

Immigrant and Migrant Farm Workers in the Santa Maria Valley, California

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Executive Summary

Immigrant and migrant farm workers from Mexico and other countries are large and growing in number and in importance to U.S. agriculture, but they often are not counted in the decennial census due to high mobility, illegal status, and/or unconventional housing. This report is based on ethnographic research conducted in California's Santa Maria Valley, an active agricultural area rich in labor-intensive cultivation of prime vegetable and fruit crops. Calculations of crop acreage, man-hours of labor required for each crop, and full- and part-time agricultural employees are verified and augmented by information gained from comprehensive interviews with immigrant and migrant agricultural workers concerning their migratory and employment histories, housing arrangements, and relationships to Mexican communities.

The report concludes that routine census procedures can only result in a significant under-reporting of numbers of immigrant and, particularly, migrant farm workers in Santa Maria and, by extension, in other regions of the country which rely heavily upon imported labor; that many immigrant and migrant farmworkers have good reason to fear exposure to government representatives and thus will attempt to remain hidden from them; and that lack of adequate housing contributes to difficulties in locating and enumerating this population. The most important step toward resolution of these problems and many related issues would be reform of U.S. immigration policy which would recognize, legalize, and protect imported migrant workers. Absent such enlightenment, however, more accurate enumeration and description of this population can be accomplished if bilingual and bicultural census workers are trained to patiently and repeatedly approach their households and unconventional dwellings using ethnographic research methods. Under current conditions, this will require a radical redefinition of the terms "residence" and "household" in the context of the census. And, although the timing of the national census is not ideal for identification of the largest number of migrant farm workers, follow-up studies should be performed at peak employment periods. Such surveys, thoroughly performed, would yield rich rewards in information about the farm-working population as well as provide an essential cross-check to standard census data.

Introduction

Agriculture in California is a growth industry. In fact, the nearly twenty billion-dollar business was recently characterized by the Los Angeles Times as one of the few healthy parts of the state's wounded economy (Woutat, 1993). California's expanding farm economy is fueled by a healthy and growing worldwide appetite for fresh fruits and vegetables, and is capacitated by its ability to supply markets year round thanks to a benign climate, a reliable irrigation infrastructure, and an effective corporate structure.

The production of high-value yet labor-intensive specialty crops has increased both farm revenues and farm employment (Martin, 1988; Palerm, 1991; Villarejo and Runsten, 1993). Recent estimates reveal that nearly one million workers are employed by California farms; that's twenty percent more than fifteen years ago (Villarejo and Runsten, 1993: vii). The vast majority of these workers, ninety percent, are foreign-born; most come from Mexico.

Although a large and growing number of Mexican-origin farm workers have settled permanently in California with their families (Palerm, 1989 and 1991), many continue to practice old migratory ways by travelling from their home communities in Mexico to farm employment locations in California on a regular schedule (Massey et al., 1987; Palerm 1993). Save a select few, most farm workers—both settled and migrant—habitually experience seasonal and intermittent farm jobs and, as a result, must race from employer to employer, from crop to crop, and from county to county in order to enjoy some modest degree of continuous employment and a regular source of income or, more correctly stated, to diminish the deleterious effects of seasonal unemployment and chronic underemployment.

Finally, despite the fact that special provisions included in the Immigration Reform and Control Act of 1986 (IRCA) allowed many undocumented immigrant farm workers to legalize their presence in the United States, unauthorized immigration continues unabated. Farm-worker dependents who either did not qualify for the special amnesty provisions or who were subsequently imported, and a new wave of aspiring farm workers continue to stock the pool of unauthorized immigrants in the countryside. As a result, California's farm-worker community contains a substantial and growing number of undocumented migrants and immigrants. Because many farm workers in California lead unconventional lives by, among other circumstances, incessantly changing jobs and addresses, maintaining migratory practices, being undocumented and/or harboring the undocumented, and crowding into unusual housing arrangements, they represent a population that challenges conventional data gathering procedures and, moreover, that eludes both efforts and methods specifically designed to identify and enumerate them (Gabbard, Kissam and Martin, 1993). Yet, their growing numbers, needs,

and problems require that accurate information be collected about them in order to, among other things, design and implement appropriate public policy.

This paper focuses attention on one California location, the Santa Maria Valley, where the above-mentioned farm intensification process has taken place and where, as a result, immigrant and migrant farm workers gather to tend and harvest premium fruit and vegetable crops.

Although the Santa Maria Valley cannot claim to be fully representative of California's very diverse agricultural economy, it does serve to highlight some of the major social, economic, and demographic events which are rapidly overtaking the state. The Santa Maria Valley, moreover, is an important point in the itinerary followed by migrant farm workers in their annual trek for farm jobs on the west coast, as well as a preferred site for permanent settlement. Consequently, it offers an excellent opportunity to observe both migrant and immigrant populations, and their interactions.

The examination of the Santa Maria Valley and its burgeoning farm-worker community, therefore, allows us to glimpse and garner intelligence on the demographics of contemporary rural/agricultural California. This paper allots special attention to several matters which are germane to the issues in question:

- (1) It examines the forces that have impelled agricultural change in the valley by focusing attention on the crops and production cycles which, ultimately, are responsible for stimulating both immigration and migration.
- (2) It enumerates and characterizes the valley's current farm-working population, including immigrants and migrants, and emphasizes attention on itinerant laborers with the purpose of distinguishing and describing basic types and behaviors.
- (3) Finally, it describes migrant farm worker behavior, as observed during the 1993 agricultural campaign, with the purpose of responding to queries raised by the Center for Survey Methods Research, Bureau of the Census (Salo, n.d.).

Much of the information included in this paper regarding agriculture and farm employment is derived from ongoing long-term, in situ ethnographic field research conducted in the area under the auspices of the Center for Chicano Studies, University of California Santa Barbara. Data on current migrant-farm-worker behavior was elicited in 1993 through interviews specifically designed to capture information for the above-mentioned Center for Survey Methods Research to enable the Census Bureau to more accurately enumerate migrant workers and to suggest

alternative enumeration strategies. The appendix to this report describes the research methodology used to gather the information discussed here.

Santa Maria Valley Agriculture and Farm Employment

Santa Maria is a rich, alluvial coastal valley located in the northwestern corner of Santa Barbara County, some 160 miles north of Los Angeles. The 260-square-mile area is endowed with excellent natural conditions which, reinforced with a substantial man-made farming infrastructure, yields a bounty of crops year round. In recent years most of the available farmland has been conditioned to raise a variety of fruits and vegetables, and a plethora of cooling plants, storage facilities, shipping depots, and crop-processing installations have been erected throughout the valley to handle the crops. Farm employment has, consequently, boomed. Table 1 and Figure 1 evidence how farm employment has grown incessantly, almost exponentially, since 1985, doubling numbers for the peak spring and summer employment seasons and growing by at least one-half for the slower winter months.

The rapid, unprecedented growth of the Hispanic population reported for two of the valley's principal population centers reflects, in great measure, the booming nature of agriculture: The cities of Santa Maria and Guadalupe are, respectively, a hub of agroindustrial activity and a farm worker community. Santa Maria's overall population, for example, grew from 39,685 to 61,284, by 54.4 percent during the 1980-1990 intercensus period. A substantial part of this growth, almost 70 percent, is attributable to Hispanics, who increased in number from 13,281 to 28,014 in the same period of time. Meanwhile, the City of Guadalupe's 4,546 Hispanics accounted for 83 percent of the city's 1990 population and were, moreover, responsible for all the city's reported growth between 1980-1990. Many of the valley's new inhabitants were, in effect, enticed to settle by the new jobs created by agriculture and related businesses.

The valley always has been an important agricultural employer. In the past, however, most farm workers remained in the area only while jobs were available and quickly moved on to other locations as soon as work was completed (Garcia, 1992; Palerm 1993). As recently as the 1960s, the valley's principal crop (sugar beets) employed a large number of workers but only during relatively short periods of time, to thin and harvest in the spring and fall respectively. Ernesto Galarza describes the valley in the 1950s as a place which relied heavily on bracero labor; up to 30% of all hired workers were actually contracted in Mexico (1978:87).

Until 1964, when the Bracero Program was cancelled, farm workers were not encouraged to settle in the area but, as a matter of course, were asked to return to participate in the forthcoming campaign (Palerm, 1993:87). In the early 1970s, however, many of the valley's

traditional field crops, including sugar beets, were replaced by more valuable fruit and vegetable crops which not only required a larger number of workers to plant, till, and harvest but also expanded employment seasons considerably. As a result, migrants were for the first time enabled and even encouraged to settle in the valley to provide a constant, stable, and reliable labor supply. At the same time, the flow of migrants increased to satisfy enlarged seasonal demands (Palerm, 1993:33).

Elsewhere we have documented how, when, and to what extent traditional field crops and livestock were overtaken and displaced by specialty fruit and vegetable crops (Palerm, 1991). It is sufficient, for the purpose of this paper, to indicate that while in 1960 more than one-half of Santa Barbara County's 67 million dollar farm value was generated by a variety of field crop and livestock products, its import dwindled to a mere 11 percent in 1992. Meanwhile, the combined value of fruits and vegetables grew from 40 percent in 1960 to 75 percent of the county's current one-half billion dollar farm value (Palerm 1991:46; Gilman, 1993). In 1960 cattle, lemons, and milk were listed as the county's top value crops. Today, broccoli, strawberries, and lettuce have replaced them. Finally, while 61,000 acres of the county's farmland devoted to field crops in 1960 has diminished to 20,000, fruit and vegetable acreage expanded from 40,000 to nearly 90,000 acres.

Although an array of 75 different commodities occupy the valley's fruit and vegetable acreage, only a handful are actually responsible for the transformation of local agriculture. These crops are broccoli, strawberry, lettuce, cauliflower, wine grapes, and celery. In 1992 they yielded 79 percent of the county's fruit and vegetable value and 54 percent of the county's total farm value. Together they occupy 62,763 acresó56 percentóof the county's cropland and engage nearly 80 percent of all the farm labor employed in the county (Palerm, n.d.). These six principal fruit and vegetable crops, consequently, determine and define the valley's farm labor market. Among other things, their acreage and production requirements establish the number of workers that will be needed at any given moment and clearly demarcate when and for how long farm workers will be employed. Following, we describe each of these crops in an effort to assess the employment patterns and peculiarities of the valley.

