


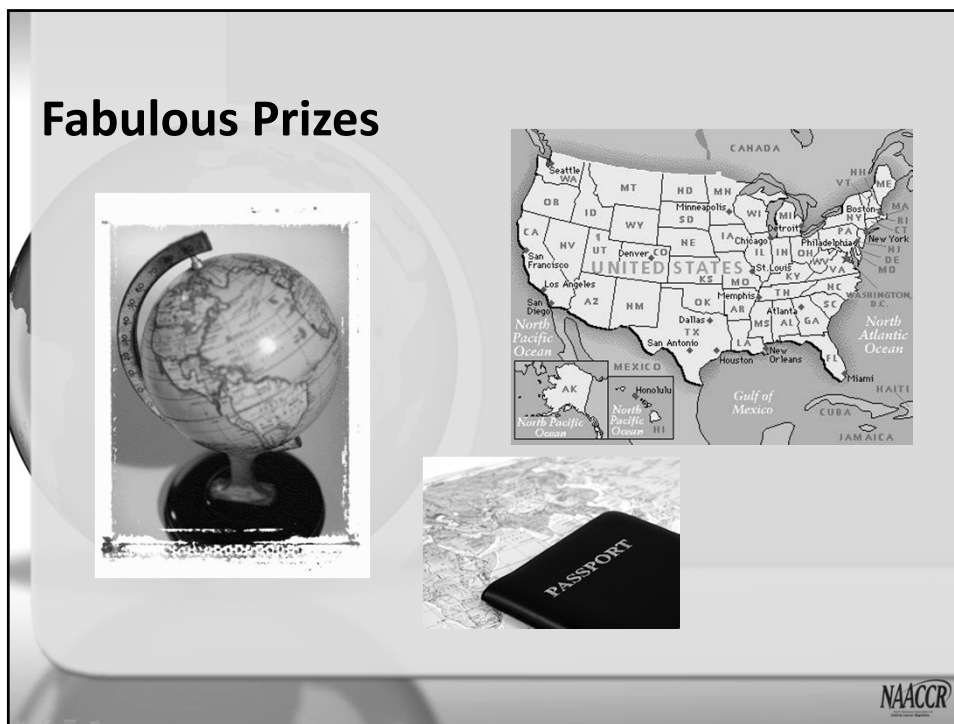
Q&A

- Please submit all questions concerning webinar content through the Q&A panel.

Reminder:

- If you have participants watching this webinar at your site, please collect their names and emails.
 - We will be distributing a Q&A document in about one week. This document will fully answer questions asked during the webinar and will contain any corrections that we may discover after the webinar.





NAACCR Webinar
Topics in GIS – July 11, 2013
Using Census 2010/American
Community Survey Data for Cancer
Surveillance

Overview



Faculty

- Dr. Frank Boscoe
 - New York State Cancer Registry
- Dr. Dan Goldberg
 - Texas A & M University
- Recinda Sherman
 - Florida Cancer Data System
- David Stinchcomb
 - Westat

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Agenda

- Census 2010 – David
 - ACS – Recinda
- 15 minute break*
- Denominator Data and Cancer Rates – Dan, All
 - Accessing Census Data – David
 - NAACCR Tools/Datasets

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Questions

During Webinar:

- Please send to Q&A as they come up
- Will be answered at end of each section or end of session

Post Webinar:

Dan: daniel.goldberg@tamu.edu

David: DavidStinchcomb@westat.com

Frank: fpb01@health.state.ny.us

Recinda: rsherman@med.miami.edu

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GIS Committee



Census Work Group

user forum, resource provider

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NAACCR 2013 Topics in GIS Webinar

Census 2010

Dave Stinchcomb, Westat, Inc.



Census - Background

- Every 10 years – for congressional apportionment
- Prior to 2010:
 - Short form – “SF1” & “SF2” (Summary Files 1 & 2)
 - 100% of population, complete enumeration
 - Basic demographics: age, sex, race/ethnicity
 - By household: relationships, tenure (rent/own)
 - Long form – “SF3” & “SF4” (Summary Files 3 & 4)
 - 1 in 6 households (about a 16% sample) in 2000
 - Income, education, occupation, household characteristics, languages spoken, residential history, commuting, etc.
- Data released:
 - Aggregated counts by census geographic area
 - A Public-Use Microdata Sample (PUMS) of long-form answers

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Census 2010

- Census 2010 – short-form only
 - 100% of population, complete enumeration
 - Basic demographics: age, sex, race/ethnicity
 - By household: relationships, tenure (rent/own)
 - As of April 1, 2010
- No more long-form – transition to annual American Community Survey (ACS)
 - Began in 1995, fully implemented in 2005
 - Recinda will have more on the ACS in the next section

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Data Products and Release Schedule

- Redistricting Data
 - Basic counts for redistricting (no age breakdowns)
 - Released by state February-March 2011
- Demographic Profile
 - Tables of selected population & housing characteristics
 - Released by state May-August 2011
- Summary File 1 (SF 1)
 - Detailed data with 63 race/ethnicity categories
 - Released by state June-August 2011
- Summary File 2 (SF 2)
 - 331 detailed race and Hispanic or Latino subgroups. For example:
 - 114 American Indian and Alaska Native categories
 - 47 Asian categories; 43 Native Hawaiian and Other Pacific Islander categories
 - Released by state December 2011 - April 2012
- Etc.

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<http://www.census.gov/population/www/cen2010/glance/>



Census 2010 – SF1 Data Tables

- There are 771 SF1 data tables

Population Tables Available Down to the Block Level

P1.	TOTAL POPULATION
P2.	URBAN AND RURAL
P3.	RACE
P4.	HISPANIC OR LATINO ORIGIN
P5.	HISPANIC OR LATINO ORIGIN BY RACE
P6.	RACE (TOTAL RACES TALLIED)
P7.	HISPANIC OR LATINO ORIGIN BY RACE (TOTAL RACES TALLIED)
P8.	RACE
P9.	HISPANIC OR LATINO, AND NOT HISPANIC OR LATINO BY RACE
P10.	RACE FOR THE POPULATION 18 YEARS AND OVER
P11.	HISPANIC OR LATINO AND NOT HISPANIC OR LATINO BY RACE FOR THE POPULATION 18 YEARS AND OVER

Housing Tables Available Down to Block Level

H1.	HOUSING UNITS
H2.	URBAN AND RURAL
H3.	OCCUPANCY STATUS
H4.	TENURE
H5.	VACANCY STATUS
H6.	RACE OF HOUSEHOLDER
H7.	HISPANIC OR LATINO ORIGIN OF HOUSEHOLDER

Population Tables Available Down to the Census Tract Level

PCT1.	AMERICAN INDIAN AND ALASKA NATIVE ALONE WITH ONE TRIBE REPORTED FOR SELECTED TRIBES
PCT2.	AMERICAN INDIAN AND ALASKA NATIVE ALONE WITH ONE OR MORE TRIBES REPORTED FOR SELECTED TRIBES
PCT3.	AMERICAN INDIAN AND ALASKA NATIVE ALONE OR IN COMBINATION WITH ONE OR MORE OTHER RACES AND TRIBES
PCT4.	AMERICAN INDIAN AND ALASKA NATIVE ALONE OR IN COMBINATION WITH ONE OR MORE OTHER RACES AND TRIBES
PCT5.	ASIAN ALONE WITH ONE ASIAN CATEGORY FOR SELECTED GROUPS
PCT6.	ASIAN ALONE WITH ONE OR MORE ASIAN CATEGORIES FOR SELECTED GROUPS
PCT7.	ASIAN ALONE OR IN COMBINATION WITH ONE OR MORE OTHER RACES AND WITH ONE OR MORE ASIAN CATEGORIES FOR SELECTED GROUPS

Housing Tables Available Down to the Census Tract Level

HCT1.	TENURE BY HISPANIC OR LATINO ORIGIN OF HOUSEHOLDER BY PRESENCE AND AGE OF OWN CHILDREN
HCT2.	TENURE BY PRESENCE AND AGE OF OWN CHILDREN
HCT3.	TENURE BY PRESENCE AND AGE OF RELATED CHILDREN
HCT4.	TENURE BY PRESENCE AND AGE OF PEOPLE UNDER 18 YEARS OF AGE

Population Tables Available Down to the County Level

PC01.	GROUP QUARTERS POPULATION BY SEX BY AGE
PC02.	GROUP QUARTERS POPULATION IN INSTITUTIONAL FACILITIES
PC03.	GROUP QUARTERS POPULATION IN CORRECTIONAL FACILITIES
PC04.	GROUP QUARTERS POPULATION IN JUVENILE FACILITIES BY SEX BY AGE
PC05.	GROUP QUARTERS POPULATION IN NURSING FACILITIES/SKI HOMES
PC06.	GROUP QUARTERS POPULATION IN OTHER INSTITUTIONAL FACILITIES
PC07.	GROUP QUARTERS POPULATION IN NONINSTITUTIONAL FACILITIES

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Census Boundaries

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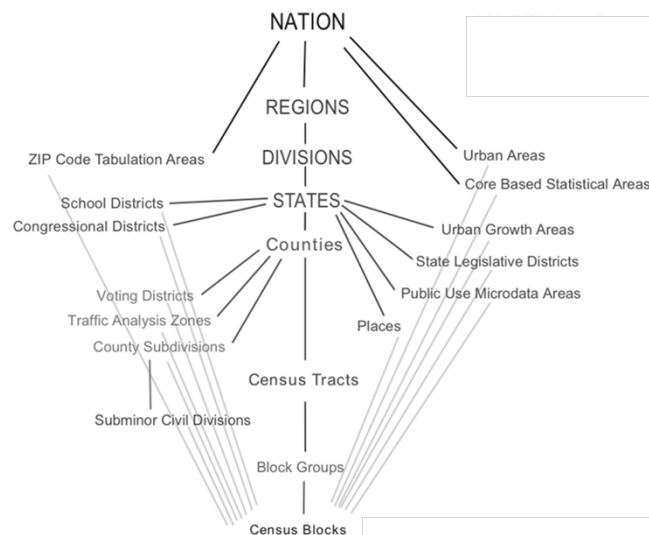
Census Geographic Area Definitions

- Area boundaries are updated every 10 years
 - “Using Census 2000 geographies”
- First step in the enumeration process
- Design goals for census tracts:
 - Ideally, about 4,000 people
 - Required thresholds:
 - Population: 1,200 minimum; 8,000 maximum
 - Housing units: 480 minimum; 1,600 maximum
 - Relatively homogeneous neighborhood
- Done in consultation with local officials
- Effort to limit changes from previous boundaries

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Census Geographic Area Hierarchy



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<http://www.census.gov/geo/reference/pdfs/geodiagram.pdf>

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Summary Levels

- A three digit code to indicate the geographic level of detail
- For example:
 - 040: State
 - 050: State-County
 - 140: State-County-Census Tract
 - » 150: State-County-Census Tract-Block Group
- Useful in American FactFinder as well as for custom processing of Census data files

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Census Area Codes (FIPS/ANSI codes)

- Each census area is identified with a numeric code
 - States, counties, and Census places use national standards
 - Formerly the Federal Information Processing Standards (FIPS) from National Institute of Standards and Technology (NIST)
 - Converting to American National Standards Institute (ANSI) for future maintenance of place codes
- Number of digits for the main census hierarchy:
 - State (2), county (3), tract (6), block group (1), block (3)
- Census tract code has an implied 2 decimals
 - 001234 = “Tract 12.34”, 123400 = “Tract 1234”
 - Source of coding errors in NAACCR records
- Fully-qualified census tract: 11 digits

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Urban and Rural Areas

- Census defines urban areas:
 - Densely developed; includes residential, commercial, and other non-residential urban land uses
 - Two sizes:
 - Urbanized Areas (UAs): 50,000 or more people;
 - Urban Clusters (UCs): at least 2,500 and less than 50,000
 - A collection of contiguous tracts and blocks
- Updated every 10 years, after the decennial census
 - Census 2010 totals announced in March 2012
 - The Census 2010 SF1 Urban/Rural Update released in September 2012

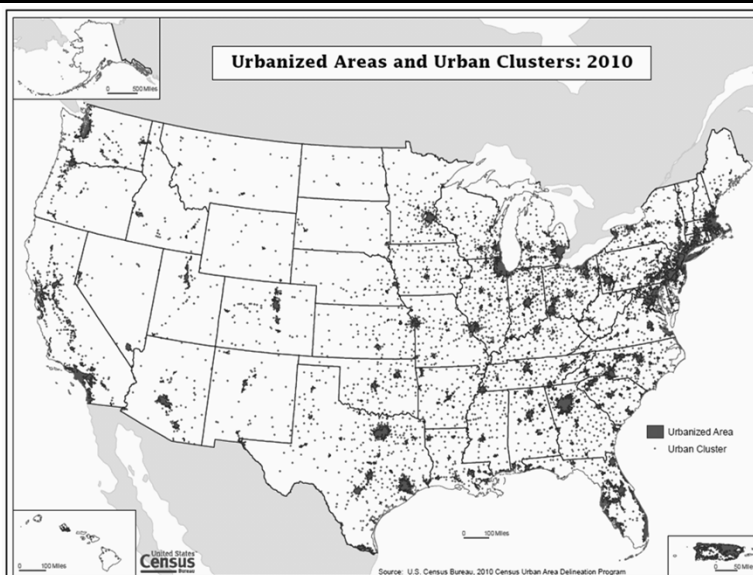
P2. URBAN AND RURAL [6] (Urban/Rural Update only)
Universe: Total population
Total:
Urban:
 Inside urbanized areas
 Inside urban clusters
Rural

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<http://www.census.gov/geo/reference/ua/urban-rural-2010.html>

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Census 2010 Urban Areas



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Census Tract Relationship Files

- Files showing how 2000 census tracts relate to 2010 census tracts
- One record for each part of a 2000 census tract/2010 census tract
 - The area that is uniquely shared between a 2000 census tract and a 2010 census tract
 - A part of a census tract (a piece of land)
 - Intersection of the two polygon layers
 - Unique identifier: the 2000 CT and the 2010 CT
- Relationship files have:
 - Population/housing units (HUs) of the piece of land (the record)
 - Population/HUs of the whole 2000 and 2010 CTs
 - All population/HUs are from 2010 census
- Useful for converting data between Census geographies

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http://www.census.gov/geo/maps-data/data/tract_rel_layout.html



Data Conversions

- Count data (e.g. number of cancer cases)
 - The New CT value: the sum of the values in the Old CT pieces multiplied by the proportion of the Old CT
- Rate data (e.g. percent unemployed)
 - The New CT value: the average of the values in the Old CT pieces weighted by the proportion of the New CT

$$V_{\text{NewCT}} = \sum_{i=1}^n (V_{\text{OldCT}_i} \times \text{Pct}_{\text{OldCT}_i} / 100)$$

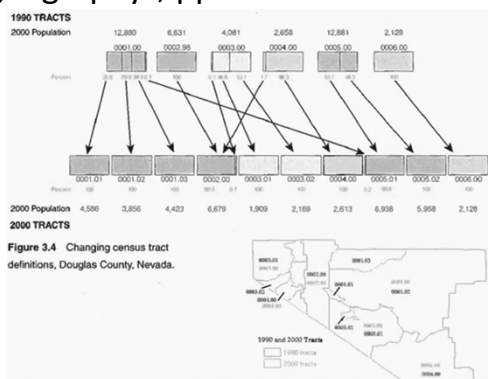
$$V_{\text{NewCT}} = \sum_{i=1}^n (V_{\text{OldCT}_i} \times \text{Pct}_{\text{NewCT}_i} / 100)$$

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Additional Discussion and Examples

- *Unlocking the Census with GIS* by Alan Peters and Heather MacDonald (ESRI Press, 2004)
 - “Example one: Analyzing trends despite changing census geography”, pp 115-120



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American FactFinder Accessing Census 2010 Data

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American FactFinder – Introduction

- Interactive Web interface to most Census Bureau data products
- Original “legacy” version has been retired
- The New American FactFinder – FactFinder2
 - <http://www.census.gov/>
 - Data tab → American FactFinder
 - <http://factfinder2.census.gov/>
 - Google “american factfinder” or “factfinder2”
- New features are being added quarterly

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MAIN COMMUNITY FACTS GUIDED SEARCH ADVANCED SEARCH DOWNLOAD OPTIONS English Español

Community Facts
Find popular facts (population, income, etc.) and frequently requested data about your community.
Enter a state, county, city, town, or zip code:
e.g., Atlanta, GA GO

Guided Search

Advanced Search

Download Options

American FactFinder provides access to data about the United States, Puerto Rico and the Island Areas. The data in American FactFinder come from several censuses and surveys. For more information see Using FactFinder and What We Provide.

Using American FactFinder
Learn about American FactFinder's functions and features.

What We Provide
The following data are available on American FactFinder:

News and Notes
GET EMAIL UPDATES
Jun 27, 2013
National, State, and County Housing Unit Estimates: July 1, 2012...
view all news, release schedules, and more >

Address Search
Find Census data by entering a street address.

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MAIN SEARCH WHAT WE PROVIDE USING FACTFINDER English Español

Your Selections
Your Selections is empty

Search using the options below:

- Topics (age, income, year, dataset, ...)
- Geographies (states, counties, places, ...)
- Race and Ethnic Groups (race, ancestry, tribe)
- Industry Codes (NAICS industry, ...)

Quick Start
Enter search term(s) and click 'GO'

topic or table name state, county or place (optional)

GO

topics race/ancestry industries

Or use the options on the left to begin your search

Address Search
Find Census data by entering a street address.

View the American FactFinder Data Release Schedule

Download large volume data from the Census Bureau's FTP Site

Reference Maps
Reference Maps show selected geographic boundaries for an area along with orienting features, such as roads.

