Block Boundary Suggestion Project Participant Guide

Instructions for Participants
With User Supplied GIS Software

U.S. Department of Commerce
Economic and Statistics Administration
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Introduction

Public Law (P.L.) 94-171 stipulates that the U.S. Census Bureau work in a nonpartisan manner with the states to identify and provide the small-area population counts necessary for legislative redistricting. The Census Bureau is required to provide these counts within one year of Census Day, to the governor and the officers or public bodies responsible for redistricting in each state. For the 2020 Census, the Census Bureau must deliver the counts by April 1, 2021.

The Census Redistricting & Voting Rights Data Office (CRVRDO) implements the requirements of P.L. 94-171 through five phases of the Redistricting Data Program (RDP):

Phase 1: Block Boundary Suggestion Project (BBSP)
Phase 2: Voting District Project (VTDP)
Phase 3: Delivery of the 2020 P.L. 94-171 Redistricting Data Files
Phase 4: Collection of Post-2020 Redistricting Plans
Phase 5: Review of 2020 Census RDP and Recommendations for Census 2030

This document addresses Phase 1: Block Boundary Suggestion Project (BBSP) of the RDP. The Census Bureau conducted initial BBSP from December 2015 – May 2016. The Census Bureau is conducting BBSP Verification (BBSPV), when states who submitted updates in initial BBSP have the opportunity to review their work, and all states have the opportunity to submit additional updates, from December 2016 – May 2017. Through the BBSP, liaisons designated by the legislative leadership in each state, the District of Columbia, and Puerto Rico, have the opportunity to influence the delineation of the 2020 Census tabulation blocks. States influence tabulation block delineation by suggesting linear features (e.g., roads, rivers, railroads, invisible boundaries, etc.) to be 'held' as 2020 block boundaries or 'not held' as block boundaries. The Census Bureau refers to this as 'suggesting' block boundaries or 'setting' or 'flagging' 'Must Holds' or 'Do Not Holds' on the features. State participants can also influence block boundaries by adding and deleting linear features or edges, and updating boundaries for other Census geographic entities, including incorporated places, minor civil divisions (MCD), counties, area landmarks and area hydrography. All of these features are potential block boundaries.

This guide is intended for state participants who choose to use their own Geographic Information System (GIS) software, rather than the Geographic Update Partnership Software (GUPS), for modifying the Census Bureau supplied shapefiles. The GUPS is the Census Bureau's recommended tool for submission and review of block boundary suggestions. It is strongly recommended that BBSP participants use GUPS. For more information on GUPS, please contact the CRVRDO at 301-763-4039 or rdo@census.gov.

This document assumes that if you are not using GUPS, you are skilled in the use of your own GIS software. Regardless of whether you plan to use GUPS or your own GIS, the Census Bureau requires that entities update Census Bureau shapefiles, rather than submitting a locally derived shapefile from an in-house GIS.

1. Planned 2020 Census Tabulation Block Boundaries

Census tabulation block boundaries primarily follow visible features, such as roads and rivers, as well as any edges that bound legal or statistical geographic areas or selected area landmarks stored in the Master Address File/Topologically Integrated Geographic Encoding and Referencing (MAF/TIGER) System. Census blocks nest within all other tabulated decennial census geographic entities and are the basis for all data tabulated for the decennial census.

The table below lists the feature and boundary types currently planned as 2020 Census tabulation block boundaries. If you flag these features as 'Do Not Holds' (i.e., request that the feature or boundary type not become a 2020 tabulation block boundary), the Census Bureau will not accept the 'Do Not Hold' suggestion.

Table 1: Census Planned Tabulation Block Boundaries by MAF/TIGER Feature Classification Code

MTFCC	DESCRIPTION	MTFCC	DESCRIPTION
G2120	Hawaiian Home Land	G5200	Congressional District
G2130	Alaska Native Village Statistical Area	G5210	State Legislative District (Upper Chamber)
G2140	Oklahoma Tribal Statistical Area	G5220	State Legislative District (Lower Chamber)
G2150	State-designated Tribal Statistical Area	G5240	Voting District
G2160	Tribal Designated Statistical Area	G5400	Elementary School District
G2170	American Indian Joint Use Area	G5410	Secondary School District
G2200	Alaska Native Regional Corporation	G5420	Unified School District
G2300	Tribal Subdivision	G6330	Urban Growth Area
G2400	Tribal Census Tract	K2110	Military Installation
G2410	Tribal Block Group	K2181	National Park Service Land
G4000	State or State Equivalent	K2182	National Forest or Other Federal Land
G4020	County or State Equivalent	K2540	University or College
G4040	County Subdivision	K1235	Juvenile Institution
G4050	Estate	K1236	Local Jail or Detention Center
G4060	Sub-Minor Civil Division	K1237	Federal Penitentiary, State Prison, or Prison Farm
G4110	Incorporated Place	K1238	Other Correctional Institution
G4120	Consolidated City	S1100	Primary Road
G5020	Census Tract	S1200	Secondary Road
G5035	Block Area Grouping		

Primary and secondary roads (MAF/TIGER Feature Class Codes (MTFCCs) S1100 and S1200) are planned tabulation block boundaries. Other features, such as local roads, alleys, railroads, and perennial water, may or may not qualify to be tabulation block boundaries based on the established criteria. As a BBSP participant, you may flag these other features as "Must Hold" or "Do Not Hold" block boundaries.

You will determine whether a feature is a planned block boundary by the feature's value in the Census Block Boundary Flag (CBBFLG) field in the edge attribute table of the Census Bureau supplied edge partnership shapefile.

A CBBFLG value of "**4**" indicates the feature is a planned 2020 block boundary, while a CBBFLG value of "**9**" indicates the feature is ineligible as a 2020 block boundary.

A CBBFLG value of "**1**" indicates the feature was designated a "Must Hold" by the participant during the initial BBSP (December 2015 - May 2016), and a CBBFLG value of "**2**" indicates the feature was designated a "Do Not Hold" by the participant.

The technical details for reviewing features and assigning block boundary suggestion flags are contained in Part 2.

Note: Appendix B: MTFCC Descriptions - Complete List, contains the list of MTFCC values in the partnership shapefiles and their descriptions.

2. Suggested BBSP Workflow

Figure 1 depicts the suggested workflow for reviewing and updating Census Bureau data for the BBSP. This guide outlines the activities associated with each of the workflow process (square) boxes. You are not required to perform all the update activities shown in the flowchart.

Work is performed at a county level and should be submitted to the Census Bureau on a flow basis, as you complete each county. Submitting work on flow basis permits the CRVRDO and the Census Bureau to review the files early in the process and provide feedback as necessary. It also facilitates our file processing, and provides us with sufficient time to clarify questions and concerns, increasing the likelihood that your update and suggestions will be processed as intended.

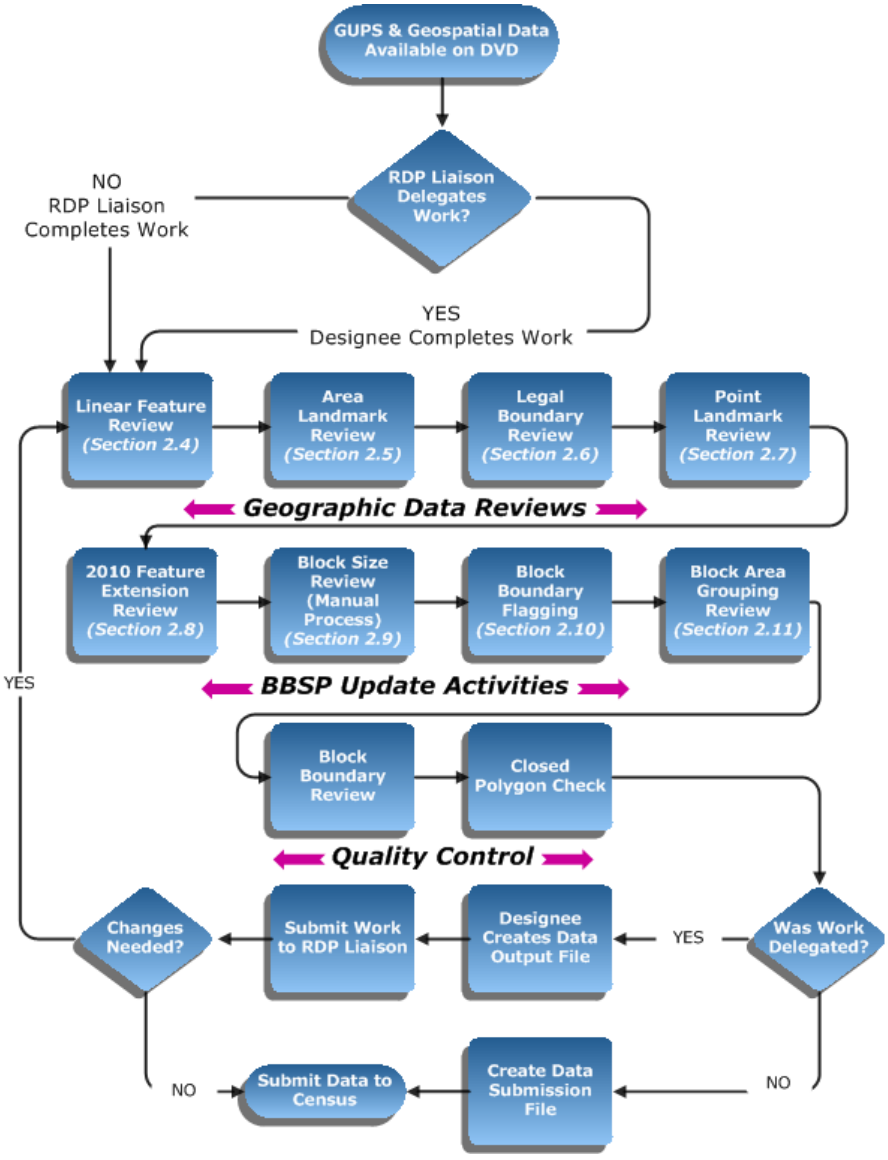

Figure 1: Suggested BBSP Workflow

2.1 RDP Liaison Delegates Work

The Census Bureau works with a State RDP nonpartisan Liaison who is designated by the governor and legislative leadership of the state. To maintain a nonpartisan relationship, the Census Bureau only accepts completed work from the designated State RDP Liaison.

The State RDP Liaison may choose to delegate work to an agency, a county or counties, or a contractor. In this document, these people are collectively referred to as designees. Regardless of who performs the BBSP work, the file updating process is the same. The difference is that **only** the State RDP Liaison may submit completed work to the Census Bureau via the Secure Web Incoming Module (SWIM).

2.2 Obtaining Census Shapefiles

In order to submit block boundary suggestions and other geographic updates, the Census Bureau requires participants to review and update Census Bureau-supplied Partnership shapefiles. You should receive a DVD in your participant package that contains the partnership shapefiles for your area. There are three ways for participants to access the partnership shapefiles:

- Download the partnership shapefiles from the DVD;
- Download the shapefiles from the Geography Partnership website at: https://www.census.gov/geo/partnerships/bas/bas_download.html; or
- Download the Geography Partnership shapefiles from the Census FTP site: ftp://ftp2.census.gov/geo/PVS.

The planned block shapefile (described in Section 2.9) is included on the DVD but is stored separately from the Geography Partnership shapefiles and can be downloaded by the state level from the FTP site: ftp://ftp2.census.gov/geo/PVS/bbsp/.

The partnership shapefiles are downloaded in a zip file and reflect the legal boundaries of governments effective as of January 1, 2016. The zip file name begins with "**partnership_shapefiles_PVS_16_v2**". When unzipped, the names of the shapefiles begin with the prefix **PVS_16_v2**. For example, the edges shapefile is named **PVS_16_v2_edges_<ssccc>** (two digit state code and three digit county code).

Note: The FTP site may contain different vintages of the Geography Partnership shapefiles. For BBSP, make sure to use **vintage 2** shapefiles that begin with the prefix **PVS_16_v2**.

Shapefile Projection

If you plan to use any of your own data files for reference, we recommend that you re-project your data files to match those provided by the Census Bureau to ensure correct alignment of the data. However, returned shapefiles may be in any projection as long as the projection information and the ***.prj** file are provided. A complete partnership shapefile data dictionary is provided in Appendix D.

All shapefiles provided by the Census Bureau are in the following unprojected geographic based coordinate system:

- GCS_NAD83
- Angular Unit: Degree (0.0174532925199433299)
- Prime Meridian: Greenwich (0.000000000000000000)
- Datum: D_North_American_1983
- Spheroid: GRS_1980
- Semi-major Axis: 6378137.000000000000000
- Semi-minor Axis: 6356752.314140356100000000
- Inverse Flattening: 298.257222101000020000

If you are unsure how to project your files to match ours, see Appendix H.

2.3 Updating Census Bureau Shapefiles

Participants should use the following provided partnership shapefiles for their submissions. We recommend making a copy of any shapefile for which you plan to provide updates. **Update the shapefile as needed and export the updates following the guidance in Section 3 of this document.**

Table 2: Partnership Shapefiles for Submissions

Filename	Used For
PVS_16_v2_edges_<ssccc>	Linear feature review and updates (adds, deletes, attribute updates), address range updates, linear feature extension review, and block boundary suggestion flagging.
PVS_16_v2_arealm_<ssccc>	Area landmarks and area hydrography review and updates.
PVS_16_v2_place_<ssccc>	Incorporated place legal boundary updates.
PVS_16_v2_mcd_<ssccc>	MCD legal boundary updates.
PVS_16_v2_county_<ssccc>	County legal boundary updates.
PVS_16_v2_bag_<ssccc>	Block area grouping review and updates.
PVS_16_v2_pointlm_<ssccc>	Point landmark review and updates.

The Census Bureau requires that the returned shapefiles have specific name attributes and characteristics in order for us to accept them as submissions. The attribute table layout will vary depending on which type of submission you are making and is specifically described in Sections 2.4 through 2.11.

All participants must have the ability to edit a Census Bureau shapefile. Again, the Census Bureau requires that participants update Census Bureau shapefiles with changes, rather than submitting their own shapefile from a local GIS. Participants must create a separate linear feature update layer and change polygon layers for each updated entity type (e.g. county, MCD, place, area landmark). Please create linear feature update layers and change polygons using only the current partnership shapefiles. We recommend you begin any updates by:

1) Making a copy of the provided partnership shapefile that you wish to edit;

2) Making updates to the file copy as described in Sections 2.4 through 2.11;

3) Exporting the updates into a 'changes' shapefile, following the naming conventions as described in Section 3; and

4) Zipping and submitting the shapefiles as described in Section 3.6 and Section 4.

2.4 Linear Feature Review

All line feature updates must be submitted back to the Census Bureau by updating the PVS_16_v2_edges_<ssccc> shapefile and exporting all changes into a participant created shapefile named bbspv17_<ssccc>_ln_changes (See Section 3).

Review the Census Bureau's linear features (**PVS_16_v2_edges_<ssccc>**) layer to determine whether there are features to be added or deleted. Attribute updates (e.g., name, MTFCC, and address ranges) for selected features may also be updated, as specified in *Appendix A2: Linear Feature Updates Permitted*.

It is important that Census Bureau data reflect the most recent linear features to ensure that new or previously missed housing units located along these features are identified and located. Pay particular attention to any areas that have experienced recent population growth or construction activities, as these are the most likely to possess new or altered linear features (e.g., new streets in subdivisions or privately maintained roads that serve as public streets but exclude private driveways).

All linear feature updates, including linear feature extensions and block boundary suggestion flagging (Must Holds and Do Not Holds), must be saved to the linear feature update layer (see Sections 2.8 and 2.10). Additionally, if areal landmark or legal boundary changes are made and use existing edges, you must update or create a linear feature update layer (see Section 2.5 and 2.6 for additional information).

In order to submit linear feature updates, participants must create a separate linear feature update layer (see note below for file naming conventions). We recommend that you begin by making a copy of the PVS_16_v2_edges_<ssccc> for editing and creating updates for submission to the Census. This is also referred to as the **linear feature update** layer in this document. You can then export the changes from this update layer to create your submission file, as described in Section 3.

Note: All linear feature changes must be submitted back to the Census Bureau in a participant created shapefile named **bbspv17_<ssccc>_ln_changes**, where <ssccc> is the state county code (see section 3).

To review the linear features, we suggest that you begin by symbolizing the linear feature update layer based on the MTFCC. A description of all MTFCCs can be found in Appendix B. The basic groupings of the MTFCCs are as follows:

Sxxxx = Roads;
Rxxxx = Railroads;
Pxxxx = Nonvisible Features;
Lxxxx = Other Linear Features; and
Hxxxx = Hydrography.

