TIGER/Line(TM) Files, 1992

TECHNICAL DOCUMENTATION

Washington, D. C.

1993

U.S. DEPARTMENT OF COMMERCE

Ronald H. Brown, Secretary
Everitt Ehrlich, Designate Under Secretary for
Economic Affairs

Bureau of the Census
Harry A. Scarr, Acting Director

BUREAU OF THE CENSUS

Harry A. Scarr, Acting Director

Harry A. Scarr, Deputy Director

Charles D. Jones, Associate Director
for Decennial Census

DATA USER SERVICES DIVISION

Marshall L. Turner, Jr., Chief
Marie G. Argana, Assistant Division Chief
Richard L. Bitzer, Assistant Division Chief

GEOGRAPHY DIVISION

Robert W. Marx, Chief
Jack R. George, Assistant Division Chief for Geoprocessing
Robert A. LaMacchia, Assistant Division Chief for Planning

ACKNOWLEDGMENTS

This technical documentation was prepared in the Geography Division by staff in the Geographic Base Development Branch including Andrew H. Flora, Jon Sperling, Robert Milligan, John Szemraj, Charles Duncombe, Analisa Rusnack, Henereta King, and Cheryl Clark under the guidance of Charles Dingman, Chief and R. B. Birdsong, Ann Summersell, and James Avore, Section Chiefs. Special recognition goes to R. B. Birdsong and Robert Milligan who prepared the specifications for the 1992 version, Donald I. Hirschfeld of the Geographic Assistance Staff who provided extensive assistance on geographic entity definitions, and Ilene Forsht and Pearl Miller who helped edit the document.

Programming for this version of the TIGER/Line(TM) file was done in the TIGER System Staff of the Geography Division by Sonya Desha under the guidance of Beverly Davis, Acting Chief.

Technical production and assistance were provided in the Data User Services Division by the Data Access and Use Branch, James P. Curry, Chief; Larry W. Carbaugh, Chief of the National Census Information Center Branch; Barbara Harris and David Shaw of the National Census Information Center Branch; and Barbara Aldrich of the Data Access and Use Staff.

* *

The file should be cited as follows:

TIGER/Line Files(TM), 1992 [machine-readable data files] /prepared by the Bureau of the Census. - Washington, DC: The Bureau [producer and distributor], 1993.

The technical documentation should be cited as follows:

TIGER/Line Files(TM), 1992 Technical Documentation / prepared by the Bureau of the Census. - Washington, DC: The Bureau, 1993.

* *

For additional information concerning the subject matter of the file, contact Larry Carbaugh, Data User Services Division, Bureau of the Census, Washington, DC 20233-8300. Phone: (301) 763-1384.

For additional information concerning the tape/CD-ROM, contact Data User Services Division, Customer Services (Order Desk), Bureau of the Census, Washington, DC 20233-8300. Phone: (301) 763-4100.

For additional information concerning the technical documentation, contact the Data User Services Division, TIGER Staff, Bureau of the Census, Washington, DC 20233-8300. Phone: (301) 763-1384.

For additional information concerning the plans for further releases of similar information, contact the staff of the Geographic Base Development Branch, Geography Division, Bureau of the Census, Washington DC 20233-7400. Phone: (301) 763-4664.

TIGER/Line(TM) Files, 1992

Introduction

TIGER/Line(TM) Files, 1992 Developed by the Bureau of the Census Washington: The Bureau [producer and distributor],1993.

Type of File and Geographic Extent

The TIGER/Line(TM) Files, 1992 (1992 TIGER/Line files) (version 5) are extracts of selected geographic and cartographic information from the Census Bureau's TIGER (Topologically Integrated Geographic Encoding and Referencing) System. The 1992 TIGER/Line files reflect the dramatic increase in the number of new address ranges based on 1990 census address lists and contain geographic code changes.

These files have a similar format and structure as the TIGER/Line(TM) Census Files, 1990 (1990 Census TIGER/Line files) but include two new record types that accommodate additions, corrections, and updates to the inventory of geographic entities made since the 1990 census.

The 1992 TIGER/Line files are being released by county or statistically equivalent entity based on the 1990 census tabulation and publication boundaries. There will be 3,248 files covering the 50 States and seven statistically equivalent entities. This version will exclude the Federated States of Micronesia and the Marshall and Midway Islands.