United States GO

News and Notes
GET EMAIL UPDATES

May 24, 2012
The 2006-2010 American Community Survey (ACS) Selected Population Tables (SPT) are now available for the U.S., states, the District of Columbia, Puerto Rico and many smaller geographic areas, including census tracts. This dataset provides detailed data on social, economic, demographic and housing for up to 392 race, Hispanic, tribal, and ancestry groups. Availability of SPT tables for a population group is limited to population groups with at least 50 unweighted sample cases in a particular geographic area. This dataset provides many estimates that were previously available in the Census 2000 Summary File 4 (SF4). [more >](#)

May 24, 2012

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MAIN COMMUNITY FACTS GUIDED SEARCH ADVANCED SEARCH DOWNLOAD OPTIONS

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections
Your Selections is empty

Search using the options below:

- Topics (age, income, year, dataset, ...)
- Geographies (states, counties, places, ...)
- Race and Ethnic Groups (race, ancestry, tribe)
- Industry Codes (NAICS industry, ...)
- EEO Occupation Codes (executives, analysts, ...)

To search for tables and other files in American FactFinder:

- 1 Enter search terms and an optional geography and click GO

topic or table name state, county or place (optional)

GO ?

topics race/ancestry industries occupations

-- or --

Select from Topics, Race and Ethnic Groups, Industry Codes, EEO Occupation Codes.

- these are added to *Your Selections*
- the Search Results are updated

- 2 Next, select Geographies (states, counties, cities, towns, etc.)

- these are added to *Your Selections*
- the Search Results are updated

- 3 Select one or more Search Results and click View

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AFF Example – Census 2010 Data

- Hispanic populations
- For Oregon census tracts
- By age and sex
- Download a table for analysis

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The screenshot shows the American FactFinder search interface. At the top, it says "U.S. Department of Commerce United States Census Bureau" and "AMERICAN FactFinder". Below this is a navigation bar with "MAIN", "COMMUNITY FACTS", "GUIDED SEARCH", "ADVANCED SEARCH", and "DOWNLOAD OPTIONS". The main content area is titled "Search - Use the options on the left (topics, geographies, ...) to narrow your search results". On the left, there is a "Your Selections" box that says "'Your Selections' is empty". Below that, a section titled "Search using the options below:" lists several categories: "Topics (age, income, year, dataset, ...)", "Geographies (states, counties, places, ...)", "Race and Ethnic Groups (race, ancestry, tribe)", "Industry Codes (NAICS industry, ...)", and "EEO Occupation Codes (executives, analysts, ...)". The "Topics" category is highlighted with a red box. In the center, there is a search form with two input fields: "topic or table name" and "state, county or place (optional)", a "GO" button, and a help icon. Below the form, there are radio buttons for "topics", "race/ancestry", "industries", and "occupations", with "topics" selected. To the right of the search form, there are three numbered steps: 1. "Enter search terms and an optional geography and click GO", 2. "Next, select Geographies (states, counties, cities, towns, etc.)", and 3. "Select one or more Search Results and click View". Below step 2, there is a note: "-- or -- Select from Topics, Race and Ethnic Groups, Industry Codes, EEO Occupation Codes. • these are added to 'Your Selections' • the Search Results are updated".

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Feedback

MAIN COMMUNITY FACTS GUIDED SEARCH **ADVANCED SEARCH** DOWNLOAD OPTIONS

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections
"Your Selections" is empty

To search for tables and other files in American FactFinder:
Enter search terms and an optional geography and click GO

Select Topics to add to "Your Selections" ?

- People
- Housing
- Business and Industry
- Governments
- Year
- Product Type
- Program
- Dataset

Include archived products in your search ?

- these are added to "Your Selections"
- the Search Results are updated

3 Select one or more Search Results and click View

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MAIN COMMUNITY FACTS GUIDED SEARCH **ADVANCED SEARCH** DOWNLOAD OPTIONS

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections
"Your Selections" is empty

To search for tables and other files in American FactFinder:
Enter search terms and an optional geography and click GO

Select Topics to add to "Your Selections" ?

- EEO Tabulation 2008-2010 (5-year ACS data) (113)
- 2010 SF1 100% Data (771)
- 2010 SF2 100% Data (274)
- 2010 Redistricting Data SF (PL 94-171) (29)
- 2010 Demographic Profile SF (3)
- 2010 National Redistricting Data SF (27)
- 2010 113th Congress 100% Data (387)
- 2010 American Indian and Alaska Native SF (80)
- 2010 American Samoa Demographic Profile (7)
- 2010 Commonwealth of the Northern Mariana Islands Demographic Profile (7)
- 2010 Guam Demographic Profile (7)
- 2010 U.S. Virgin Islands Demographic Profile (7)
- 2010 American Samoa SF (404)
- 2010 Commonwealth of the Northern Mariana Islands SF (410)
- 2010 Guam SF (410)
- 2010 U.S. Virgin Islands SF (544)
- 2010 Annual Survey of Manufactures (8)
- 2010 Business Patterns (14)
- 2010 Nonemployer Statistics (6)

Include archived products in your search ?

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MAIN COMMUNITY FACTS GUIDED SEARCH **ADVANCED SEARCH** DOWNLOAD OPTIONS

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections
"Your Selections" is empty

To search for tables and other files in American FactFinder:
Enter search terms and an optional geography, and click GO

Select Topics

Select Topics to add to "Your Selections"

- EEO Tabulation 2006-2010 (5-year ACS data) (113)
- 2010 SF1 100% Data (771)
- 2010 SF2 100% Data (274)
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- 2010 U.S. Virgin Islands Demographic Profile (7)
- 2010 American Samoa SF (404)
- 2010 Commonwealth of the Northern Mariana Islands SF (410)
- 2010 Guam SF (410)
- 2010 U.S. Virgin Islands SF (544)
- 2010 Annual Survey of Manufactures (8)
- 2010 Business Patterns (14)
- 2010 Nonemployer Statistics (6)

Include archived products in your search

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MAIN COMMUNITY FACTS GUIDED SEARCH **ADVANCED SEARCH** DOWNLOAD OPTIONS

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections
Search using...
Dataset:
2010 SF1 100% Data

Recommendations (4)

Select Topics

Select Topics to add to "Your Selections"

- 2010 ACS 5-year Selected Population Tables (680)
- 2010 ACS 5-year American Indian and Alaska Native Tables (275)
- 2010 ACS 5-year estimates (2,290)
- 2010 ACS 3-year estimates (2,951)
- 2010 ACS 1-year estimates (3,057)
- DOL Disability Employment 2008-2010 (3-year ACS data) (56)
- EEO Tabulation 2006-2010 (5-year ACS data) (113)
- 2010 SF2 100% Data (274)
- 2010 Redistricting Data SF (PL 94-171) (29)
- 2010 Demographic Profile SF (3)
- 2010 National Redistricting Data SF (27)
- 2010 113th Congress 100% Data (387)
- 2010 American Indian and Alaska Native SF (80)
- 2010 American Samoa Demographic Profile (7)
- 2010 Commonwealth of the Northern Mariana Islands Demographic Profile (7)
- 2010 Guam Demographic Profile (7)
- 2010 U.S. Virgin Islands Demographic Profile (7)
- 2010 American Samoa SF (404)
- 2010 Commonwealth of the Northern Mariana Islands SF (410)

Include archived products in your search

2010 SF1 100% Data

Dataset	About
2010 SF1 100% Data	?
2010 SF1 100% Data	?
2010 SF1 100% Data	?
2010 SF1 100% Data	?

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MAIN COMMUNITY FACTS GUIDED SEARCH **ADVANCED SEARCH** DOWNLOAD OPTIONS

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections

Search using...
Dataset:
2010 SF1 100% Data

Search using the options below:

Topics (age, income, year, dataset, ...)

Geographies (states, counties, places, ...)

Race and Ethnic Groups (race, ancestry, tribe)

Industry Codes (NAICS industry, ...)

EEO Occupation Codes (executives, analysts, ...)

Recommendations (4)

Search Results: 1-25 of 771 tables and other products match "Your Selections" per page: 25

Refine your search results: GO ?

Selected: View Download Compare Clear All

ID	Table, File or Document Title	Dataset	About
<input type="checkbox"/> DP-1	Profile of General Population and Housing Characteristics: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-H1	General Housing Characteristics: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-H2	Tenure, Household Size, and Age of Householder: 2010	2010 SF1 100% Data	?

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MAIN COMMUNITY FACTS GUIDED SEARCH **ADVANCED SEARCH** DOWNLOAD OPTIONS

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections

Search using...
Dataset:
2010 SF1 100% Data

Search using the options below:

Topics (age, income, year, dataset, ...)

Geographies (states, counties, places, ...)

Race and Ethnic Groups (race, ancestry, tribe)

Industry Codes (NAICS industry, ...)

EEO Occupation Codes (executives, analysts, ...)

Recommendations (4)

Search Results: 1-25 of 771 tables and other products match "Your Selections" per page: 25

Refine your search results: GO ?

Selected: View Download Compare Clear All

ID	Table, File or Document Title	Dataset	About
<input type="checkbox"/> DP-1	Profile of General Population and Housing Characteristics: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-H1	General Housing Characteristics: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-H2	Tenure, Household Size, and Age of Householder: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-H3	Household Population and Household Type by Tenure: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P1	Age Groups and Sex: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P10	Hispanic or Latino by Type: 2010	2010 SF1 100% Data	?

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MAIN COMMUNITY FACTS GUIDED SEARCH **ADVANCED SEARCH** DOWNLOAD OPTIONS

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections
Search using...
Dataset:
2010 SF1 100% Data

Search using the options below:
Topics (age, income, year, dataset, ...)
Geographies (states, counties, places, ...)
Race and Ethnic Groups (race, ancestry, tribe)
Industry Codes (NAICS industry, ...)
EEO Occupation Codes (executives, analysts, ...)

Recommendations (4) SHOW

Search Results: 1-25 of 771 tables and other products match 'Your Selections'

Select Geographies CLOSE

List Name Address Map

Select geographies to add to Your Selections

Select from: most requested geographic types all geographic types

Select a geographic type:
-- select a geographic type --

Didn't find your geographic type? Click the 'all geographic types' radio button above, or try the Name, Address or Map geography search options instead.

<input type="checkbox"/>	QT-H3	Household Population and Household Type by Tenure: 2010	2010 SF1 100% Data	?
<input type="checkbox"/>	QT-P1	Age Groups and Sex: 2010	2010 SF1 100% Data	?
<input type="checkbox"/>	QT-		2010 SF1 100%	?

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MAIN COMMUNITY FACTS GUIDED SEARCH **ADVANCED SEARCH** DOWNLOAD OPTIONS

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections
Search using...
Dataset:
2010 SF1 100% Data

Search using the options below:
Topics (age, income, year, dataset, ...)
Geographies (states, counties, places, ...)
Race and Ethnic Groups (race, ancestry, tribe)
Industry Codes (NAICS industry, ...)
EEO Occupation Codes (executives, analysts, ...)

Recommendations (4) SHOW

Search Results: 1-25 of 771 tables and other products match 'Your Selections'

Select Geographies CLOSE

List Name Address Map

Select geographies to add to Your Selections

Select from: most requested geographic types all geographic types

Select a geographic type:
-- select a geographic type --

United States - 010
Region - 020
Division - 030
State - 040
County - 050
County Subdivision - 060
Census Tract - 140
Place - 160
Consolidated City - 170
Congressional District - 500
School District (Elementary)/Remainder - 950

Didn't find your geographic type? Click the 'all geographic types' radio button above, or try the Name, Address or Map geography search options instead.

<input type="checkbox"/>			2010 SF1 100% Data	?
<input type="checkbox"/>			2010 SF1 100% Data	?
<input type="checkbox"/>			2010 SF1 100% Data	?
<input type="checkbox"/>			2010 SF1 100% Data	?

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MAIN COMMUNITY FACTS GUIDED SEARCH **ADVANCED SEARCH** DOWNLOAD OPTIONS

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections
 Search using...
 Dataset:
 2010 SF1 100% Data
 clear all selections and start a new search

Search using the options below:
 Topics (age, income, year, dataset, ...)
Geographies (states, counties, places, ...)
 Race and Ethnic Groups (race, ancestry, tribe)
 Industry Codes (NAICS industry, ...)
 EEO Occupation Codes (executives, analysts, ...)

Recommendations (4) SHOW

Search Results: 1-25 of 771 tables and other products match 'Your Selections'

Select Geographies CLOSE

List Name Address Map

Select geographies to add to Your Selections ?

Select from: most requested geographic types all geographic types

Select a geographic type:
 Census Tract - 140

Select a state:
 -- select a state --

Didn't find your geographic type? Click the 'all geographic types' radio button above, or try the Name, Address or Map geography search options instead.

<input type="checkbox"/>	QT-P10	Hispanic or Latino by Type: 2010	2010 SF1 100% Data	?
<input type="checkbox"/>	QT-P11	Households and Families: 2010	2010 SF1 100% Data	?
<input type="checkbox"/>	QT-P12	Household Relationship and Group Quarters Population: 2010	2010 SF1 100% Data	?

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MAIN COMMUNITY FACTS GUIDED SEARCH **ADVANCED SEARCH** DOWNLOAD OPTIONS

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections
 Search using...
 Dataset:
 2010 SF1 100% Data
 clear all selections and start a new search

Search using the options below:
 Topics (age, income, year, dataset, ...)
Geographies (states, counties, places, ...)
 Race and Ethnic Groups (race, ancestry, tribe)
 Industry Codes (NAICS industry, ...)
 EEO Occupation Codes (executives, analysts, ...)

Recommendations (4) SHOW

Search Results: 1-25 of 771 tables and other products match 'Your Selections'

Select Geographies CLOSE

List Name Address Map

Select geographies to add to Your Selections ?

Select from: most requested geographic types all geographic types

Select a geographic type:
 Census Tract - 140

Select a state:
 -- select a state --
 Michigan
 Minnesota
 Mississippi
 Missouri
 Montana
 Nebraska
 Nevada
 New Hampshire
 New Jersey
 New Mexico
 New York
 North Carolina
 North Dakota
 Ohio
 Oklahoma
 Oregon
 Pennsylvania
 Puerto Rico
 Rhode Island
 South Carolina
 South Dakota
 Tennessee

Didn't find your geographic type? Click the 'all geographic types' radio button above, or try the Name, Address or Map geography search options instead.

<input type="checkbox"/>		or Latino by Type: 2010	2010 SF1 100% Data	?
<input type="checkbox"/>		ids and Families: 2010	2010 SF1 100% Data	?
<input type="checkbox"/>		Relationship and Group Quarters Population: 2010	2010 SF1 100% Data	?
<input type="checkbox"/>		arters Population by Sex, Age, and Type of Group Quarters: 2010	2010 SF1 100% Data	?
<input type="checkbox"/>		ears of Age and Sex: 2010	2010 SF1 100% Data	?

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MAIN COMMUNITY FACTS GUIDED SEARCH **ADVANCED SEARCH** DOWNLOAD OPTIONS

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections
Search using...
Dataset:
2010 SF1 100% Data
clear all selections and start a new search

Recommendations (4) SHOW

Search Results: 1-25 of 771 tables and other products match 'Your Selections'

Select Geographies CLOSE

List Name Address Map

Select geographies to add to Your Selections ?

Select from: most requested geographic types all geographic types

Select a geographic type:
..... Census Tract - 140

Select a state:
Oregon

Select a county:
-- select a county --

Select one or more geographic areas and click Add to Your Selections:
All Census Tracts within Oregon

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Feedback FAQs Glossary Help

MAIN COMMUNITY FACTS GUIDED SEARCH **ADVANCED SEARCH** DOWNLOAD OPTIONS

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections
Search using...
Dataset:
2010 SF1 100% Data
clear all selections and start a new search

Recommendations (4) SHOW

Search Results: 1-25 of 771 tables and other products match 'Your Selections'

Select Geographies CLOSE

List Name Address Map

Select geographies to add to Your Selections ?

Select from: most requested geographic types all geographic types

Select a geographic type:
..... Census Tract - 140

Select a state:
Oregon

Select a county:
-- select a county --

Select one or more geographic areas and click Add to Your Selections:
All Census Tracts within Oregon

ADD TO YOUR SELECTIONS

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AMERICAN FactFinder

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MAIN COMMUNITY FACTS GUIDED SEARCH **ADVANCED SEARCH** DOWNLOAD OPTIONS

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections
 Search using...
 Dataset: 2010 SF1 100% Data
 Census Tract
 All Census Tracts within Oregon
 clear all selections and start a new search

Recommendations (4) SHOW

Search Results: 1-25 of 341 tables and other products match 'Your Selections' per page: 25

Refine your search results: topic or table name state, county or place (optional) GO ?

topics race/ancestry industries occupations

Selected: View Download Compare Clear All ?

ID	Table, File or Document Title	Dataset	About
<input type="checkbox"/> DP-1	Profile of General Population and Housing Characteristics: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-H1	General Housing Characteristics: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-H2	Tenure, Household Size, and Age of Householder: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-H3	Household Population and Household Type by Tenure: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P1	Age Groups and Sex: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P10	Hispanic or Latino by Type: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P11	Households and Families: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P12	Household Relationship and Group Quarters Population: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P13	Group Quarters Population by Sex, Age, and Type of Group Quarters: 2010	2010 SF1 100% Data	?

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MAIN COMMUNITY FACTS GUIDED SEARCH **ADVANCED SEARCH** DOWNLOAD OPTIONS

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections
 Search using...
 Dataset: 2010 SF1 100% Data
 Census Tract
 All Census Tracts within Oregon
 clear all selections and start a new search

Recommendations (4) SHOW

Search Results: 1-25 of 341 tables and other products match 'Your Selections' per page: 25

Refine your search results: topic or table name state, county or place (optional) GO ?

topics race/ancestry industries occupations

Compare Clear All ?

Search using the options below:

Topics (age, income, year, dataset, ...)

Geographies (states, counties, places, ...)

Race and Ethnic Groups (race, ancestry, tribe)

Industry Codes (NAICS industry, ...)

EEO Occupation Codes (executives, analysts, ...)

No, select Hispanic here!

Select Hispanic here?

ID	Table, File or Document Title	Dataset	About
<input type="checkbox"/> DP-1	Profile of General Population and Housing Characteristics: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-H1	General Housing Characteristics: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-H2	Tenure, Household Size, and Age of Householder: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-H3	Household Population and Household Type by Tenure: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P1	Age Groups and Sex: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P10	Hispanic or Latino by Type: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P11	Households and Families: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P12	Household Relationship and Group Quarters Population: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P13	Group Quarters Population by Sex, Age, and Type of Group Quarters: 2010	2010 SF1 100% Data	?

