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ABSTRACT

This report examines the occupational mobility of agricultural workers in two California labor markets and the effects of the Immigration Reform and Control Act and individual, job, and labor-market characteristics on such mobility. Interviews were conducted among a randomly selected sample of 162 households, which included 401 workers in southern California and 156 workers in Watsonville (northern California). In both sites farm workers tended to be young Mexican males with low levels of education. Mobility out of agriculture was much higher in southern than northern California, possibly because the demand for farm labor is diminishing in southern California and there is a larger discrepancy in benefits and working conditions between farm and nonfarm sectors. Workers with more education (particularly U.S. education) and female workers were more likely to leave farm work or to bypass agriculture entirely, compared to less educated or male workers. There was no relationship between legal status of the worker and the decision to leave farm work, nor was legal status a barrier to nonfarm employment. This report contains many descriptive tables. (LP)

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91-3

The Occupational Mobility of Current and Former Farm Workers: A Comparative Analysis in Two California Labor Markets

Labor Market Information Division

Employment Development Department

THE OCCUPATIONAL MOBILITY OF CURRENT AND FORMER FARM WORKERS:

A COMPARATIVE ANALYSIS IN TWO CALIFORNIA LABOR MARKETS

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Executive Summary

This project was designed to study the occupational mobility of current and former agricultural workers in two California labor markets, and the preliminary effects of the Immigration Reform and Control Act (IRCA) on such mobility. The study examines differences in job and worker characteristics among farm and non-farm workers and attempts to identify what characteristics are associated with leaving farm work and in what specific ways off-farm jobs might be more attractive to workers than farm jobs. To look at the occupational mobility of farm workers, the study sampled workers in households containing current farm workers and former farm workers. The job opportunities of non-farm workers in these households were used as the comparison group for those of current farm workers. The assumption was that if farm workers were seeking off-farm employment they would be likely to find jobs similar to those of former farm workers and other non-farm workers living in their households.

The comparative focus of this project was introduced in order to examine whether different labor market structures are associated with diverse patterns of occupational mobility among agricultural workers. The underlying assumption was that different mixes and types of unskilled and semi-skilled employment opportunities in separate geographic areas would set parameters around the employment trajectories of current and former agricultural workers. The areas selected were the city of Watsonville in Northern California, and in Southern California, a corridor on Interstate-5 encompassing portions of rapidly urbanizing former agricultural land in Orange County and southern Los Angeles County.

The results of this study are based on information gathered through household interviews conducted among a randomly selected sample of households in each research site. Most of this report is based on interviews with those residents of the 162 sampled households who had labor force experience. The sampled households contained a total of 557 workers; 401 in Southern California and 156 in Watsonville.

Overall, the demographic characteristics of workers in farm worker and former farm worker households were fairly similar in the two areas. Both groups tended to be young, predominantly male, immigrants, with low levels of education. Workers in Southern California tended to be more recent immigrants and more likely to have attended school in the United States.

Despite the similarity of workers' characteristics in the two sites, the patterns of occupational mobility differed strikingly. In Watsonville, few farm workers left agriculture according to our measures of attrition. The ratio of current farm workers to those with agricultural experience showed that only one in four farm workers had left agriculture; five out of six people whose first job was in agriculture were still working in agriculture.

In contrast, Southern California had much higher rates of farm labor attrition. The ratio of current farm workers to former farm workers shows that three out of four

workers with agricultural experience were no longer working in agriculture. Only one-third of the workers whose first job was in agriculture remained in agriculture.

It appears that there were several factors contributing to the different patterns of occupational mobility. First, at the time of the interviews, Watsonville had an expanding farm labor force, while in the Southern California research site, demand for farm workers was declining as industrial production and residential development was increasing.

Second, farm jobs in Watsonville were closer to non-farm jobs in terms of working conditions and benefits than farm jobs compared to non-farm jobs in Southern California. Similar proportions of both farm and non-farm jobs were unionized. Benefits available only to non-farm workers in Southern California were common among farm workers in Watsonville. And importantly, both farm and non-farm jobs tended to be seasonal in Watsonville. In fact, non-farm jobs in the food processing industry tended to be less stable than seasonal farm jobs, particularly for workers with little seniority. This may result in lower overall earnings despite the higher wages received by food processing workers.

In Southern California there was a larger discrepancy in the terms of employment between farm work and non-farm work. Non-farm jobs were more likely to have better benefits and working conditions. The lowest benefit levels found among all categories of workers studied were for farm workers in Southern California. While farm jobs in Southern California were mostly seasonal jobs, very few non-farm jobs were seasonal. This was in sharp contrast to Watsonville which has many seasonal off-farm jobs. Additionally, labor contracting was more prevalent in agricultural than non-agricultural jobs. While the seasonal off-farm jobs in Watsonville may pay higher wages, the steadier employment offered by non-farm jobs in Southern California probably results in higher annual earnings.

Third, farm workers in Watsonville tended to live in primarily farm-worker households, and to have less contact with off-farm workers than in Southern California. In Southern California, farm workers tended to be in closer contact with non-farm workers who accounted for 90 percent of the workers in sampled households. By contrast, in Watsonville non-farm workers accounted for about 30 percent of the sample. It was not uncommon to find one farm worker living in a house with four or five non-farm workers in Southern California. This probably made that area's farm workers more familiar with the discrepancies in the terms of employment between farm and non-farm jobs and provided them with greater information on obtaining non-farm jobs.

In comparing the relationship between characteristics and patterns of mobility from the two research sites, certain patterns appear. First, in both locations, farm work appears to be less desirable than off-farm work. It offers workers poorer terms of employment than non-farm jobs. As a result, the less educated and less experienced workers tended to end up in agriculture. More qualified workers, particularly those with U.S. education, tended to go directly into non-farm employment. Similarly, women workers were more likely to bypass agricultural employment. Women were less likely to obtain farm jobs in the first place and more

likely to leave agriculture.

It does not appear that legal status is strongly related to decisions to leave farm work. No clear pattern of relationship between legal status and decisions to leave farm work emerged from the data. In Watsonville, legally authorized workers were more often found in farm work. However, in Southern California more undocumented workers were found in non-farm employment. The exit rates of Special Agricultural Workers (SAWs) show them to have left agriculture at rates similar to or lower than the farm worker population as a whole.

Legal status does not seem to be a barrier to non-farm employment. In both areas, non-farm jobs seemed to be available to non-farm workers. What is not clear is why some undocumented workers work in agriculture, others leave agriculture and others never work in agriculture.

If the relationship between legal status and leaving farm work is not clear-cut, it may be that the relationship is more subtle. One of the problems in identifying a more subtle relationship is that legal status is usually acquired over time. New immigrants are often undocumented and as they acquire experience, and possibly new skills, in general they also attempt to obtain legal work authorization. Thus these characteristics, which affect decisions to leave farm work, are closely correlated.

Introduction

In the wake of the 1986 Immigration Reform and Control Act (IRCA), there has been intensified interest in understanding the dynamics of agricultural labor markets, and the interaction between these and non-agricultural labor markets. Much of this interest revolves around the issue of agricultural labor supply and the effects of legalization on agricultural labor.

IRCA included provisions for the legalization of workers under two programs. The so-called general amnesty program (or Legally Authorized Workers program, LAW) allowed undocumented workers in any sector who could prove continuous residence in the U.S. since January 1, 1982, to apply for legalization. The second program was aimed specifically at agricultural workers (the Special Agricultural Workers program, SAW), who might not meet the more stringent requirements of the LAW program--thus ensuring an adequate labor supply for the agricultural sector. IRCA's Replenishment Agricultural Workers program (RAW) created a mechanism for legalizing the status of additional agricultural workers in the event of labor shortages in agriculture. In light of these provisions, questions regarding whether agricultural workers are moving into non-agricultural jobs, and if so, under what conditions, have acquired considerable public policy relevance and significance.

This project was designed to study the occupational mobility of current and former agricultural workers in two California labor markets and the preliminary effects of IRCA on such mobility. This is accomplished by examining the influence of selected variables on occupational mobility between the agricultural sector and non-agricultural jobs and drawing comparisons between the labor markets. It is too early to assess the long-term relationship between legalization on one hand and occupational mobility and labor supply on the other hand. However, current research on the occupational mobility of agricultural workers can contribute to analyses of factors associated with such mobility. The research can also provide a basis for analyzing future trends in occupational mobility; it may thus help to show whether and how these patterns change over time.

The study examines differences in job and worker characteristics among farm and non-farm workers and attempts to identify what characteristics are associated with leaving farm work and in what specific ways off-farm jobs might be more attractive to workers than farm jobs. To look at the occupational mobility of farm workers, the study sampled workers in households containing current farm workers and former farm workers. The job opportunities of non-farm workers in these households were used as the comparison group for those of current farm workers. The assumption was that if farm workers were seeking off-farm employment they would be likely to find jobs similar to those of former farm workers and other non-farm workers living in their households.

The comparative focus of this project was introduced in order to examine whether different labor market structures are associated with diverse patterns of occupational mobility among agricultural workers. The underlying assumption was that different mixes and types of unskilled and semi-skilled employment

opportunities in separate geographic areas would set parameters around the employment trajectories of current and former agricultural workers. The areas selected were, in Northern California, the city of Watsonville, and in Southern California, a corridor on Interstate-5 encompassing portions of rapidly urbanizing former agricultural land in Orange County and southern Los Angeles.

In both research sites, the size of the agricultural labor force is roughly similar. However, in Southern California, agriculture plays only a small role in a large, diversified, primarily urban economy. In that location there is a greater range of non-agricultural jobs available. By comparison, the second research site, Watsonville, is more rural. There, agricultural jobs play a larger role in the economy, particularly for immigrant workers.

