

Employment on California farms

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Increased use of new machines is often cited as the cause of the high level of unemployment experienced by farm workers. It has been suggested that further substantial reductions in farm employment can be expected in the near future as new and more effective machines are developed and come into use.

Data which would enable us to delineate the dimensions of the evolving situation are far from adequate. On one hand, the reliability of past and current employment estimates is open to some question. On the other hand, data about California farm workers and the extent to which they achieve their employment goals are extremely limited. A review of available data, as well as consideration of emerging forces affecting California farm employment, suggests that unemployment and any declines in numbers of workers needed on California farms are likely to be the outcome of several factors, particularly in the future, only one of which involves the utilization of new machines.

Over the years labor-saving technology has reduced both total labor inputs on California farms and labor inputs per unit of output. Whereas less labor is being used per unit of output, the employment of seasonal workers on California farms is still substantial — a mobilization not much reduced in the past quarter of a century. To focus predominantly or exclusively on new machines or labor-saving technology tends to obscure the nature and causes of unemployment problems faced by hired workers, particularly seasonal workers, on California farms. Collective bargaining, unemployment insurance, nonwage benefits, and improved personnel practices are important factors now influencing the levels and patterns of employment.

Workers on California farms

Estimates of employment in California agriculture are published by the U.S. Department of Agriculture and the Employment Development Department (EDD) of the State of California.

The Employment Development Department estimates indicate that despite a brief period of increase during the early 1950's, the total number of people employed on California farms declined about 20 percent

during the period 1950-77. "Farmers and family workers" declined the most — about 50 percent. The number of "hired workers," regular and seasonal combined, declined about 11 percent over the 27-year period. In 1977, estimated average annual employment was about 290,000. This included about 69,000 family workers, 102,000 regular hired workers, and 118,000 seasonal hired workers. In the ten years ending in 1977, there is no downward trend evident.

Regular farm workers

The most widely used categories of hired farm workers are *regular* and *seasonal*. The EDD identifies the regular farm worker as one employed by the same employer for 150 consecutive days or more. Anyone employed for fewer days is considered a seasonal worker.

The employment of regular farm workers has been relatively stable from year to year over the 1950-77 period. In the sub-period 1950-60, there was a fairly regular small year-to-year decline; then from 1965 to the present there has been, with few exceptions, a small increase each year. Although the employment of regular hired workers has increased in the 1965-77 period, the gains did not completely offset previous declines. In 1977, employment of regular workers was about three percent below the 1950 level.

Seasonal farm workers

Average annual employment of seasonal farm workers reached a high of 152,200 in 1956, declining thereafter to 109,500 in 1972. The pattern from 1972 to 1977 has not been consistent but the trend appears to be slightly upward.

Whereas estimates indicate that average annual employment of seasonal workers is quite stable from year to year, the cyclical swing in the course of the year typically ranges from about 70,000 to 180,000. Regular farm workers also experience some seasonal variation in level of employment, about 20 percent in the course of the year.

Thus each year the mobilization of manpower in agriculture is such that more than 100,000 jobs are filled and terminated. This involves many more than 100,000 individuals, a point we will discuss in more detail later.

Swings in farm employment at the county level within the year are even more extreme than at the state level. In Fresno County, for example, employment of seasonal farm workers in the highest month is about six times that of the lowest month. Likewise, the month-to-month increases and decreases are as sharp as or sharper than the statewide pattern. With respect to seasonality of farm employment, Fresno County is more typical than extreme: Farm workers face employment opportunities that are more seasonal than those reflected in the state employment data.

There is a tendency to refer to all seasonal workers as "migrant." However, this identification is clearly not correct—the majority of seasonal workers are not migrants; more than three-fourths live in the area in which they work, even though they may work for several employers in several crops within a daily commuting area. Of those who migrate at various times of the year, intrastate migrants outnumber interstate migrants.