Broccoli

Occupying 24,757 acres of the valley's prime farmland and yielding a gross value of \$68,588,744, broccoli became Santa Barbara's number one value crop in 1992 (Gilman, 1993:8), deposing strawberries which had enjoyed the top ranking since at least 1987. Although broccoli is produced for both fresh produce and frozen vegetable markets, local growers strive to supply the former which offers a premium price for premium products. The green vegetable has thrived because of changing dietary practices of the American consumer; acreage, in fact, has doubled

since 1975. Varietal and farming improvements, moreover, have boosted yields from 4,300 pounds per acre in 1979 to nearly 15,000 in 1989 (Peoples' Self-Help, 1990). A result of both acreage expansion and improved yields is that broccoli labor requirements have increased considerably.

Experts report that broccoli farming consumes some 80 man-hours per acre (Kumar et al., 1978; Mamer and Wilkie, 1990), one-half of them for harvest activities alone. Because it is possible to farm broccoli year-round in the Santa Maria Valley and because plantings are strategically staggered, harvest is almost continuous. Specialized broccoli harvesters, consequently, enjoy a reliable but intermittent source of employment. Although machines typically accompany harvesters in the field, the reaping of the crop continues to be done by hand. This is essential to maintain a high-quality product. The purpose of the machines is actually to enable field packing rather than to ease or replace harvest labor.

We estimate that currently Santa Maria broccoli acreage requires nearly 2 million man-hours to sow, till, harvest and pack; occupying, in varying degrees, some 2,000 individual workers in the course of the year. This labor requirement is approximately 25 percent greater than in 1990, when broccoli acreage was smaller. Based on field observations, we also estimate that, at most, one-fifth of these workers (mostly machine operators, irrigators, and crew foremen) enjoy regular year-round employment, while three-fifths (mostly harvesters and packers) enjoy regular but intermittent employment. The remaining one-fifth are employed only occasionally to perform odd, seasonal and sporadic part-time jobs such as hoeing and weeding.

Given its production and employment characteristics, broccoli relies heavily on a local, stabilized, and skilled labor force which has settled permanently in the area. Even the sporadic, odd, part-time jobs are filled by locals, usually by family (spouses and children) of regular employees. In effect, a recent review of Santa Maria broccoli crews did not reveal a single non-resident seasonal migrant.

Strawberries

From 1985 to 1991 strawberries were the uncontested top-value farm commodity of Santa Barbara County. Its current spread of 5,280 acres is located entirely in the Santa Maria Valley. In both 1989 and 1991 strawberry value surpassed the \$80 million mark, accounting for nearly 18 percent of the county's total farm value extracted from only 4 percent of the farmland. Although strawberry acreage increased in 1992, crop value fell precipitously from \$82.3 to \$56.7 million owing to a dreadful combination of low market prices and poor climatic conditions which affected both crop quality and yields (Gilman, 1993:3). Much of the acreage currently devoted to strawberries is converted irrigated pasture which not long ago supplied a now-defunct dairy industry. County records indicate that strawberry acreage never exceeded 1000 acres

before 1982. Since then, it has become the county's boom crop and the county's principal agricultural employer.

Farming and varietal improvements have increased crop yields from under 10 to over 30 tons per acre. Moreover, the introduction of day-neutral varieties, such as Selva, are extending the fruit-bearing season from 5 to 9 months of the year. And to top it all, the recent development of genetically altered varieties promises to offer a frost-resistant strawberry plant capable of producing fruit year-round. Although cutting-edge science and technology have in a short time transformed strawberry farming, the delicate fruit continues to be harvested by hand, consuming an inordinate amount of labor.

Wilkie and Mamer report 1,612 man-hours/acre used by Ventura County farms to produce strawberries (1990: 189-190). Given the proximity of the two locations, it is safe to assume that Santa Maria strawberry farms have similar labor needs. Nonetheless, calculations based on field observations conducted in Santa Maria reveal that as many as 2,150 man-hours/acre may be necessary (Palerm, 1991:75). Local growers, in effect, judge they need 1.5 to 2 full time workers per strawberry acre throughout the five-month peak harvest season. This calculation elicits a range of 1,200-1,600 man-hours/acre for harvest activities alone. Using the more conservative figure proposed by Wilkie and Mamer, we estimate that Santa Maria strawberry farms annually consume some 8.5 million man-hours; that's more than all Santa Maria vegetable acreage combined.

Considering that most strawberry acreage is relatively recent, most of the employment it has occasioned in the Santa Maria Valley represents a myriad of new farm jobs. Strawberries are hand planted from late October to early December, after a meticulous and costly soil preparation, and hand-harvested from as early as February to as late as October. The peak harvest, however, occurs from March/April through July/August. Most of the spring-to-early-summer yield supplies domestic and foreign fresh-produce markets but, as the summer sets in, a larger proportion of the harvest is destined to local processing plants. Employment is, therefore, highly seasonal.

The 8.5 million man-hours devoured by local strawberries would represent nearly 4,000 full-time jobs if employment were distributed evenly throughout the year. In actuality Santa Maria strawberry farms employ as many as 10,000 individual workers, many of them intermittently, during a four-to-five month period and some during even shorter periods of time. Based on field observations, we estimate that about one-tenth of the work force enjoys nearly year-round employment while the remaining nine-tenths are seasonal employees.

A local fifty-eight acre strawberry farm, for example, maintains a permanent skeleton crew of some ten full-time workers, keeps on standby a similar number of regular employees who enjoy year-round occasional jobs, and hires as many as one hundred seasonal harvesters in a

good production year. The hiring of seasonal harvesters builds up quickly following the opening of the season, peaks in June, and gradually tapers soon afterwards (Figure 2). The pronounced fluctuation of the county's 1990 farm employment curve (Figure 1) is, in great measure, accentuated by strawberry's seasonality.

Considering their production and employment circumstances, Santa Maria strawberry farms rely heavily on non-resident migrant workers who settle in the valley only while harvest activities are underway. Many expert pickers, moreover, only stay during the peak, high-yielding periods when good earnings can be obtained through piece-rate wages, but quickly move on to other berry-producing locations in California and Oregon when yields begin to fall.

Strawberry crew surveys conducted in April—just when the 1993 harvest season was beginning to unfold in the aforementioned fifty-eight acre farm—revealed that only 19 of 78 employees, 24 percent, were local permanent residents; while the remaining 76 percent were migrants, most of them with a permanent home base deep in the interior of rural Mexico. Further scrutiny of the 59 migrants, moreover, revealed that 26 of them, 44 percent, were regular return migrants who had been employed by Santa Maria berry farms during the past three seasons; while the remaining 56 percent were there for the first time.

Despite strawberry farming's unquestionable dependence upon migrant, sojourn labor, the remarkable proliferation of strawberry plantations also favored, in some measure, the settlement of former migrant farm workers. For instance, some one thousand regular, stable jobs have been created for those who work the strawberry harvest as well as the winter planting activities. Other settled strawberry pickers obtain local off-season jobs in other crops, a common practice being, for example, to become employed in the wine grape harvest during the autumn and tending vineyards in the winter. Another circumstance contributing to the settlement of strawberry workers in the Santa Maria Valley was the establishment of special sharecropping arrangements with local growers. This practice was subsequently banned by a State Supreme Court ruling in 1989 but only after a considerable number of immigrant families had settled in the area. All in all, assuming that our 1993 harvest crew samples are accurate, nearly one-fourth of the valley's 10,000-strong strawberry labor force has settled permanently in the Santa Maria Valley.

Lettuce

Generating \$45 million in 1992, head and leaf lettuce is Santa Barbara County's third value crop (Gilman, 1993). Most of the current 11,553 acres devoted to lettuce also is located in the Santa Maria Valley. After experiencing an impressive bonanza in the 1960s, acreage has remained relatively stable since the mid 1970s (Palerm, 1991:68), at least until recently when it rebounded by adding 34 percent more acreage between 1989 and 1992. Although head lettuce (the iceberg

variety) accounts for most of the lettuce acreage and value, the leaf variety seems to be making significant headway. Like broccoli, lettuce enjoys a vigorous consumer demand as a staple for salads stocked by fresh produce markets and as an indispensable garnish used by most fast-food outlets.

Lettuce requires 143.8 man-hours per acre to produce, 96 of them just to harvest (Wilkie and Mamer, 1990: 118-124). Like other important vegetable crops, farming and varietal improvements have increased lettuce yields significantly while labor use has remained largely unchanged (Peoples' Self-Help, 1990). Lettuce is, therefore, another heavy consumer of labor. Based on available man-hour/acre estimates, Santa Maria lettuce growers require 1.7 million man-hours to plant, cultivate, harvest and field pack, two-thirds of which is used to execute the last two tasks alone.

Lettuce, like other vegetable crops, has an extended but well-defined harvest season. In the Santa Maria Valley plantings are staggered from January through the summer and, as a result, lettuce is harvested continuously from early spring to late autumn. Harvest activities, in effect, begin in March, build up to a peak in May through September, and subsequently slow down to close in November. Planting, thinning, and weeding crews are regularly but intermittently employed from January to August, while specialized lettuce harvest crews are employed from March through November.

A defining property of the lettuce industry in California is that it has come to be almost entirely monopolized by a handful of large corporations such as, for example, Bruce Church and Dole (Friedland et al., 1981; Thomas, 1985). These corporations own and/or manage lettuce production sites throughout California and Arizona with the specific purpose of supplying nationwide markets year-round. Coastal sites, like Santa Maria, are designed to supply summer demand while interior sites, like Imperial Valley, are designed to satisfy winter markets.

Lettuce companies have also established a highly specialized harvest labor force, lechugeros, that moves about the extended lettuce geography reaping and packing the vegetable. Although some lechugeros have settled permanently in the Santa Maria Valley, most maintain a home base in the United States-Mexico border area (e.g., Calexico, El Centro, Yuma, Mexicali, and San Luis Rio Colorado), near winter employment sites and in communities where the cost of living, especially housing, is comparatively more affordable.

