Request for Non-Substantive Change to the
Redistricting Data Program
OMB Control No. 0607-0988
U.S. Department of Commerce
U.S. Census Bureau

Purpose

Required by law, the Redistricting Data Program (RDP) provides states the opportunity to specify the small geographic areas for which they wish to receive decennial population totals for the purpose of reapportionment and redistricting.

Under the provisions (Public Law 94-171) of Title 13, Section 141(c) of the United States Code (U.S.C.), the Secretary of Commerce (Secretary) is required to provide the "officers or public bodies having initial responsibility for the legislative apportionment or districting of each state" with the opportunity to specify geographic areas (e.g., blocks, voting districts) for which they wish to receive decennial census population counts for the purpose of redistricting. By April 1 of the year following Census Day, the Secretary is required to furnish the state officials or their designees with population counts for American Indian areas, counties, cities, census blocks, and state-specified congressional, legislative, and voting districts.

Liaisons from the 50 states, the District of Columbia, and Puerto Rico update and verify the boundaries of their voting districts during the implementation of Phase 2 of the RDP, the Voting District Data Project (VTDP). The Census Bureau performs two rounds of verification in order to ensure the voting districts (VTDs) are current and align better with other local and decennial census geography:

1. From December 2018 through May 2019, states that participated in the initial delineation verified their VTDs.

2. From December 2019 through March 2020, states that participated in the initial delineation or the first verification will have a final opportunity to verify their VTD submissions.

This non-substantive change request is to submit a finalized version of the *VTDP – non GUPS User Guide* for verification (round two) of RDP from the currently approved Office of Management and Budget (OMB) collection, as described below.

Background

The current RDP OMB collection was approved on November 20, 2018 with an expiration date of November 30, 2021. The finalized user guide does not change the content or objective of the RDP. The changes were necessary to reflect the most current RDP information.

Burden

The burden of the Redistricting Data Program is unchanged by this update.

Attachments

RDP Materials	
Changes as part of this NSC	***Content***
Update partnership shapefiles description, editing Table 3, updating dates in naming conventions and abbreviations.	*VTDP – non GUPS User Guide.*

Changes to Voting District Project – Final Verification Non GUPS User Guide				
Date	**Materials Name or Identification**	**Reference**		**Summary of Changes**
Date when you incorporate the changes to the document	Material name	Page Screenshot Throughout	Changes Made	Corrected typos such as …. Added instructions or graphics Removed verbiage Added a new letter Added a new section that describes
Nov 2019	VTDP Non GUPS User Guide	Throughout	1. Changed year referenced in partnership shapefile names.	1. Changed year from '2018' to '2019' in partnership shapefile names.
Nov 2019	VTDP Non GUPS User Guide	Throughout	1. Changed naming conventions in file names to reflect how files should be named for VTDP Final Verification.	1. Changed references from 'vtdv19' or 'vtd19' to 'vtdv20'
Nov 2019	VTDP Non GUPS User Guide	Page 2, Section 1.3	1. Changed abbrev for Voting Districts. 2. Added Note to inform participants portions of the User Guide are crossed out that are not applicable to the Voting District Project Final Verification.	1. Changed from 'VTDS' to 'VTDs'. 2. Added the following text: ***NOTE:*** *The sections in this document using strikethrough text are no longer applicable to the Voting District Project. The actions in those sections were only available for the initial delineation and the first verification stages of the project.*

Nov 2019	VTDP Non GUPS User Guide	Page 5, Table 1	1. Crossed out language in table that is not applicable for VTDP Final Verification.	1. Crossed out information about arealm, place, mcd, and county attribute tables.
Nov 2019	VTDP Non GUPS User Guide	Page 6, Bullet 3	1. Crossed out language in in third bullet that is no longer applicable to the Voting District Project.	1. Crossed out statement on 'legal boundary' updates.
Nov 2019	VTDP Non GUPS User Guide	Page 8, Table 2	1. Changed field names. 2. Added new field. 3. Added table note.	1. Changed 'ST' field to 'STATEFP' and changed 'COU' field to 'COUNTYFP'. 2. Added 'CHNG_TYPE' field. 3. Added table note to read as follows - *Note: Field Names in attribute table must be CAPITALIZED.*
Nov 2019	VTDP Non GUPS User Guide	Page 12, Table 3	1. Added field to Table. 2. Added table note.	1. Added 'BBSP_2020' field to Table 3. 2. Added table note to read as follows - *Note: Field Names in attribute table must be CAPITALIZED.*
Nov 2019	VTDP Non GUPS User Guide	Pages 12 – 18, Sections 2.6 & 2.7	1. Crossed out language that is no longer applicable to the Voting District Project.	1. Crossed out sections 2.6 - Area Landmark Review and 2.7 - Legal Boundary Review and Update.
Nov 2019	VTDP Non GUPS User Guide	Page 19, Section 3.1	1. Changed Field Names.	1. Changed field name 'ST' to 'STATEFP' and changed field name 'COU' to 'COUNTYFP'.

Nov 2019	VTDP Non GUPS User Guide	Pages 20 – 22, Section 3.3	1. Crossed out language that is no longer applicable to the Voting District Project.	1. Crossed out section 3.3 – Submitting Area Landmarks and Area Hydrography Updates.
Nov 2019	VTDP Non GUPS User Guide	Page 28, Images in Sections 4.4 and 4.5.	1. Changed naming convention in file names to reflect how files should be named for VTDP Final Verification.	1. Changed naming conventions in file names in images from ‘vtd18’ to ‘vtdv20’.

OMB Control No: 0607-0988

Expiration Date: 11-30-2021

Voting District Project Participant Guide

Instructions for Participants with User Supplied GIS Software

U.S. Department of Commerce
Economic and Statistics Administration
U.S. CENSUS BUREAU
census.gov

United States Census Bureau

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Paperwork Reduction Act Statement

A federal agency may not conduct or sponsor, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act (PRA) unless that collection of information displays a current valid Office of Management and Budget (OMB) Control Number. This collection is voluntary. The authority for conducting this collection comes from Title 13 United States Code (U.S.C.), Sections 16, 141, and 193.

