

PSC 400

SYRACUSE UNIVERSITY

DATA ANALYTICS FOR POLITICAL SCIENCE

CAUSALITY AND SINGLE VARIABLES

ASSIGNMENTS

- Problem Set 1 due on Friday
- Review Exercise 1 due Friday
- Review Exercise 2 due Monday
- Prompt for Data Analysis Memo posted
 - due next week

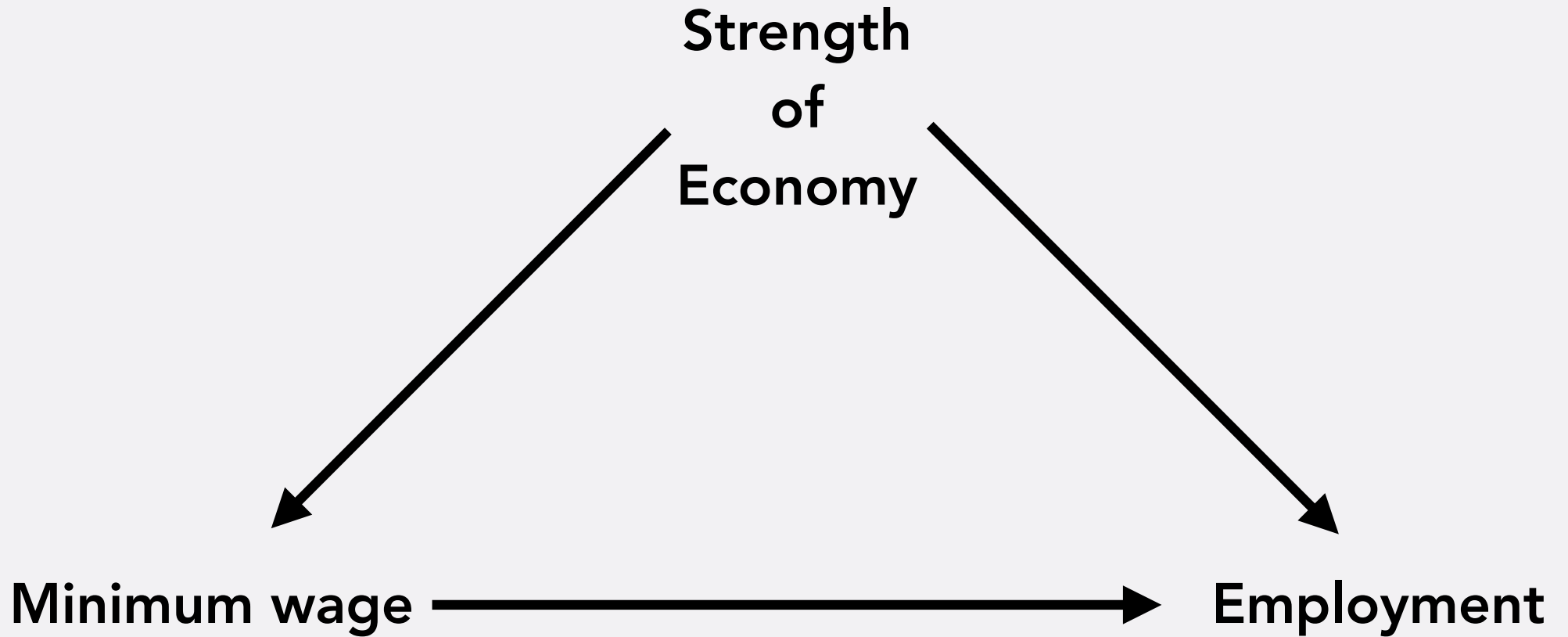
REVIEW

- **What you can do in R now:**
 - **load data**
 - **compute simple descriptive statistics**
 - tables, mean, median, range, etc.
 - **keep only subsets of data or variables/vectors**
 - e.g. only Sophomores, everyone except Sophomores, everyone older than 30
 - **create new variables**
 - e.g. adding two variables, putting continuous variable into categories, create factor variables, combine different variables into one variable (e.g. combine gender and race into one variable with all combinations)