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The screenshot shows the American FactFinder interface. On the left, under 'Search using the options below:', the 'Topics' dropdown menu is highlighted. A 'Select Topics' dialog box is open, showing a list of categories. Arrows point to 'People', 'Race & Ethnicity', and 'Black or African American (38)'. The main search results area shows 'Search Results: 1-25 of 341 tables and other products match 'Your Selections'' and a table with columns for 'Dataset' and 'About'.

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The screenshot shows the American FactFinder search results page. The 'Search using the options below:' section has 'Hispanic or Latino' selected in the 'Topics' dropdown. The search results show 'Search Results: 1-25 of 42 tables and other products match 'Your Selections''. A 'Refine your search results:' section is visible with filters for 'topics', 'race/ancestry', 'industries', and 'occupations'. A table of results is displayed with columns for 'ID', 'Table, File or Document Title', 'Dataset', and 'About'.

ID	Table, File or Document Title	Dataset	About
<input type="checkbox"/> DP-1	Profile of General Population and Housing Characteristics: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-H1	General Housing Characteristics: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P10	Hispanic or Latino by Type: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P3	Race and Hispanic or Latino Origin: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P4	Race, Combinations of Two Races, and Not Hispanic or Latino: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> QT-P6	Race Alone or in Combination and Hispanic or Latino: 2010	2010 SF1 100% Data	?
<input type="checkbox"/> H11H	TOTAL POPULATION IN OCCUPIED HOUSING UNITS BY TENURE (HISPANIC OR LATINO HOUSEHOLDER)	2010 SF1 100% Data	?
<input type="checkbox"/> H12H	AVERAGE HOUSEHOLD SIZE OF OCCUPIED HOUSING UNITS BY TENURE (HISPANIC OR LATINO HOUSEHOLDER)	2010 SF1 100% Data	?
<input type="checkbox"/> H15	TENURE BY HISPANIC OR LATINO ORIGIN OF HOUSEHOLDER	2010 SF1 100% Data	?
<input type="checkbox"/> H16H	TENURE BY HOUSEHOLD SIZE (HISPANIC OR LATINO HOUSEHOLDER)	2010 SF1 100% Data	?

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Your Selections Search Results: 1-25 of 42 tables and other products match "Your Selections"

Search using...
 Dataset: 2010 SF1 100% Data
 People: Race & Ethnicity: Hispanic or Latino
 Census Tract: All Census Tracts within Oregon

Search using the options below:
 Topics (age, income, year, dataset, ...)
 Geographies (states, counties, places, ...)
 Race and Ethnic Groups (race, ancestry, tribe)
 Industry Codes (NAICS industry, ...)
 EEO Occupation Codes (executives, analysts, ...)

Table ID	Table Name	Data Source	Info
<input type="checkbox"/>	H16H	TENURE BY HOUSEHOLD SIZE (HISPANIC OR LATINO HOUSEHOLDER)	2010 SF1 100% Data
<input type="checkbox"/>	H17H	TENURE BY AGE OF HOUSEHOLDER (HISPANIC OR LATINO HOUSEHOLDER)	2010 SF1 100% Data
<input type="checkbox"/>	H7	HISPANIC OR LATINO ORIGIN OF HOUSEHOLDER BY RACE OF HOUSEHOLDER	2010 SF1 100% Data
<input type="checkbox"/>	H9	HISPANIC OR LATINO ORIGIN OF HOUSEHOLDERS BY TOTAL RACES TALLIED	2010 SF1 100% Data
<input type="checkbox"/>	HCT1	TENURE BY HISPANIC OR LATINO ORIGIN OF HOUSEHOLDER BY RACE OF HOUSEHOLDER	2010 SF1 100% Data
<input type="checkbox"/>	P11	HISPANIC OR LATINO, AND NOT HISPANIC OR LATINO BY RACE FOR THE POPULATION 18 YEARS AND OVER	2010 SF1 100% Data
<input checked="" type="checkbox"/>	P12H	SEX BY AGE (HISPANIC OR LATINO)	2010 SF1 100% Data
<input type="checkbox"/>	P13H	MEDIAN AGE BY SEX (HISPANIC OR LATINO)	2010 SF1 100% Data
<input type="checkbox"/>	P15	HISPANIC OR LATINO ORIGIN OF HOUSEHOLDER BY RACE OF HOUSEHOLDER	2010 SF1 100% Data
<input type="checkbox"/>	P16H	POPULATION IN HOUSEHOLDS BY AGE (HISPANIC OR LATINO HOUSEHOLDER)	2010 SF1 100% Data
<input type="checkbox"/>	P17H	AVERAGE HOUSEHOLD SIZE BY AGE (HISPANIC OR LATINO HOUSEHOLDER)	2010 SF1 100% Data
<input type="checkbox"/>	P18H	HOUSEHOLD TYPE (HISPANIC OR LATINO HOUSEHOLDER)	2010 SF1 100% Data
<input type="checkbox"/>	P28H	HOUSEHOLD TYPE BY HOUSEHOLD SIZE (HISPANIC OR LATINO HOUSEHOLDER)	2010 SF1 100% Data
<input type="checkbox"/>	P29H	HOUSEHOLD TYPE BY RELATIONSHIP (HISPANIC OR LATINO)	2010 SF1 100% Data
<input type="checkbox"/>	P31H	HOUSEHOLD TYPE BY RELATIONSHIP FOR THE POPULATION UNDER 18 YEARS (HISPANIC OR LATINO)	2010 SF1 100% Data
<input type="checkbox"/>	P34H	HOUSEHOLD TYPE BY RELATIONSHIP FOR THE POPULATION 65 YEARS AND OVER (HISPANIC OR LATINO)	2010 SF1 100% Data

Selected: View Download Compare Clear All

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Your Selections

Search using...
 Dataset: 2010 SF1 100% Data
 People: Race & Ethnicity: Hispanic or Latino
 Census Tract: All Census Tracts within Oregon

Search using the options below:
 Topics (age, income, year, dataset, ...)
 Geographies (states, counties, places, ...)
 Race and Ethnic Groups (race, ancestry, tribe)
 Industry Codes (NAICS industry, ...)

Data Set
 2010 Census Summary File 1

Table
P12H - SEX BY AGE (HISPANIC OR LATINO)
 Universe: People who are Hispanic or Latino

Type:
 Detailed Table

Dimensions:
 Geography

Example:

NOTE: For information on confidentiality protection, nonsampling error, and definitions, see <http://www.census.gov/prod/cen2010/doc/sf1.pdf>.

	Geography
Total:	
Male:	
Under 5 years	
5 to 9 years	
10 to 14 years	
15 to 17 years	
18 and 19 years	
20 years	
21 years	
22 to 24 years	
25 to 29 years	
30 to 34 years	
35 to 39 years	
40 to 44 years	
45 to 49 years	
50 to 54 years	
55 to 59 years	
60 and 61 years	
62 to 64 years	

2010 SF1 100% Data

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Your Selections Search Results: 1-25 of 42 tables and other products match "Your Selections"


Search using...
 Dataset: 2010 SF1 100% Data
 People/Race & Ethnicity: Hispanic or Latino
 Census Tract: All Census Tracts within Oregon

Search using the options below:
 Topics (age, income, year, dataset, ...)
 Geographies (states, counties, places, ...)
 Race and Ethnic Groups (race, ancestry, tribe)
 Industry Codes (NAICS industry, ...)
 EEO Occupation Codes (executives, analysts, ...)

Table ID	Table Name	Data
<input type="checkbox"/>	H17H TENURE BY AGE OF HOUSEHOLDER (HISPANIC OR LATINO HOUSEHOLDER)	2010 SF1 100% Data
<input type="checkbox"/>	H7 HISPANIC OR LATINO ORIGIN OF HOUSEHOLDER BY RACE OF HOUSEHOLDER	2010 SF1 100% Data
<input type="checkbox"/>	H9 HISPANIC OR LATINO ORIGIN OF HOUSEHOLDERS BY TOTAL RACES TALLIED	2010 SF1 100% Data
<input type="checkbox"/>	HCT1 TENURE BY HISPANIC OR LATINO ORIGIN OF HOUSEHOLDER BY RACE OF HOUSEHOLDER	2010 SF1 100% Data
<input type="checkbox"/>	P11 HISPANIC OR LATINO, AND NOT HISPANIC OR LATINO BY RACE FOR THE POPULATION 18 YEARS AND OVER	2010 SF1 100% Data
<input checked="" type="checkbox"/>	P12H SEX BY AGE (HISPANIC OR LATINO)	2010 SF1 100% Data
<input type="checkbox"/>	P13H MEDIAN AGE BY SEX (HISPANIC OR LATINO)	2010 SF1 100% Data
<input type="checkbox"/>	P15 HISPANIC OR LATINO ORIGIN OF HOUSEHOLDER BY RACE OF HOUSEHOLDER	2010 SF1 100% Data
<input type="checkbox"/>	P16H POPULATION IN HOUSEHOLDS BY AGE (HISPANIC OR LATINO HOUSEHOLDER)	2010 SF1 100% Data
<input type="checkbox"/>	P17H AVERAGE HOUSEHOLD SIZE BY AGE (HISPANIC OR LATINO HOUSEHOLDER)	2010 SF1 100% Data
<input type="checkbox"/>	P18H HOUSEHOLD TYPE (HISPANIC OR LATINO HOUSEHOLDER)	2010 SF1 100% Data
<input type="checkbox"/>	P28H HOUSEHOLD TYPE BY HOUSEHOLD SIZE (HISPANIC OR LATINO HOUSEHOLDER)	2010 SF1 100% Data
<input type="checkbox"/>	P29H HOUSEHOLD TYPE BY RELATIONSHIP (HISPANIC OR LATINO)	2010 SF1 100% Data
<input type="checkbox"/>	P31H HOUSEHOLD TYPE BY RELATIONSHIP FOR THE POPULATION UNDER 18 YEARS (HISPANIC OR LATINO)	2010 SF1 100% Data
<input type="checkbox"/>	P34H HOUSEHOLD TYPE BY RELATIONSHIP FOR THE POPULATION 65 YEARS AND OVER (HISPANIC OR LATINO)	2010 SF1 100% Data

1 Selected: View Download Compare Clear All

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Advanced Search - Search all data in American FactFinder

1 Advanced Search 2 Table Viewer Result 1 of 1 VIEW ALL AS PDF

P12H SEX BY AGE (HISPANIC OR LATINO)
 Universe: People who are Hispanic or Latino
 2010 Census Summary File 1


Table View BACK TO ADVANCED SEARCH

Actions: Modify Table Bookmark Print Download Create a Map

Not all columns may be displayed below. Click Back to Search to select other geographies using the search options on the left.
 The table contains a total of 14,052,071 data columns.
 NOTE: For information on confidentiality protection, nonsampling error, and definitions, see <http://www.census.gov/prod/cen2010/doc/sf1.pdf>.

	Census Tract 9501, Baker County, Oregon	Census Tract 9502, Baker County, Oregon	Census Tract 9503, Baker County, Oregon	Census Tract 9504, Baker County, Oregon	Census Tract 9505, Baker County, Oregon	Census Tract 9506, Baker County, Oregon	Census Tract 1, Benton County, Oregon	Census Tract 2, Benton County, Oregon	Census Tract 3, Benton County, Oregon	Census Tract 4, Benton County, Oregon	Census Tract 5, Benton County, Oregon	Census Tract 6, Benton County, Oregon	Census Tract 9, Benton County, Oregon	Census Tract 10, Benton County, Oregon	Census Tract 10.01, Benton County, Oregon	Census Tract 10.02, Benton County, Oregon	Census Tract 11.01, Benton County, Oregon	Census Tract 101, Benton County, Oregon	Census Tract 102, Benton County, Oregon
Total:	85	125	81	96	101	40	834	195	327	86	397	260	844	184	184	181	238	305	162
Male:	47	56	41	44	52	24	429	97	161	40	204	135	471	105	99	117	144	80	
Under 5 years	7	8	6	4	8	1	41	12	16	4	31	15	66	4	1	1	12	14	
5 to 9 years	8	8	4	3	5	5	60	10	14	4	29	10	40	7	4	0	19	7	
10 to 14 years	3	4	6	2	3	3	36	8	8	2	18	9	36	8	3	4	19	9	
15 to 17 years	5	5	3	2	2	2	15	3	10	0	9	6	25	4	1	1	10	5	
18 and 19 years	1	3	1	2	0	0	24	1	8	0	9	8	15	14	16	9	6	1	
20 years	1	0	0	1	2	0	14	2	10	0	1	6	15	1	13	17	2	1	
21 years	0	2	1	2	2	0	13	4	4	2	2	14	14	8	13	13	2	0	
22 to 24 years	1	3	0	1	5	1	29	2	8	0	13	11	51	14	22	27	7	3	

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Advanced Search - Search all data in American FactFinder

1 Advanced Search 2 Table Viewer Result 1 of 1 VIEW ALL AS PDF

P12H SEX BY AGE (HISPANIC OR LATINO)
 Universe: People who are Hispanic or Latino
 2010 Census Summary File 1

Table View BACK TO ADVANCED SEARCH

Actions: Hide Table Tools Bookmark Print Download Create a Map

Table Tools: Reset Table Show Hidden Rows/Columns Transpose Rows/Columns

Legend: show/hide rows and columns collapse/expand data categories rearrange columns rearrange rows sort ascending/descending filter rows

Not all columns may be displayed below. Click Back to Search to select other geographies using the search options on the left.

The table contains a total of 14,052,071 data columns.

NOTE: For information on confidentiality protection, nonsampling error, and definitions, see <http://www.census.gov/prod/cen2010/doc/sf1.pdf>.

	Census Tract 9501, Baker County, Oregon	Census Tract 9502, Baker County, Oregon	Census Tract 9503, Baker County, Oregon	Census Tract 9504, Baker County, Oregon	Census Tract 9505, Baker County, Oregon	Census Tract 9506, Baker County, Oregon	Census Tract 1, Benton County, Oregon	Census Tract 2,02, Benton County, Oregon	Census Tract 4, Benton County, Oregon	Census Tract 5, Benton County, Oregon	Census Tract 6, Benton County, Oregon	Census Tract 9, Benton County, Oregon	Census Tract 10,01, Benton County, Oregon	Census Tract 10,02, Benton County, Oregon	Census Tract 11,01, Benton County, Oregon	Census Tract 11,02, Benton County, Oregon	Census Tract 101, Benton County, Oregon
Total:	85	125	81	96	101	40	834	195	327	86	397	260	844	184	181	238	305
Male:	47	56	41	44	52	24	429	97	161	40	204	135	471	105	99	117	144

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Advanced Search - Search all data in American FactFinder

1 Advanced Search 2 Table Viewer Result 1 of 1 VIEW ALL AS PDF

P12H SEX BY AGE (HISPANIC OR LATINO)
 Universe: People who are Hispanic or Latino
 2010 Census Summary File 1

Table View BACK TO ADVANCED SEARCH

Actions: Modify Table Bookmark Print Download Create a Map

Note: This is a modified view of the original table.

Not all rows may be displayed below. Click Back to Search to select other geographies using the search options on the left.

The table contains a total of 14,052,071 data rows.

NOTE: For information on confidentiality protection, nonsampling error, and definitions, see <http://www.census.gov/prod/cen2010/doc/sf1.pdf>.

	Total:	Male:																
		Under 5 years	5 to 9 years	10 to 14 years	15 to 17 years	18 and 19 years	20 years	21 years	22 to 24 years	25 to 29 years	30 to 34 years	35 to 39 years	40 to 44 years	45 to 49 years	50 to 54 years	55 to 59 years	60 and 61 years	
Census Tract 9501, Baker County, Oregon	85	47	7	8	3	5	1	1	0	1	3	4	3	4	2	2	1	0
Census Tract 9502, Baker County, Oregon	125	56	8	8	4	5	3	0	2	3	2	5	5	0	3	1	1	1
Census Tract 9503, Baker County, Oregon	81	41	6	4	6	3	1	0	1	0	2	1	3	4	2	1	0	1
Census Tract 9504, Baker County, Oregon	96	44	4	3	2	2	2	1	2	1	2	5	4	3	1	3	1	1

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Advanced Search - Search all data in American FactFinder

1 Advanced Search 2 Table Viewer

P12H SEX BY AGE (HISPANIC OR LATINO)
Universe: People who are Hispanic or Latino
2010 Census Summary File 1

Table View

Actions: Modify Table | Bookmark

Note: This is a modified view of the original table. Not all rows may be displayed below. Click Back to Search to select other geographies. The table contains a total of 14,052,071 data rows.

NOTE: For information on confidentiality protection, nonsampling error, and definitions, see <http://www.census.gov/prod/cen2010/doc/sf1.pdf>.

Table with columns: Total, Male, Under 5 years, 5 to 9 years, 10 to 14 years, 15 to 17 years, 18 and 19 years, 20 years, 21 years, 22 to 24 years, 25 to 29 years, 30 to 34 years, 35 to 39 years, 40 to 44 years, 45 to 49 years, 50 to 54 years, 55 to 59 years, 60 and 61 years.

Download dialog box:

Select a download format and click OK.

Comma delimited (.csv) format (data rows only)
(.csv is compatible with spreadsheet programs such as Microsoft Excel)

- Data and annotations in a single file
- Data and annotations in separate files
- Include descriptive data element names

Presentation-ready formats

- PDF
- Microsoft Excel (.xls)
- Rich Text Format (.rtf)

Orientation: Portrait Landscape

Paper size: 8 1/2" x 11" 8 1/2" x 14"

OK CANCEL

Advanced Search - Search all data in American FactFinder

1 Advanced Search 2 Table Viewer

P12H SEX BY AGE (HISPANIC OR LATINO)
Universe: People who are Hispanic or Latino
2010 Census Summary File 1

Table View

Actions: Modify Table | Bookmark

Note: This is a modified view of the original table. Not all rows may be displayed below. Click Back to Search to select other geographies. The table contains a total of 14,052,071 data rows.