The remainder of this report will examine to what extent the observed patterns of occupational mobility are related to individual characteristics, job characteristics and/or structural differences in labor markets. The first section of the report describes the research methodology. The second section provides background on the two contrasting research sites. Sections three through six examine a series of research questions.

The third section describes the characteristics of farm workers' households and former farm workers' households in the two research sites and examines to what extent the characteristics of these households are similar in these two sites.

Section four presents the patterns of occupational distribution and occupational mobility in the two areas and identifies striking differences between the research sites.

The fifth section looks at how occupational mobility patterns might be related to differences in job characteristics between the farm and non-farm jobs of sample members. It identifies differences in wages, benefits and working conditions among farm and non-farm jobs within each research site. It also examines whether the terms of employment differ significantly between research sites.

Section six looks at the characteristics of farm workers and former farm workers and those with no farm experience to see how differences in characteristics among these groups are related to sectoral choice and occupational mobility. It also examines
whether similar types of individuals are associated with similar types of jobs across the two research sites.

The final section summarizes the information presented in the previous sections and draws some conclusions about what appear to influence a worker's choice of farm or non-farm job and what impact IRCA might have on these decisions.

I. Research Methodology

The results of this study are based on information gathered through household interviews conducted among a randomly selected sample of households in each

research site. The sample was drawn from weighted census tract data: blocks were chosen using probabilities proportionate to the size of the Spanish-origin population and the number of people employed in agriculture reported in the 1980 Census. As specified in the 1980 Census, Spanish origin includes people who identified themselves as being Mexican, Cuban, Puerto Rican or other Hispanic. Mexican ethnicity is a subset of the Spanish-origin group and includes those who indicated their place of origin as Mexico for purposes of the census. This sampling method yielded lists of blocks likely to include high proportions of people of Mexican origin employed in farm work. A maximum of eight households were interviewed from selected blocks in order to prevent a concentration of interviews on any given block.

Interviews were conducted in Spanish or English, depending on the respondent's preferred language. During the summer of 1989, we conducted a total of 162 household interviews, 97 in Southern California and 65 in Watsonville. To be included in the sample, at least one household member had to be a current or former farm worker. For our purposes, households were defined to include related and unrelated co-resident adults and their dependents who shared at least some expenses such as rent, utilities, or food. Friends or relatives "temporarily" living in a household were also included.[1]

In each household interview, basic demographic information was collected for all household members. The total sample size, or the number of "all household members" came to 1,042 people. Information such as detailed employment histories was gathered for those household members who were currently working or who had ever worked (for a minimum of two months). In all, we gathered information on 557 working, retired, or unemployed individuals. Most of this report is based on analyses of this "sub-sample" of workers.

Our research approach had two main advantages. First, household-level interviews generated a group of respondents that included current and former farm workers, as well as people who had never worked in agriculture. This was essential, given the objective of studying the occupational mobility of people who had moved between agricultural and non-agricultural jobs, and to different jobs within the agricultural sector. Second, the random design permits some ability to generalize. At the least, our results apply to the universe of Spanish-origin households with some farm work experience in each research site. However, our findings may also apply to labor markets exhibiting similar employment structures.

II. The Research Sites: Constraining Labor Markets

As noted previously, the research sites are located in separate regions of California, one in the south, one in the north. In Southern California, the research area spans several city boundaries in a corridor along Interstate-5 encompassing portions of Orange County and a small section of southern Los Angeles County. This is an area that was formerly devoted to agriculture but which has experienced rapid growth in population, housing, and light industry in recent years.[2] Tree crops such as oranges and avocados, strawberries, and some vegetables are still grown on what agricultural land remains undeveloped. The Northern California research

site was the city of Watsonville, in Santa Cruz County. This area presents a sharp contrast to the southern research site. Despite recent population and housing growth, agriculture continues to play an important role in the local economy, and it is projected to grow, rather than decline.

According to figures from the State Employment Development Department (EDD), recent population growth in the southern research site has been slightly lower than the state average. In the city of Santa Ana, where most of the research in the southern site was conducted, the population was 237,300 at the beginning of 1989, up 2.5 percent from the previous year. The population of Orange County, where Santa Ana is located, rose to 2,280,400 in early 1989, up 1.8 percent from 1988.[3] Santa Ana was one of the fastest growing cities in the county, and Orange County is the third largest county in California.

Santa Cruz County and the northern research site have lower population figures, but higher recent annual growth rates. The population of Watsonville in 1988 was 29,300, up approximately 3.4 percent from the previous year. Watsonville is one of the larger cities in Santa Cruz County. The county's population reached 226,400 in 1988, about 2.3 percent above that of 1987.[4] According to EDD planning data, these growth rates were slightly higher than the state average.

Immigrants make up a large proportion of the labor force in the counties where the research was conducted. Many of these immigrants have come from Mexico. The importance of Mexican immigrants to the local economies is reflected in county level data on the proportion of the population of Spanish origin and Mexican ethnicity. City-level data in our study areas demonstrate this more sharply because the cities have higher than county-average proportions of Spanish-origin populations. Data for 1986 indicate that in Orange County, 14.8 percent of the population was of Spanish origin and in Santa Cruz County the proportion was nearly the same, 14.7 percent.[5] These proportions rise considerably if we examine city-level data. According to the 1980 Census, in the four cities from which the Southern California sample was drawn, the Mexican proportion of the population averaged 35 percent (and ranged from 14 percent in one city to 58 percent in another).[6] Comparable data for the city of Watsonville list the 1980 proportion of the population of Spanish origin and Mexican ethnicity at 45 percent.[7] It is very likely that updated city-level data would show even higher proportions of Mexicans in both study areas.

Per-capita and household income figures for the research areas tend to be lower than the corresponding state averages. According to the 1980 Census, average per-capita income in California was $8,295 while household income was $21,537. Only one of the cities in Southern California had income figures that were slightly higher than the state average; this was also the city with the lowest reported proportion of Mexican/Spanish origin population. For most cities in the research areas, per-capita income was about $2,000 below the state average, while family income was between $9,000 and $10,000 below the state average.

The two sites were selected because of their contrasting labor market structures. While the number of farm workers in these two sites is roughly equal, the

importance of agriculture to each area's labor market is quite different. In 1988, there were an estimated 8,100 wage and salary workers employed in the agricultural sector in the Anaheim-Santa Ana Metropolitan Statistical Area (MSA), where much of the southern research site lies; this number was down less than five percent from 8,500 in 1978. In the Santa Cruz County MSA, the estimated number of workers in agriculture was 8,900 for 1988, slightly higher than Orange County during that year. However, this represented a more dramatic increase of 53 percent from 5,800 workers in 1978.

In addition to experiencing a sharp rise in the number of workers employed in agriculture, agricultural workers accounted for a larger share of total employment in Santa Cruz County. Table 1 shows that in 1988, ten percent of all workers in the Santa Cruz MSA were employed in agriculture, while less than one percent of workers in the Anaheim-Santa Ana MSA had jobs in this sector. Current data at the city level are not available for all of the cities in the research areas. However, information for three cities for 1980 dramatize the importance of agricultural employment in Watsonville compared with Southern California cities. In 1980, 17 percent of Watsonville jobs were in the agricultural sector--ten points above the county-wide level for 1988. Current figures for Watsonville would probably be higher. In contrast, two of the four cities in the Southern California research area, Santa Ana and Buena Park, had three and one percent of jobs in agriculture, respectively, in 1980.[8] Although parts of Watsonville are becoming bedroom communities for people who work in Santa Cruz and Scotts Valley, the city is distinct from other cities in the county in that most jobs in Watsonville are associated with agriculture--in fields or nurseries, or food processing plants. In contrast, cities in the Southern California research site are not as isolated geographically, nor are they as economically dependent on the agricultural sector.

Table 1

Selected Wage and Salary Employment by Industry
and Metropolitan Statistical Area
(of Research Areas)

	ANAHEIM-SANTA ANA		SANTA CRUZ	
	1988	**1978**	**1988**	**1978**
Total Wage and Salary Employment (# jobs)	1,140,100	755,800	88,500	60,600
Percent Employment by Industry for Selected Industries				
Percent Agriculture	.7	1.1	10.0	9.6
Percent Services	24.7	19.7	22.1	18.9
Percent Manufacturing	22.5	26.6	15.1	15.4
Percent Construction	5.8	5.6	4.1	4.1
Percent Retail Trade	18.5	19.5	20.9	21.9

SOURCES: Annual Planning Information: Anaheim-Santa Ana MSA. California Employment Development Department, June 1989. Annual Planning Information: Santa Cruz MSA. EDD, June, 1989.

EDD planning reports show that agriculture's share of workers has declined in Orange County, while services and construction exhibit the largest percentage increases by industry. In Santa Cruz County, the number of workers in services is projected to increase considerably; but at the same time, agricultural employment is projected to increase by 24.4 percent by 1992 (using 1987 as a base). Most of the agricultural expansion in the county is expected to take place in and around Watsonville, while most of its retail trade and service growth will occur outside of Watsonville.[9]

The relative importance of agricultural employment is also reflected in unemployment figures. In Orange County, official unemployment was at three percent in 1988, below the state average of 5.3 percent. In Santa Cruz County, unemployment figures fluctuate on a seasonal basis, so much so, that county planning data report the variation. During 1988, unemployment ranged from five to six percent in the summer, to ten percent in the winter. Although many agricultural workers migrate seasonally and leave the area during the winter, many others live in the area on a year-round basis.

The total value of agricultural production is higher in Orange County than in Santa Cruz County (Table 2). It is important to note that, despite the difference in current levels of value of agricultural production over the last decade, the value of

agricultural production has increased almost twice as much in Santa Cruz County when compared to Orange County (Table 2). This is one more indication of the rising importance of agriculture in Watsonville, and its declining importance, in relative terms, in Southern California.