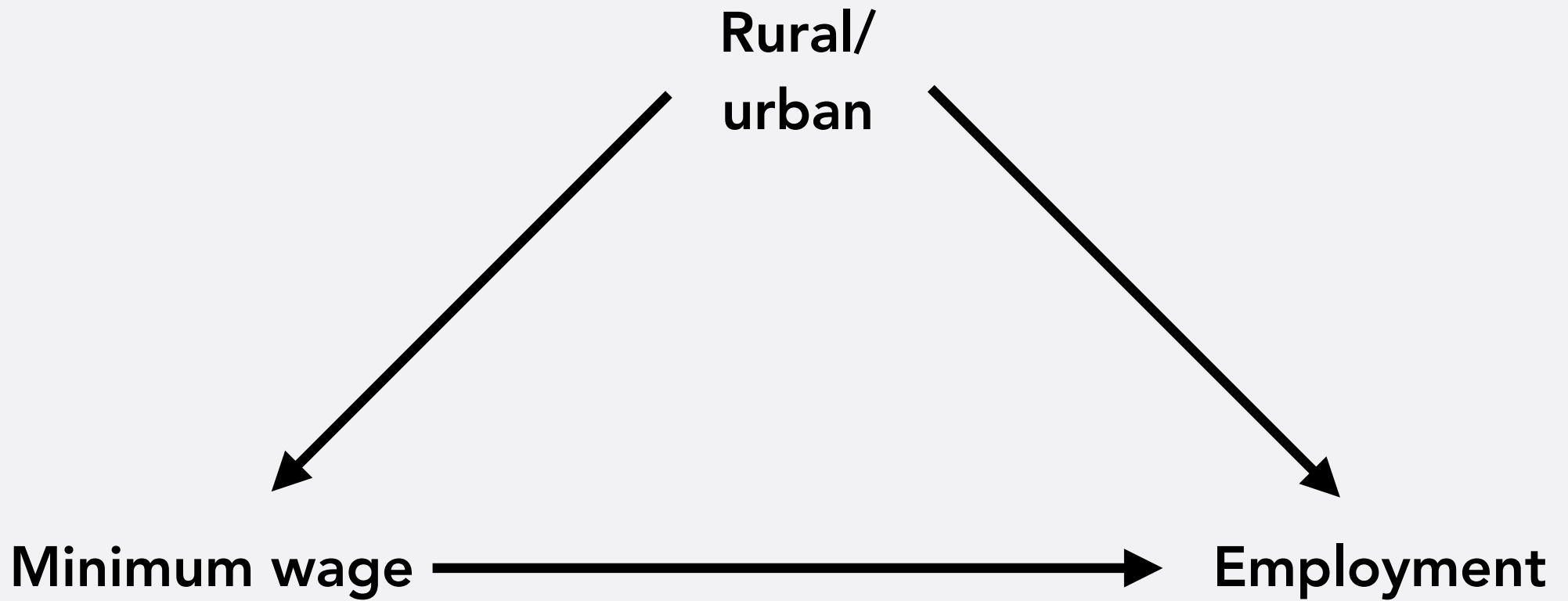
CAUSALITY

Minimum wage  **Employment**

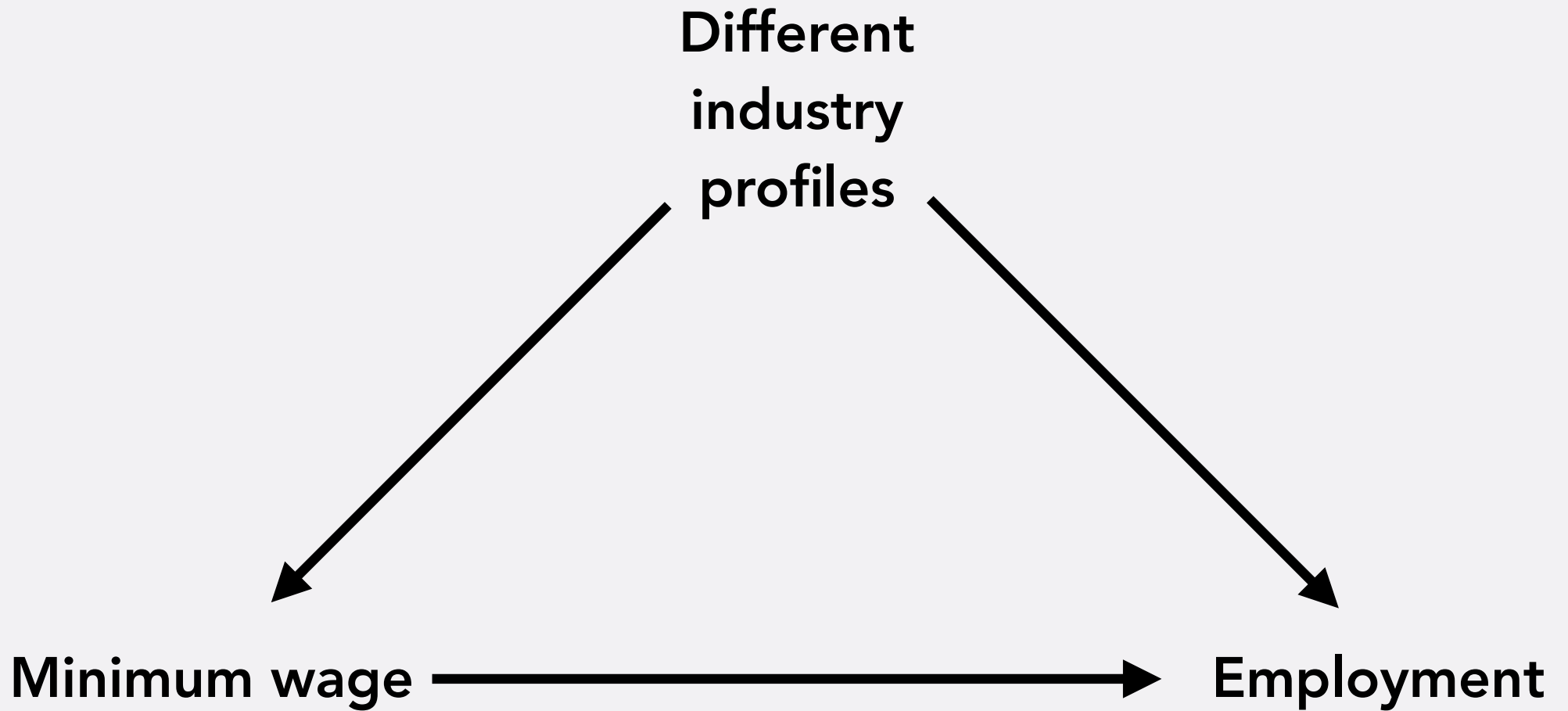
CAUSALITY



CAUSALITY

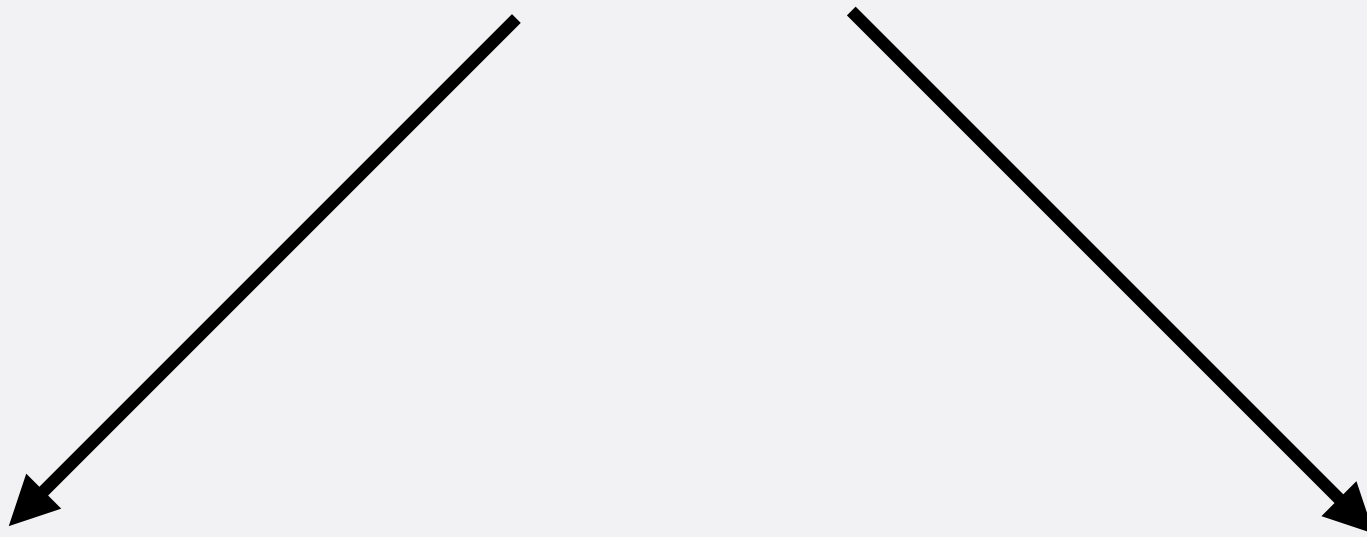


CAUSALITY



CAUSALITY

Many other differences between states that could affect minimum wage and employment



Minimum wage

Employment

IN-CLASS EXERCISE

Table 2.5. Minimum-Wage Study Data.

<i>Variable</i>	<i>Description</i>
chain	name of the fast-food restaurant chain
location	location of the restaurants (centralNJ, northNJ, PA, shoreNJ, southNJ)
wageBefore	wage before the minimum-wage increase
wageAfter	wage after the minimum-wage increase
fullBefore	number of full-time employees before the minimum-wage increase
fullAfter	number of full-time employees after the minimum-wage increase
partBefore	number of part-time employees before the minimum-wage increase
partAfter	number of part-time employees after the minimum-wage increase

- minwage.csv

IN-CLASS EXERCISE

Table 2.5. Minimum-Wage Study Data.

Variable	Description
chain	name of the fast-food restaurant chain
location	location of the restaurants (centralNJ, northNJ, PA, shoreNJ, southNJ)
wageBefore	wage before the minimum-wage increase
wageAfter	wage after the minimum-wage increase
fullBefore	number of full-time employees before the minimum-wage increase
fullAfter	number of full-time employees after the minimum-wage increase
partBefore	number of part-time employees before the minimum-wage increase
partAfter	number of part-time employees after the minimum-wage increase

- Create a new variable that gives the proportion of full-time employees *before/after* the minimum wage increase
- What is the proportion of full-time employees in PA and NJ *before/after* the minimum wage increase?