MECHANIZATION REDUCES FARM LABOR REQUIREMENTS, WPA STUDY SHOWS

A striking example of the compensatory workings of modern technology—the displacement of men by machines in one industry and the creation of new employment in another by the production and servicing of the machines—is presented by the most recent study of the WPA National Research Project, "Changes in Farm Power and Equipment: Tractors, Trucks and Automobiles," made public today by Colonel Francis C. Harrington, Works Progress Administrator.

While approximately one billion man-hours of farm labor per year have been dispensed with through the widespread adoption of tractors, trucks and automobiles on farms during the last ten years, something more than a billion man-hours of new labor has been created by the consequent expansion in the automotive, rubber and petroleum industries, the report shows.

But while the new employment created is significant in a broad economic sense, the immediate effect of this mechanization is to throw thousands of farm tenants and laborers out of work. The new jobs created, generally, are in cities hundreds of miles away from their homes and call for skills and training which few farm workers possess. Several hundred tenants and share-croppers who camped along the highways of southern Missouri recently furnished a dramatic example of the immediate effects of the trend which the report shows to exist.
"Without taking into account the tremendous increase in the amount of transportation which mechanical motive power has made feasible," it is declared by Assistant Administrator Corrington Gill in his letter of transmittal, "the total saving in labor in the fields, and in raising feed and caring for the (displaced) work animals... comes to about one billion man-hours per year. Against this must be set about one and two-fifths billion man-hours of work in non-farm areas needed to produce the automotive equipment, to replace the worn-out units and parts, and to supply the necessary fuel and oil.

"This balance in favor of work created as against labor saved does not, however, tell the story of displacement on the farms—the migrations in search of new sources of income, and the unemployment which precedes the new job, if, indeed, it is found. In some parts of the country, 'tractored off' has therefore become synonymous with 'displaced' and 'technologically unemployed.'"

The rapid growth of mechanization on farms is indicated by the fact that there has been a 66 per cent increase in the number of farm tractors between 1930 and 1938, the report shows. The cotton areas lagged considerably behind other regions in embracing the tractor, but in recent years cotton planters have become among the most avid purchasers. The increase in the Eastern, Delta and Western cotton regions was 90 per cent, 137 per cent and 122 per cent, respectively, for the period mentioned—greater by far than for any other agricultural region in the country. For the country as a whole, 13.5 per cent of the farms were found to own one or more tractors. Their greatest concentration was found to be in the dairy, truck crop and fruit areas of the lake and midwestern states.
The labor saving factor in the use of trucks and automobiles, the report continues, is less apparent than in the case of tractors, but it is indisputable that these conveyances have greatly lessened the burden of farm labor; released, through time saved in transportation, much labor for other occupations; and reduced the amount of labor involved in caring for and raising feed for work stock. To this extent they have contributed to the displacement of human labor on the farm.

The number of automobiles on farms in 1930, the last year for which accurate figures are available, was 4,134,362, which was an increase of approximately 100 per cent during the preceding ten years. Motor trucks increased by more than 800 per cent in the same period to a total of 900,385. Fifty-eight per cent of all of the farms in the country had automobiles in 1930, and 13 per cent had trucks. In recent years, it is explained, the utility of both trucks and automobiles has been greatly extended by the use of trailers, the number of which increased from 84,000 in 1935 to 733,000 in 1935.

"The improvement in roads which has accompanied the development of automotive equipment," the report states, "has had a very important influence on the acceptance of motor transportation on the farms.... The Works Progress Administration has made great strides toward supplying this need through its farm-to-market road program. Up to October 1, 1937, the construction of over 30,000 miles of rural secondary roads and nearly 8,000 miles of rural primary roads had been completed by WPA projects...."

Predicting that the trend toward mechanization of the farm will continue to accelerate, the report concludes:
The mechanization of farm power, which lagged so far behind the power revolution in other industries, has helped to bring to agriculture some of the benefits, tempo and mobility, as well as some of the insecurity of tenure and livelihood, that have come to characterize such other industries as manufacturing and mining.

"...mechanization of the farm involves more than the purchase of a tractor. It practically calls for a reorganization of the farm on a different scale, the acquisition of new equipment, and a higher degree of planning. It also involves a higher capital investment and a greater dependence of the farmer on credit resources and manufactured products. Commercial farmers who are not in a position to mechanize face increasing difficulties resulting from competition of the mechanized farms."

The report is published as a booklet of 114 pages and contains numerous illustrations, charts and statistical tables. It was prepared by Eugene G. McKibben and R. Austin Griffin under the supervision of John A. Hopkins as one of the series of agricultural studies of the National Research Project of the Works Progress Administration, directed by David Weintraub.