Of men and machines:

Technological change and people in agriculture

Part II: *Changes in hired farm labor and in rural communities*

Ann Foley Scheuring □ Orville E. Thompson

This article continues a discussion of the ramifications of technological change in California farming. Part I focused on changes in farm enterprises and farm families. Part II focuses on changes in hired farm labor and in rural communities. The perspective is from a social-historical view rather than from an economic one. The discussion is based on the 600 pages of oral history transcripts collected from farm families in 1978-1979 by the Agricultural Experiment Station. The quotes presented here were edited for clarity or conciseness.

Hired labor and mechanization

Critics claim that farm mechanization since 1950 has cost tens of thousands of farm workers opportunities for employment and has contributed to the demise of the small farm and the decline of rural communities. The tomato industry has been a convenient focal point for the controversy because startling technological changes have been telescoped into approximately a 15-year period, but farm mechanization has proceeded in many crops and for tasks besides harvesting. Within a single generation, there is much less need for hired labor to do strenuous physical work in fields and orchards.

A lot of teenagers used to work as swampers in our peach orchard. They took lug boxes from the picker after they'd been tagged and tabulated, and put them on a pallet on a tractor outfit, all by hand. Then the forklift came along. We don't have swampers anymore, we went to bins. One bin will take the place of 24 lug boxes; it's just so much easier. We used to hire three times as many hourly workers as now, because it took a lot of work and time to get those boxes loaded.

In the 20s and 30s my mother, my grandmother, my sisters, and all the available women of the neighborhood would join in to pick walnuts on a piece-rate basis. Then in the 40s and 50s we used many Mexican nationals in the bracero program. When that phased out, we began to think about mechanical picking. We purchased our first pickup machine in the 50s. I have driven a walnut picker every year of my life since then. Our new one in 1977 was so sophisticated that I didn't want to trust anybody with it. It was a $30,000 machine—I wanted to be sure they wouldn't climb a tree with it!

Historically, a succession of immigrant groups has labored on California farms. As former sources of farm labor have dried up, new sources have filled the gap.

The Hindus were the main rice workers in the old days. A number of white men, too, would follow the crops up through California and Oregon, and go right around in circles. But it was really a loose system. It was word of mouth if you needed someone. You would try to find out through other farmers where there were workers. You would go to town and probably pick them up off the street. If they looked like a pretty good worker, why, you would ask them if they wanted to work for you. You took a chance.

In the early days the Indians and later some of the old Spanish families helped the sheepmen. Later the Basque herders came in from France and Spain. In about 20 years, they would have their own band of sheep. Many of our sheepmen today are second or third generation of those Basque herders. But most herders now are from Mexico and South America.

—*Photo courtesy of F. Hal Higgins Library of Agricultural Technology, University of California Library, Davis*

The size and nature of the farm labor force has been changed by technology and mechanization.

A contractor brings in a hoeing crew for our sugar beets, a crew of 20 or 30 for a couple of days. Sometimes they are winos or somebody that can't get a job anywhere else. They're not good workers because they aren't skilled, and sometimes they're sick. Some of them, when they get to the ranch, can't even leave the bus. A lot of wives of Mexican workers do hoeing work, though; many times there are women in the hoe crews, and they are good workers.

Since World War II, as residents in rural areas moved into other kinds of jobs, and previous immigrant groups have been amalgamated into the mainstream, the labor needs of California agriculture have been filled increasingly by persons of Mexican descent.

Row crop farmers couldn't farm without Mexican help. It would be absolutely impossible. People in the native population here will not do the work, for any price. They will not go out and sit in a field of tomatoes and watch the water all night.

Fifteen years ago I had almost all local people for help. Now I'm down to only two local men. Younger ones are in processing plants driving forklifts, in machine plants with wrenches as mechanics, building houses, or working for government. Or they have been educated and gone into other professions. The only white help we have today are those that were too old to make the transition to anything else. As they retire, they're being replaced by Mexicans.

I would say 95 percent of all the people who work on farms in this area are Mexican, but not necessarily citizens. The American people, in my estimation, are absolutely spoiled rotten. Very, very seldom do you find a local person who wants to work in the fields. Regardless of what he is paid, he doesn't want to do farm work, doesn't want to work out in the hot sun. These Mexican people are not afraid of that. To them, farm work is an honorable way of making a living.