Overall, Santa Maria lettuce farms employ some 1,500 workers during a large part of the year. About one-third are locals who belong to planting-thinning-weeding crews, as well as machine operators and irrigators. The remaining workers, about one thousand, are lechugero migrants from the border area who remain in the valley only while the lettuce harvest is underway but who enjoy near year-round employment by moving from one company production site to another. Lettuce harvest crew surveys conducted in 1993 confirmed that few local

residents were included in them and that most of the lechuguero migrants, 90 percent, had been employed by the same employer during, at least, the past three years. Although highly mobile, lechugeros represent a much more stable labor force than, for example, migrant strawberry pickers.

Cauliflower

Santa Barbara County's fourth value crop is cauliflower. It engaged 8,920 acres of the Santa Maria Valley's prime farmland and generated \$29.5 million in 1992 (Gilman, 1993:1). Like other crops described above, cauliflower boomed from under 1,500 acres in the late 1970s to nearly 9,000 today (Palerm, 1991:71). Crop prolificacy also has risen from under 9,000 pounds per acre to 15,000 in the same period of time (Peoples' Self-Help, 1990).

As the close relative to broccoli that it is, cauliflower presents similar production and employment characteristics. It is, for example, farmed nearly year round and, as a result, offers a relatively steady source of employment to a number of local farm workers. Demanding 96.5 man-hours per acre to produce (Kumar, 1978:192), Santa Maria's current cauliflower acreage consumes 860,000 man-hours. Two-thirds of the labor requirement is used to harvest and field pack, and the remainder to plant and cultivate. We estimate that some 800 workers are employed regularly but intermittently by local cauliflower farms to complete these tasks. Harvest crews surveyed in 1993 revealed that all employees, like broccoli crews, are local permanent residents. Weeding and thinning crews, moreover, revealed that they are, in great measure, made up by the same local workers who execute similar tasks in the broccoli fields.

Grapes

Wine grapes are Santa Barbara County's sixth value crop. Vineyards issued \$28 million in 1992 and occupied 9,532 acres (Gilman, 1993:3). Prior to 1970 there were no commercial vineyards in Santa Barbara but soon afterwards the industry took-off owing to growing national demand for wine, especially for the premium varieties Santa Barbara is capable of producing (Haley, 1989). In 1975 some 7,000 acres had been appropriated by the crop and by the early 1980s growth had leveled to the current acreage (Palerm, 1991:65). Although many of Santa Barbara's vineyards are located in the neighboring Santa Ynes Valley, much of the new growth has occupied the hills and slopes that surround the Santa Maria Valley. Moreover, much of the labor employed by the county's vineyards finds temporary or permanent lodging in the Santa Maria area.

Wine grapes require approximately 110 man-hours per acre to cultivate and harvest (Haley, 1989). Much of the vineyard work is spread throughout the year and, consequently,

requires only small crews to, among other things, prune the vines, till the soil, inspect and repair trellises and drip irrigation lines, fertilize and spray, and complete pre-harvest leaf removal. Harvest, in contrast, claims one-half of the annual labor requirement during a brief and intense moment in the early fall.

Because Santa Barbara wine grapes are used to craft premium wines, the fruit must be picked in its prime, that is, during a short, fleeting window of opportunity when a large number of workers must labor in a frenzy to gather the grapes and transport them to the wineries for processing. Although mechanical means are currently available to harvest wine grapes and, in fact, most Santa Barbara vineyards have been designed and trellised with this in mind, growers continue to hand-harvest their crops in order to ensure the highest possible quality product.

Santa Barbara vineyard acreage, according to available man-hour/acre computations, requires some one million man-hours to cultivate and harvest. We estimate that three hundred workers, employed intermittently during the course of the year, supply the labor needed to complete all the production tasks with the exception of harvest. The grape harvest itself employs as many as three thousand workers during approximately twenty to thirty days. All non-harvest employees are local resident workers, and many combine intermittent employment in the vineyards with employment in other local crops. Harvest crews, in contrast, are made up by both local and migrant workers. Our 1993 survey of grape harvest crews, in effect, revealed a prevalence of transient migrants with a smattering of local residents, including many who had participated in other valley crops, especially strawberries, during the course of the summer.

Celery

With just 2,724 acres, celery yielded an impressive \$16.9 million in 1992, making it the county's seventh value crop (Gilman, 1993:1). Celery acreage and value are both down relative to 1989 production when 3,478 acres yielded \$23.6 million. Nonetheless, it represents another vegetable crop with a healthy consumer demand, especially that which is designed to supply specialty markets. Most Santa Maria celery is, in effect, grown for premium markets and, as a result, is pampered during cultivation and then hand harvested.

Celery is essentially a cool-temperature crop which thrives in the temperate winters of the California coast. In the Santa Maria Valley, plantings are established during the late summer and early autumn to be harvested from November to July when the long summer days and increased temperatures impel the plant to bolt. The cultivation of celery actually begins in nurseries where seedlings are started and prepared for transplantation to the fields. Growers stagger transplanting activities in a way that will assure an extended but steady harvest.

Although mechanical planters are normally used, work crews are also needed to feed and assist the machine, and to correct frequent planter errors. When the ground is too wet, owing to

rain or irrigation, the use of the mechanical planter must be forgone altogether. Weeding is intense and harvest constitutes a major enterprise. Depending on whether mechanical planters are used or not, celery requires from 240 to 320 man-hours per acre to produce, much of it, about 150, during the harvest alone (Kumar, 1978; Palerm 1991:75).

The celery harvest is arduous, back-breaking and, considering the presence of a large number of workers swinging razor sharp instruments in a fairly restricted space, it is deemed to be quite dangerous indeed. Harvest crews, as a result, are made up almost exclusively of young men.

Based on available man-hour/acre computations, Santa Maria celery acreage requires some 800,000 man-hours to produce. Field observations, moreover, allow us to estimate that harvest crews employ about 400 workers who enjoy a seven-to-eight-month season of reliable but intermittent employment. Transplanting and farming crews employ about 175 workers on a fairly regular schedule during at least six months of the year, while nursery work employs some 50 workers year-round.

The celery industry, like lettuce, has established specialized harvest crews that move about California coastal celery-growing sites (between Ventura and Monterey counties). In contrast with the lechugeros who tend to live in the United States-Mexico border area and enjoy a relatively stable relationship with their employers, celery cutters are typically migrants from the interior of Mexico and suffer high attrition rates. The celery harvest offers young men an excellent opportunity to make good money, but few workers remain in its employment for more than a few years. Nursery employees and celery cultivators (transplanters, weeders, irrigators, etc.), on the other hand, are mostly derived from the local, settled farm-working population and enjoy stable employment.

Summary and Conclusions

The six fruit and vegetable crops described above create a 15 million man-hour labor demand in the Santa Maria Valley. However, in order to correctly estimate the valley's entire fruit and vegetable labor demand it is necessary to make two additional adjustments. First, a myriad of other labor-intensive vegetable crops (e.g., asparagus, cabbage, peas, cilantro, artichokes) which occupied 11,230 valley acres and generated \$41 million in 1992, augment the valley's labor demand by at least 1.5 million man-hours. Second, because one-fifth of the Santa Maria Valley belongs to neighboring San Luis Obispo County and we have thus far based our estimates on crop data from Santa Barbara County alone, it is necessary to augment our first estimate by twenty percent. With these two adjustments, the valley's fruit and vegetable labor demand ascends to nearly 20 million man-hours.

If the aforementioned labor demand were to be evenly distributed throughout the year, it would create approximately 9,500 full-time jobs. In actuality, because farm employment is not uniformly distributed, Santa Maria's fruit and vegetable farms employ as many as 23,000 different workers during the course of the year. Controlled field observations and work crew interviews conducted in 1993 suggest that in the Santa Maria Valley: (1) Only ten percent of all farm employees enjoy full-time, year-round employment; (2) twenty percent experience regular but intermittent employment during eight to ten months of the year; (3) forty-five percent attain continuous employment during an extended season of four to six months and, hence, encounter long periods of unemployment; and (4) twenty-five percent are employed only during a short, intense work season of two months or less.

Finally, also based on controlled field observations and work crew interviews, we conclude that forty-three percent of Santa Maria's 23,000 strong fruit and vegetable work force are immigrants who have established themselves permanently in the valley with their families. The remaining fifty-seven percent (13,000) are migrants who maintain a home base away from Santa Maria in either the border area or in the interior of Mexico.

It is important to note that the number and mix of immigrant and migrant farm workers in the Santa Maria Valley has been in constant flux ever since we initiated our observations there several years ago. This is, in part, the logical outcome of an agricultural economy undergoing rapid, profound change. Two other conflicting forces, however, have also exerted considerable influence over this affair in recent times: On one hand, IRCA's special provisions for farm workers which, to be sure, invited many former migrants and their dependents to settle down permanently in the valley, have contributed to increase the count of both authorized and unauthorized immigrants, and, on the other, the increasing prominence and rapid proliferation of farm labor contractors who, by preferring to hire new sojourners over established immigrants, stimulate migratory practices while displacing immigrants from their jobs. Nevertheless, in light of 1993 observations, the pulse of the valley is for both immigration and migration to continue growing unabated, probably at a rate which exceeds the creation of new farm jobs.

Regarding the April 1 date when the Census Bureau undertakes its decennial count of population, it is important to note that although most immigrants are in the valley at that time, only one-half or less of the migrants are actually there. By early April the strawberry and lettuce harvest is just beginning to build-up steam but is not yet in full swing. Moreover, having just arrived, most migrants are still in the process of making their living arrangements for the season, creating with their great numbers havoc in the local housing situation and probably producing the worst possible conditions for the completion of a sound and accurate population count. Finally, in April the wine grape harvest is still six months away and, as a result, most of the migrant workers who participate in it will be missed as well.

Immigrant and Migrant Farm Workers in the Santa Maria Valley

According to estimates made in the previous section, some 23,000 farm workers become involved in the valley's agricultural endeavors during the course of the year. A little over one-half of them are migrants who remain in the valley only as long as employment is available, some for just a few weeks, others for as long as eight to ten consecutive months. The other half, more than 10,000, have established themselves permanently in the valley with their families, accounting for as many as one-third of the valley's inhabitants.

