



# The 2020 Census Geographic Partnership Opportunities

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*U.S. Census Bureau*  
*May, 2016*

# The 2020 Census

## A New Design for the 21<sup>st</sup> Century

### The 2020 Census: A New Design for the 21<sup>st</sup> Century

#### Motivate People to Respond

**Conduct a nation-wide communications and partnership campaign**

- Maximize outreach using traditional and new media
- Target ads to specific audiences
- Work with trusted sources to inspire participation.



#### Establish Where to Count

**Identify all addresses where people could live**

IN-FIELD

IN-OFFICE



- Conduct a 100% review and update of the nation's address list
- Minimize field work with in-office updating
- Use multiple data sources to identify areas with address changes
- Get local government input

TELEPHONE  
AND PAPER SELF-  
RESPONSE

NONRESPONSE  
FOLLOWUP

INTERNET SELF-RESPONSE



#### Count the Population

**Collect data from all households, including group and unique living arrangements**

- Make it easy for people to respond anytime, anywhere
- Encourage people to use the new online response option
- Use the most cost-effective strategy to contact and count nonrespondents
- Knock on doors only when necessary
- Streamline in-field census-taking



**Count Everyone Once  
In the Right Place**

#### Release Census Results

**Process and Provide Census Data**

- Deliver apportionment counts to the President by December 31, 2020
- Release counts for redistricting by April 1, 2021
- Make it easier for the public to get data



# Geographic Partnership Opportunities

## The 2020 Census



Local Update of Census Addresses



Participant Statistical Areas Program



Geographic Support System



Boundary and Annexation Survey



Boundary Quality Assessment & Reconciliation Project



Tools: GUPS, SWIM, TIGER Web

# 2020 Local Update of Census Addresses Operation

Once –a-Decade for opportunity designated representatives to review the addresses that will be used to conduct the Decennial Census

## Simplified Participation: Title 13, Full Address List Review

- Reduce the number of deleted LUCA records in field verification activities
- Reduce the burden and complexity of LUCA
- Continuous feedback throughout the decade through the GSS
- *No Boundary & Annexation Survey as LUCA component for 2020*

# 2020 LUCA Operation

*New for 2020*

- Include census structure coordinates in the census address list and allow partners to return their structure coordinates as part of their submission
- Provide ungeocoded (no geographic coordinates) U.S. Postal Service Delivery Sequence File addresses to State and County partners
- Provide address list in more standard formats (.xlsx & .csv)
- Provide address counts by block in early 2017 and a public geocoding tool so you can geocode your address list to assess whether you'd like to participate

# 2020 LUCA Operation

*New for 2020*

- Encourage lower-level governments to work with higher-level governments to consolidate submission
- Eliminated the Block Count Challenge
- Eliminated the use of the asterisk (\*) designation for multi-units submitted without unit designations: *Require Unit Designators for multi-unit buildings (Apt #, Unit #, Mobile Home Park Lot #, Suite#, 1<sup>st</sup> Flr Front, 1<sup>st</sup> Flr Right, etc.)*
- Encourage LUCA participants to identify addresses used for mailing, location, or both

# 2020 LUCA Operation

## Participation Options & Schedule

### Participation Options:



GUPS (Geographic Update Partnership Software )



Digital (Commercial GIS/Spreadsheet/Database software)



Paper Address List and Maps

(Available only to governments with < 6000 addresses)

### Tentative Schedule:

Advance Notification Letter/Contacts Update: January 2017

Program invitation: July 2017

Materials Available for Review: February 2018

LUCA Feedback Provided: August 2019

LUCA Appeals: October 2019



# 2020 Participant Statistical Areas Program

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

## Program Implementation

- Coordinating agencies review, identify, propose changes to census tracts, block groups, census designated places (CDPs), and census county divisions (CCDs)
- TSAP folded into PSAP: ONE program on one schedule
- 2 Phases: Delineation (120-day review)  
Verification



# 2020 PSAP “Plan”

*New for 2020*

- Census Bureau intends to create a 2020 statistical areas “plan” for both the standard and tribal statistical geographies
- 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** they have option to update from 2010 statistical geography base