Principal Differences Between the 1990 Census TIGER/Line Files and the 1992 TIGER/Line Files

New Record Types Added

The 1992 TIGER/Line files include two new record types -- Record Types F and G. Record Type F shows geographic codes as of January 1, 1990 that have been corrected to resolve questions local officials raised about the 1990 census data tabulations. Record Type G shows geographic codes (generally as of January 1, 1992) in those situations for which geographic entities reported changes in their boundaries during the Census Bureau's annual survey of governmental units.

These record types are present only when they contain information different from the codes shown in Record Type 1 or Record Type A (the January 1, 1990 geographic entities and codes by which the 1990 census was tabulated and its data products published). Record Types F and G are independent of each other. Record Type F shows the corrections to the 1990 census geographic codes as differences from Record Type A, while Record Type G shows the January 1, 1992 updates as differences from Record Type A (including those changes that appear in Record Type F unless replaced by subsequent changes). Chapter 6 lists the content and the layouts for these new record types.

Boundary and Area Changes

Since the release of the 1990 Census TIGER/Line files, the Census Bureau has shifted and reshaped some line features including boundary lines. These changes involve the realignment of features associated with corporate boundary corrections and changes. The shape and area of the

geographic entities depicted in the 1992 TIGER/Line files may differ from the earlier version despite the fact that they represent the entity as it existed on January 1, 1990. However, the inventory of 1990 census tabulation entities remains the same.

Previously Blank Fields Filled

Within Record Type A, the following fields now have data; they were blank previously.

Field	Description
SDELM	Elementary School District Code
SDMID	Middle School District Code
SDSEC	Secondary School District Code
SDUNI	Unified School District Code
UA	1990 Census Urbanized Area Code
URBFLAG	1990 Urban/Rural Indicator (U/R)
CD103	103rd Congressional District Code

New Address Ranges and ZIP Codes(R)

In almost all counties or county equivalents, the Census Bureau has added additional potential address ranges and ZIP Codes(R) based on the 1990 census Address Control File (ACF). The 1992 TIGER/Line files include the new address ranges only for street segments that contained no address range information in earlier versions of the TIGER/Line(TM) files. The Census Bureau is not revising or expanding pre-existing address ranges (primarily in metropolitan areas) to reflect the assignment of specific address in the ACF in the 1992 TIGER/Line files. The new address ranges and ZIP Codes have not been edited for overlaps or other inconsistencies. The imputed address flags on Record Types 1 and 6 have additional values that identify those address ranges based on the ACF.

Figure I-1 is a map showing the residential address range coverage in the 1990 Census TIGER/Line files, by county/statistical equivalent in the United States1 . On this map, address range coverage is based on the total number of street segments with address ranges relative to the total number of street segments in the county/statistical equivalent. Figure I-2 is a map showing the proportion of city style addresses included in the address ranges in the Census TIGER data base for each county/statistical equivalent relative to the total number of residential addresses in the county/statistical equivalent. Addresses included in the 1990 census that are not covered by an address range in the Census TIGER data base either were rural addresses, Post Office (PO) box addresses, or city style addresses that the Census Bureau could not match to a feature in the TIGER data base. Appendix A lists the address range coverage category for each county and statistically equivalent entity. Even though the maps in Figures 1 and 2 measure address range coverage in different ways, they do show counties for which full to limited address range coverage is available in the 1992 TIGER/Line files that did not have as much (or any) address range coverage in earlier versions.

File Availability

The 1992 TIGER/Line files are available on CD-ROM, magnetic tape, or tape cartridge (IBM 3480 compatible) from Customer Services Branch, Data User Services Division, Washington, DC 20233-8300; (301) 763-4100. FAX: (301) 763-4794. For pricing information, contact Customer Services Branch, Data

User Services Division.

How to Use This Documentation

The structure of this document is based on data content rather than record type content. For instance, all references to addresses appear in one section, with references to other sections that contain relevant information. In order to make the document easier to use as a reference, the text contains some repetition from section to section.

Chapter 1 describes the basic concepts about TIGER and the TIGER/Line(TM) product. It discusses the topology in the Census TIGER data base, the terminology used in this document to describe the geographic data, and provides an overview of the record types that make up the TIGER/Line(TM) files. The documentation for the 1992 TIGER/Line files utilizes the Federal Information Processing Standards (FIPS) Spatial Data Transfer Standard (SDTS) nomenclature for geographic objects. Anyone new to the TIGER/Line(TM) files or unfamiliar with these terms should review this chapter.