NOTE: For information on confidentiality protection, nonsampling error, and definitions, see <http://www.census.gov/prod/cen2010/doc/sf1.pdf>.

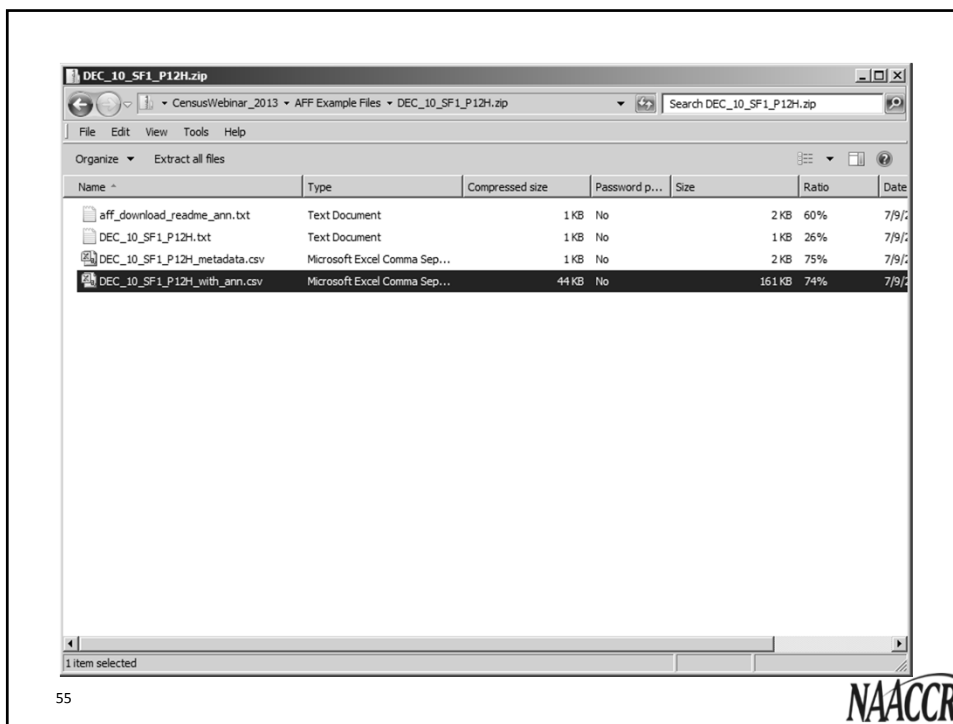
Table with columns: Total, Male, Under 5 years, 5 to 9 years, 10 to 14 years, 15 to 17 years, 18 and 19 years, 20 years, 21 years, 22 to 24 years, 25 to 29 years, 30 to 34 years, 35 to 39 years, 40 to 44 years, 45 to 49 years, 50 to 54 years, 55 to 59 years, 60 and 61 years.

Download dialog box:

Click 'Download' to save the file to your computer.

Your file is complete.

DOWNLOAD CANCEL



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DEC_10_SF1_P12H_metadata.csv [Read-Only]									
	A	B	C	D	E	F	G	H	I
1	GEO.id	Id							
2	GEO.id2	Id2							
3	GEO.displ	Geography							
4	D001	Total:			D002	D003	D004	D005	D006
5	D002	Male:			47	7	8	3	5
6	D003	Male: - Under 5 years			56	8	8	4	5
7	D004	Male: - 5 to 9 years			41	6	4	6	3
8	D005	Male: - 10 to 14 years			44	4	3	2	2
9	D006	Male: - 15 to 17 years			52	8	5	3	2
10	D007	Male: - 18 and 19 years			24	1	5	3	2
11	D008	Male: - 20 years			429	41	60	36	15
12	D009	Male: - 21 years			97	12	10	8	3
13	D010	Male: - 22 to 24 years			161	16	14	8	10
14	D011	Male: - 25 to 29 years			40	4	4	2	0
15	D012	Male: - 30 to 34 years			204	31	29	18	9
16	D013	Male: - 35 to 39 years			135	15	10	9	6
17	D014	Male: - 40 to 44 years			471	66	40	36	25
18	D015	Male: - 45 to 49 years			105	4	7	8	4
19	D016	Male: - 50 to 54 years			99	1	4	3	1
20	D017	Male: - 55 to 59 years			117	1	0	4	1
21	D018	Male: - 60 and 61 years			144	12	19	19	10
22	D019	Male: - 62 to 64 years			80	14	7	9	5
23	D020	Male: - 65 and 66 years			44	6	0	6	3
24	D021	Male: - 67 to 69 years			176	20	27	16	8
25	D022	Male: - 70 to 74 years			207	11	11	4	2
26	D023	Male: - 75 to 79 years							
27	D024	Male: - 80 to 84 years							
28	D025	Male: - 85 years and over							
29	D026	Female:							
30	D027	Female: - Under 5 years							
31	D028	Female: - 5 to 9 years							

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AFF Census 2010 - Exercises

- Your turn
 - Urban/rural populations for your county's census tracts
 - Other data of your choice (households, group quarters populations, ...)
 - Total population by age and sex for all Oregon block groups (challenging)
 - Hint: Geographies, Name tab, Summary Level, Groups of geographies

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QUESTIONS?

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NAACCR Webinar

Topics in GIS – July 11, 2013

Using Census 2010/American Community Survey Data for Cancer Surveillance

American Community Survey

Recinda Sherman, Florida Cancer Data System



Purpose

- GIS/Geospatial analysis
 - “Novel” ways to communicate & interpret surveillance data
 - Spatial link to external datasets
- SES data are integral to cancer surveillance
 - Describe disparities for cancer control
 - Hypothesize causality
 - Prioritize resources, inform policy, target intervention
 - Evaluation
- Is it spurious?



Sources : US Census

- Website: <http://www.census.gov/acs/www/>
 - Tutorials, Technical Documentation
 - What Researchers Need to Know
 - <http://www.census.gov/acs/www/Downloads/handbooks/ACSResearch.pdf>
 - Design and Methodology
 - http://www.census.gov/acs/www/methodology/methodology_main/
- Personal communication
 - General 1-800-923-8282
 - Questionnaire 1-800-354-7271



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Overview

- Overview of ACS
- Difference from SF3
 - Variables
 - Period versus Fixed Estimates
 - Sample Design
 - Population Counted
 - Sampling Error
- Access/Availability
 - AFF2 Features, DataFerrett
- Recommendations

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Overview: ACS

- American Community Survey
- **Estimates** not counts
 - Description of population
 - Social, demographic, housing, economic characteristics
- Replaces Summary File 3
 - Rolling survey
 - Puerto Rico Community Survey
 - “essentially” same information
 - 55 individual q’s, 30 household
- Annual estimates
 - Single year (65,000+), 3 year (20,000+), 5 year(all geographies)

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ACS History

- Proposed in 1986
- 1994 – 2004 demonstration period
- Fully implemented in 2005
- Replaced SF3 in 2010
- Goal
 - More timely & frequent data
 - Streamline operations & improve data quality

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Variables

- Demographic characteristics
 - Same as Census 2010
 - Sex, race, age, Hispanic origin
- Social characteristics
 - Education, marital status, fertility, grandparent caregivers, veterans, disability status, disability status, place of birth, citizenship, year of entry, language spoken at home, ancestry/tribal affiliation
- Economic characteristics
 - Income, benefits, employment status, occupation, industry, commuting to work, place of work
 - Income not compatible with SF3
- Housing characteristics
 - Tenure, occupancy & structure, housing value, taxes & insurance, utilities, mortgage/rent

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Period vs Fixed Estimates

- ACS Period Estimate
 - Average over specific time period
 - 1, 3 & 5 year averages
 - Updated annually
 - Changes in questions and circumstances
 - Economic indicators
- SF3 Fixed Estimate
 - April 1, XXX9
 - Although collected over several months

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Continuous versus point-in-time

- No longer “snapshot” now an abstract picture
 - Averaged data
- Median income
 - Averaged throughout year & adjusted for inflation
- Permanent, professional staff
 - Smaller, cost efficient
 - Highly trained
- Same number of households sampled annually
 - Smaller percentage each year

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Continuous versus point-in-time

- Reference period changes throughout year
 - Seasonal or rapid trends
- Multiyear estimates are **not** average of single year
 - Adjusted for age, sex, race, & Hispanic origin
 - More complex weighting scheme
 - More precise, more reliable

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Sample Design

- Continuous sampling
 - 250,000 addresses monthly; every county
- 3 million addresses annually
 - 2.3% of 2005 US population
 - Roughly same at state level
 - However, sample size not met
 - Closer to 2 million
- Mail, phone, personal visit
- Unique address once per 5 years
- Numerous geographic levels
 - Single year
 - States, congressional districts, 700 counties
 - 5 year aggregates: all geographies

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Sample design

- Sent to address
- Phone f/u for non-responders
- Interviewer sent 3 months later
 - subsample
- Oversample: small areas (county, towns, school districts), AI/AN, and tracts expected to have low response rate (-8% in tracts expected to have high response rate)
- Highly complex design

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Processing

- Monthly coding for write-ins
 - i.e. occupation, ancestry
- Annual completeness assessment
 - Accept/reject
- Annual automated editing
 - Hot-deck imputation for missing values
 - 100% “complete”
 - Dollar amounts adjusted for inflation (adjusted to single year or most current)
 - 2005-2009 adjusted to 2009



Weighting

- Multiple step
- Base weight(s)
 - based on % of total pop and % of f/u for in-person interviews
- Adjusted for nonresponse
 - Based on % of occupied housing units
- Large or group county weighting
 - Adjusted for missing addresses
 - Adjusted for missed persons in household
- 3 year, 5 year additional adjustments
 - On pooled data



Sampling error

- Sample to lower cost
- 2000 SF3 also sample
 - 1 in 6 households
 - Results from 1 household represent 5 additional
- 2010 ACS
 - 1 in 8 (5 year estimate); 1 in 40 (single-year estimate)
 - Less precise
- SF3 errors significantly smaller, published for table not data item

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Sampling Error

- Uncertainty of data based on sample versus full population
- Used to show reliability and usability, compare estimates, conduct statistical tests, inform conclusions
- Margin of Error is reported for each data point
 - MOE measures the precision of the estimate at given level of confidence
 - 90% CI (90% likelihood that difference between population and sample is less than or equal to MOE)
 - 95% etc can be calculated (Compass Handbook)
 - $SE = MOE/1.645$; $CI = Estimate \pm MOE$
- How do we account for the MOE in analysis, presentation, interpretation?

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Consistency of response

- 800,000 address test 2000
 - Results compared to 2000 SF3
- Race/Ethnicity—more accurate
- Ancestry – more accurate
- Disability – more accurate
- Employment – more accurate
- Renter – possibly more accurate
- Vacancy – unknown
- Median Income – unknown
- Poverty – mixed



Population “Counted”

- SF3
 - EVERYONE in US
 - plus overseas federal employees & family
 - Usually living at address
- ACS
 - 2005 “everyone” in US
 - EXCEPT homeless, shelters, transitory locations
 - Young & elderly
 - 2006 EVERYONE
 - Are living at address for 2+ months
 - Legal/citizenship status irrelevant

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Content changes

- 2006
 - Include group quarters
- 2008
 - Additions
 - health insurance coverage, veteran's service-connected disability, marital history
 - Deletions
 - Time & reason for staying at address
- Wording/Format
 - Changes from SF3, changes over time

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Strengths

- Timeliness
 - Released 8-10 months after collection
 - 2 years SF3; bg level longer
- Frequency
 - Annual versus decennial
- Higher data quality
 - Higher training level for interviewers
 - Higher response rate
 - Computer-assisted follow-up and personal interview for non-response by mail
 - More complete
 - f/u on missing data via phone or visit

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Weakness

- Less precise
 - 12.5% versus 17%
 - Census/bg level highly impacted
- Significantly larger MOE
 - Smaller sample size
 - 3 million addresses a year
 - 16 million SF3
 - Weighting issue
 - In-person interview on subsample of households that do not respond by mail or phone
 - 15 million housing unit sample -> 10-11

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Type of Product Outputs Available

- Similar to Decennial Census
- Profiles
 - Novice users, fact sheets
 - Tabular, textual, comparisons
 - Limited geography (65,000/500,000)
- Tables
 - Detailed, most relevant
 - 1,200 (11 race/ethnic groups)
 - Sex by age (for rates)
 - Poverty Status (for SES)
- Thematic Maps

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Public Use Microdata Sample (PUMS)

- Subsample of individual records
 - Anonymized
- More subject detail
 - Detailed population group; Custom variables
- Less geographic detail
 - 100,000 threshold
- Documented data errors
 - Compared to tables
 - Age & Sex
 - 65+ 15% difference in counts
 - 65+ not representative
 - Byproduct of “misapplication of disclosure avoidance”
 - Data swapping, imputation

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How to Access Data Products

- American FactFinder
- DataFerrett
 - Block Group Level for limited tables
- FTP
 - http://www2.census.gov/acs2009_5yr/summaryfile/
- DVD
 - acso.dvd.order@census.gov
 - Comma delimited
- Summary File Retrieval Tool
 - Excel macro

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Availability

- Release thresholds
 - 3 households
 - 50 respondents
- Population thresholds
 - 1-year 65,000+
 - 3-year 20,000+
 - 5-year all levels of geography
- ZCTA, census tracts, block groups
 - Only 5-year

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Available Geographies

- Block group level
- Many, many tables suppressed
 - Reliability/Privacy concerns
- Appendix E
- The 2006-2010 5-Year Summary File Technical Documentation

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Recommendations

- Use ACS to describe population characteristics
 - Not as denominator
- Don't use overlapping period estimates
 - If analyzing trend data, use 1-year estimates if possible
- Use 2006+
 - Elderly more likely to live in group quarters
- Examine MOE before analysis
 - Use multiyear data if available

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Recommendations

- When using multiple years or trends
 - Review for any geographic boundary changes
 - Examine history of question
- Review item specific guides if comparing ACS to SF3
 - Compare, compare with caution, do not compare
 - “Guidance for Data Users” Tab on ACS website
- Review non-sampling error information to guide interpretation
 - Response Rates, Coverage, Imputation
 - Response and processing error

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Detailed Tables for Quality Measures

- Methodology; “Sample Size & Data Quality”
 - Sample size, coverage rates, unit and item non-

■ Choose a table selection method

by subject by keyword show all tables

■ Select one or more tables and click 'Add'

[explain table numbers](#)

B98001. Unweighted Housing Unit Sample
B98002. Unweighted Group Quarters Population Sample
B98011. Housing Unit Coverage Rate
B98012. Total Population Coverage Rate by Sex
B98013. Total Population Coverage Rate by Weighting Race and Hispanic or Latino Groups
B98014. Group Quarters Population Coverage Rate
B98021. Housing Unit Response and Nonresponse Rates with Reasons for Noninterviews
B98022. Group Quarters Population Response and Nonresponse Rates with Reasons for Noninterviews
B98031. Overall Person Characteristic Imputation Rate
B98032. Overall Housing Unit Characteristic Imputation Rate

Add ▼

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On-going Issues

- Sample Size
- Cost & Politics
 - Census Survey Costs
 - 1950 \$2.50 per capita; 2000 \$16 per capita
 - Political target
 - Budget cutting, eliminate ACS & Economic Survey
- Continuous collection and annual changes

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American Fact Finder: Neat Features



State Level Ranking Tables

Ranking Tables
 You are here: [Main](#) > [Data Sets](#) > [Ranking Tables](#) > [Results](#) | [Print / Download](#) | [Related Items](#)

View this table...
 ▶ for states
 ▶ from 2007
 from 2006
 from 2005
 with statistical significance

View...
 as a chart

Other tables...
 Select another ranking table

- [Subject Definitions](#)
- [Quality Measures](#)

United States and States
R1601. Percent of People 5 Years and Over Who Speak a Language Other Than English at Home: 2007
 Universe: Population 5 years and over
 Data Set: 2007 American Community Survey 1-Year Estimates
 Survey: American Community Survey, Puerto Rico Community Survey

NOTE: For information on confidentiality protection, sampling error, nonsampling error, and definitions, see [Survey Methodology](#).

Rank	State	Percent	Margin of Error
1	California	42.6	+/-0.2
2	New Mexico	35.7	+/-0.7
3	Texas	33.9	+/-0.2
4	New York	28.9	+/-0.2
5	Arizona	28.5	+/-0.3
6	New Jersey	27.8	+/-0.3
7	Nevada	27.4	+/-0.5
8	Florida	26.1	+/-0.2
9	Hawaii	25.5	+/-1.0
10	Illinois	21.8	+/-0.2
11	Rhode Island	20.8	+/-0.7
12	Massachusetts	20.2	+/-0.4
	United States	19.7	+/-0.1
13	Connecticut	19.4	+/-0.4
14	Colorado	16.7	+/-0.4
14	Washington	16.7	+/-0.2
16	Alaska	15.9	+/-0.8
17	Maryland	14.8	+/-0.3
18	District of Columbia	14.5	+/-0.9

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Geographic Comparison Tables

The screenshot shows the U.S. Census Bureau FactFinder interface. The main heading is "GCT1701 PERCENT OF PEOPLE BELOW POVERTY LEVEL IN THE PAST 12 MONTHS (FOR WHOM POVERTY STATUS IS DETERMINED) - State -- Congressional District". Below this, there is a table titled "Geography: Florida" with three columns: "Geographic Area", "Percent", and "Margin of Error".

Geographic Area	Percent	Margin of Error
Florida	16.5	+/-0.2
Congressional District 1	16.4	+/-1.6
Congressional District 2	20.5	+/-1.4
Congressional District 3	27.8	+/-1.7
Congressional District 4	12.7	+/-1.2
Congressional District 5	14.1	+/-1.0
Congressional District 6	17.9	+/-1.4
Congressional District 7	15.7	+/-1.3
Congressional District 8	14.9	+/-1.3
Congressional District 9	13.8	+/-1.3
Congressional District 10	12.8	+/-1.3

Additional text on the page includes: "Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section." and "Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section." A slide number "91" is visible in the bottom left corner of the browser window.



