PSC 400
SYRACUSE UNIVERSITY

DATA ANALYTICS FOR POLITICAL SCIENCE

FINDING AND CLEANING DATA

ASSIGNMENTS

- Review Exercise 3 due on Wednesday
- Data Analysis Memo due on Friday

GRAPHS

```
rm(list=ls(all=TRUE))

minwage <- read.csv("/Users/simonweschle/Dropbox/
Teaching/2021_PSC_400/classes/week_2/data/
minwage.csv")

# factor variables

table(minwage$location)

pie(table(minwage$location))

barplot(table(minwage$location))

prop.table(table(minwage$location))

barplot(prop.table(table(minwage$location)))
```

GRAPHS

```
## numeric variables

sd(minwage$wageBefore)

quantile(minwage$wageBefore)
quantile(minwage$wageBefore, c(0.33, 0.66))

boxplot(minwage$wageBefore)
boxplot(minwage$wageBefore, minwage$wageAfter,
names=c("Before Increase", "After Increase"))

boxplot(minwage$wageBefore[minwage$location=="PA"],
minwage$wageAfter[minwage$location=="PA"], names=c("Before
Increase", "After Increase"), main="Pennsylvania")
boxplot(minwage$wageBefore[minwage$location!="PA"],
minwage$wageAfter[minwage$location!="PA"], names=c("Before
Increase", "After Increase"), main="New Jersey")

hist(minwage$wageBefore)
```

DATA

- How do I find data to answer a question I have?

DATA

- What's the thing I'm interested in?
  - People: Behavior of voters, politicians, judges, etc.
  - Institutions: democracy, voting systems, constitutions
  - Policies
  - Events: Wars, coups, etc.
  - …

DATA

- What's my unit of analysis?
  - Individuals
    - Voters, legislators, judges, etc.
  - Aggregate units (of individuals)
    - States, countries, etc.

DATA

- What's the geographic area I'm interested in?
  - Single country (or part of country)
  - Comparing several countries
  - Between countries (e.g. trade, wars)

DATA

- What's the time frame I'm interested in?
  - Present (or recent past)
  - More distant past
  - Development over time

SOME DATA SOURCES

- Voters/Citizens
  - ANES
  - Comparative Study of Electoral Systems
  - World Values Survey
  - Afro/Americas/Arab/Asian/Caucasus/Euro/ Latinobarometer
- Politicians
  - DW-NOMINATE, DIME
  - Comparative Manifestos Data, Chapel Hill Expert Survey

SOME DATA SOURCES

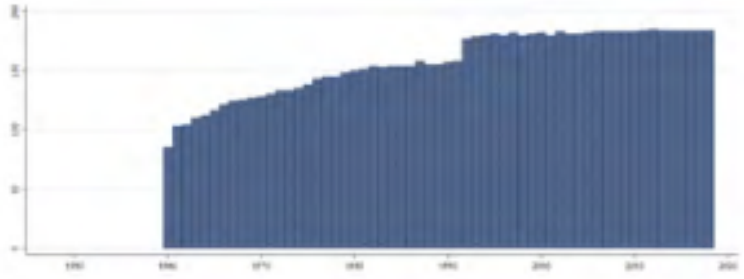
- Institutions
  - Polity IV
  - Varieties of Democracy
  - Quality of Government
- International Relations
  - Correlates of War
  - UCDP/PRIO Armed Conflict Dataset

EXERCISE: QOG

4.104.178 Life expectancy at birth, total (years) (wdi_lifexp)

Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.

Min. Year:2017 **Max. Year**: 2017
N: 184



Min. Year:1960 **Max. Year**: 2018
N: 196 **n**: 9276 $\overline{N}$: 157 $\overline{T}$: 47

- **Explore this variable through summary statistics and graphs**