The key to surviving in agriculture is to get more output from your labor. Costs have really gotten out of hand. We cannot compete very well with other businesses in paying wages to hire the higher caliber people that we really need to operate a dairy barn like this one. We need an employee who is pretty well educated.

Although the labor force appears to be adequate to needs at present, continuing uncertainty for the long haul tends to prod growers to mechanize where possible. Farmers anticipate greater risk in future regarding labor costs, the problems of management, and labor supply. Financial pressures force some operators to cut jobs and buy machines. Some anticipate shifts out of labor-intensive crops into more generally mechanized ones.

Harvesting almonds is all done with machines, from the knocking to the sweeping to the pick up. You have complete control. The one problem you could have in starting harvest is whether the machine will run. It's not whether the workers have arrived, or whether the workers are happy, and all the other things. The management problems, the conditions you must meet such as OSHA, such as pesticide requirements—all these things complicate life when you have many people in your orchard versus one person on a machine.

The only thing that will save the peach industry, I think, is mechanization. The regulations, the expense of handling people are incredible. Our payroll costs, in addition to federal unemployment, are 25.1 percent. For our year-round fellow we have health insurance and vacations, which adds another 5 or 6 percent.

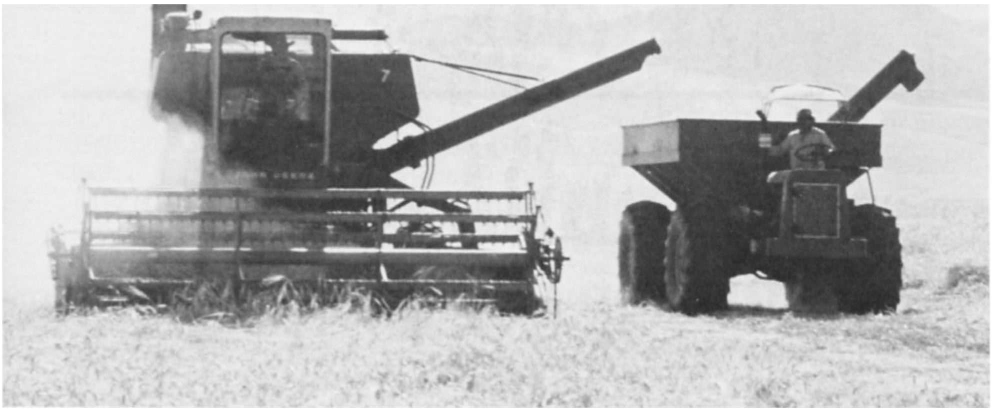
If a farmer makes a profit, he can pay labor. But the farmer gets caught in the money bind. The banks find it totally justified to buy a new piece of machinery if you are cutting out labor. When I was getting my new budget together, the bank said, "Cut out labor—it's too high." As a young farmer, the pressures are on me to get rid of labor.

Much has already been written about declining farm employment. The more startling figures, however, in State Employment Development Department statistics relate to the decline in California farmers and farm family members. From 1950 to 1978 a consistent linear decline took place among farmers and family workers—about 50 percent in 28 years. In the same period, hired farm workers experienced yearly ups and downs but cumulatively averaged a decline of less than 10 percent, even though foreign contract workers peaking at about 50,000 in 1956-1957 were totally phased out. In the early 50s, there were 1.8 hired workers for every farmer; in the mid 70s, there were over 3. Because of expanded farm acreage and shifts into specialty crops, there are nearly as many workers as ever on California farms—but there are only half as many farmers.

Changing rural communities

The two northern California counties in which these interviews took place are markedly different. One is a very rural county, which has experienced very little growth in recent decades, has numerous large ranches, almost no industry, and no towns of more than a few thousand inhabitants. The other is a bustling place with a rapidly expanding metropolitan center, many subsidiary industries to agriculture, and a history of many small towns surrounded by relatively small farms. Geography and history are part of the differential development of the two counties.

Agricultural technology has contributed to the change process going on in rural areas, yet other general economic factors and government policy decisions may be more significant. One striking change in both these counties in the last 20 years has been the gradual ethnic shift. Spanish-speaking residents now comprise from 25



to 50 percent of local populations. Mexican farm workers have settled into many rural communities on a semi-permanent basis, and the face of small towns up and down the great Central Valley is changing.