The immigrant and migrant farm-working population of Santa Maria, moreover, continues to grow owing to: (a) the farm employment opportunities the valley continues to offer; (b) the dynamics of migration itself as settled migrants draw family and friends from their home communities in Mexico; and (c) ongoing IRCA reverberations. In view of prevailing conditions and observable behaviors, there is no reason to assume that the flow will cease or diminish any time soon despite the fact that the valley already suffers a considerable labor oversupply. Farm workers in the Santa Maria Valley are not an homogeneous lot. The stereotypical view that once served to describe the California farm worker as a nomadic, young, single male campesino (peasant) from Mexico is of little value today. Among the valley's numerous farm workers are young and old, male and female (in fact, as many as 30 percent of the valley's farm laborers are women), single and married. Some, as we have seen, are settled while others move about. They are, in effect, a broad array of different people displaying diverse and distinct behaviors.

Farm workers continue to come from traditional sending communities located primarily in the Mexican central states of, for example, Guanajuato, Jalisco, Michoacan and Zacatecas, but also from new sending communities located in the southern states of, for example, Oaxaca and Guerrero; and some are from as far south as Central America, especially from Guatemala. Among work crews in the Santa Maria Valley we find mestizo campesinos, Mixtec and Zapotec Indians, and Mexican urbanites from, for example, Mexico City, Guadalajara, and Monterrey. We have, to be sure, identified school teachers and university graduates laboring in the fields.

An examination of the valley's agricultural labor force from the perspective of crops, as we did above, provides vital information regarding the number and flow of workers, but it reveals little about the labor force itself. To capture meaningful information on farm workers that will enable the observer to recognize behavioral regularities, educe patterns, and formulate typologies, it is necessary to observe and query the farm worker directly. We propose to

accomplish this here by focusing attention on three fundamental circumstances regarding the farm worker's life: where does s/he keep a permanent home; what is the nature of the family that inhabits that home; and what role does s/he play in the household.

Answers to these three queries elicited from farm workers observed and interviewed in the valley's fruit and vegetable fields during the 1993 campaign, allow us to distinguish five distinct types of farm workers and farm worker families from the vast and increasingly diverse universe of farm workers that people the Santa Maria Valley: (1) the immigrant worker who has settled permanently in the valley and severed most economic ties and responsibilities with the home community in Mexico; (2) the binational worker who maintains two functional homes, one on each side of the border, and who constantly moves back and forth between them; (3) the Mexico-based migrant who periodically leaves home and family in search of employment and wages; (4) the border migrant/commuter who, using a home base in the United States-Mexico border area, accesses an assortment of job opportunities in both countries; and (5) the seemingly single, unattached, "homeless" migrant who spontaneously and unsolicited appears in the valley looking for work.

A review of the circumstances that govern the lives of these farm workers, aside from providing interesting insights and improved understanding, allows us to identify and highlight some of the challenges and impediments that exist to correctly detect and enumerate them by, among other interested parties, the Census Bureau.

Before undertaking the description and examination of the five categories of farm workers enumerated above, it is necessary to make two clarifications regarding limitations of the proposed typology. First, although the five types may suggest the logical stages of a migration-immigration continuum, they are most definitely not. Each, in fact, represents an outcome in itself; an arrangement arrived at by design on the part of the farm worker and not a step in a process leading to settlement. Second, the described outcomes are at best temporary, passing adjustments to an ever-changing and highly unpredictable environment, one which is not only the product of agriculture's inherent uncertainties but which is also encumbered by recent, momentous developments. Among those developments responsible for propelling change to a state of almost perpetual, unrelenting flux, to mention only the most obvious, are the rapid transformation of California agriculture and its employment practices, the never-ending changes to immigration laws and vacillating if not contradictory enforcement measures, and the changing conditions in Mexico and in the farm workers' home communities which can either inhibit or foster migratory practices. It would be venturesome and inappropriate, therefore, to claim that the proposed characterizations represent more than current adaptations to current conditions which may change inadvertently and, once again, force farm workers and farm employers to hastily rethink and readjust their current *modi operandi*.

Immigrant Workers

As noted above, over 10,000 immigrant farm workers have settled in the Santa Maria Valley. Many have done it permanently, which means they have relinquished their place and position in the home community, severed economic ties and responsibilities with the home-based family, and transplanted dependents (at least spouse and children) to the valley. Immigrant farm workers often travel to Mexico to visit family and friends, sometimes on a regular annual schedule, but their roots are now fixed in Santa Maria. One way of ascertaining that permanent settlement has in effect taken place is when the producer and consumer components of a given domestic group (family) are living (reproducing) together in the valley on the basis of locally derived income and wages.

The vast majority of Santa Maria's immigrant families (65 percent) come from just three states located in the central part of Mexico: Michoacan, Jalisco, and Guanajuato. The others are from northern border states such as Durango and Chihuahua (20 percent), Mexico City (10 percent), and the southern state of Oaxaca (5 percent).

Starting in 1964, a succession of at least three immigration waves populated the valley with its current mass of settled farm workers. Although prior to 1964 (the year when the Bracero Program was cancelled) some farm workers had already settled in the valley forming small, marginal colonias or barrios within the towns of Guadalupe and Santa Maria, it was the elimination of the program that actually precipitated the first important movement of ex-braceros towards settlement. This action was enthusiastically urged and even abetted by local growers who feared they would otherwise lose access to their labor supply and, especially, their most skilled, trusted, and reliable workers.

A second wave in 1975-1985 accompanied the expansion of high-value, labor-intensive, specialty crops which, as already discussed, created a bounty of new farm jobs with longer employment seasons. Growers once again encouraged and helped migrant employees to settle in order to ensure the presence and availability of a stable, reliable labor supply to tend valuable and highly perishable farm commodities.

The third and most recent wave was prompted by IRCA and its special provisions for farm workers which were designed specifically to accommodate the interests and needs of the agricultural industry. IRCA accomplished two things in the Santa Maria Valley: On one hand, it created a unique opportunity for many settled yet undocumented/unauthorized immigrants from earlier waves to legalize; and, on the other, it encouraged a new cohort of migrant farm workers to emulate the experience of preceding generations by also settling down.

Surveys conducted in 1991 and 1993 among fruit and vegetable workers in the valley reveal that immigrants enjoy the best farm jobs, either as skilled full-time employees (e.g., machine operators, field managers, labor foremen, irrigators) or in vegetable harvest crews which offer nearly year-round intermittent jobs. In fact, 74 percent of all immigrant farm workers are employed by the vegetable industry. Typically, for example, a broccoli cutter earns \$1,000 to \$1,200 monthly during at least nine to ten months of the year; while, in contrast, a strawberry picker earns \$500 to \$800 monthly during, at best, five to six months of the year. Vegetable employment and wages, in short, allow workers to minimally provide for a family living in the valley, while strawberry employment and wages do not.

Immigrant families, moreover, are typically large and contain multiple wage earners who can assemble a sizable annual income by sharing resources. A preferred arrangement is to place the household head in year-round employment (e.g., in a broccoli harvest crew) while the spouse and other family members find occasional part-time jobs weeding and thinning vegetable crops and perhaps harvesting strawberries in the spring and summer. An immigrant family who cannot place one or more workers in year-round or near year-round jobs, in contrast, must deploy all its available workers, including children, during the short but intense strawberry harvest to amass sufficient income to carry them over into the next employment season. Valley immigrants only rarely leave the area to seek employment elsewhere during both expected and unexpected periods of high unemployment and underemployment but rely on unemployment insurance and occasional odd jobs to tie them over.

Immigrant families are not only large, but nearly 45 percent of them are extended; that is, they are made up of one nuclear family (one couple with children) and at least one arrimado (houseguest)-usually a live-in relative. Many extended groups include two or more nuclear families with arrimados who share income, expenses, and household responsibilities. About one-third of the settled families, particularly those who arrived with the first waves, own their homes, while one-half of the families who rent have lived at the same address for at least three years. It is, therefore, a relatively stable population. Newcomers, those who arrived with the last wave, experience a more precarious existence and, as a result, frequently change domicile. There is, for instance, an observable annual concentration-dispersion cycle which corresponds with periods of high and low employment; that is, in bad times several families will converge, actually crowd, into a shared apartment, dispersing into separate homes as soon as better times return.

Immigrant homes, finally, contain a considerable number of "visitors" who are either family and friends from the home community in Mexico or paying boarders. Settled families, in fact, represent a sort of haven for seasonal migrants, especially kin, who receive shelter and assistance while they remain in the valley during their annual trek from Mexico. On the other

hand, by letting rooms, converted garages and other home facilities to non-kin during the farm employment peaks, immigrant families earn additional revenue with which to supplement an always insufficient farm income.

Settled immigrant families, in contrast with all other farm workers, lead relatively stable existences in the valley. They, in fact, enjoy a greater degree of employment security and many have set up permanent residences. As such, it would appear that settled families should not pose serious difficulties or obstacles to enumeration efforts. To accept this as a sound conclusion, however, would be a grave mistake.

Settled families, to begin, harbor a significant number of unauthorized/undocumented immigrants who need to be protected from detection. Although IRCA amnesty provisions allowed many long-term undocumented immigrants to legalize, it forced many others who did not qualify for any of the programs, who were unable to assemble the required documents, or who just simply did not understand the new law to remain undocumented. IRCA also enticed many regular sojourners who already spent a great part of the year in the Santa Maria Valley to settle there permanently and to subsequently transplant their families from Mexico. Although these recent settlers received authorization to remain in the United States thanks to the Special Agricultural Workers (SAW) program, the imported dependents (mostly women and children, and some elderly) have not been authorized. Finally, as indicated above, settled families habitually provide kin with sanctuary during their seasonal sojourn from Mexico to the valley and, hence, add to the growing number of undocumented aliens to be found in their midst. Because many of the undocumented are close kin, immigrant families will not readily or voluntarily reveal their presence to anyone; they are, rather, quite determined to shield them from detection and possible deportation.