Table 2

Value of Agricultural Production
in Millions of Dollars

	ORANGE COUNTY	SANTA CRUZ COUNTY
Total Value of Agricultural Production		
1988	$253.5	$166
1978	183.8	95
Percent Change	38 %	75 %

SOURCES: 1988 Santa Cruz County Crop Report, Santa Cruz County Agricultural Commissioner, Watsonville, CA.; 1988 Orange County Crop Report, Orange County Agricultural Commissioner, Anaheim, CA.

Flowers and berries were some of the main crops in both areas (see Table 3). Cut flowers, strawberries and oranges top the list in Orange County, while strawberries, lettuce, and roses predominate in Santa Cruz County.

With the possible exception of tomatoes and oranges, these are crops for which current levels of labor intensity are unlikely to be reduced, at least in the short-to medium-run. Thus, all things being equal, the demand for agricultural labor is likely to decline slowly in Orange County, and continue to rise in Santa Cruz County. One of the main factors that does not make things equal between the two counties is that current zoning laws protect agricultural land in Watsonville more than in Southern California. Expanding residential and industrial growth, and consequently land values, may be more likely to alter the overall demand for agricultural labor in Orange County than immigration reform or technological change.

The occupational mobility of agricultural workers in these two areas must be studied in the context of broad labor market changes associated with economic change. In Watsonville, for example, agriculture is one of the main employers of people in low-wage jobs, whereas in Southern California, such jobs are proliferating in services and trade. This may have as much or more influence on mobility patterns in each labor market than worker characteristics.

Table 3

1988 Value of Production: Top Eight Crops
By County

ORANGE COUNTY	
Nursery Stock and Cut Flowers	$123,927,200
Strawberries	43,385,100
Valencia Oranges	20,605,100
Peppers-Bell and Miscellaneous	11,217,600
Avocados	8,401,600
Lemons	7,393,100
Tomatoes	2,957,800
Miscellaneous Truck Crops	4,611,800
SANTA CRUZ COUNTY	
Strawberries	$58,154,000
Lettuce	18,509,000
Roses (Hybrid Tea, and Sweetheart)	18,469,000
Apples	14,173,000
Raspberries	13,884,000
Outdoor Nursery Stock	4,200,000
Indoor Potted Plants	4,100,000
Brussels Sprouts	3,934,000

SOURCES: 1988 Santa Cruz County Crop Report, Santa Cruz County Agricultural Commissioner, Watsonville, CA.; 1988 Orange County Crop Report, Orange County Agricultural Commissioner, Anaheim, CA.

III. Socio-demographic Characteristics of Respondents

This section examines the characteristics of farm workers and former farm workers in households in the two areas and looks at whether the people who make up these households are similar in the two areas.

While this section presents some information on the total sample, the remaining sections will concentrate only on the sub-sample of workers. A total of 1,042 people resided in the 162 sampled households; 626 in Southern California and 416 in Watsonville. These households contained a total of 557 current or former workers--401 in Southern California and 156 in Watsonville. The proportion of non-working dependents was higher in Watsonville than in Southern California (62 percent vs. 36 percent).

Overall, the demographic characteristics of workers in farm worker and former farm worker households were fairly similar in the two areas. Both groups tended to be young, predominantly male, immigrants, with low levels of education. Workers in Southern California tended to be more recent immigrants and more likely to have attended school in the United States.

Respondents in both sites tended to be young. About one-fifth of the total sample in each site was under the age of 15. The median age of those 15 years of age and over was 29 years in both research sites. Less than ten percent of those sampled in each area were over 50 years old.

The rest of this report focuses only on the sub-sample of those 557 respondents who have work histories. In this sub-sample, the ratio of male to female workers was fairly close in both sites: approximately two to one. The higher proportion of males in households containing farm workers reflects the predominance of men in farm work. The median age for workers was virtually the same as for the sample as a whole: 29 years in Southern California and 31 years in Watsonville.

The average length of time workers had been in the U.S. was 11 years. Workers in Southern California tended to be more recent immigrants than workers in Watsonville. The majority of workers interviewed in both research sites were born in Mexico, although this proportion was higher among the Southern California respondents.

Education levels were measured both in terms of immigrant workers' schooling in their country of origin, and their schooling in the United States. Between 90 percent (Southern California) and 85 percent (Watsonville) of the Mexican workers over 15 years old had at least some schooling in Mexico. Levels of attendance at U.S. educational institutions were lower in both sites, but particularly so in Watsonville, where the majority of workers had no U.S. education. In contrast, half of the workers interviewed in Southern California had some U.S. educational experience.

Table 4

Socio-Demographic Characteristics of Respondents
by Labor Market Area

	SOUTHERN CALIFORNIA	WATSONVILLE
TOTAL SAMPLE		
SIZE (N=1,042) all household members	626	416
Percent under 15 yrs.	19	16
Percent 50+ yrs.	9	7
Median Age, people 15+ yrs.	29	29
WORKER SUB-SAMPLE		
SIZE (N=557)	401	156
Percent Male	62	68
Percent Female	38	32
Median age, people 15+ yrs.	29	31
Average age	32	33
Mean Years in U.S.	11	13*
Percent Born in Mexico	79	69
Percent of Mexicans Aged 15+ Years with no Formal Education in Mexico	10	15
Percent of Workers Aged 15+ Years with no Formal Education in the U.S	53	91*

SOURCE: Household Surveys, 1989.
*indicates statistical significance at p<.05.

IV. Occupational Mobility Patterns

While the characteristics of sample members were not very different in the two areas, the patterns of occupational mobility were strikingly different. This section describes the occupational breakdown of the sample and the three different measures of occupational mobility used to examine patterns of change within each site; it also highlights the differences between the two areas. The first measure examines workers' job histories and identifies current agricultural workers, former farm workers and non-farm workers with no agricultural experience. The second measure compares workers' first jobs and their current jobs to see how many of them have remained in the same type of work. The third measure looks at the occupational breakdown of workers' first jobs and their current jobs to determine which occupations gained and lost shares over the course of their job histories.

Occupational breakdown of workers' current jobs

There is a dramatic difference in the distribution of people who were currently employed in agricultural and non-agricultural jobs by research site. Only one in ten sampled workers in Southern California was a current farm worker, while in Watsonville, nearly seven out of ten respondents were currently employed in agriculture (Table 5).

Table 5

Percent Distribution of Workers by Type of Current Job
(Agricultural vs. Non-Agricultural)

	SOUTHERN CALIFORNIA (N=401)	WATSONVILLE (N=156)
Farm Workers	10	68
Not Farm Workers	90	32
TOTAL (N=557)	100	100

SOURCE: Household Surveys, 1989.
Differences significant at the p<.05 level

Looking at a more detailed breakdown of occupation, it appears that in Southern California, where non-agricultural employment dominates, most people were employed in services or were factory operative. In Watsonville, where only one-third of jobs were outside of agriculture, most agricultural jobs were harvesting fruits or vegetables, or in nurseries (Table 6).

Within the agricultural sector, the breakdown of occupations was roughly similar between areas; 20-30 percent nursery and pre-harvest workers, 60-70 percent harvest workers and 10 percent or less skilled agricultural workers.

Greater variation was found in the non-farm sector. While similar proportions of workers were employed in the trades (7-10 percent) and as factory operatives (37-45 percent), non-farm workers in Watsonville were more likely to be clerical and professional workers (11 percent vs. 25 percent) while Southern California had a higher percentage of service workers (40 percent vs. 23 percent).

Table 6

Percent Distribution of Workers by Current Employment

	SOUTHERN CALIFORNIA (N=401)	WATSONVILLE (N=156)
NOT WORKING	*	5
AGRICULTURAL (Total)	10	63
Nursery, Pre-Harvest	3	11
Harvest	6	47
Skilled Agriculture**	1	5
NON-AGRICULTURAL (Total)	90	32
Services	36	7
Factory Operative	37	14
Trades	7	3
Clerical, Professional	10	8
TOTAL (N=557)	100	100

* = Less than one percent
Differences significant at the p<.05 level

** Skilled agriculture includes anything involving the running or operation of a machine, pesticide application, irrigation, or specialized technical knowledge.

Identifying farm workers, former farm workers and never farm workers

This section looks at sectoral shifts over the course of workers' job histories. It identifies which workers left agriculture for off-farm employment during the course of their work histories. In looking at sectoral changes, we first examined non-farm workers' past job histories to identify former farm workers. Table 7 provides a categorization of workers into those who had never worked in agriculture, and those who had done so, at least once.

This table shows that a much higher proportion of worker respondents surveyed in Watsonville had held an agricultural job at some point in their lives. Nine out of ten workers from farm worker and former farm worker households in Watsonville had worked in agriculture, while in Southern California, less than half, or four out of ten such workers, had agricultural work experience (Table 7).

Table 7

Percent of Workers Ever Engaged in Farm Work

	SOUTHERN CALIFORNIA (N=401)	WATSONVILLE (N=156)
Held at least one farm job	40	92
Never held a farm job	60	8
TOTAL (N=557)	100	100

SOURCE: Household Surveys, 1989.
Differences significant at the p<.05 level

Combining the information in Tables 5 and 7 allowed us to divide the worker respondents into three broad occupational or job groups: current farm workers; former farm workers; and never farm workers (those who have never worked in agriculture). These groups form the basis for most of the analysis of occupational mobility. Table 8 presents the distribution of workers by job group.[10]

Not surprisingly, Table 8 shows higher proportions of current farm workers in Watsonville, and higher proportions of people who never held agricultural jobs in Southern California. It also reveals that the proportion of former farm workers is different in each site, but the size of this difference is smaller than the inter-site gaps for the other two job groups.