Chapter 2 discusses the principle identification numbers that form the basis for record linkage discussed throughout the documentation.

Chapter 3 discusses the attributes for the line, polygon, and landmark geographic data types.

Chapter 4 defines the types of geographic entities and entity codes that appear in the TIGER/Line(TM) file. Because the geographic entity codes are associated with both lines and polygons, the documentation discusses them in this separate chapter. This chapter also identifies some of the fundamental relationships among the different types of geographic entities.

Chapter 5 summarizes the data quality aspects of the information in the TIGER data base using the SDTS quality modules.

Chapter 6 lists the contents of the 1992 TIGER/Line files record types and provides a detailed description of the data fields in each. The intent is that one will use Chapter 6 in conjunction with Chapters 3 and 4 to locate the positions of specific data fields in the 1992 TIGER/Line files.

1 The county boundary file for Figures I-1 and I-2 comes in part from Environmental Systems Research Institute, Inc.

TIGER/Line(TM) Files, 1992

Table of Contents

Note: The page numbers in the table of contents refer only to the printed documentation. The page locations of the text or Word Perfect versions of the documentation may vary.

Note: the text version of the documentation will not reflect all of the document formating in the printed document.

TIGER/Line(TM) Files,1992

Chapter 1:
An Overview and Geographic Concepts

Overview

What Is TIGER?

The Census Bureau's Census TIGER System automates the mapping and related geographic activities required to support the decennial census and sample survey programs of the Census Bureau starting with the 1990 decennial census. The Census TIGER System provides support for the following:

* Creation and maintenance of the digital geographic data base that includes complete coverage of the United States, Puerto Rico, the Virgin Islands of the United States, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, the Republic of Palau, the other Pacific entities that were part of the Trust Territory of the Pacific Islands (the Republic of the Marshall Islands and the Federated States of Micronesia), and the Midway Islands.

* Production of maps from the Census TIGER data base for all Census Bureau enumeration and publication programs.

* Ability to assign individual addresses to geographic entities and census blocks based on polygons formed by features such as roads and streams.

The design of the Census TIGER data base adapts the theories of topology, graph theory, and associated fields of mathematics to provide a disciplined, mathematical description for the geographic structure of the United States and its territories. The topological structure of the Census TIGER data base defines the location and relationship of streets, rivers, railroads, and other features to each other and to the numerous geographic entities for which the Census Bureau tabulates data from its censuses and sample surveys. It is designed to assure no duplication of these features or areas.

The building of the Census TIGER data base integrated a variety of encoding techniques such as automated map scanning, manual map "digitizing," standard data keying, and sophisticated computer file matching. The goal was to provide automated access to and retrieval of relevant geographic information about the United States and its territories.

TIGER Data Base Extracts

In order for others to use the information in the Census TIGER data base in a geographic information system (GIS) or for other geographic applications, the Census Bureau releases periodic extracts of this data base to the public, including the TIGER/Line(TM) files. Various versions of the TIGER/Line(TM) files already have been released, the previous one being the 1990 Census TIGER/Line files that accompanied the 1990 decennial census data products. The current 1992 TIGER/Line files were produced following a requirement by the U.S. Department of Education; it will contain all updates and revisions since the 1990 Census TIGER/Line files were produced.

Relationship of the TIGER/Line(TM) to 1990 Census Statistical Data

What makes the TIGER extract products particularly valuable to the GIS environment and the data user community is the direct linkage between the 1990 decennial census data products and the TIGER data base extracts. TIGER's digital description of the Nation's legal and statistical entities includes Federal Information Processing Standards (FIPS) codes and the Census Bureau codes so that these can be matched easily with the 1990 census data. Please refer to the Census Bureau Publication, 1990 Census of Population and Housing Tabulation and Publication Program for a description of the Public Law (PL) 94-171 data files, Summary Tape Files (STF's), and other sources of data from the 1990 census.

Related Files

The TIGER Geographic Names File(TM) provides the bridge between the geographic entity codes (i.e., State, county, minor civil division [MCD], etc.) found in TIGER/Line(TM) files and their official names. It is included on each of the 1992 TIGER/Line files CD-ROMs and also is available on magnetic tape or tape cartridge from Customer Services (see Acknowledgements for information).