***GOAL: Clean, Consistent Statistical Geography Nationwide***

# 2020 PSAP

## Participation Options & Schedule

### Standard Statistical Geographies:



GUPS  
Geographic Update Partnership Software

### Tribal Statistical Geographies:



GUPS  
or



Paper Maps

## Tentative Schedule:

Program invitation: Spring 2017

Materials Available: Winter 2018

PSAP Verification: Fall/Winter 2019

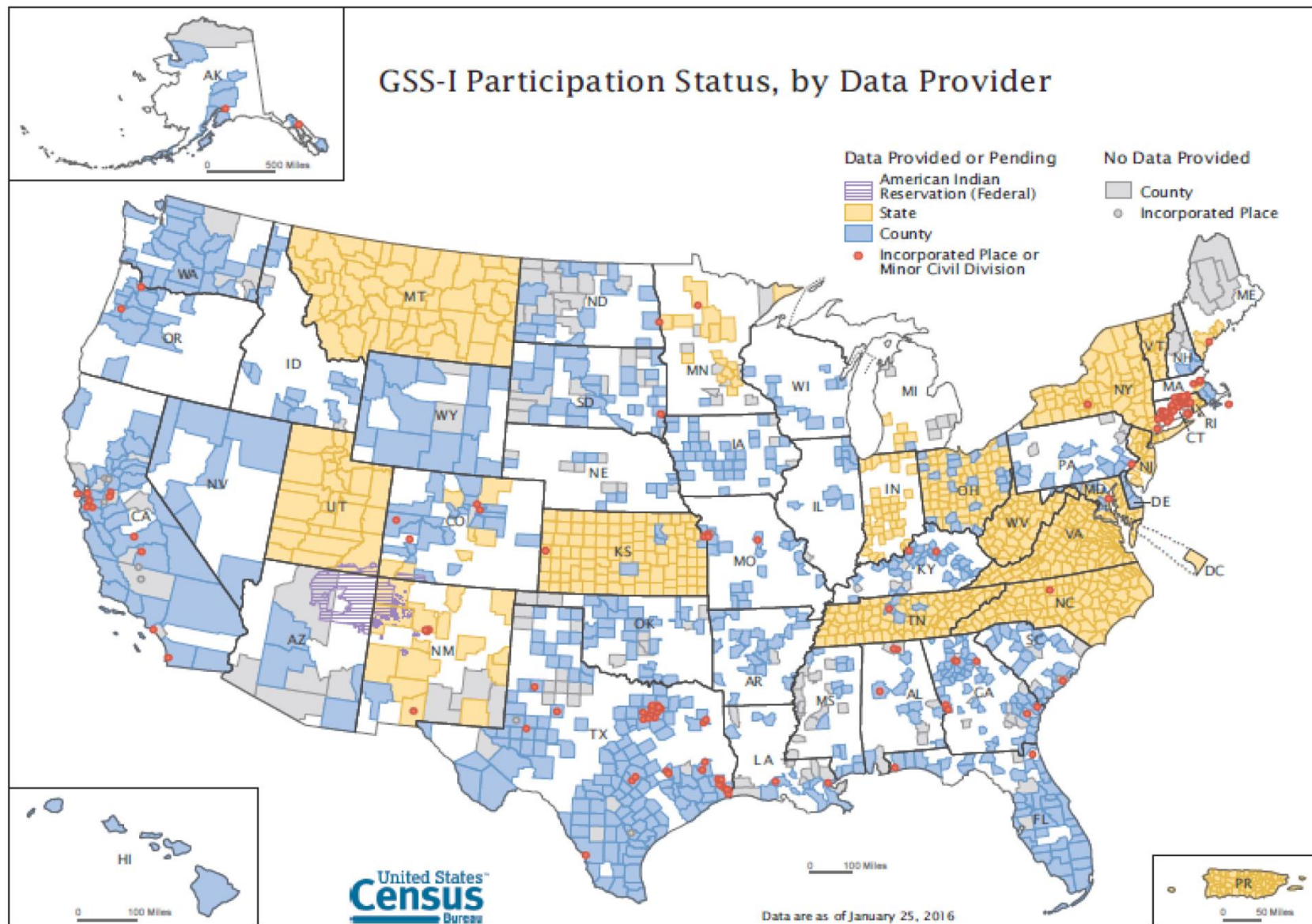
# Geographic Support System

GSS: Opportunity to submit addresses and spatial data to Census Bureau on a continual basis

*Goal: Add new addresses to the Master Address File (MAF), new streets to TIGER, and resolve address and spatial inconsistencies*

- Must meet minimum Address Guidelines
- After acquiring partner data, perform content verification to determine usability
- Crosswalk, standardize, match, and geocode partner addresses and structure points using Master Address File
- Match street centerline data to ID differences, calculate spatial accuracy (CE95 method) of partner data using GPS control points

## GSS-I Participation Status, by Data Provider



Prepared by the Geography Division, U.S. Census Bureau

# 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)

# Boundary & Annexation Survey

## Deadlines & Participation Options

### Deadlines:

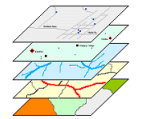
**March 1** of Survey Year: updates reflected in American Community Survey (ACS) and Population Estimates Program (PEP)

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

### Participation Options:



GUPS (Geographic Update Partnership Software )



Digital (Commercial GIS)