The Spanish-speaking population has increased, and it's become permanent. At one time it was highly mobile—we used to have labor camps where they'd come and live and work during the harvest, then go back to their permanent homes. That kind of movement has essentially stopped. These people have settled down here and become a part of the permanent labor force. Approximately 20 percent of the county is now Spanish-speaking. They are gradually being amalgamated into the system, though the biggest percentage are still farm labor.

Since they took away the bracero program, some green card families have moved here. Our schools show it; our youngest girl's class was probably about 40 percent Mexican. Most of these Mexican families are old fashioned families with old ways, and the parents haven't learned how to work into an American community. But the kids take part in all the programs. In years to come they will fit better into the community than the parents.

The minority question here is intriguing...there are those Mexican families who live in town and become part of the community. I can think of some families that are just totally integrated, and they intermarry with whoever they want and nobody thinks anything of it. They have been here awhile and they work permanently, they have acclimated, they are involved even to being volunteer firemen. If they have made the attempt to assimilate, they are accepted. But the migrant worker is another category. What is interesting is that there is even a hierarchy within the Mexican community. New migrants are on the low end of the scale, and the more settled workers, depending on how long they have been here, are higher up in the pecking order.

The functions of small towns have changed as well. Depending on geographical area and distribution of population, towns have stagnated or thrived as businesses and services have followed the trend to centralization. School consolidation itself has had varying effects.

When we were growing up there must have been four or five grocery stores in Ingle's Ferry. We have just one now. We have lost our drug store. We have to go 15 or 20 miles to get even a spool of thread. Fifteen years ago they unified the schools. I don't think it has improved anything, and it has created lots more problems.

In Channing there is less participation in community organizations than there used to be. I think maybe it is the way we live now. We used to have smaller ranches around, and it seemed like maybe people got together more, did things together.

The number of small businesses associated with farming is on the wane. As farms get larger, the farmer buys bigger tractors. He wants to go where he can get the best price. If he is going to buy three or four tractors at a time, chances are he will not buy them here in Bennett City; he will buy from the larger suppliers on the other side of the county line.

The effect of inflation, felt particularly by farmers in terms of land prices and the costs of technology, is to further stratify rural populations. Some of these interviewees expressed concern about a growing discrepancy between rich and poor.

The land sales are going to larger farms who are expanding, mostly, or to foreign investment. The young boys aren't buying that land. They can't pay $2,000 to $3,500 an acre for land, and ever pay for it in their lifetime at current farm prices, unless they get some kind of outside money. Resources are concentrating in the hands of fewer and fewer entrepreneurs.

There may be an increasing disparity between the really well off in the county and those who are lower; it's a question of how you want to look at the statistics. We often hear that this county has one of the highest per capita incomes in the state—we're always right up there. But this is average income. If you take the median income, I think we are 46 to 48. This means we have a few very rich and a heck of a lot of poor people, relatively speaking.

Anybody who owns acreage or property or a thriving business has just greatly increased his holdings with inflation. He's a much richer man, even with inflation considered. But the poor man with nothing is that much worse off.

Before World War II, there were many people who came from the Dust Bowl who worked for farmers around here—some for my dad—and now they are farmers in their own right; they were able to save up enough money after working 5 to 15 years to start farming on their own. They did it with hard work, which they could do then; but today it takes more than hard work, it takes an incredible amount of money to get into farming independently. That's the problem with Mexican farm workers now—they're not going to have that same opportunity. Or at least it will only be a very lucky few.

Summary

The impact of technological change upon people in agriculture is a complex issue. The value of an approach such as this one—collecting people's reflections and impressions—is to set the issue in human rather than purely economic perspective. There are no simple conclusions. The farm labor situation in California, complex and volatile as it has been, is interwoven with many strands: historical precedent, economic necessity, pressures from south of the U.S. border, and questions of equity in job status in an industrialized society. Rural communities find that as they become less isolated and more cosmopolitan, former social patterns change, and the tradeoffs do not always seem clearly beneficial to everyone.

Two things, however, are clear: the inevitability of technological change, and the plurality of goals in our society. Our whole history and our mindset encourage us to continue developing new technology to suit new circumstance. At the same time, diverse social views often pull against each other, making the formation of a unified perspective on change difficult and frustrating. Agriculture has undergone profound changes in the last 50 years, both technologically and socially. The conflicts inherent in such a historical shift are revealed whenever participants in the process reflect on it.

Ann Foley Scheuring is a Research Associate and Orville E. Thompson is a Professor in the Department of Applied Behavioral Sciences, U.C., Davis.