The STF's provide 1990 statistical data for a wide range of subject headings and geographic entities compatible with the TIGER/Line(TM) files. These files are available from Customer Services on tape and CD-ROM.

The PL 94-171 Program data files provide selected population data for small area geography (State, county, county subdivision, place, census tract/block numbering area [BNA], block group [BG], and block) and are compatible with the TIGER/Line(TM) files. These files are available on tape and CD-ROM from Customer Services.

TIGER SDTS(TM) is a relational data file following the FIPS SDTS. These files provide data equivalent to the TIGER/Line(TM) files with additional relational data linkages and data content more similar to the Census TIGER data base. Prototypes of the file have been released. For more information, contact the Geographic Base Development Branch of the Geography Division.

The TIGER/UA Limit File(TM) contain just the features that form the boundaries of the 1990 census urbanized areas (UA's) along with the codes in a reduced TIGER/Line(TM) file format. These files are available from Customer Services.

The TIGER/Line(TM) 103rd Congressional District File contains just the features that form the boundaries of the districts of the 103rd Congress. The files follow the format of Record Types 1 and 2 of the TIGER/Line(TM) files; each set of files covers one State. These files are available from Customer Services.

County-Based Files

The geographic coverage for a TIGER/Line(TM) file is a county or statistically equivalent entity. (See Appendix A for a list of State and county codes and Chapter 4 for a description of county equivalent entities). The county files have a coverage area based on their January 1, 1990 legal boundaries obtained in response to the Census Bureau's

Boundary and Annexation Survey. Any corrections or further changes to the county boundaries will appear in Record Type F, which identifies corrected 1990 legal boundaries and Record Type G, which identifies current geographic entity changes; they will not affect the file's coverage area.

Even though the Census TIGER data base represents a seamless national file with no overlaps or gaps between parts, the county-based TIGER/Line(TM) files are designed to stand alone as an independent data set. The files can be combined to cover the whole Nation and its territories (see the Single-Side Flags section in Chapter 3).

The Data Content of the TIGER/Line(TM) Files

The TIGER/Line(TM) files contain data describing three major types of data:

Line features including:

- roads
- railroads
- hydrography
- Miscellaneous transportation features and selected power lines and pipe lines
- boundaries

Landmark

- point landmarks such as schools and churches
- area landmarks such as parks and cemeteries

Polygon

- geographic entity codes for areas used to tabulate the 1990 census statistical data
- locations of area landmarks.

The line features and polygon information form the majority of data in the TIGER/Line(TM) files. Some of the data describing the lines include coordinates, feature identifiers (names), feature classification codes address ranges, and geographic entity codes. Chapter 3 details these data items and Chapter 4 defines the geographic entities and codes.

The TIGER/Line(TM) files contain point and area labels that describe landmark features. These features provide locational references for field staff and map users. Area landmarks consist of a feature name or label and feature type assigned to a polygon or a group of polygons. Landmarks may overlap or refer to the same set of polygons. For more details on landmark data, see Chapter 3.

Topology and Spatial Objects in the TIGER/Line(TM) Files

Spatial Objects in the TIGER/Line(TM) Files

The Census TIGER data base uses a collection of "spatial objects," points, lines and polygons, to model or describe real world geography. The Census Bureau uses these spatial objects to describe features such as streets and assigns attributes to these features to identify and describe specific features such as the 500 block of Market Street in Philadelphia, Pennsylvania.

The TIGER/Line(TM) files contain information about the spatial objects distributed over a series of record types. Users of the TIGER/Line(TM) files may need to link information from several record types to find all the attributes of interest that belong to one spatial object. The final section of this chapter includes a description of the record types.

Topology

Spatial objects in the Census TIGER data base are interrelated. A sequence of points define line segments and lines segments connect to define polygons. The Census Bureau uses topology as the foundation for organizing spatial objects in the Census TIGER data base to explain how points, lines, and areas relate to each other. The Census TIGER data base uses these points, lines, and areas to provide a disciplined, mathematical description of the earth's surface features.Topology provides a basic language for describing geographic features. The TIGER System relates information to points or 0-cells, lines or 1-cells, and polygons or 2-cells. The number preceding the "cell" identifies the dimensionality of the object; for instance, a line segment has a single dimension: length. Each of these objects builds on the others to form higher-level objects. The 0-cells form the end points of 1-cells. The 1-cells connect at 0-cells and form closed figures that partition space into polygons or 2-cells.

