United States Census

a data source for all...

What is the census?

- decennial survey of the United States population
- participation is *required*
- occurs every ten years
- federal law protects data privacy
- used to
  - apportion congressional seats
  - make effective emergency response
  - make enormous decisions in lots of organizations
    - public and private
  - divvy up ~$300 billion in government $$$
  - much, much more

What is the census?

- Mandated in the constitution

  "Representatives and direct taxes shall be apportioned among the several states which may be included within this union, according to their respective numbers, which shall be determined by adding to the whole number of free persons, including those bound to service for a term of years, and excluding Indians not taxed, three fifths of all other Persons. The actual Enumeration shall be made within three years after the first meeting of the Congress of the United States, and within every subsequent term of ten years, in such manner as they shall by law direct."

Census Specifics

- Well, that was racist!
  - that's not the half of it
  - until 1960, race determined by census taker
  - until 2000, only one race allowed
- race v. ethnicity
  - "Hispanic/Latino/a" = ethnicity

Census Specifics

- 1790 until now
  - longitudinal census data is hard to get a hold of
    - longitudinal = time series
  - 1990, 2000 most accessible in GIS data

Census Specifics

- Long form versus short form
  - both are samples
    - 1/6 receive long form
      - summary file 3 = SF3
    - 5/6 receive short form
      - summary file 1 = SF1
   - both have margins of error!

Census Specifics

- in 2000, 2010 short form contained
  - name, sex, age, relationship
  - Hispanic origin, race
  - home owned or rented
- ~10 minutes to complete

Census Specifics

- in 2000, long form asked about
  - marital status, place of birth, citizenship
  - education, ancestry, language, labor force status
  - number of rooms, plumbing and kitchen facilities
  - value of home, monthly rent
  - much, much more...
- ~ around 38 minutes to complete

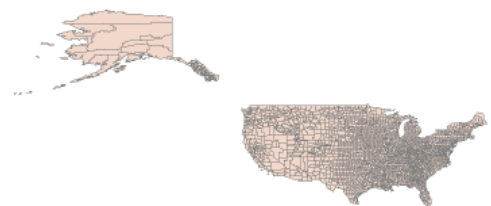# Census Specifics

- spatial aggregation
  - three types of regions
    - legal
      - congressional districts, cities, counties, etc.
    - statistical
      - block groups, census tracks, MSAs, etc.
    - functional
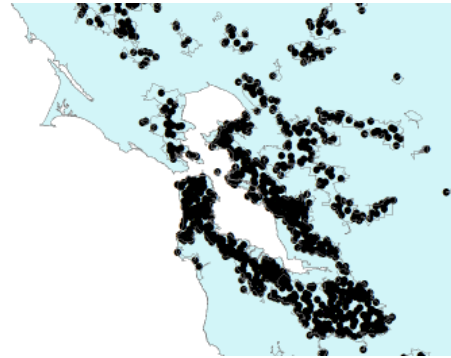   - ZIP+5 codes, ZIP+3 codes, etc.
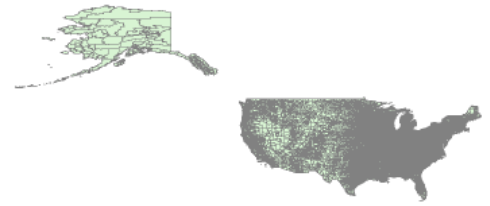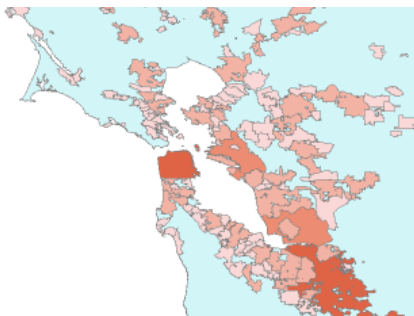
block groups
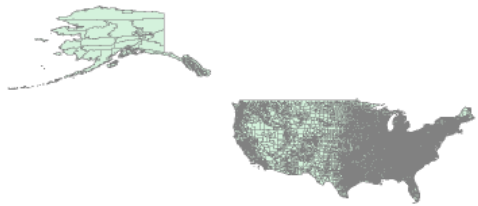
census tracts > block groups

counties > census tracts

urban areas

urban areas

"places"

2010 Census

- Big changes in 2010
  - no long form
  - reliance on American Community Survey data instead
    - better temporal resolution
    - worse spatial resolutions
    - worse margins of error
    - cuts costs for census

Census Specifics

- American Community Survey
  - sent to small %s of communities on a rotating basis
    - 1/40 households per year
  - most recent data is from 2006

Census Specifics

Census Specifics

- margin of error
  - 90 percent confidence interval for the census
  - $10,000 median income estimate + $1,000 margin of error =
    - 90 percent sure that the median income is between $11,000 and $9,000

Census Specifics

- spatial resolution
  - will get better over time
  - right now, only areas w/ > 65,000 people included

Census Specifics

http://www.census.gov/acs/www/UseData/compACS.htm

http://statelibrary.dcr.state.nc.us/iss/
AmericanCommunitySurvey.htm#Comparisons