Once the edges layer is copied and symbolized, bring in other Census provided shapefiles (e.g., CD, SLDL, SLDU, incorporated places, etc.) and any local data layers that may be helpful. In your review, please note the following:

1. **Missing Road Features** - If a road, subdivision, etc. is missing from the Census Bureau's edges shapefile, add the feature(s) and provide the name and MTFCC in the attribute table. Feature name is required for any added primary or secondary roads (**MTFCC = S1100 or S1200**). Feature names for local roads (**MTFCC=S1400)** are encouraged. The **CHNG_TYPE** field also needs to be updated to '**AL'**.
2. **Deleting Linear Features** - If a feature in the Census Bureau's edges layer does not exist, flag the feature by updating the attribute table with '**DL'** in the **CHNG_TYPE** field. Do not actually delete the feature in the file.
3. **Spatial Inaccuracies** –For our purposes, a feature is considered spatially inaccurate only if it is represented in the shapefile more than 7.6 meters from it's actual location or it is positionally inaccurate in relation to other features and boundaries (e.g. a stream appears on the east side of the road, when it should be on the west side) in a way that would affect the assignment of housing units to legal entities, census tracts, and/or census blocks. If a feature is in the incorrect location in the Census Bureau's edges layer, flag the feature for deletion (**CHNG_TYPE=DL**) in the attribute table, and add it as a new line (**CHNG_TYPE=AL**) in the correct location.
4. Incorrect or Missing Names or MTFCCs - Correct or add the name and/or MTFCC in the attribute table and add '**CA'** in the **CHNG_TYPE** field.

Note: In addition to wholescale realignments, there are other updates that we will not accept due to our representation requirements. For example if a user deletes both lanes of an interstate and adds a single line to replace the deleted interstate, we will not accept these changes.

Required Attributes - Each linear feature update **must** have the required attributes and corresponding change type populated in the attribute table. The change type field (**CHNG_TYPE**) must be populated with either '**AL**', indicating an added line, '**DL**', indicating a deleted line, or '**CA**', indicating the feature was renamed or given a different MTFCC. In addition, the following applies:

- If you add a new line and delete an existing line to make a spatial correction, add the value in the TIGER Line ID (TLID) field of the deleted line to the TLID field of the added line.
- Provide the feature name and MTFCC code in the FULLNAME and MTFCC fields. If you add linear features with MTFCCs of Pxxxx or Lxxxx you must attribute the BBSP_2020 field with a '1' (Must Hold). You can only add these types of features if you want them to be held as a block boundary. For more information, refer to Section 2.10.

Table 3: Required Attributes for Linear Feature Updates

	CHNG_TYPE	TLID	FULLNAME	MTFCC
Add Feature	X('AL')	If spatial correction	Required if MTFCC is S1100, S1200. Optional if MTFCC is S1400	X
Delete Feature	X('DL')	X		
Rename Feature	X('CA')	X	X	X
Reclassify Feature	X('CA')	X		X

Note: X = Required Field

Address Range Updates

The Census Bureau accepts, but does not encourage, address range data as part of the linear feature update layer. Since we have an internal update process for creating and maintaining address ranges, we may not use your data to update our database. However, if you do choose to submit address ranges, you must include the required attributes and populate the corresponding change type in the attribute table.

We recommend that you only add address ranges to new features. Existing address ranges are not shown in our outgoing shapefiles; however, address ranges can be found in the **ADDR.dbf table** and can be joined to the edges shapefile through a many-to-one join.

Each address range update must have the required attributes and corresponding change type populated.

Table 4: Required Attributes for Address Range Updates

	CHNG_TYPE	LTOADD	RTOADD	LFROMADD	RFROMADD
Address Ranges	X('CA')	X	X	X	X

Note: X = Required Field

2.5 Area Landmark and Area Hydrography Review

All area landmark and area hydrography updates must be submitted back to the Census Bureau in a participant created shapefile named bbspv17_<ssccc>_alndk_changes (See Section 3).

The Census Bureau will accept updates to area landmarks (such as state parks, cemeteries and prisons) and area hydrography as part of the BBSP. Allowable updates for area landmarks and hydrographic areas are:

- Correcting boundaries (add or remove area);

- Creating a new area landmark or hydrographic area;
- Removing an area landmark or hydrographic area;
- Changing or adding a landmark name; and
- Changing/updating the MTFCC of a landmark.

Note: If your state plans to reallocate prisoners during redistricting, you may wish to review the existing area landmarks with MTFCCs K1235, K1236, K1237, and K1238, which represent areas with prison populations.

In order to submit area landmark and area hydrography updates, participants must create a separate change polygon layer for area landmarks and area hydrography. It is recommended that you make a copy of the area landmarks shapefile (**PVS_16_v2_arealm_<ssccc>**) for editing and then export all changes into the **bbspv17_<ssccc>_alndk_changes file**.

Note: Participants may also need to submit a participant-created shapefile named **bbspv17_<ssccc>_ln_changes** <ssccc> is the state county code. (See section 3).

By adding and modifying areal landmarks, you may be making edits to the linear feature layer. If you are making other edits to the linear feature layer, you will be submitting a linear change layer. However if you are only making changes to areal landmarks during BBSP and during these edits you add, delete, or change the edges involved in the boundary of an areal landmark, you are also updating the linear features layer. Please extract the changes and submit this layer in addition to the areal landmark change layer.

If you ***add*** a new area landmark or hydrographic area, the Census Bureau will process your submission in conjunction with other sources to add the area to the MAF/TIGER system. Table 5 shows the MTFCCs for the types of area landmarks and hydrographic areas that can be updated (names, boundaries, etc.).

Table 5: Acceptable MTFCCs for New Area Landmarks / Hydrographic Areas

	DESCRIPTION
C3023	Island
H2030	Lake/Pond
H2040	Reservoir
H2041	Treatment Pond
H2051	Bay/Estuary/Gulf/Sound
H2081	Glacier
K1231	Hospital
K1235	Juvenile Institution
K1236	Local Jail or Detention Center
K1237	Federal Penitentiary, State Prison, or Prison Farm
K2110	Military Installation
K2131	Hospital/Hospice/Urgent Care Facility

	DESCRIPTION
K2180	Park
K2181	National Park Service Land
K2182	National Forest or Other Federal Land
K2183	Tribal Park, Forest, or Recreation Area
K2184	State Park, Forest, or Recreation Area
K2185	Regional Park, Forest, or Recreation Area
K2186	County Park, Forest, or Recreation Area
K2187	County Subdivision Park, Forest, or Recreation Area
K2188	Incorporated Place Park, Forest, or Recreation Area
K2189	Private Park, Forest, or Recreation Area
K2190	Other Park, Forest, or Recreation Area (quasi-public, independent park, commission, etc.)
K2424	Marina
K2457	Airport - Area Representation
K2540	University or College
K2561	Golf Course
K2582	Cemetery

Each area landmark or area hydrography update must have the required attributes and corresponding change type populated. If you are modifying an existing area landmark or hydrographic feature, preserve the existing AREAID for the feature in the AREAID field of the attribute table.

Table 6: Required Attributes for Area Landmark and Area Hydrography Updates

	FULLNAME	CHNG_TYPE	RELATE	MTFCC	AREAID
Boundary Correction (Add Area)	X	X('B')	X('IN')		X
Boundary Correction (Remove Area)	X	X('B')	X('OUT')		X
Delete Landmark		X('X')			X
Change Landmark Name	X	X('G')			X
New Landmark	X	X('E')		X	

Note: X = Required Field

2.6 Legal Boundary Review and Update (New for 2020)

All legal boundary updates must be submitted back to the Census Bureau in a participant created shapefile. The shapefile name depends on the type of geography you are updating (see Section 3). Additionally we request that you supply a whole entity file to accompany any legal boundary updates or boundary corrections that you make. A whole entity file is a shapefile that shows the entity being modified in its entirety. It is not required but assists in the Census Bureau's research on the change or correction.

At the recommendation of many states, the Census Bureau is introducing the ability for states to review and update legal boundaries as part of Phase 1 (BBSP and BBSPV) and Phase 2 (VTD) of the RDP. During the initial delineation phase and the subsequent verification phase of the BBSP, state redistricting participants may submit legal boundary updates (annexations and deannexations) and boundary corrections for counties, MCDs, incorporated places, and consolidated cities.

If you want to report a new county, MCD, incorporated place, or consolidated city, or delete an existing one, please call the CRVRDO at 301-763-4039, or email rdo@census.gov.

Note: All annexations and deannexations must be submitted back to the Census Bureau in a participant created shapefile. Refer to Section 3.3 for a breakdown of the change shapefiles by entity type. By performing these legal boundary updates, you may be making edits to the linear feature layer. If you are making other edits to the linear feature layer, you will be submitting a linear change layer. However, if you are only making changes to legal boundaries during BBSP and during these edits you add, delete, or change the edges involved in the boundary, you are also updating the linear features layer. Please extract the changes and submit this layer in addition to the appropriate legal boundary change layer.

The Census Bureau will reconcile the boundary submissions with the appropriate local governments as part of our Boundary and Annexation Survey (BAS). Although legal documentation (effective date, authorization type, and documentation number) is not required for boundary updates submitted through the BBSP and BBSPV, we strongly encourage you to submit the documentation for any legal updates to expedite our ability to reconcile and process any legal updates reported.

You do not have to provide the legal paperwork for the Census Bureau to process the change as a legal change; however, you do need to provide the effective date, authorization type, and documentation number. Annexations, de-annexations, incorporations and dis-incorporations submitted *without* documentation should be submitted as boundary corrections.

It is important to note that the Census Bureau cannot guarantee we will make these updates, as we may first have to adjudicate the updates with the official BAS contact.

Annexations and Deannexations

In order to submit an annexation or deannexation, you must create a separate change polygon layer showing the spatial differences between the boundary represented in the Census Bureau-provided partnership shapefile and your updated boundary. We

recommend that you make a copy of the relevant entity's partnership shapefile for editing, and then export all the changes into the submission changes shapefile. See Section 3 for the submission file naming requirements. The submission file must include all required attributes and corresponding change type populated, as shown in Table 7.

The name field (**NAME**) in the attribute table should be populated with the name of the geographic entity affected. The change type field (**CHNG_TYPE**) should indicate whether the change is an annexation (**A**) or deannexation (**D**).

The effective date field (**EFF_DATE**) should be populated with the date of the ordinance, resolution, or local law authorizing the annexation or deannexation. If available, the authorization type field (**AUTHTYPE**) should be populated with the type of documentation authorizing the change (i.e., ordinance, resolution, local law, other). The documentation field (**DOCU**) should be populated with the documentation number.

Table 7: Required Attributes for Annexations and Deannexations

	NAME	CHNG_TYPE	EFF_DATE	AUTHTYPE	DOCU	RELATE
Annexation	X	X('A')	X	X	X	
Deannexation	X	X('D')	X	X	X	

Note: X = Required Field

Boundary Corrections

As with annexations and deannexations, you must create individual change polygons for each boundary correction. Each boundary correction must have the required attributes and corresponding change type. The name field (**NAME**) must be populated with the name of the corrected legal entity. The change type field (**CHNG_TYPE**) must be populated with a 'B' to indicated boundary correction. The relate field (**RELATE**) must be populated with 'IN', indicating the corrected area is within the named legal entity, or 'OUT', indicating the corrected area is outside of the named legal entity.

Table 8: Required Attributes for Boundary Corrections

	NAME	CHNG_TYPE	EFF_DATE	AUTHTYPE	DOCU	RELATE
Boundary Correction (Add Area)	X	X('B')				X('IN')
Boundary Correction (Remove Area)	X	X('B')				X('OUT')

Note: X = Required Field

Please review all changes to ensure that the correct boundary-to-feature relationships are being created or maintained. The Census Bureau is aware that many governments base their legal boundaries on cadastral (parcel-based) right-of-way mapping; however, the Census Bureau bases maps on spatial data that is topologically integrated. Therefore, when housing units are not affected, we suggest you snap your boundaries to

nearby street centerlines (or rivers, railroads, etc.) wherever applicable. This will help establish a more accurate population count for entities.

Boundary Correction Criteria

Because the Census Bureau uses a topologically integrated database, we cannot process all types of boundary corrections for inclusion in MAF/TIGER. The Census Bureau **will** accept, adjudicate, and process boundary corrections that spatially interact with (abut) other legal changes (annexation, deannexation) and meet both of the following two conditions:

- The existing boundary has been digitized incorrectly or appears in the incorrect location; and
- The overall shape of the geographic entity is maintained and no feature-to-boundary relationships are dissolved.

The Census Bureau will not accept boundary corrections that:

- Are along county boundaries unless there is a written agreement between the two counties that documents the correct location of the boundary;
- Dissolve boundary-to-feature relationships (roads, rivers, railroads, etc.) if the difference is less than thirty feet; or
- Have a width of less than thirty feet over the entire polygon.

Note: The Census Bureau will snap any entity boundary correction to a MAF/TIGER feature when it exists within **thirty** feet of that feature.

2.7 Point Landmark Review

All point landmark changes must be submitted back to the Census Bureau in a participant created shapefile named bbspv17_<ssccc>_plndk_changes (See Section 3)

Point landmark review is an optional activity. Because many of the point landmarks contained in the Census Bureau's MAF/TIGER System originate from the Geographic Names Information System (GNIS), the official vehicle for names used by the Federal Government, only four point landmarks can be updated:

- mountain peak/summits (C3022);
- cul-de-sacs (C3061);
- traffic circles (C3062); and
- airports or airfields (K2451).

In order to submit point landmark updates, participants must create a separate change point layer for point landmarks. We recommend you that you make a copy of the point landmark shapefile (PVS_16_v2_pointlm_<ssccc>) for editing and then export all changes into the ***bbspv17_<ssccc>_plndk_changes file.***

Each point landmark update must have the required attributes and corresponding change type populated. When modifying or deleting an existing point landmark, preserve the existing POINTID for the feature in the attribute table.

Table 9: Attribute Requirements for Point Landmark Updates

	FULLNAME	CHNG_TYPE	MTFCC	POINTID
New Point Landmark	X	X('E')	X	
Delete Point Landmark		X('X')		X
Change Name	X	X('G')		X

Note: X = Required Field

Appendix A3: Point Landmark Updates Permitted, lists the feature updates the Census Bureau will accept.

2.8 2010 Linear Feature Extension Review

All line feature updates must be submitted back to the Census Bureau in a participant created shapefile named bbspv17_<ssccc>_ln_changes (See Section 3). This is the same submission file that would contain any updates to other linear features (adds, deletes, name changes, etc.). Refer to Section 2.4 for further details.

During the Census 2010 RDP, BBSP participants could place a "must-hold" on an existing feature that did not form a closed a polygon. Participants were permitted to add a short, nonvisible line to extend the feature so that it closed the polygon and created a block. We do not plan to continue to maintain these 2010 feature extensions for 2020 unless you tell us you want us to use them again in 2020 to create blocks. The 2010 feature extensions are included in the 2020 BBSP files for review and update.

All block boundary suggestions are contingent upon the lines intersecting to form a closed polygon at the time the Census Bureau creates tabulation blocks. As a result, all block boundary suggestions, when combined with other features and planned holds, must form a closed polygon.

You are not required to review the 2010 feature extensions. However, please be aware that if you would like a 2010 feature extension held as 2020 block boundary, you must take an action on the feature extension.

The 2010 feature extensions can be identified by selecting all edges with attributes of BBSPFLG = 1 and an MTFCC = P0001 in the PVS_16_v2_edges_<ssccc> shapefile.

If you choose to review the 2010 feature extensions, you may:

- ***Hold*** the 2010 feature extension for 2020. The feature from which the extension originates should also be flagged as a must-hold block boundary, along with the extension, in order to form a closed polygon. Assign **BBSP_2020** with a value of **1** and a **CHNG_TYPE = CA**.
- ***Delete*** the 2010 feature extension. Deleting 2010 feature extensions that are not needed for 2020 blocks will help the Census Bureau remove features from the MAF/TIGER System that no longer serve a current data tabulation purpose. If you determine that the 2010 feature extension should not be held as a feature

extension, flag the extension with a **CHNG_TYPE = DL** and leave the attribute **BBSP_2020** blank.

- ***Ignore*** the 2010 feature extension. Be aware that 2010 feature extensions and the features with which they are associated may not be held as 2020 tabulation block boundaries. If you take no action on a 2010 feature extension, the Census Bureau will determine whether to hold the extension and the feature associated with it as a 2020 block boundary.