The OMB Control Number for this information collection is 0607-0988. Public reporting for this collection of information is estimated to be approximately 217 hours per response, including the time for reviewing instructions, completing and reviewing the collection of information.

Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to:

Paperwork Reduction 0607-0988
United States Census Bureau
4600 Silver Hill Road, Room 4H177
Washington, DC 20233

The Census Bureau issued a Federal Register Notice to revise its confidentiality pledge language to address the new cybersecurity screening requirements:

Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

Section 1. Introduction

1.1 Background

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 2020 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 Redistricting Data Program and Recommendations for Census 2030

1.2 Purpose

This document addresses Phase 2: Voting District Project (VTDP) of the RDP. Through the VTDP, liaisons designated by the legislative leadership in each state, the District of Columbia, and Puerto Rico, have the opportunity to submit their voting district boundaries (e.g. precincts, wards), codes, and names to the Census Bureau as well as suggest additional updates to other geographic areas as they did in the BBSP.

The Voting District Project has two distinct parts – initial delineation, which is referred to as VTD, and verification, referred to as VTDV. If you are submitting VTD boundaries as part of the 2020 Redistricting Data Program (RDP) for the first time for a county, that is an initial delineation. During verification, the state has the opportunity to review the boundaries they submitted to ensure the Census Bureau processed them as expected. If further updates are needed, the states can make those updates using the same methodology used in initial delineation. Detailed information on submitting updates—during initial delineation or verification-- is available in Section 2 of this document.

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) provided by the Census Bureau, for reviewing, verifying and/or modifying the Census Bureau supplied shapefiles. The GUPS is the Census Bureau's recommended tool for geographic updates, including voting district updates, in the VTDP. We strongly recommend that

VTDP 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.

1.3 Document Structure

Section 1 of this document provide background information on the VTDP and this User Guide.

Section 2 provides the specific information for reviewing VTDs during verification and making allowable updates to voting districts, linear features, areal and hydrographic features, and legal geographies (incorporated places, minor civil divisions and counties) whether for initial delineation or verification.

Section 3 summarizes the fields required and the naming conventions for the submission files.

Section 4 describes the procedures for submitting the files to the Census Bureau using our Secure Web Incoming Module (SWIM).

NOTE: The sections in this document using strikethrough text are no longer applicable to the Voting District Project. The actions in those sections were only available for the initial delineation and the first verification stages of the project.

Section 2. VTDP Workflow

The VTDP participant is not required to perform all the update activities permitted. Work is performed at a county level and should be submitted to the Census Bureau on a flow basis, as each county is completed. Submitting work on a flow basis permits the CRVRDO and the Census Bureau to review the files early in the process and provide feedback as necessary.

2.1 RDP Liaison

The Census Bureau works with the State Redistricting Data Program nonpartisan Liaison, designated by the governor and legislative leadership of each state at the beginning of the RDP. To maintain a nonpartisan relationship, the Census Bureau only accepts completed work from the designated RDP Liaison or their designated technical representatives.

Any work performed on behalf of the State Redistricting Data Program Liaison, such as by a 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 VTDP work completed by a designee requires changes or additional work, it is the State Liaison's responsibility to decide whether to make the changes or return the project to their designee for further updates.

The State RDP Liaison will submit completed, county-level files on a flow basis to the Census Bureau through the Secure Web Incoming Module (SWIM). They should not hold files to submit all at once. Files should be submitted as each county is completed, especially at the beginning of the update period, so that the Census Bureau can provide feedback if there are errors, omissions, or other concerns.

2.2 Obtaining Census Shapefiles

In order to verify and/or submit voting district boundaries and other geographic updates, the Census Bureau requires participants to review and update Census Bureau - supplied partnership shapefiles. There are two ways for participants to access the partnership shapefiles:

- Download the partnership shapefiles from the DVD provided in the participant package;
- Download the partnership shapefiles from the Census FTP site: <ftp://ftp2.census.gov/geo/PVS/>.

The planned block shapefiles are included on the DVD but are stored separately from the partnership shapefiles on the Census Bureau's FTP site. They can be downloaded by state 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 effective as of January 1, 2019, and the VTD submissions provided to the Census Bureau from January 2019 through May 2019. The zip file name

begins with "**partnership_shapefiles_19v2**". When unzipped, the names of the shapefiles begin with the prefix **PVS_19_v2**. For example, the edges shapefile is named **PVS_19_v2_edges_<ssccc>** (two digit state code and three digit county code).

Note: The FTP site may contain different vintages of the partnership shapefiles. For VTDP, make sure to use **vintage 2** (v2) shapefiles that begin with the prefix **PVS_19_v2**.

2.2.1 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.

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

2.3 Updating Census Bureau Shapefiles or Submitting "No Changes"

Participants should use the following provided partnership shapefiles for their review and, if necessary to submit updates. If you previously submitted VTD boundaries the PVS_19_v2_vtd_<ssccc> shapefile should reflect the boundaries you provided. We may have adjusted the boundaries slightly to align them to existing geography in MAF/TIGER. After you review the shapefile, if the boundaries are correct and do not require any further updates, please notify us that the county does not require any updates, by emailing us at rdo@census.gov with a statement indicating the county code <ssccc>, county name, and that no changes are needed. No further action is required.

If after you review the VTDs you determine corrections or further updates should be made, or if you are submitting your VTD boundaries for the first time, 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 1: Partnership Shapefiles for Review and Updating

Filename	Used For
PVS_19_v2_vtd_<ssccc>	Voting district updates.
PVS_19_v2_faces_<ssccc>	Voting district updates.
PVS_19_v2_edges_<ssccc>	Linear feature review and updates (adds, deletes, attribute updates).
~~**PVS_19_v2_arealm_<ssccc>**~~	~~Area landmark and area hydrography review and updates.~~
~~**PVS_19_v2_place_<ssccc>**~~	~~Incorporated place legal boundary updates.~~
~~**PVS_19_v2_mcd_<ssccc>**~~	~~Minor civil division legal boundary updates.~~
~~**PVS_19_v2_county_<ssccc>**~~	~~County legal boundary 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 geography or shapefile you are updating.