From the information in Table 7, we were able to calculate the rate of movement out of agricultural jobs among worker respondents in the two research sites. This was done by calculating the proportion of current farm workers as a percent of those with any agricultural employment experience.

Table 8

Percent of Workers in Each Job Group

	SOUTHERN CALIFORNIA (N=401)	WATSONVILLE (N=156)
Current Farm Worker	10	68
Former Farm Worker	30	24
Never Farm Worker	60	8
TOTAL (N=557)	100	100

SOURCE: Household Surveys, 1989.
Differences significant at the p<.05 level

The results show that the rate of movement out of agriculture is three times higher in Southern California than in Watsonville. Three out of four workers we surveyed in Watsonville who had experience working in agriculture continued to be currently employed in farm work, while in Southern California, this was only true for one out of four people.

We conclude that occupational mobility out of the agricultural sector, among the respondents we interviewed, followed general labor market and industry restructuring patterns in the areas where the research sites are located. Occupational mobility has been far greater in the Southern California research area, a labor market where agriculture is experiencing a relative decline compared with other industries--where other low-skilled or semi-skilled jobs open to immigrants are available. In Watsonville, a more isolated labor market where the agricultural industry is growing, workers are more likely to remain employed in agriculture, although there is some movement into non-agricultural jobs.

It appears that factors other than structural change in labor demand contribute to workers' decisions to leave agriculture. In Watsonville, an area with positive growth in demand for agricultural jobs, 25 percent of farm workers had left agriculture for non-agricultural jobs. In Southern California, workers appear to be exiting farm work in far greater numbers than could be solely attributed to rapid urbanization. The number of workers employed in Southern California agriculture declined by nearly 40 percent between 1978 and 1988. However, the proportion of farm workers leaving agriculture is more than twice that. Whether some of the occupational mobility can be attributed to differences in worker characteristics and job characteristics will be discussed in the next two sections.

The distribution of workers by job group also points to a second difference between the two research areas. In Watsonville, farm workers live with other farm workers, whereas in Southern California, they are more likely to live with former farm workers and people who have never worked in agriculture. Information about non-agricultural jobs is thus more readily available to current farm workers in Southern California. This gives an indication of how social networks can play a role in occupational mobility, and how units of social organization, such as the household, are involved in producing or reproducing labor market structures.

Comparing workers' first and current jobs for retention rates

The second measure of occupational mobility is a measure of worker retention. This measure compares the workers' first jobs with their current jobs to measure whether they are still employed in the same type of job that they held when they began working. It assesses the gains and losses for occupations in the agricultural and non-agricultural sectors among the workers we interviewed in each site. Our measure uses the more detailed breakdown of occupations (see Table 8) describing the types of agricultural and non-agricultural jobs held by respondents in the two sites at the time of the interviews.

In order to examine occupational changes more closely, we cross-tabulated the distribution of workers in current jobs (i.e., Table 6) with a corresponding

distribution of their first jobs in the U.S., for each research site. This provided information from which to calculate several indicators of occupational and sectoral mobility.

Table 9 shows the proportion of workers remaining in any given occupation or sector, out of those whose first job was in that sector or occupation.[11] The proportion of people remaining in agriculture differs significantly by site. Over half of the people in the Watsonville site, who worked in agriculture during their first job in the U.S., were still working in this sector during their current or most recent job (55 percent); whereas in Southern California, this was true for about one out of five workers who entered agriculture (18 percent).

In Watsonville, harvest jobs retained the highest proportion of agricultural workers (61 percent), followed by nursery and pre-harvest jobs--which retained two workers for every seven who left (28 percent). About half of the workers who left "first" jobs in either of these two categories were currently employed in another agricultural job, while the other half were employed outside of agriculture. None of those whose first job was in skilled agriculture remained in this occupation--they moved to the other two agricultural categories. Skilled agriculture includes anything involving the running or operation of a machine, pesticide application, irrigation, or specialized technical knowledge. Unfortunately, the number of skilled "first" jobs in agriculture in the Watsonville sample (two) is not large enough to allow us to determine whether their mobility pattern is representative. We can conclude that harvest jobs are more attractive than nursery and pre-harvest jobs in the area, and that workers who leave these kinds of agricultural jobs are as likely to move to another agricultural job as to enter non-agricultural employment.

Taken together, non-agricultural jobs in Watsonville only retained about a quarter of original workers (27 percent). Factory workers were more likely to remain in their jobs than service workers, but workers in either service or factory jobs were less likely to continue in these jobs than clerical or professional workers. That non-agricultural jobs in Watsonville retained a lower proportion of workers than jobs in agriculture (27 percent vs. 55 percent, respectively) indicates that the latter are preferred and/or more available than low-paying jobs outside of agriculture.

In Southern California there was a different pattern. Only 18 percent of agricultural workers remained in this sector. Or, looked at the other way, 82 percent of those whose first jobs were in agriculture have left agriculture. This was true for all three types of farm jobs: nursery and pre-harvest (83 percent), harvest (83 percent) and skilled agricultural work (67 percent, see Table 9). Over 90 percent of those leaving agricultural jobs went into non-agricultural jobs, primarily in services and manufacturing.

Table 9

Occupational Retention
Percent Remaining in an Occupation for Their Current Job,
Out of Those Whose First Job was in That Sector

	SOUTHERN CALIFORNIA (N=401)	WATSONVILLE (N=156)
AGRICULTURE	18	55
Nursery, Pre-Harvest	17	28
Harvest	17	61
Skilled Agriculture	33	0
NON-AGRICULTURE	71	27
Services	70	20
Factory Operative	73	32
Trades	47	0
Clerical, Professional	77	50

"Occupational retention" was calculated by dividing the number of people currently employed in a given occupation or sector who also worked in that job when they first entered the U.S. job market, by the total number of people whose first U.S. job was in that sector or occupation. (This is the diagonal divided by the marginal, where the marginal is the distribution of first U.S. jobs.)

Non-agricultural jobs in Southern California had much higher rates of worker retention (71 percent) compared both to agricultural jobs in this same research site, and to non-agricultural jobs in Watsonville. Thus, in Southern California, agricultural jobs do not appear to be as attractive (or available) as non-agricultural jobs.

Shifts in share of workers employed in each occupation

The third measure of occupational mobility measures shifts in the share of workers employed in a particular occupation. The previous measure of retention told us about the occupational mobility of workers between their first jobs and their current jobs. This measure did not take into account that departing workers probably were replaced by other workers. One way of addressing this is by calculating the percent change in the share of jobs from first to current U.S. jobs, for each occupation and sector (Table 10). This provides an indicator of the magnitude and direction of employment changes which begins to account for new entrants.[12]

Table 10 shows that in Southern California, the current proportion of jobs in agriculture represents a 66 percent decline compared to the share of first U.S. jobs in this sector. The corresponding figure for Watsonville is considerably lower at 15 percent. Thus, the relative difference in worker retention in these two labor markets (Table 9) is also reflected in the relative share shifts in agricultural employment (Table 10).

Within the agricultural sector, the lowest negative share shift in Southern California was in skilled agriculture (-20 percent, Table 10), which was also the occupation that retained the highest proportion of workers (Table 9). In Watsonville, despite the relatively higher attrition among original nursery workers compared to Southern California (Table 9), we see that these workers have been replaced—this employment category retained a constant share of jobs (Table 10). Skilled agricultural jobs in Watsonville experienced the highest share growth of the three agricultural employment categories.

Table 10

Share Shifts in Employment by Sector/Type of Job
(First to Current Job)*

	SOUTHERN CALIFORNIA (N=401)	WATSONVILLE (N=156)
AGRICULTURE	-66	-15
Nursery, Pre-Harvest	-70	0
Harvest	-68	-24
Skilled Agriculture	-20	+246
NON-AGRICULTURE	+27	+25
Services	+5	-27
Factory Operative	+34	-4
Trades	+89	+433
Clerical, Professional	+76	+538

* The share shifts were calculated in the following manner: Share Shift for Each Job Type = (percent Current Jobs - percent First Jobs) divided by (percent First Jobs).

Non-agricultural jobs show a share increase in both labor markets of a similar magnitude. However, in Southern California this growth is due to increases in the employment shares of each of the four employment categories, particularly trades and clerical-professional jobs. In Watsonville, however, the share of jobs in services and factories actually declined. Any growth in non-agricultural jobs was due to increases in the shares of trades and clerical-professional employment. Although Table 10 shows a dramatic increase in these last two categories, the proportion of people currently employed in these types of jobs is relatively small (Table 6).

In this section, we have established that there are different patterns of occupational mobility out of agriculture in the labor markets under study. These patterns appear to follow general labor market trends in each area, as discussed in Section II. In the next sections, we explore the effect of other variables in order to see what kinds of demographic or job characteristics might have contributed to these differences in occupational mobility.

V. Job Characteristics and Patterns of Occupational Mobility

This section examines whether differences in the quality of agricultural and non-agricultural jobs might have accounted for some differences in mobility patterns. Three facets of job quality—wages, benefits and working conditions—will be compared between sites as well as among groups within sites.[13]

Overall wages, benefits and working conditions were better in Watsonville than in Southern California. Farm jobs in Watsonville paid more and were more likely to have benefits and better working conditions than farm jobs in Southern California. Non-farm jobs in Watsonville also had better terms of employment than non-farm jobs in Southern California.

Within each research site, non-farm jobs offered better wages, more benefits and better working conditions than farm jobs. Former farm workers were generally the best paid group of workers, perhaps because of their greater work experience. However, they were less likely to have full benefits than those who had never performed farm work. These positions were also more likely to be hazardous jobs that required protective equipment.

Wages

The wages examined here are hourly wages and hourly equivalent wages of piece rate and salaried workers.

