Census Geographic Programs
An Update

Rick Campbell
U.S. Census Bureau
richard.t.campbell@census.gov
(206) 381-6304

California State Data Center Meeting
May 31, 2012
Census Geographic Programs
An Update

- Geographic areas
- TIGERweb
- Count Question Resolution program
- Geographic data products
- Geographic Support System Initiative
Update on Geographic Areas

- Public Use Microdata Areas (PUMAs)
- Urban Areas
- School Districts
- ZIP Code Tabulation Areas (ZCTAs)
Public Use Microdata Areas (PUMAs)

- Unit of geography for ACS PUMS data (100,000 to 200,000 pop)
- Contiguous aggregations of Census Tracts and/or Counties
- Delineation conducted/coordinated by SDC (digital files using MAFTIGER Partnership Software)
- PUMAs may be named (new for 2010)
- 46 states participated (GEO did remainder)
- 1, 3, & 5-year ACS estimates will be available

http://www.census.gov/geo/puma/puma2010.html
Public Use Microdata Areas (PUMAs)

Rural (multi-county) vs. Urban (sub-county)
# Public Use Microdata Areas (PUMAs)

## 2010 PUMA Delineation Program Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 5, 2011</td>
<td>Final PUMA delineation criteria and guidelines distributed.</td>
</tr>
<tr>
<td>September 2011</td>
<td>Materials sent to State Data Centers (SDCs) for PUMA delineation; PUMA delineation software (MTPS) WEBINAR training begins.</td>
</tr>
<tr>
<td>Late December 2011</td>
<td>Return deadline for submissions from SDCs.</td>
</tr>
<tr>
<td>Fall 2011-Spring 2012</td>
<td>Review of PUMA submissions at the Census Bureau and insertion into TIGER database.</td>
</tr>
<tr>
<td>Spring-Summer 2012</td>
<td>Creation of geographic products containing 2010 PUMAs for use in Decennial Public Use Microdata Sample (PUMS) and American Community Survey (ACS) products.</td>
</tr>
<tr>
<td>Fall 2012</td>
<td>TIGER/Line® Shapefiles released for 2010 PUMAs.</td>
</tr>
<tr>
<td>To Be Determined</td>
<td>Decennial (2010) PUMS files, ACS PUMS (1-year, 3-year, 5-year), and ACS estimates (1-year, 3-year, 5-year) released.</td>
</tr>
</tbody>
</table>
Update on Geographic Areas

- Public Use Microdata Areas (PUMAs)
- **Urban Areas**
- School Districts
- ZIP Code Tabulation Areas (ZCTAs)
FOR IMMEDIATE RELEASE: MONDAY, MARCH 26, 2012

Growth in Urban Population Outpaces Rest of Nation, Census Bureau Reports

The nation's urban population increased by 12.1 percent from 2000 to 2010, outpacing the nation's overall growth rate of 9.7 percent for the same period, according to the U.S. Census Bureau. The Census Bureau released the new list of urban areas today based on 2010 Census results.

Urban areas — defined as densely developed residential, commercial and other nonresidential areas — now account for 80.7 percent of the U.S. population, up from 79.0 percent in 2000. Although the rural population — the population in any areas outside of those classified as “urban” — grew by a modest amount from 2000 to 2010, it continued to decline as a percentage of the national population.
Urban Areas

- Urban areas represent densely developed territory encompassing residential, commercial, and other non-residential urban land uses.

- Urbanized Areas have been defined since the 1950 Census using decennial counts.

- Automated process since 2000 (primarily based on population density).

- Urban and rural classification is solely for the purpose of statistical presentation and comparison.

- Urban Areas provide the “cores” for the Core Based Statistical Areas (CBSAs) which OMB will delineate beginning in 2013.

Urban Areas

Two types of Urban Areas

- Urbanized Areas (UAs) of 50,000 or more population
- Urban Clusters (UCs) of 2,500 - 49,999
## Urban Areas

Final criteria published in Fed Register (8/24/2011)

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Census 2000 Final</th>
<th>Proposed 2010 Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Analysis Unit</td>
<td>Block Group</td>
<td>Census Tract</td>
</tr>
<tr>
<td>Maximum Jump Distance</td>
<td>2.5 miles</td>
<td>1.5 miles &amp; no hops after jump</td>
</tr>
<tr>
<td>Airports</td>
<td>10,000 enplanements</td>
<td>2,500 enplanements</td>
</tr>
<tr>
<td>Central Place</td>
<td>Defined</td>
<td>Not defined</td>
</tr>
<tr>
<td>Minimum Population</td>
<td>2,500</td>
<td>2,500 &amp; 1,500 outside institutional GQs</td>
</tr>
</tbody>
</table>
Urban Areas Schedule

