

In Dinuba, on the other hand, original cost was lower and during initial development no pump was required, though for full use of the land, investment had eventually to be made in pumps. On the other hand, given the size of farms as they exist in each community, the actual per-acre cost of water is not greatly different. As a matter of fact, the excess of cost of water in Arvin is less than the amount received by landowners for oil leases, so that any economic hardship directly resulting from water costs would be offset by gains from potential oil resources. Furthermore, both the costs and the gains are generally reflected in land values, and it is therefore doubtful if either has a long-run effect upon the returns to the farm operator.

The situation with respect to water has, however, had an effect upon size of farms in the Arvin area. The requirement for deep and expensive wells with large water flow has made it necessary to irrigate fairly large tracts with each pump—about 200 acres for efficient operation. Many farms in the Arvin area get water from wells owned either cooperatively or corporately, so that it is possible, even with this water situation, to operate small units efficiently; furthermore, most of the land is in units which are larger than the water requirements of single wells, and therefore farm size is not clearly dependent upon the need for deep wells. Nevertheless, this high initial investment has inhibited the development of small units and contrariwise been influential in the creation of larger ones. Furthermore, the depth to groundwater held up the intensive use of Arvin lands till efficient pumping plants were developed by engineers, so that the water situation was responsible for the late growth of Arvin. Summarizing, the water supply has had little or no effect upon the economic welfare of operating farmers that could create social poverty, but it has had some influence upon the size of farm units and upon the period of development of Arvin lands.

The availability of surface water in the Dinuba district and the relatively simple engineering and low investment in water resources made it possible to develop that area early. Establishment of an irrigation district under the original Wright Act made it advantageous to subdivide and sell the land. Thus the Dinuba water supply was a responsible agent in establishing farm size in that community.

CULTURAL AND DEMOGRAPHIC FACTORS

Several factors in the social background of the people who dwell in Arvin and Dinuba require careful examination: size of population, nativity of population, educational attainments, and economic status.

Dinuba is roughly 20 percent larger in population than Arvin. Since the resource base is comparable, this divergence must be attributed in part to intensity of land use and in part to size of farm operations and degree of mechanization. Since approximately identical amounts of outside labor are brought into the community, migration of workers can hardly be held responsible. It would be difficult to explain differences in average level of living by the existence of fewer families, when these fewer families enjoy the same amount of natural resources. Since, however, the number of people are partially responsible for the existence of social agencies, such differences might be attributable to community size. While the population differences between the two communities may be contributing causes to the social