Workers' wages in both farm and non-farm jobs were higher in Watsonville than in Southern California. The average wage among sampled workers was $6.58 in Watsonville and $6.37 in Southern California. Farm jobs in the Watsonville area averaged $5.96 per hour, while farm jobs in Southern California paid 50 cents less, averaging $5.45. Non-farm jobs in Watsonville averaged $7.56 per hour, while non-farm jobs in Southern California paid about one dollar less, averaging $6.46 per hour.

Within each site, non-farm jobs paid significantly more than farm jobs. The difference between farm and non-farm jobs was higher in Watsonville. In Watsonville, non-farm jobs paid an average of $1.60 more per hour than farm jobs ($7.56 vs. $5.96), while in
Southern California, non-farm jobs paid an average of one dollar more per hour than farm jobs ($6.46 vs. $5.45).

Differences in wages were examined for each of our three groups, current farm workers, former farm workers and solely non-farm workers. This was done to examine the relationship between job mobility and choice of sector on wages.

In both geographical areas, former farm workers, on average, were making significantly more than current farm workers. The wage spread between farm workers and former farm workers was highest in Watsonville. In Watsonville,

former farm workers had average wages that were almost $2.00 per hour more than current farm workers ($7.84 vs. $5.96), while in Southern California, former farm workers made an average of about $1.25 more than current farm workers ($6.70 vs. $5.45).

Any concern that former farm workers might be at a disadvantage in obtaining non-farm jobs, when compared to those who had worked solely in non-farm jobs, was quickly dispelled. In Watsonville, former farm workers were making almost $1.20 more than their household members who had worked solely in non-farm work. In Southern California, there was no significant difference between the wages of former farm workers and solely non-farm workers ($6.70 vs. $6.34).

A final comparison was made between current farm workers and those who had never done farm work. In general, workers who entered non-farm work directly made more than current farm workers. In Southern California, those who never worked in farm work made almost one dollar more than current farm workers ($6.34 vs. $5.45). In Watsonville, there was no statistically significant difference in the wages of the two groups ($6.66 vs. $5.96). This is probably due to the small number of workers in the sample who had never performed farm work.

Although the higher wages of non-farm workers in Watsonville could be thought of as an incentive to leave agriculture, our research indicates that the relationship between wages and occupational mobility is not so straightforward. In Watsonville, non-farm jobs in the food processing industry tend to be less stable than seasonal farm jobs, particularly for workers with little seniority. This may result in lower overall earnings despite the higher wages received by food processing workers.

While hourly wages may play an important part in decisions about occupational mobility, it is important to consider other factors such as the quantity and quality of off-farm jobs as well as the skill level required for entry into higher paying non-farm jobs. While non-farm jobs may pay lower wages in Southern California, there are more unskilled off-farm jobs available. Off-farm jobs in Watsonville are scarcer and high pay in off-farm jobs tends to be the result of acquiring specific skills or seniority.

In the next section, we examine non-wage factors of farm and off-farm jobs including benefits and working conditions.

Benefits

Workers were asked about a variety of job benefits. Benefits reported here include workers' compensation insurance, personal health insurance, dependent health insurance, pensions, life insurance, unemployment insurance, maternity leave, and social security. Our questions measured workers' knowledge of benefits provided by their jobs. In some cases, workers may have been eligible for benefits but were unaware of them.

Overall, workers in Watsonville were more likely to receive employer-provided

benefits such as paid holidays, pensions, life insurance and maternity leave in addition to federal and state mandated benefits such as social security and unemployment insurance. Workers in Southern California either had lower levels of coverage for federal and state mandated benefits or they were less aware of the existence of these benefits. In general, farm workers, particularly farm workers in Southern California, received lower levels of benefits than non-farm workers.

Workers' compensation insurance

Overall, only about half of the workers reported knowing that they were covered by workers' compensation insurance. Reported rates of coverage varied between sites. In Watsonville, workers more often reported that their jobs were covered by workers' compensation than in Southern California (62 percent vs. 46 percent). Similarly, farm workers were more likely to report that they were covered by workers' compensation insurance in Watsonville than in Southern California (66 percent vs. 27 percent). The rates for non-farm workers were similar in both areas.

In Southern California, farm workers were only half as likely to report that they were covered by workers' compensation insurance than non-farm workers (27 percent vs. 49 percent). Workers' compensation coverage was not significantly different for other groups in Southern California nor among groups of workers in Watsonville.

Personal health insurance

Between 30 and 50 percent of workers in both areas reported that their jobs were covered by health insurance. There were no significant differences in coverage between areas or among groups within areas.

Dependent health coverage

Dependent health coverage was almost twice as prevalent in Watsonville as it was in Southern California (42 percent vs. 22 percent). This was true for both farm workers and for non-farm workers. There were no differences in coverage of dependents among workers in Watsonville. In Southern California, former farm workers were more likely to receive dependent coverage than those who had never worked in farm work (23 percent vs. 19 percent).

Paid leave for holidays, illness or vacation

About half of the sampled workers received paid holidays and paid vacation. Paid sick leave was less common; only about one-fourth of sampled workers received paid sick leave. Paid holidays were more common in Watsonville than in Southern California (56 percent vs. 40 percent). There were no significant differences between areas or among groups of workers within areas with respect to payment of vacation or sick leave.

Pension

Pension coverage was less common than paid leave. Slightly less than one-fifth of all workers were covered by pensions. Similar portions of the agricultural workers in both sites were covered by pensions. Non-farm workers in Watsonville were almost twice as likely to be covered by a pension plan than either farm workers in their own town (34 percent vs. 16 percent) or non-farm workers in Southern California (34 percent vs. 17 percent).

Life insurance

Life insurance coverage was very similar to pension coverage. Slightly less than one-fifth of all workers were covered by life insurance. Similar portions of the agricultural workers in both sites were covered by life insurance. Non-farm workers in Watsonville were almost twice as likely to be covered by life insurance as either farm workers in their own town (33 percent vs. 14 percent) or non-farm workers in Southern California (33 percent vs. 16 percent).

Unemployment insurance

Workers in Watsonville were almost three times more likely to report that they were covered by unemployment insurance (71 percent vs. 24 percent). Among workers in Southern California, former farm workers were more likely to report being covered by unemployment insurance than those with no farm work experience (33 percent vs. 21 percent).

Maternity leave

Both medical coverage for maternity and maternity leave with a guaranteed right to return to work were more than twice as common in Watsonville than they were in Southern California (36 percent vs. 17 percent; and 41 percent vs. 14 percent). This was also true for certain subgroups of workers. While over one-third of farm workers in Watsonville reported that women workers could return to their jobs after maternity leave, this benefit was almost non-existent among farm workers in Southern California (38 percent vs. 3 percent). Similarly, in Watsonville almost half of the non-farm workers had employers who offered maternity benefits, while less than one-sixth of Southern California workers were offered this benefit (45 percent vs. 15 percent).

Social security

Almost four-fifths of workers in Watsonville reported that they were covered by social security. In contrast, only two-fifths of Southern California workers reported social security coverage. There were no differences across groups within areas.

Working conditions

The sampled workers were asked a series of questions about a variety of working conditions. This section reports their responses to questions about the number of hours worked, presence of seniority systems and job ladders, need for protective equipment, unions, labor contractors, and the seasonality of their work. In addition, seasonal workers were asked about their use of government programs in the off-season.

Hours

The average number of hours worked per week was higher in Southern California than in Watsonville. These higher hours were fairly consistent across job categories within sites. However, the number of hours worked by farm workers, former farm workers and solely non-farm workers was not significantly different from workers in either research site.

Seniority

About 40 percent of workers in both sites said that they had a seniority system where they worked. There were no significant differences between farm workers and non-farm workers within sites.

Job ladders

About 30 percent of workers in both areas said that their job was part of a job ladder, i.e., they could be promoted from their job to another job within the company. In Watsonville, non-farm workers were twice as likely to be promotable as farm workers (36 percent vs. 19 percent).

Protective equipment

Almost three-fifths of the workers sampled used protective equipment in their work. In Southern California, former farm workers were more likely than those who had never done farm work to need protective equipment (61 percent vs. 48 percent). In Watsonville, similar proportions of farm workers and those who had never done farm work required protective equipment.

Unions

Watsonville workers were four times more likely to be in a unionized job than Southern California workers (31 percent vs. 8 percent). Non-farm workers in Watsonville were more than six times as likely to be in a union than non-farm workers in Southern California. In Southern California farm and non-farm workers were equally likely to be unionized. However, in Watsonville, non-farm workers were twice as likely to be unionized.

Contractors

Farm workers in Southern California were more likely to work for labor contractors than those in Watsonville (28 percent vs. 5 percent). In Watsonville, farm and non-farm workers worked for contractors in similar proportions. In Southern California, farm workers were more likely to work for labor contractors than non-farm workers (28 percent vs. 7 percent).

Seasonality of job and use of government services when unemployed

Watsonville workers were more likely to have seasonal jobs than workers in Southern California. While similar proportions of agricultural jobs in both sites were seasonal, non-farm jobs in Watsonville were more likely to be seasonal than those in Southern California (25 percent vs. 4 percent). There were very few seasonal non-farm jobs in Southern California. In both areas, farm jobs were more seasonal than non-farm jobs. In Watsonville, farm jobs were more than twice as likely to be seasonal as non-farm jobs, while in Southern California, farm jobs were more than 15 times as likely to be seasonal as non-farm jobs.

Despite the seasonal nature and low wages of many of the jobs held, farm worker and former farm worker households had very low rates of usage of public assistance. Public assistance usage was cited by less than one percent of workers in both areas.