DataFerrett



DataFerrett

- Data mining and extraction tool
 - Select data and recode variables as needed
 - Customize and export tables (ascii, SAS, SPSS, Excel/Access)
 - Create charts, graphs, maps
- Variety of datasets available
 - The ACS 5-year summary file is aggregated
 - Can't modify or recode
 - PUMS
- Can't download entire summary file
 - Limit on # of variables and size of extract

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Configuration

- Must run Java
 - 1.6.0 3X or higher
 - <http://javatester.org/>
 - Increase JAVA applet memory size
 - Start > Control panel > JAVA (double click) > JAVA tab > Runtime Settings > in cell "Runtime Parameters" type – Xmx512m for each version
- Browsers
 - IE, Mozilla, Google Chrome (PC), Safari (MAC)
 - Allow pop-ups

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DataFerrett

- <http://dataferrett.census.gov/run.html>
- Supplement for ACS 5-year
 - http://dataferrett.census.gov/acs/ACS_5yrsf_UserGuide.pdf

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Questions?

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BREAK


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NAACCR Webinar
Topics in GIS – July 11, 2013
Using Census 2010/American
Community Survey Data for Cancer
Surveillance :

Denominator Data and Cancer Rates:
Applications and Complications

Frank Boscoe, New York State Cancer Registry
Dan Goldberg, Texas A&M University



Outline

1. Available denominators
2. End of decade issues
3. Race bridging
4. Relating cancer and SES using subcounty pops
5. ACS margins of error

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1. SEER*Stat populations

- Developed through a special arrangement with the Census Bureau, they are different than what is publicly available from the Census.
 - Shift reference date from April 15 to July 1
 - Single year of age
 - Bridged race groups (eliminates other & multiple race)
 - Special rules for Hawaii
 - Only to the county level

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Census populations

- Years ending in zero (1990, 2000, 2010)
 - Much data to block/block group level
 - 7 race groups (including other & multiple)
 - Modified Race Data Summary file resolves “other” (2010 not yet released)
- For other years - projections & estimates, to county level
 - 5 year age groups
 - 6 race groups (“other” removed)
- American Community Survey – 5-year estimates, to block group level
 - 5 year age groups
 - 7 race groups

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Census.gov | People and Households | Populations Estimates Data | Current Estimates Data

Population Estimates

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Current Estimates Data

The population and housing unit estimates are released on a flow basis throughout each year. Each new series of data (called vintages) incorporates the latest administrative record data, geographic boundaries, and methodology. Therefore, the entire time series of estimates beginning with the most recent decennial census is revised annually, and estimates from different vintages of data may not be consistent across geography and characteristics detail. When multiple vintages of data are available, the most recent vintage is the preferred data.

The vintage year (e.g., V2011) refers to the final year of the time series. The reference date for all estimates is July 1, unless otherwise specified.

All downloadable datasets by level of geography are available [here](#).

Historical datasets are available [here](#).

Level of Geography	Level of Detail	Most Current Data	Vintage in Progress	2000-2010 Interdecennial Estimates	Latest Available Complete Vintage
Nation	Total population	V2011	V2011	Interdecennial Estimates	V2009
	Population by age, sex, race, and Hispanic origin	V2011	V2011	Interdecennial Estimates	V2009
States	Total population	V2011	V2011	Interdecennial Estimates	V2009
	Population by age, sex, race, and Hispanic origin	V2011	V2011	Interdecennial Estimates	V2009
Counties	Total population	V2011	V2011	Interdecennial Estimates	V2009
	Population by age, sex, race, and Hispanic origin	V2011	V2011	Interdecennial Estimates	V2009

<http://www.census.gov/popest/>

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2. End of decade issues

- Affects all population sources (except arguably ACS)
- Population estimates are based on births (highly accurate), deaths (highly accurate), and migration (not very accurate)
 - Gets worse the further removed from a decadal census

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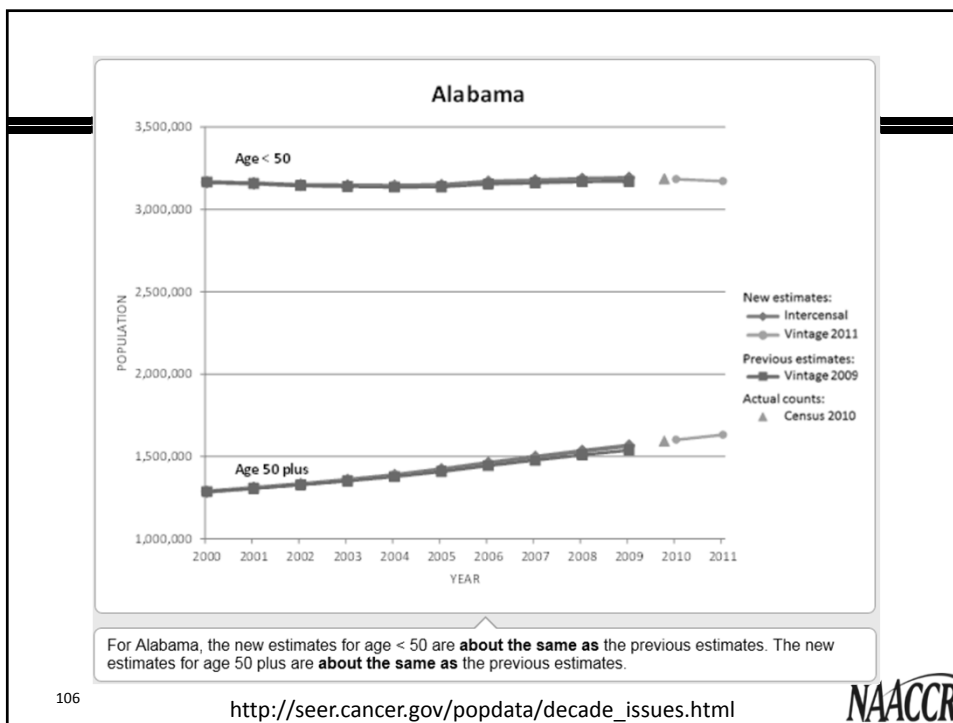
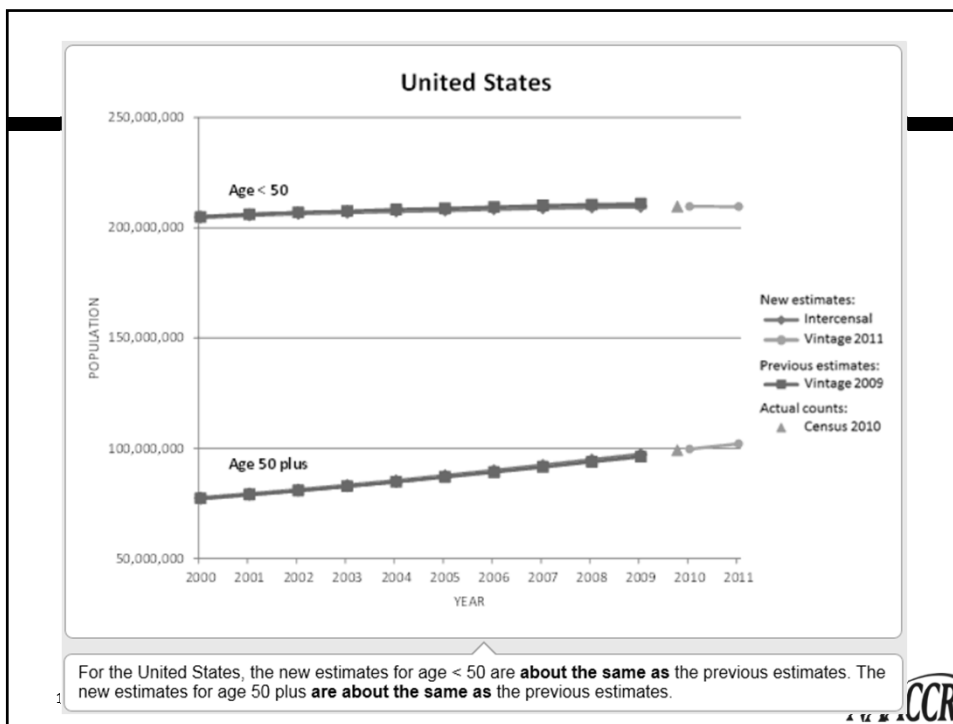


Table 1 Important Potential Sources of Bias in Administrative Records Used for Estimating Populations (after Judson, Popoff, and Batutis 2001, except for *)

County Characteristic	Direction of Bias	Reason for Bias
High growth rate	Underestimate	Some in-migrants are not captured by tax return matching process.
Negative growth rate	Overestimate	Some out-migrants are not captured by tax return matching process.
Lack of hospital in county	Underestimate	Births may be misassigned to the county in which the hospital is located.
High % living on military bases & in college dorms	Underestimate	Lag in reporting of new quarters (but if quarters are being eliminated, then bias is opposite).
High % prisoners	Overestimate	Prisons have tendency to overreport.
High % over age 65 not enrolled in Medicare	Underestimate	These people are not captured in the Medicare database.
High % foreign born	Underestimate	Immigrants are less likely to be captured in administrative records.
High % poverty	Overestimate	Such counties tend to generate out-migrants less likely to have filed tax returns.
High % Native American Retirement destination*	Underestimate	Native Americans are less likely to be captured in administrative records. Some 65 year old in-migrants are not captured.

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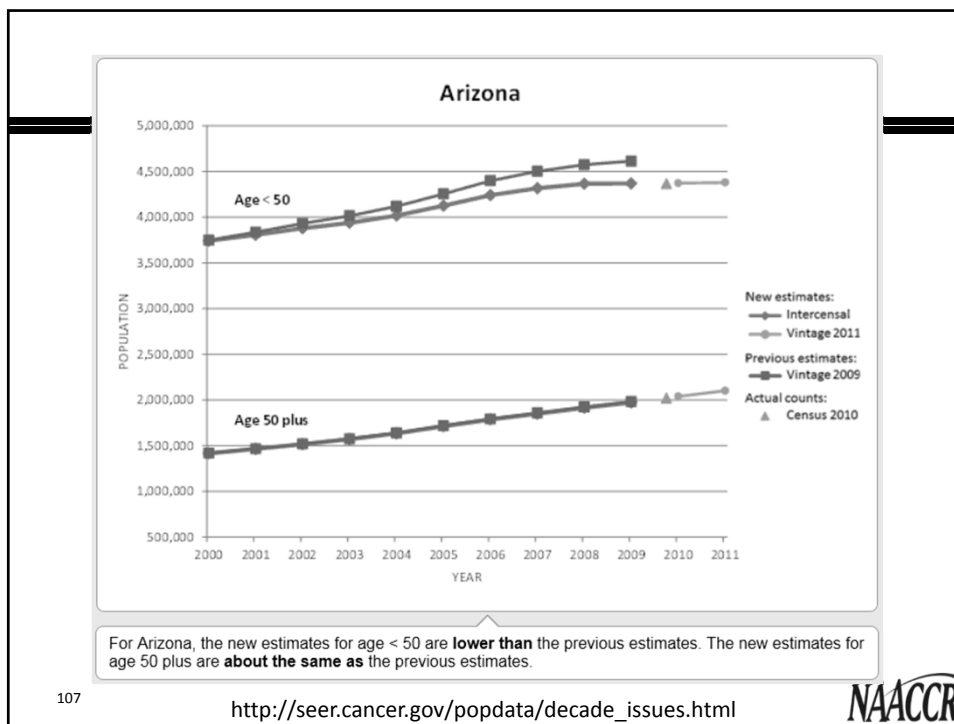




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http://seer.cancer.gov/popdata/decade_issues.html





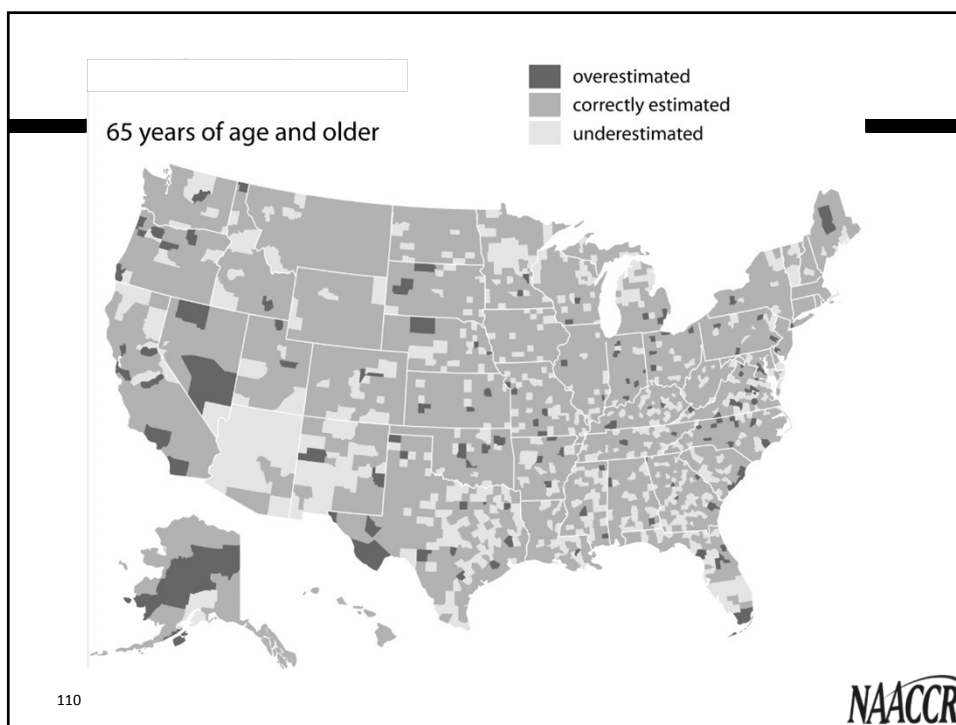
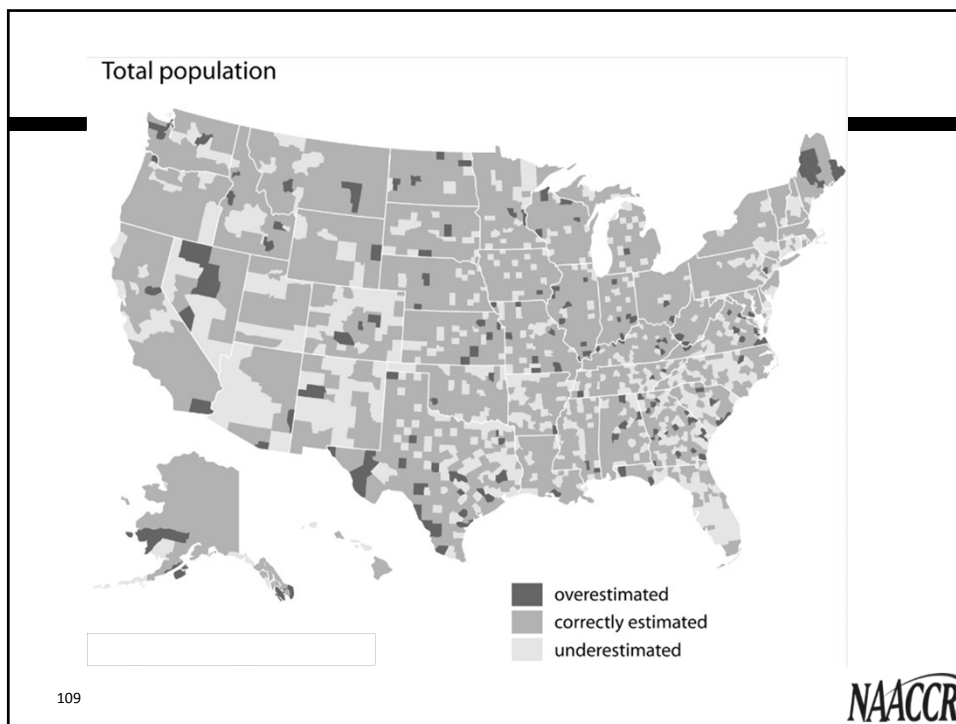
Population Estimation Error and Its Impact on 1991–1999 Cancer Rates*

