

3 Structure and Format

The 2013 TIGER/Line Shapefiles and associated relationship files are offered in a compressed format. One zipped file is available for each layer, with a file extension of .zip. Each zipped shapefile consists of the following seven files:

- .shp – the feature geometry
- .shx – the index of the feature geometry
- .dbf – the tabular attribute information
- .prj – the coordinate system information
- .shp.xml – the Federal Geographic Data Committee (FGDC) metadata
- .shp.iso.xml – the International Organization for Standardization (ISO 191) metadata
- .shp.ea.iso.xml – the ISO 191 (entity and attribute) metadata

Each zipped relationship file consists of the following four files:

- .dbf – the tabular attribute information
- .dbf.xml – the Federal Geographic Data Committee (FGDC) metadata
- .dbf.iso.xml – the International Organization for Standardization (ISO 191) metadata
- .dbf.ea.iso.xml – the ISO 191 (entity and attribute) metadata

3.1 Organization of the Files

Geographic entities included in the Census Bureau’s tabulations are generally hierarchical. The organizational structure of the 2013 TIGER/Line Shapefiles is based on this hierarchical framework. Figures 1 and 2 show the progression of geographic areas from the nation to the block level, as well as the American Indian, Alaska Native, and Native Hawaiian areas.

The 2013 TIGER/Line Shapefiles are released in one of three types of hierarchical coverage— nation-based, state-based, or county-based. Descriptions of each coverage type are below. Table 1 provides an overview of the file types and their hierarchical coverage.

- Nation-based files—each file includes data for the 50 states, the District of Columbia, Puerto Rico, and the Island areas
- State-based files—each file includes data for one specific state or equivalent
- County-based files—each file includes data for one specific county or equivalent