Paper Maps

# Boundary & Annexation Survey

## Coordination with Redistricting

- As part of 2020 Redistricting Data Program, State RDP Liaisons may submit boundary updates in Phase 1 (BBSP) & Phase 2 (VTD) *new for 2020*
- Census BAS staff coordinates any RDP-submitted updates with local BAS official for the jurisdiction
- More info on 2020 Redistricting Data Program:  
<https://www.census.gov/rdo/>



# BAS Consolidation

by the State or a County Government

## State-Level BAS consolidation:

- Appropriate where state law dictates that all governments within the state must provide legal changes to a state office
- Census Bureau and State enter into Memorandum of Understanding

## County-Level BAS Consolidation:

- County responds to BAS for governments within the county (entities must agree)

Consolidation can eliminate duplication of effort, save \$\$, ensure boundary changes are being reported, contributes to the NSDI

(Census Bureau is boundary steward under OMB Circular A-16)

*Good Opportunity to Update Boundaries before LUCA!*

# State BAS

## Memorandum Of Understanding

### Options for enacting a State-Level BAS:

- 1) Provide a **list** of governments in the State that enacted legal changes in the BAS year
- 2) Provide the **geospatial changes in the TIGER Partnership file** (transaction file) for the legal changes and the **ordinance #s and effective dates**. May also submit boundary corrections.
- 3) Provide **just the transaction polygons from your file** (you do not work with the TIGER Partnership file) **and the legal documents** (not just the ordinance #s and dates, but **the actual documents**)

*Note: Does not include providing boundary corrections. Also, you are accepting our interpretation of the materials you provide.*

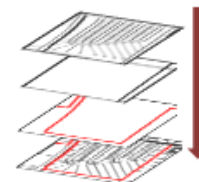
# Boundary Quality Assessment and Reconciliation Project