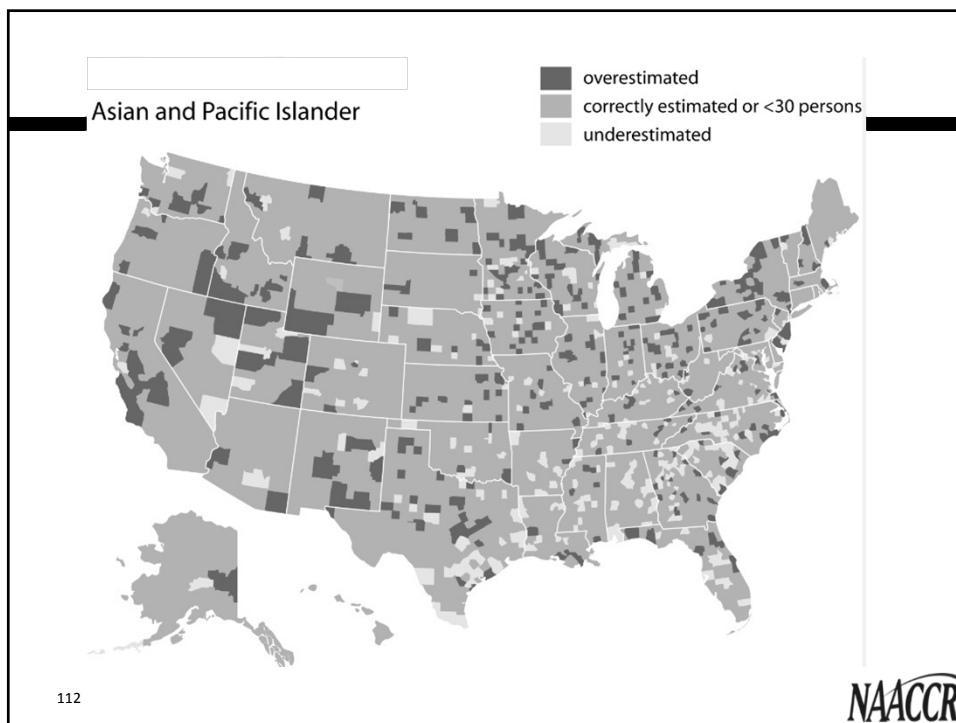
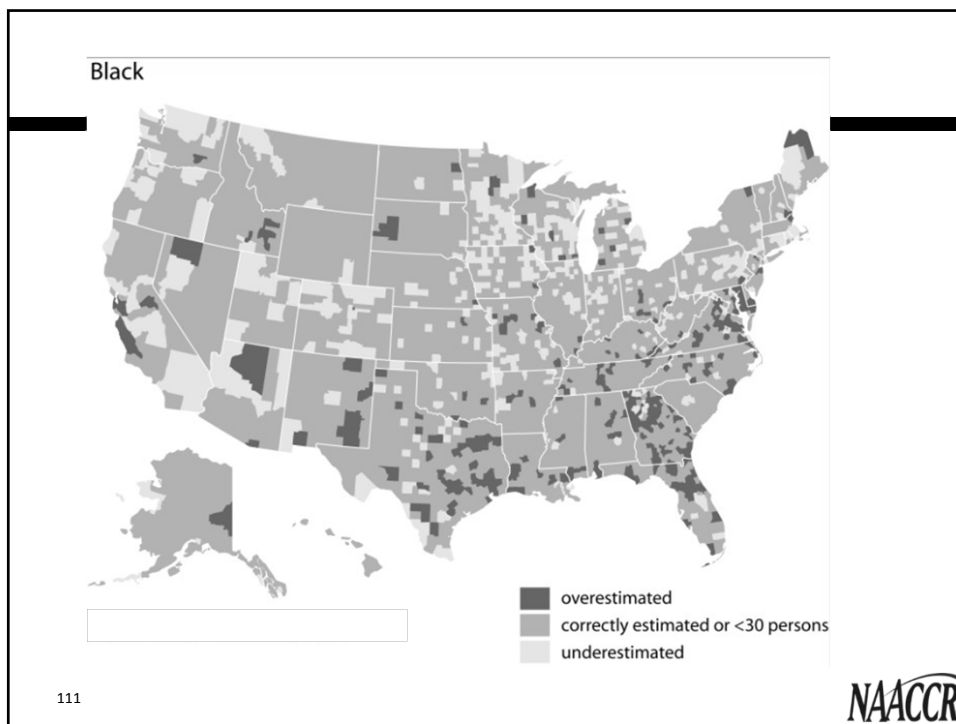
Francis P. Boscoe
New York State Department of Health

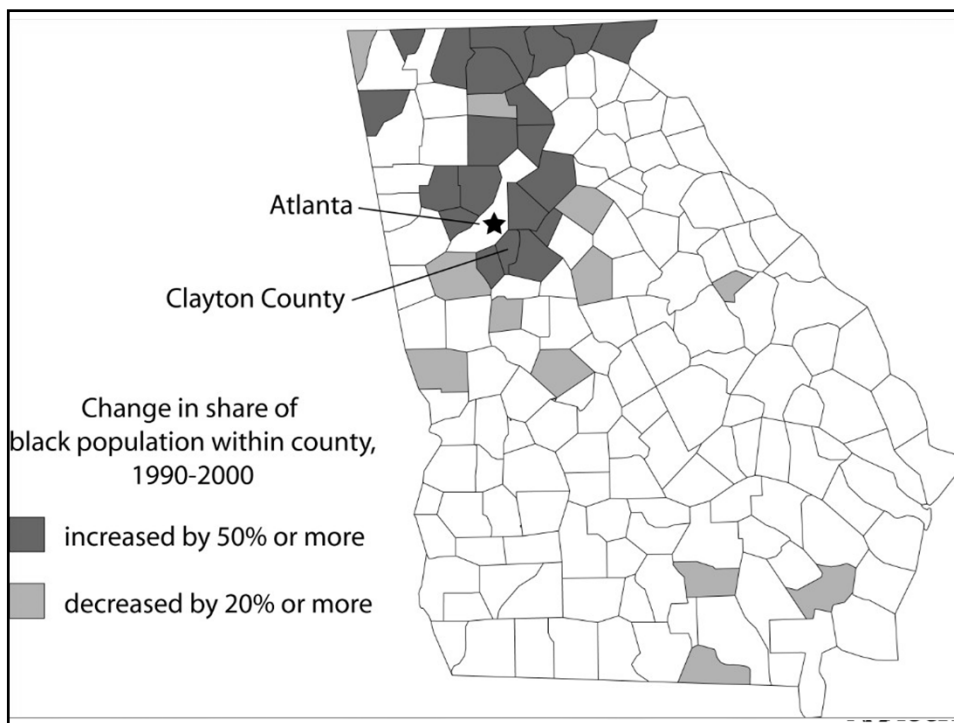
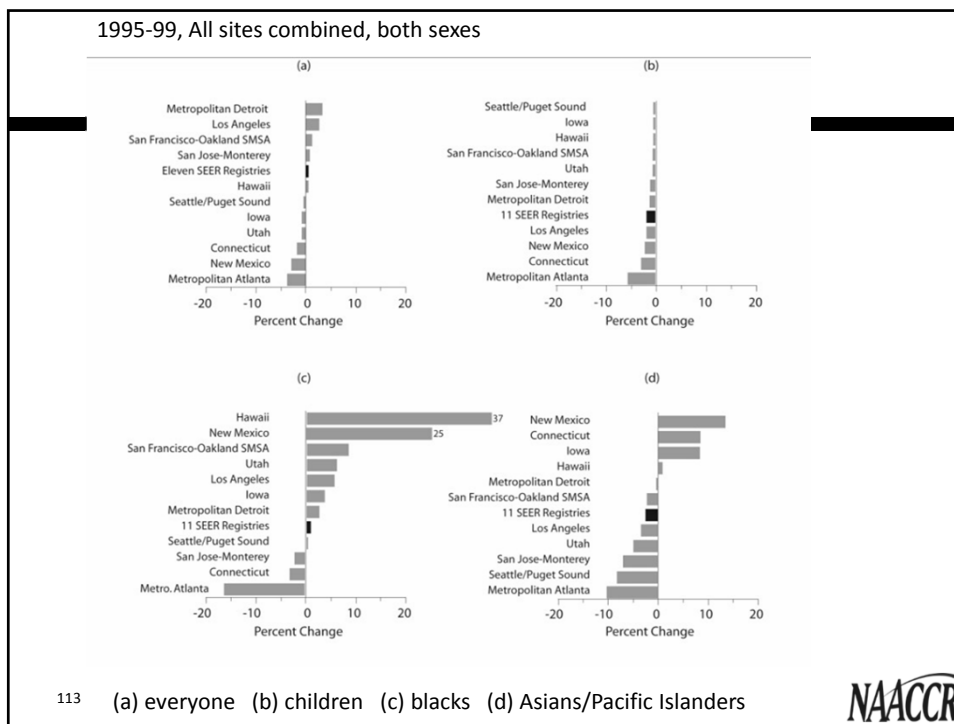
Barry A. Miller
National Cancer Institute

The Professional Geographer, 56(4) 2004, pages 516–529 © Copyright 2004 by Association of American Geographers.
Initial submission, January 2003; revised submission, July 2003; final acceptance, September 2003.
Published by Blackwell Publishing, 350 Main Street, Malden, MA 02148, and 9600 Garsington Road, Oxford OX4 2DQ, U.K.

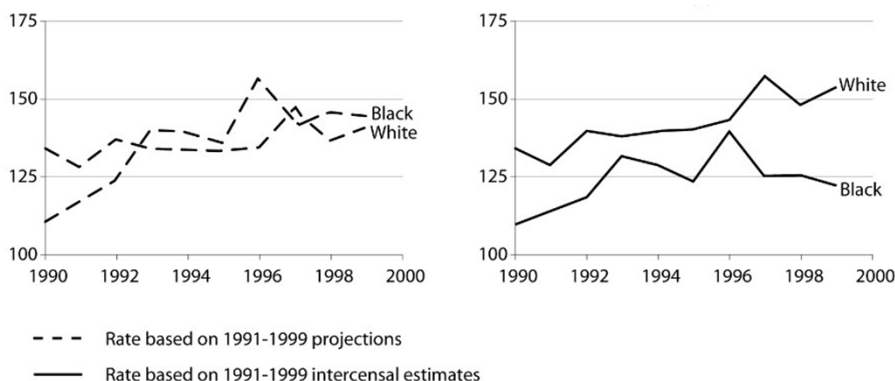
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Prostate cancer rates, Atlanta



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International Journal of Cancer
Volume 130, Issue 2, 15 January 2012, Pages 395-404

Invasive breast cancer incidence trends by detailed race/ethnicity and age

Liu, L. ✉, Zhang, J., Wu, A.H., Pike, M.C., Deaper, D. 📧

Department of Preventive Medicine, Keck School of Medicine, University of Southern California, 1540 Alcazar Street, CHP-204, Los Angeles, CA 90033, United States

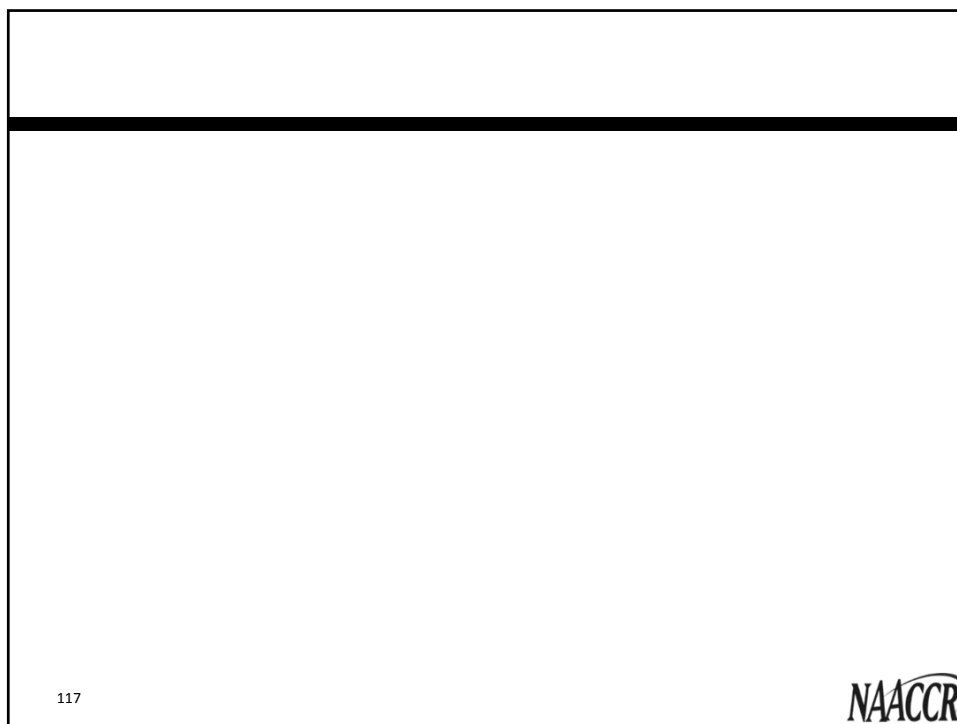
View references (50)

Abstract

Racial/ethnic disparities in **breast cancer incidence** may contain important evidence for understanding and control of the disease. Monitoring the **incidence** trends of **breast cancer** by race/ethnicity allows identification of high risk groups and development of targeted prevention programs. Using population-based **cancer registry** data from the Los Angeles **Cancer Surveillance Program**, we examined the invasive female **breast cancer incidence** trends among the diverse racial/ethnic populations in Los Angeles County, California, from 1972 to 2007. Age-adjusted **incidence rates (AAIRs)** and age-specific **incidence rates (ASIRs)** were calculated and examined respectively for non-Hispanic (NH) white, black, Hispanic, Chinese, Filipina, Japanese and Korean women by calendar year and time period. Rising trends of AAIRs were found in all racial/ethnic groups during the 1980s and 1990s. The **breast cancer risk** increased more substantially in Japanese and Filipinas than in Chinese and Koreans. During 2000-2007, the trends of AAIRs declined significantly among NH white women and slightly in blacks, remained unchanged for Hispanics and continued to rise significantly among all Asian subgroups. The patterns of ASIRs by race/ethnicity changed dramatically over time. By 2000-2007, younger Hispanic women had the lowest **breast cancer risk**, replacing the Chinese and Koreans who formerly had the lowest risk. Rapidly increasing **breast cancer incidence** trends among Asian-Americans underline the importance of behavioral and lifestyle changes as a result of acculturation on the development of the disease. The unique trends of **breast cancer incidence** by race/ethnicity suggest the need for targeted **breast cancer** control programs for different racial/ethnic populations. Copyright © 2011 UICC.

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3. Race bridging

- Multiple Race in California (2010 census)
 - Imperial County 1.7%
 - Los Angeles County 2.7%
 - Sacramento County 5.6%
 - Solano County 6.5%

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Building your own bridge

- Necessary for subcounty analysis
- “Other” race
 - Hispanic = white
 - Non-Hispanic = fractional allocation
- Multiple race
 - Fractional allocation
 - NCHS logit model

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Fractional allocation

- Suppose in some census tract there are the following population counts by race:
 - White - 500
 - Black - 300
 - API - 150
 - AI/AN - 50
 - Other - 30
 - Multiple race - 20

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Fractional allocation

- White - 500 (50%)
- Black - 300 (30%)
- API - 150 (15%)
- AI/AN - 50 (5%)
- Other - 30 (Hispanic – 26, Non-Hispanic – 4)
- Multiple - 20

With this method, first assign the 26 Hispanic Other to white, of the remaining 24 assign 12 to white, 7 to black, 4 to API, 1 to AI/AN (in actuality, apply this separately to each age/sex strata)

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Equal allocation

- White - 500 (50%)
- Black - 300 (30%)
- API - 150 (15%)
- AI/AN - 50 (5%)
- Other - 30 (Hispanic – 26, Non-Hispanic – 4)
- Multiple - 20

With this method, first assign the 26 Hispanic Other to white, of the remaining 24 assign 6 to white, 6 to black, 6 to API, 6 to AI/AN (in actuality, apply this separately to each age/sex strata)

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NCHS logit model

- Based on the National Health Interview Survey, which asks multiple-race respondents to choose the single race with which they most closely identify
- A separate model was developed for each multi-race combination (e.g. white and black, Asian and American Indian)

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NCHS logit model

- Other variables used in the model:
 - Age
 - Hispanic origin
 - Sex
 - Region (NE, Midwest, South, West)
 - Urbanization
 - Percent of each race group in the county
 - Percent multiple race in the county

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NCHS logit model

Table 7. Model coefficients from the six separate logistic regression models of primary race according to predicted primary race, National Health Interview Survey 1997–2000

Covariates	Multiple-race group and predicted primary race							
	AIAN ¹ /Black		AIAN/White		API ² /Black ³		API/White	
	Black	AIAN	Black	API	Black	White	AIAN/Black/White	Black
Age (in years) per 10 years	-0.05461	*-0.08968	0.05669	0.09568	0.05532	0.26212	*0.36140	
Hispanic origin (yes)	*-1.92602	*0.88834	-0.10458	0.19303	-0.52253	0.35986	-0.83526	
Sex (male)	-0.12359	0.00972	0.39642	0.01393	0.11948	-0.43898	0.50777	
Region (West reference)								
Northeast	-0.88349	0.21233	-0.45907	-0.05520	-0.25363	*-4.53976	*-3.45593	
Midwest	*-1.70126	0.09144	*-3.92403	-0.06453	0.17140	*-3.82328	*-3.79144	
South	-0.97935	-0.28494	-1.48264	0.12694	-0.64386	*-5.73385	-2.27313	
Urbanization level (Large urban reference)								
Large suburban	-0.44211	-0.22069	1.46590	0.50556	-0.07649	#2.78910	*2.31011	
Medium/small metropolitan	0.88281	*-0.44238	1.67953	0.07443	0.28938	*2.27176	0.75477	
Nonmetropolitan	-0.38427	-0.13978	0.13301	-0.62956	0.57636	*4.17804	1.64725	
Percent AIAN in county ⁴	*-0.49045	*0.51235	...	...	...	0.54579	0.39101	
Percent API in county	...	...	-0.13245	0.00735	...	...	...
Percent Black in county ⁵	0.0000258	...	0.02078	...	*0.00079	*0.11100	*0.04985	
Percent multiple-race in county	*-0.16934	*-0.07906	0.31250	*0.00791	#0.31679	*-0.23972	-0.02919	
Constant	3.08086	-0.70527	0.45883	-1.18887	-0.17533	-0.64594	0.77004	

*Coefficient differs from zero, p < .05.
 #Coefficient differs from zero, p < .10.
 ... Variable not in model.
¹American Indian or Alaska Native.
²Asian or Pacific Islander.
³Black or African American.
⁴Logarithm of percent AIAN used in AIAN/White and AIAN/Black model.
⁵Square of percent Black used in Black/White and AIAN/Black models.

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www.cdc.gov/nchs/data/series/sr_02/sr02_135.pdf



NCHS logit model

- Los Angeles resident, choosing between white/black
 - Male, age 18, Hispanic – 64% black
 - Female, age 18, Hispanic – 61%
 - Male, age 65, Hispanic – 69%
 - Male, age 18, non-Hispanic – 79%

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NCHS logit model

- Limitations
 - Some data sets only provide the total number of multi-race, not the actual combinations
 - Model is probably seriously overfitted
 - All methods give us strange results in Guyanan and Trinidadian neighborhoods in Queens

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4. Subcounty SES and cancer

- County is not a useful unit of measure for ecologic analysis
 - Small number of highly heterogeneous urban counties with a large share of the population
 - Directions of associations are often reversed!