It is necessary to note that immigrants' dogged determination to conceal undocumented relatives, even from innocuous surveyors, increases exponentially as the anti-immigrant sentiment we have witnessed in recent times swells. Local, state, and federal "get tough with immigrants" measures which, among other results, propose to bar children from school, deprive workers from access to basic health services, and rescind citizenship from the children of undocumented parents born in the United States are all unmistakable signs that the risk factor of detection is greater than ever. Cautious suspicion, as a result, is heightened to near paranoia when it is rumored that, among others, teachers, doctors, social workers, and "good" citizens at large will be asked, if not required, to report the presence of undocumented aliens to proper government authorities.

Finally, because many immigrant families lease parts of their dwellings to non-kin sojourners, violating in the process local housing ordinances and rental agreements, they are not inclined to reveal or report their presence to anyone. Moreover, they can become particularly

apprehensive about this matter because boarders provide an income that probably goes unreported to the Internal Revenue Service.

Binational Workers

Easy to confuse with the growing ranks of settled immigrant families described above are some 3,000 workers who, although they appear to have settled permanently in the Santa Maria Valley, really have not. That is, though they display evidence of settlement by having both consumers and producers living in stable and well-organized domiciles in the valley, they also continue to maintain a principal place of residence in the Mexican home community. Some actually own and maintain two homes, one in Mexico and the other in the Santa Maria Valley. Members of these families move back and forth between the two homes incessantly, some at regular intervals following, for example, farm employment cycles and school schedules, and others seemingly at random.

Binational workers, to be sure, own property in their home communities (i.e., farmland, homes, businesses, and livestock) and view Mexico as their principal residence even when most household members may be in Santa Maria during the greater part of the year. Their domestic economy integrates resources and earnings on both sides of the border to, on one hand, support all family members and, on the other, to improve homes, farms, and businesses in Mexico. Typically, they save and accumulate earnings in Santa Maria to invest in Mexico in the hopes of developing a resource base that will eventually allow the family to live there permanently with security and in comfort. A few, however, are inadvertently becoming deeply rooted to Santa Maria and will likely end up forming part of the valley's burgeoning community of immigrant farm workers.

Most binational workers interviewed in 1991 and 1993 are from the same central states of Mexico where most of the immigrant settlers originate; only a few, 16 percent, are from the southern state of Oaxaca and none from the northern border states. Binational workers were at one time braceros who during the program years used earnings in California to assist their rural homes and families in Mexico. Even after the Bracero Program was cancelled, they continued to participate in the annual sojourn despite increased costs and risks brought about by the illegality of the practice. In fact, it is because travel and illegal border crossings became burdensome, expensive and risky that some ex-braceros who did not own farmland in Mexico decided to settle in the Santa Maria Valley with their families (the first immigration wave); in contrast, ex-braceros who did own farmland at home or had been awarded an ejido plot (land grant) by the government's land reform programs continued to migrate seasonally to California in search of earnings to improve their holdings in Mexico.

In the mid-to-late 70s, when high-value specialty crops took-off, migrant ex-braceros began to remain in the Santa Maria Valley during considerably longer periods of time—up to nine or ten months rather than the former three to five months. In fact, under favorable climatic conditions, it was not unusual for a closing farm season to nearly overlap with the opening of a new one, forcing migrant farm workers to shorten their visits home or forgo them altogether. The successful development of specialty crops also created more job opportunities which were quickly filled primarily by ex-bracero relatives, often by the grown children of ex-braceros themselves. Although all this was a boon to migrant workers' earning capacity, it also bore a painful hardship owing to difficult and prolonged family separations. Regularly employed migrant farm workers, as a result, began to establish temporary second homes in the valley to accommodate several related workers and to cut costs during the annual sojourn. They, moreover, transplanted other family members, mostly women, to provide a home environment and infrastructure, as well as to increase family wage earnings by placing them in occasional part-time farm jobs. Once installed in Santa Maria, children were also transported, among other reasons, to access better schools than those available to them in rural Mexico. An outcome of this behavior is the establishment of binational families who manage and share two sets of resources, one in each country, with members who shuttle back and forth between them with remarkable ease and frequency.

Surveys conducted in 1991 and 1993 reveal that binational workers, like settled immigrants, enjoy the valley's best farm jobs, especially the older more experienced workers who know the job market well and have developed good relations with local employers. Individual monthly earnings, as a result, range from \$1,000 to \$1,200. Although many are involved with vegetables, a sizeable number also are employed by strawberry farms as part of a core group of "privileged" workers who are the first to be hired when the harvest season begins in March/April and the last to be dismissed when the season ends in September/October. Binational families are large and complex. All of them, without exception, form extended family groups which operate as a single economic unit. Typically, they include three to six nuclear families, three to four distinct generations, and as many as 25 to 40 individuals, more than one-half of them being children under 15 years of age.

Binational families work in teams; while one part, usually the least productive, remains in Mexico managing the homestead and caring for both the very young and very old, the most productive members and some school-age children journey to Santa Maria for variable periods of time. During spring and summer a sizable number are employed in the valley but in the autumn, when farm jobs begin to taper, unemployed members immediately trek back home to assist in the corn harvest there and to help keep costs down in Santa Maria. In late November only a skeleton group remains in the valley, along with some school children, and by Christmas it is often

possible to find the whole extended family group gathered in Mexico for a brief, fleeting instant. Soon afterwards, however, workers begin to drift back. In February, the northward movement begins in earnest and by May all employable members are back in Santa Maria.

Binational families need to carefully and effectively coordinate the deployment and employment of their workers to ensure a maximization of the resources (labor) at their command. Because binational families place a large number of workers in the job market and, in the process, keep expenses down by maintaining a rural homestead in Mexico and temporary living quarters in Santa Maria, they are able to assemble a considerable family income even when individual wages are low or negligible. It is not common for binational workers to seek employment outside the Santa Maria Valley, away from their post; rather, they return to Mexico as soon as jobs become scarce.

Binational households in Santa Maria contain a surprisingly large number of legal, documented migrants. Many of the first-generation ex-braceros still carry and use the micas (I.D. cards) issued to them in the late 60s by INS to commute across the border; others have subsequently exchanged these micas for "green cards" and, in the process, become legal residents. Many of the undocumented, especially those who had evidence of employment, were able to legalize their status and obtain work authorization through IRCA's General Amnesty and Special Agricultural Workers (SAW) programs before the end of the 80s. The fact that so many workers are documented has not diminished their binational involvement; rather, documentation has just made it easier for them to shuttle between the Mexican homestead and the Santa Maria extension. Many, nonetheless, remain illegal. This is especially the case of women and children who did not qualify for the SAW program and, as a result, continue to cross the border clandestinely. It is not unusual for authorized workers to share their documents (green card, social security, and work authorization papers) with undocumented kin to facilitate border crossings and to seek employment.

The exact enumeration of binational migrants faces two inextricable complications: First, the extraordinary and often unpredictable mobility of household members may easily cause a house-to-house survey to elicit as few as 3 to 5 members one day and as many as 18 to 20 on another. Second, binational households contain a substantial number of undocumented/unauthorized residents, especially women and children, who need to be concealed and protected. Binational migrants are, to say the least, always apprehensive about providing correct, complete, and reliable information regarding the size and composition of their households.

Migrant Workers

Not to be mistaken with the above-described binational workers are the approximately six to seven thousand migrants who regularly sojourn to the Santa Maria Valley to harvest fruit and vegetable crops. These are migrant workers who are firmly rooted to their Mexican home communities, where they maintain a permanent domicile, but who regularly migrate to California looking for seasonal farm jobs and wages to send back home. They are, in a sense, the braceros (guest workers) of today without a Bracero Program. Many originally became involved in this annual trek in the 1940s when the Bracero Program was first established and have maintained the practice ever since by passing it from one generation to the next even after the program was terminated in 1964, converting the practice into a deeply embedded tradition. Families who participate in this tradition have organized their lives and households in a manner which enables workers to migrate and, as a result, wage remittances have become an intrinsic and indispensable part of the household economy (Palerm and Urquiola, 1993).

A key distinction of the seasonal migrant, vis-a-vis the binational worker, is that only the most productive and employable workers migrate. Less productive workers and dependents (women, children and the elderly) are always left behind in the home community to tend the family farm or just simply to survive on the basis of a, hopefully, steady flow of wage remittances arriving from the United States. Migrants' stays in the United States also are considerably shorter than those of binational workers. Many will return home as soon as the employment season ends or sooner if a pre-targeted goal of earnings is accomplished. They, in short, only come to work and earn wages, and they are with few exceptions always in a hurry to return home.

Seasonal migrant workers occupy a particular niche in the farm-labor market and production cycle of Santa Maria Valley agriculture. They serve as a labor reserve which intermittently complements year-round vegetable harvest crews during the peak spring and summer months when crops tend to mature faster, even bolt, with the arrival of longer days and warmer temperatures. And they especially supply the bulk of the peak harvest labor for strawberries and wine grapes during the spring-to-summer and early autumn months, respectively.

Although the presence of seasonal migrants in Santa Maria diminished considerably during the 80s as immigrant workers settled permanently in the valley, they began to increase again in the 90s as strawberry acreage expanded and farm employment practices changed owing to IRCA impacts. In effect, the recent proliferation of farm labor contractors has often placed migrant workers in direct competition against the stable but more expensive local immigrant laborer. Nonetheless, migrant workers do not enjoy the better paid, more stable, and skilled farm jobs which continue to be largely monopolized by immigrant and binational workers. Migrants, to be

sure, hold the most seasonal, insecure and intermittent farm jobs with monthly earnings which range between \$500 to \$800 during the peak employment season.

Interviews conducted among seasonal migrants during the 1993 campaign, especially among strawberry harvest crews, revealed that there are two distinct sub-types of migrants: first, the descendants of braceros, those who have established a tradition of migration, from the sending communities located in the central states of Guanajuato Jalisco, Michoacan, and Zacatecas; and second, new immigrants mostly from the southern states of Oaxaca and Guerrero.