- **January 2012** - Census (GEO) completed delineation of Urban Areas
- **March 2012** - 2010 Urban Area List published in Fed Register
- **April 2012** – release of Urban/Rural TIGER/Line shapefiles
- **October 2012** – SF-1 Urban/Rural update
- **Late 2013** – ACS publishes data for 2010 Urban Areas

- Two new UAs in California
  - Delano UA (Kern County)
  - Woodland UA (Yolo County)
Urban Areas Products

As of 5/31/2012:

• Separate national UA shapefile *available now* for download

• Several UA relationship files *available now* for download

• Reference maps (pdfs) for:
  • UAs
  • UCs

• Thematic maps (pdfs)
Urban Area Maps

Reference (UA-based)  Thematic (national)
Update on Geographic Areas

• Public Use Microdata Areas (PUMAs)

• Urban Areas

• School Districts

• ZIP Code Tabulation Areas (ZCTAs)
School District Review Program

• Background
  – National Center for Educational Statistics sponsored program conducted by Census Bureau every 2 years
  – Provides data (estimates of children in low-income families) for funding under Title 1 of the Elementary and Secondary Education Act (PL 107-110)
• State officials review current School District information
  – Update SD Names and ID Numbers
  – Update SD boundaries
  – Update grade ranges for SDs
  – Submit boundaries effective as of 1/1/2012

• State-level designee works with Census Bureau HQ staff
  – Steve Yu, California Dept of Education
  – Local school districts reviewed maps; provided input to Steve
  – Steve used MTPS (w/assistance from LA geographer) to update digital file for state

• http://www.census.gov/geo/www/schdist/sch_dist.html
School District Review Program

2011-2012 School District Review Program Timetable

- June 2011 - National Center for Education Statistics letter is sent to Title I coordinators asking for designation of a school district mapping coordinator for each state and the District of Columbia.
- August 2011 - Mailout of program instructions and annotation materials to designated state school district mapping coordinators begins.
- November 2011 - Deadline for requesting paper copies of school district maps.
- December 2011 - Deadline for submitting school district changes during the annotation phase. We strongly encourage our partners to submit changes as soon as possible rather than waiting until this deadline. If your state is submitting a large number of changes, please send them on a flow basis rather than waiting to send the entire state.
- February 2012 – Deadline for submitting school district changes during the verification phase.
- November 2012 - Release of preliminary estimates based on the updated school district geographic framework.
School District Review Program

- ACS data availability dependent on population of School District

- Shapefiles and maps available after each 2-year cycle TIGER/Line (2012)

- Small Area Income and Poverty Estimates (SAIPE) data and tools (http://www.census.gov/did/www/saipe/)

- Data released to Dept of Education – Nov/Dec 2012

- Challenge period in early 2013

- Next round (2013-14) begins Aug 2013
Model-based Small Area Income & Poverty Estimates (SAIPE) for School Districts, Counties, and States

The U.S. Census Bureau, with support from other Federal agencies, created the Small Area Income and Poverty Estimates (SAIPE) program to provide more current estimates of selected income and poverty statistics than those from the most recent decennial census.

Estimates are created for school districts, counties, and states. The main objective of this program is to provide updated estimates of income and poverty statistics for the administration of federal programs and the allocation of federal funds to local jurisdictions. Estimates for 2010 were released in November 2011. These estimates combine data from administrative records, intercensal population estimates, and the decennial census with direct estimates from the American Community Survey to provide consistent and reliable single-year estimates. These model-based single-year estimates are more reflective of current conditions than multi-year survey estimates.

Latest SAIPE Release

The 2010 school district, county and state estimates were released in November 2011.

- [Release highlights of 2010](#)
- [School district estimates for 2010](#)
- [State and county estimates for 2010](#)
- [View state and county maps for 2010](#)
- [Preview the new Interactive Data/Mapping Tool](#)

The challenge period for the 2010 estimates was November 29, 2011 to February 27, 2012.
School District Review Program - SAIPE
Update on Geographic Areas

- Public Use Microdata Areas (PUMAs)
- Urban Areas
- School Districts
- ZIP Code Tabulation Areas (ZCTAs)
ZIP Code Tabulation Areas (ZCTAs)

- Generalized area representations of USPS ZIP Code service areas

- First developed for Census 2000

- Represent most frequently occurring five-digit ZIP Code found in a given area

- Aggregated from 2010 Census blocks, whose addresses use a given ZIP Code

- 5-year ACS data available at ZCTA level

http://www.census.gov/geo/ZCTA/zcta.html
ZIP Code Tabulation Areas (ZCTAs)

