

**PS207 Homework #1:
Factor Analysis
Due Wednesday, October 8**

There is a Stata dataset on my website called ps207hw1. This is survey data from the 1994 Federal election in Germany. Download this dataset and do the following two problems. Turn in your writeups for these problems (a couple of paragraphs each) as well as the log files.

Problem 1

Conduct a factor analysis on the following 4 variables: ForAdapt, ForJobs, ForPolit, and ForMarr. These 4 variables are answers on a 7 point scale to the following statements, with higher numbers indicating agreement:

ForAdapt: “Foreign people living in Germany should adapt their way of life a little more to the German style.”

ForJobs: “When jobs get scarce, foreigners should be sent back to the countries they come from.”

ForPolit: “Foreigners should not be allowed to take part in political activities in Germany.”

ForMarr: “Foreigners in Germany should select their marriage partners from their fellow countrymen.”

How many factors seem to underlie these variables? Explain what you think this factor or these factors might be.

Now construct a factor score or scores from this factor analysis for use in the following model. As your dependent variable, use PartVote, which is vote choice in the PR portion of the federal election. A 1 is a vote for the incumbent Christian Social Union (a conservative party), a 2 is a vote for the Social Democrats (liberal), a 3 is a vote for the Green party (liberal), and a 4 is a vote for the Reformed Communists (liberal). As independent variables use GEConNow (opinions on changes in the general economy in the last year, with higher numbers indicating more negative opinions) and PEConNow (opinions on changes in personal finances in the last year, with higher numbers indicating more negative opinions), as well as whatever factor scores you have created. Estimate the appropriate statistical model and interpret your results.

Problem 2

Conduct a factor analysis on the following 8 variables: *WConqE*, *EastLive*, *WestShar*, *EastIgno*, *WestNoRe*, *EastSorr*, *EastJobs*, and *EastWork*. These 8 variables are answers on a 4 point scale to the following statements, with higher numbers indicating disagreement:

WConqE: “West Germans have conquered the former GDR in a colonial style.”

EastLive: “Many former GDR citizens make it too simple for themselves: They want to live according to Western standards, but just want to work as they used to in the East before.”

WestShar: “In spite of their wealth, the Germans in the West did not learn to share.”

EastIgno: “East Germany is almost just regarded as a sales territory for Western products. Too little has been done to preserve East Germany as a production country.”

WestNoRe: “There are people in the West who would like to carry on living as if there had never been a reunification.”

EastSorr: “The East Germans tend to feel sorry for themselves.”

EastJobs: “The Government in Bonn does too little to save jobs in the former GDR.”

EastWork: “Many workers or employees in East Germany do not seem to be able to stand Western pressure to work harder.”

How many factors seem to underlie these variables? Explain what this factor or these factors might be.