

Using the American Community Survey in Undergraduate Courses

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Background

▶ SSDAN.net

- ▶ Within Population Studies Center at Univ. of Michigan since ~1995
- ▶ Make demographic data accessible to general public and for use in education



Background

- ▶ Past Projects and Related Work
 - ▶ Allyn & Bacon Social Atlas of the US (Pearson)
 - ▶ ACS Compass Guide - Media Handbook
 - ▶ DataFerrett and ACS
 - ▶ KidsCount in the Classroom
 - ▶ Investigating Change workbook (Cengage)
- ▶ Funding from
 - ▶ NSF
 - ▶ NICHD
 - ▶ US Dept of Education
 - ▶ Annie E. Casey
 - ▶ US Census Bureau
 - ▶ Sloan Foundation

Background - Websites

- ▶ SSDAN: <http://ssdan.net>
- ▶ Programs in the Population Sciences: <http://pips.ssdan.net>
- ▶ DataCounts: <http://ssdan.net/datacounts/>
- ▶ CensusScope: <http://CensusScope.org/>
- ▶ TeachingWithData: <http://teachingwithdata.org>

Including Data Builds QL and:

- ▶ Engages students with disciplines more fully
 - ▶ Participatory learning
 - ▶ Better picture of how social scientists work
 - ▶ Prevents some of the feelings of “disconnect” between substantive and technical courses
 - ▶ Empirical Evidence
- ▶ Piques student interest
- ▶ Opens the door to the world of data

DataCounts!

- ▶ Simple datasets (~3,000) for undergrad ed, data from 1950 to 2017
- ▶ Uses WebCHIP → no need to learn complex stats package. Start simple!
- ▶ Great for intro and non-methods courses to show students how to answer questions with data
- ▶ Find from <http://ssdan.net/>

DataCounts! Topics

- ▶ Datasets cover wide range of topics
 - ▶ Population Structure
 - ▶ Racial/Ethnic and Gender Inequality
 - ▶ Immigrant Assimilation
 - ▶ Labor Force Characteristics
 - ▶ Marriage, Divorce, Households and Families
 - ▶ Poverty
 - ▶ Aging Population

DataCounts!

- ▶ Most modules start with a question
 - ▶ How does the year of immigration affect the English speaking ability? Does race matter?
- ▶ Datasets have answers to many questions
- ▶ What would we need to answer?
 - ▶ acs2010 -- EngHisp/EngAsian

When immigrated

Eng spkg ability

| | | | | Total |
|-------|--|--|--|-------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Total | | | | |

DataCounts! - Engaging Students

- ▶ What are the variables used?
- ▶ What will we need to answer the questions?
- ▶ <http://ssdan.net/datacounts/webchip>
 - ▶ Acs17_1yr - earnededuc17

| | | | | Total |
|------------------------|-------|--|--|-------|
| Educational Attainment | | | | |
| | | | | |
| | | | | |
| | | | | |
| | Total | | | |

DataCounts!

- ▶ Simple Exercise - Earnings and Sex
- ▶ <http://ssdan.net/datacounts/webchip>

DataCounts! - Activity

Individual Exercise

How do race and gender relate to earnings?

- Use the dataset *ACS17* → *EarnEduc* for Question 1 and 2.

Directions

- Go to <http://ssdan.net/datacounts/webchip>
- Select the pull-down menu under CHOOSE DATASET
- Scroll down to the **acs17_1yr** in the drop-down menu under “Collection”
- Select the data set **EarnEduc17** (short for “Earnings and Education”) under “Dataset”

Question 1

Using WebCHIP, compare earnings with sex, taking note of any patterns.

| | Male | Female | Total |
|----------|------|--------|-------|
| <\$25k | | | |
| \$25-34k | | | |
| \$35-49k | | | |
| \$50-69k | | | |
| \$70-99k | | | |
| \$100k+ | | | |
| Total | | | |

DataCounts! - Activity

Question 2

How does earnings between the sexes differ by race?

| | <i>NH-White</i> | | | <i>Black or Afr. Amer.</i> | | |
|--------------|-----------------|--------|-------|----------------------------|--------|-------|
| | Male | Female | Total | Male | Female | Total |
| <\$25k | | | | | | |
| \$25-34k | | | | | | |
| \$35-49k | | | | | | |
| \$50-69k | | | | | | |
| \$70-99k | | | | | | |
| \$100k+ | | | | | | |
| Total | | | | | | |

| | <i>Hispanic</i> | | | <i>AIAN</i> | | |
|--------------|-----------------|--------|-------|-------------|--------|-------|
| | Male | Female | Total | Male | Female | Total |
| <\$25k | | | | | | |
| \$25-34k | | | | | | |
| \$35-49k | | | | | | |
| \$50-69k | | | | | | |
| \$70-99k | | | | | | |
| \$100k+ | | | | | | |
| Total | | | | | | |

DataCounts!