- ZCTA code usually same as ZIP Code for an area
- No ZCTAs for large unpopulated areas which have no ZIP Codes (e.g., national parks, large water bodies)
- Blocks having more than one ZIP Code were assigned ZCTA code of dominant ZIP
- Collection of accurate housing unit location during 2010 Census facilitated more detailed ZCTA delineation

http://www.census.gov/geo/ZCTA/zcta.html
ZIP Code Tabulation Areas (ZCTAs)

Analysis (step 1)  Block split (step 2)
ZCTAs - Schedule

- November 2010 – March 2011 - ZCTA delineation (Geography Div)
- April 2011 - ZCTA TIGER/Line Shapefiles
- June – August 2011 - Data release (SF-1 state files)
- Late 2012 - ACS data published for 2010 ZCTAs
- No scheduled updates of ZCTAs until required for the 2020 Census

http://www.census.gov/geo/ZCTA/zcta.html
Census Geographic Programs
An Update

• Geographic areas

• TIGERweb

• Count Question Resolution program

• Geographic data products

• Geographic Support System Initiative
TIGERweb

A set of web-based applications and services that allow users to view and query boundaries and attribute information for geographic entities stored in the MAF/TIGER database (MTDB)

- **TIGERweb Viewer** – interactive online map of census geography (http://tigerweb.geo.census.gov/tigerweb/default.htm)

- **TIGERweb WMS** – OGC-compliant web map service that provides access to viewer content in user’s GIS (http://tigerweb.geo.census.gov/ArcGIS/services/tigerWMS/MapServer/WMSServer)

- **TIGERweb Tabular Data Files** – nation and state-based files containing geographic identifiers, codes, and characteristics (http://tigerweb.geo.census.gov/tigerwebmain/TIGERweb_tab10_state_based_files.html)
TIGERweb
Census Geographic Programs
An Update

• Geographic areas

• TIGERweb

• **Count Question Resolution program**

• Geographic data products

• Geographic Support System Initiative
Count Question Resolution

• CQR is the mechanism for state, local, and tribal officials to challenge the 2010 Census counts of housing units, group quarters, and/or group quarters population counts

• Boundary, geocoding, and coverage challenges

• Began June 1, 2011 and runs through June 1, 2013

• Research will be completed by September 30, 2013

• http://2010.census.gov/2010census/about/cqr.php
Count Question Resolution

- Nationally, 148 challenges as of 5/17/2012
  - Notables include:
    - New York City
    - Chicago
    - Detroit
    - Miami
    - Washington, DC

- California challenges include
  - Carpinteria, Cerritos, Colma, Laguna Woods, San Mateo County, Vernon


- http://www.census.gov/geo/ZCTA/zcta.html
Count Question Resolution

- If a challenge results in a change:
  - Census Bureau issues official revised counts to affected governments
  - Changes can be used for future programs requiring Census data
  - Changes will be used to calculate subsequent population estimates

- Coronado/San Diego change
  - Misallocation of military personnel on naval vessels
  - Identified after publication of final 2010 counts but before CQR program started

- http://www.census.gov/geo/ZCTA/zcta.html
NOTE: Change to the California 2010 P.L. 94-171 Summary File data as delivered

A misallocation of a small number of military personnel aboard naval vessels was discovered in our 2010 Census P.L. 94-171 Redistricting Summary Files. The Census Bureau determined that this misallocation was the result of a geocoding error. Such discrepancies can occur when a living quarter, such as a house, apartment or military vessel, is placed in an incorrect location. A thorough review of all ports followed. We discovered a systematic error in the manner in which a few military vessels had been geocoded, including an error involving Coronado and San Diego, California.

We determined that 5,785 persons located in 2010 tabulation block 06073 0113.00 1029 should have been assigned to tabulation block 06073 0113.00 1000, in Coronado, rather than in San Diego. The Census Bureau has provided new population counts that enable data users to have redistricting data free of this inadvertent error for the two blocks. We conveyed this updated block information to the affected jurisdictions, the California Citizens Redistricting Commission, and to the California State Legislature. We also posted this errata notice on our Redistricting Data Program website and to the American FactFinder, the 2010 Census dissemination Web site.