Terminology

The terms point, line segment, and polygon are familiar but general terms that may have different meanings to data users working with a variety of different applications and and data sets. The TIGER/Line(TM) file documentation uses the specific terminology from the SDTS.

Since the first release of the TIGER/Line(TM) files, the U.S. Geological Survey (USGS) has coordinated the development and release of the SDTS, now a FIPS standard (see FIPS PUB 173). The SDTS specifies a series of terms and definitions for spatial objects. Appendix B lists the SDTS definitions for spatial objects.

Why use the SDTS terminology? Even though the TIGER/Line(TM) files do not follow the SDTS format, the TIGER/Line(TM) documentation will use these terms and definitions in order to promote a common language for describing geographic data and to facilitate the transition to the SDTS.

The spatial objects in the TIGER/Line(TM) files embody both geometry (coordinate location and shape) and topology (the relationship between points, line objects, and polygons) and therefore belong to the "geometry and topology" (GT) class of objects in the SDTS. In the SDTS, nodes represent point objects (0-cells) that identify the start and end position of lines or 1-dimensional objects (1-cells) called chains. The chains in the TIGER/Line(TM) files are complete chains because they also form the polygon boundaries and identify the polygon identification numbers and geographic entity codes for these polygons. Topological chains that do not reference the polygons are network chains. Data users may choose to not use the polygon or geographic entity codes and consider the TIGER/Line(TM) files as a source of network chain data.

Figure 1-1 illustrates the relationship between nodes and

complete chains. The figure shows two complete chains forming a central road; a start and end node define each complete chain. Complete chains that meet at an intersection share the same node. As the figure suggests, complete chains may consist of one or more line segments that describe the shape and position of the complete chain. Shape points define the line segments and are not part of the topology of the TIGER/Line(TM) files. Shape points and the resulting line segments are attributes of the complete chains. When complete chains link node to node and form a closed figure (a 2-cell), a GT-polygon results. The GT-polygon containing Friendship Park in Figure 1-1 is bounded by five complete chains that share five nodes. GT-polygons are elementary units; they are not subdivided into smaller polygons. They are space filling and do not overlap. The geographic entities and area landmarks in the TIGER/Line(TM) files are associated with one or a set of GT-polygons.

The TIGER/Line(TM) files contain point landmark data that are not included in the Census TIGER data base topology. Point landmarks are entity points that mark the location of points of interest and are not connected to complete chains or GT-polygons.

The following table summarizes the terms for spatial objects in the TIGER/Line(TM) files:

	Point (0-cell)	Line (1-cell)	Polygon (2-cell)
Topology	Node	Complete Chain or Network Chain	GT-polygon
Non-topology	Entity Point		
Attribute	Shape Point		

Features

The TIGER System uses the term "feature" to informally describe spatial objects at a level higher than the spatial objects identified above. For instance, Main Street is a feature that may consist of a series of complete chains with the same name. The TIGER System identifies complete chains but does not identify features or link complete chains to features.

Left- and Right-Side Data Fields

If one is standing on a complete chain at the "start" node facing the "end" node, data listed in the fields carrying a right qualifier would be found to the right of the complete chain. Note the position of the start and end nodes for the road in the central section of Figure 1-1; the right-side of the complete chain corresponds to GT-polygon 1 and the left-side corresponds to GT-polygon 2. Data users can collect the necessary complete chains to construct polygons and features that intersect from the information contained in this basic record.

Single-Layer Topology

All spatial objects in the TIGER/Line(TM) files exist in a single data layer that includes roads, hydrography, railroads, boundary lines, and miscellaneous features; they are topologically linked. For instance, nodes mark the intersections of roads and rivers. Subsurface features

such as tunnels or above surface features such as bridges also create nodes when they cross surface features even though there is no direct connection.

Introduction to the TIGER/Line(TM) File Structure

Basics

The TIGER/Line(TM) 1992 are extracts of selected information from the Census TIGER data base, organized as topologically consistent networks. The records in the TIGER/Line(TM) Files, 1992 represent features traditionally found on a paper map. Each complete chain is classified by codes that describe the type of feature it represents.