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NAACCR Census Tract Poverty Indicator

- Helpful for interstate analyses
 - Poverty rate has been found to be a “singularly effective” measure of SES
 - Cut points are <5%, 5-10%, 10-20%, and >20%
 - Within your own state, higher precision is possible
 - Finer cut points (or even continuous)
 - Block group
 - Other measures than poverty

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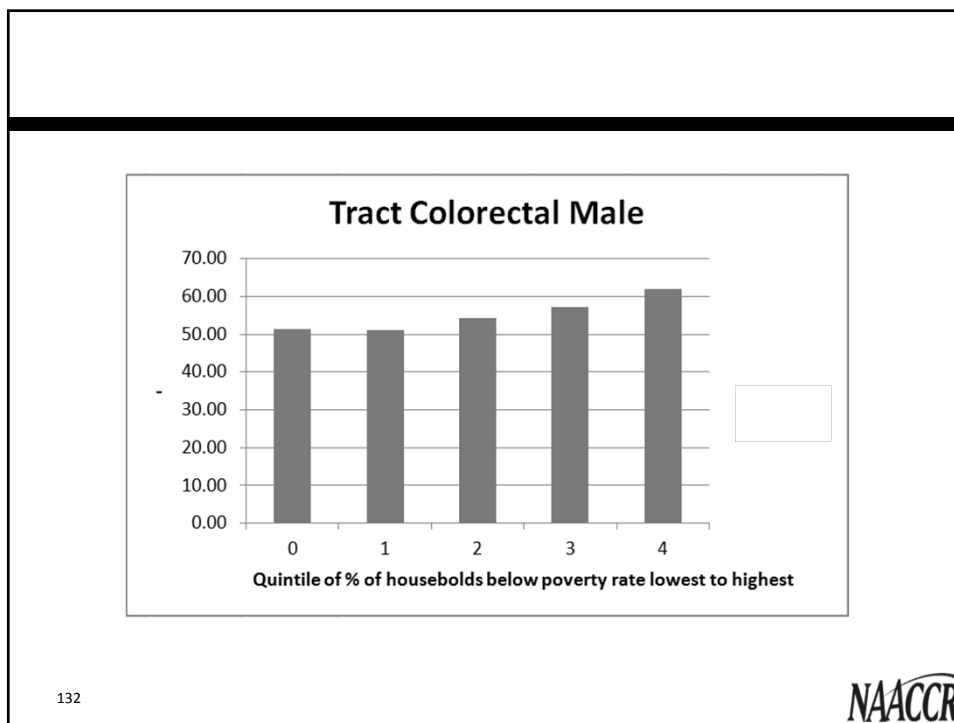
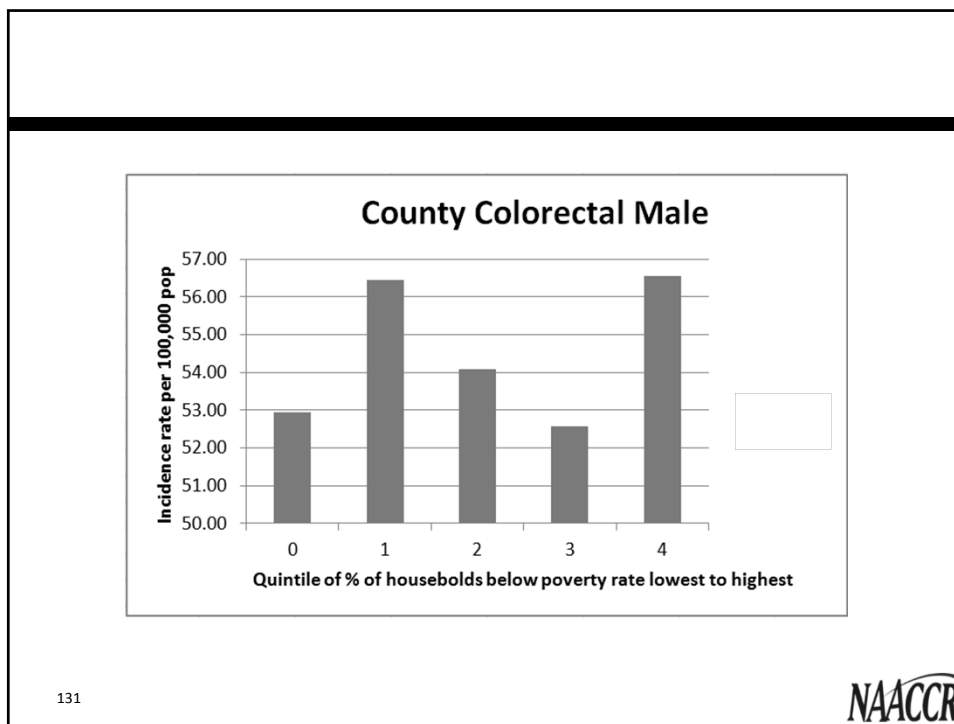
NAACCR

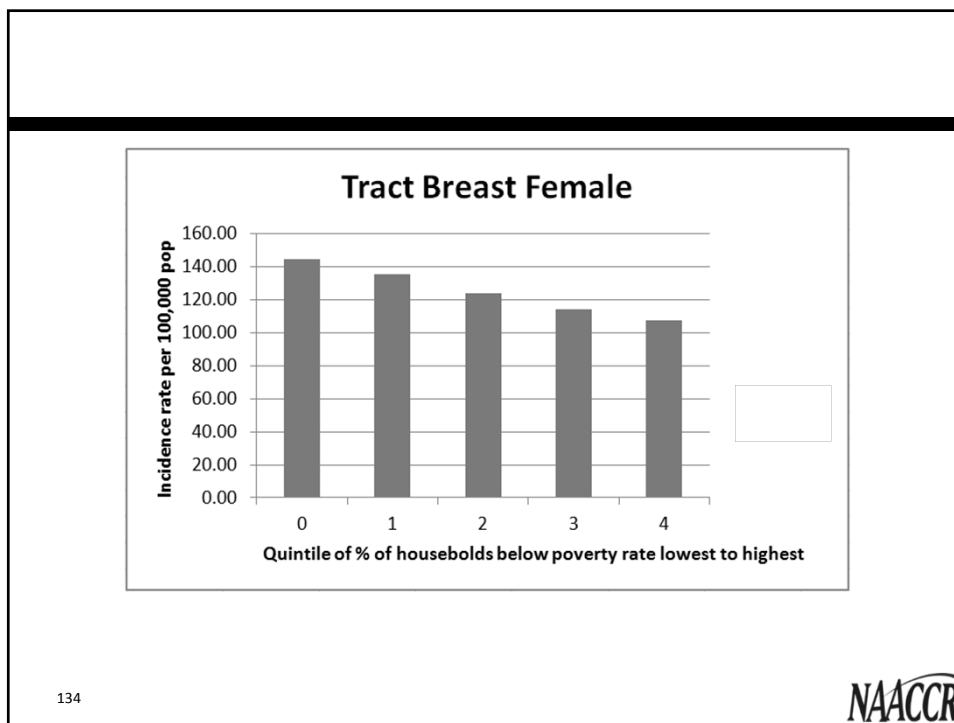
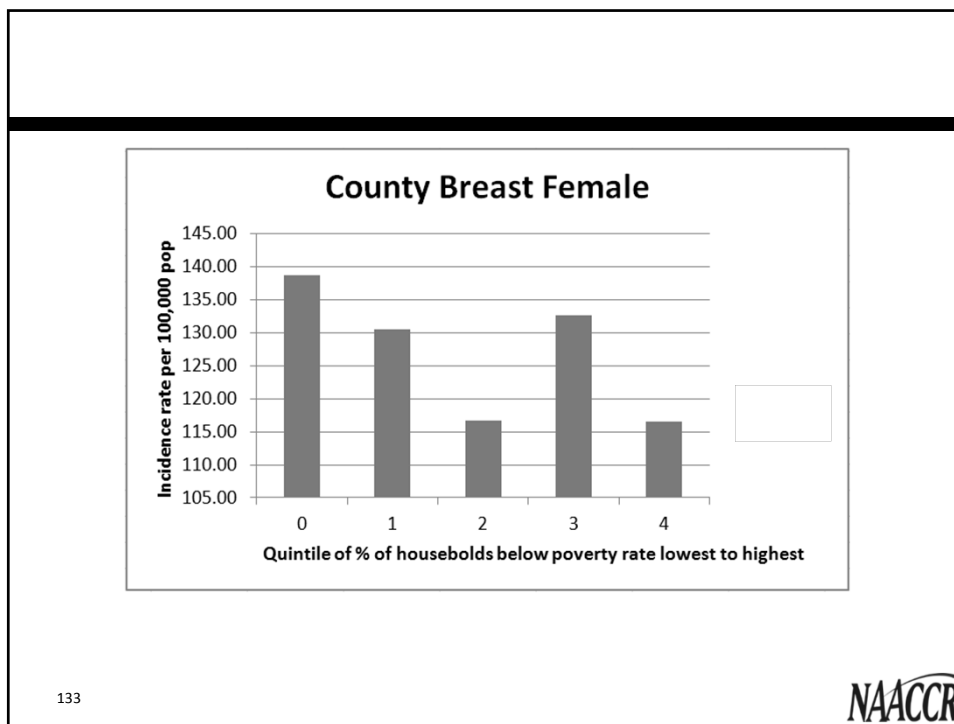
New York State analysis

- Divided the state into quintiles at the block group, tract, and county level using different SES measures
 - 3,000 block groups per quintile
 - 1,000 tracts per quintile
 - 12-13 counties per quintile
- Calculated cancer rates for each quintile for 23 common cancer sites
- SES measures used were median income, poverty rate, % foreign born, and % without HS education (only results for poverty reported here)

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Summary

- Cancers associated with poverty at the county level:
 - none

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Summary

- Cancers associated with poverty at the tract level:
 - oral (M)
 - esophagus (M)
 - stomach (M,F)
 - colorectal (M,F)
 - liver (M,F)
 - larynx (M,F)
 - lung (M)
 - cervix (F)
 - myeloma (F)

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Summary

- Cancer associated with affluence at the tract level:
 - all sites (F)
 - Breast (F)
 - Uterus (F)
 - Ovary (F)
 - Bladder (M,F)
 - Kidney (M)
 - Melanoma (M,F)
 - Testis (M)
 - Thyroid (M,F)
 - Brain (M,F)
 - NHL (M,F)
 - Leukemia (M,F)

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But aren't the errors on these ACS subcounty estimates enormous? Doesn't that invalidate this sort of analysis?

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5. Margins of error in ACS data

- We now have margins of error, which we never did before.
 - How should we deal with them?
 - How bad are they?
- At the tract level, errors appear to be large but the data are still usable
- Errors are only 20-50% higher than they were 10 years ago
- Block group data are very poor

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Albany County

Geography	Total Pop	Below Poverty	Above Poverty
Tract 1, BG 1	472 ± 104	75 ± 62	397 ± 105
Tract 1, BG 2	322 ± 93	54 ± 56	268 ± 86
Tract 2, BG 1	1030 ± 177	373 ± 152	659 ± 152
Tract 2, BG 2	307 ± 113	0 ± 123	307 ± 113
Tract 2, BG 3	607 ± 162	316 ± 148	291 ± 119

Problems with M.O.E.

- The errors are not normally distributed if the confidence intervals include negative numbers
- Measures are treated as independent when they are not
 - Under 65 plus 65 & over must equal total!
- Geographic units are treated as independent when they are not
 - Adjacent block groups are likely to be similar!

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Problems with M.O.E.

- When considering the relationship between cancer and some demographic variable, we are pooling across many hundreds or thousands of observations
 - New York State poverty quintiles:
 - Tract – 1000 in each quintile
 - Block group – 3000 in each quintile

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M.O.E. - conclusion

- There are ways to incorporate this error into analysis – not easy, but doable
- Continuing to ignore the error seems to be a viable option if we pool observations

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NAACCR 2013 Topics in GIS Webinar

Accessing Census Data Using NAACCR Tools/Datasets

Dave Stinchcomb, Westat, Inc.



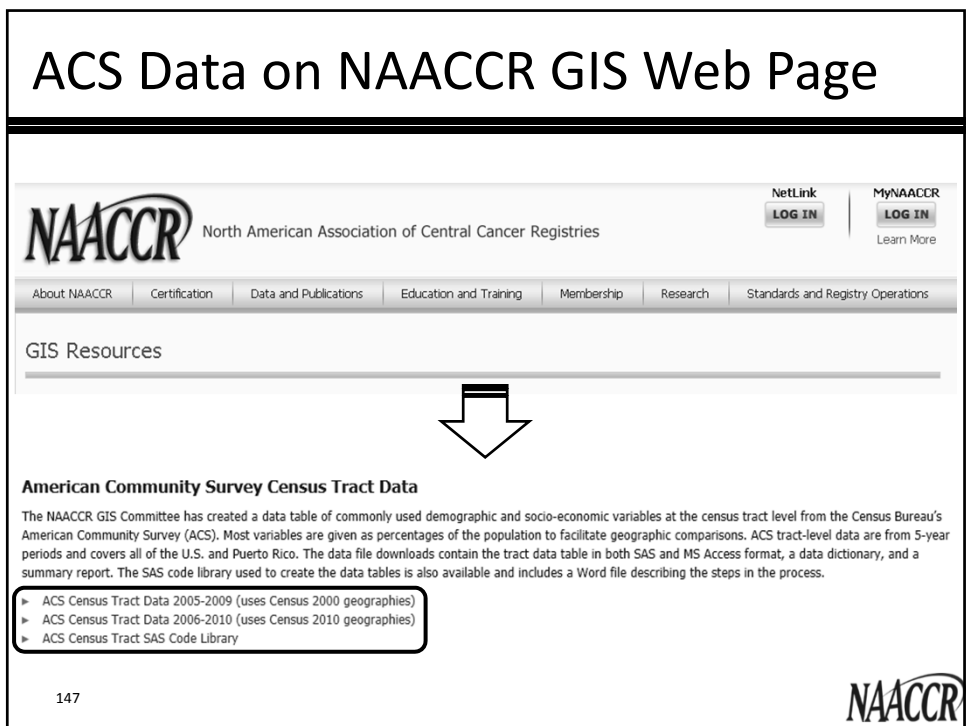
ACS Data on NAACCR GIS Web Page

- Commonly used demographic and socio-economic variables at the census tract level
 - Percentages for comparison across areas
 - All of the U.S. and Puerto Rico
 - Currently ACS 2005-2009 and 2006-2010 (2007-2011 coming soon)
- Finding the NAACCR GIS Resources Web page:
 - NAACCR Home Page / Research / GIS Resources
 - Google “NAACCR GIS”
 - <http://www.naacr.org/Research/GISResources.aspx>

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ACS Data on NAACCR GIS Web Page



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GIS Resources







American Community Survey Census Tract Data

The NAACCR GIS Committee has created a data table of commonly used demographic and socio-economic variables at the census tract level from the Census Bureau's American Community Survey (ACS). Most variables are given as percentages of the population to facilitate geographic comparisons. ACS tract-level data are from 5-year periods and covers all of the U.S. and Puerto Rico. The data file downloads contain the tract data table in both SAS and MS Access format, a data dictionary, and a summary report. The SAS code library used to create the data tables is also available and includes a Word file describing the steps in the process.


- ▶ ACS Census Tract Data 2005-2009 (uses Census 2000 geographies)
- ▶ ACS Census Tract Data 2006-2010 (uses Census 2010 geographies)
- ▶ ACS Census Tract SAS Code Library

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ACS Zip-archive Contents

Name ^	Type	Compressed size	Password ...	Size
 DataDictionary 2006_2010.xlsx	Microsoft Excel Worksheet	12 KB	No	16 KB
 SAS41_Stats_Tract_Attributes.pdf	Adobe Acrobat Document	149 KB	No	156 KB
 tract_attributes_2006_2010.mdb	Microsoft Access Database	8,468 KB	No	49,544 KB
 tract_attributes_2006_2010.sas7bdat	SAS Data Set	12,163 KB	No	37,009 KB

- Data dictionary (Excel file)
- Summary descriptive statistics (PDF)
- Data tables
 - SAS and MS Access formats
 - 74,002 observations (table rows)

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ACS Data Dictionary

Census ACS 5-year Data 2006-2010 by Census Tract					
(MOE: the Margin of Error for the value)					
Variable	Type	Len	Format	ACS Source Table	Label
STUSAB	Char	2	\$2	GEO	State/U.S.-Abbreviation (USPS)
STATE	Char	2		GEO	State (FIPS)
COUNTY	Char	3		GEO	County (FIPS)
TRACT	Char	6		GEO	Census Tract
NAME	Char	200		GEO	Area Name
StCntyTract	Char	11		GEO	Census Tract 11-digit FIPS Code
Popsamps	Num	8		B00001	Unweighted population sample count
Totpop	Num	8		B01003	Total population
Totpop_MOE	Num	8		B01003	Total population MOE
Pct_sampled	Num	8	8.3	B00001, B01003	Percent sampled
Pct_nonwhite	Num	8	8.3	B02001	Percent race not white alone
Pct_nonwhite_MOE	Num	8	8.3	B02001	Percent race not white alone MOE
Pct_Hispanic	Num	8	8.3	B03002	Percent Hispanic
Pct_Hispanic_MOE	Num	8	8.3	B03002	Percent Hispanic MOE
Pct_minority	Num	8	8.3	B03002	Percent minority (other than non-Hisp white)
Pct_minority_MOE	Num	8	8.3	B03002	Percent minority (other than non-Hisp white) MOE
Pct_forborn	Num	8	8.3	B05012	Percent foreign born
Pct_forborn_MOE	Num	8	8.3	B05012	Percent foreign born MOE

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ACS Data Dictionary 2

Variable	Type	Len	Format	ACS Source Table	Label
Totpop_educ	Num	8		S1501	Total pop for education (25+)
Totpop_educ_MOE	Num	8		S1501	Total pop for education (25+) MOE
Pctsubj_highsch	Num	8	5.1	S1501	Percent high school (from subj table)
Pctsubj_highsch_MOE	Num	8	5.1	S1501	Percent high school MOE (from subj table)
Pctsubj_notHS	Num	8	5.1	S1501	Percent less than HS (from subj table)
Pctsubj_notHS_MOE	Num	8	5.1	S1501	Percent less than HS MOE (from subj table)
Pctsubj_college	Num	8	5.1	S1501	Percent college (from subj table)
Pctsubj_college_MOE	Num	8	5.1	S1501	Percent college MOE (from subj table)
Tothh_lingiso	Num	8		B16002	Total households for linguistic isolation
Tothh_lingiso_MOE	Num	8		B16002	Total households for linguistic isolation MOE
Pctsubj_lingiso	Num	8	5.1	S1602	Percent linguistically isolated households (from subj table)
Pctsubj_lingiso_MOE	Num	8	5.1	S1602	Percent linguistically isolated households MOE (from subj table)
Totpop_engl	Num	8		B16005	Total pop for English language (5+)
Totpop_engl_MOE	Num	8		B16005	Total pop for English language (5+) MOE
Pct_noEngl	Num	8	8.3	B16005	Percent non-English speakers
Pct_noEngl_MOE	Num	8	8.3	B16005	Percent non-English speakers MOE
Totpop_pov	Num	8		S1701	Total pop for poverty (non-group)
Totpop_pov_MOE	Num	8		S1701	Total pop for poverty (non-group) MOE
Pctsubj_belowpov	Num	8	5.1	S1701	Percent below poverty (from subj table)
Pctsubj_belowpov_MOE	Num	8	5.1	S1701	Percent below poverty MOE (from subj table)
Pct_be150pov	Num	8	8.3	C17002	Percent below 150% poverty
Pct_be150pov_MOE	Num	8	8.3	C17002	Percent below 150% poverty MOE

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ACS Data from Census FTP Pages

- ACS “Downloadable data via FTP” web page:

http://www.census.gov/acs/www/data_documentation/data_via_ftp/

American Community Survey

Main | About the Survey | Guidance for Data Users | **Data & Documentation** | Methodology | Library

■ Data Releases
■ Data Product Descriptions
■ Documentation
■ Geography
■ **Downloadable data via FTP**
■ Summary File
■ Public Use Microdata Sample (PUMS)
■ Custom Tabulations

Downloadable data via FTP server
Print | Share this page | Connect with us

The Census Bureau produces downloadable American Community Survey (ACS) data files on the Census Bureau's [file transfer protocol \(ftp\) server](#).