Figure 1. Standard Hierarchy of Census Geographic Entities

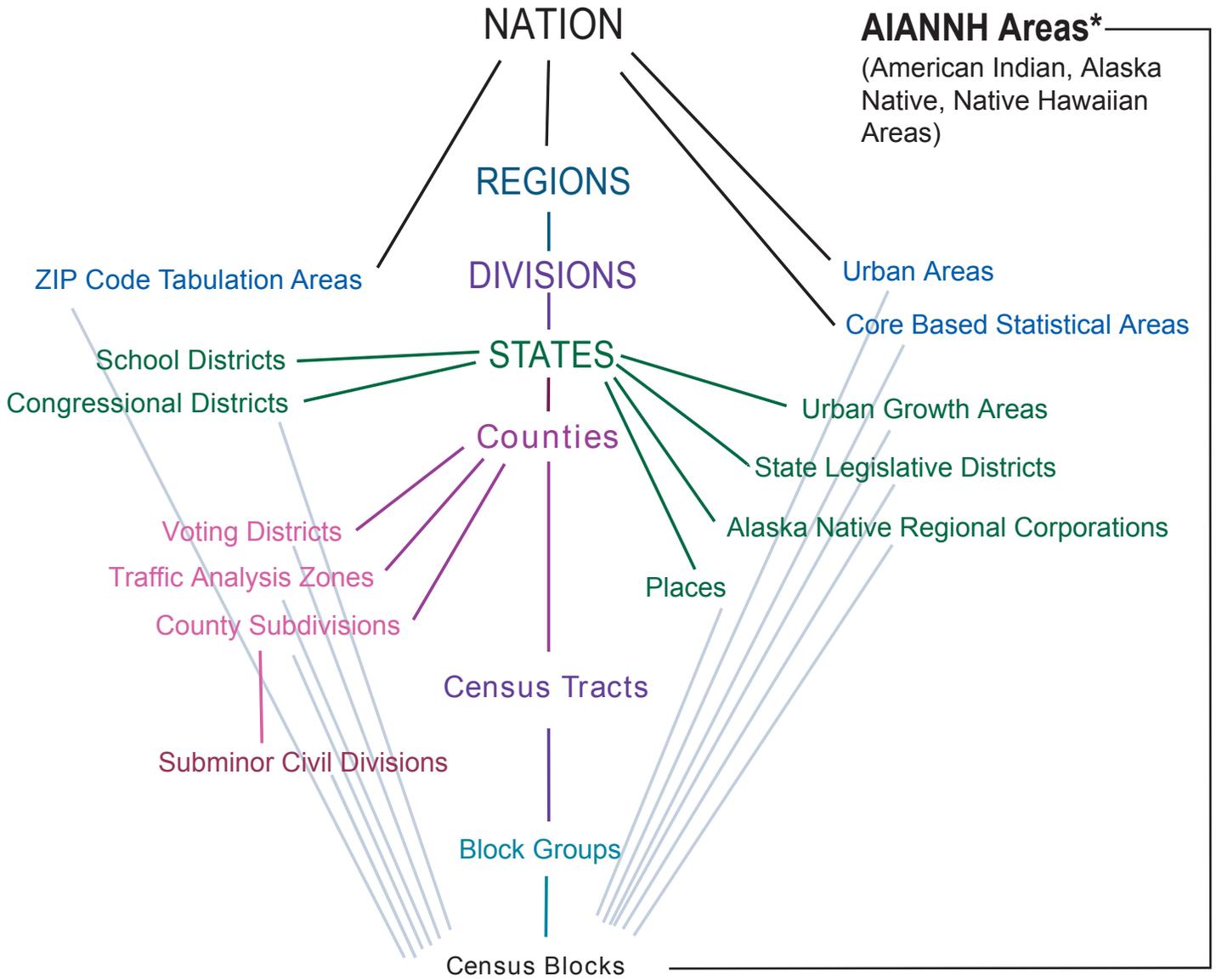


Figure 2. Hierarchy of American Indian, Alaska Native, and Native Hawaiian Areas

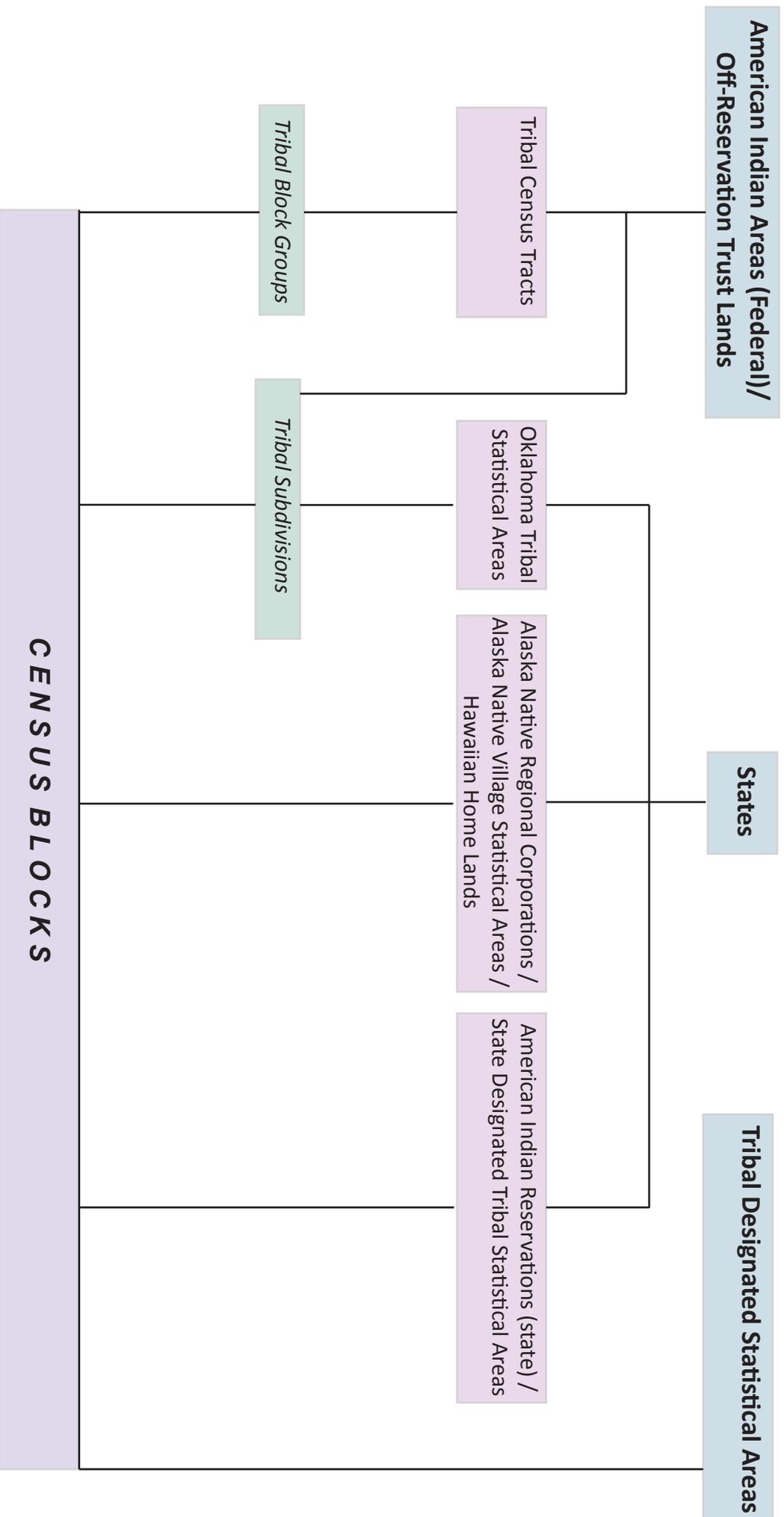


Table 1: 2013 Shapefile Layers Availability by Parent Geography

Layer	Nation-Based Files	State-Based Files	County-Based Files
<i>Shapefiles - Boundaries</i>			
Alaska Native Regional Corporation		✓	
American Indian Tribal Subdivision	✓		
American Indian/Alaska Native/Native Hawaiian Areas	✓		
Block		✓	
Block Group		✓	
Census Tract		✓	
Combined New England City and Town Area	✓		
Combined Statistical Area	✓		
113 th Congressional Districts	✓		
Consolidated City		✓	
County and Equivalent	✓		
County Subdivision		✓	
Elementary School District		✓	
Estates		✓	
Metropolitan Division	✓		
Metropolitan/Micropolitan Statistical Area	✓		
New England City and Town Area	✓		
New England City and Town Division	✓		
Place		✓	
Public Use Microdata Area		✓	
Secondary School District		✓	
State and Equivalent	✓		
State Legislative District-Lower Chamber		✓	
State Legislative District-Upper Chamber		✓	
Subbarrio (Subminor Civil Division)		✓	
Tribal Block Group	✓		
Tribal Census Tract	✓		
Unified School District		✓	
Urban Areas	✓		
5-digit ZIP Code Tabulation Area	✓		
<i>Shapefiles - Features</i>			
Address Range-Feature			✓
All Lines			✓
All Roads			✓
Area Hydrography			✓
Area Landmark		✓	
Coastline	✓		
Linear Hydrography			✓

Layer	Nation-Based Files	State-Based Files	County-Based Files
Military Installation	✓		
Point Landmark		✓	
Primary and Secondary Roads		✓	
Primary Roads	✓		
Rails	✓		
Topological Faces (Polygons With All Geocodes)			✓
<i>Relationship Files</i>			
Address Range-Feature Name			✓
Address Ranges			✓
Feature Names			✓
Other Identifiers			✓
Topological Faces-Area Landmark		✓	
Topological Faces-Area Hydrography			✓
Topological Faces-Military Installations	✓		

3.2 File Naming Conventions

The name of each file is:

tl_2013_<extent>_<layer>.<ext>

Where:

tl = TIGER/Line

2013 = the version of the files

<extent> = parent geography entity ID code (variable length of two to five characters)
The entity ID code identifies the geographic extent by specific entity for which the file contains data. It is of variable length depending on the type of file:

Nation-based: 2-character abbreviation - "us"
State-based: 2-digit numeric state FIPS code
County-based: 5-digit numeric county FIPS code

<layer> = layer tag of variable length
The layer tag specifies the type of geography or feature the file contains.