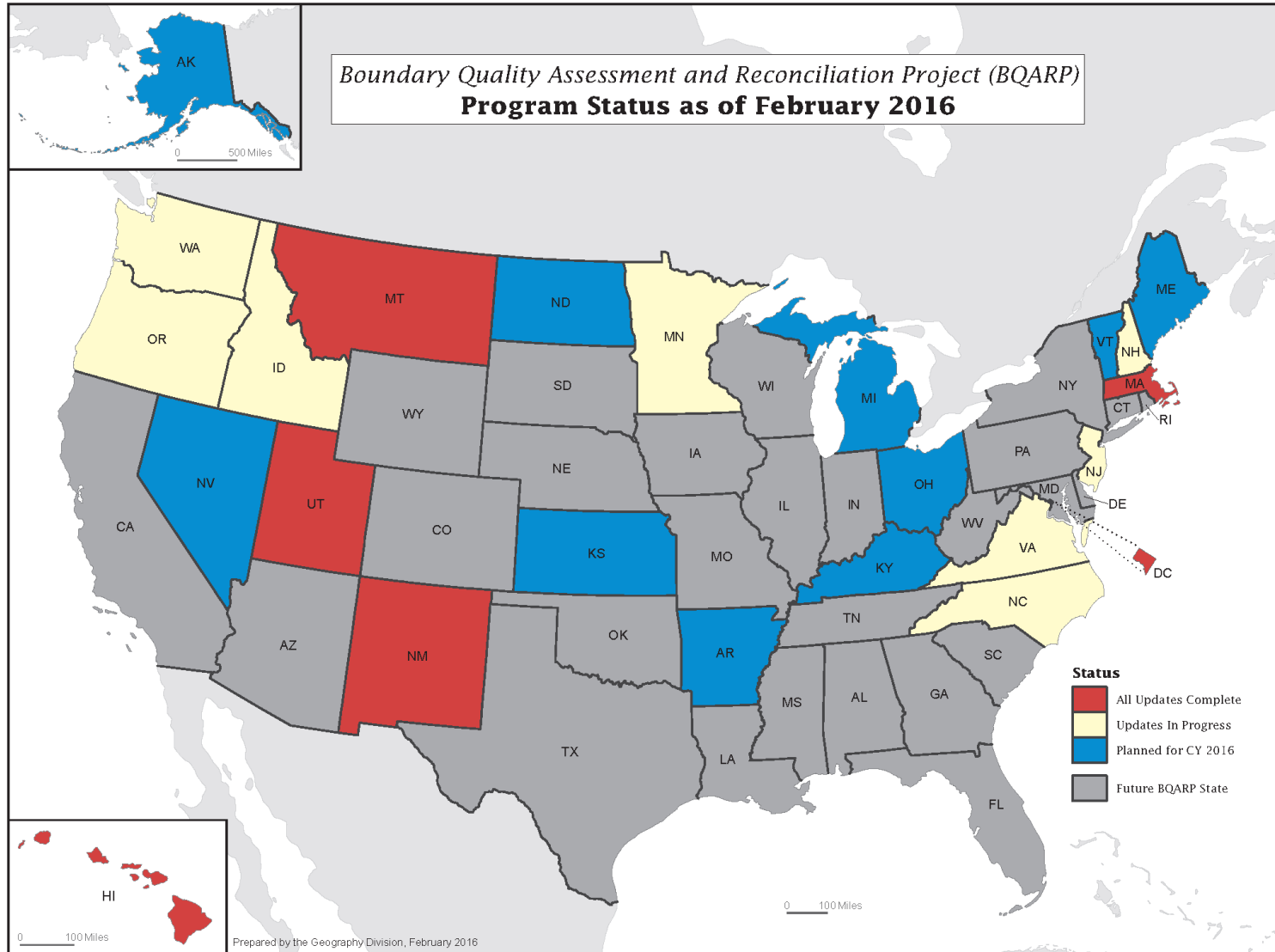
BQARP

*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 PLSS boundaries, where applicable
- Coordinate efforts with State partners
- Lock boundaries in place to prevent changes without legal documentation

*Independent of BAS*





# Census Bureau Geographic Partnership Tools

## GUPS: Geographic Update Partnership Software

- Self-contained GIS software package that allows partners with or without GIS software to digitally participate in Census geographic programs, including address updates
- Replaces the MAF/TIGER Partnership Software (MTPS)
- Includes built-in tools and verification checks to ensure your data output adheres to program criteria and is formatted correctly so it can be accepted and processed by Census

*Supports all Geographic Partnership Programs:*

**RDP** Redistricting Data Program

**LUCA** Local Update of Census Addresses

**PSAP** Participant Statistical Areas Program

**SDRP** School District Review Program

**BAS** Boundary & Annexation Survey

**PUMA** Public Use Microdata Areas

**TAZ/TAD** Traffic Analysis Zones/Traffic  
Analysis Districts

**CQR** Count Question Resolution

# Census Bureau Geographic Partnership Tools

## SWIM: Secure Web Incoming Module

Official web portal for uploading partnership materials to the Census Bureau

<https://respond.census.gov/swim/>

The screenshot shows the SWIM web portal interface. At the top, there is a dark blue header bar with the text "SWIM - Secure Web Incoming Module" on the left. On the right side of the header, it says "Logged in as User" followed by "Logout" and "Help" links. Below the header, the main content area has a light gray background. It starts with the question "What Census program are you reporting data for?". Below this question is a paragraph of instructions: "Select the geographic program that you currently wish to submit data for the Census Bureau to review. This selection affects only your current upload. You may select a different option for future uploads. If you are unsure what program to select, use Geographic Support System Initiative (GSS-I) or send an email to [geo.swim@census.gov](mailto:geo.swim@census.gov) for more guidance." Below the instructions is a list of seven radio button options: "Geographic Support System Initiative (GSS-I)", "Boundary Annexation Survey (BAS)", "School District Review Program (SDRP)", "Boundary Quality Assessment and Reconciliation Project (BQARP)", "Federal Agency Updates (FDU)", "Redistricting Data Program - BBSP-VTD (RDP)", and "Redistricting Data Program - CD-SLD (RDP)". At the bottom center of the form, there is a "Next" button.

SWIM - Secure Web Incoming Module

Logged in as User Logout Help

**What Census program are you reporting data for?**

Select the geographic program that you currently wish to submit data for the Census Bureau to review. This selection affects only your current upload. You may select a different option for future uploads. If you are unsure what program to select, use Geographic Support System Initiative (GSS-I) or send an email to [geo.swim@census.gov](mailto:geo.swim@census.gov) for more guidance.

- ☐ Geographic Support System Initiative (GSS-I)
- ☐ Boundary Annexation Survey (BAS)
- ☐ School District Review Program (SDRP)
- ☐ Boundary Quality Assessment and Reconciliation Project (BQARP)
- ☐ Federal Agency Updates (FDU)
- ☐ Redistricting Data Program - BBSP-VTD (RDP)
- ☐ Redistricting Data Program - CD-SLD (RDP)