Traditional migrants have established effective networks and accrued experience which facilitate travel, border crossings, and employment. Some have kin and friends established permanently in the Santa Maria Valley who provide sanctuary and assistance during the annual trek. They are the *arrimados* (house guests) briefly described in the immigrant workers section. Others rent apartments or rooms for the season and share them with other migrants to cut living expenses during their stay in the valley. They, moreover, have considerable personal access to farm employers (growers, labor foremen, and farm labor contractors) who hire them year after year. Many come to Santa Maria only to perform a specific job (i.e., strawberries) with a specific employer and return home with their savings as soon as the season concludes. Although many travel from Mexico alone, especially those who have kin in the valley, it is quite common to find cohort groups sojourning together, either groups of friends and neighbors of a similar age, or multigenerational kin-based groups. The presence of women workers among migrants is not uncommon, especially among family groups, but men continue to predominate in the ranks of the sojourn workers. In 1993, approximately forty percent of the interviewed migrants fit the description of traditional migrants.

New migrants account for the remaining sixty percent of the migrant labor force observed in the Santa Maria Valley in 1993. As stated above, most come from the southern states of Oaxaca and Guerrero; many are Mixtec and Zapotec Indians. Few have a California migration experience of more than ten years, though most have lived the lives of migrants as seasonal farm workers laboring in the northwestern states of Sinaloa, Sonora, and Baja California in Mexico. In recent times they have included the United States' west coast as part of their itinerary. New migrants' short United States experience translates into a less-developed network to assist their mobility and employment. As a result, they hold the worst and lowest-paid jobs, and are usually the last to be hired and the first to be fired as the peak harvest seasons run their course. In Santa Maria's strawberry harvest, for instance, they typically occupy the crest of the high-employment season and move on to other production sites before the season is completely over. Many find daily employment with a variety of employers but only to fill momentary gaps, to aid short-handed crews, or to meet special urgent contracts. Most, in effect, secure employment through farm-labor contractors.

New migrants, in contrast with traditional migrants, are much more mobile and versatile. They travel up and down the California geography, and in and out of Oregon and Washington, following a variety of crops. Some chase the berry harvest, starting on the Mexican border in February and ending up in the state of Washington by mid-June, always striving to remain on the crest of the peak harvest season when piece-rate earnings are at their best.

Others become involved in other highly seasonal crops such as cherries, asparagus, pickle cucumbers, raisin grapes, oranges, and apples which are spread out throughout both the west coast geography and the agricultural calendar. In the Santa Maria Valley, new migrants are especially present during the peak strawberry season, April-June, and again in September to participate in the short but intense wine-grape harvest.

Since most new migrants come from highly impoverished rural regions of Mexico, they travel in large family groups without children or other unemployable dependents who could slow them down or hinder full employment during the course of their trek. It is not uncommon for these families to leave children and other dependents behind in shanty towns and camps located on the Mexican side of the border (i.e., Tijuana, Mexicali, or San Quintin) while the most productive and employable members seek jobs and wages in the United States. Many of the interviewed new migrants enter California in February and return to their home communities in southern Mexico by mid-November. During their stay in the Santa Maria Valley they typically crowd into local hotels and small unfurnished apartments. In 1991 and 1993 we observed as many as eight workers sharing a double hotel room and up to sixteen individuals jammed into a small one-bedroom apartment.

The incidence of undocumented workers among both traditional and new migrants is quite high. Data collected in 1993 reveals that as many as fifty to sixty percent of traditional migrants are undocumented. Moreover, those who do possess appropriate authorization to work in the United States only received it recently through IRCA's SAW program. In contrast, only ten to fifteen percent of the new immigrants are documented. All, nonetheless, hold some sort of paperwork which is required to obtain employment.

The high incidence of unauthorized/undocumented workers, compounded with the fact that many actually hold counterfeit documents, makes migrants into a population that resists enumeration and identification, a circumstance that is further complicated by migrants' easy mobility and unconventional housing arrangements. Finally, with respect to census-taking efforts, it is important to emphasize that there are few migrants in the Santa Maria Valley by April 1. At that time, the vast majority of migrants are either just starting off on their annual treks from their home communities in Mexico or are busy harvesting strawberries in other southern producing areas such as Baja California, northern San Diego County, and the Oxnard-

Ventura plain where the fruit matures earlier. As indicated above, the thick of the migrant presence in Santa Maria does not occur until strawberries reach their peak in mid-to-late April.

Border Commuter Workers

Approximately one thousand individuals who form part of Santa Maria's sizable agricultural labor force maintain a permanent home base in the U.S.-Mexico border area, either in small colonias in or near El Centro, Calexico, and Yuma or in Mexico itself, especially in or near the city of Mexicali. From these communities they regularly commute to the Santa Maria Valley where they participate in the lettuce harvest which extends from spring to fall.

Most of the border area commuters are employed by a few large corporations that have come to monopolize the lettuce industry by, among other means, maintaining production sites in different parts of the state: in Santa Maria and other coastal valleys in the summer and in Imperial Valley in the winter. Some of these companies regularly transport farm equipment, vacuum cooling plants, and office facilities over great distances, from summer to winter producing sites and back. Large lettuce producers have also developed a highly specialized and stable labor force that travels from site to site as needed. These are the lechugeros or specialized lettuce harvesters (cutters, wrappers, and machine operators), who maintain a permanent home base in the border area, near winter production sites, from where they migrate seasonally to summer production sites such as the Santa Maria Valley.

Lechugeros explain that in the border area they find affordable housing, lower cost of living, and a more favorable sociocultural environment. Few of them are originally from the border itself but after the Bracero Program was cancelled settled there as an ideal location from which to access U.S. employment. Many of them can be traced back to the traditional sending communities of Central Mexico. Professional lechugeros are a breed apart among California's agricultural laborers in that they enjoy nearly year-round employment, always with the same employer, by following the crop from production site to production site. They also earn relatively high wages, \$1,200 to \$1,500 monthly with some benefits.

At home on the border and during the winter months, while lechugeros are busy with the winter harvest, other family members also find part-time, intermittent employment in local agricultural endeavors. During the summer, however, only lechugeros migrate to the distant production sites, leaving behind dependents and other family members who, nonetheless, continue to seek part-time occasional farm jobs near home. Migrants return home occasionally, every two or three weeks, for a few days to visit family and friends, and to rest. During their stay in the Santa Maria Valley, lechugeros rent apartments which they share with other commuters to cut down expenses. A few experienced commuters have installed small, dilapidated trailers in the area which they use as a temporary second home.

Most of the lechugeros we interviewed in 1991 and 1993 are documented and have been so for some time. A few who do not possess either "green cards" or citizenship use commuter border passes issued to them years ago by INS which entitle them to work in the United States while living on the Mexican side of the border. Those who, before 1986, lacked adequate documentation were subsequently able to legalize by accessing IRCA's SAW program with the encouragement, sponsorship, and assistance of their employers.

Because lechugeros, relatively speaking, lead fairly conventional lives, they are much less apprehensive about being identified and counted and, as a result, offer little resistance to census takers and other surveyors. Nonetheless, those who maintain a permanent home base on the Mexican side of the border are likely to be missed during the census count, while those who live on the U.S. side risk being counted twice owing to the circumstance that in the early spring they typically occupy two homes.

Single Unattached Workers

Above we have described and categorized the bulk of the work force employed by Santa Maria Valley agriculture. The four types of workers we have described thus far have established some degree of routine or recurrent behavior over the past years according to opportunities created by their farm jobs and/or specific arrangements they have made with the larger family group (in Santa Maria, the home community in Mexico, or the border area) to which they belong. The four described categories account for approximately eighty-five percent of the farm workers employed by Santa Maria farms during the course of a complete agricultural cycle. There is, in addition, an undetermined number of single unattached workers, mostly young males, who spontaneously show up in the valley during peak employment seasons and who remain there only as long as employment is available; otherwise they quickly move on to other work locations.

Although it is difficult to ascertain the exact number of these transients, we estimate there is a constant pool of 300 to 500 such workers in the Santa Maria Valley at any given time. Overall, up to two or three thousand individuals may pass through Santa Maria during the course of the year; some remain in the valley only for a few days while others may stay there for several months. Interviews conducted in 1991 and 1993 reveal that some of these workers follow a preconceived itinerary designed to land short-term jobs in especially demanding crops through a network of farm labor contractors (i.e., celery, strawberries, asparagus, and raisin grapes).

Indeed, a few of the interviewed transients were originally recruited by farm-labor contractors in the border area and in their home communities deep in Mexico to perform a specific job in California and, once completed, they were referred to other labor contractors in

other work locations. Most, however, are on their own and seek out farm-labor contractors upon arriving at a new location to inquire for work and shelter.

Single unattached transients land the worst possible jobs and receive rock-bottom wages, often at rates below the minimum wage. They are usually employed as day laborers and they rarely know for how long or for how much. In a good week a transient worker can yield as much as \$200 but typically monthly earnings rarely exceed \$400. They, moreover, experience long and frequent periods of unemployment between jobs.

Despite their erratic and transient lives, these workers continue to be strongly attached to their families in their home communities in Mexico to whom they send part of their wages whenever they can spare them. Many, in effect, aspire to return home before Christmas with presents, new clothes, and \$1,000 cash in the pocket. It is, however, not uncommon for transients to remain in the U.S. for several consecutive seasons, only to return home when they are broke, homesick, and/or ill.

As would be expected, few transient workers are documented but most have acquired fake documents. While in Santa Maria, transients find shelter either in one of the few labor camps still open, or in garages, tool sheds, shacks and trailers offered by their employers (usually farm labor contractors) at a price. Many camp out in the fields, in boxcars, or in their cars. Only when the weather forces them will they choose to stay in one of the local hotels that caters to migrant farm workers. They are, as a result, the most difficult workers to track down, find, interview, and enumerate. We came across them, almost fortuitously, when we examined and interviewed members of strawberry, wine grape, and celery harvest crews.

Recommendations

In this report we have described the forces that attract immigrant and migrant farm workers from Mexico to the Santa Maria Valley (and other rural locations of California's agricultural landscape), and we have described a variety of forms and behaviors of that immigrant and migrant labor force. Moreover, in the process we have identified some of the circumstances that hinder an accurate accounting of this population. In this section, we draw upon the information we have gathered in order to propose strategies to improve the identification, description, and enumeration of immigrant and migrant farm workers in California.

