

# Assignment 2

## PAI 721: Introduction to Statistics

Prof. Jack Reilly

F2025

### Instructions

Answer all questions. Please upload your assignment to **Blackboard** as a PDF.

---

For questions 1–5, please consider the following dataset.

### Dataset

| Name     | Salary       | Years Experience | Job Description | Education Level |
|----------|--------------|------------------|-----------------|-----------------|
| Jane     | \$45,000     | 1                | Teacher         | College Degree  |
| Sam      | \$68,000     | 3                | Analyst         | College Degree  |
| Edwin    | \$92,000     | 5                | Police          | High School     |
| Shareefa | \$140,000    | 20               | Manager         | Graduate Degree |
| Dwight   | \$72,000     | 12               | Nurse           | College Degree  |
| Jiang    | \$68,000     | 9                | Teacher         | College Degree  |
| LeBron   | \$48,000,000 | 21               | Athlete         | High School     |

### Questions

1. What is the unit of analysis (the cases) in this table?
2. Identify the level of measurement of each variable.
3. What is the mean, median, and mode of the salary data in this table?

- You may use Stata or a hand calculator to answer this problem, but you must show your work or code in your answer.
4. Do you think the mean, median, or mode is the best estimate of central tendency for salary? Why?
  5. What measures of central tendency are possible to use for each variable in this dataset? Why?