## PUBPOL 2130 / INFO 3130 Exam Review

February 11, 2025 Jennah Gosciak

#### **General Announcements**

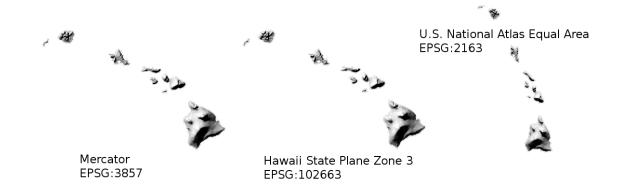
- Exam on Thursday (in-class)
- Makeup class tomorrow on Zoom @4pm
- Questions graded on scale from 0-4 (like homeworks)
- Adding explanations and showing work can help
  - E.g., explain why your proposed code may work
- There aren't necessarily right answers
  - Be familiar with material and ready to discuss it thoughtfully
- 1-2 sentences **true/false**; 3-4 sentences **short answer**

### Agenda

- Follow-ups from lab
- Practice finding new ACS variables
- Practice problems
  - 5 minutes discuss in pairs
  - o 10 minutes discuss as a class
- Homework + office hours

### Week 3 Follow-Ups

- Projections
  - Projecting the earth's sphere onto a flat map creates distortions



#### Week 3 Follow-Ups

- Projections
  - Projecting the earth's sphere onto a flat map creates distortions
- Unprojected datum (will still be in degrees):
  - EPSG 4326/WGS 84
  - EPSG:4269/NAD 83 (common in the Census)
  - May create issues when plotting!
- Projected coordinate system
  - U.S. National Atlas Equal Area projection (United States)
  - Universal Transverse Mercator (regional)
  - State plane coordinate system (regional in United States)

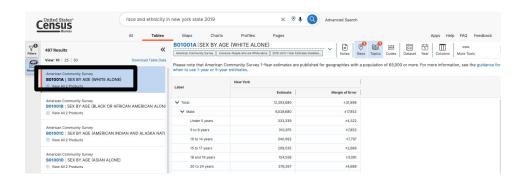
#### **Finding New ACS Variables**

ACS data contain variables ending in E, EA, M, M, PE, PN below for each variable type and its meaning.

"E" stands for estimate

#### Where to find variables:

- Census API <u>documentation</u>
- Census <u>table shells</u> and our <u>Google sheet</u>
- https://data.census.gov/



Variable Type	Title	Related Products	Meaning esti
E	Estimate	dbject Tables, Data Profiles, Comparison Profiles	A numeric representation of the es
EA	Estimate Annotation	Subject Tables, Comparison Profiles	A character representation of the estimate. If an Estimate Annotation exists, use this value in place of the Estimate.(See Example #1 in Estimate and Annotation Values)
М	Margin of Error	Summary Files, Subject Tables, Data Profiles	A numeric representation of the margin of error.
MA	Margin of Error Annotation	Subject Tables Only	A character representation of the margin of error. If a Margin of Error Annotation exists, use this value in place of the Margin of Error.
PE	Percent Estimate	Data Profiles Only	An estimate representing a percent of the total.
PM	Percent Margin of Error	Data Profiles Only	The Margin of Error for the corresponding Percent Estimate (PE variable
ss	Statistical Significance	Comparison Profiles Only	Returns '* or 'c' representing the Statistical Significance for the corresponding estimate (E) variable. (See Example #2 in Estimate and Annotation Values)
			An * indicates that the estimate is significantly different (at a 90% confidence level) than the estimate from the most current year. A 'C' indicates the estimates for that year and the current year are both controlled; a statistical test is not appropriate.

# Student examples of possible correct answers

- df["Clinton\_share"] = df["Clinton"]/(df["Clinton"] + df["Trump"])
- arr = ['Cornell', 'campus', 'math', 'public policy', 'info',
   'Ithaca']
- returns: ['Cornell', 'campus', 'public policy', 'Ithaca']
- df['B'].head(5).sum()
- df.iloc[0:5, 1].sum()
- df[df["B"]<60]["B"].sum()</li>