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 local GIS shapefile. If participants must add features to complete area entity updates (e.g. county, MCD, place, area landmark), a separate linear feature update layer needs to be created. Please create linear feature update layers and change polygons using only the current partnership shapefiles. We recommend you create and submit your updates following this procedure:

1) Make a copy of the provided partnership shapefile that you wish to edit.

2) Make updates to the file copy.

3) Export the updates into a 'changes' shapefile, following the naming conventions, and zipping the shapefiles as described in **Section 3**.

4) Submit the shapefiles as described in **Section 4**.

2.4 Voting District Updates

When working to review and prepare a Voting District (VTD) file for submission

to the Census Bureau, it is critical that you use and update the Census partnership file(s), and that the required fields are present and correctly attributed (see **Table 2: Required Attributes for Voting District Updates**). Files submitted that do not align with Census geography will have unpredictable outcomes or may not be able to be applied to the Census Bureau's MAF/TIGER database. VTD delineations must also meet the following criteria:

- VTDs must be contained within a single county and may not cross the census supplied county boundaries.
- VTD relationships with other geographies must use current Census geography.
- ~~If a legal boundary (i.e. incorporated place boundary) needs to be updated to accurately reflect its spatial relationship to a VTD, please submit the boundary corrections to the legal entities as described in **Section 2.7**.~~
- Counties should have wall-to-wall VTD coverage.
    - We request that you code all areas, including water, to a VTD. If you do not code each area, the Census Bureau will assign the code of "ZZZZZZ" to the unassigned areas. This allows us to ensure we have all areas coded to a VTD.
- VTDs are often, but not required to be, named.
    - If a name is not supplied, the Census Bureau will use the VTD code as the name. Names can be up to 120 characters and can include spaces, alphanumeric, and special characters. Names will appear on Census Bureau data and geographic products, including the P.L. 94-171 Census Redistricting Data Summary File, when the data are released after the 2020 Census.
- VTDs require a Legal and Statistical Description (LSAD). There are three LSAD values allowed for VTDs:
    - Other (00): This is indicated when the words "Voting District" are not associated with the name. For example, a District named "Sample" with an LSAD of "00" would appear as "Sample."
    - Prefix (V1): This is indicated when the words "Voting District" come before the name. For example, a District named "Sample" with an LSAD of "V1" would appear as "Voting District Sample."
    - Suffix (V2): This is indicated when the words "Voting District" come after the name. For example, a District named "Sample" with an LSAD of "V2" would appear as "Sample Voting District."
- VTDs must be identified as "actual" or "pseudo." This is indicated in the VTDI field by entering an "A" or a "P".
    - An "actual" VTD is one that exactly matches the precincts or other election areas in your state.

- A "pseudo" VTD is one that does not exactly represent the voting district spatially. For example, states may choose to identify a super voting district composed of smaller voting districts within their VTD framework and may wish to identify the super voting district as pseudo. This is an appropriate approach to the submission of the VTD plans.

- VTDs must have a functional status. This is indicated in the Funcstat field. Of the attribute table. There are two applicable functional statuses for VTDs: nonfunctioning, and statistical.
  - Actual VTDs are considered nonfunctioning. If the VTDI field= A, the functional status is nonfunctioning. Enter "N" in the FUNCSTAT field.
  - Pseudo VTDs are considered statistical. If the VTDI field= P, the functional status is statistical. Enter "S" in the FUNCSTAT field.

- VTDs must have a MAF/TIGER Feature Class Code of G5240. This is indicated in the MTFCC field, and identifies the geography as that of a VTD.

- VTDs must be submitted as vintage 90, which means that is a current geography. (Other geographies, for example VTDs that exist in the 2000 Census would have a vintage other than 90.) This is indicated in the VINTAGE field.

Note: **If you have a tabular equivalency file defining which 2010 Census blocks comprise each VTD for your entire state, please contact us at rdo@census.gov or 301-763-4039 for other submission options.**

If you submitted a VTD file during the initial delineation and upon review in verification realize you need to make additional updates, please follow the procedures in Section 2.4.1. If you are submitting VTDs for a county for the first time (initial delineation submission), we recommend two possible methods for creating a VTD submission file: starting with your own VTD layer, described in Section 2.4.2, or starting with a blank faces layer, described in Section 2.4.3. In all cases, you must make sure the submission file is named properly and includes all required attributes, as shown in **Table 2**.

Table 2: Required Attributes for Voting District Updates

	STATEFP	COUNTYFP	VTDST	VTDI	LSAD	NAME	FUNCSTAT	MTFCC	VINTAGE	CHNG_TYPE
Voting District	X	X	X	X	X	X*	X	X (G5240)	X (90)	

Note: X = Field Required
Note: Field names in attribute table must be CAPITALIZED
* If your state has names for their VTDs, we strongly suggest that you supply the names in the file. If your state does not have names for their VTDs, we will use the VTD code (VTDST) for the name.

2.4.1 Using the Census 2020 VTD layer (for VTDV) to create your VTDV Submission

1. Symbolize the faces layer (PVS_19_v2_faces_<ssccc>) by VTD code (VTDST).

2. When moving faces between VTDs, do so by changing the VTDST codes on the record of the face being moved to those of the receiving VTD. You may need to add a new linear feature to split the face if the VTD boundary itself splits the face. If splitting faces, change the same fields of the face piece being moved. Remember that you must also submit a linear feature changes file. (See **Section 2.5**.)

3. Once all faces have been assigned to the appropriate VTD, dissolve the Faces layer on the VTD code.

4. Using the dissolved output, which should now match your required boundaries, update/review (add if needed) all of the required fields for the VTD submission layer. (See **Table 2**.)

5. Rename the file as described in **Section 3.1**.

2.4.2 Using your own VTD layer to create your VTD Submission

1. Generate internal polygon centroids for the Faces layer. (PVS_19_v2_faces_<ssccc>) preserving the FACEID field.

2. Perform a spatial join of the newly generated centroids to your VTD layer. This creates an output of centroids with the matching VTD codes. You may want to export this as a new layer to make it permanent and easier to use in the next steps.

3. In the original polygon Faces layer, delete the values in the VTDST field if values exist. They would only exist if you have already submitted VTDs during initial delineation and are trying to resubmit the entire county's VTDs now.