The new total for Coronado and San Diego will be available on the redistricting data office website at www.census.gov/rdc/data. Data users on our American FactFinder who are looking for population figures for Coronado and San Diego will be pointed to the changes located on the redistricting data
### Count Question Resolution

#### CORONADO, CA ERRATA

<table>
<thead>
<tr>
<th>RACE</th>
<th>Corrected Block 06073 0113.00 1029</th>
<th>Corrected Block 06073 0113.00 1000</th>
<th>Original (PL) Block 06073 0113.00 1029</th>
<th>Original (PL) Block 06073 0113.00 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universe: Total population</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>5785</td>
<td>5785</td>
<td>0</td>
</tr>
<tr>
<td>White alone</td>
<td>0</td>
<td>3406</td>
<td>3406</td>
<td>0</td>
</tr>
<tr>
<td>Black or African American alone</td>
<td>0</td>
<td>1279</td>
<td>1279</td>
<td>0</td>
</tr>
<tr>
<td>American Indian and Alaska Native alone</td>
<td>0</td>
<td>98</td>
<td>98</td>
<td>0</td>
</tr>
<tr>
<td>Asian alone</td>
<td>0</td>
<td>353</td>
<td>353</td>
<td>0</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander alone</td>
<td>0</td>
<td>46</td>
<td>46</td>
<td>0</td>
</tr>
<tr>
<td>Some Other Race alone</td>
<td>0</td>
<td>305</td>
<td>305</td>
<td>0</td>
</tr>
<tr>
<td>Population of Two or More Races</td>
<td>0</td>
<td>298</td>
<td>298</td>
<td>0</td>
</tr>
</tbody>
</table>

#### HISpanic OR LATINO, AND NOT HISpanic OR LATINO

<table>
<thead>
<tr>
<th>Universe: Total population</th>
<th>Corrected Block 06073 0113.00 1029</th>
<th>Corrected Block 06073 0113.00 1000</th>
<th>Original (PL) Block 06073 0113.00 1029</th>
<th>Original (PL) Block 06073 0113.00 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>0</td>
<td>5785</td>
<td>5785</td>
<td>0</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>0</td>
<td>1052</td>
<td>1052</td>
<td>0</td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td>0</td>
<td>4733</td>
<td>4733</td>
<td>0</td>
</tr>
</tbody>
</table>

#### RACE FOR THE POPULATION 18 YEARS AND OVER

<table>
<thead>
<tr>
<th>Universe: Total population 18 years and over</th>
<th>Corrected Block 06073 0113.00 1029</th>
<th>Corrected Block 06073 0113.00 1000</th>
<th>Original (PL) Block 06073 0113.00 1029</th>
<th>Original (PL) Block 06073 0113.00 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>0</td>
<td>5785</td>
<td>5785</td>
<td>0</td>
</tr>
<tr>
<td>White alone</td>
<td>0</td>
<td>3406</td>
<td>3406</td>
<td>0</td>
</tr>
<tr>
<td>Black or African American alone</td>
<td>0</td>
<td>1279</td>
<td>1279</td>
<td>0</td>
</tr>
<tr>
<td>American Indian and Alaska Native alone</td>
<td>0</td>
<td>98</td>
<td>98</td>
<td>0</td>
</tr>
<tr>
<td>Asian alone</td>
<td>0</td>
<td>353</td>
<td>353</td>
<td>0</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander alone</td>
<td>0</td>
<td>46</td>
<td>46</td>
<td>0</td>
</tr>
<tr>
<td>Some Other Race alone</td>
<td>0</td>
<td>305</td>
<td>305</td>
<td>0</td>
</tr>
<tr>
<td>Population of Two or More Races</td>
<td>0</td>
<td>298</td>
<td>298</td>
<td>0</td>
</tr>
</tbody>
</table>

#### HISpanic OR LATINO, AND NOT HISpanic OR LATINO FOR THE POPULATION 18 YEARS AND OVER

<table>
<thead>
<tr>
<th>Universe: Total population 18 years and over</th>
<th>Corrected Block 06073 0113.00 1029</th>
<th>Corrected Block 06073 0113.00 1000</th>
<th>Original (PL) Block 06073 0113.00 1029</th>
<th>Original (PL) Block 06073 0113.00 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>0</td>
<td>5785</td>
<td>5785</td>
<td>0</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>0</td>
<td>1052</td>
<td>1052</td>
<td>0</td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td>0</td>
<td>4733</td>
<td>4733</td>
<td>0</td>
</tr>
</tbody>
</table>

#### OCCUPANCY STATUS

<table>
<thead>
<tr>
<th>Universe: Housing units</th>
<th>Corrected Block 06073 0113.00 1029</th>
<th>Corrected Block 06073 0113.00 1000</th>
<th>Original (PL) Block 06073 0113.00 1029</th>
<th>Original (PL) Block 06073 0113.00 1000</th>
</tr>
</thead>
</table>