<ext> = the file extension

Examples:

Nation-based shapefile: County and Equivalent shapefile
File Name: tl_2013_us_county.shp

State-based shapefile: State and Equivalent shapefile for Maryland
File Name: tl_2013_24_state.shp

County-based shapefile: All Lines shapefile for Cayuga County, New York
File Name: tl_2013_36011_edges.shp

3.3 Datum (GCS NAD 83)

Each shapefile contains a .prj file that contains the GIS industry standard well-known text (WKT) format to describe the coordinate system/projection/datum information for each shapefile. All Census Bureau generated shapefiles are in Global Coordinate System North American Datum of 1983 (GCS NAD83). Each .prj file contains the following:

```
GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983",SPHEROID["GRS_1980",6378137,298.257222101]],PRIMEM["Greenwich",0],UNIT["Degree",0.017453292519943295]]
```

3.4 Metadata

Metadata are an organized data file used to capture the basic descriptive characteristics about data. For example, metadata will describe the quality, purpose, spatial extent, and history of a particular dataset. The metadata files are compatible with a text editor, web browser, or Esri's ArcCatalog.

The TIGER/Line Shapefiles metadata provide a detailed description of the TIGER/Line Shapefiles and relationship files. This includes publication date, contact information, and all of the valid attribute values and descriptions. Users should refer to the metadata files for extensive documentation about the contents of the shapefiles and relationship files. The All Lines metadata also contains a Spatial Metadata Identifier (SMID), which identifies the source of the coordinates for each edge and the horizontal spatial accuracy information a particular line. Refer to the metadata for each county or equivalent entity for information on the source for each edge and the horizontal spatial accuracy, where known. Please note that the horizontal spatial accuracy refers only to those edges identified as matched to the source with that accuracy. It is not the spatial accuracy of the All Lines shapefile as a whole. For more information regarding the *All Lines Shapefile* please refer to Section 5.12, Linear Features.

Metadata are provided along with each shapefile and relationship file in Extensible Markup Language (XML) format.

- Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata (CSDGM)
 - shp.xml
 - dbf.xml

Please note that in order to see all the metadata element values, the FGDC CSDGM stylesheet must be specified when using Esri's ArcCatalog.