4. Perform an attribute join between the centroid layer created in Step 2 and the original Faces layer on the FACEID. Copy the VTDST codes from the centroid layer to the Faces layer into the VTDST field.

5. Symbolize the original Faces layer by VTD code. This should approximate your VTD boundaries but may require some cleanup.
6. Review the new Faces symbolized by VTD code layer.
7. Move Faces as necessary to other VTDs by changing the VTDST code on the record of the face being moved to the VTD code of the receiving VTD. You may need to add a new linear feature to split the face if the VTD boundary itself splits the face. If splitting faces, change the VTDST code of the face piece being moved. Remember you must also submit a linear feature changes file. (See **Section 2.5**.)
8. Once all faces have been assigned to the appropriate VTD, dissolve the Faces layer on the VTD code.
9. Using the dissolved output, which should now match your required boundaries, update/review (add if needed) all of the required fields for the VTD submission layer. (See **Table 2**.)
10. Rename the file as described in **Section 3.1**.

2.4.3 Using Blank Faces to create your VTD Submission

1. In the Faces layer (PVS_19_v2_faces_<ssccc>), delete (blank) the values in the VTDST field if values exist. They would only exist if you have already submitted VTDs during initial delineation.
2. Assign new VTD codes to each Face in the Faces layer as required. You may need to add a new linear feature to split the face if the VTD boundary itself splits the face. If splitting faces, assign the VTDST code to the appropriate face piece. (See **Section 2.5**.)
3. Once all faces have been assigned to the appropriate VTD, dissolve the Faces layer on the VTD code.
4. Using the dissolved output, which should now match your required boundaries, update/review (add if needed) all of the required fields for the VTD submission layer. (See **Table 2**.)
5. Rename the file as described in **Section 3.1**.

2.5 Linear Feature Review

All linear feature updates must be submitted back to the Census Bureau by updating the PVS_19_v2_edges_<ssccc> shapefile and exporting all changes into a participant created shapefile named vtdv20_<ssccc>_ln_changes.

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; please exclude private driveways).

In order to submit linear feature updates, participants must create a separate

linear feature update layer. Additionally, if VTD, area landmark, or legal boundary changes are made and use newly digitized edges from you, you must update or create that edge in the linear feature update layer.

To create the linear feature update layer, we recommend that you begin by making a copy of the PVS_19_v2_edges_<ssccc> for editing. Update that shapefile and export the changes into a new file named **vtdv20_<ssccc>_ln_changes**, where <ssccc> is the state county code. Make sure you include the required fields in the return file as shown in **Table 3.**

To review the linear features, we suggest that you begin by symbolizing the linear feature update layer based on the MAF/TIGER Feature Class Code (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. Census provided shapefiles are described in **Appendix D.** 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 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. **Extraneous 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. We need to receive this feature back with the DL change type so we know to remove it from our geographic database, MAF/TIGER.
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 its actual location or it is positionally (topologically) 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, being certain to apply the census attributes from the feature being "deleted" (moved), most critically the TLID. Do not attempt to reshape an edge by moving shape points. These will not be recognized or processed.
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. We will only accept names on roads, railroads, and hydrographic features.
5. **Nonvisible edges** - parcel lines, pipelines, and power lines will only be accepted when they are being used to define a boundary and should remain unnamed.

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. All required attributes are shown in **Table 3**.

Table 3: Required Attributes for Linear Feature Updates

	CHNG_TYPE	TLID	FULLNAME	MTFCC	BBSP_2020
Add Feature	X('AL')	Only required if performing a reshape	Required if MTFCC is S1100, S1200. Optional if MTFCC is S1400	X	
Delete Feature	X('DL')	X			
Rename Feature	X('CA')	X	X	X	
Change Feature MTFCC	X('CA')	X		X	

Note: X = Required Field
Note: Field names in attribute table must be CAPITALIZED

Address Range Updates

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.

The Census Bureau accepts, but does not encourage, address range data as part of the linear feature update layer. Since we have internal update processes and other programs for creating and maintaining address ranges, we are unlikely to use address range data submitted through this program to update our database.

~~2.6 Area Landmark Review~~

~~**All area landmark and area hydrography updates must be submitted back to the Census Bureau in a participant created shapefile named vtd20_<ssccc>_alndk_changes.**~~

~~The Census Bureau accepts updates to area landmarks and area hydrography as part of the VTDP.~~

~~Allowable updates include:~~

- ~~Boundary corrections (adding and removing area);~~
- ~~Creating a new area landmark or hydrographic area;~~
- ~~Removing an area landmark or hydrographic area; and~~
- ~~Changing or adding a name.~~

~~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_19_v2_arealm_<ssccc>**) for editing and then export all changes into the **vtd20_<ssccc>_alndk_changes file**.

Note: If you are making changes to areal landmarks during VTDP 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 named vtd20_<ssccc>_ln_changes, where <ssccc> is the state county code. (See **Section 2.5**).

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 database. **Table 4** shows the MTFCCs for the types of area landmarks and hydrographic areas that can be updated (names, boundaries, etc.) during VTDP.

Table 4: 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/Hospice/Urgent Care Facility
K1235	Juvenile Institution
K1236	Local Jail or Detention Center
K1237	Federal Penitentiary, State Prison, or Prison Farm
K2110	Military Installation
K2180	Park
K2181	National Park Service Land
K2182	National Forest or Other Federal Land
K2183	Tribal Park, Forest, or Recreation Area

	DESCRIPTION
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 5: 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
Note: Field names in attribute table must be CAPITALIZED

2.7 Legal Boundary Review and Update

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 post-modification entirety.

At the recommendation of many states, the Census Bureau is continuing to provide the opportunity for states to review and update legal boundaries in Phase 2 (VTDP) of the RDP.

During the initial delineation phase and the subsequent verification phase of the VTDP, state redistricting participants may submit legal boundary updates (annexations and deannexations) and boundary corrections for counties, MCDs, incorporated places, and consolidated cities. The opportunity to make these legal boundary updates and boundary corrections will not be included in the second round of verification.

