**PROJECT 3**

**## Salary Discrimination**

The file `salary.txt` contains data for 52 tenure-track professors at a small Midwestern college. This data was used in legal proceedings in the 1980s about discrimination against women in salary.

The data in the file, by column:

1. Sex. 1 for female, 0 for male.

2. Rank. 1 for assistant professor, 2 for associate professor, 3 for full professor.

3. Year. Number of years in current rank.

4. Degree. Highest degree. 1 for doctorate, 0 for master's.

5. YSdeg. Years since highest degree was earned.

6. Salary. Salary/year in dollars.

**### Tasks**

1. Find the linear regression equation for this data using columns 1-5 to column 6.

2. Find the selection of columns with the best $R^2$ score.

3. Report whether sex is a factor in salary.