

The 30 percent of the total family income derived from animal production in 1970 was unequally distributed among the farmers in the area. Gross income from milk (94.4 percent of which was sold) accounted for 66.5 percent of the total gross income from animal products and the change in inventory of animals. Forty-two percent of the gross income from milk went to a single family and 81 percent went to four families. Gross income from eggs (11.7 percent of which were sold) accounted for only 2 percent of the total gross income from animal production.

As mentioned in earlier chapters, "farmers on credit lists" refers to the farmers organized in groups who receive credit for purchasing the inputs needed to follow the recommendations of the Puebla Project. The average total family income for this category of farmers was \$771.20 in 1970, about 6.6 percent less than the average for all farmers in the area.

Table 10.1 shows that the composition of the income of farmers on credit lists differs from that of all farmers in the area, mainly in that a larger percentage of the income of the credit-listed farmers is derived from crop production with a smaller income percentage from animal production. In 1970, for example, the average family net income from crops was \$399.48 for farmers on credit lists compared with \$293.06 for all farmers in the area. The average gross income from milk production in 1970 was \$53.42 for farmers on credit lists versus \$253.00 for all farmers in the area. The value of the milk production of the largest single producer in the credit-list category was \$2,308; for the all-farmers category the comparable value was \$25,344.

Perhaps of greater significance than the change in the average total family income is the decrease in the percentage of families with very low incomes. Table 10.2 shows the distribution of family incomes among five income ranges in 1967 and 1970. From this information it is seen that the percentage of all families in the lowest income category decreased from 55.8 percent in 1967 to 43.5 percent in 1970. These results show that many families in the income category of \$400 or less realized increases in income during the three year period.



The average total family income for all farmers in the Project area increased from \$666.80 in 1967 to \$825.52 in 1970. Farmers are using this higher income both for home improvements and production investment. Some are beginning small animal production enterprises, such as this hog unit.

TABLE 10.2. Distribution of annual family incomes among five ranges in 1967 and 1970.

Ranges in annual family income	1967 %	1970*	
		% of all families (N=239)	% of families of farmers on credit lists (N=213)
400 or less	55.8	43.5	39.9
401 to 600	12.3	20.1	17.4
601 to 1000	16.3	18.0	18.8
1000 to 2000	10.0	11.3	18.8
2000 or more	5.6	7.1	5.1

\* Family incomes in 1970 were adjusted to 1967 prices.

## CHANGES IN EMPLOYMENT

There is a high level of unemployment and under-employment in most rural areas of Mexico due to the: (a) rapid growth in population, (b) low productivity of the traditional agriculture, and (c) small number of job opportunities outside of agriculture. The Puebla Project has worked to increase the level of employment by developing and promoting a new technology for maize production that requires more labor per hectare and enables the farmers to increase their net income. It is hoped that higher incomes will permit farmers to gradually build up capital reserves that can be used to increase the productive capacity of their resources. If farmers invest this capital in activities that increase the use of labor, such as a shift from maize to alfalfa or vegetable crop production, the effect on employment, catalyzed by the Puebla Project, should be much greater than the initial effect resulting from the use of the new maize technology.<sup>5</sup>

Table 10.3 shows the labor requirements for producing one hectare of maize using the traditional practices and the requirements for the practices recommended by the Puebla Project. The average number of man-days required to produce one hectare of maize is increased from 40.6 man-days to 52.7 man-days, or by 30 percent, when a change is made from the traditional to the new technology. The higher labor requirements of the new technology occur at planting, at the second cultivation, and at harvest.

5. There is no clear indication in the Puebla area that new capital from the use of the improved maize technology will be invested so as to increase employment. On the one hand, there is a tendency to slowly diversify land use in the small areas where irrigation is available. On the other hand, there are cases where farmers have purchased animal-drawn implements, such as cultivators, planters, and fertilizer distributors, that reduce labor requirements. The main justification for increasing the use of laborsaving farming implements is that farm labor becomes scarce at times of peak demand — at planting, time of fertilizing, and at harvest.