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, deannexations, and boundary corrections must be submitted back to the Census Bureau in a participant created shapefile. (Refer to **Section 3.4** for a description of required submission files, names, and attributes by entity type.) If you make changes to legal boundaries during VTDP and during these edits you add, delete, or change the edges involved in the boundary, you must also be updating the linear features layer. Please extract the linear changes and submit this layer in addition to the appropriate legal boundary (area) change layer(s). Refer to **Section 2.4** for more information.

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 corrections submitted through the VTDP, we strongly encourage you to submit the documentation for any legal updates (annexations and deannexations) to expedite our ability to reconcile and process those changes you are reporting.

You do not have to provide the actual legal paperwork as documentation 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 and de-annexations 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 the corresponding change type must be populated, as shown in **Table 6**.

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 6: 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
Note: Field names in attribute table must be CAPITALIZED

Boundary Corrections

As with annexations and deannexations, you must create individual change polygons for each boundary correction. These can be contained in the same changes layer as the annexations and deannexations. 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 7: 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
Note: Field names in attribute table must be CAPITALIZED

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:

- 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.~~

Section 3. Create Data Submission File

The Census Bureau requires that the returned shapefiles have specific attributes and characteristics in order to accept them as legitimate submissions. Below are the specifications for shapefiles in your VTDP Submission.

All returned shapefiles as well as any supporting documentation should be placed in a .ZIP file named **vtdv20_<ssccc>_return.zip** prior to being submitted to the Census Bureau, where <ssccc> is the 2 digit state and three digit county FIPS code.

3.1 Submitting Voting District Updates

Unlike other updated area features, we ask that you send the complete VTD shapefile to the Census, rather than the changes.

To submit your initial VTD updates, please name the shapefile '**vtd20_<ssccc>_complete_vtd** where **<ssccc>** is the state and county FIPS code.

If you already submitted VTD boundaries and are submitting updates to those boundaries as part of VTD Verification, please name the shapefile **vtdv20_<ssccc>_complete_vtd**.

All VTDs should have the following attributes filled out.

The field names should be in all CAPITAL letters.

STATEFP

- 2 character state FIPS code

COUNTYFP

- 3 character county FIPS code

VTDST

- 6 character code

VTDI

- **A** (Actual)
- **P** (Pseudo)

LSAD

- **00 (**None)
- **V1** (Prefix)
- **V2** (Suffix)

NAME

- Name

FUNCSTAT

- **N** Nonfunctioning legal entity (for Actual VTDs)
- **S** Statistical Entity (for Pseudo VTDs)

MTFCC

- **G5240** (MAF/TIGER Feature Class Code for all VTDs)

VINTAGE

- **90** (For all Submissions)

3.2 Submitting Linear Feature Review Updates

Once you have completed all linear feature updates, export the updated edges to a shapefile named '**vtdv20_<ssccc>_ln_changes** where **<ssccc>** is the state and county FIPS code. Updated edges would be those with where you have populated the **CHNG_TYPE** field (as per the instructions in **Section 2.5**):

- **AL** (Add Line)
- **DL** (Delete Line)
- **CA** (Change Attribute)

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

~~3.3 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 '**vtdv20_<ssccc>_alndk_changes**'. The file should include all area landmark polygons where the **CHNG_TYPE** Field is populated with:

- **B** (Boundary Correction)
- **E** (New Landmark)
- **G** (Change Name or MTFCC)
- **X** (Delete)

Additionally, the linear features that were modified (added or reshaped) to make these changes should be included in the **vtdv20_<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

3.4 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 for each entity type you are reporting change for.

As stated in **Section 2.7**, we request that you supply a whole entity file, in addition to a change 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 the **CHNG_TYPE** Field is populated with:

- **A** (Annexation)
- **B** (Boundary Correction)
- **D** (Deannexation)

Return File Name: vtdv20_<ssccc>_changes_cousub.shp

Whole Entity File Name: vtdv20_<ssccc>_wholeentity_cousub.shp

Incorporated Place Change Polygon Shapefile

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

- **A** (Annexation)
- **B** (Boundary Correction)
- **D** (Deannexation)

Return File Names: vtdv20_<ssccc>_changes_incplace.shp

Whole Entity File Name: vtdv20_<ssccc>_wholeentity_incplace.shp

Consolidated City Change Polygon Shapefile

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

- **A** (Annexation)
- **B** (Boundary Correction)
- **D** (Deannexation)

Return File Names: vtdv20_<ssccc>_changes_ concity.shp Whole

Entity File Name: vtdv20_<ssccc>_wholeentity_ concity.shp

3.5 Create Zip File Containing All Changes

All returned shapefiles and whole entity shapefiles for a county, as well as any supporting documentation, should be placed in a .zip file prior to submitting the return to the Census Bureau: **File Name: vtdv20_<ssccc>_return.zip**.

Section 4. File Submission through Secure Web Incoming Module

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.

If you have submitted files for any Census Bureau geographic programs, use the same SWIM account.

Note: For the Redistricting Data Program, including the Phase 2 VTDP, 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:

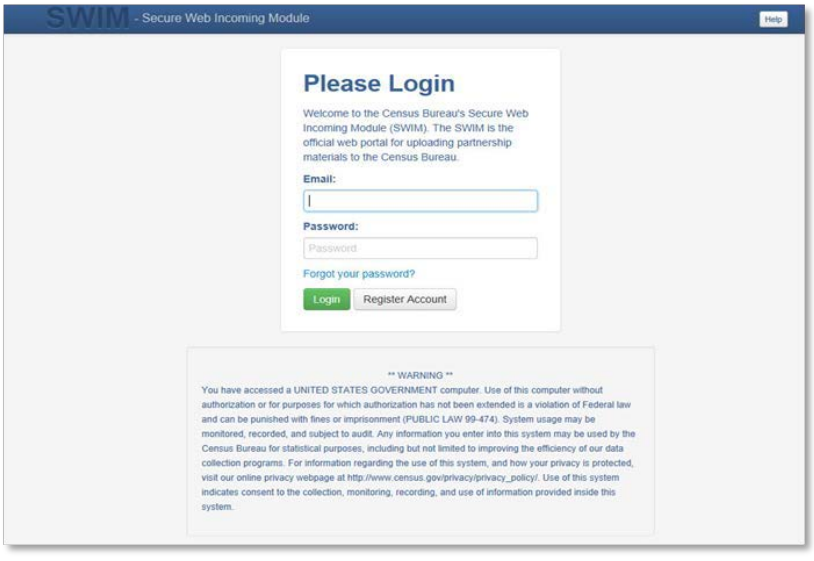

Figure 1: SWIM Login Screen

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.