Labor force

Given the high degree of seasonality of employment and the predominance of local workers, it is not surprising that the number of individuals who at some time during the course of the year work for wages in California agriculture might be as much as two or three times the average number of workers employed during the year. In 1967, the most recent year for which we have annual estimates, 688,800 individuals worked for wages on California farms. Estimated average annual employment of hired workers was 207,000 in that year, a ratio greater than three to one. The continued predominance of local seasonal workers and the continued seasonality of employment suggests that currently more than 500,000 individuals work for wages in California agriculture at some time in the course of the year. Because three-quarters of the seasonal peak labor force at the county level comes from the local area, the question arises as to the extent to which members of the farm labor force seek and find employment during the slack months. We do not have more than episodic information about the success of these individuals in achieving their employment goals.

Disability Insurance Program data show that in 1964 one-third of those who had some farm work also had non-farm work. Of all who did farm work, only about one-third worked during all four quarters; more than 25 percent worked only in one quarter. Those who stayed in the labor market three or four quarters were the most likely to have non-farm as well as farm work. Of all who did some farm work, one-fourth were females, almost half of whom were employed only within one quarter. Females who did farm work typically did not also work at non-farm jobs. Of all males who did farm work only, the number working in only one quarter was approximately the same as the number working in four quarters.

Unemployment

Data are not available that would enable us to assess the current dimensions of the unemployment problem faced by those who do predominantly farm work, but fragmentary and indirect evidence indicates that unemployment is a serious problem for farm workers. A study of the California farm labor force in 1965 indicated that of the 225,915 workers who were never out of the labor force that year, only 67,551 were employed 50 weeks or more. The failure of the workers to achieve full employment was attributed to lack of organization of the farm labor market.

It would seem difficult to avoid sub-

stantial unemployment given the high seasonal peaks in employment, the predominance of local labor, and the paucity of local off-season non-farm employment. In past years, welfare rolls in agricultural counties tended to vary inversely with farm employment, attesting to the merits of including farm workers under Unemployment Insurance.