All updates should be saved in the linear feature update layer (**bbspv17_<ssccc>_ln_changes**). Refer to Section 2.4 Linear Feature Review for further details.

2.9 Block Size Review (New for 2020)

To facilitate your BBSP work, the Census Bureau created "planned" 2020 tabulation blocks based on the 2020 planned tabulation block boundaries, and estimated the number of housing units within each of these blocks. The block size indicator is based on the range of the number of housing units in the planned block.

Note: Although discrete numbers have been established in order to assign each block a size value, the actual number of housing units in a block is *approximate.*

Factors considered when establishing the block size categories were the criteria for block groups (minimum housing unit count of 240 and a maximum of 1,200), and the criteria for census tracts (minimum housing unit count of 480, optimum count of 1,600, and a maximum count of 3,200). The block size indicator is found in the **BLKSZIND** field of the **bbsp_2016_block_<ssccc>** shapefile. Table 10 lists the block size categories and indicator values.

Table 10: Block Size Categories

Size	Approximate Number Housing Units
A	Greater than 2,000
B	1,600-1,999
C	1,200-1,599
D	1,000-1,199
E	700-999
F	480-699
G	400-479
H	240-399
I	1-239
Z	Potential "0" housing unit block

Note: The planned block size shapefile was created specifically for BBSP participants and is not included in the normal suite of partnership shapefiles. The block shapefiles (**bbsp_2016_block_<ssccc>**) are on the provided data DVD or can be downloaded from the following Census FTP site: ftp://ftp2.census.gov/geo/PVS/bbsp

2.10 Block Boundary Suggestion Flagging (Must Hold and Do Not Hold)

All block boundary suggestions are considered linear feature updates and must be submitted back to the Census Bureau in a participant created shapefile named bbspv17_<ssccc>_ln_changes (See Section 3). This is the same submission file that would contain any updates to other linear features (adds, deletes, name changes, etc.). Refer to Section 2.4 for further details.

BBSP participants can identify features they want the Census Bureau to hold (Must Hold) or not hold (Do Not Hold) as block boundaries.

The Census Bureau has identified features planned as 2020 tabulation block boundaries, as reflected in the provided **PVS_16_v2_edges_<ssccc>** shapefiles. These features have a value of "**4**" in the CBBFLG field of the **PVS_16_v2_edges_<ssccc>** shapefile. You can refer to Section 1, Planned 2020 Tabulation Block Boundaries, for the complete feature list. Because these features are planned block boundaries, it is not necessary for you to place a 'Must Hold' flag on them. However, you may place a 'Must Hold' flag on a feature that is a planned 2020 block boundary to help ensure that the feature is held if the 2020 tabulation block criteria change, or the geography itself changes from now until the time the Census Bureau creates the 2020 tabulation blocks.

The Census Bureau has also identified features that are ineligible as 2020 block boundaries. These features have a value of "**9**" in the **CBBFLG** field of the **PVS_16_v2_edges_<ssccc>** shapefile. You may place a"Must Hold"' flag on these features, but if you do so, you should enter a justification for 'holding' in the justification field of the edges shapefile attribute table. The Census Bureau will consider the request, but may not honor it.

There are features with no block boundary status assigned (Null). You may assign a 'Must Hold' or a 'Do Not Hold' if you have a strong preference, but you are **not required** to assign a BBSP_2020 'Must Hold' or 'Do Not Hold' flag to every feature, including street features, in the file.

The linear feature update layer contains three BBSP attributes: The first attribute field (BBSPFLG) indicates previously identified 'Must Holds' (BBSPFLG=1) and 'Do Not Holds' (BBSPFLG=2) from the 2010 Census.

A second attribute field (CBBFLG) identifies all currently planned 2020 Census block boundary lines (CBBFLG=4) and ineligible lines (CBBFLG=9). A third attribute field (BBSP_2020) is designed to capture participant suggested 2020 Census block boundaries.

If you participated in the initial BBSP from December 2015 – May 2016, CBBFLG may also include:

- "1" - participant suggested 'Must Hold' in initial BBSP; and
- "2" - participant suggest 'Do Not Hold' in initial BBSP.

Table 11: BBSP Legal Conditional Values

VALUES	DESCRIPTION
BBSPFLG=1	**2010** Participant Identified Must Hold Block Boundary
BBSPFLG=2	**2010** Participant Identified Do not Hold Block Boundary
BBSPFLG=4	**2010** Census Identified Planned Block Boundary
BBSPFLG=9	**2010** Census Identified Ineligible Block Boundary
BBSP_2020 = 1	**2020** Participant Identified Must Hold Block Boundary*
BBSP_2020 = 2	**2020** Participant Identified Do Not Hold Block Boundary*
CBBFLG = 1	**2020** Participant Identified Must Hold Block Boundary (during initial BBSP)
CBBFLG = 2	**2020** Participant Identified Do not Hold Block Boundary(during initial BBSP)
CBBFLG = 4	**2020** Census Identified Planned Block Boundary
CBBFLG = 9	**2020** Census Identified Ineligible Block Boundary

***Note: These fields will show as null until you enter a "1" or "2"**

Block Boundary Criteria

- All BBSPV participant-provided 2020 Census 'Must Holds' (**BBSP_2020 = 1**), combined with existing features and other planned block boundaries, must form closed polygons.
- 2020 Census planned tabulation block boundaries (**CBBFLG = 4**), are an indication of what we would plan to use as a 2020 Census tabulation block boundary if they were defined today. The planned tabulation block boundaries may change if the criteria changes, or if the feature attributes are updated through other Census programs.
- BBSPV participant provided 2020 Census 'Do Not Holds' (**BBSP_2020 = 2**) will not be accepted if the line they are placed on needs to be held for other purposes. For example, if a 'Do Not Hold' were placed on an incorporated place boundary, the 'Do Not Hold' would not be accepted.

Note: Whenever possible you should use edges that already exist in the shapefiles to use as Must Holds. This includes when there is a small spatial difference between the source you are using and the partnership shapefiles. However if a new feature is needed, please add it and flag as a Must Hold (BBSP_2020=1).

Candidates for assigning a 'Must Hold' block boundary suggestion flag are:

- Newly added features;
- Features that are not currently planned as block boundaries (no status assigned); and
- Features that are already planned as 2020 block boundaries but you want held should their status change.

If the block definition criteria or feature attributes change between the time BBSPV occurs and when the Census Bureau creates 2020 census tabulation blocks, assigning a

'Must Hold' to a planned block boundary feature will increase the likelihood that the feature will become a 2020 block boundary, despite the criteria change.

Be aware that assigning a 'Must Hold' flag to a feature that is ineligible to be a block boundary does not ensure that the Census Bureau will honor your request but we will reevaluate the feature's status based on your suggestion. All 'Must Hold' block boundary suggestions are contingent upon the lines intersecting to form a closed polygon at the time the Census Bureau creates the 2020 tabulation blocks.

In order to assign a 'Must Hold' Flag, participants must edit the attributes of the linear feature update layer:

- To assign a 'Must Hold' flag on an existing feature: BBSP_2020=1, CHNG_TYPE=CA
- To assign a 'Must Hold' flag on a new feature: BBSP_2020=1, CHNG_TYPE=AL.

Adding New 2020 Feature Extensions

If you wish to hold a feature as a 2020 block boundary but the feature does not form a closed polygon, you may add a feature extension to close the polygon. Feature extensions must meet the following criteria:

- Extensions, combined with other features and planned holds, must form a closed polygon;
- Extensions must be no longer than 300 feet (if an extension needs to be longer than 300 feet, participants must provide justification in the JUSTIFY field of the attribute table of the linear feature update layer);
- Extensions must be a straight line originating from the end of a road feature; and
- Extensions must terminate on a non-road feature, with the exception of highways (i.e., extensions may terminate on highways – MTFCC S1100).

Digitize new 2020 feature extensions in the linear feature update layer and code each feature with a CHNG_TYPE = AL, BBSP_2020 = 1, and MTFCC=P0001.

Assigning a 'Do Not Hold' Flag (BBSP_2020=2):

You may want to place a 'Do Not Hold' flag on features that are not desirable as block boundaries. Potential candidates for assigning a 'Do Not Hold' block boundary suggestion flag may include:

- Private roads, trails, and unimproved roads;
- Hydrographic features with no area, shown as a single-line feature, such as a stream or creek; and
- Any feature creating unnecessary blocks, such as highway ramps, traffic circles shown as open circles or "lollipops" in the Census geospatial files, and similar features.

Be aware that assignment of a 'Do Not Hold' flag to a feature that is a 2020 planned block boundary does not ensure that the Census Bureau will honor your request, but we will reevaluate the feature's status based on your suggestion. You may also add a

justification statement in the JUSTIFY field of the linear feature update layer attribute table.

In order to assign a 'Do Not Hold' Flag, you must edit the linear feature update layer:

- To assign a 'Do Not Hold' on an existing feature: BBSP_2020=2, CHNG_TYPE=CA;
- To assign a Do Not Hold flag on a feature that should be deleted: BBSP_2020=2, CHNG_TYPE=DL

2.11 Block Area Grouping Delineation (Updated for 2020)

The Block Area Grouping (BAG) layer you create must be submitted back to the Census Bureau in a participant created shapefile named bbspv17_<ssccc>_BAG_changes.

During the 2020 tabulation block creation, the Census Bureau will automatically group islands to form a single tabulation block if they have no road features and the islands fall within a 5 kilometer radius. You may also group specific islands to suggest a single 2020 tabulation block, called a BAG.

The criteria for creating a BAG are:

- BAG must consist of two or more islands;
- BAG perimeter must be entirely over water;
- BAGs cannot overlap; and
- BAGs cannot cross the boundary of other tabulation geographies, such as counties or incorporated places.

In order to make BAG updates, participants must create a separate BAG update layer called **bbspv17_<ssccc>_BAG_changes**. We recommend that you begin by making a copy of the Census Bureau BAG Shapefile Layer for editing and creating updates for submission to the Census. As described in Section 3, you can then export the changes from this update layer to create your submission file.

The shapefile should have two text fields: BAGCE (length of 3), and MTFCC (length of 5). When creating your BAGs, provide each with a number in the BAGCE field. Start with 001 and increment by 1 for each BAG created. The MTFCC should always be G5035.

BAG delineation is optional, and probably most appropriate for states with hydrographic areas that contain a number of islands.

Grouping selected islands to create a unique block identification is done by delineating a polygon around the selected islands. When creating a BAG, digitize the polygon around the set of desired islands making sure not to cross any land areas. If it crosses any other tabulations areas, it will be split along that line as well.

2.12 Block Boundary Review

You should review all your block boundary suggestions before submitting an updated county to the Census Bureau (if you are the designated State RDP Liaison) or to the State Liaison (if you have been delegated by the State Liaison to perform work).

2.12.1 Performing BBSP Verification

You can identify any linear features you flagged as a “Must Hold” or “Do Not Hold” in the initial BBSP phase, using the CBBFLG field in the attribute table of the edges partnership shapefile. CBBFLG = 1 indicates you flagged the feature as a “Must Hold” and CBBFLG = 2 indicates you flagged the feature as a “Do Not Hold.” “Must Holds” set in BBSPV are indicated by a value of “1” in the BBSP_2020 field, and “Do Not Holds” set in BBSPV are indicated by a value of “2” in the BBSP_2020 field.

Table 12: BBSP Hold Values BBSP vs. BBSPV

	Made during BBSP (2016)	Made during BBSP Verification (2017)
Must Holds	CBBFLG=1	BBSP_2020=1
Do Not Holds	CBBFLG=2	BBSP_2020=2

2.13 Validation Check

The Census Bureau recommends that you check for any non-closed polygons prior to submitting a county return. A non-closed polygon is a polygon where you have placed one or more 'Must Hold' block boundary flags on features but the features, when combined with the planned block boundaries, do not “close” to form a census block. The Census Bureau cannot accept a suggested block boundary if non-closed polygons are present.

2.14 Work Delegated

Any work performed on behalf of the State RDP Liaison, such as by a staff member, county or a contractor, must be submitted to the State Liaison for review and approval. The State RDP Liaison will submit the work to the Census Bureau if they approve the work. If the State RDP Liaison determines that BBSP work completed by a designee requires changes or additional work, it is the liaison’s responsibility to decide whether to make the changes or return the project to the original delineator for further updates.

The State RDP Liaison submits completed, county-level files on flow basis to the Census Bureau through the Bureau’s Secure Web Incoming Module (SWIM; see Section 4). Do not hold files to submit all at once. Submit data submission files as you complete them, especially at the beginning of the update process, so that the Census Bureau has time to provide feedback if there are errors, omissions, or other concerns.

3. Create Data Submission Files

The Census Bureau requires that the returned shapefiles have specific attributes and characteristics in order for us to accept them as legitimate submissions. Any changes made to the partnership shapefiles should be extracted and saved as a change shapefile. Below is a list of change shapefile types and specifications that should be included in your BBSP submission, depending on the type of updates made.

All returned shapefiles and whole entity shapefiles, as well as any supporting documentation, should be placed in a .zip file named **bbspv17_<ssccc>_return.zip** prior to submitting the return to the Census Bureau.

3.1 Submitting Linear Feature Updates/Block Boundary Suggestions

Once you have completed all linear feature updates, export the updated edges to a shapefile named '**bbspv17_<ssccc>_ln_changes** where **<ssccc>** is the state and county FIPS code.

- Verify that all block boundary suggestions and feature extensions contain the correct attributes (i.e., BBSP_2020 field populated).
- Verify that any added lines contain the appropriate MTFCC code (e.g., P0001 for an invisible legal/statistical boundary) and the **CHNG_TYPE** field is populated. The submission file should include :
    - All Linear Features (edges) where **BBSP_2020** field is populated with:
        - **1** ('**Must Hold'**); or
        - **2** ('**Do Not Hold'**).

and

- All Linear Features (edges) where **CHNG_TYPE** Field is populated with:
    - **AL** (**Add Line**);
    - **DL** (**Delete Line**); or
    - **CA** (**Change Attribute**: for BBSP_2020, Name, MTFCC, and/or Address Range).

Additionally, the linear features change shapefile should be updated and included if there are area landmark or legal boundary updates that include existing edges.

3.2 Submitting Area Landmarks and Area Hydrography Updates

If any updates were completed for area landmarks or area hydrography, export the updated records to a shapefile named '**bbspv17_<ssccc>_alndk_changes**'. The file should include all area landmark polygons where **CHNG_TYPE** Field is populated with:

B (Boundary Correction);
E (New Landmark);
G (Change Name or MTFCC); or
X (Delete).

Additionally, the linear features that were modified (added or reshaped) to make these changes should be included in the bbspv17_<ssccc>_ln_changes return file with the appropriate actions:

- **AL** - if you drew a new line;
- **DL** - if you are deleting a previous boundary of an area landmark; or
- **CA** - if you are using existing edges to bound the area landmark and flagging ('Must Hold'/'Do Not Hold').

3.3 Submitting Legal Boundary Updates

If you want to report a new county, MCD, incorporated place or consolidated city, or delete an existing one, please contact the CRVRDO at 301-763-4039 or email rdo@census.gov. If you are reporting other legal boundary changes and/or corrections, the Census Bureau requires that you submit a change polygon file. The total number of layers submitted depends on what types of changes are reported.

As stated in Section 2.6, we request that you supply a whole entity file to accompany any legal boundary updates or boundary corrections that you make to assist us in making updates. If you made legal boundary updates, then include the following files in your submission, as applicable to the type of legal boundary update made:

MCD Change Polygon Shapefile

The file should include all change polygons where **CHNG_TYPE** Field is populated with:

A (Annexation);
B (Boundary Correction); or
D (Deannexation).

Return File Name: bbspv17_<ssccc>_changes_cousub.shp
Whole Entity File Name (if available): bbspv17_<ssccc>_wholeentity_cousub.shp

Incorporated Place Change Polygon Shapefile

The file should include change polygons where **CHNG_TYPE** Field is populated with:

A (Annexation);
B (Boundary Correction); or
D (Deannexation).

Return File Names: bbspv17_<ssccc>_changes_incplace.shp
Whole Entity File Name (if available): bbspv17_<ssccc>_wholeentity_incplace.shp

Consolidated City Change Polygon Shapefile

Includes change polygons where **CHNG_TYPE** Field is populated with:

A (Annexation);
B (Boundary Correction); or
D (Deannexation).