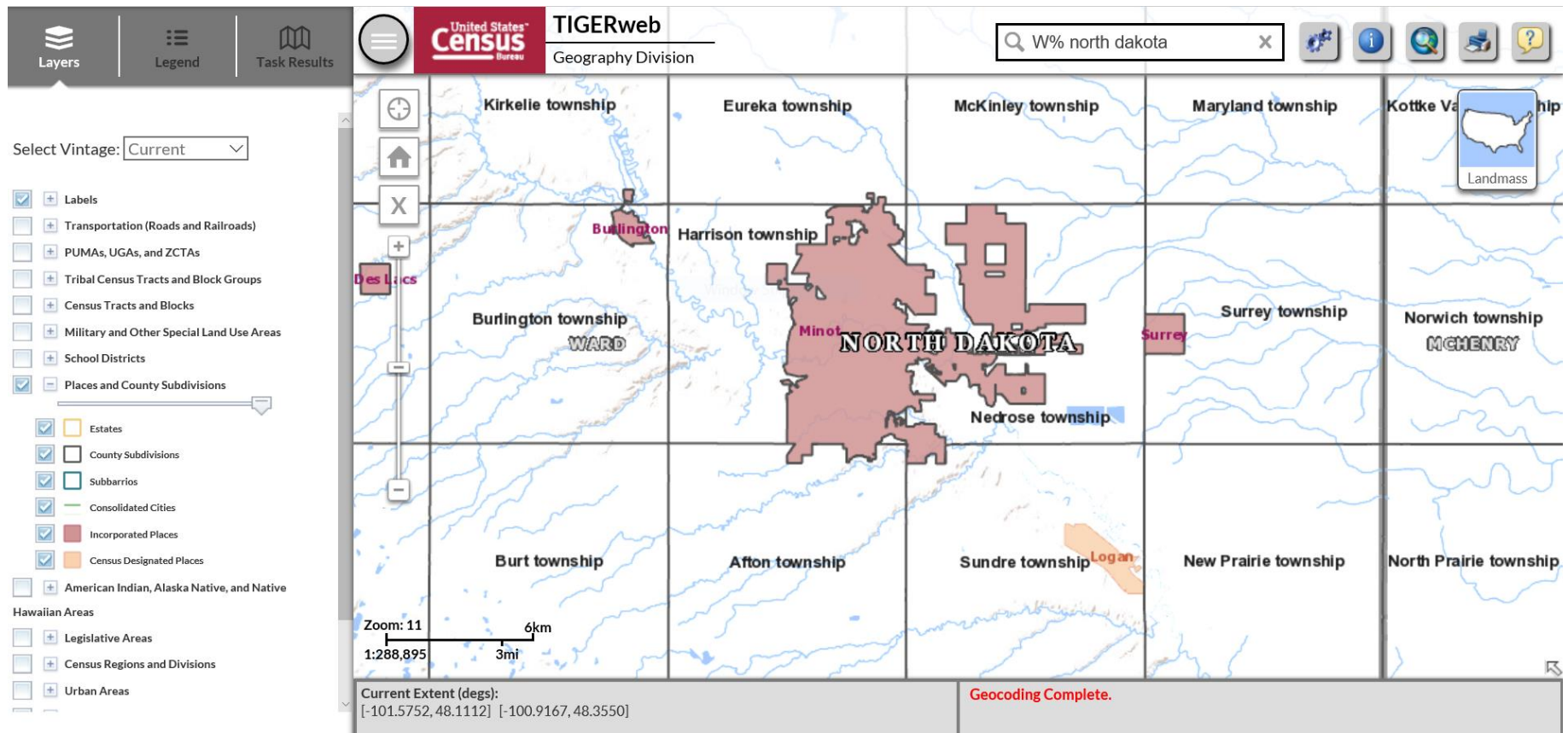
Next

# Census Bureau Geographic Partnership Tools

## TIGER Web

Website data viewer and Map Services (WMS and REST)

<https://tigerweb.geo.census.gov/tigerweb/>





# The 2020 Census

## Key Geographic Partnership Activities

2016

**BAS** 2016 deadline to be included in ACS, PEP - March 1

**BAS** 2016 deadline for updates to be included in next year's BAS - April 31:

**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 - April 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

# Visit Our Census Geographic Partnerships Page

<http://www.census.gov/geo/partnerships/index.html>



U.S. Department of Commerce | Blogs | Index A-Z | Glossary | FAQs

Topics  
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You are here: [Census.gov](#) > [Geography](#) > Partnerships

## Geography

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### Partnerships

- [Partnerships Main Page](#)
- [American Indian and Alaska Native Programs](#)
- [Boundary and Annexation Survey](#)
- [Federal Register Notices](#)
- [School District Review Program](#)
- [2010 Participant Programs](#)
- [2000 Participant Programs](#)

#### Partnerships

We foster partnerships with federal, state, local, and tribal governments as well as commercial partners. Find information about specific partnership programs and learn more about our partnerships with other organizations.

[American Indian and Alaska Native Programs](#)

Programs with tribal officials to maintain a current inventory of all legally defined tribal lands, their boundaries and status.

[Boundary and Annexation Survey](#)

Annual survey to collect information from state and local officials about select legally defined geographic areas. Basic information about the program as well as participant materials.

[Federal Register Notices](#)

*Federal Register* notices that relate to geographic concepts, programs, and procedures. Notices from Geography Division only.

[School District Review Program](#)


Program to collect current school district boundary information from state and local school officials. Basic information about the program as well as participant materials.

[2010 Partnership Programs](#)

Programs that were used to prepare address lists and statistical geographic boundaries prior to the 2010 Census.

[2000 Participant Programs](#)

Programs used to prepare address lists and statistical geographic boundaries prior to Census 2000.