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.

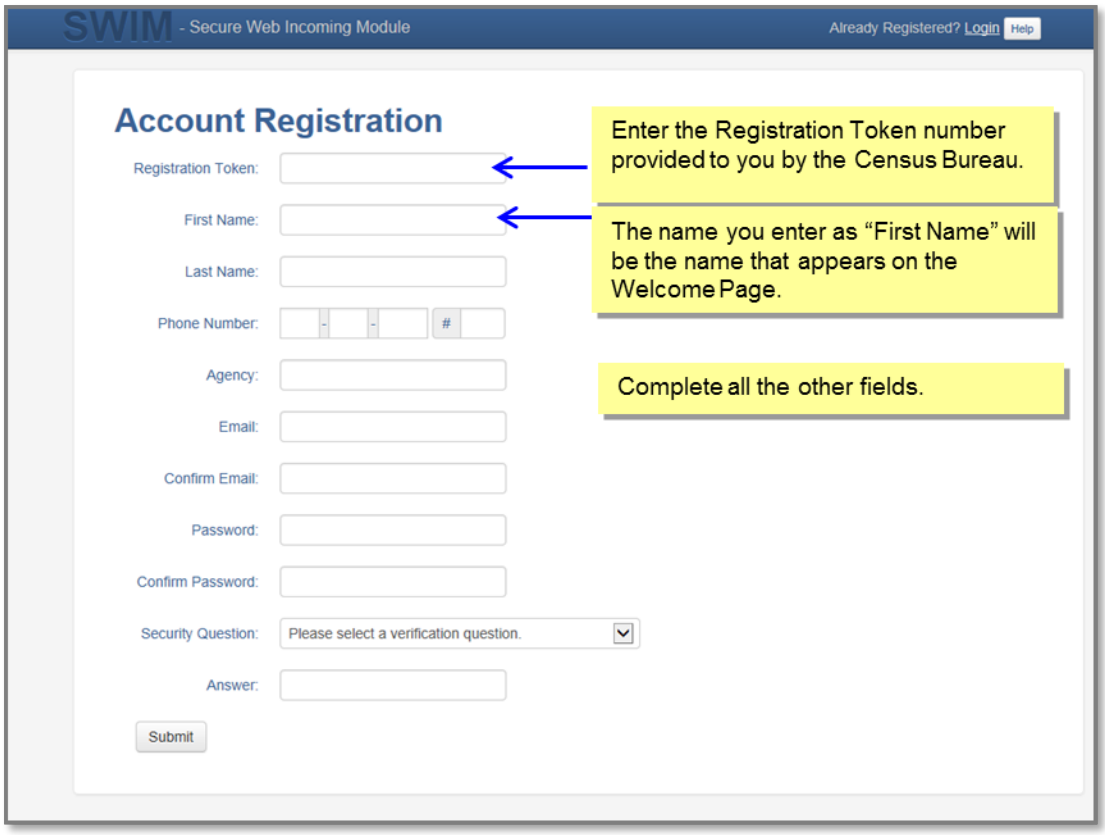

Figure 2: SWIM Account Registration Screen

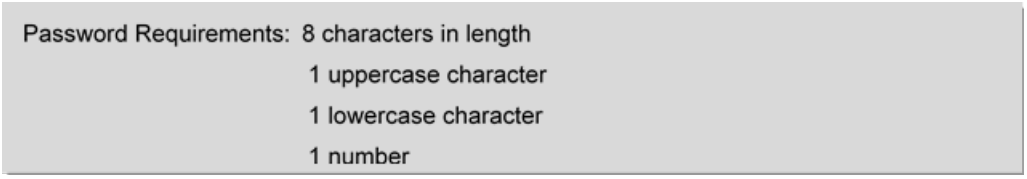

Figure 3: Password Requirements

4.2 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 4: SWIM Welcome Screen (no previous files uploaded)

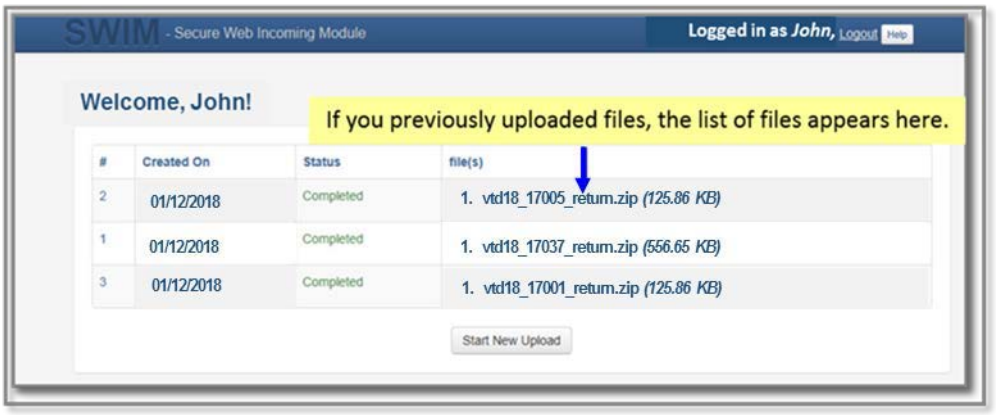

Figure 5: SWIM Welcome Screen (files previously uploaded)

4.3 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 6: SWIM Geographic Program Page