Return File Names: bbspv17_<ssccc>_changes_ concity.shp
Whole Entity File Name (if available): bbspv17_<ssccc>_wholeentity_ concity.shp

3.4 Submitting Point Landmark Updates

If any updates were completed for point landmarks, select by attribute to select records that have a value in the **CHNG_TYPE** field. Export the updated records to a shapefile named '**bbspv17_<ssccc>_changes_plndk**'.

The file should include All Point Landmarks where **CHNG_TYPE** Field is populated with:

E (New Point Landmark);
G (Change Attribute); or
X (Delete).

3.5 Submitting Block Area Grouping Updates

If you made updates to the block area grouping layer, then include all polygons where **MTFCC = G5035** and **CHNG_TYPE** Field is populated with:

B (Boundary Correction);
E (New Block Area Grouping);
X (Delete).

Export the updated records to a shapefile named:
'**bbspv17_<ssccc>_bag_changes.shp**'.

3.6 Creating .ZIP File containing All change files

All returned shapefiles and whole entity shapefiles, as well as any supporting documentation, should be placed in a .zip file prior to submitting the return to the Census Bureau: **File Name:bbspv17_<ssccc>_return.zip**.

4. File Submission through SWIM

The Secure Web Incoming Module (SWIM) is a tool for U.S. Census Bureau partners to send their geospatial data to a Census Bureau server. For security reasons, we cannot accept files sent via email or through our former ftp site.

The Census Bureau provides each State Redistricting Data Program Liaison a SWIM token to establish a personal SWIM account. Once registered, you will no longer need the token to log into the system. You will use your SWIM account to submit updates for all phases of the 2020 Redistricting Data Program. If you are a participant for other Census Bureau geographic programs, you may use your SWIM account to submit files for these other geographic programs too.

Note: For the Redistricting Data Program, including the Phase 1 BBSP, the Census Bureau will only accept files submitted by the State RDP Liaison. If a county, agency, or contractor performs work on behalf of the state, the files must be sent to the State Liaison for review, approval, and submission.

To access the SWIM, enter the following URL in a new browser window: *https://respond.census.gov/swim/*. Follow the directions below for account access and file upload.

4.1 Login Page

The Login page is the first page you will see:

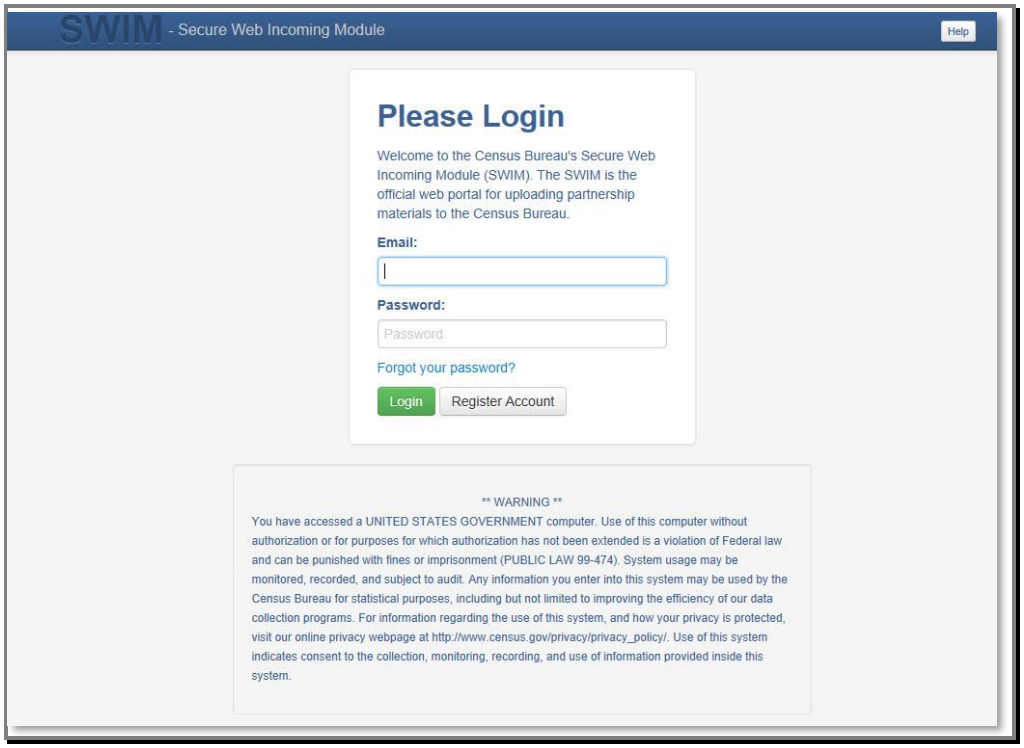

Figure 2: SWIM Login Screen

4.1.1 If you already have a SWIM Account:

1. Enter your Email address and Password.
2. Click the **Login** button, which directs you to the **Welcome** page.

4.1.2 If you do not yet have a SWIM Account:

1. Click the **Register Account** button, which directs you to **the Account Registration** page.
2. Enter the 12 digit Registration Token number provided to you by the Census Bureau.
3. Complete all other fields.
4. Click the Submit button.

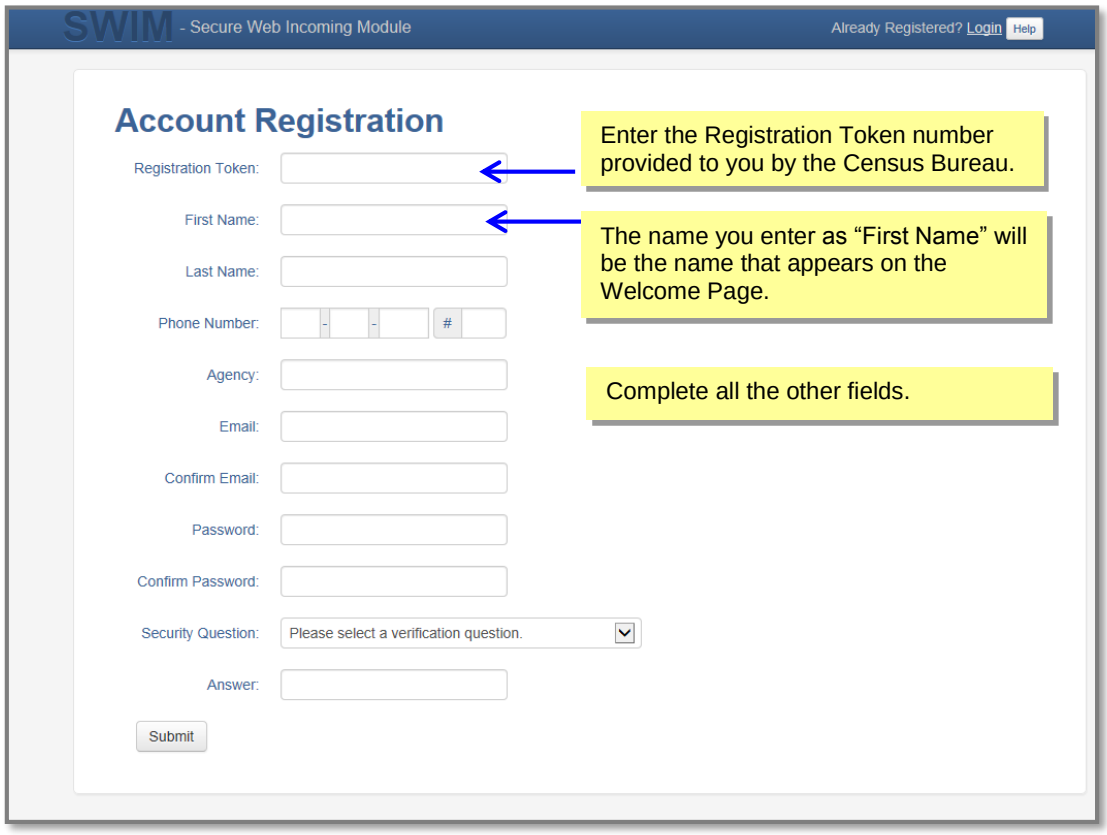

Figure 3: SWIM Account Registration Screen

Password Requirements: 8 characters in length
1 uppercase character
1 lowercase character
1 number
1 special character from the following: ! # $ * ? ~

Figure 4: Password Requirements

4.1.3 Welcome Page

The Welcome Page is where you initiate the file upload process. Because the SWIM tracks files submitted and the submission date, the page appearance will change after you have successfully uploaded files.

1. To submit a file, click the **Start New Upload** button.

Figure 5: SWIM Welcome Screen (no previous files uploaded)

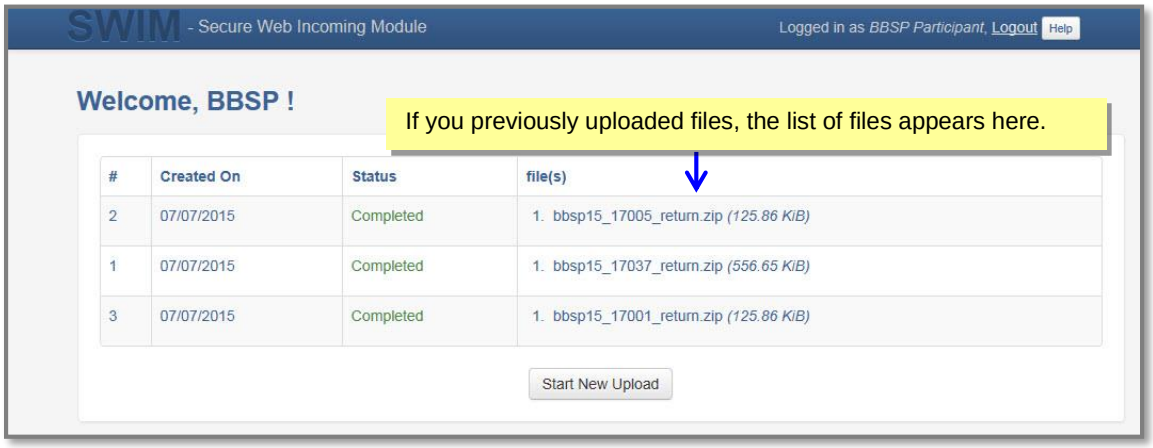

Figure 6: SWIM Welcome Screen (files previously uploaded)

4.1.4 Geographic Program Page

The Geographic Program Page allows you to select the Census partnership program for which you are submitting data.

1. Click on the radio button next to **Redistricting Data Program – BBSP-VTD (RDP)**.
2. Click the **Next** button.

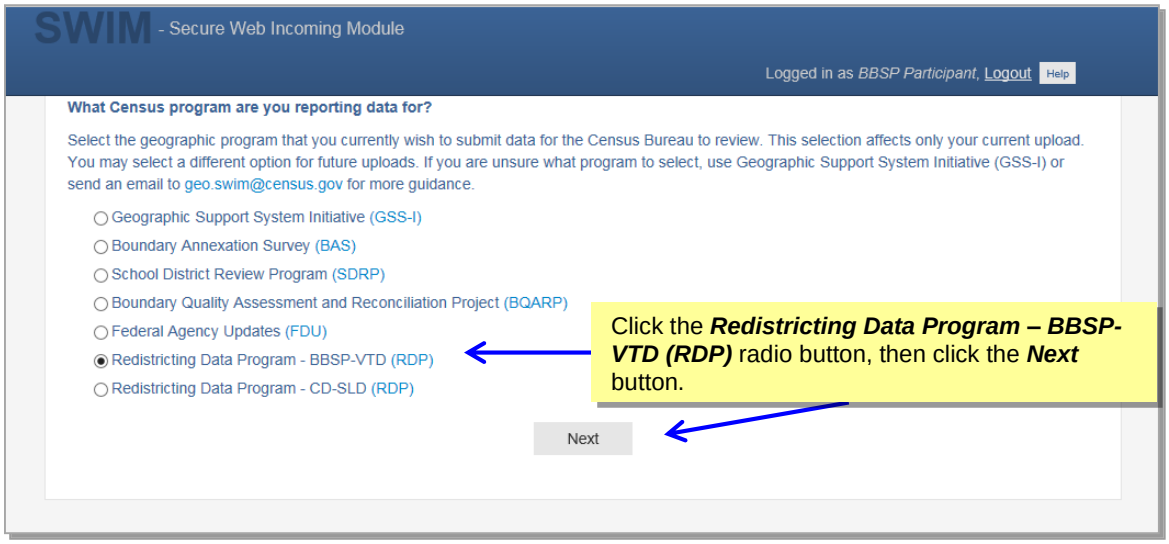

Figure 7: SWIM Geographic Program Page

4.1.5 Select a State

After choosing the Redistricting Data Program (RDP) – BBSP-VTD, you will be directed to specify the state for which you are submitting data.

1. From the drop down list, click on your **state name**.
2. Click on the **Next** button.

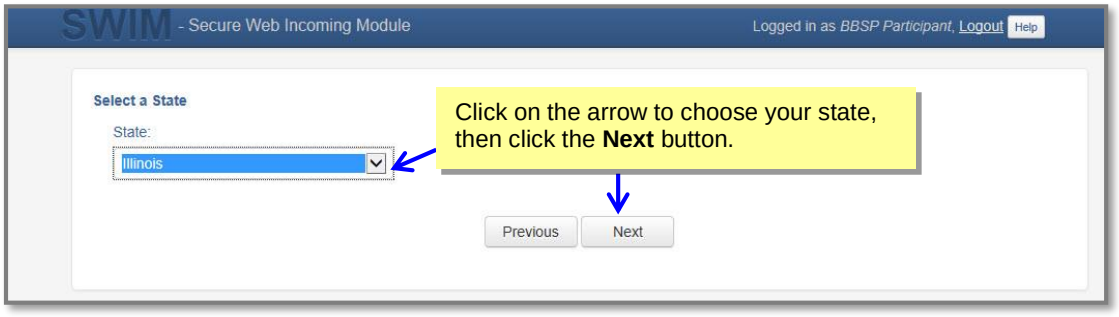

Figure 8: SWIM Select a State Page (for RDP)

4.1.6 Select a .ZIP File to Upload

Files for upload must be in a .zip format. You can upload only one .zip file at a time.

1. Click on the **+ Add File** button.
2. Navigate to the directory on your computer to choose the .zip file to upload.
3. Complete the **Comments** box, including pertinent information about data projection or supporting documentation.
4. Click on the **Next** button.

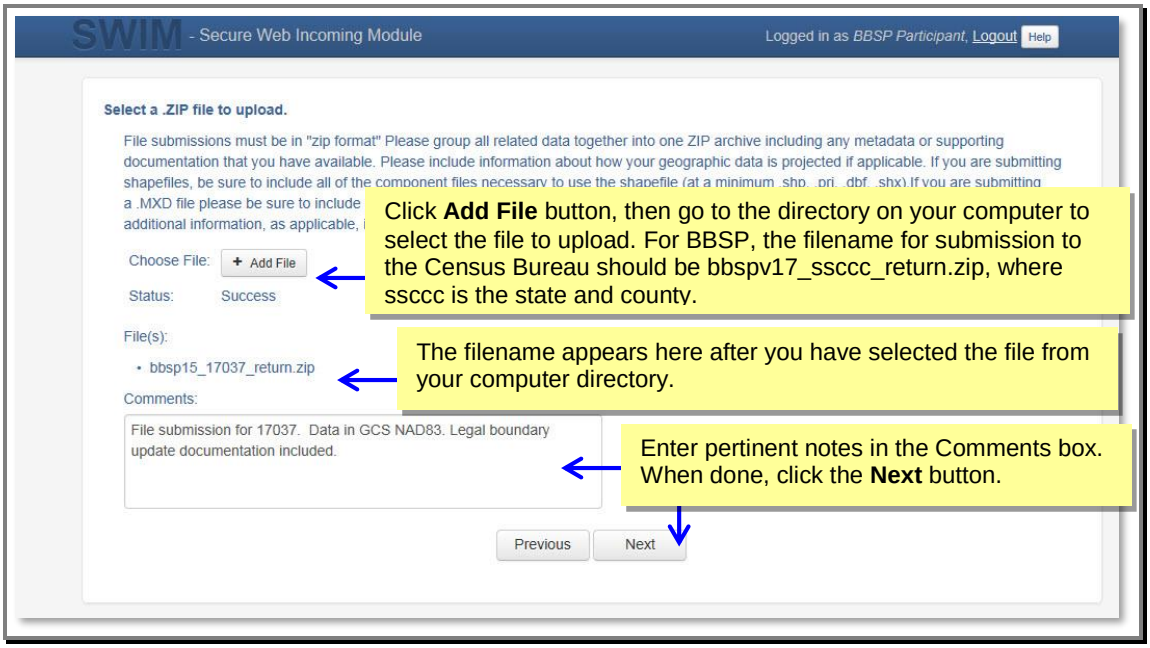

Figure 9: Select a .ZIP File to Upload Page

4.1.7 Thank You Page

The "Thank You" page confirms the receipt of your file submission. If you do not have any additional files to upload, click on **Log Out**. The Census Bureau will acknowledge the receipt of the uploaded file. If you have additional files to upload, click on **Upload Form**. This choice returns you to the Welcome screen.