The TIGER/Line(TM) 1992 consists of 14 record types that collectively contain geographic information (attributes) such as address ranges and ZIP Codes(R) for street complete chains, names, and codes of feature types, codes for legal and statistical entities, selected 1980 census geographic entity codes, latitude/longitude coordinates of linear and point features, landmark features, area landmarks, and area and polygon boundaries. A separate file exists for each of the 14 record types for each county or county equivalent only where data exists for that record type and county.

The TIGER/Line(TM) 1992 data dictionary contains a complete list of all the fields in Record Types 1 through 14 (see Chapter 6). Separate chapters cross list the fields by feature attribute and geographic entity type. The following section provides a summary level description of the TIGER/Line(TM) Files, 1992 record types.

Description of the TIGER/Line(TM) 1992 Record Types

Record Type 1 -- Basic Data Record for Complete Chains

Record Type 1 provides a single record for each unique complete chain in the 1992 TIGER/Line files. The basic data record contains the end nodes for the complete chain. This record also contains address ranges and ZIP Codes(R) (for most areas of the country where a street name/house numbering system existed at the time of the 1990 census) and the 1990 census geographic entity codes for each side of the complete chain.

Record Type 2 -- Shape Point Coordinates

Record Type 2 provides an additional series of latitude and longitude coordinate values that describe the shape of each complete chain that is not a straight segment.

Record Type 3 -- Additional 1990 and 1980 Decennial Census Geographic Entity Codes

Record Type 3 includes the 1990 voting district (VTD) codes provided to the Census Bureau for the 1990 Census Redistricting Data Program. Record Type 3 also includes some 1980 census geographic entity codes and 1990 census geographic entity codes not included on Record Type 1.

Record Type 4 -- Index to Alternate Feature Identifiers

Record Type 4 provides an index to alternate feature names associated with the complete chain (Record Type

1). A Record Type 4 will not exist for a Record Type 1 that has only one name. A complete chain can have more than one alternate name.

Record Type 5 -- Feature Identifier List

Record Type 5 contains a list of all unique feature names for complete chains in the 1992 TIGER/Line files. Each name (or feature identifier) has an identification code number (FEAT).

Record Type 6 -- Additional Address Range and ZIP Code(R) Data

Record Type 6 provides additional address range information for a street complete chain when the information cannot be presented as a single address range (e.g., the house/building numbers are not uniformly arranged to form an address range). Record Type 6 appears only for those counties that have address ranges and ZIP Code(R) information in the Census TIGER data base. There is no assurance that the address ranges provided on Record Type 6 will cover fewer addresses than the address ranges appearing on Record Type 1. Data users must use Record Type 6 to obtain the complete picture of the potential address ranges along a complete chain. Note that the address ranges used for geocoding along corporate corridors and corporate limit offsets appear only in Record Type 6.

Record Type 7 -- Landmark Features

Record Type 7 contains the area and point landmarks from the Census TIGER data base. If a county file has no landmarks, no Record Types 7 or 8 will exist for that county file.

Record Type 8 -- Polygons Linked to Area Landmarks

Record Type 8 links the polygon identification codes with the area landmark identification codes. If a county file does not have any Record Type 7's, it also does not have Record Type 8.

Record Type A -- Additional Polygon Geographic Entity Codes

Record Type A exists for every polygon in the Census TIGER data base.

The Census Bureau provides the basic 1990 census geographic entity codes (State, county, county subdivision, place, American Indian/Alaska Native Areas [AI/ANA's], census tract/BNA, block) on this record type to assist those data users who are interested only in polygon information. The Census Bureau has reserved several fields for possible future use; however, it has not established a schedule for future versions of the TIGER/Line(TM) file.

Record Type F -- Corrected Geographic Entity Codes for the 1990 Census

Record Type F contains the corrected 1990 census and FIPS codes for governmental units. This record contains 5-character-field block numbers.

Record Type G -- 1992 Geographic Codes and Entity

Changes

Record Type G provides updated 1992 census and FIPS codes for governmental units based on the 1992 Boundary and Annexation Survey.

Record Type I -- The Link Between Complete Chains and Polygons

Record Type I links the complete chains in Record Type 1 to the polygons that are provided in Record Type P. A Record Type I exists for every Record Type 1. When Record Type I is linked to a single-sided (county boundary) Record Type 1, it will provide only the left or right polygon identifier.