One unassailable conclusion derived from our field research in the Santa Maria Valley is that a considerable number of immigrant and migrant farm workers prefer not to be identified and, hence, will actively avoid and frustrate efforts designed to enumerate them. They will, moreover, often provide erroneous, false, and incomplete information when they are pressed by

surveyors. Some farm workers are reluctant to cooperate because they do not possess appropriate authorization to be and to work in the United States; others, although authorized, resist to protect family members (spouses, children, siblings, and parents) and friends who are not; and many, although they have nothing to hide, have a deeply imbedded mistrust of any official government effort to identify, describe, and enumerate them. Many have at one time or another lived and worked illegally in the United States, have experienced apprehension, deportation, and harassment, and hence maintain a cautious, suspicious attitude towards all government officials, especially those who want to know more about them.

Active resistance to identification and description compounds the well-known difficulties encountered in attempts to enumerate immigrant and migrant farm workers due to, among other circumstances, their frequent mobility, their unconventional housing arrangements, and language barriers. An obvious way to diminish resistance and improve response would be a well-designed and implemented educational campaign intended to specifically reduce fear of the census-taker. Such a program would convince the farm worker that no harm will come from providing complete and accurate information to the census; that, to be sure, information provided will not, indeed cannot, be used against them or others; and, moreover, that the collection of good, reliable information about them and their lives can be instrumental in local, state, and federal government efforts to begin to understand and address their many needs and problems.

This option, regrettably, has been pre-empted, at least in California, by the recent explosion of acrimonious anti-immigrant sentiment and an openly hostile state government. A currently popular legislative initiative would, among other results, force doctors and teachers to report suspected undocumented persons in their care to patients and school children to authorized officials so that the INS can take action to apprehend and deport. Whether or not the proposed measures are passed and their constitutionality upheld is, at this point, irrelevant. Such proposals have been publicly stated, endorsed by former INS officials, and supported by the governor of the state and other elected officials representing both major political parties. This is more than enough to convince immigrant and migrant farm workers that there is good reason to fear replication of the massive, indiscriminate deportations which affected their grandparents and their parents in the 1930s, 1950s, and 1960s. There is, in effect, nothing that the Bureau of the Census can say or do to reverse the growing apprehension of immigrant and migrant farm workers towards the census taker and the census instrument. Indeed, given the present circumstances, the Bureau of the Census should be prepared to face increased difficulties in completing their surveys as undocumented farm workers move further underground to avoid detection, apprehension, and deportation.

Keeping in mind the increasing and probably insurmountable obstacles to accurate enumeration and description of the rapidly growing population of immigrant and migrant farm

workers in California, it is nonetheless possible to suggest a number of actions which may facilitate the tasks of the census workers. The following recommendations are organized into two sections, one which addresses general matters and another which applies to specifics of each of the five categories of farm workers described in this report.

General Recommendations

1. The best way of improving our ability to count and describe immigrant and migrant farm workers is to eliminate the conditions which veil their existence in the United States: illegality and inadequate housing. The Bureau of the Census should inform and encourage a U.S. immigration policy which would acknowledge the reality of agriculture's need for immigrant and migrant laborers and regulate the flow of workers from Mexico as well as ensuring adequate and humane housing conditions. The main reason the Census Bureau has difficulty in locating such individuals is that so many of them have good reason to remain hidden. It is not until we have appropriate employment procedures and housing for these employees, enabling them and their families to emerge from the underground of their illegality and perceived illegitimacy in the United States, that we will be able to fully understand how many and who they are.

2. Face-to-face encounters are necessary. Immigrant and migrant farm workers will not respond well to written materials and mailings. Response to mailings will be small and, generally, reported information will be poor. There are a number of reasons for this, among them:

- (a) Language and literacy issues which increase with the more itinerant migrants.
- (b) In dwellings shared by several families or, for example, a cohort of single male workers, there is rarely an individual who will assume the responsibility of reading mailed material, filling out forms, and returning them. Most likely, a mailing from the census will go from the mailbox to the trash can.
- (c) Those few heads of households who assume the responsibility of responding to a mailing will not volunteer information about the presence of undocumented kin or friends in the home.

Improved, accurate enumeration of immigrant and migrant farm workers, therefore, requires face-to-face encounters with Bureau of Census personnel. More important, it requires well-trained survey personnel, fluent not only in English and Spanish and bicultural, but also prepared to identify, understand, and describe unconventional households. Surveyors must be able to immediately discern when and to whom to address the right questions, and how to correctly interpret the answers, using them for follow-up queries. Reading a prepared questionnaire and

filling the blanks typically will elicit correct but incomplete information. The surveyor must be a keen observer and use this skill to formulate pertinent questions that will yield a complete description of the household members and their relationships to one another. The surveyor, finally, must be able to assure the respondent that the information provided will never be used for any purpose other than enumeration. Multiple visits to a single household over a period of time may be useful to, on one hand, develop confidence with the informants and, on the other, to cross-check and confirm information obtained in earlier meetings. We have learned through our ethnographic research in the Santa Maria Valley that even the most basic information often can be gleaned only after the establishment of good rapport and trust. Census personnel must be prepared and enabled to invest the necessary time and effort to collect reliable, complete, and useful information.

3. Conduct a follow-up to the census at peak demand for agricultural labor. April 1, the currently designated day for the national decennial census, is not a terribly bad day to count Santa Maria Valley farm workers. Aside from the year-round vegetable crop activity which employs many local, settled workers, the seasonal strawberry and lettuce harvests have begun. Hence, a considerable number of seasonal migrants already are involved with the harvest activities or are beginning to settle in the valley for the season. A complete count in early April would yield at least fifty percent of the migrant agricultural labor force. Santa Maria farm employment reaches its peak in late April-early May, when the strawberry harvest is in full swing (Figures 1 and 2) and May 1 would therefore be a better day to count migrant farm workers. However, Santa Maria, representing the southern and central coasts of California, is not the best indicator for the rest of the state. Indeed, in the Central/San Joaquin Valley, the state's major farm region, peak employment does not occur until well into the summer months. Hence a statewide enumeration of migrant farm workers would yield better results if it were undertaken in June or July. A change of the country's census date is highly unlikely, of course, and separate census dates for different regions would pose the risk of over-counting, especially among such a highly mobile population. A follow-up count in the post-census period would be extremely useful, however, in those areas of the country which heavily utilize immigrant and migrant farm laborers. It would enable the use of interviewers fully trained in ethnographic and genealogical methods to overcome the shortcomings of the census process: to reveal the hidden population in the immigrant households, to accurately count the migrants crowded in apartments, and to identify those in unconventional housing.

4. Redefine the concept of "residence" and expand the concept of residents in the household to include the unconventional dwellings and shared shelters used by migrant farm workers. Farm

workers, as we reported, live in unconventional temporary and permanent family arrangements and in unusual homes. This means, on the one hand, that it is common to find a large number of related and unrelated individuals and families sharing a home, often with a constant turnover of residents. To accurately reflect the size and composition of such a household, both the census taker and the census instrument must be prepared to meet exceptional circumstances. Although most immigrant and migrant farm workers live in homes and apartments, some, especially migrants, live in unconventional dwellings such as backyard mobile units, refurbished garages, tool sheds, warehouses, and abandoned farm buildings. All or most of these are missed by the census because they have not been identified as residences. The same applies to run-down local hotels, motels, and trailer parks which, together with the nonresidential structures, provide shelter for nearly one-half of the most itinerant of the migrant labor force. This group is growing. Observations in 1993 revealed that the increased labor needed to harvest strawberries, the fastest-growing crop and the largest employer, tends to find shelter in unlikely locations. Many of these new workers are Mixtec Indians from the Mexican state of Oaxaca, and they speak little Spanish and no English, contributing further to their isolation. Thus it is necessary to identify unusual places for habitation in order to establish contact with many migrants. Although it is not an easy task to recognize and enumerate unconventional, nonresidential dwellings, local farm employers, and particularly farm-labor contractors, usually are cognizant of their whereabouts and could possibly be persuaded to collaborate with census-takers. Ultimately, the best place to locate migrant farm workers who live in unconventional dwellings is in the workplace itself. Again, farm employers may very well be the best means through which to contact them. It is important to note, however, that farm employers also are apprehensive of government officials due to the high incidence of undocumented workers among the migrant group and the legal liabilities borne by employers who intentionally or inadvertently hire them.

5. Use unsophisticated media to reach farm workers. Farm workers, especially migrants and those who live in unconventional dwellings, only rarely refer to print media for news and information and do not usually have access to television. Their primary source of information and entertainment is radio. Most farm workers have radios in their vehicles and portable units which they almost always carry with them. It is not unusual to observe workers with earphones listening to their favorite stations as they work in the fields. Some employers broadcast radio programs over loud-speakers for their crews. Local Spanish-language stations broadcast news, provide local information for farm workers, and play ranchera music. These are the best media for reaching farm workers, and these should be used both in cases of emergencies as well as to provide general information and educational programs. In Santa Maria, the station preferred by

farm workers is Radio Super X on 91.1 FM; Radio Pantera and Radio Tirro are popular alternatives.

Recommendations Regarding Specific Types of Farm Workers

1. The standard survey will identify most immigrant farm workers, but care must be taken to identify others living in their households. Immigrant farm workers exhibit a high incidence of legal documentation, especially after IRCA. Moreover, they enjoy relatively stable jobs and maintain fairly stable homesteads; a considerable number of them, in fact, own their homes. Thus a standard door-to-door survey will yield a large number, indeed the majority, of immigrant farm workers. The only difficulty the census-taker needs to overcome in an effort to correctly enumerate them is to identify the presence of undocumented kin, friends, and/or boarders whose presence in the household is, for a variety of reasons, hidden. Such individuals will be revealed only when they are certain that no action will be taken against them as a result. Once the presence of undocumented kin and boarders has been admitted, the wealth of information that can be obtained increases beyond measure. Genealogical methods become an extremely useful tool to both enumerate and to describe all the members of a typically large and complex household, and to include other members who, although they form part of the residence, may not be present at that particular instant.

