2005.

United States. *Economic Report of the President*, The White House, Transmitted to the Congress, Washington, D.C., February 2004.

Villarejo, Don, *Who's In Charge? Labor Market Intermediaries in California Employment*, Research Report, Department of Industrial Relations, Labor Statistics and Research Division, March 2003.

Villarejo, Don, David Lighthall, Daniel Williams III, Ann Souter, Richard Mines, Bonnie Bade, Steve Samuels, Stephen A. McCurdy, *Suffering in Silence*, California Institute for Rural Studies and The California Endowment, November 2000.