

Labor's Dwindling Harvest: The Impact of Mechanization on California Fruit and Vegetable Workers, Paul Barnett, Katherine Bertolucci, Don Villarejo, Regan Weaver and Cindy McNally, California Institute for Rural Studies, Davis, CA, 1978, 233 pp.

Executive Summary

Although California farm production is expanding, labor saving technologies are reducing the number of farm jobs. Fragmentary data suggest that an increasing portion of the remaining farm work is being performed by Hispanics, women and temporary farm workers.

Fruit and vegetable harvest mechanization has an important impact on the farm labor force, for it can eliminate a large number of hand harvest jobs, often in a very short period of time. For such technology to be adopted, it must result in a substantial cost savings to the farm operator. Harvest mechanization also involves changes in production practices, in handling, in processing and/or packing systems, and often a change in the product itself.

Harvest mechanization has eliminated tens of thousands of hand-harvest jobs in California since 1950, while creating a much smaller number of machine-harvest jobs. The new work is of different skill level, strenuousness, and safety than hand-harvest work. Much of it is performed in different production areas, by a new work force. Harvest mechanization has resulted in severe underemployment in localized labor markets. It has also prevented unionization of farm employees.

With commercial use of new technology regarded as the measure of its feasibility, 13 fruit and vegetable crops were selected for detailed study. All facets of each technology were described, as well as the cost savings, the recent trends in adoption, and the factors which may affect the future rate of adoption.

Information on current employment was combined with estimates of the productivity of hand-harvest and machine-harvest labor, and a range of assumptions about future adoption in order to construct a projection of anticipated net reduction in farm jobs. Using average annual employment for 1975-77 as a base, it was estimated that mechanization of the harvest of these 13 crops will cause a net reduction of at least 38,126 peak harvest jobs by 1982, but not more than 128,176 jobs by 1987. On the average, each of these jobs provides 6 weeks of employment. This displacement represents 1½% to 5% of total California farm employment in the base period, and will be concentrated in certain counties. The projection includes most of the displacement expected to occur as a result of the mechanization of fruit and vegetable harvests which employ more than 40,000 work-weeks of labor in California. This category of employment accounts for 17% of the 1977 total California farm employment. Other technologies are expected to reduce the remaining 83% of farm work.

Public policy recommendations include:

1. Federal legislation to establish workers' rights to job security;
2. Federal legislation to guarantee farm workers the right to form and join labor organizations;
3. Elimination of the 10% investment tax credit for capital investments which reduce employment;
4. Reform of the land-grant college system so that it might aid farm workers;

5. Re-design and expansion of adjustment assistance programs for rural people;
6. A comprehensive field study of California farm workers;
7. Consideration by the appropriate regulatory agencies of the increased environmental impact of chemicals used to facilitate harvest mechanization.