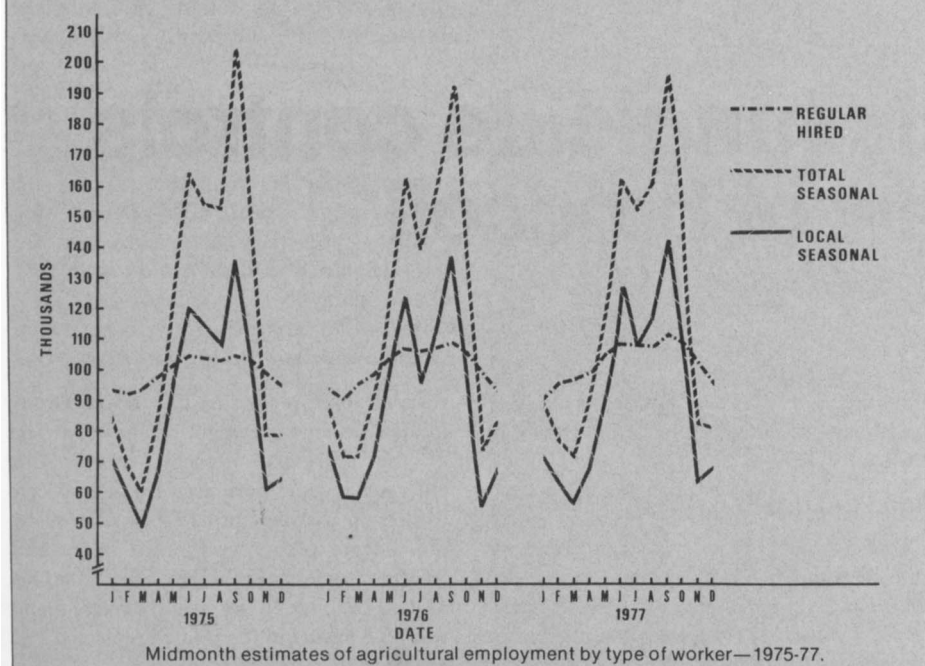
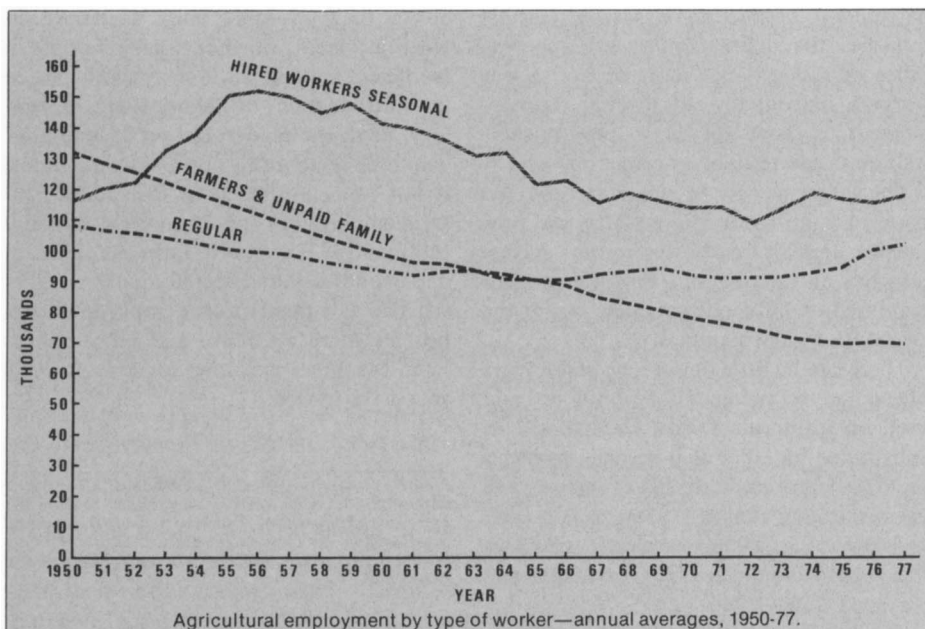
In January 1976, after having been excluded from coverage under the federal Unemployment Insurance program since its inception in 1935, farm workers were brought under full coverage. Although the new unemployment insurance coverage is mainly concerned with the welfare of farm workers, the program can scarcely avoid having secondary and side effects.

For many (but not all) types of farm work, farm employers were not in the past much concerned with the relationship between work to be done and the individuals who might do it. An employer who needed 500 man-days of seasonal labor was not much concerned whether his need was met by 100 persons working an average of five days or by 25 persons working an average of 20 days. Similarly, workers had no particular attachments to employers and had little or no motivation to stay with one or a few employers, an employer-employee relationship which can be described as "casual." Now, with Unemployment Insurance, both parties seek stability in the employment relationship—the employer wants to minimize the tax burden, and the worker wants to maximize Unemployment Insurance eligibility.

Unionization and collective bargaining also influence farm employment and unemployment patterns. Traditional union practice emphasizes seniority, employment preferences and guarantees, re-employment rights and other related approaches toward stabilizing employment relations with identified individuals. There can be little doubt that, as farm unionization spreads, these aspects of collective bargaining will have considerable impact. Moreover, these practices will influence non-unionized employers who may seek to deter unionization or to be competitive in the labor market.

Paid vacations, retirement plans, and health insurance are among other non-wage benefits increasingly offered farm workers as part of a shift away from a casual employer-employee relationship in California agriculture. The economies of these non-wage benefits also favor the employment of fewer workers for longer periods.

The potentials of a systematic modern approach to labor recruitment and personnel management (as distinct from casual employer-employee relationships) have been



recognized for many years. Many "decasualization" schemes have been proposed, but few have been put into practice, even though results have been impressive in the few systematic efforts to decasualize seasonal farm employment.

