Homework 6 Answers

Part 1—California results

1. How would you very succinctly describe the relationship of the variable RawImm4 with its best demographic (age, education and income) predictor?
   Age ←→ RawImm4: r = -.180; p < .001.

2. What percent of the variation in RawImm4 is due to this variable?
   3.24%

3. What percent of the variation in the measure RawImm4 is explained by variation in Democrat5?
   35.4%

4. How much more of the variation in RawImm4 is explained by Democrat7 than is explained by Democrat5?
   2.9%

5. What is the correlation between education and political interest?
   .331

6. What is the correlation between education and income?
   .545

7. What percent of the variation in Income is explained by education?
   29.7%

8. Write out the equation for the regression of RawImm4 on Dem5?
   RawImm4 = 1.264 + 2.554(Democrat5)

9. How significant is the slope in this equation?
   < .001

10. How well does this equation fit the data?
    Explains 35.4% of the variation since R^2= .354

Part 2—Texas results

1. How would you succinctly describe the relationship of each of the dependent variables ImmIncl and ImmExcl with their best demographic (age, education and income) predictor?
   Age ←-.272→ ImmIncl; p < .001; Age ←.281→ ImmExcl; p < .001.

2. What percent of the variation in each of the measures ImmIncl and ImmExcl is explained by variation in Democrat5?
   ImmIncl $.370^2$ = 13.69%; ImmExcl $-.517^2$ =26.73%.

3. What is the correlation between education and political interest?
   r = .179

4. What is the correlation between education and income?
   r = .381

5. Write out the equation for the regression of ImmIncl on Democrat5.
   ImmIncl = 1.382 + .866 (Democrat5)

6. Write out the equation for the regression of ImmExcl on Democrat5.
   ImmExcl = 2.833 - 1.186 (Democrat5)

7. How significant is the slope in each equation?
   Both are significant at less than .001 or p < .001; p < .001.

8. How well does each equation fit the data?
   Adj R^2 = .136 for ImmIncl; Adj R^2 = .266 for ImmExcl.

9. How much more or less effective is Democrat5 in explaining Inclusive attitudes toward immigration in Texas than it is in California?
   Adj R^2 = .354 for RawImm4 (California);
   Adj R^2 = <u>.136</u> for ImmIncl (Texas)
   .218 or 21.8%

10. Why might one reasonably say that education is more effective in building social capital in California than it is in Texas?
    Cal Education ←.331→ Political Interest or $.331^2$ = 10.9%
    Tex Education ←.179→ Political Interest or $.179^2$ = 3.2%