Record Type P -- Polygon Internal Point

Record Type P exists for every polygon in the TIGER/Line(TM) files and identifies an internal point for each polygon.

The TIGER/Line(TM) files include all complete chains and polygons in the Census TIGER data base. The topology of the Census TIGER System will ensure that a one-to-one relationship exists between the polygons constructed from Record Types 1 and 2 and Record Type P.

Record Type R -- Record Number Range

Record Type R contains the range of unique complete chain record numbers assigned to a census file in a nationwide scheme. Record Type R has the lowest (minimum allowable), and the highest (maximum allowable) record numbers for the range. Numbers are assigned to complete chains beginning at the lowest value. The current number is the highest record number for the census file used. The Census Bureau assigns a range of permanent record numbers to each partition of the Census TIGER data base. Partitions are based on initial county and county equivalent boundaries existing prior to boundary corrections and updates made during decennial census operations. Because a county/county equivalent may reside in multiple partitions and a county/county equivalent forms the coverage area of a TIGER/Line(TM) file, Record Type R has one record for each census file partition that contains parts of the county.

The Relationship Between Spatial Objects and TIGER/Line(TM) Record Types

Note that the TIGER/Line(TM) files do not have specific record types for each of the spatial objects. A record type is not available for individual nodes; node coordinates appear in Record Type 1. A full definition of a complete chain requires information from Record Types 1, 2, and I. Record Types 1 and 2 alone describe the set of network chains. GT-polygons require the combined information of Record Types 1, 2, I, and P.

Linkages Between Record Types

Figure 1-2 shows the record linkages between the 14 record types. All the record types, except Record Type R, contain fields (such as TLID, FEAT, CENID, POLYID, and LAND) that are used to link data from the record types together. Chapter 2 discusses the identification codes in

detail. Some of the links are direct while others are indirect requiring a connection through an intermediate record type. Chapter 3 discusses how to link data about different types of spatial objects.

Record Types 1, 3, and A contain the geographic keys -- the 1990 census geographic entity codes -- to the Census Bureau's statistical data (the PL 94-171 data and the several STF's). Data users can use the geographic area codes to move the data tabulations into a new file or into a GIS for processing and display.

Chapter 2:
Version Code and Record Identification Numbers

Version Code

Identification

The version code is a numeric code that uniquely identifies a TIGER/Line(TM) record with a specific release version of the TIGER/Line(TM) files. All record types have a 4-character field for the version code.

Codes: Version Code

The Census Bureau is reserving all version codes from "0000" through "5000." The Census Bureau reserves these numbers for future TIGER/Line(TM) file releases.

The version code for the 1992 TIGER/Line files, is "0005."

The version codes for earlier releases of the TIGER/Line files are as follows:

TIGER/Line(TM) Precensus File, 1990	"0000"
TIGER/Line(TM) Initial Voting District Codes File, 1990	"0002"
1990 Census TIGER/Line file	"0003"

TIGER/Line Identification Number (TLID)

Identification

The 1992 TIGER/Line files use a 4-character version number and a permanent 10-digit TIGER/Line(TM) record identification number (TLID) to uniquely identify a complete chain for the Nation.

Codes: TLID

The 10-digit TLID will not exceed the value 231-1 (2147483647) and will represent the same complete chain in all versions of this file, beginning with the TIGER/Line(TM) Precensus Files, 1990. Topological changes to the complete chain will cause the TLID's to change. For instance, when updates split an existing complete chain, each of the new parts receives a new TLID and the old TLID is not reused. See the section on User Defined Changes to the TIGER/Line(TM) Files below.

Record Type R contains the range of unique complete chain record numbers assigned to a census file in a nationwide scheme. Record Type R has the lowest (minimum), and the highest (maximum) record numbers for the range. Permanent record numbers are assigned within each partition of the Census TIGER data base. Numbers are assigned to complete chains beginning at the minimum and increasing the current value until the current value reaches the maximum.

Record Locations: TLID

The TLID field appears in columns 6 through 15 of the following record types:

Record Type 1 Record Type 4
Record Type 2 Record Type 6
Record Type 3 Record Type I

Record Linkages: TLID

The TLID field provides a key for linking records containing primary attributes describing the complete chain or the geographic entity codes associated with the left and right side of the complete chain (see Figure 1-2, TIGER/Line(TM) File Record Linkages). Record Type I contains the key fields required to link TLID and the GT-polygon identification fields CENID and POLYID.