Table 11

Wages, Benefits, and Working Conditions

Job Characteristic	SOUTHERN CALIFORNIA			WATSONVILLE		
	Current Farm Worker	Former Farm Worker	Never Farm Worker	Current Farm Worker	Former Farm Worker	Never Farm Worker
WAGES	$5.45	$6.70	$6.34	$5.96	$7.84	$6.66
BENEFITS						
Workers' Comp.	27%	40%	49%	66%	51%	67%
Health Insurance	42%	38%	29%	42%	51%	46%
Dependent Health	23%	23%	19%	42%	44%	42%
Paid Holidays	36%	41%	40%	52%	60%	69%
Paid Vacations	42%	48%	43%	45%	53%	69%
Paid Sick Leave	21%	30%	29%	14%	29%	46%
Pension	16%	19%	16%	16%	34%	33%
Life Insurance	23%	19%	15%	14%	29%	46%
Unemployment Ins	23%	33%	21%	72%	70%	67%
Maternity Health	8%	19%	17%	36%	38%	25%
Maternity Leave	3%	12%	17%	38%	50%	33%
Social Security	28%	44%	36%	81%	89%	77%
WORKING CONDITIONS						
Hours	44	41	40	46	40	38
Seniority	36%	40%	37%	39%	56%	62%
Promotions	28%	31%	35%	19%	38%	31%
Protective Equipment	50%	61%	48%	63%	60%	55%
Unions	8%	8%	8%	22%	53%	33%
Contractors	28%	10%	5%	5%	8%	0
Seasonal Job	64%	7%	3%	62%	24%	28%

NOTE: Percent indicates what percent of respondents claimed their job had th. t characteristic.

VI. Demographic Characteristics and Occupational Mobility

In this section we explore differences between current farm workers, former farm workers and people who have never worked in agriculture by comparing the following variables across these job groups: age, place of birth, gender, marital status, education, and legal status.

Age

Most farm workers in Southern California were between 15 and 34 years old, and between 25 and 34 years old in Watsonville. The average age of farm workers was 29 and 31 years in each place, respectively. Former farm workers were approximately the same age in both locations, between 25 and 44 years of age, somewhat older than current farm workers (Table 12). The most significant age-related difference by site is between non-farm workers, who were much younger in Southern California than in Watsonville.

These data suggest that most people spend some time in agricultural jobs before moving out of the sector. The high proportion of young non-farm workers in Southern California shows that many young members of households with older current and former farm workers were finding jobs outside of agriculture. The small number of non-farm workers in Watsonville does not permit inference about this group.

Place of birth

The majority of respondents in each research area were born in Mexico, which is not surprising, since most farm workers in California are now Mexican. The pattern also holds for each job group in both areas, particularly Southern California (Table 13).

The relatively higher proportion of non-Mexican current and former farm workers in Watsonville illustrates the historical presence of other immigrant groups, such as Filipinos, in agricultural jobs in this area. The higher proportion of U.S.-born former farm workers in Watsonville, most of whom have Mexican parents, suggests that in areas where agriculture remains an important employer, at least some U.S.-born children of Mexican farm workers continue to enter the labor force in agriculture, although they are very likely to move on to jobs outside the sector.

There were interesting differences in the proportions of Mexican-born workers by job group which hold for both research sites. Non-Mexicans were more likely to have moved out of farm work or to have never worked in agriculture than Mexicans. The highest concentration of Mexican-born workers was in the current farm worker category. The relative concentration of Mexican workers declined for former farm workers, and was lowest for those who have never done farm work (Table 13).

Table 12

Percent of Workers by Age and Job Group in Each Area

AGE	SOUTHERN CALIFORNIA (N=383)*			WATSONVILLE (N=151)**		
	Current Farm Worker (N=39)	Former Farm Worker (N=115)	Never Farm Worker (N=229)	Current Farm Worker (N=103)	Former Farm Worker (N=36)	Never Farm Worker (N=12)
Under 15	0	1	2	2	3	8
15-24	20	17	41	18	11	0
25-34	39	25	35	47	39	58
35-44	20	26	13	19	31	17
45 and up	20	31	8	14	16	17
TOTAL***	100	100	100	100	100	100

* MISSING VALUES=18
** MISSING VALUES=5
*** May not total due to independent rounding
Differences significant at the p<.05 level within each site.

Gender

In both research sites, the majority of current and former farm workers were men, while men and women were more evenly distributed in the group of non-farm workers (Table 14). The relatively higher proportion of women in both sites' non-farm worker groups indicates that women in both areas were less likely to enter agricultural work than men.

While women in both sites were less likely than men to be current or former farm workers, the proportion of these workers who were women differed considerably by site. Table 14 shows that in Watsonville, women accounted for a higher proportion of both the current and former farm worker groups than women in Southern California. Thus, women represented a more important part of the farm labor force in Watsonville where the agricultural sector dominates low-skill employment opportunities, compared to Southern California, where both agriculture and services offer this type of work to immigrant women.

Table 13

Percent of Workers by Place of Birth and Job Group

	SOUTHERN CALIFORNIA (N=401)			WATSONVILLE (N=156)		
	Current Farm Worker (N=40)	Former Farm Worker (N=119)	Never Farm Worker (N=242)	Current Farm Worker (N=106)	Former Farm Worker (N=37)	Never Farm Worker+ (N=13)
Mexico	90	82	76	74	62	54
Central America	0	4	7	0	3	0
United States	3	6	8	5	22	38
Other++	7	8	9	21	13	8
TOTAL	100	100	100	100	100	100

+ Note small N
++ Most "other" respondents were born in the Philippines or other Asian countries.

Table 14

Percent of Workers by Sex and Job Group

	SOUTHERN CALIFORNIA (N=377)*			WATSONVILLE (N=151)**		
	Current Farm Worker (N=39)	Former Farm Worker (N=113)	Never Farm Worker (N=225)	Current Farm Worker (N=103)	Former Farm Worker (N=36)	Never Farm Worker (N=12)
Male	87	73	52	75	56	42
Female	13	27	48	25	44	58
TOTAL	100	100	100	100	100	100

* MISSING VALUES=24
** MISSING VALUES=5

The distribution of male and female workers by job group illustrates more strongly the differential participation of both women and men in agricultural work by site (Table 15). In Watsonville, half of all female worker respondents were currently working in agriculture and a third had moved out of agriculture; only 14 percent had never worked in agriculture. In contrast, in Southern California, three-quarters of the women had never worked in agriculture and only three percent were current farm workers. This table also shows that a much higher proportion of the men in the Southern California sample—50 percent—had never worked in agriculture, compared to Watsonville, where only five percent of male respondents had never worked in this sector (Table 15).

Tables 13 and 14 also illustrate the relationship between gender and movement out of agricultural jobs. Examining the groups of former farm workers in both sites more closely, we see that a higher proportion of workers in Watsonville who had left agriculture were women than in Southern California (Table 14). In part this is due to the availability of cannery work for women in Watsonville. It is common for women to work in the fields before getting a cannery job, and to continue doing so seasonally to supplement cannery work which is often part-time and seasonal, especially at first. The pattern also reflects the smaller proportion of women in Southern California who enter agriculture in the first place (Table 15).

Table 15

Percent Distribution of Job Groups by Gender and Area

	SOUTHERN CALIFORNIA (N=377)*		WATSONVILLE (N=151)**	
	MALE (N=234)	FEMALE (N=143)	MALE (N=102)	FEMALE (N=49)
Current Farm Worker	15	3	75	53
Former Farm Worker	35	21	20	33
Never Farm Worker	50	76	5	14
TOTAL	100	100	100	100

SOURCE: Calculated from Table 15.
* MISSING VALUES=24
**MISSING VALUES=5

Table 16

Percent of Workers Leaving Agriculture
Out of Total With Agricultural Work Experience
By Gender and Area

	SOUTHERN CALIFORNIA (N=152)	WATSONVILLE (N=139)
Women (% Leaving Ag.)	86	38
Men (% Leaving Ag.)	71	21

SOURCE: Calculated from Table 15

When we take the men and women who have left agriculture, as a proportion of those who have ever worked in agriculture (current and former farm workers), we see that women in both research sites were more likely to leave agricultural jobs than men, and that both men and women in Southern California were more likely to exit agriculture than either men or women in Watsonville (Table 16). Agricultural employers interested in retaining or recruiting women workers would do well to consider ways to make jobs more attractive to them. Similarly, agricultural employers located in areas that offer a wider range of non-farm jobs need to consider how to retain or recruit both men and women.

Marital status

The ratio of people who were currently married or had ever been married to those who were single, was two to one in Southern California and three to one in Watsonville. In Southern California, just over half of all respondents were married, slightly over one-third were single, and the remaining six percent were separated, widowed, or divorced. In Watsonville, two-thirds of respondents were married, one-quarter were single, and the remaining eight percent were distributed among the separated, widowed and divorced categories.

The pattern of having the highest proportion of respondents in the married category held across job groups in both sites (Table 17). There was virtually no difference between the marital status of current and former farm workers in Watsonville; one-quarter of each group was single. In Southern California, current farm workers were slightly more likely to be single than former farm workers, but the difference was small. However, people who have never worked in agriculture were more likely to be single compared to current and former farm workers in both places. This suggests that single, probably younger, workers in households with current and former farm workers were more likely to never enter agricultural work; the trend was stronger in Southern California.

