QUANTATATIVE METHODS: A WESCONN PROJECT
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Modern methods of data processing are presently being applied to a research project under the supervision of Dr. Kelso.

Statistics and computer science have added a new dimension to the traditional historical interpretation of voting behavior. The use of the computer enables the historian to analyze the characteristics of the entire voting population rather than the opinions and records of several prominent individuals. In this manner, direct examination of the behavior in question can be made in its entirety at the level electoral behavior can best be understood. Use of the computer is further enhanced by the statistical programs it employs in the mathematical interpretation of data. Statistical analysis enables the historian to understand the relationship between population variables on a level which is beyond the scope of impressionistic technique.

Information from the Census of 1860 is being used to supplement or detract from qualitative studies of voting behavior in the Connecticut presidential election of 1860. Census data provides information about the nativity, real estate, personal estate, occupation and age of individual voters and can be analyzed using computer facilities.

The form and large amount of this data necessitated the development of procedures to make processing more meaningful and systematic. Only partisan towns were chosen as a data base, for the objective of the study was to determine what electoral characteristics were associated with one party rather than another. Distribution statistics were used to establish a percentage interval of partisanship, which if characteristic of a town over time could be used to determine what characteristics of the town's individual voters accounted for its high support for a particular party. Significant data was then collected and standardized using the town or ward as the unit of comparison. Small units of comparison were chosen to facilitate the examination of the influences of dominant population characteristics on voting behavior. Futhermore, standardize units were required to eliminate invalid comparisons between voting areas with drastic physical differences. The original census categories of occupation, real estate, nativity, and personal estate were also standardized into groups conducive to analysis. For example, the variable of occupation was broken down into such groups as skilled. unskilled, professional, sales, clerical, etc. In this manner, statistical tests can be performed to determine whether a particular occupational group was associated with a particular party. Once variable subgroups were defined, codes were assigned to all variable subsets in the conversion of data to computer usable form. The coded subsets were then organized on computer cards in such a way that each type of variable was entered into a standardized position or field for the purposes of processing.

Application of these data processing steps has produced a large quantity of reliable information about the Connecticut voters of 1860. Voting information for all the significant Democratic towns has been collected, standardized, coded, punched, and processed to determine the distribution of incomes for all sets of occupations. A data bank of approximately 25,000 cards with 100,000 units of vital information has been assembled, with the goal that electoral information for the years 1870, 1880, 1890 will be prepared and processed for historical purposes.

The need exists to develop hypothetical cases or models for use in proving or disproving concepts of voting behavior. Mathematical dependencies between independent and dependent variables will then be calculated using simple, partial, and multiple correlation. Correlation calculations will indicate whether a linear relationship exists between variables and show numerically how much of the variation in a variable can be explained from one or more independent variables. Using qualitative sources of information with quantitative calculations, historical interpretations of the role played by the variables of nativity, occupation, real estate, personal estate, and age in the election of 1860 can be corroborated or disproved.