

PSC 400

SYRACUSE UNIVERSITY

**DATA ANALYTICS**

**FOR POLITICAL**

**SCIENCE**

**INFERRING POPULATION**

**CHARACTERISTICS**

# ASSIGNMENTS

- **Review Exercise 1 due Thursday**
- **Problem Set 1 due Friday**

# ANOTHER "EXPERIMENT"

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
- Effect of minimum wage increase in NJ (\$4.25 to \$5.05) on employment in fast food restaurants

# ANOTHER "EXPERIMENT"

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partAfter	number of part-time employees after the minimum-wage increase

- What is the average wage in PA and NJ before the minimum wage increase?
- What is the average wage in PA and NJ after the minimum wage increase?

# ANOTHER "EXPERIMENT"

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- What is the proportion of full-time employees in PA and NJ before/after the minimum wage increase?

# OBSERVATION

- **Data point**



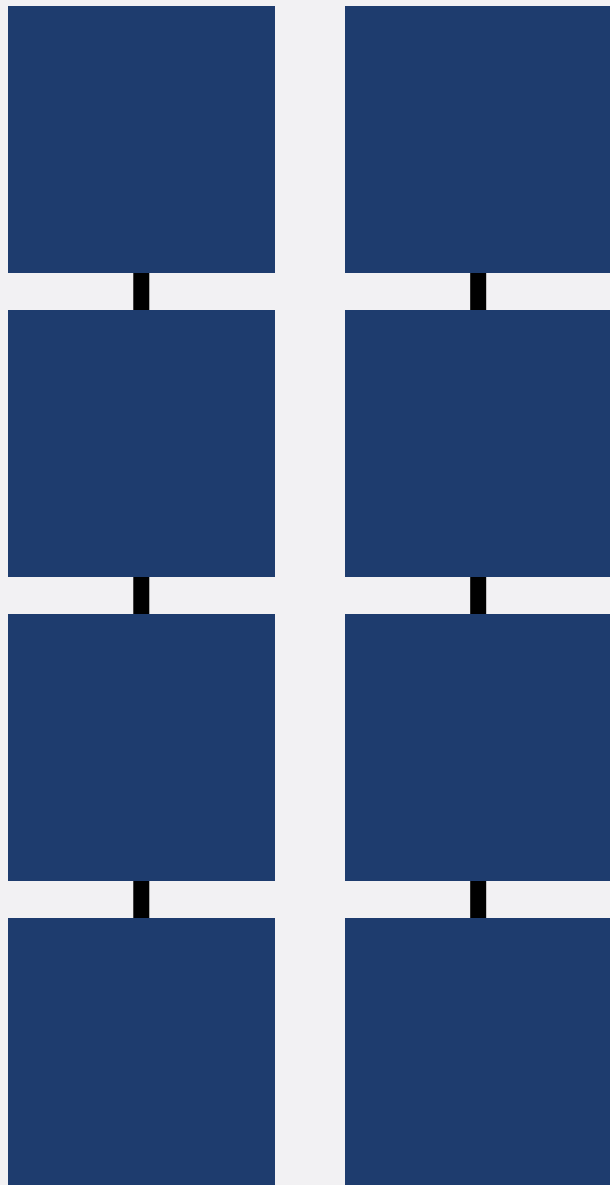
# VECTOR

- **Vector (several data points)**



# DATA FRAME

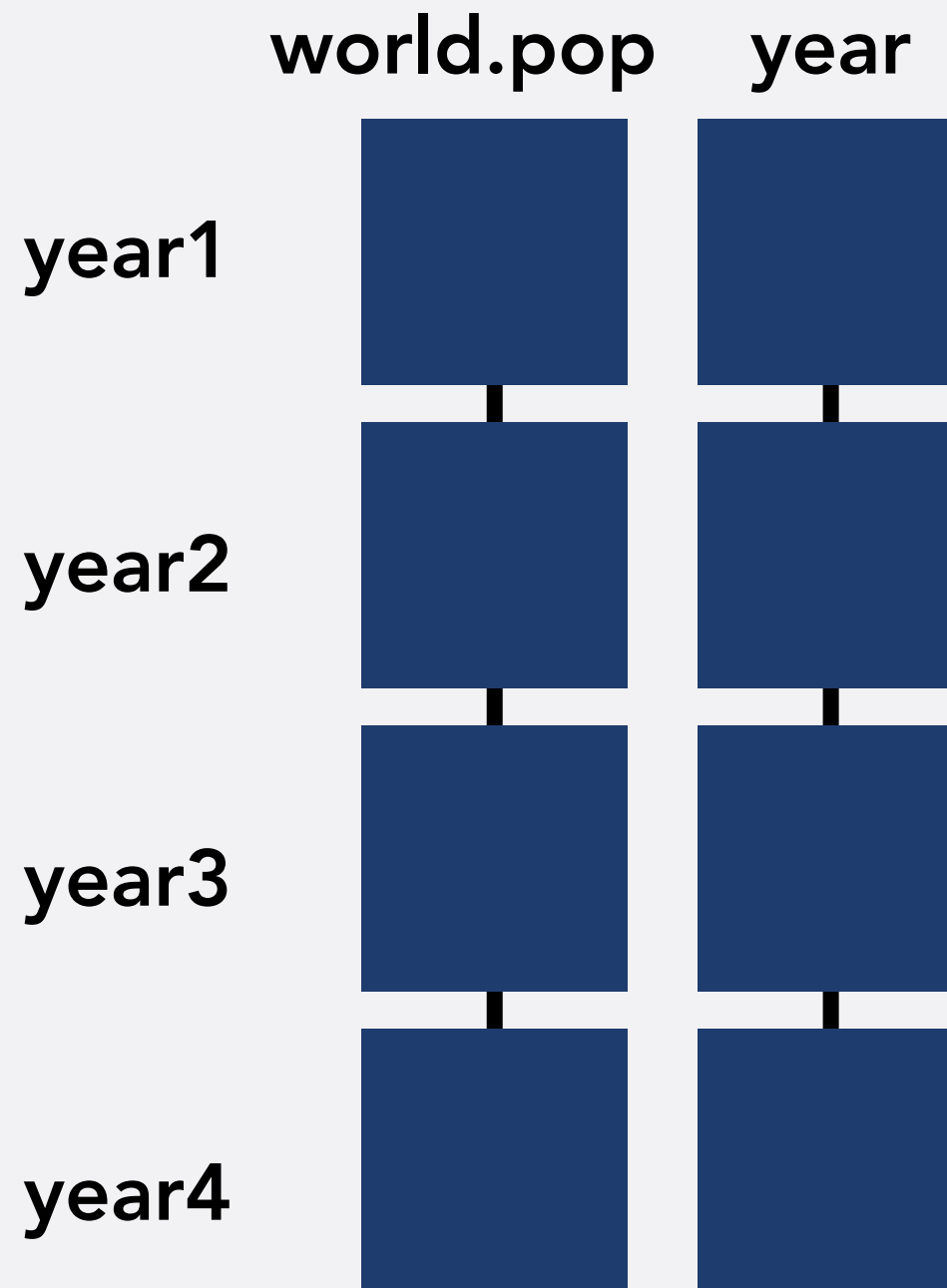
- **Data Frame (several vectors)**





# DATA FRAME

- Rows: Different observations/cases
- Columns: different variables



# BES.CSV

variable	description
<i>vote</i>	respondent's vote intention in the EU referendum: "leave", "stay", "don't know", or "won't vote"
<i>leave</i>	identifies leave voters: 1=intends to vote "leave" or 0=intends to vote "stay"; (NA=either "don't know" or "won't vote")
<i>education</i>	respondent's highest educational qualification: 1=no qualifications, 2=general certificate of secondary education (GCSE), 3=general certificate of education advanced level (GCE A level), 4=undergraduate degree, or 5=postgraduate degree; (NA=no answer)
<i>age</i>	respondent's age (in years)