Preparing for 2020 Geographic Programs

Linda Akers Smith

Anchorage Population and Data Workshop

October 18, 2016

Agenda

- Role of Geography in the Census
- MAF/TIGER
- Local Update of Census Addresses Program
  - Boundary and Annexation Survey
  - Geographic Support System
- Participant Statistical Areas Program
- Boundary Quality Assessment and Reconciliation Project

The Role of Geography in the Decennial Census

- Geography provides the framework for the collection, tabulation, and dissemination of Census Data
- Success of the Census rest not only on collecting data, but also linking data to correct geographic areas
- Anyone using Census Data should have some knowledge of Census Geography

MAF/TIGER Database

- Three basic types of spatial data are needed to support census and survey operations and to make the statistical data meaningful
  - Addresses (MAF)
  - Features (TIGER)
  - Boundaries (TIGER)

- Continually updated

Census Address List Development

TIGER

Topologically Integrated Geographic Encoding and Referencing

TIGER Content

Streets and their names

Lakes, streams, and their names

Railroads

Geographic entity boundaries, names, and codes (for governmental units, census tracts, census blocks, etc.)

Housing unit locations

Key geographic locations (for airports, schools, etc.)

ZIP Codes and address ranges (for streets with city-style addresses)

Types of Geographic Areas

- Legal/administrative areas
  - have legally described boundaries; they may provide governmental services or may be used to administer programs
- Statistical areas
  - defined primarily for data tabulation and presentation purposes
- Update frequency varies

https://www.census.gov/geo/maps-data/data/tiger.html

Which product should I use?

Product	Best For...	File Format	Type of Data	Level of Detail	Descriptive Attributes	Vintages Available
TIGER/Line Shapefiles	Most mapping projects--this is our ***most comprehensive dataset***. Designed for use with GIS (geographic information systems).	Shapefiles (.shp) and database files (.dbf)	Boundaries, roads, address information, water features, and more	Full detail (not generalized)	Extensive	2006 - 2015, CD 113
TIGER Geodatabases	Useful for users needing national datasets or all major boundaries for by state. Designed for use in ArcGIS. Files are extremely large.	Geodatabase (.gdb)	Boundaries, roads, address information, water features, and more	Full detail (not generalized)	Limited	2013-2014
TIGER/Line with Selected Demographic and Economic Data	Data from selected attributes from the 2010 Census, 2006-2010 ACS 5- year estimates, 2007-2011 ACS 5-year estimates, 2008-2012 ACS 5-year estimates and County Business Patterns (CBP) for selected geographies. Designed for use with GIS.	Shapefiles (.shp) and Geodatabases	Boundaries, Population Counts, Housing Unit Counts,	Full detail (not generalized)	Limited	2012 CBP, 2010, 2006-
Cartographic Boundary Shapefiles	Small scale (limited detail) mapping projects clipped to shoreline. Designed for thematic mapping using GIS.	Shapefile				
KML - Cartographic Boundary Files	Viewing data or creating maps using Google Earth, Google Maps, or other platforms that use KML.	KML (.km				
TIGERweb	Viewing spatial data online or streaming to your mapping application.	Interactiv HTML da REST an services				

Local Update of Census Addresses

- What is LUCA?
- Why is LUCA participation important?
- How to participate in LUCA
- LUCA Schedule

What is LUCA?

- 2020 Decennial Census voluntary geographic partnership operation
- An opportunity for tribal, state, and local governments to review and update the Census Bureau's Address List for residential addresses
- Authorized by the Census Address List Improvement Act of 1994 (Public Law 103-430)

Why is LUCA participation important to the 2020 Census?

- Results are used to improve the Census Bureau's Address List
- Accuracy and completeness of the address list is critical to the accuracy and completeness of the census
- Active functioning governments can participate in LUCA.

Why participate in LUCA?

Census data are used to:

- **Apportion** seats in the House of Representatives
- **Distribute** 400 billion annually in federal funds to state and local governments for over 1000 programs
- **Provide** statistical support to fund community projects, improvements, and enhancements
- **Help** your community plan for future needs

What's New!