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

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

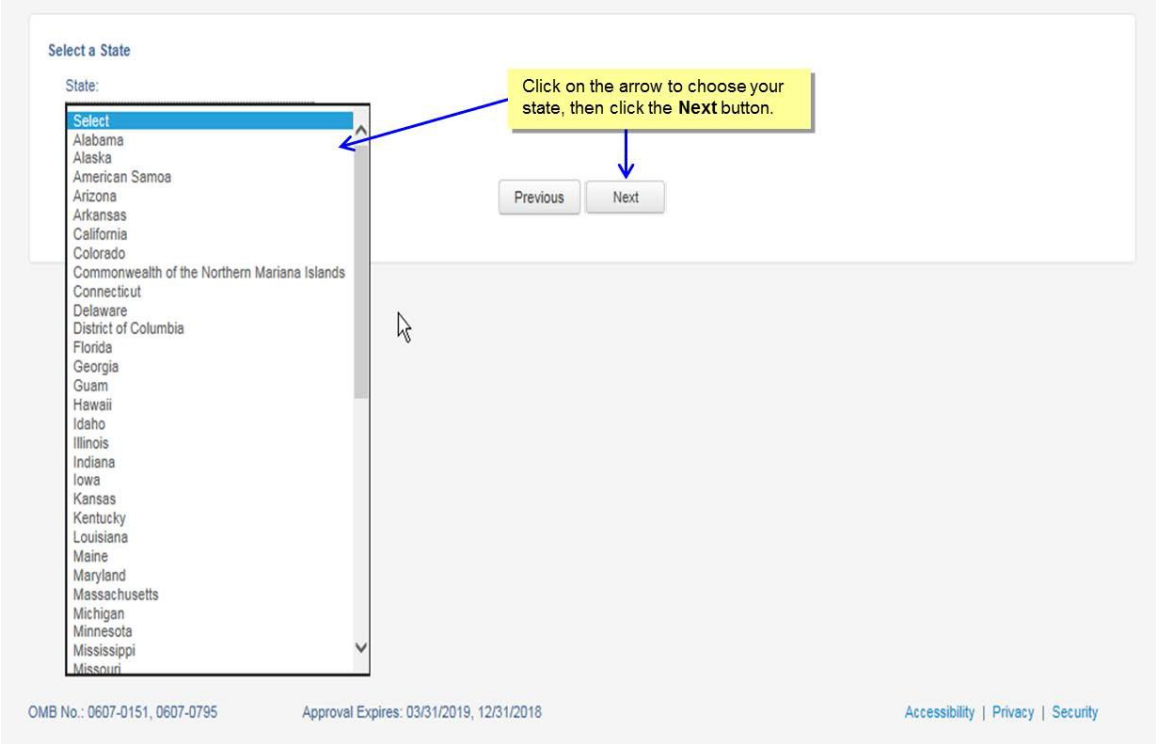

Figure 7: SWIM Select a State Page (for RDP)

4.4 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.

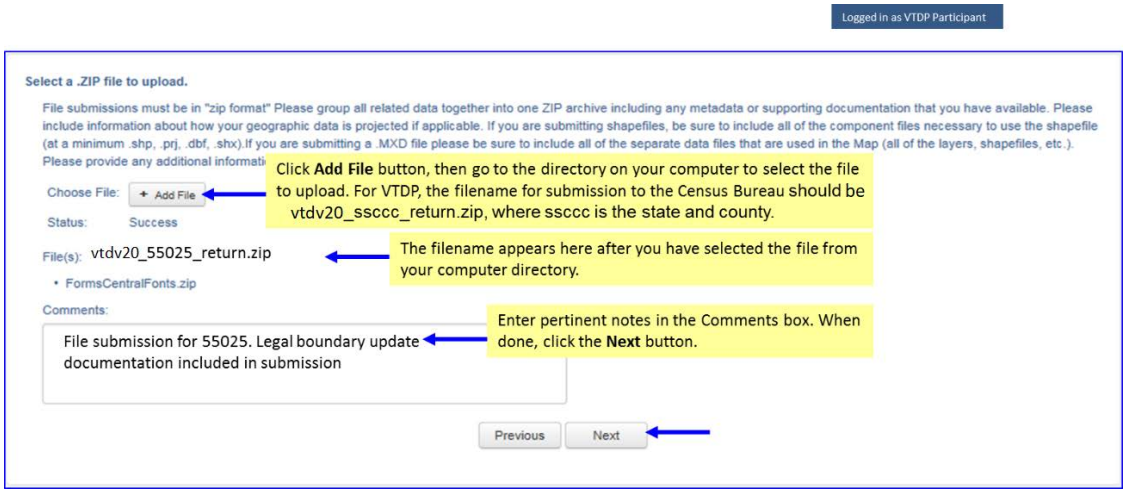

Figure 8: Select a .ZIP File to Upload Page

4.5 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 9: Thank You Page

Appendices

APPENDIX A Updates Allowed by MTFCC

The following three tables list, by MTFCC, the geographic updates permitted for area landmarks, linear features, and point landmarks.

Table 8: Area Landmark Updates Permitted

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

MTFCC	DESCRIPTION
K2457	Airport - Area Representation
K2540	University or College
K2561	Golf Course
K2582	Cemetery

Table 9: Linear Feature Updates Permitted

*These features are only accepted as adds when used as a boundary for geographic area or as a suggested block boundary.

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)

MTFCC	DESCRIPTION
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

APPENDIX B Street Type Abbreviations

The MAF/TIGER system uses the U.S. Postal Service standard abbreviations for street name types. The table below lists the street name type and the standard abbreviation to use when updating or adding street names to the MAF/TIGER system.

Table 10: 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

Street Name Type	Standard Abbreviation
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
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

Street Name Type	Standard Abbreviation
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
GREEN	GRN
GREENS	GRNS
GROVE	GRV
GROVES	GRVS
HARBOR	HBR
HARBORS	HBRS

Street Name Type	Standard Abbreviation
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

Street Name Type	Standard Abbreviation
MANOR	MNR
MANORS	MNRS
MEADOW	MDW
MEADOWS	MDWS
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

Street Name Type	Standard Abbreviation
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
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

Street Name Type	Standard Abbreviation
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
VIEW	VW
VIEWS	VWS
VILLAGE	VLG
VILLAGES	VLGS
VILLE	VL

Street Name Type	Standard Abbreviation
VISTA	VIS
WALK	WALK
WALKS	WALK
WALL	WALL
WAY	WAY
WAYS	WAYS
WELL	WL
WELLS	WLS

APPENDIX C 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. The table below describes each code. You can download a more comprehensive version of the table at http://www.census.gov/geo/reference/mtfcc.html.