# Questions Comments

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# RESOURCE SLIDES

# Geographic Partnership Opportunities

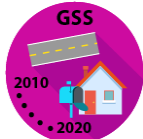
## The 2020 Census



Local Update of Census Addresses



Participant Statistical Areas Program



Geographic Support System



Boundary and Annexation Survey



School District Review Program



Tools: GUPS, SWIM, Community TIGER

# 2020 Participant Statistical Areas Program

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

## Standard Statistical Geographies

Census Tracts  
Block Groups

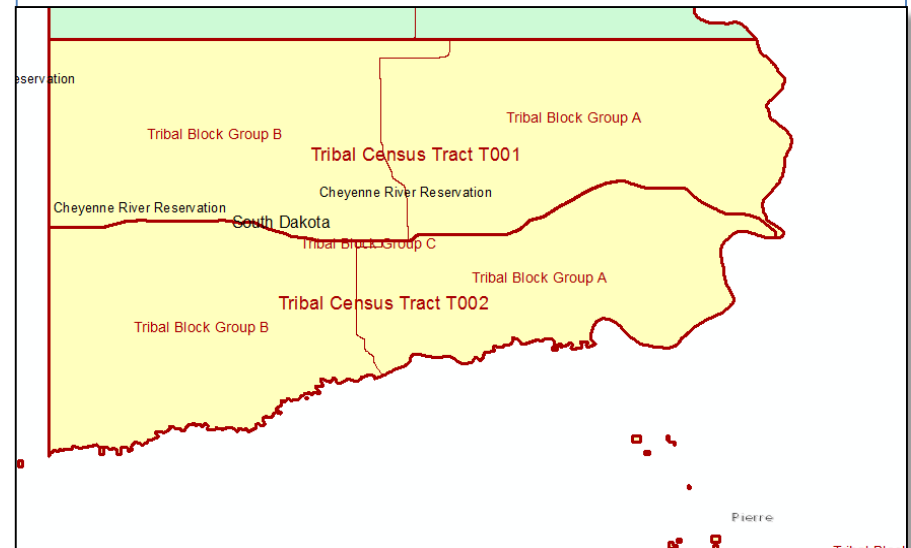
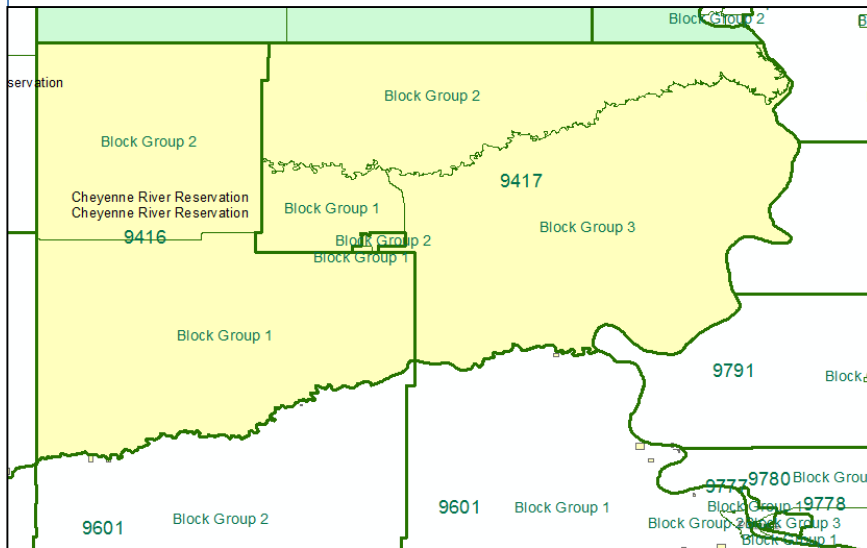
Census County Divisions

← Census Designated Places →

## Tribal Statistical Geographies

Tribal Census Tracts  
Tribal Block Groups

Other Tribal Statistical Geographies



# Geographic Support System

## Data Content Guidelines

<http://www.census.gov/geo/qssi/addgdln.html>

Address Data Content Guideline

Feature Data Content Guidelines

Metadata Content Guidelines

Must meet the Minimum Address Guidelines for [GEOCODING](#)

Must meet the Minimum Address Guidelines for [MATCHING](#)

Must meet the Minimum Address Guidelines for [ADDS](#)

Must meet the Minimum Address Guidelines for [WITHIN-UNIT IDENTIFIERS](#)

Must meet the Minimum Address Guidelines for [GROUP QUARTERS](#)

Must meet the Minimum Address Guidelines for [NON-CITY-STYLE ADDRESSES](#)

*For an address to be **added** to the Census Bureau Master Address File, it must include the address type (residential, commercial, utility, etc.)*



## Minimum Address Guidelines – GEOCODING

In order to update the location (geocode) for an existing MAF address, the partner address must meet the MATCHING requirements above, and also provide one of the following data items:

Address Coordinate (latitude/longitude) or  
Census 2010 Tabulation State, County, Tract and Block Code

This minimum information allows the Census Bureau to assign a location to previously ungeocoded addresses, to compare source geocodes to existing MAF geocodes, and to correct geocodes on MAF records where necessary.