- **Offers** streamlined participation – Full Address List Review
- **Requires** residential multiunit structure identifiers (Apt 1, Apt 2)
- **Provides** the digital address list in standard software format
- **Includes** ungeocoded address records for State and County participants; these records do not have an address location with the correct state, county, census tract, or census block codes
- **Includes** residential structure coordinates
- **Allows** participants using the Geographic Update Partnership Software (GUPS) or the digital address list format to submit residential structure coordinates

When does LUCA begin?

January 2017

- **Advance Notice**
  - Mailed to Highest Elected Officials (HEO) and Tribal Chair (TC) and other LUCA contacts
  - Information about LUCA
  - Contact Information Update Form

How to prepare for LUCA

- ✓ **Submit** Contact Information Update Form
- ✓ **Develop** a strategy for your address review
- ✓ **Access** the Census Bureau's count of residential addresses by census block for your government
- ✓ **Ensure** that your address list contains individual multi-unit structure identifiers (Apt 1, Apt 2)
- ✓ **Identify** local address sources such as building permits, E-911 address files, local utility records, annexation records, and assessment or taxation files
- ✓ **Plan** to attend a LUCA Promotional Workshop

How to prepare for LUCA

- ✓ Geographic Support System (GSS)
  - Submit address, structure point data, and spatial feature updates

  http://www.census.gov/geo/gssi/

- ✓ Boundary and Annexation Survey (BAS)
  - Ensure correct boundaries

  http://www.census.gov/geo/partnerships/bas.html

GSS Participation Status, by Data Provider

Annual Boundary & Annexation Survey

Legal Boundaries in Effect on January 1

- Annual Survey to collect legal Boundaries in effect on January 1 of the BAS year
- Boundaries are used to tabulate data for
  - Decennial Census (year ending in 0)
  - Economic Censuses (years ending in 2, 7
  - Population Estimates Program (annually)
  - American Community Survey (annually)
- Survey sent starting in December, Materials available
  - (BAS 2017 survey sent in December 2016)

Deadlines:

March 1 of Survey Year: updates reflected in American Community Survey and Population Estimates Program (PEP)

May 31 of Survey Year: updates reflected in the following year's BAS

Confidentiality and Security

- All LUCA materials including the Census Bureau's Address List and maps containing structure coordinates (or map spots) are protected under Title 13, U.S. Code.
- Signed confidentiality agreements and security restrictions are required to participate in LUCA

LUCA Materials

- Address List and maps available in **digital** or **paper** format
  - paper list available for Governments under 6,000 HU
  - **Geographic Update Partnership Software (GUPS)**
    - Self-contained GIS update and processing package
    - Includes Census Bureau's Address List, Census Bureau's count of residential addresses by census block, and TIGER partnership shapefiles
    - Can add external geospatial data

How to register for the 2020 LUCA

July 2017

- **Invitation and registration** mailed to HEOs (cc other LUCA contacts)
  - LUCA information booklet
  - Confidentiality and Security Guidelines

  Forms for Registration:

  1. Registration Form
  2. Confidentiality Agreement Form
  3. Product Preference Form
  4. Self-Assessment for the Confidentiality and Security Guidelines

Training

Begins October 2017

- In-person workshops conducted where needed
- Self-training aids and webinars on line

Feedback and Address Appeals

Feedback materials

- Include the updated Census Bureau's Address List
- Information on how to appeal to an independent governing board

2020 Census LUCA Schedule

2020 LUCA SCHEDULE
January-February 2017 – Advance Notice mailed to HEOs and other LUCA contacts
March-June 2017 – LUCA Promotional Workshops conducted
July 2017 – Invitation and Registration mailed to HEOs
October 2017 – LUCA Training Workshops begin
Feb- Apr 2018 – Participants review and update the Address List (120 days)
August – September 2019 – Deliver Feedback materials
April 1, 2020 – CENSUS DAY

2020 Participant Statistical Areas Program (PSAP)

Opportunity for designated representatives to review and update statistical geographies for 2020 Census data tabulation

- Coordinating agencies can review, identify, propose changes and delineate new census tracts, block groups, census designated places (CDPs), and census county divisions (CCDs)
  - 2 Phases: Delineation (120-day review)
    Verification