2. Extraordinary care must be taken to identify the "missing" members of binational households; this effort will be more productive if undertaken in May. Binational households are constantly in flux; at any given time their numbers may include workers, non-working adults, and many school-age children. Although they also enjoy relatively stable jobs and live in conventional homes, it is important to time surveys at a moment when most are present: in the peak employment season but during the school year (after April, but before June). Once school ends a large number of the children are immediately transported to the Mexican home for the summer. Binational households tend to crowd into local dwellings to keep expenses down; as many as five related families that have separate dwellings in Mexico may share one home in Santa Maria. Among the household members are a substantial number of undocumented workers and dependents, especially children. Like immigrant families who harbor undocumented members, binational households will not easily acknowledge their presence to outsiders. Even when they are legally in the United States, they are often quite cautious about providing accurate personal information because they fear they may lose certain entitlements in Mexico, such as rights to ejido farm land, government loans and other subsidies, and even their Mexican citizenship. The survey worker can overcome the resistance of binational households only with an abundance of

time and patience. Once the barrier has been broken, the flow of good information is almost overwhelming. Because binational families also are large and complex, the application of the genealogical method is indispensable to understanding the multiple types of relationships that link all the members. Still, because binational households maintain part of their membership in Mexico and another in the United States, it is not unusual to discover a large number of seemingly incomplete, broken families. When dealing with binational families the census-taker needs to be aware of this circumstance and collect information about family members in Mexico in order to complete the picture.

3. There are two distinct types of migrant workers: the traditional migrant with a multigenerational migration experience and a well-organized network; and the new immigrant, mostly Mixteco Indians from Oaxaca, who lack both experience and a migration infrastructure. Each type poses distinct challenges to the census-taker.

Experienced migrants will be found in houses and apartments, but their numbers in Santa Maria are greatest in May through August. Traditional migrants in Santa Maria come specifically during the peak harvest period and then return to their homes in Mexico. While in Santa Maria they find shelter either in the homes of family and friends who are permanently established there or they crowd into small apartments which are rented for the season. Door-to-door surveys will, therefore, yield a large number of traditional migrants, although they will prefer to remain hidden because many are undocumented. Because they are present in the valley only at peak harvest season, from May through late August, they need to be identified and interviewed at this time. Many do not arrive in the valley until the harvest season is well underway, because the early labor demands usually can be satisfied by locals or binational families.

New migrants are rapidly increasing in number, and at least one-half will be found by the census-taker in non-residential structures. New migrants have not yet developed a clear, repetitive pattern of migration behavior and their actions are more difficult to anticipate. Because they suffer unstable employment and receive the poorest wages, they lead the least-conventional and most-precarious lifestyles. They either crowd into small apartments and hotel rooms (we have observed as many as eight to a double hotel room and twenty-two in a two-bedroom apartment) or seek unconventional housing altogether, such as tool sheds, warehouses, and unauthorized converted garages. Because they are the last-hired and first-fired, their presence in Santa Maria is shorter than that of the traditional, experienced migrant. New migrants are present in the valley only during the peak strawberry harvest season (May through August) and may return briefly to harvest wine grapes in September. When they leave the valley

they do not return to Mexico, but rather move on to other employment areas of California or the northwestern states. These workers are truly itinerant, traveling throughout the West Coast from February to November and returning to their Mexican home communities only when employment ends for the year. New migrants represent the fastest-growing group of all farm workers in Santa Maria because they supply the fastest-growing crop in the valley: strawberries. As long as this highly seasonal crop continues to grow it will enlarge the size of the migrant worker group. It is, therefore, important for the Census Bureau to take the necessary steps needed to enumerate and describe them correctly, for they are without question the largest group of farm workers most commonly missed in the decennial counts. Approximately one-half live crowded together in small apartments; they are difficult to count and identify because of their sheer numbers, and they will not willingly provide information about their true numbers because they normally are in violation of rental agreements or housing ordinances and they fear eviction. The rest live in unconventional dwellings not normally identified as residences. Thus, long before the count begins, researchers must identify the multitude of locations where new migrants will be found.

4. Border commuters need to be counted at their home bases along the border. Border commuters, like immigrant workers permanently settled in Santa Maria, do not typically offer strong resistance to enumeration. Many are documented and enjoy stable employment as lechugeros. They are, however, a highly mobile group, constantly traveling in and out of lettuce-growing regions. Hence it is easy to miss them in a normal count, or to count them twice, unless special measures are adopted. Because most lechugeros (sixty to seventy percent) maintain permanent homes on the U.S. side of the border in cities such as Calexico, El Centro, and Yuma, it is possible to correctly enumerate them from their home base if the census-taker asks the right questions. Most lechugeros (and there may be several in one household) will be away from their wintering home bases in April, so it is critical that their absence be documented. Otherwise they may be missed or double-counted in the normal process of collecting information. Because lechugeros are in great measure permanently employed by large corporations, it may also be possible to identify and enumerate them by obtaining the collaboration of their employers and employment records.

5. At this time, it probably is not worth the effort to attempt to identify the small number of unattached, itinerant day workers who camp out in fields or cars. Single unattached workers are without question the most difficult of all to identify and enumerate. They hold the worst jobs, usually on a day-to-day arrangement, and are employed only when an extra hand is needed. They typically occupy unconventional dwellings for short periods and often camp out in the

fields or in their cars. As indicated in our report, we came across them only fortuitously when we observed and described work crews. It may be argued that, given their small numbers vis-à-vis other groups and the difficulty of locating them, little effort should be devoted to including them in the census. In fact, considering the large number of hidden workers within, for example, the known immigrant and migrant households, the Census Bureau would do best to concentrate efforts and resources toward conducting an effective and careful face-to-face, door-to-door campaign specifically designed to improve the count by diminishing mistrust and apprehension.

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Appendix A Note on Research Methods

Ethnographic Research

The foregoing report was generated at the request of the Bureau of the Census in order to assist in development of procedures which will enable more accurate enumeration and description of migrant and immigrant farm workers in the United States. Such workers and their employers often are strongly motivated to evade such efforts. Academic researchers experience the same difficulties in gaining access both to the fields where farm workers labor and the homes in which they live while so-employed. The methodology by which anthropologists approach such seemingly unwilling and untrusting subjects is particular to ethnographic research.

The ethnographic field research conducted for this project, both in 1991 and in 1993 (and the wealth of information that was compiled) could not have been undertaken had the field researcher not had a lengthy, prior field research experience in the area. Indeed, access into the fields to contact, observe, and interview farm workers is difficult without the permission of the growers which, in itself, is not easily granted to outsiders even when they represent official government agencies. Access and rapport with farm workers is even harder to obtain, especially when researchers represent government agencies and when asking questions regarding employment, family, and migratory practices. The difficulty in accessing informants and reliable information without well-cultivated trust and rapport with both agricultural employers and employees suggests also the difficulty that surveyors and interviewers for the Bureau of the Census must also face and overcome in order to improve their data-gathering efforts in agricultural areas that rely on immigrant and migrant labor.

Research Protocol

In identifying the subjects and gathering the data, the following three-stage protocol was followed. For a more detailed description of the research protocol, please see Palerm 1991: Appendix B, 129-132.

Key informants were identified in the workplace, the fields, nurseries, or greenhouses. In the workplace the informant's work performance was observed and described, and during breaks

conversations were initiated regarding general biographic information, place of origin, and the nature of the work and crop in which the worker was involved.

After as many as several visits, once some degree of rapport was established, the selected key informant was asked to meet away from the workplace during off-work hours when more detailed information about employment, work conditions, and income was sought.

Finally, after confidence had been well-established, the interviewer visited the worker at home where information regarding the family and household were both elicited and observed. Visits at home always created opportunities to converse with and obtain information from other members of the household and/or family group.

Every interviewed worker was met on at least six different occasions: 2 in the workplace, 2 in a neutral location, and 2 at home. In some instances, either when confidence was established early or when the interviewer already had an established rapport with the informant, it was possible to proceed directly from the workplace to the home.

During the course of the field research no structured interview instruments (questionnaires) were used; rather, extended conversations were conducted with each of the key informants in order to elicit detailed information on employment, life histories, migratory practices, family organization, household composition, and attitudes regarding government efforts to identify and enumerate them. Following established ethnographic procedures, the interviewers guided lengthy, open-ended and seemingly unstructured conversations to gather and record complete information on each of the principal topics enumerated above. The information collected was first recorded in the interviewer's diary/journal and later formalized in a farm-worker dossier, containing all information derived from multiple interviews with each worker.

Careful conduct of such research is a laborious, time-consuming process which usually elicits accurate data as well as information on personal and job-related matters which are difficult, if not impossible, to obtain through standardized questionnaires or impersonal, structured interview procedures.

Sources of Information

This report on immigrant and migrant farm workers in the Santa Maria Valley, California, was prepared using three sets of ethnographic information:

Information compiled in the valley over several years on the dynamics of agricultural growth, increasing demands for farm labor, and the changing demographic profile of the valley resulting especially from the settlement of immigrant farm workers. To determine such information as man-hours per acre required to bring certain crops to harvest, crop acreage, or numbers of full-time versus part-time workers, data selected from secondary sources, such as

publications of the County Agricultural Commissioner, the State Employment Development Department, and other researchers, were tested and verified by ethnographic field observation.

Information gathered in 1991 while preparing a housing needs assessment for farm workers in Santa Barbara County. At that time we collected detailed information on 150 farm-worker households (100 of them in the Santa Maria Valley) regarding, among other matters, employment, household composition, and housing/living conditions. The sample was designed to represent each of the major groups of agricultural employees in the county (fruit, vegetables, nurseries and greenhouses).

Information gathered in 1993 specifically to address some of the queries raised by the Bureau of the Census concerning the difficulties in accurately identifying the farm-working population and to determine its principal socioeconomic and behavioral characteristics. The sample included 42 workers from thirteen crews working at the peak of the harvest season; these were selected from among 363 workers in the crews, which were monitored over several months. Each of the six top-value crops in the area was represented, with 20 strawberry workers, 5 from broccoli, 5 from lettuce, 2 from cauliflower, 2 from celery, and 8 from wine grapes. Eighteen of the workers had participated in the 1991 study, providing valuable longitudinal continuity.