C) In order to ADD new records to the MAF, the submitted record must meet the requirements of “A” above, and additionally must include an Address Feature Type indicator identifying the address as residential, commercial, utility, etc.

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## Minimum Address Guidelines - MATCHING

To successfully match to the MAF, a partner address must include:

Complete Address Number

Complete Street Name

and AT LEAST ONE OF THE FOLLOWING:

Address Coordinate (latitude, longitude)

ZIP Code

Postal City and State

Census 2010 Tabulation State, County, Tract and Block Code

This minimum information allows the Census Bureau to update the source data for an existing MAF address record, adding to our confidence that the address is valid.

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## Minimum Address Guidelines – ADDS

To ADD new partner addresses to the MAF, the partner address must:  
meet the MATCH requirements above,

and

include an address type indicator identifying the address as residential, commercial, utility, etc.

and

not already exist in the MAF

## Minimum Address Guidelines – WITHIN UNIT IDENTIFIERS

For residential addresses with multiple units (i.e., apartments, condos, etc.), the partner address data should provide:

a unique Within Structure Identifier (apartment #, unit #, etc.) to distinguish each unit from other units at the same Basic Street Address (BSA).

or, if a Within Unit Identifier is not available or does not exist:

The number of units at the BSA (i.e. “123 Main Street - 25 Units”)

and

A flag indicating which addresses are multi-unit structures

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## Minimum Address Guidelines – GROUP QUARTERS

For Group Quarters addresses (i.e., dormitories, prisons, residential medical facilities, etc.), the Census Bureau requests the following information in addition to the address information required for MATCHING and GEOCODING:

- NAME (i.e. Shady Acres Retirement Home) of the Group Quarters and
- TYPE (i.e., Hospital, Prison, College Dormitory) of Group Quarters

## Minimum Address Guidelines – NON CITY-STYLE ADDRESSES

The Census Bureau currently does not attempt to match or add any address records that contain only Non-City-Style Addresses, such as:

- Rural Route Addresses (i.e. RR 3 Box 725 Anytown, ST 12345)
- Post Office Box Addresses (i.e. P.O. Box 12374 Anytown, ST 12345)
- Highway Contract Addresses (i.e. HC 3 Box 330 Anytown, ST 12345)
- General Delivery (i.e. General Delivery Anytown, ST 12345)
- Location Descriptions (i.e. Brick House at intersection of 1st and Main Streets)
- Address Coordinates ONLY

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# Geographic Support System

## Block Level Feedback

Block tallies detailing:

- Number partner-provided addresses
- Number address records matched or added to the Census address list
- Coordinates used
- Number address records not accepted
- Total number residential records currently in the MAF



State	County	Tract	Block	GEOID	Total Addresses	Total Residential	Total Non- residential	Total Other	Total Matched	Total Added	Total Coordinates Used	Total Not Accepted	Total Not Accepted Duplicate	Total Not Accepted Incomplete	Total Not Accepted Other	Residential Currently in MAF
					6	0	0	6	6	0	5	0	0	0	0	5
					1	0	0	1	1	0	1	0	0	0	0	1
					26	0	0	26	26	0	26	0	0	0	0	27
					18	0	0	18	18	0	18	0	0	0	0	18
					17	0	0	17	17	0	15	0	0	0	0	17
					35	35	0	0	35	0	35	0	0	0	0	35
					7	7	0	0	5	0	5	2	0	0	2	6
					48	45	2	1	47	0	47	1	0	0	1	45
					65	65	0	0	48	0	48	17	0	0	17	64
					1	0	0	1	-	-	-	-	-	-	-	-
					1	0	0	1	-	-	-	-	-	-	-	-
					2	0	0	2	-	-	-	-	-	-	-	-
					1	0	0	1	-	-	-	-	-	-	-	-
				Unable to Geocode	-	-	-	-	-	-	-	-	-	-	-	-
					228	152	2	74	203	0	200	20	0	0	20	218

