

Assignment 4: Factor Analysis

The Stata dataset “Values, 2012 ANES.dta” contains responses to 10 survey items designed to measure respondents’ core political values from the 2012 American National Election Studies survey. For each of the following items, respondents registered a response on a five-point scale ranging from “strongly disagree” (coded 0) to “strongly agree” (coded 4). Responses have been “reverse coded,” where necessary, so that higher values denote the more conservative response.

- **equalopp**: Our society should do whatever is necessary to make sure that everyone has an equal opportunity to succeed. (reversed)
- **equalrights**: We have gone too far in pushing equal rights in this country.
- **lessequal**: This country would be better off if we worried less about how equal people are.
- **equalchance**: One of the big problems in this country is that we don’t give everyone an equal chance. (reversed)
- **unequal**: It is not really that big a problem if some people have more of a chance in life than others.
- **fewer**: If people were treated more equally in this country we would have many fewer problems. (reversed)
- **changing**: The world is always changing and we should adjust our view of moral behavior to those changes. (reversed)
- **lifestyles**: The newer lifestyles are contributing to the breakdown of our society.
- **standards**: We should be more tolerant of people who choose to live according to their own moral standards, even if they are very different from our own. (reversed)
- **family**: This country would have many fewer problems if there were more emphasis on traditional family ties.

Conduct a factor analysis of the items. How many factors should be retained? Should the factors be rotated orthogonally or obliquely? Why? Can you lend some substantive interpretation to the factor(s)? What can we learn about the psychological structure of political values among the American mass public from the factor analysis?

Next, conduct a principal components analysis of the values items. Compare the results of this analysis with the results of the factor analysis. How are results different? How are they similar? Which procedure is most appropriate for understanding structure in responses to the values items?