Table 11: Complete List of MTFCC Descriptions

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.

MTFCC	Feature Class	Feature Class Description
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, 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 the Census Bureau for the purpose of presenting demographic data

MTFCC	Feature Class	Feature Class Description
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.
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

MTFCC	Feature Class	Feature Class Description
		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.
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.

MTFCC	Feature Class	Feature Class Description
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, 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]

MTFCC	Feature Class	Feature Class Description
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 or 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 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.

MTFCC	Feature Class	Feature Class Description
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,	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 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.

MTFCC	Feature Class	Feature Class Description
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.
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]

MTFCC	Feature Class	Feature Class Description
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.
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	Generally a paved non-arterial street, road, or byway that usually has a single lane of traffic in each direction. Roads in this feature

MTFCC	Feature Class	Feature Class Description
	Road, Rural Road, City Street	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 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.

Note: The information in this table was last updated in November 2016.

APPENDIX D Shapefile Data Dictionary

The Census Bureau's partnership shapefiles consist of numerous layers and their accompanying tables representing different geographies. **Table 12** lists the shapefile layer name and the geography each layer represents. **Table 13** through **Table 46** list the data table for each of the layers listed in **Table 12**, with the attribute fields, their length, type, and description.

Table 12: Shapefile Layer Names/Tables

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

SHAPEFILE LAYER	GEOGRAPHIC LEVEL	<LAYER> NAME
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
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
Voting District	County only	VTD
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

Table 13: 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.

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
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

Table 14: 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

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
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

Table 15: 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
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.

Table 16: 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.

Table 17: 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.

Table 18: 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

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
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 Square Meters
SHAPEIDX	9	String	(√ (4πA/P2), where A=Area of block & P = Perimeter of block
BLKSZIND	1	String	Block Size Indicator

Table 19: 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

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
CDSESSN	3	String	Congressional District Session Code
NAME	100	String	Name
VINTAGE	2	String	Vintage updated with returned data
FUNCSTAT	1	String	Functional Status

Table 20: Hawaiian Homelands

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
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

Table 21: 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

Table 22: 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
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

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
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

Table 23: State Legislative Districts (Lower/House)

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

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
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

Table 24: 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

Table 25: 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
JUSTIFY	150	Char	Justification
VINTAGE	2	String	Vintage updated with returned data

Table 26: 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

Table 27: Census Blocks - Census 2010

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP10	2	String	FIPS 2010 State Code
COUNTYFP10	3	String	FIPS 2010 County Code

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
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

Table 28: 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
JUSTIFY	150	Char	Justification
TRACTLABEL	7	String	Tract number used for LUCA geocoding
VINTAGE	2	String	Vintage updated with returned data

Table 29: 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

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
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

Table 30: 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
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

Table 31: 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 and 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

Table 32: 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 county subdivision
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

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
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

Table 33: 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 county subdivision
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

Table 34: 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

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
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

Table 35: 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

Table 36: Subarrios

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

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
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

Table 37: 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
SMID	22	String	Spatial Tmeta ID
VTDFLG	1	String	2010 block boundary suggestion
CBBFLG	1	String	Planned 2020 block boundary
VTD_2020	1	String	VTD Participant suggested 2020 Census block boundary
CHNG_TYPE	2	String	Type of linear update

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
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

Table 38: 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

Table 39: 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

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
CHNG_TYPE	1	String	Type of Area Update
HYDROID	10	String	Hydrography Identification Number
RELATE	120	String	Relationship description
JUSTIFY	150	Char	Justification

Table 40: 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

Table 41: 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
ANRCFP	5	String	FIPS ANRC Code
SLDUST	3	String	SLD Upper Chamber Code
SLDLST	3	String	SLD Lower Chamber Code

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
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
CBSAFP	5	String	County-Based Metropolitan-Micropolitan Code
NECTAFP	5	String	New England City and Town 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
TADCE	8	String	Traffic Analysis District Code
MPOCE	8	String	Metropolitan Planning Organization Code
PUMACE10	5	String	Public Use Microdata Area Code
SUBMCDFP	5	String	FIPS 55 Sub-minor Civil Division Code
UGACE	5	String	Urban Growth Area Code
STATEFP10	2	String	FIPS 2010 State Code
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
CDSESSN	3	String	Congressional District Session
VTDST	6	String	2010 Voting District Code
LWFLG	1	String	Land/Water Flag

Table 42: Topological Faces - Area Landmark Relationships

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

Table 43: Topological Faces - Hydrography Area Relationships

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

Table 44: 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

Table 45: 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

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
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

Table 46: Voting Districts

ATTRIBUTE FIELD	LENGTH	TYPE	DESCRIPTION
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
VTDST	6	String	Voting District Code
NAMELSAD	100	String	Name with translated LSAD
VTDI	1	String	Voting District Indicator
LSAD	2	String	Legal/Statistical Area Description
CHNG_TYPE	2	String	Type of Area Update
ORIG_NAME	100	String	Original VTD Name
ORIG_CODE	6	String	Original VTD Code
RELATE	120	String	Relationship
NAME	100	String	Voting District Name
VINTAGE	2	String	Vintage updated with returned data
FUNCSTAT	1	String	Functional Status
JUSTIFY	150	String	Justification
MTFCC	5	String	MTFCC Code

APPENDIX E Acronyms

The table below lists the acronyms used throughout the Voting District Project GUPS User's Guide and the explanation of these abbreviations.

Table 47: Acronyms

ACRONYM	EXPLANATION
BAS	Boundary and Annexation Survey
BAG	Block Area Grouping
BBSP	Block Boundary Suggestion Project
CRVRDO	Census Redistricting & Voting Rights Data Office
FIPS	Federal Information Processing Standard
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
RDP	Redistricting Data Program
SWIM	Secure Web Incoming Module
VTD	Voting District
VTDP	Voting District Project

APPENDIX F VTD Participation Support

Direct all questions, regarding the Voting District Project, both procedural and GUPS technical questions to:

Census Redistricting & Voting Rights Data Office: (301) 763-4039; rdo@census.gov.

Direct technical questions regarding SWIM to: geo.swim@census.gov.