- ▶ Household Type over Time
 - ▶ Acs2016trend→Household
 - ▶ Has the share of married-couple households changed substantially over time?

The diagram illustrates a data table structure. A horizontal arrow labeled 'Year' points to the right above the table. A vertical arrow labeled 'Household Type' points downwards to the left of the table. An arrow labeled 'Age' points to the right from the right side of the table. The table itself is a grid with 5 columns and 6 rows. The top row has a 'Total' label in the fifth column. The second row has a 'Total' label in the fifth column. The bottom row has a 'Total' label in the first column. The other cells are empty.

| | | | | Total |
|-------|--|--|--|-------|
| | | | | Total |
| | | | | |
| | | | | |
| | | | | |
| Total | | | | |
| Total | | | | |

DataCounts!

▶ Tips

▶ Datasets

- ▶ Names often suggest tables: Educlmm → Education *
Immigration
- ▶ Assigning state-level datasets reduces opportunity to copy/paste from other classmates

▶ Modules

- ▶ Adapting → much faster than creating from scratch
- ▶ Ability to post your own, including adaptations

Data in the News - TwD

- ▶ Found on TeachingWithData.org
- ▶ Updated regularly
- ▶ Ties Data to Substance

TeachingWithData.org
Pathway to Quantitative Literacy in the Social Sciences

Home Search About Us Data Resources Instructor Resources User Support



Data in the News

Population Density in the Early 20th Century

The Census Bureau's [weekly data visualization](#) shows the change in population density by county of the United States each decade from 1920-1950. In the 1920s, predominantly rural counties in the East saw declining population densities due to a trend of migration to cities. The 1930s saw the Great Plains decline in population while rural areas in the East became more densely populated again. As World War II ended, the United States saw increased geographic mobility, which led to 21.5 percent of civilians moving to different counties or states between 1940 and 1947. The map shows that urban and populated Northeast and Midwest counties saw the largest growth in the 1940s, while predominantly rural counties in the Great Plains and the South continued to see declining population density.

2012-08-16



55% of American Cell Phone Owners Have a Smartphone

Nielsen reports that smartphones are most popular among the younger and higher income demographics in America. 81% of those aged 18-24 and earning over \$100,000 possess a smartphone representing the highest usage of any age and income category. Overall, smartphones are a popular product: 60% of those aged 25-34 and making less than \$50,000 still own a smartphone; and 72% of Americans aged 25-34 earning between \$50,000 and \$100,000 possessed one. In early 2012, smartphones achieved the majority share of users in the mobile phone market, and today, 55% of cell phone owners have a smartphone. Additionally, women are more likely to use apps frequently. While men retain the greater share of app users, 58% of women actually rank in the top third of app users. Finally, consumers continue to embrace the iOS and Android operating systems. In May of last year, the number of Android and iOS users topped off at 49 million, but this figure pales in comparison to the number of users by May of 2012: 90 million.

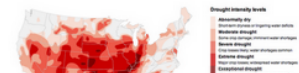
2012-08-08



From Nielsen's Report on Mobile Consumers

U.S. Drought Worst Since Dust Bowl

The drought currently overwhelming much of the U.S. ranks among the worst in American history and is the worst since the Dust Bowl. Since 1999, the National Drought Mitigation Center has tracked the spread and intensity of droughts, and according to the center, 11 states possess regions with an "exceptional drought," characterized as resulting in "widespread crop losses," and water emergencies. The "exceptional drought" category is the



US Census Bureau PUMS

- ▶ Now as SAS datasets!
 - ▶ Available through American FactFinder or FTP
 - ▶ <ftp://ftp.census.gov/programs-surveys/acs/data/pums/2017/>
 - ▶ Data Dictionary (https://www2.census.gov/programs-surveys/acs/tech_docs/pums/data_dict/PUMS_Data_Dictionary_2013-2017.pdf)
- ▶ Create custom extracts

Questions?

Thank you!

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