Tentative Schedule:

- Program Invitation – Spring 2017
- Materials Available – Winter 2018

2020 Participant Statistical Areas Program (PSAP) "Plan"

New for 2020

GOAL: Clean, Consistent Statistical Geography Nationwide

- Census Bureau intends to create a 2020 statistical areas "plan" for both the standard and tribal statistical geographies, which our partners can review and update
- Lessens burden on our partners
- Ensures that ALL statistical geographies are reviewed/updated consistently
- More extensive review than just criteria thresholds
- Partners can update the 2020 "plan" ***OR*** have the option to update from 2010 statistical geography base

Boundary Quality Assessment and Reconciliation Project (BQARP)

Goal: Improve legal and administrative spatial boundary quality in MAF/TIGER System

- Compare locally sourced data (we acquire whole data sets, not transaction polygons) to adjust Census boundaries
- Align to parcel and Public Land Survey System (PLSS) boundaries, where applicable
- Coordinate efforts with State partners
- Independent of the Boundary& Annexation Survey
- Lock boundaries in place to prevent changes without legal documentation

Boundary Quality Assessment and Reconciliation Project (BQARP)
Program Status as of June 2016
AK
0 500 Miles
WA
OR
ID
MT
ND
MN
SD
WY
NV
CA
UT
CO
NE
KS
IA
MO
AZ
NM
OK
AR
TX
LA
WI
MI
IL
IN
OH
KY
TN
MS
AL
GA
FL
SC
NC
VA
WV
PA
NY
VT
NH
ME
MA
CT
RI
NJ
MD
DE
DC
HI
0 100 Miles
0 100 Miles
Status
All Updates Complete
Updates In Progress
Planned for CY 2016
Future BQARP State
Prepared by the Geography Division, June 2016

The 2020 Census

Key Geographic Partnership Activities

2016

BAS 2017 - annual invitation to update legal boundaries - December

2017

LUCA Advance Notice sent to Highest Elected Officials – January
BAS 2017 deadline to be included in ACS, PEP - March 1
BAS 2017 deadline for updates to be included in next year's BAS - May 31:
LUCA Invitation to review Master Address File –July 2017
BAS 2018 – annual invitation to update legal boundaries - December

2018

LUCA materials available for review- February (120 days)
PSAP materials available for review -December 120 days
BAS schedule repeated as above

2019

LUCA Feedback provided to participants - August
LUCA Appeals Process - October
PSAP Verification materials available for review- Fall/Winter
BAS schedule repeated as above

2020

Boundary Validation Program maps sent to HEO/Tribal Chair - January
Census Day – April 1, 2020
Apportionment Counts to the President- by December 31, 2020
BAS schedule repeated as above

2021

Redistricting Counts to the State- by March 31, 2021
BAS schedule repeated as above

Questions?

Linda Akers Smith
Los Angeles Regional Office
Linda.kane.akers.smith@census.gov
(818)267-1724

https://www.census.gov/geo/partnerships/

Small Area Census Geography

2020 Redistricting Data Program

Definition

- Census tracts are small, relatively permanent statistical subdivisions of a county.
  - Uniquely numbered in each county with a numeric code
- Census tracts average about 4,000 inhabitants
  - Minimum Population – 1,200
  - Maximum Population – 8,000

2010 Census Tract Criteria

CT type	Threshold type	Optimum	Minimum	Maximum
Standard CTs & AIR/ORTL/HHL CTs	Population threshold	4,000	1,200	8,000
	Housing Unit threshold	1,600	480	3,200
Special land use CTs	Area measurement threshold for an urban area (square miles)	*None*	1.0	*none*
	Area measurement threshold outside an urban area (square miles)	*None*	10	*none*
	Population threshold	Zero or very little, or within the standard CT thresholds		
Water CTs	Area measurement threshold (square miles)	*None*	100	*none*

New Census Tracts Coding Series

9400-9499 Any tract with a majority of population and/or area is American Indian Area, Hawaiian Home Lands

9800-9899 Special Land Use tracts

9900-9999 Water Census Tracts