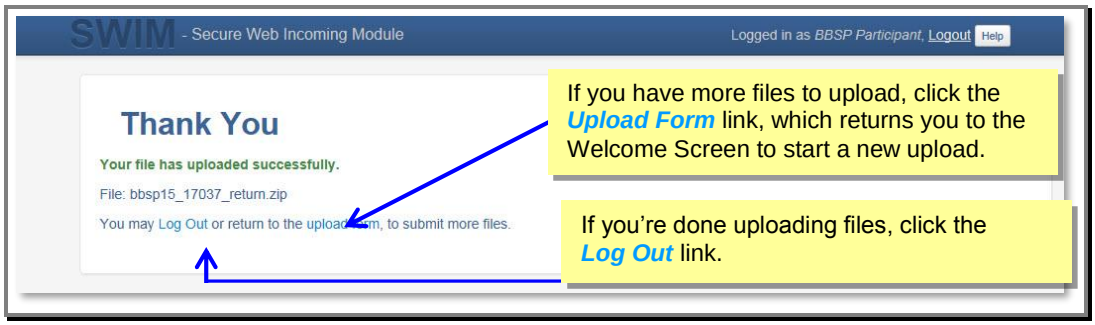

Figure 10: Thank You Page

APPENDIX A Updates Allowed, by MTFCC

A.1 Area Landmark / Hydrographic Area Updates Permitted

MTFCC	DESCRIPTION
C3023	Island
H2030	Lake/Pond
H2040	Reservoir
H2041	Treatment Pond
H2051	Bay/Estuary/Gulf/Sound
H2081	Glacier
K1231	Hospital
K1235	Juvenile Institution
K1236	Local Jail or Detention Center
K1237	Federal Penitentiary, State Prison, or Prison Farm
K2110	Military Installation
K2131	Hospital/Hospice/Urgent Care Facility
K2180	Park
K2181	National Park Service Land
K2182	National Forest or Other Federal Land
K2183	Tribal Park, Forest, or Recreation Area
K2184	State Park, Forest, or Recreation Area
K2185	Regional Park, Forest, or Recreation Area
K2186	County Park, Forest, or Recreation Area
K2187	County Subdivision Park, Forest, or Recreation Area
K2188	Incorporated Place Park, Forest, or Recreation Area
K2189	Private Park, Forest, or Recreation Area
K2190	Other Park, Forest, or Recreation Area (quasi-public, independent park, commission, etc.)
K2424	Marina
K2457	Airport - Area Representation
K2540	University or College
K2561	Golf Course
K2582	Cemetery

A.2 Linear Feature Updates Permitted

MTFCC	DESCRIPTION
C3024	Levee
C3027	Dam
H3010	Stream/River
H3013	Braided Stream
H3020	Canal, Ditch, or Aqueduct
K2432	Pier/Dock
K2459	Runway/Taxiway
L4010	Pipeline
L4020	Power Line
L4110	Fence Line
L4121	Ridge Line
L4125	Cliff/Escarpment
L4130	Point-to Point Line
L4140	Property/Parcel Line (includes PLSS)
L4165	Ferry Crossing
P0001	Nonvisible Legal/Statistical Boundary
P0002	Perennial Shoreline
P0003	Intermittent Shoreline
P0004	Other non-visible bounding edge (e.g., Census water boundary, boundary of areal feature
R1011	Railroad Feature (Main, Spur, or Yard
R1051	Carline, Streetcar Tract Monorail, Other Mass
R1052	Cog Rail Line, Incline Rail Line, Tram
S1100	Primary Road
S1200	Secondary Road
S1400	Local Neighborhood Road, Rural Road, City Street
S1500	Vehicular Trail (4WD)
S1630	Ramp
S1640	Service Drive usually along a limited access highway
S1730	Alley
S1740	Private Road for service vehicles (logging, oil fields, ranches, etc.)
S1820	Bike Path or Trail

A.3 Point Landmark Updates Permitted

MTFCC	DESCRITPION
C3022	Mountain Peak or Summit (Attribute modification and deletions not allowed because sourced from GNIS)
C3061	Cul-de-sac
C3062	Traffic Circle
K2451	Airport of Airfield (Attribute modification and deletions not allowed because sourced from GNIS)

APPENDIX B MTFCC Descriptions

The MAF/TIGER Feature Classification Code (MTFCC) is a 5-digit code assigned by the Census Bureau to classify and describe geographic objects or features in Census Bureau MAF/TIGER products.

MTFCC	Feature Class	Feature Class Description
C3022	Mountain Peak or Summit	A prominent elevation rising above the surrounding level of the Earth's surface.
C3023	Island	An area of dry or relatively dry land surrounded by water or low wetland. [including archipelago, atoll, cay, hammock, hummock, isla, isle, key, moku and rock].
C3024	Levee	An embankment flanking a stream or other flowing water feature to prevent overflow.
C3026	Quarry (not water-filled), Open Pit Mine or Mine	An area from which commercial minerals are or were removed from the Earth; not including an oilfield or gas field.
C3027	Dam	A barrier built across the course of a stream to impound water and/or control water flow.
C3061	Cul-de-sac	An expanded paved area at the end of a street used by vehicles for turning around. For mapping purposes, the U.S. Census Bureau maps it only as a point feature.
C3062	Traffic Circle	A circular intersection allowing for continuous movement of traffic at the meeting of roadways.
C3066	Gate	A movable barrier across a road.
C3067	Toll Booth	A structure or barrier where a fee is collected for using a road.
C3071	Lookout Tower	A manmade structure, higher than its diameter, used for observation.
C3074	Lighthouse Beacon	A manmade structure, higher than its diameter, used for transmission of light and possibly sound generally to aid in navigation.
C3075	Tank/Tank Farm	One or more manmade structures, each higher than its diameter, used for liquid (other than water) or gas storage or for distribution activities.
C3076	Windmill Farm	One or more manmade structures used to generate power from the wind.
C3077	Solar Farm	One or more manmade structures used to generate power from the sun.
C3078	Monument or Memorial	A manmade structure to educate, commemorate, or memorialize an event, person, or feature.
C3079	Boundary Monument Point	A material object placed on or near a boundary line to preserve and identify the location of the boundary line on the ground.
C3080	Survey Control Point	A point on the ground whose position (horizontal or vertical) is known and can be used as a base for additional survey work.
C3081	Locality Point	A point that identifies the location and name of an unbounded locality (e.g., crossroad, community,

MTFCC	Feature Class	Feature Class Description
		populated place or locale).
C3085	Alaska Native Village Official Point	A point that serves as the core of an Alaska Native village and is used in defining Alaska Native village statistical areas.
G2100	American Indian Area	A legally defined state- or federally recognized reservation and/or off-reservation trust land (excludes statistical American Indian areas).
G2120	Hawaiian Home Land	A legal area held in trust for the benefit of Native Hawaiians.
G2130	Alaska Native Village Statistical Area	A statistical geographic entity that represents the residences, permanent and/or seasonal, for Alaska Natives who are members of or receiving governmental services from the defining legal Alaska Native Village corporation.
G2140	Oklahoma Tribal Statistical Area	A statistical entity identified and delineated by the Census Bureau in consultation with federally recognized American Indian tribes that have no current reservation, but had a former reservation in Oklahoma.
G2150	State-designated Tribal Statistical Area	A statistical geographic entity identified and delineated for the Census Bureau by a state-appointed liaison for a state-recognized American Indian tribe that does not currently have a reservation and/or lands in trust.
G2160	Tribal Designated Statistical Area	A statistical geographic entity identified and delineated for the Census Bureau by a federally recognized American Indian tribe that does not currently have a reservation and/or off-reservation trust land.
G2170	American Indian Joint Use Area	An area administered jointly and/or claimed by two or more American Indian tribes.
G2200	Alaska Native Regional Corporation	Corporate entities established to conduct both business and nonprofit affairs of Alaska Natives pursuant to the Alaska Native Claims Settlement Act of 1972 (Public Law 92-203). There are twelve geographically defined ANRCs and they are all within and cover most of the State of Alaska (the Annette Island Reserve-an American Indian reservation-is excluded from any ANRC). The boundaries of ANRCs have been legally established.
G2300	Tribal Subdivision	Administrative subdivisions of federally recognized American Indian reservations, off-reservation trust lands, or Oklahoma tribal statistical areas (OTSAs). These entities are internal units of self-government or administration that serve social, cultural, and/or economic purposes for the American Indians on the reservations, off-reservation trust lands, or OTSAs.
G2400	Tribal Census Tract	A relatively small and permanent statistical subdivision of a federally recognized American Indian reservation and/or off-reservation trust land, delineated by American Indian tribal participants or the Census Bureau for the purpose of presenting demographic data.
G2410	Tribal Block Group	A cluster of census blocks within a single tribal census tract delineated by American Indian tribal participants or

MTFCC	Feature Class	Feature Class Description
		the Census Bureau for the purpose of presenting demographic data.
G3100	Combined Statistical Area	A grouping of adjacent metropolitan and/or micropolitan statistical areas that have a degree of economic and social integration, as measured by commuting.
G3110	Metropolitan and Micropolitan Statistical Area	An area containing a substantial population nucleus together with adjacent communities having a high degree of economic and social integration with that core, as measured by commuting. Defined using whole counties and equivalents.
G3120	Metropolitan Division	A county or grouping of counties that is a subdivision of a Metropolitan Statistical Area containing an urbanized area with a population of 2.5 million or more.
G3200	Combined New England City and Town Area	A grouping of adjacent New England city and town areas that have a degree of economic and social integration, as measured by commuting.
G3210	New England City and Town Metropolitan and Micropolitan Statistical Area	An area containing a substantial population nucleus together with adjacent communities having a high degree of economic and social integration with that core, as measured by commuting. Defined using Minor Civil Divisions (MCDs) in New England.
G3220	New England City and Town Division	A grouping of cities and towns in New England that is a subdivision of a New England City and Town Area containing an urbanized area with a population of 2.5 million or more.
G3500	Urban Area	Densely settled territory that contains at least 2,500 people. The subtypes of this feature are Urbanized Area (UA), which consists of 50,000 + people and Urban Cluster, which ranges between 2,500 and 49,999 people.
G4000	State or Equivalent Feature	The primary governmental divisions of the United States. The District of Columbia is treated as a statistical equivalent of a state for census purposes, as is Puerto Rico.
G4020	County or Equivalent Feature	The primary division of a state or state equivalent area. The primary divisions of 48 states are termed County, but other terms are used such as Borough in Alaska, Parish in Louisiana, and Municipio in Puerto Rico. This feature includes independent cities, which are incorporated places that are not part of any county.
G4040	County Subdivision	The primary divisions of counties and equivalent features for the reporting of Census Bureau data. The subtypes of this feature are Minor Civil Division, Census County Division/Census Subarea, and Unorganized Territory. This feature includes independent places, which are incorporated places that are not part of any county subdivision.
G4050	Estate	Estates are subdivisions of the three major islands in the United States Virgin Islands (USVI).
G4060	Subbarrio (Subminor Civil Division)	Legally defined divisions (subbarrios) of minor civil divisions (barrios-pueblo and barrios) in Puerto Rico.

MTFCC	Feature Class	Feature Class Description
G4110	Incorporated Place	A legal entity incorporated under state law to provide general-purpose governmental services to a concentration of population. Incorporated places are generally designated as a city, borough, municipality, town, village, or, in a few instances, have no legal description.
G4120	Consolidated City	An incorporated place that has merged governmentally with a county or minor civil division, but one or more of the incorporated places continues to function within the consolidation. It is a place that contains additional separately incorporated places.
G4210	Census Designated Place	A statistical area defined for a named concentration of population and the statistical counterpart of an incorporated place.
G4300	Economic Census Place	The lowest level of geographic area for presentation of some types of Economic Census data. It includes incorporated places, consolidated cities, census designated places (CDPs), minor civil divisions (MCDs) in selected states, and balances of MCDs or counties. An incorporated place, CDP, MCD, or balance of MCD qualifies as an economic census place if it contains 5,000 or more residents, or 5,000 or more jobs, according to the most current data available.
G5020	Census Tract	Relatively permanent statistical subdivisions of a County or equivalent feature delineated by local participants as part of the Census Bureau's Participant Statistical Areas Program.
G5030	Block Group	A cluster of census blocks having the same first digit of their four-digit identifying numbers within a Census Tract. For example, block group 3 (BG 3) within a Census Tract includes all blocks numbered from 3000 to 3999.
G5035	Block Area Grouping	A user-defined group of islands forming a single census tabulation block. A BAG must: (1) consist of two or more islands, (2) have a perimeter entirely over water, (3) not overlap, and (4) not cross the boundary of other tabulation geographies, such as county or incorporated place boundaries.
G5040	Tabulation Block	The lowest-order census defined statistical area. It is an area, such as a city block, bounded primarily by physical features but sometimes by invisible city or property boundaries. A tabulation block boundary does not cross the boundary of any other geographic area for which the Census Bureau tabulates data. The subtypes of this feature are Count Question Resolution (CQR), current, and census.
G5200	Congressional District	The 435 areas from which people are elected to the U.S. House of Representatives. Additional equivalent features exist for state equivalents with nonvoting delegates or no representative. The subtypes of this feature are 106th, 107th, 108th, 109th, and 111th Congressional Districts, plus subsequent Congresses.

MTFCC	Feature Class	Feature Class Description
G5210	State Legislative District (Upper Chamber	Areas established by a state or equivalent government from which members are elected to the upper or unicameral chamber of a state governing body. The upper chamber is the senate in a bicameral legislature, and the unicameral case is a single house legislature (Nebraska).
G5220	State Legislative District (Lower Chamber)	Areas established by a state or equivalent government from which members are elected to the lower chamber of a state governing body. The lower chamber is the House of Representatives in a bicameral legislature.
G5240	Voting District	The generic name for the geographic features, such as precincts, wards, and election districts, established by state, local, and tribal governments for the purpose of conducting elections.
G5400	Elementary School District	A geographic area within which officials provide public elementary grade-level educational services for residents.
G5410	Secondary School District	A geographic area within which officials provide public secondary grade-level educational services for residents.
G5420	Unified School District	A geographic area within which officials provide public educational services for all grade levels for residents.
G6120	Public-Use Microdata Area	A decennial census area with a population of at least 100,000 or more persons for which the Census Bureau provides selected extracts of household-level data that are screened to protect confidentiality.
G6300	Traffic Analysis District	An area delineated by Metropolitan Planning Organizations (MPOs) and state Departments of Transportation (DOTs) for tabulating journey-to-work and place-of-work data. A Traffic Analysis District (TAD) consists of one or more Traffic Analysis Zones (TAZs).
G6320	Traffic Analysis Zone	An area delineated by Metropolitan Planning Organizations (MPOs) and state Departments of Transportation (DOTs) for tabulating journey-to-work and place-of-work data.
G6330	Urban Growth Area	An area defined under state authority to manage urbanization that the U.S. Census Bureau includes in the MAF/TIGER® Database in agreement with the state.
G6350	Zip Code Tabulation Area (Five-Digit)	An approximate statistical-area representation of a U.S. Postal Service (USPS) 5-digit ZIP Code service area.
G6400	Commercial Region	For the purpose of presenting economic statistical data, municipios in Puerto Rico are grouped into commercial regions.
H1100	Connector	A known, but nonspecific, hydrographic connection between two nonadjacent water features.
H2025	Swamp/Marsh	A poorly drained wetland, fresh or saltwater, wooded or grassy, possibly covered with open water. [includes bog, cienega, marais and pocosin].
H2030	Lake/Pond	A standing body of water that is surrounded by land.
H2040	Reservoir	An artificially impounded body of water.
H2041	Treatment Pond	An artificial body of water built to treat fouled water.
H2051	Bay/Estuary/Gulf/Sound	A body of water partly surrounded by land. [includes arm,