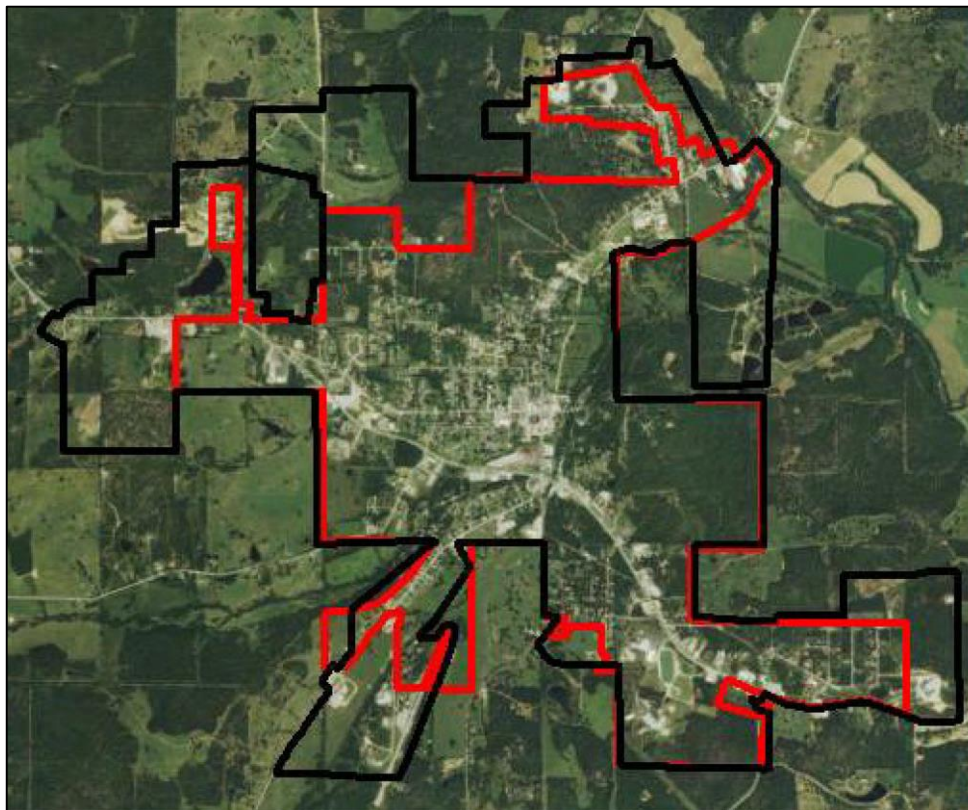
# Boundary Quality Assessment and Reconciliation Project

## BQARP: Resolving Boundary Discrepancies

Were changes reported to  
Census Bureau, but not  
State?

Resolution by Census-State  
Cooperation

 Local Boundary  
 Census Boundary



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# Boundary Quality Assessment and Reconciliation Project

BQARP: Before & After



- Local Boundary
- Census Boundary

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# Community TIGER

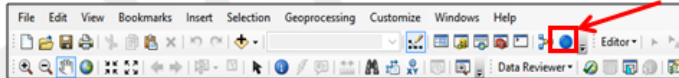
## Registration and Access

1. Send email requesting Community TIGER registration to [geo.community.tiger@census.gov](mailto:geo.community.tiger@census.gov) ; you will receive a notification from Census with the information you need
2. Install Amazon WorkSpaces from <https://clients.amazonworkspaces.com>
3. Use the registration code provided by the Census to access the cloud and then login with the username and password also provided by Census

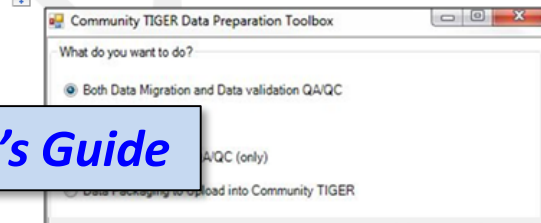
# Community TIGER

Support: email [geo.community.tiger@census.gov](mailto:geo.community.tiger@census.gov); Call (866) 658-5580

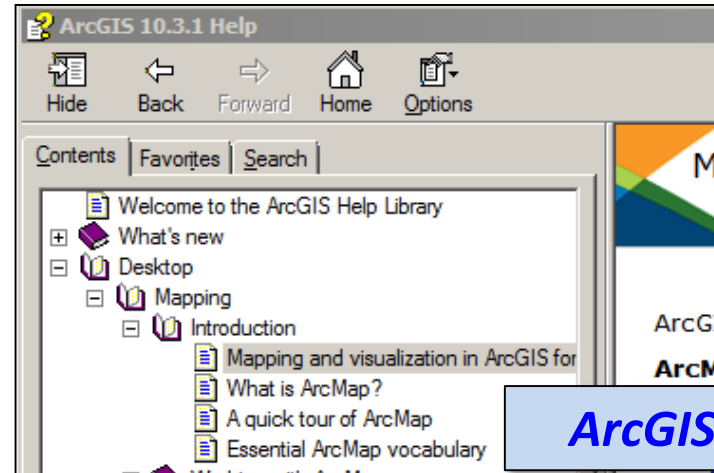
2. Click the "Community TIGER Data Preparation Tool" located in the toolbar.



3. If you are just beginning, select "Both Data Migration and Data Validation QA/QC" and click "Next". If your data has already been migrated, select one of the other choices.



**User's Guide**



**ArcGIS Help**

**Live Training & Webinars**



**Technical Support**