American Community Survey directories can be found easily on the ftp server by looking for "ACS" at the beginning of the directory name. The ACS directories contain:

Data Tables

- 2002 - 2009 (by year, e.g. acs2007)
- 1996 - 2004 archive /acs/downloads/Core_Tables


Table shells /acs/downloads/shells/

American Community Survey file directories begin with 'ACS'

Census Bureau's shared ftp server
U.S. Census Bureau

Name	Last modified
AHS/	07-Jul-2006 09:56
Econ2001_And_Earlier/	11-May-2009 13:57
acs/	16-Sep-2009 09:08
acs2002/	23-Sep-2008 08:25
acs2003/	06-Oct-2004 07:07
acs2004/	02-Feb-2006 10:40
acs2005/	08-Feb-2011 09:06
acs2005_2007_3yr/	09-Dec-2008 08:56
acs2005_2009_5yr/	12-Dec-2010 19:28
acs2006/	02-Sep-2010 11:55
acs2006_2008_3yr/	27-Oct-2009 13:38
acs2008_1yr/	03-Nov-2009 16:42
acs2008_3yr/	27-Oct-2009 13:38
acs2009_1yr/	02-Nov-2010 07:58
acs2009_3yr/	06-Jan-2011 14:51
acs2009_5yr/	12-Dec-2010 19:28
acs2010_1yr/	20-Sep-2011 09:40
acs2010_3yr/	20-Nov-2011 08:49
acs2010_5yr/	28-Dec-2011 11:26
acs2010_SPT_AIAN/	04-Apr-2012 11:50
acs2011_1yr/	04-Mar-2013 10:00
acs2011_3yr/	21-Nov-2012 13:27
acs2011_5yr/	21-Dec-2012 11:47
acs_special_tabs/	31-Mar-2008 09:32

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Census FTP Site

- <http://www2.census.gov/>

U.S. Census Bureau





Name	Last modified	Size
AHS/	07-Jul-2006 09:56	-
Econ2001_And_Earlier/	27-Apr-2011 08:40	-
acs/	30-Dec-2010 10:05	-
acs2002/	23-Sep-2008 08:25	-
acs2003/	06-Oct-2004 07:07	-
acs2004/	02-Feb-2006 10:40	-
acs2005/	08-Feb-2011 09:06	-
acs2005_2007_3yr/	09-Dec-2008 08:56	-
acs2005_2009_5yr/	12-Dec-2010 19:28	-
acs2006/	02-Sep-2010 11:55	-
acs2006_2008_3yr/	27-Oct-2009 13:38	-
acs2008_1yr/	03-Nov-2009 16:42	-
acs2008_3yr/	27-Oct-2009 13:38	-
acs2009_1yr/	02-Nov-2010 07:58	-
acs2009_3yr/	06-Jan-2011 14:51	-
acs2009_5yr/	12-Dec-2010 19:28	-
acs2010_1yr/	20-Sep-2011 09:40	-
acs2010_3yr/	20-Nov-2011 08:49	-
acs2010_5yr/	28-Dec-2011 11:26	-
acs2010_SPT_AIAN/	04-Apr-2012 11:50	-
acs2011_1yr/	04-Mar-2013 10:00	-
acs2011_3yr/	21-Nov-2012 13:27	-
acs2011_5yr/	21-Dec-2012 11:47	-
acs_special_tabs/	31-Mar-2008 09:32	-

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Census FTP Site – acs2009_5yr

- http://www2.census.gov/acs2009_5yr/



<u>Name</u>	<u>Last modified</u>	<u>Size</u>
 Parent Directory		-
 prod/	15-Dec-2010 17:09	-
 pums/	08-Feb-2011 08:37	-
 summaryfile/ ←	22-Dec-2010 17:12	-

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Census FTP Site – summaryfile

- http://www2.census.gov/acs2009_5yr/summaryfile/



<u>Name</u>	<u>Last modified</u>	<u>Size</u>
 Parent Directory		-
 2005-2009_ACS_SF_All_In_2_Giant_Files(Experienced-Users-Only)/ ←	12-Apr-2011 15:51	-
 2005-2009_ACS_SF_By_State_All_Tables/	13-Dec-2010 19:18	-
 2005-2009_ACS_SF_By_State_By_Sequence_Table_Subset/	13-Dec-2010 19:19	-
 ACS2009_5-Year_TableShells.xls	13-Dec-2010 08:40	2.7M
 ACS_2005-2009_SF_Tech_Doc.pdf ←	08-Feb-2011 08:57	3.6M
 SequenceNumberTableNumberLookup.sas7bdat	22-Dec-2010 16:57	8.1M
 Sequence_Number_and_Table_Number_Lookup.xls ←	22-Dec-2010 17:12	2.8M
 UserTools/	13-Apr-2011 11:24	-
 User_Note_for_the_Sequence_Number_and_Table_Number_Lookup_files.txt	22-Dec-2010 17:03	596

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Census FTP Site – 2_Giant_Files

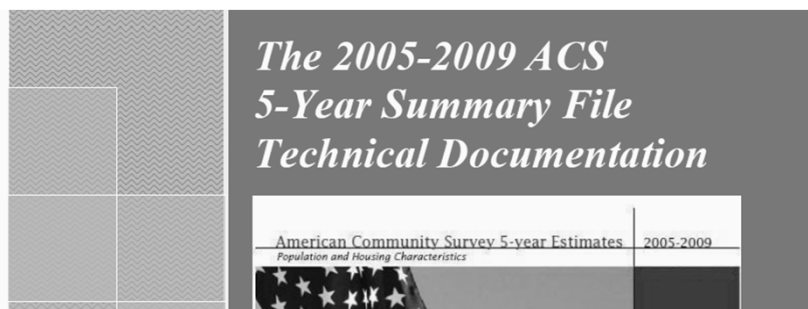
- [http://www2.census.gov/acs2009_5yr/summaryfile/2005-2009_ACSSF_All_In_2_Giant_Files\(Experienced-Users-Only\)/](http://www2.census.gov/acs2009_5yr/summaryfile/2005-2009_ACSSF_All_In_2_Giant_Files(Experienced-Users-Only)/)

<u>Name</u>	<u>Last modified</u>	<u>Size</u>
 Parent Directory		-
 All Geographies Not Tracts Block Groups.zip ←	13-Dec-2010 13:36	7.5G
 Note To Users.txt	12-Apr-2011 15:51	1.0K
 Tracts Block Groups Only.zip ←	13-Dec-2010 19:22	2.6G

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ACS Technical Documentation



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Appendix E

Appendix E: Detailed Tables for the 2005-2009 ACS 5-Year Estimates

Table Number	Table Title	Availability of data for geographies other than Block Groups		Availability of data for Block Groups	Summary File Information	
		In Summary File and American FactFinder	Only in Summary File	Only in Summary File	Sequence Number <i>(If there are two numbers: first is US, second is PR)</i>	Starting And Ending Positions
B00001	Unweighted Sample Count Of Population	See Note 1		See Note 1	9	7-7
B00002	Unweighted Sample Housing Units	See Note 1		See Note 1	9	8-8
B01001	Sex By Age	x		x	10	7-55
B01001A	Sex By Age (White Alone)	x			10	56-86
B01001B	Sex By Age (Black Or African American Alone)	x			10	87-117
B01001C	Sex By Age (American Indian And Alaska Native Alone)	x			10	118-148
B01001D	Sex By Age (Asian Alone)	x			10	149-179
B01001E	Sex By Age (Native Hawaiian And Other Pacific Islander Alone)	x			11	7-37

Inside Tracts_Block_Groups_Only

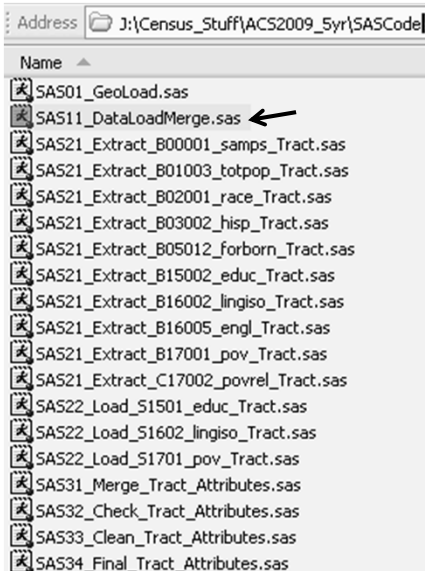
Address J:\Census_Stuff\ACS2009_5yr\DownloadCenter_2_giant_files\Tracts_Block_Groups_Only

Name	Size	Type	Date Modified
e20095ak0001000.txt	0 KB	Text Document	12/13/2010 3:31 PM
e20095ak0002000.txt	0 KB	Text Document	12/13/2010 3:31 PM
e20095ak0003000.txt	0 KB	Text Document	12/13/2010 3:31 PM
e20095ak0004000.txt	0 KB	Text Document	12/13/2010 3:31 PM
e20095ak0005000.txt	0 KB	Text Document	12/13/2010 3:31 PM
e20095ak0006000.txt	0 KB	Text Document	12/13/2010 3:31 PM
e20095ak0007000.txt	0 KB	Text Document	12/13/2010 3:32 PM
e20095ak0008000.txt	0 KB	Text Document	12/13/2010 3:32 PM
e20095ak0009000.txt	27 KB	Text Document	12/13/2010 3:32 PM
e20095ak0010000.txt	232 KB	Text Document	12/13/2010 3:32 PM
e20095ak0011000.txt	244 KB	Text Document	12/13/2010 3:32 PM
e20095ak0012000.txt	164 KB	Text Document	12/13/2010 3:32 PM
e20095ak0013000.txt	99 KB	Text Document	12/13/2010 3:32 PM
e20095ak0014000.txt	82 KB	Text Document	12/13/2010 3:32 PM
e20095ak0015000.txt	82 KB	Text Document	12/13/2010 3:32 PM
e20095ak0016000.txt	88 KB	Text Document	12/13/2010 3:32 PM
e20095ak0017000.txt	105 KB	Text Document	12/13/2010 3:32 PM

12,455 objects

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NAACCR GIS – ACS SAS Code




Address J:\Census_Stuff\ACS2009_5yr\SASCode

Name

- SAS01_GeoLoad.sas
- SAS11_DataLoadMerge.sas ←
- SAS21_Extract_B00001_samps_Tract.sas
- SAS21_Extract_B01003_totpop_Tract.sas
- SAS21_Extract_B02001_race_Tract.sas
- SAS21_Extract_B03002_hisp_Tract.sas
- SAS21_Extract_B05012_forborn_Tract.sas
- SAS21_Extract_B15002_educ_Tract.sas
- SAS21_Extract_B16002_lingiso_Tract.sas
- SAS21_Extract_B16005_engl_Tract.sas
- SAS21_Extract_B17001_pov_Tract.sas
- SAS21_Extract_C17002_povrel_Tract.sas
- SAS22_Load_S1501_educ_Tract.sas
- SAS22_Load_S1602_lingiso_Tract.sas
- SAS22_Load_S1701_pov_Tract.sas
- SAS31_Merge_Tract_Attributes.sas
- SAS32_Check_Tract_Attributes.sas
- SAS33_Clean_Tract_Attributes.sas
- SAS34_Final_Tract_Attributes.sas

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NAACCR GIS – Data Load & Merge

```
/* Load the two Census ACS sequence data files: Estimates (Est) and Margin of Error (MOE) */
/* for a given sequence that contains one or more desired tables and combine them. */
/* See "Sequence_Number_and_Table_Number_Lookup.xls" to get sequence number for the desired table */

options sysprintfont=("Courier New" 8) leftmargin=0.75in nocenter;

/* Specify ACS sequence number and number of variables: */
%let seqnum=011; * The sequence number of files that contain the table you want (3 digits);
%let varnum=192; * The number of variables in the sequence that you need;
/* Example: seqnum 046 and varnum 226 for table C17002 (Ratio of Income to Poverty Level) */
```

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NAACCR GIS – Data Load & Merge

```
/* Create a dataset with the state abbreviations and Fips codes */

proc sort data=sashelp.zipcode nodupkey out=statetbl;
  by state statecode;
run;

data statetbl;
  set statetbl;
  keep state statecode;
  if state <= 56 or state = 72; /* Just the 50 states, DC, and Puerto Rico */
run;

%macro readEst;
/* Read in state ACS Est File */
options NOSOURCE; /* Suppress generated source from IMPORT */
PROC IMPORT DATAFILE="%pathin.&filegrp.long.\e20095&statem.D&seqnum.000.txt "
  OUT=tempEst DEMS=CSV REPLACE ;
  getnames=no;
  DATAROW=1;
run;
options SOURCE;
proc datasets nolist force;
  append out=EstSeq&seqnum data=tempEst;
  quit;
run;
161 %mend readEst;
```



MOEs for Derived Variables

- Census Bureau publication:
 - American Community Survey: Multiyear Accuracy of the Data
 - http://www.census.gov/acs/www/Downloads/data_documentation/Accuracy/MultiyearACSAccuracyofData2011.pdf

10/2/2012
American Community Survey Office

American Community Survey Multiyear Accuracy of the Data (2009-2011 ACS 3-year and 2007-2011 ACS 5-year)

INTRODUCTION

This multiyear ACS Accuracy of the Data document pertains to both the 2009-2011 ACS 3-year data products and the 2007-2011 ACS 5-year data products. Differences will be noted where applicable.

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MOEs for Derived Variables

Sums and Differences of Direct Standard Errors

The standard errors estimated from these tables are for individual estimates. Additional calculations are required to estimate the standard errors for sums of or the differences between two or more sample estimates.

The standard error of the sum of two sample estimates is the square root of the sum of the two individual standard errors squared plus a covariance term. That is, for standard errors $SE(\hat{X}_1)$ and $SE(\hat{X}_2)$ of estimates \hat{X}_1 and \hat{X}_2 :

$$SE(\hat{X}_1 \pm \hat{X}_2) = \sqrt{(SE(\hat{X}_1))^2 + (SE(\hat{X}_2))^2 \pm covariance} \quad (1)$$

The covariance measures the interactions between two estimates. Currently the covariance terms are not available. Data users should use the approximation:

$$SE(\hat{X}_1 \pm \hat{X}_2) \approx \sqrt{(SE(\hat{X}_1))^2 + (SE(\hat{X}_2))^2} \quad (2)$$

However, this method will underestimate or overestimate the standard error if the two estimates interact in either a positive or negative way.

NAACCR

MOEs for Derived Variables – in SAS

```
/* Macro to calculate the MOE of a sum or difference */
/* temporary variables: sumdiff1 sumdiff2 sumdiff */
%macro moe_sumdiff (moe1=, moe2=, moesumdiff=);
  sumdiff1_se = &moe1 / 1.645; /* convert MOE1 to std error */
  sumdiff2_se = &moe2 / 1.645; /* convert MOE2 to std error */
  sumdiff_se = SQRT((sumdiff1_se**2)+(sumdiff2_se**2));
  &moesumdiff = sumdiff_se * 1.645; /* convert std error to MOE */
%mend moe_sumdiff;
```

MOEs for Derived Variables – Example

Proportion with income below 150% of poverty

C17002

RATIO OF INCOME TO POVERTY LEVEL IN THE PAST 12 MONTHS
 Universe: Population for whom poverty status is determined ⓘ
 2005-2009 American Community Survey 5-Year Estimates

Census Tract 9501, Baker County, Oregon		
	Estimate	Margin of Error
Total:	2,714	+/-213
Under .50	79	+/-42
.50 to .99	194	+/-108
1.00 to 1.24	109	+/-89
1.25 to 1.49	88	+/-59
1.50 to 1.84	105	+/-63
1.85 to 1.99	54	+/-39
2.00 and over	2,085	+/-220

Proportion below 150% of poverty =
 $(79 + 194 + 109 + 88) / 2714$

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An ACS GIS Tool from the CDC

- Esri ArcGIS ACS Toolbox
 - Calculates MOEs for user-derived data
 - Determines statistically significant differences
 - Helps find a suitable mapping scheme considering data uncertainty
- Availability:
 - Current version running on ArcGIS 10
 - Contact Elaine Hallisey, CDC/ATSDR (ehallisey@cdc.gov)

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Future Plans

- Census tract data for ACS 2007-2011
- Expanded variables
- Suggestions from user feedback

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Questions?

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Coming up!

- 8/1/13
 - Cancer Registry Quality Control
- 9/5/13
 - Coding Pitfalls

Certificate phrase:
Census 2010

<http://www.surveygizmo.com/s3/1303184/GIS-Webinar>



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