

**DANA4810: Jan 21**

Real estate investors, homebuyers, and homeowners often use the appraised (or market) value of a property as a basis for predicting sale price. Data on sale prices and total appraised values of 76 residential properties sold in 2008 in an upscale Tampa, Florida, neighborhood named Tampa Palms are saved in the TAMPALMS file.

- (a) Propose a straight-line model to relate the appraised property value  $x$  to the sale price  $y$  for residential properties in this neighborhood.
- (b) Interpret the  $y$ -intercept of the least squares line. Does it have a practical meaning for this application? Explain.
- (c) Interpret the slope of the least squares line. Over what range of  $x$  is the interpretation meaningful?
- (d) Use the least squares model to estimate the mean sale price of a property appraised at \$300,000.
- (e) Compute an estimate of  $\sigma$ .