Chapter 9

# Try It Yourself: Connecting Linear Regression and T-Tests

## StatCrunch Instructions

Note: Because of the way t-tests and regression are implemented in StatCrunch, the data need to be in a format specific to each. This is why there is a different file for each procedure. In other words, penguins\_bill\_sex.csv is the same data as penguins.csv but formatted differently.

Perform the Two-Sample T-Test:

1. Open the penguins\_bill\_sex.csv data in StatCrunch
2. Stat → T Stats → Two Sample → With Data
3. Sample 1 Values in → bill\_male
4. Sample 2 Values in → bill\_female
5. Calculation options → Pool variances
6. Click Compute!

Fit a Regression Line:

Create indicator variables for sex first:

1. Open the penguins.csv data in StatCrunch
2. Data → Indicator
3. Select columns → sex
4. Click Compute!

Then, create a regression line:

1. Stat → Regression → Simple Linear
2. X variable → sex = male
3. Y variable → bill\_depth\_mm
4. Click Compute!