Table 17

Percent of Workers by Marital Status and Site

MARITAL STATUS	SOUTHERN CALIFORNIA (N=379)*			WATSONVILLE (N=151)**		
	Current Farm Worker (N=39)	Former Farm Worker (N=111)	Never Farm Worker (N=229)	Current Farm Worker (N=103)	Former Farm Worker (N=36)	Never Farm Worker (N=12)
Single	31	24	45	23	25	33
Married	67	64	50	71	61	50
Widowed	2	6	2	0	3	0
Divorced-Separated	0	6	3	6	11	17
TOTAL	100	100	100	100	100	100

* MISSING VALUES=22
** MISSING VALUES=5

If being, or having ever been, married vs. being single did not seem to be associated with movement out of agriculture in either site, does it make a difference if we compare men and women within job groups in each site? The data in Table 18 show that in both sites, the majority of both male and female, current and former farm workers, were married or had once been married. However, this table also indicates that single men were far more likely to work in agriculture than single women, in both sites. Apparently these gender ratios hold for those who have moved out of agriculture; former farm workers in both research sites included higher proportions of single males than females, although there were also more married people of either gender in this category in both sites.

Education

As noted earlier (Table 4), a much higher proportion of workers in Southern California had received some education in the U.S. compared to those in Watsonville, but the proportion of those who received any education in Mexico was fairly close in both sites.

Table 18

Percent of Workers by Marital Status and Gender

SOUTHERN CALIFORNIA (N=371)*

MARITAL STATUS	Current Farm Worker (N=39)		Former Farm Worker (N=109)		Never Farm Worker (N=223)	
	M 87	F 13	M 75	F 25	M 52	F 48
Single	35	0	29	11	54	31
Married	65	80	63	63	43	60
Widowed	0	20	4	11	0	4
Divorced-Separated	0	0	4	15	3	5
TOTAL	100	100	100	100	100	100

WATSONVILLE (N=151)**

MARITAL STATUS	Current Farm Worker (N=103)		Former Farm Worker (N=36)		Never Farm Worker (N=12)	
	M 75	F 25	M 55	F 45	M 42	F 58
Single	26	15	35	13	80	0
Married	70	73	50	75	0	86
Widowed	0	0	0	6	0	0
Divorced-Separated	4	12	15	6	20	14
TOTAL	100	100	100	100	100	100

* MISSING VALUES=30
** MISSING VALUES=5

Among those workers with any education, the levels of education in Mexico and in the U.S. did not differ significantly by site (Table 19). The median number of years of U.S. schooling was 11 years in Southern California and ten years in Watsonville; the median number of years of Mexican schooling were six and five years, respectively.

Education in Mexico did not appear to be associated with mobility out of agriculture in either research site (Table 20). However, in Southern California, people with higher levels of education in Mexico were less likely to ever enter farm work.

Education in the U.S. bears a stronger relationship to employment and occupational mobility than Mexican education. Current farm workers were most likely to have no U.S. education; a higher proportion of former farm workers had some U.S. education than current farm workers, and those who had never entered farm work were most likely to have some U.S. schooling (Table 21). This pattern held for both research sites.

Table 19

Percent of Workers Educated in Mexico and the U.S., by Site
(Respondents Aged 15 Years or More)

	SOUTHERN CALIFORNIA		WATSONVILLE	
	Mexico Education (N=314)	U.S. Education (N=129)	Mexico Education (N=102)	U.S. Education (N=74)
None	11	53	15	91
1-6 Years	62	10	70	0
7-9 Years	12	10	7	4
10-12 Years	8	21	7	4
13-16 Years	6	5	1	1
17+ Year	1	0	0	0
TOTAL*	100	100	100	100

*May not total due to independent rounding

Table 20

Percent of Workers Educated in Mexico by Job Group
For Persons Born in Mexico, 15 Years of Age and Over

	SOUTHERN CALIFORNIA (N=310)*			WATSONVILLE (N=73)**		
YEARS OF SCHOOL	Current Farm Worker (N=32)	Former Farm Worker (N=95)	Never Farm Worker (N=183)	Current Farm Worker (N=51)	Former Farm Worker+ (N=17)	Never Farm Worker+ (N=5)
None	0	14	11	14	18	20
1-6 Years	75	68	56	74	53	80
7-9 Years	25	6	13	2	23	0
10-12 Years	0	5	12	10	0	0
13-16 Years	0	5	8	0	6	0
17+ Years	0	1	0	0	0	0
TOTAL***	100	100	100	100	100	100

*MISSING VALUES=29
**MISSING VALUES=4
***May not total due to independent rounding
+NOTE SMALL N
Differences within sites significant at the p<.05

Legal status

A much higher proportion of workers in Southern California were undocumented at the time of the interviews than in Watsonville (Table 22). Two-thirds of the 17-point difference between the proportion of undocumented workers in each area can be explained by the higher share of documented workers in Watsonville, and the rest by the slightly higher share of people applying for legalization under IRCA in Watsonville (Table 22).

One-third of those applying for legalization in Southern California did so under the SAW program; the other two-thirds applied under the so-called general amnesty. In Watsonville the proportion of SAW applicants was much higher (77 percent). The higher prevalence of agricultural employment in Watsonville obviously translated into higher rates of SAW applications in this area. The requirements of SAW applications, for which a higher proportion of Watsonville respondents would qualify, appear to have also translated into higher rates of legalization applications, regardless of program.

These differences in the legal status of workers in the two areas were related to their employment histories and the types of employment available in the area. But is legal status related to occupational mobility? The information in Table 23 indicates that amnesty applicants made up the largest proportion of respondents in any job group, in both locations; the only exceptions were those who had never done farm work in Watsonville, who were predominantly citizens.[14]

Table 21

Percent of Workers Educated in the U.S. by Job Group for Persons 15 Years of Age and Over

	SOUTHERN CALIFORNIA (N=129)			WATSONVILLE (N=74)		
YEARS OF SCHOOL	Current Farm Worker (N=12)	Former Farm Worker (N=27)	Never Farm Worker (N=90)	Current Farm Worker (N=53)	Former Farm Worker+ (N=17)	Never Farm Worker+ (N=4)
None	92	74	42	94	88	50
1-6 Years	0	17	9	0	0	0
7-9 Years	0	0	14	4	0	25
10-12 Years	8	4	28	2	12	0
13-16 Years	0	4	7	0	0	25
TOTAL*	100	100	100	100	100	100

+ NOTE SMALL N
* May not total due to independent rounding
Differences within sites are significant at the $p<.05$ level.

Table 22

Percent of Workers by Legal Status in Each Area

	SOUTHERN CALIFORNIA (N=346)*	WATSONVILLE (N=131)**
UNDOCUMENTED	20	3
APPLIED FOR LEGALIZATION	57	62
DOCUMENTED	23	34
Citizen	12	16
Green Card	11	18
Asylum	(*)	(*)
TOTAL***	100	100

* MISSING VALUES=55
** MISSING VALUES=25
*** May not total due to independent rounding
(*) Less than one

Table 23

Percent of Workers by Legal Status and Job Group in Each Area

	SOUTHERN CALIFORNIA (N=347)*			WATSONVILLE (N=131)**		
YEARS OF SCHOOL	Current Farm Worker (N=33)	Former Farm Worker (N=108)	Never Farm Worker (N=206)	Current Farm Worker (N=88)	Former Farm Worker (N=31)	Never Farm Worker+ (N=12)
Citizen	3	11	13	8	29	42
Legal Permanent Resident	12	13	11	17	19	25
Amnesty Applicant	73	66	48	70	48	33
Undocumented	12	9	28	4	0	0
Asylum	0	1	0	0	3	0
TOTAL***	100	100	100	100	100	100

* MISSING VALUES=54
** MISSING VALUES=25
*** May not total due to independent rounding
+ NOTE SMALL N

Despite this general trend, which is more of a reflection of the large proportion of amnesty applicants in both sites, there were differences in legal status by job groups (Table 23). Having legal documentation is associated with moving out of agriculture in both labor markets. A higher proportion of former farm workers were documented (citizens or permanent residents), compared to current farm workers in both areas. The proportion of former farm workers without documents was very low in Southern California and non-existent in Watsonville (Table 23).

If we look at the distribution of workers in each legal status by job group (the equivalent of summing across rows rather than columns), we see that the majority of undocumented workers in Southern California have never entered agriculture, while in Watsonville, undocumented workers were concentrated in agricultural jobs (Table 24). In Southern California, most amnesty applicants had never worked in agriculture, but in Watsonville legalization applicants were concentrated in farm work (Table 24).

The majority of citizens and legal residents in Southern California had either left agriculture or never entered it; many documented workers were still working in agriculture in Watsonville (Table 24). The availability of well-paying, often unionized, agricultural jobs in Watsonville, together with the relative lack of well-paying jobs outside of agriculture (for immigrants) may explain the larger share of documented current farm workers in Watsonville.

The majority of current as well as former farm workers in Watsonville applied for legalization under the SAW program (Table 25). This is also true of current farm workers in Southern California, but not of former farm workers, who were more evenly split in terms of the legalization program under which they applied. The information in Table 25 appears to indicate that former farm workers who legalized their status as SAWs had left agriculture in both labor markets.

However, if one examines the distribution of general amnesty and SAW applicants by current and former farm workers in each area, a different pattern becomes clear. An overwhelming majority of SAW applicants in Watsonville (85 percent) remained employed in agriculture, whereas in Southern California, only one-third of SAW applicants did so (Table 26).

