All commands assume cda_data.txt has already read into your statistical software package

---

### Contingency Tables

**Code 1.1 (Slide 5): Gender X Age Table:**
```
tab gender agegrp
```

**Code 1.2 (Slide 7): Gender X Age Table with Pearson Chi-Square, Fisher Exact, and Expected Cell Counts:**
```
tab gender agegrp, chi2 exact expected
```

---

### Logistic Regression

**Code 2.1 (Slide 14): Depression Model as Logit (Constant Only):**
```
logit depressed
```

**Code 2.2 (Slide 15): Depression Model as ORs (Constant Only):**
```
logit depressed, or
```

**Code 2.3 (Slide 16): Depression Model as Logits (Age Predictor):**
```
logit depressed age
```

**Code 2.4 (Slide 18): GOF Tests after Logistic Model:**
```
logit depressed age, or
```
- **Pseudo-R²**
  ```
  net install http://www.indiana.edu/~jslsoc/stata/spost9_ado.pkg
  fitstat
  Hosmer-Lemeshow
  estat gof, group(10)
  Pearson Chi-Square
  estat gof
  ROC-Area Under the Curve
  lroc, nograph
  ```

**Code 2.5 (Slide 19): Diagnostic Measures of GOF**
```
logit depressed age
```
- **Pearson Residuals**
  ```
  predict presid, resid
  ```
- **Deviance Residuals**
  ```
  predict dresid, dev
  ```
- **Leverage**
  ```
  predict lev, hat
  ```
- **Pregibon’s Delta-Beta**
  ```
  predict db, db
  ```
Logistic Regression Continued

Code 2.6 (Slide 21): Lowess/Loess Plot of Depressed vs Age:
lowess depressed age, logit

Code 2.7 (Slide 22): Depression Model as ORs (Gender Predictor):
logit depressed i.gender, or

Ordinal Logistic Regression

Code 3.1 (Slide 25): BMI 3 Groups Model (Age and Blood Pressure Predictors):
   As Logits
   ologit bmi3grp age blood_press
   As ORs
   ologit bmi3grp age blood_press, or

Code 3.2 (Slide 26): GOF Tests of Proportional Odds Assumption:
   Brant Test
   ssc install omodel
   ologit bmi3grp age blood_press
   brant, detail

Code 3.3 (Slide 27): GOF Tests after Ordinal Logistic Model:
ologit bmi3grp age blood_press
   Pseudo-R²
   net install http://www.indiana.edu/~jslsoc/stata/spost9_ado.pkg
   fitstat

Multinomial Logistic Regression

Code 4.1 (Slide 30): Religion Model (Supernatural Belief Predictor):
   As Logits
   mlogit religion supernatural, base(1)
   As ORs
   mlogit religion supernatural, base(1) rrr