

# Exercise 5—Anova

## 2024

### Exercise 5—Anova

#### Part 1—California results

Cal 1. How many categories are there in the dependent variable RawImm4?  
**5**

Cal 2. At what level is this dependent variable measured?  
**Interval**

Cal 3. Which ethnic groups differ significantly in California on RawImm4?  
**All three**

Cal 4. Which age group differs significantly from all except one other?  
**55+**

Cal 5. Is this result reflected in the means plot?  
**Yes**

Cal 6. Is the overall Anova for the Coastal IV significant?  
**Yes**

Cal 7. Which groups on the Coastal IV nevertheless do not differ significantly?  
**Inland and South Coast**

Cal 8. Do those of different levels of interest differ significantly?  
**Yes**

Cal 9. Which partisan groups differ significantly?  
**All three**

Cal 10. Referring to the following code, at which level is ImmCal3 measured?  
recode RawImm4 (0,1=0) (2,3=.5) (4=1) into ImmCal3.  
value labels ImmCal3 0 'low' .5 'med' 1 'high'.  
**Ordinal**

Cal 11. Although not generally advised, an analysis of variance can be run using a recoded version of an index, such as ImmCal3. Using some artistic licence (and the syntax in Cal11) run an Anova with ImmCal3 as the DV and ethn as the IV. In this analysis which California ethnic groups differ significantly?  
**All three**

Part 2—Texas results

Tex 1. How many categories are there in each of the DVs ImmIncl and ImmExcl?

**18**

Tex 2. At what level are each of these two variables measured?

**Interval**

Tex 3. Which ethnic groups do not differ significantly on these variables?

**Hispanic & Black**

Tex 4. Do Hispanics score higher or lower than whites on ImmIncl?

**Higher**

Tex 5. Do Blacks score higher or lower than whites on ImmExcl?

**Lower**

Tex 6. On which DV do urban and suburban Texans not differ?

**ImmExcl**

Tex 7. Do rural Texans score higher or lower than urban Texans on ImmExcl?

**Higher**

Tex 8. On which variable and between which groups do those of different levels of interest differ significantly?

**On ImmExcl Extremely differs from not very and somewhat interested.**

Tex 9. Which partisan groups differ significantly?

**All three**

Tex 10. Referring to the following code, at which level is ImmIncl3 measured?  
recode immIncl (0 thru 1.33=0) (1.65 thru 2=.5) (2.32 thru 3=1) into ImmIncl3.  
value labels ImmIncl3 0 'low' .5 'med' 1 'hi'.

**Ordinal**

Tex 11. Using some artistic licence (and the syntax in Tex 10), run an Anova with ImmIncl3 as the DV and ethn the IV. According to this analysis, which Texas ethnic groups differ significantly?

**Black and White; Hispanic and White.**