MTFCC	Feature Class	Feature Class Description
		bight, cove and inlet].
H2053	Ocean/Sea	The great body of salt water that covers much of the earth.
H2060	Gravel Pit/Quarry filled with water	A body of water in a place or area from which commercial minerals were removed from the Earth.
H2081	Glacier	A body of ice moving outward and down slope from an area of accumulation; an area of relatively permanent snow or ice on the top or side of a mountain or mountainous area [includes ice field and ice patch].
H3010	Stream/River	A natural flowing waterway [includes anabranch, awawa, branch, brook, creek, distributary, fork, kill, pup, rio, and run].
H3013	Braided Stream	A natural flowing waterway with an intricate network of interlacing channels.
H3020	Canal, Ditch or Aqueduct	An artificial waterway constructed to transport water, to irrigate or drain land, to connect two or more bodies of water, or to serve as a waterway for watercraft [includes lateral].
K1225	Crew-of-Vessel Location	A point or area in which the population of military or merchant marine vessels at sea are assigned, usually being at or near the home port pier.
K1231	Hospital/Hospice/Urgent Care Facility	One or more structures where the sick or injured may receive medical or surgical attention [including infirmary].
K1235	Juvenile Institution	A facility (correctional and non-correctional) where groups of juveniles reside; this includes training schools, detention centers, residential treatment centers and orphanages.
K1236	Local Jail or Detention Center	One or more structures that serve as a place for the confinement of adult persons in lawful detention, administered by a local (county, municipal, etc.) government.
K1237	Federal Penitentiary, State Prison, or Prison Farm	An institution that serves as a place for the confinement of adult persons in lawful detention, administered by the federal government or a state government.
K1238	Other Correctional Institution	One or more structures that serve as a place for the confinement of adult persons in lawful detention, not elsewhere classified or administered by a government of unknown jurisdiction.
K1239	Convent, Monastery, Rectory, Other Religious Group Quarters	One or more structures intended for use as a residence for those having a religious vocation.
K1246	Community Center	Community Center.
K2110	Military Installation	An area owned and/or occupied by the Department of Defense for use by a branch of the armed forces (such as the Army, Navy, Air Force, Marines, or Coast Guard), or a state owned area for the use of the National Guard.
K2165	Government Center	A place used by members of government (either federal, state, local, or tribal) for administration and public

MTFCC	Feature Class	Feature Class Description
		business.
K2167	Convention Center	An exhibition hall or conference center with enough open space to host public and private business and social events.
K2180	Park	Parkland defined and administered by federal, state, and local governments.
K2181	National Park Service Land	Area—National parks, National Monuments, and so forth—under the jurisdiction of the National Park Service.
K2182	National Forest or Other Federal Land	Land under the management and jurisdiction of the federal government, specifically including areas designated as National Forest, and excluding areas under the jurisdiction of the National Park Service.
K2183	Tribal Park, Forest, or Recreation Area	A place or area set aside for recreation or preservation of a cultural or natural resource and under the administration of an American Indian tribe.
K2184	State Park, Forest, or Recreation Area	A place or area set aside for recreation or preservation of a cultural or natural resource and under the administration of a state government.
K2185	Regional Park, Forest, or Recreation Area	A place or area set aside for recreation or preservation of a cultural or natural resource and under the administration of a regional government.
K2186	County Park, Forest, or Recreation Area	A place or area set aside for recreation or preservation of a cultural or natural resource and under the administration of a county government.
K2187	County Subdivision Park, Forest, or Recreation Area	A place or area set aside for recreation or preservation of a cultural or natural resource and under the administration of a minor civil division (town/township) government.
K2188	Incorporated Place Park, Forest, or Recreation Area	A place or area set aside for recreation or preservation of a cultural or natural resource and under the administration of a municipal government.
K2189	Private Park, Forest, or Recreation Area	A privately owned place or area set aside for recreation or preservation of a cultural or natural resource.
K2190	Other Park, Forest, or Recreation Area (quasi-public, independent park, commission, etc.)	A place or area set aside for recreation or preservation of a cultural or natural resource and under the administration of some other type of government or agency such as an independent park authority or commission.
K2191	Post Office	An official facility of the U.S. Postal Service used for processing and distributing mail and other postal material.
K2193	Fire Department	Fire Department.
K2194	Police Station	Police Station.
K2195	Library	Library.
K2196	City/Town Hall	City/Town Hall.
K2400	Transportation Terminal	A facility where one or more modes of transportation can be accessed by people or for the shipment of goods; examples of such a facility include marine terminal, bus station, train station, airport and truck warehouse.
K2424	Marina	A place where privately owned, light-craft are moored.
K2432	Pier/Dock	A platform built out from the shore into the water and

MTFCC	Feature Class	Feature Class Description
		supported by piles. This platform may provide access to ships and boats, or it may be used for recreational purposes.
K2451	Airport or Airfield	A manmade facility maintained for the use of aircraft [including airstrip, landing field and landing strip].
K2452	Train Station, Trolley or Mass Transit Rail Station	A place where travelers can board and exit rail transit lines, including associated ticketing, freight, and other commercial offices.
K2453	Bus Terminal	A place where travelers can board and exit mass motor vehicle transit, including associated ticketing, freight, and other commercial offices.
K2454	Marine Terminal	A place where travelers can board and exit water transit or where cargo is handled, including associated ticketing, freight, and other commercial offices.
K2455	Seaplane Anchorage	A place where an airplane equipped with floats for landing on or taking off from a body of water can debark and load.
K2456	Airport—Intermodal Transportation Hub/Terminal	A major air transportation facility where travelers can board and exit airplanes and connect with other (i.e. non-air) modes of transportation.
K2457	Airport—Statistical Representation	The area of an airport adjusted to include whole 2000 census blocks used for the delineation of urban areas
K2458	Park and Ride Facility/Parking Lot	A place where motorists can park their cars and transfer to other modes of transportation.
K2459	Runway/Taxiway	A fairly level and usually paved expanse used by airplanes for taking off and landing at an airport.
K2460	Helicopter Landing Pad	A fairly level and usually paved expanse used by helicopters for taking off and landing.
K2540	University or College	A building or group of buildings used as an institution for post-secondary study, teaching, and learning [including seminary].
K2543	School or Academy	A building or group of buildings used as an institution for preschool, elementary or secondary study, teaching, and learning [including elementary school and high school].
K2545	Museum, Visitor Center, Cultural Center, or Tourist Attraction	An attraction of historical, cultural, educational or other interest that provides information or displays artifacts.
K2561	Golf Course	A place designed for playing golf.
K2582	Cemetery	A place or area for burying the dead [including burying ground and memorial garden].
K2586	Zoo	A facility in which terrestrial and/or marine animals are confined within enclosures and displayed to the public for educational, preservation, and research purposes.
K3544	Place of Worship	A sanctified place or structure where people gather for religious worship; examples include church, synagogue, temple, and mosque.
L4010	Pipeline	A long tubular conduit or series of pipes, often underground, with pumps and valves for flow control, used to transport fluid (e.g., crude oil, natural gas), especially over great distances.

MTFCC	Feature Class	Feature Class Description
L4020	Powerline	One or more wires, often on elevated towers, used for conducting high-voltage electric power.
L4031	Aerial Tramway/Ski Lift	A conveyance that transports passengers or freight in carriers suspended from cables and supported by a series of towers.
L4110	Fence Line	A man-made barrier enclosing or bordering a field, yard, etc., usually made of posts and wire or wood, used to prevent entrance, to confine, or to mark a boundary.
L4121	Ridge Line	The line of highest elevation along a ridge.
L4125	Cliff/Escarpment	A very steep or vertical slope [including bluff, crag, head, headland, nose, palisades, precipice, promontory, rim and rimrock].
L4130	Point-to-Point Line	A line defined as beginning at one location point and ending at another, both of which are in sight.
L4140	Property/Parcel Line (Including PLSS)	This feature class may denote a nonvisible boundary of either public or private lands (e.g., a park boundary) or it may denote a Public Land Survey System or equivalent survey line.
L4150	Coastline	The line that separates either land or Inland water from Coastal, Territorial or Great Lakes water. Where land directly borders Coastal, Territorial or Great Lakes water, the shoreline represents the Coastline. Where Inland water (such as a river) flows into Coastal, Territorial or Great Lakes water, the closure line separating the Inland water from the other class of water represents the Coastline.
L4165	Ferry Crossing	The route used to carry or convey people or cargo back and forth over a waterbody in a boat.
P0001	Nonvisible Linear Legal/Statistical Boundary	A legal/statistical boundary line that does not correspond to a shoreline or other visible feature on the ground.
P0002	Perennial Shoreline	The more-or-less permanent boundary between land and water for a water feature that exists year-round.
P0003	Intermittent Shoreline	The boundary between land and water (when water is present) for a water feature that does not exist year-round.
P0004	Other non-visible bounding Edge (e.g., Census water boundary, boundary of an areal feature)	A bounding Edge that does not represent a legal/statistical boundary, and does not correspond to a shoreline or other visible feature on the ground. Many such Edges bound area landmarks, while many others separate water features from each other (e.g., where a bay meets the ocean).
R1011	Railroad Feature (Main, Spur, or Yard)	A line of fixed rails or tracks that carries mainstream railroad traffic. Such a rail line can be a main line or spur line, or part of a rail yard.
R1051	Carline, Streetcar Track, Monorail, Other Mass Transit	Mass transit rail lines (including lines for rapid transit, monorails, streetcars, light rail, etc.) that are typically inaccessible to mainstream railroad traffic and whose tracks are not part of a road right-of-way.

MTFCC	Feature Class	Feature Class Description
R1052	Cog Rail Line, Incline Rail Line, Tram	A special purpose rail line for climbing steep grades that is typically inaccessible to mainstream railroad traffic. Note that aerial tramways and streetcars (which may also be called “trams”) are accounted for by other MTFCCs and do not belong in R1052.
S1100	Primary Road	Primary roads are generally divided, limited-access highways within the interstate highway system or under state management, and are distinguished by the presence of interchanges. These highways are accessible by ramps and may include some toll highways.
S1200	Secondary Road	Secondary roads are main arteries, usually in the U.S. Highway, State Highway or County Highway system. These roads have one or more lanes of traffic in each direction, may or may not be divided, and usually have at-grade intersections with many other roads and driveways. They often have both a local name and a route number.
S1400	Local Neighborhood Road, Rural Road, City Street	Generally a paved non-arterial street, road, or byway that usually has a single lane of traffic in each direction. Roads in this feature class may be privately or publicly maintained. Scenic park roads would be included in this feature class, as would (depending on the region of the country) some unpaved roads.
S1500	Vehicular Trail (4WD)	An unpaved dirt trail where a four-wheel drive vehicle is required. These vehicular trails are found almost exclusively in very rural areas. Minor, unpaved roads usable by ordinary cars and trucks belong in the S1400 category.
S1630	Ramp	A road that allows controlled access from adjacent roads onto a limited access highway, often in the form of a cloverleaf interchange. These roads are unaddressable and do not carry a name in MAF/TIGER.
S1640	Service Drive usually along a limited access highway	A road, usually paralleling a limited access highway, that provides access to structures along the highway. These roads can be named and may intersect with other roads.
S1710	Walkway/Pedestrian Trail	A path that is used for walking, being either too narrow for or legally restricted from vehicular traffic.
S1720	Stairway	A pedestrian passageway from one level to another by a series of steps.
S1730	Alley	A service road that does not generally have associated addressed structures and is usually unnamed. It is located at the rear of buildings and properties and is used for deliveries.
S1740	Private Road for service vehicles (logging, oil fields, ranches, etc.)	A road within private property that is privately maintained for service, extractive, or other purposes. These roads are often unnamed.
S1750	Internal U.S. Census Bureau use	Internal U.S. Census Bureau use.
S1780	Parking Lot Road	The main travel route for vehicles through a paved parking area.
S1820	Bike Path or Trail	A path that is used for manual or small, motorized

MTFCC	Feature Class	Feature Class Description
		bicycles, being either too narrow for or legally restricted from vehicular traffic.
S1830	Bridle Path	A path that is used for horses, being either too narrow for or legally restricted from vehicular traffic.
S2000	Road Median	The unpaved area or barrier between the carriageways of a divided road.

APPENDIX C Street Type Abbreviations

Street Name Type	Standard Abbreviation
ALLEY	ALY
ANEX	ANX
ARCADE	ARC
AVENUE	AVE
BAYOU	BYU
BEACH	BCH
BEND	BND
BLUFF	BLF
BLUFFS	BLFS
BOTTOM	BTM
BOULEVARD	BLVD
BRANCH	BR
BRIDGE	BRG
BROOK	BRK
BROOKS	BRKS
BURG	BG
BURGS	BGS
BYPASS	BYP
CAMP	CP
CANYON	CYN
CAPE	CPE
CAUSEWAY	CSWY
CENTER	CTR
CENTERS	CTRS
CIRCLE	CIR
CIRCLES	CIRS
CLIFF	CLF
CLIFFS	CLFS
CLUB	CLB
COMMON	CMN
COMMONS	CMNS
CORNER	COR
CORNERS	CORS
COURSE	CRSE
COURT	CT
COURTS	CTS
COVE	CV

Street Name Type	Standard Abbreviation
COVES	CVS
CREEK	CRK
CRESCENT	CRES
CREST	CRST
CROSSING	XING
CROSSROAD	XRD
CROSSROADS	XRDS
CURVE	CURV
DALE	DL
DAM	DM
DIVIDE	DV
DRIVE	DR
DRIVES	DRS
ESTATE	EST
ESTATES	ESTS
EXPRESSWAY	EXPY
EXTENSION	EXT
EXTENSIONS	EXTS
FALL	FALL
FALLS	FLS
FERRY	FRY
FIELD	FLD
FIELDS	FLDS
FLAT	FLT
FLATS	FLTS
FORD	FRD
FORDS	FRDS
FOREST	FRST
FORGE	FRG
FORGES	FRGS
FORK	FRK
FORKS	FRKS
FORT	FT
FREEWAY	FWY
GARDEN	GDN
GARDENS	GDNS
GATEWAY	GTWY
GLEN	GLN
GLENS	GLNS

Street Name Type	Standard Abbreviation
GREEN	GRN
GREENS	GRNS
GROVE	GRV
GROVES	GRVS
HARBOR	HBR
HARBORS	HBRS
HAVEN	HVN
HEIGHTS	HTS
HIGHWAY	HWY
HILL	HL
HILLS	HLS
HOLLOW	HOLW
INLET	INLT
ISLAND	IS
ISLANDS	ISS
ISLE	ISLE
JUNCTION	JCT
JUNCTIONS	JCTS
KEY	KY
KEYS	KYS
KNOLL	KNL
KNOLLS	KNLS
LAKE	LK
LAKES	LKS
LAND	LAND
LANDING	LNDG
LANE	LN
LIGHT	LGT
LIGHTS	LGTS
LOAF	LF
LOCK	LCK
LOCKS	LCKS
LODGE	LDG
LOOP	LOOP
MALL	MALL
MANOR	MNR
MANORS	MNRS
MEADOW	MDW
MEADOWS	MDWS

Street Name Type	Standard Abbreviation
MEWS	MEWS
MILL	ML
MILLS	MLS
MISSION	MSN
MOTORWAY	MTWY
MOUNT	MT
MOUNTAIN	MTN
MOUNTAINS	MTNS
NECK	NCK
ORCHARD	ORCH
OVAL	OVAL
OVERPASS	OPAS
PARK	PARK
PARKS	PARK
PARKWAY	PKWY
PARKWAYS	PKWY
PASS	PASS
PASSAGE	PSGE
PATH	PATH
PIKE	PIKE
PINE	PNE
PINES	PNES
PLACE	PL
PLAIN	PLN
PLAINS	PLNS
PLAZA	PLZ
POINT	PT
POINTS	PTS
PORT	PRT
PORTS	PRTS
PRAIRIE	PR
RADIAL	RADL
RAMP	RAMP
RANCH	RNCH
RAPID	RPD
RAPIDS	RPDS
REST	RST
RIDGE	RDG
RIDGES	RDGS

Street Name Type	Standard Abbreviation
RIVER	RIV
ROAD	RD
ROADS	RDS
ROUTE	RTE
ROW	ROW
RUE	RUE
RUN	RUN
SHOAL	SHL
SHOALS	SHLS
SHORE	SHR
SHORES	SHRS
SKYWAY	SKWY
SPRING	SPG
SPRINGS	SPGS
SPUR	SPUR
SPURS	SPUR
SQUARE	SQ
SQUARES	SQS
STATION	STA
STRAVENUE	STRA
STREAM	STRM
STREET	ST
STREETS	STS
SUMMIT	SMT
TERRACE	TER
THROUGHWAY	TRWY
TRACE	TRCE
TRACK	TRAK
TRAFFICWAY	TRFY
TRAIL	TRL
TRAILER	TRLR
TUNNEL	TUNL
TURNPIKE	TPKE
UNDERPASS	UPAS
UNION	UN
UNIONS	UNS
VALLEY	VLY
VALLEYS	VLYS
VIADUCT	VIA