By applying relatively modern methods of personnel management to the recruitment and employment of lemon harvesting crews, one association of citrus producers effectively decasualized its lemon harvest work. In the process, the number of lemon pickers employed annually decreased from 8,517 to 3,335 in the 1965-77 period. The number of boxes picked increased from 4.4 million to 6.9 million and average hourly earnings increased by 54 percent. Average annual earnings per worker increased by 377 percent. Recruiting and selecting more proficient workers and employing them for longer periods yields a higher output with fewer employees on the payroll. Some workers realize higher annual earnings; others, who might have been previously employed for a short time, are no longer employed at all by the association.

The coverage of farm workers under Unemployment Insurance will in part reduce the burden of unemployment on farm workers, but it appears that in the short run and the longer run, unemployment is likely to remain a serious problem—particularly for seasonal workers.

The emerging situation

The present pattern of high seasonal peaks in employment and the limited employment opportunities in the off-season are

likely to continue for the foreseeable future. High seasonal farm labor requirements originate in the pattern of crops grown and production technology used. Production technology and crop patterns change, gradually or sometimes percipitously, and, in turn, the profile of employment changes. About a quarter of a century ago, the President's Commission on Migratory Labor saw in new technology the means for improving the situation by reducing the high seasonal peaks of employment. This view continues to have substantial (but not unanimous) support.

Perhaps the issues have become more complex in the past 25 years. Consciousness of job scarcity is now more prominent. In the absence of alternative employment opportunities, a reduction in seasonal jobs diminishes the main employment opportunities of the seasonal farm worker. Farm workers, individually and through their organizations, have sought to protect their welfare as new technology comes into use.

The larger society in this state and the nation has an interest in a stable and productive agriculture. However, that society also has an interest in a farm labor force employed under conditions that are, at the very least, not substandard.

There can be little doubt that in the years ahead new technology will be developed and used on California farms. Capital will be substituted for labor as it becomes economic to do so. However, in the near future as well as in the long run, it is clear that greater stability of employer-employee relations (stimulated by modern labor management,

collective bargaining, Unemployment Insurance, and non-wage benefits) is likely to be fully as important a cause of "displacement" as new technology. The labor force and the patterns of employer-employee relationships emerging can scarcely co-exist with the open-access labor market existing heretofore. This means many peripheral workers will be excluded no less surely than if by mechanization displacement. As employment conditions in California agriculture become more like those in the nonagricultural sectors of the economy, employment in agriculture is likely to decline.

The pervasive and persistent unemployment problem faced by those who seek to make an occupation of farm work, particularly seasonal farm work, is likely to be serious for the foreseeable future, as in the past. Unemployment, whether it has its origin in inefficient matching of workers with jobs, in the introduction of labor-saving technology, or in the modernization of employer-employee relationships on California farms, is not being mitigated by expanding non-farm employment opportunities in the rural community. For many, farm employment opportunities may become much more restricted. For others, farm employment will become more attractive and more permanent. Machines may have a relatively small role in the process.

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New systemic fungicide controls downy mildew of broccoli

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Downy mildew of crucifers (*Peronospora parasitica*) is difficult to control during periods of wet, cool weather with currently registered standard fungicides. A new systemic fungicide, Ciba Geigy 48988 (N-2, 6-Dimethylphenyl-N-methoxyacetylalanine methyl ester), became available in 1976 for testing for control of Phycomycete fungi (downy mildew, *Pythium*, *Phytophthora*). CG 48988 was effective in control-

ling the disease when applied as a seed treatment, foliar spray, or as granules on the soil.

Seed treatment

Broccoli seed of the cv. Green Duke was treated with CG 48988 50W at the rate of 1 or 2 ounces per 100 pounds of seed in two trials. In the first trial seed was planted on September 15, 1976, in plots of two 50-foot

rows per bed, replicated four times. Downy mildew became prevalent on the cotyledons of the untreated broccoli shortly after emergence while both seed treatments controlled the disease until 18 days after planting. Larger plants were noted in the seed treatment plots two weeks after planting; and on October 18 the weight of eight plants was 56.8 grams in the treated plots and 10.2 grams in the nontreated plots.