APPENDIX F

ASSOCIATION BETWEEN SOCIAL PHENOMENA

The assumption that a whole series of social phenomena, from level of living to type of social activities, were associated with occupation and income was subjected to statistical tests. The Chi Square test of significance and the use of T as a measure of relative association were found most useful. The following tabulation shows the value of T for those associations subjected to the test, and the annotations indicate the level of significance by the Chi Square test. The value of T expresses the degree to which independent employment and higher income are respectively associated with (1) each other, (2) above median level of living as determined by the level-of-living index, (3) membership of individuals 12 years old and over in clubs, (4) reported social activities other than those sponsored by club or church, (5) above median in the index of condition of the home as established by subjective evaluation, (6) membership of persons 12 years old and over in any church, and (7) membership of persons 12 years old and over in churches of highest standing, in contrast with membership in the intermediate and lower status churches.

The procedure was to reduce all sets into dichotomous classifications, using for all seriated data the break nearest the median and for other data mutually exclusive attributes. The fundamental occupational dichotomy between laborers and independently employed persons was used. The remaining dichotomies are self-explanatory.

The formulas used were:

$$X^2=\sum\frac{(f-f_o)^2}{f_o} \qquad (1)$$

when f=observed data

f_o=expected distribution if unrelated,

$$T=\sqrt{\frac{X^2}{N}} \qquad (2)$$

when N=number of observations

Because Q is frequently used as a measure of degree of association, calculations of its value were made for a number of the associations here analyzed. Since Q is 1 when one cell is 0, since this is not actually a measure of perfect association, and since in some instances the number of cases in one cell is small, this measurement was rejected. Q values of items which meet the X^2 test of significance at the .001 level ran between .60 and .85.