Street Name Type	Standard Abbreviation
VIEW	VW
VIEWS	VWS
VILLAGE	VLG
VILLAGES	VLGS
VILLE	VL
VISTA	VIS
WALK	WALK
WALKS	WALK
WALL	WALL
WAY	WAY
WAYS	WAYS
WELL	WL
WELLS	WLS

APPENDIX D Partnership Shapefile Data Dictionary

Shapefile Layer	Geographic Level	<layer> Name
American Indian Areas (AIA) - Legal	County/State	Aial
American Indian / Alaska Native Areas (AIANA) - Statistical	County/State	Aias
American Indian Tribal Subdivisions (AITS) - Legal	County/State	Aitsl
American Indian Tribal Subdivisions (AITS) - Statistical	County/State	Aitss
Alaska Native Regional Corporations (ANRC)	County/State	Anrc
Area Landmark	County only	Arealm
Block Area Grouping	County/State	Bag
Census Block Groups	County only	Bg
Block Size Indicator	County only	Block
Metropolitan/ Micropolitan Statistical Area	County/State	Cbsa
County Subdivisions – Statistical	County/State	Ccd
Congressional Districts (CD)	County/State	Cd
Census Designated Places (CDP)	County/State	Cdp
Consolidated Cities	County only	Concity
Counties and Equivalent Areas	County/State	County
Census Tracts	County only	Curtracts
Edges (All Lines)	County only	Edges
School Districts (Elementary)	County/State	Elsd
County Subdivisions – Legal	County/State	Mcd
New England City and Town Area	County/State	Necta
Offsets	County only	Offset
Incorporated Places	County/State	Place
Point Landmarks	County only	Pointlm
Public Use Microdata Areas – Census 2010	County/State	Puma2010
School Districts (Secondary)	County/State	Scsd
State Legislative Districts (Lower/House)	County/State	Sldl
State Legislative Districts (Upper/Senate)	County/State	Sldu
States and Equivalent Areas	State only	State
Subbarrios	County only	Submcd
Census Blocks - Current	County only	Tabblock
Census Blocks – Census 2010	County only	Tabblock2010
Traffic Analysis Districts – Census 2010	County only	Tad2010
Traffic Analysis Zone	County only	Taz2010
Tribal Block Group	County/State	Tbg

Shapefile Layer	Geographic	<layer>
Census Tracts – Census 2010	County/State	Tracts2010
Urban Area/ Urban Cluster – Census 2010	County/State	Uac
Urban Growth Areas (UGA)	County only	Uga
School Districts (Unified)	County/State	Unsd
Hydrography - Area	County only	Water
Address Ranges (Relationship Table)	County	Addr
Linear Feature Names (Relationship Table)	County	Allnames
Topological Faces - Area Landmark Relationship	County	Areafaces
Topological Faces (Listing of faces with all geocodes)	County	Faces
Topological Faces - Area Hydrography Relationship	County	Hydrofaces

American Indian Areas - Legal

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP*	3	String	FIPS County Code
AIANNHCE	4	String	Census AIANNH Code
COMPTYP	1	String	Indicates if reservation (or equivalent) or off-reservation trust land is present, or both
AIANNHFSR	1	String	Flag indicating level of recognition of an American Indian, Alaska Native, or Native Hawaiian tribe or group.
NAMELSAD	100	String	Name with translated LSAD
AIANNHNS	8	String	ANSI numeric identifier for AIANNH Areas
LSAD	2	String	Legal/Statistical Area Description
FUNCSTAT	1	String	Functional Status
CLASSFP	2	String	FIPS55 class code describing entity
PARTFLG*	1	String	Part Flag Indicator
CHNG_TYPE	2	String	Type of area update
EFF_DATE	8	String	Effective Date or Vintage
DOCU	120	String	Supporting documentation
FORM_ID	4	String	Record ID for any boundary update
AREA	10	Numeric (3 decimal places)	Acreage of area update
RELATE	120	String	Relationship description
JUSTIFY	150	Char	Justification
NAME	100	String	Name
VINTAGE	2	String	Vintage updated with returned data

American Indian / Alaska Native Areas – Statistical

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP*	3	String	FIPS County Code
AIANNHCE	4	String	Census AIANNH Code
COMPTYP	1	String	Indicates if reservation (or equivalent) or off-reservation trust land is present, or both
AIANNHFSR	1	String	Flag indicating level of recognition of an American Indian, Alaska Native, or Native Hawaiian tribe or group.
NAMELSAD	100	String	Name with translated LSAD
AIANNHNS	8	String	ANSI numeric identifier for AIANNH Areas
LSAD	2	String	Legal/Statistical Area Description
FUNCSTAT	1	String	Functional Status
CLASSFP	2	String	FIPS55 class code describing entity
PARTFLG*	1	String	Part Flag Indicator
CHNG_TYPE	2	String	Type of area update
EFF_DATE	8	String	Effective Date or Vintage
RELATE	120	String	Relationship description
JUSTIFY	150	Char	Justification
VINTAGE	2	String	Vintage updated with returned data
NAME	100	String	Name

American Indian Tribal Subdivisions – Legal

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP*	3	String	FIPS County Code
AIANNHCE	4	String	Census AIANNH Code
TRIBSUBCE	1	String	Census Tribal subdivision
NAMELSAD	100	String	Name with translated LSAD
AIANNHNS	8	String	ANSI numeric identifier for AIANNH Areas
LSAD	2	String	Legal/Statistical Area Description
FUNCSTAT	1	String	Functional Status
CLASSFP	2	String	FIPS55 class code describing entity
PARTFLG*	1	String	Part Flag Indicator
CHNG_TYPE	2	String	Type of area update
EFF_DATE	8	String	Effective Date or Vintage
DOCU	120	String	Supporting documentation
FORM_ID	4	String	Record ID for any boundary update
AREA	10	Numeric (3 decimal places)	Acreage of area update
RELATE	120	String	Relationship description

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
JUSTIFY	150	Char	Justification
NAME	100	String	Name
VINTAGE	2	String	Vintage updated with returned data
AIANNHFSR	1	String	Flag indicating level of recognition of an American Indian, Alaska Native, or Native Hawaiian tribe or group.

American Indian Tribal Subdivisions - Statistical

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP*	3	String	FIPS County Code
AIANNHCE	4	String	Census AIANNH Code
TRIBSUBCE	1	String	Census Tribal subdivision
NAMELSAD	100	String	Name with translated LSAD
AIANNHNS	8	String	ANSI numeric identifier for AIANNH Areas
LSAD	2	String	Legal/Statistical Area Description
FUNCSTAT	1	String	Functional Status
CLASSFP	2	String	FIPS55 class code describing entity
PARTFLG*	1	String	Part Flag Indicator
CHNG_TYPE	2	String	Type of area update
EFF_DATE	8	String	Effective Date or Vintage
DOCU	120	String	Supporting documentation
FORM_ID	4	String	Record ID for any boundary update
AREA	10	Numeric (3 decimal places)	Acreage of area update
RELATE	120	String	Relationship description
JUSTIFY	150	Char	Justification
NAME	100	String	Name
VINTAGE	2	String	Vintage updated with returned data
AIANNHFSR	1	String	Flag indicating level of recognition of an American Indian, Alaska Native, or Native Hawaiian tribe or group.

Alaska Native Regional Corporations

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP*	3	String	FIPS County Code
ANRCFP	5	String	FIPS ANRC Code (State Based)
ANRCCE	2	String	Current Census ANRC Code
NAMELSAD	100	String	Name with translated LSAD

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
LSAD	2	String	Legal/Statistical Area Description
AIANNHNS	8	String	ANSI numeric identifier for AIANNH Areas
FUNCSTAT	1	String	Functional Status
CLASSFP	2	String	FIPS55 class code describing entity
PARTFLG*	1	String	Part Flag Indicator
CHNG_TYPE	2	String	Type of area update
EFF_DATE	8	String	Effective Date or Vintage
DOCU	120	String	Supporting documentation
FORM_ID	4	String	Record ID for any boundary update
AREA	10	Numeric (3 decimal places)	Acreage of area update
RELATE	120	String	Relationship description
JUSTIFY	150	Char	Justification
NAME	100	String	Name
VINTAGE	2	String	Vintage updated with returned data
AIANHFSR	1	String	Flag indicating level of recognition of an American Indian, Alaska Native, or Native Hawaiian tribe or group.

Block Size Indicator

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
TRACTCE	6	String	Census Tract Code
BLOCKCE	4	String	Tabulation Block Number
BLOCKID	19	String	FIPS State Code, FIPS County Code, Census Tract Code, Tabulation Block Number, Census Block Suffix 1, Census Block Suffix 2
AREALAND	14	Numeric (3 decimal places)	Current Area Land in Square Meters
AREAWATER	10	Numeric (3 decimal places)	Current Area Water in Square Meters
LWBLKTYP	1	String	Land/Water Block Type: B = Both Land and Water; L = Land; W = Water
PERIMETER	9	String	Perimeter of Block in Meters
SHAPEIDX	9	String	(√ (4πA/P2), where A=Area of block & P = Perimeter of block
BLKSZIND	1	String	Block Size Indicator

Congressional Districts

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP*	3	String	FIPS County Code
CDFP	2	String	Congressional District Code
CDTYP	1	String	Congressional District Type
NAMELSAD	100	String	Name with translated LSAD
LSAD	2	String	Legal/Statistical Area Description
CHNG_TYPE	2	String	Type of Area Update
EFF_DATE	8	String	Effective date or vintage
NEW_CODE	2	String	New Congressional District Code
RELTYPE1	2	String	Relationship Type 1
RELTYPE2	2	String	Relationship Type 2
RELTYPE3	2	String	Relationship Type 3
RELTYPE4	2	String	Relationship Type 4
RELTYPE5	2	String	Relationship Type 5
REL_ENT1	8	String	Relationship Entity 1
REL_ENT2	8	String	Relationship Entity 2
REL_ENT3	8	String	Relationship Entity 3
REL_ENT4	8	String	Relationship Entity 4
REL_ENT5	8	String	Relationship Entity 5
RELATE	120	String	Relationship Description
JUSTIFY	150	Char	Justification
CDSESSN	3	String	Congressional District Session Code
NAME	100	String	Name
VINTAGE	2	String	Vintage updated with returned data
FUNCSTAT	1	String	Functional Status

Hawaiian Home Lands

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP*	3	String	FIPS County Code
AIANNHCE	4	String	Census AIANNH Code
COMPTYP	1	String	Indicates if reservation (or equivalent) or off-reservation trust land is present, or both
NAMELSAD	100	String	Name with translated LSAD
AIANNHNS	8	String	ANSI numeric identifier for AIANNH Areas
LSAD	2	String	Legal/Statistical Area Description
FUNCSTAT	1	String	Functional Status
CLASSFP	2	String	FIPS55 class code describing entity

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
PARTFLG*	1	String	Part Flag Indicator
CHNG_TYPE	2	String	Type of area update
EFF_DATE	8	String	Effective Date or Vintage
DOCU	120	String	Supporting documentation
FORM_ID	4	String	Record ID for any boundary update
AREA	10	Numeric (3 decimal places)	Acreage of area update
RELATE	120	String	Relationship description
JUSTIFY	150	Char	Justification
VINTAGE	2	String	Vintage updated with returned data
AIANNHFSR	1	String	Flag indicating level of recognition of an American Indian, Alaska Native, or Native Hawaiian tribe or group.
NAME	100	String	Name

School Districts

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP*	3	String	FIPS County Code
SDLEA	5	String	Current Local Education Agency Code
NAME	100	String	Name of School District
LSAD	2	Integer	Legal/Statistical Area Description
HIGRADE	2	String	Highest grade for which the district is financially responsible
LOGRADE	2	String	Lowest grade for which the district is financially responsible
PARTFLG*	1	String	Part Flag Indicator
POLYID	4	String	Record ID for each update polygon for linking back to the submission log
CHNG_TYPE	1	String	Type of area update
EFF_DATE	8	String	Effective Date or Vintage
RELATE	120	String	Relationship description
JUSTIFY	150	Char	Justification
FUNCSTAT	3	String	Functional Status
VINTAGE	2	String	Vintage updated with returned data

State Legislative Districts (Upper/Senate)

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP*	3	String	FIPS County Code
SLDUST	3	String	SLD Upper Chamber Code
NAMELSAD	100	String	Name with translated LSAD

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
LSAD	2	String	Legal/Statistical Area Description
PARTFLG*	1	String	Part Flag Indicator
CHNG_TYPE	2	String	Type of area update
EFF_DATE	8	String	Effective Date or Vintage
NEW_NAME	100	String	New SLDU Name
NEW_CODE	3	String	New SLDU Code
RELTYPE1	2	String	Relationship Type 1
RELTYPE2	2	String	Relationship Type 2
RELTYPE3	2	String	Relationship Type 3
RELTYPE4	2	String	Relationship Type 4
RELTYPE5	2	String	Relationship Type 5
REL_ENT1	8	String	Relationship Entity 1
REL_ENT2	8	String	Relationship Entity 2
REL_ENT3	8	String	Relationship Entity 3
REL_ENT4	8	String	Relationship Entity 4
REL_ENT5	8	String	Relationship Entity 5
RELATE	120	String	Relationship Description
JUSTIFY	150	Char	Justification
LSY	4	String	Legislative Session Year
NAME	100	String	Name
VINTAGE	2	String	Vintage updated with returned data
FUNCSTAT	1	String	Functional Status

State Legislative Districts (Lower/Senate)

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP*	3	String	FIPS County Code
SLDLST	3	String	SLD Lower Chamber Code
NAMELSAD	100	String	Name with translated LSAD
LSAD	2	String	Legal/Statistical Area Description
PARTFLG*	1	String	Part Flag Indicator
CHNG_TYPE	2	String	Type of area update
EFF_DATE	8	String	Effective Date or Vintage
NEW_NAME	100	String	New SLDL Name
NEW_CODE	3	String	New SLDL Code
RELTYPE1	2	String	Relationship Type 1
RELTYPE2	2	String	Relationship Type 2
RELTYPE3	2	String	Relationship Type 3
RELTYPE4	2	String	Relationship Type 4
RELTYPE5	2	String	Relationship Type 5
REL_ENT1	8	String	Relationship Entity 1

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
REL_ENT2	8	String	Relationship Entity 2
REL_ENT3	8	String	Relationship Entity 3
REL_ENT4	8	String	Relationship Entity 4
REL_ENT5	8	String	Relationship Entity 5
RELATE	120	String	Relationship Description
JUSTIFY	150	Char	Justification
LSY	4	String	Legislative Session Year
NAME	100	String	Name
VINTAGE	2	String	Vintage updated with returned data
FUNCSTAT	1	String	Functional Status

Urban Growth Areas

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
UGACE	5	String	Urban Growth Area Code
UGATYP	1	String	Urban Growth Area Type
NAMELSAD	100	String	Name with translated LSAD
LSAD	2	String	Legal/Statistical Area Description
PARTFLG	1	String	Part Flag Indicator
CHNG_TYPE	1	String	Type of Area Update
EFF_DATE	8	String	Effective Date or Vintage
AREA	10	Double	Acreage of Update
RELATE	120	String	Relationship Description
JUSTIFY	150	Char	Justification
VINTAGE	2	String	Vintage updated with returned data
NAME	100	String	Name

Census Block Groups

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
TRACTCE	6	String	Census Tract Code
BLKGRPCE	1	String	Block Group Code
BLKGRPID	12	String	FIPS State Code, FIPS County Code, Census Tract Code, Block Group Code
CHNG_TYPE	2	String	Type of Area Update
EFF_DATE	8	String	Effective Date or Vintage
BGTYP	1	String	Block Group Characteristic Flag
RELATE	120	String	Relationship Description

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
JUSTIFY	150	Char	Justification
VINTAGE	2	String	Vintage updated with returned data

Census Blocks – Current

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
STATEFP10	2	String	FIPS 2010 State Code
COUNTYFP10	3	String	FIPS 2010 County Code
TRACTCE10	6	String	Census Tract Code
BLOCKCE	4	String	Tabulation Block Number
SUFFIX1CE	2	String	Census Block Suffix 1
SUFFIX2CE	2	String	Census Block Suffix 2
BLOCKID	19	String	FIPS State Code, FIPS County Code, Census Tract Code, Tabulation Block Number, Census Block Suffix 1, Census Block Suffix 2

