

State Voters Political Vote

Discriminant Analysis

Multivariate Solutions

Discriminant Analysis

- *Discriminant analysis is used in situations where the object is to build a descriptive model of group membership based on observed characteristics of predictor variables.*
- *The procedure generates a discriminant function based on linear combinations of the predictor variables that provide the best explanation of Group membership.*

Discriminant Analysis (cont.)

- *First Step: The first step is to determine a Group whose characteristics are explored. For the State Voters Database, the Group is defined by those who voted for the Political Party and those who did not.*
- *Interpretation: Standardized Coefficients can be used as weights when exploring which variables best contribute to membership in the Group. For example, if 'Voted in Primary' has a standardized coefficient of .8, and 'Age' has a standardized coefficient of .4, it can be said that 'Voted in Primary' has twice the discriminating power of Age in determining likelihood groups of Party Voters.*
- *Standardized coefficients near zero can be said to have little impact on the discriminating process.*

Variables Present in the Discriminant Analysis

The Group

Voted for the Party (47%)/Did Not Vote for the Party

Variables Present in Model Equation

Age

Voted in Primary

Ethnicity

Gender

Congressional District

County

Standardized Coefficients

Discriminant Analysis

| Variables Present in Full Model Equation for Party Votership | Standardized Canonical Discriminant Function Coefficients |
|---|--|
| Age | 0.693 |
| Voted in Primary | 0.684 |
| Ethnicity | 0.292 |
| Gender | 0.139 |
| Congressional District | -0.150 |
| County | -0.192 |

Age (From Youngest to Oldest) and Primary Voter Record are the Key Discriminators for Party Voters

Graphical Display of Coefficients of Discriminant Analysis

