Size of farm operations is the third characteristic of farm organization, and the one that the present study was designed to test. We find that the differences between average size of farm are great—in the neighborhood of 9 to 1 when taken on an acreage basis, 5 to 1 in value of products, and 3 to 1 if adjusted for intensity of operations. Ninetenths of all farm land is operated in units of 160 acres or more in

Arvin as against one-fourth in Dinuba.

Repeated allusions have been made to this factor. We have seen that water resources, historic timing, and type of farming were each to some measure responsible for the large farms in Arvin and the small ones in Dinuba. We have also seen that scale of farming operations had an effect upon the demography of the population, farm tenancy, and, above all, on the requirements for hired labor in each area and the occupation structure of the two communities. It is also true that throughout the intensively cultivated areas of the State, those communities with large-scale farming generally offer fewer economic and social services than those with moderate-sized farms. There remains no question that size of operations is therefore an important factor in establishing the kind of social environments found in Arvin and Dinuba. The place of this factor in the causal forces will be presented in detail in the succeeding section of this chapter.

- AN EXPLANATORY HYPOTHESIS

It is now possible to formulate a hypothesis of the chain of causative forces which were responsible for the divergence of social conditions between the two communities whose fundamental cultural heritage and economic circumstances are similar. In formulating such an hypothesis all the pertinent known facts should be explained and their forces understood in terms of recognizable social process. Naturally such a formulation cannot be complete and final but can approach that only insofar as social processes are presently recognized

The physical landscape and the geographic position of Arvin and Dinuba are sufficiently similar to produce an agricultural base to support communities equivalent in facilities offered, except that the water supply in Arvin created special circumstances. The necessary depth of the water level and the attendant need for larger capital investments delayed the intensive development of Arvin soils until adequate pumps were produced, and inhibited somewhat the growth of small farms. The delay in development made the land available to big operators at a time when industrialized fruit production in California was at its inception. Therefore, the water situation was doubly responsible for the fact that Arvin was a large farming community. It should be noted, however, that the water supply did not prevent small farms, and a few such units came into the community early and have been farmed continuously ever since. It is doubtful if the water supply had any other direct effects, though its cost may have created specific hardships in an earlier era. It is probable that other causes were contributory to the development of large-scale operations and the belated development of the area, but such causes are not readily apparent and were not the subject of specific analysis. High investment for farm development because of the water situation may also have been a contributory cause to the