Census Blocks – Census 2010

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP10	2	String	FIPS 2010 State Code
COUNTYFP10	3	String	FIPS 2010 County Code
TRACTCE10	6	String	Census Tract Code
BLOCKCE	4	String	Tabulation Block Number
BLOCKID10	15	String	FIPS State Code, FIPS County Code, Census Tract Code, Tabulation Block Number
PARTFLG	1	String	Part Flag Indicator
HOUSING10	9	Integer	2010 Housing
POP10	9	Integer	Census 2010 population count

Census Tracts

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
TRACTCE	6	String	Census Tract Code
NAME	100	String	Name
TRACTID	11	String	FIPS State Code, FIPS County Code, Census Tract Code
CHNG_TYPE	2	String	Type of area update
EFF_DATE	8	String	Effective Date or Vintage
TRACTTYP	1	String	Tract Characteristic Flag
RELATE	120	String	Relationship Description

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
JUSTIFY	150	Char	Justification
TRACTLABEL	7	String	Tract number used for LUCA geocoding
VINTAGE	2	String	Vintage updated with returned data

Census Designated Places

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP*	3	String	FIPS County Code
PLACEFP	5	String	FIPS 55 Place Code
PLACENS	5	String	ANSI feature code for the place
NAMELSAD	100	String	Name with translated LSAD
LSAD	2	String	Legal/Statistical Area Description
FUNCSTAT	1	String	Functional Status
CLASSFP	2	String	FIPS 55 Class Code describing an entity
PARTFLG	1	String	Part Flag Indicator
CHNG_TYPE	1	String	Type of Area Update
EFF_DATE	8	String	Effective Date or Vintage
RELATE	120	String	Relationship Description
JUSTIFY	150	Char	Justification
NAME	100	String	Name
VINTAGE	2	String	Vintage updated with returned data

Consolidated City

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
CONCITYFP	5	String	FIPS 55 Place Code
CONCITYCE	4	String	Census Consolidated City Code
NAMELSAD	100	String	Name with translated LSAD
PLACENS	8	String	ANSI feature code for the place
LSAD	2	String	Legal/Statistical Area Description
FUNCSTAT	1	String	Functional Status
CLASSFP	2	String	FIPS 55 Class Code describing an entity
CHNG_TYPE	1	String	Type of Area Update
DOCU	120	String	Supporting Documentation
FORM_ID	4	String	(GUPS and Web BAS only)
AREA	10	Double	Acreage of Update
RELATE	120	String	Relationship Description
JUSTIFY	150	Char	Justification

County and Equivalent Areas

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
COUNTYNS	8	String	ANSI Feature Code for the County or Equivalent Feature
NAMELSAD	100	String	Name with translated LSAD code
LSAD	2	String	Legal/Statistical Area Description code
FUNCSTAT	1	String	Functional Status
CLASSFP	2	String	FIPS 55 Class Code describing an entity
CHNG_TYPE	1	String	Type of area update
EFF_DATE	8	String	Effective Date or Vintage
DOCU	120	String	Supporting Documentation
FORM_ID	4	String	(GUPS / Web BAS only)
AREA	10	Double	Acreage of Area Update
RELATE	120	String	Relationship description
JUSTIFY	150	Char	Justification
NAME	100	String	Name
VINTAGE	2	String	Vintage updated with returned data

County Subdivisions – Legal (MCD)

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
COUSUBFP	5	String	FIPS County Subdivision Code
NAMELSAD	100	String	Name with translated LSAD
COUSUBNS	8	String	ANSI feature code for the MCDs
LSAD	2	String	Legal/Statistical Area Description
FUNCSTAT	1	String	Functional Status
CLASSFP	2	String	FIPS 55 Class Code describing an entity
CHNG_TYPE	1	String	Type of Area Update
EFF_DATE	8	String	Effective Date or Vintage
DOCU	120	String	Supporting Documentation
FORM_ID	4	String	(GUPS and Web BAS only)
AREA	10	Double	Acreage of Update
RELATE	120	String	Relationship Description
JUSTIFY	150	Char	Justification
NAME	100	String	Name
VINTAGE	2	String	Vintage updated with returned data

County Subdivisions –Statistical (CCD)

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
COUSUBFP	5	String	FIPS County Subdivision Code
NAMELSAD	100	String	Name with translated LSAD
COUSUBNS	8	String	ANSI feature code for the MCDs
LSAD	2	String	Legal/Statistical Area Description
FUNCSTAT	1	String	Functional Status
CLASSFP	2	String	FIPS 55 Class Code describing an entity
CHNG_TYPE	1	String	Type of Area Update
RELATE	120	String	Relationship Description
JUSTIFY	150	Char	Justification
NAME	100	String	Name
VINTAGE	2	String	Vintage updated with returned data

Incorporated Place

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP*	3	String	FIPS County Code
PLACEFP	5	String	FIPS 55 Place Code
NAMELSAD	100	String	Name with translated LSAD
PLACENS	8	String	ANSI feature code for the place
LSAD	2	String	Legal/Statistical Area Description
FUNCSTAT	1	String	Functional Status
CLASSFP	2	String	FIPS 55 Class Code describing an entity
PARTFLG	1	String	Part Flag Indicator
CHNG_TYPE	1	String	Type of Area Update
EFF_DATE	8	String	Effective Date or Vintage
DOCU	120	String	Supporting Documentation
FORM_ID	4	String	(GUPS and Web BAS only)
AREA	10	Double	Acreage of Update
RELATE	120	String	Relationship Description
JUSTIFY	150	Char	Justification
NAME	100	String	Name
VINTAGE	2	String	Vintage updated with returned data

States and Equivalent Areas

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
STATEUSPS	3	String	USPS State Abbreviation
NAME	10	Integer	Name
LSAD	5	String	Legal/Statistical Area Description
STATENS	120	String	ANSI feature code for the state

Subbarrios

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
COUSUBFP	5	String	FIPS County Subdivision Code
SUBMCDFP	5	String	FIPS Sub-minor Civil Division Code
NAMELSAD	100	String	Name with translated LSAD
SUBMCDNS	8	String	ANSI feature code for the sub-minor civil division
LSAD	2	String	Legal/Statistical Area Description
CHNG_TYPE	1	String	Type of Area Update
EFF_DATE	8	String	Effective Date or Vintage
AREA	10	Double	Acreage of Update
RELATE	120	String	Relationship Description
JUSTIFY	150	Char	Justification
FORM_ID	4	String	(GUPS and Web BAS only)
NAME	100	String	Name
VINTAGE	2	String	Vintage updated with returned data
FUNCSTAT	1	String	Functional Status

Edges (All Lines)

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	State FIPS Code
COUNTYFP	3	String	County FIPS Code
TLID	10	Integer	Permanent Edge ID
TFIDL	10	Integer	Permanent Face ID (Left)
TFIDR	10	Integer	Permanent Face ID (Right)
MTFCC	5	String	MAF/TIGER Feature Class Code
FIDELITY	1	String	Indication to a respondent when their entity boundary has changed through spatial enhancement
FULLNAME	120	String	Prefix qualifier code, prefix direction code, prefix type code, base name, suffix type code, suffix qualifier code

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
SMID	22	String	Spatial Tmeta ID
BBSPFLG	1	String	2010 block boundary suggestion
CBBFLG	1	String	Planned 2020 block boundary
BBSP_2020	1	String	BBSP Participant suggested 2020 Census block boundary
CHNG_TYPE	2	String	Type of linear update
JUSTIFY	150	Char	Justification
LTOADD	10	String	Left To Address
RTOADD	10	String	Right To Address
LFROMADD	10	String	Left From Address
RFROMADD	10	String	Right From Address
ZIPL	5	String	Left Zip Code
ZIPR	5	String	Right Zip Code

Area Landmark

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
MTFCC	5	String	MAF/TIGER Feature Class Code
FULLNAME	120	String	Prefix direction code, prefix type code, base name, suffix type code, suffix direction code
AREAID	10	Integer	Landmark identification number
ANSICODE	8	String	ANSI code for area landmarks
CHNG_TYPE	1	String	Type of Area Landmark update
EFF_DATE	8	String	Effective Date or Vintage
RELATE	120	String	Relationship description
JUSTIFY	150	Char	Justification
BAG	3	String	Block Area Grouping

Hydrography Area

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
ANSICODE	8	String	ANSI code for hydrography area
MTFCC	5	String	MAF/TIGER Feature Class Code
FULLNAME	120	String	Prefix direction code, prefix type code, base name, suffix type, suffix type code, suffix direction code
CHNG_TYPE	1	String	Type of Area Update
HYDROID	10	String	Hydrography Identification Number
RELATE	120	String	Relationship description
JUSTIFY	150	Char	Justification

Point Landmarks

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
POINTID	10	Integer	Point Landmark Identification Number
ANSICODE	8	Char	Official Code for Federal Agency use
MTFCC	5	String	MAF/TIGER Feature Class Code
FULLNAME	120	String	Prefix type code, base name, suffix type code
CHNG_TYPE	1	String	Type of Area Update
JUSTIFY	150	Char	Justification

Topological Faces – Geographic Entity Relationships

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
TFID	20	Integer	Permanent Face ID
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
TRIBSUBCE	3	String	Census Tribal Subdivision
TTRACTCE	6	String	Tribal Census Tract Code
TBLKGRPCE	1	String	Tribal Census Block Group Code
AIANNHCE	4	String	Census AIANNH Code
COMPTYP	1	String	Indicates if reservation (or equivalent) or off-reservation trust land is present, or both
ANRCCE	5	String	FIPS ANRC Code
SLDUST	3	String	SLD Upper Chamber Code
SLDLST	3	String	SLD Lower Chamber Code
ELSD	5	String	Current ELSD Local Education Agency (LEA) Code
SCSD	5	String	Current SCSD Local Education Agency (LEA) Code
UNSD	5	String	Current UNSD Local Education Agency (LEA) Code
CDFP	2	String	Congressional District Code
TRACTCE	6	String	Census Tract Code
UACE	5	String	Census Urban Area Code
BLKGRPCE	1	String	Census Block Group Code
BLOCKCE	4	String	Tabulation Block Number
SUFFIX1CE	2	String	Census Block Suffix 1
SUFFIX2CE	2	String	Census Block Suffix 2
TAZCE	6	String	Traffic Analysis Zone Code
SUBMCDFP	5	String	FIPS 55 Sub-minor Civil Division Code
UGACE	5	String	Urban Growth Area Code
VTDST10	6	String	2010 Voting District Code
STATEFP10	2	String	FIPS 2010 State Code

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
COUNTYFP10	3	String	FIPS 2010 County Code
TRACTCE10	6	String	Census 2010 Tract Code
PLACEFP	5	String	FIPS 55 Place Code
COUSUBFP	5	String	FIPS 55 County Subdivision Code
CONCITYFP	5	String	FIPS 55 Place Code
LWFLG	1	String	Land/Water Flag

Topological Faces – Area Landmark Relationships

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
TFID	20	Integer	Permanent Face ID
AREAID	22	Integer	Object ID

Topological Faces – Hydrography Area Relationships

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
TFID	20	Integer	Permanent Face ID
HYDROID	22	Integer	Object ID

Address Ranges

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
TLID	22	Integer	TIGER Line ID
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
FROMHN	12	String	From House Number
TOHN	12	String	To House Number
SIDE	1	String	Side Indicator Flag
ZIP	5	String	5-digit ZIP Code
PLUS4	4	String	ZIP+4 Code
LFROMADD	10	String	Left From Address
LTOADD	10	String	Left To Address
RFROMADD	10	String	Right From Address
RTOADD	10	String	Right To Address
ZIPL	5	String	Left 5-digit ZIP Code
ZIPR	5	String	Right 5-digit ZIP Code
ZIP4L	4	String	Left ZIP+4 Code
ZIP4R	4	String	Right ZIP+4 Code

Linear Feature Names

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
OID	22	Integer	Object ID
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
NAME	100	String	Name
PREDIR	2	String	Prefix Direction code component of feature name
PRETYP	3	String	Prefix Type code component of feature name
PREQUAL	2	String	Prefix Qualifier code component of feature name
SUFDIR	2	String	Suffix Direction code component of feature name
SUFTYP	3	String	Suffix Type code component of feature name
SUFQUAL	2	String	Suffix Qualifier code component of feature name
MTFCC	5	String	MAF/TIGER Feature Class Code
PAFLAG	1	String	Primary/Alternate flag

APPENDIX E Acronyms

ACRONYM	EXPLANATION
BAS	Boundary and Annexation Survey
BAG	Block Area Grouping
BBSP	Block Boundary Suggestion Project
CBBFLG	Census Block Boundary Flag
CRVRDO	Census Redistricting & Voting Rights Data Office
FIPS	Federal Information Processing Standard
GNIS	Geographic Names Information System
GUPS	Geographic Update Partnership Software
MAF/TIGER	Master Address File/Topologically Integrated Geographic and Encoding Reference (System)
MCD	Minor Civil Division
MTFCC	MAF TIGER Feature Classification Code
OGC	Open Geospatial Consortium
QC	Quality Control
SWIM	Secure Web Incoming Module
URL	Uniform Resource Locator
VTD	Voting District Project

APPENDIX F BBSP Participant Support

Direct all questions regarding the Block Boundary Suggestion Project, including procedural and GUPS technical questions, to:

Census Redistricting and Voting Rights Data Office (301) 763-4039

Technical questions regarding file upload through the Secure Web Incoming Module (SWIM) should be directed to: geo.swim@census.gov.

APPENDIX G County Completion Tracking Sheet

BBSP Participants can use these sheets to track completed work and submissions to the state (for designees) or the Census Bureau (RDP Liaison).

			GEOGRAPHIC DATA					BBSP UPDATE			QC		SUBMISSION TRACKING	
County FIPS	County Name	Linear Feature Review	Area Landmark Review	Legal Boundary Review	Pt Landmark Review	2010 Feature Extension Rev	Block Size Review	BBSP Flags	BAGs	Block Boundary Review	General Geog Review	Validation Check	Date Sent to State (Designee)	Date Sent To Census (RDP Liaison)

APPENDIX H Shapefiles in a Different Coordinate System

Shapefiles can be created in any coordinate system. Section 2.2 described the projection system the Census Bureau uses for our partnership shapefiles. You may want to bring in some of your local shapefiles for reference, and re-project them to match our files, so they align properly with each other. There are lots of free conversion utilities out there that can reproject shapefiles from one coordinate system/datum to another using plug in utilities. After downloading and installing one of these programs, you may have to enable the appropriate plug-in, usually by going to the Plug-ins menu and selecting the GIS Tools listing on that menu to enable it. A new GIS Tools menu heading should appear on the toolbar. From that GIS Tools menu, select **Vector => Reproject a Shapefile**. Select the shapefile you want to re-project, and you will get a window similar to the example below, from which you can select your target projection and datum:

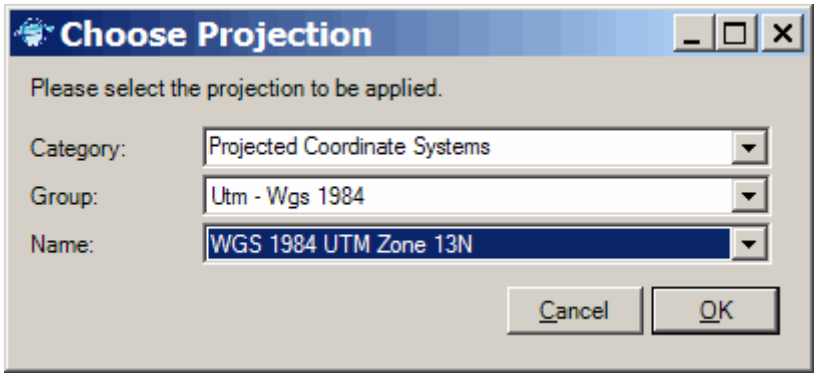

Figure 11: Example

If the shapefile you are re-projecting has a **.prj** projection file defining its original projection, most conversion utilities will read that automatically. If not, you will get another window asking you to specify the original coordinate system of the shapefile. You can then reproject the shapefile, and create a new shapefile with "_**Reprojected**" appended to the original shapefile name.

Your conversion utility will create the **.prj** projection file for the newly-reprojected shapefile, which many GIS programs can read automatically, and which is useful to keep with the shapefile to keep track of its coordinate system. If you only want to create a **.prj** file for a shapefile, select **GIS Tools => Vector => Assign Projection to shapefile**, and follow the procedures to select the shapefile and its original projection; the conversion utility will create a matching **.prj** file to go with it.