Table 24

Percent of Workers by Legal Status and Job Group
(Rows Sum to 100 for Each Area)

	SOUTHERN CALIFORNIA (N=347)*			WATSONVILLE (N=131)**		
	Current Farm Worker (N=33)	Former Farm Worker (N=108)	Never Farm Worker (N=206)	Current Farm Worker (N=88)	Former Farm Worker (N=31)	Never Farm Worker+ (N=12)
Citizen	2	29	69	33	43	24
Legal Permanent Resident	10	35	55	63	25	12
Amnesty Applicant	12	37	51	77	18	5
Undocumented	6	14	80	100	0	0
Asylum	0	100	0	0	100	0

* MISSING VALUES=54
** MISSING VALUES=25
+NOTE SMALL N

Table 25

Percent of Legalization Applicants: Program by Job Group
For Current and Former Farm Workers in Each Area

	SOUTHERN CALIFORNIA (N=95)		WATSONVILLE (N=75)	
	Current Farm Worker (N=25)	Former Farm Worker (N=70)	Current Farm Worker (N=62)	Former Farm Worker (N=13)
General Amnesty	36	54	18	31
SAW Program	64	46	82	69
TOTAL	100	100	100	100

Table 26

Percent of Legalization Applicants: Job Group by Program
For Current and Former Farm Workers in Each Area

	SOUTHERN CALIFORNIA (N=95)		WATSONVILLE (N=75)	
	General Amnesty	SAW Program	General Amnesty	SAW Program
Current Farm Worker	19	33	73	85
Former Farm Worker	81	66	27	15
TOTAL*	100	100	100	100

* May not total due to independent rounding

VII. Summary

This project was designed to study patterns of occupational mobility of current and former agricultural workers, and the preliminary effects of IRCA on such mobility, in two contrasting California labor markets. To that end, the study examined differences in job and worker characteristics among farm and non-farm workers to attempt to identify what characteristics are associated with leaving farm work, and in what specific ways non-farm jobs might be more attractive to workers than farm jobs. The study also looked at structural changes in the labor markets of the two research sites.

The study found strikingly different patterns of occupational mobility in the two areas. In Watsonville, few farm workers left agriculture according to our measures of attrition. The ratio of current farm workers to those with agricultural experience showed that only one in four farm workers had left agriculture; five out of six people whose first job was in agriculture were still working in agriculture.

It appears that there were several factors contributing to these low rates of attrition. First, at the time of the interview Watsonville had an expanding farm labor force, while the opposite was true in Southern California. The availability of off-farm work is therefore different in each labor market. In Watsonville, there are relatively fewer unskilled off-farm jobs. In contrast, Southern California has a large manufacturing and service sector which relies on unskilled immigrant labor.

Second, farm jobs were closer to non-farm jobs in Watsonville in terms of working conditions and benefits than were farm jobs in Southern California. Similar proportions of both farm and non-farm jobs were unionized. Benefits available only to non-farm workers in Southern California were common among farm workers in Watsonville. And importantly, both farm and non-farm jobs tended to be seasonal in Watsonville. In fact, non-farm jobs in the food processing industry tended to be less stable than seasonal farm jobs, particularly for workers with little seniority. This may result in lower overall earnings despite the higher wages received by food processing workers.

Third, farm workers in Watsonville tended to live in primarily farm worker households and to have less contact with non-farm workers than in Southern California.

In terms of the relationship between characteristics and jobs, we found that farm work in Watsonville is a long term job for many workers. As in Southern California, newer immigrants with less education tended to work in agriculture, while more settled immigrants with either more U.S. education or more work experience tended to work in non-farm work. However, once in farm work, male workers were less likely to leave farm work than female workers. Non-farm workers tended to be older, implying that they had spent some time in farm work before departing. Women and U.S. educated workers tended to pass up farm jobs for non-farm jobs.

While citizen workers and green card workers are more likely not to enter farm

work, legal status was not necessarily related to leaving farm work. More than three-fourths of SAWS were still working in agriculture in 1989, four years after their qualifying agricultural experience and two years after the beginning of the amnesty application period.

In contrast, Southern California had much higher rates of farm labor attrition. The ratio of current farm workers to former farm workers shows that three out of four workers with agricultural experience were no longer working in agriculture. Only one-third of workers whose first job was in agriculture remained in agriculture.

As was the case in Watsonville, it appears that there were several factors affecting farm labor attrition. First, in the Southern California research site, demand for farm workers was declining as industrial production and residential development increased.

Second, there was a large discrepancy in the terms of employment between farm work and non-farm work. Non-farm jobs were more likely to have better benefits and working conditions. The lowest benefit levels found among all categories of workers studied were for farm workers in Southern California. While farm jobs in Southern California were mostly seasonal jobs, very few non-farm jobs were seasonal. This was in sharp contrast to Watsonville which had many seasonal non-farm jobs. Additionally, labor contracting was more prevalent in agricultural than non-agricultural jobs.

Third, farm workers tended to be in closer contact with non-farm workers in Southern California. Non-farm workers accounted for 90 percent of the workers in sampled households in Southern California. In Watsonville they accounted for about 30 percent of the sample. It was not uncommon to find one farm worker living in a house with four or five non-farm workers. This probably made Southern California farm workers more familiar with the discrepancies in the terms of employment between farm and non-farm jobs and provided them with greater information on obtaining non-farm jobs.

In Southern California, the relationship between characteristics and jobs was similar in many ways to the patterns found in Watsonville. Workers with more skills and/or experience tended to work in non-farm jobs. Farm jobs seemed to be a first stop for new immigrants, particularly male immigrants. Many fewer women worked in agriculture in Southern California than in Watsonville. Most women, particularly single women, began working in non-farm jobs. And those women who did work in agriculture were more likely than men in agriculture to leave agricultural employment. Workers with higher levels of education, particularly U.S. education, were likely to be found in non-farm work.

Workers in Southern California were more likely to be undocumented than workers in Watsonville. Almost twice as many workers in Watsonville were citizens or legal permanent residents than in Southern California; one-half vs. one-fourth of non-farm workers and one-fourth vs. one-eighth of farm workers, respectively.

As a result of the SAW program, more farm workers than non-farm workers were

currently legal in Southern California; three-fourths of farm workers qualified for amnesty, but only one-half of workers without farm work experience qualified. Non-farm workers had to meet stiffer requirements, including a longer residence period for legalization; fewer workers qualified. Legal work authorization does not seem to be a barrier to employment in the non-farm sector.

Thus the high number of SAWS leaving agriculture (only one-third remained in farm jobs) seems to be indicative of Southern California employment patterns in general rather than a response to legalization. This conclusion seems to be reinforced by observing the lower attrition rates of SAWS in Watsonville.

In comparing the results from the two research sites, certain patterns appear. First in both locations, farm work appears to be less desirable than non-farm work. It offers workers poorer terms of employment than non-farm jobs. As a result, the less educated and less experienced workers tended to end up in agriculture. More qualified workers, particularly those with U.S. education, tended to go directly into non-farm employment. Similarly, women workers were more likely to bypass agricultural employment. Women were less likely to obtain farm jobs in the first place and more likely to leave agriculture. Further investigation is needed to see what could make farm jobs more attractive to women workers.

No clear pattern of relationship between legal status and decisions to leave farm work emerged from the data. In Watsonville, legally authorized workers were more often found in farm work. However, in Southern California more undocumented workers were found in non-farm employment. SAW exit rates show that SAWs left agriculture in rates similar to or lower than the farm worker population as a whole. Thus it does not appear that legal status was strongly related to decisions to leave farm work.

We have shown that legal status does not seem to be a barrier to non-farm employment. Nor is legal status necessarily associated with occupational mobility out of agriculture. The question of why some undocumented workers work in agriculture, others leave agriculture, and others never work in agriculture deserves further research.

If the relationship between legal status and leaving farm work is not clear-cut, it may be that the relationship is more complex. Other factors, such as membership in particular kin, village or other social networks, may play an important role in mitigating the potential constraints of legal status on occupational mobility. Similarly, social networks may enhance the possibilities for occupational mobility and/or wage increases within a particular sector including agriculture. One of the problems in identifying the relationship may be that legal status is usually acquired over time and social networks expand and are reinforced over time as well. New immigrant workers are often undocumented, and as they acquire experience, and possibly new skills, they are also generally attempting to obtain legal work authorization. But an undocumented worker with social contacts is less likely to have trouble finding work than an undocumented person without those contacts.

The cross-tabulation analyses presented here have identified several facets of the

relationship among individual and job characteristics and decisions to work in farm or non-farm work. The results of this analysis justify further analysis into the exact relationships between these highly correlated characteristics and labor market factors. Future analyses of occupational mobility out of agriculture should examine the relationship between the structure of farm and non-farm jobs in local labor market areas.

Notes

1 During peak harvest periods, household size tends to increase in Watsonville, where there is a very tight housing market. Seasonal migrants live with relatives and friends, and contribute to the rent.

2 For example, see "Farming Fading Away in Once-Fertile Valley," Orange County Register, Sunday, April 8, 1990.

3 Annual Planning Information: Anaheim-Santa Ana MSA, Orange County. California Employment Development Department, June 1989.

4 Annual averages estimated from data for 1985 and 1988. Annual Planning Information: Santa Cruz County MSA. California Employment Development Department, June 1989.

5 The Californias, County Level Profiles. Sacramento: California Department of Commerce, Office of Economic Research, September, 1986.

6 1980 Census of Population, Table P-7. Washington D.C.: U.S. Bureau of Census.

7 Census data analyzed by Association of Monterey Bay Area Governments (AMBAG).

8 These city-level figures are from "The Californias, CITY Profiles." Sacramento: California State Department of Finance, 1986.

9 This expansion will be due to growth in raspberry and strawberry acreage, and increasing nursery growth.

10 Job groups in Table 8 were assigned based on current or most recent employment. A small proportion of respondents were out of the labor force at the time of the interview; they were grouped according to their last job at this stage of the analysis in order to be able to determine their mobility pattern. Tables 8 and 9 present distributions of current occupations that include people out of the labor force.

11 Note that this does not include new entrants to a particular occupation or sector, only those who remained.

12 This analysis could be refined by controlling for the period of entry into U.S. labor markets.

13 Unless otherwise indicated, reported differences among groups and between sites are significant at the $p<.05$ level in this section.

[14] However, the small N in this job group does not allow us to generalize.