Sort Sequence: TLID

Each record type is a separate file. The records in each record type do not have an overall sort sequence. Data users may wish to sort the file by TLID in order to facilitate record linkages.

User Defined Changes to the 1992 TIGER/Line Files

TLID as a Standard Identification Number

Users should store the record number and the version number associated with each complete chain in their local systems to ensure their ability to match records with later versions of the TIGER/Line(TM) files.

The record and version numbers of each complete chain provide an important link to the corresponding complete chain in the Census Bureau's TIGER data base. This key will allow users to transfer new information from later Census Bureau TIGER/Line(TM) releases into their data base and to provide readily used updates to the Census Bureau from their data base should they wish to do so.

Feature Changes

Users should assign a new record number (TLID) and a version number with a value greater than 5,000 to each new complete chain they create in order to avoid duplicating a Census Bureau-assigned record number that may appear elsewhere in the national file. Users should create a new record for each new complete chain, including those formed when a new intersection splits an existing complete chain. If a complete chain has changed feature identifiers, attributes, and/or coordinate positions without creating new complete chains, it is a modified complete chain and does not need a new TLID. Users may wish to mark these changes as well; if they do so, the Census Bureau will use this information to identify changes more quickly and accurately.

Users should assign a version code equal to 4,999 for all deleted complete chain and landmark records. This version code will allow the Census Bureau to positively identify all user deletions.

Users may assign or reassign polygon and landmark identification numbers in any manner that uniquely identifies each within a file.

The Census Bureau's Geography Division is formulating data requirements and standards for data exchange, as of the release date for the 1992 TIGER/Line files. Data users

willing to contribute files as part of the data exchange program should contact Charles Dingman, Chief, Geographic Base Development Branch, Geography Division, Bureau of the Census, Washington, DC 20233-7400. His telephone number is (301) 763-4664 and his Internet address is "cdingman@isdres.er.usgs.gov."

TIGER/Line(TM) Polygon Identification Numbers
(CENID and POLYID)

Identification

The Census Bureau uses two fields to uniquely identify GT-polygons.

CENID: The CENID is an internal Census Bureau identifier used to uniquely number the GT-polygons. CENID's are the FIPS State and county codes for the county "partitions" (files) that form the national Census TIGER data base. Since the partitions may include more than one tabulation county, the 1992 TIGER/Line files based on 1990 tabulation counties may contain multiple CENID's.

POLYID: The polygon identification number (POLYID) is a temporary number assigned to every polygon in the Census TIGER data base. Although this number is part of the Census TIGER data base design, it is a dynamic number and can change between versions of the TIGER/Line(TM) files. The Census TIGER data base does not contain permanent GT-polygon identifiers as it does for complete chains. POLYID is unique only within CENID; in cases where a tiger/Line(TM) file contains more than one CENID, the POLYID may not be unique within that
file.

Codes: CENID and POLYID

CENID: The CENID is a 5-character numeric code with a value that is a combined FIPS State and county code. Record Type R contains a list of all valid CENID's used in each county TIGER/Line file.

POLYID: The POLYID code is an integer identification number, without leading zeros, applied to each GT-polygon. The POLYID with a value of 1 refers to the "universal polygon," the polygon that refers to all space outside a county coverage area and is excluded from Record Types A, F, G, I, and P.

The range of POLYID numbers in a county file may contain gaps or skipped numbers resulting from the use of one census file (CENID) for more than one TIGER/Line county file.

Either the CENIDL and POLYIDL, or CENIDR and POLYIDR fields in Record Type I will have a blank value where the complete chain is a county boundary and the GT-polygon is outside of the county/file (see the discussion below on record linkage).

Record Locations: CENID and POLYID

The CENID and POLYID fields appear in the following record types:

Record Type 8	Records exist only for area landmark GT-polygons
Record Type A	Records exist for all GT-polygons
Record Type P	Records exist for all GT-polygons

Record Type F	Records exist only for GT-polygons with corrected 1990 codes
Record Type G	Records appear only for GT-polygons with entity code changes since January 1, 1990
Record Type I	Contains left and right side CENID's and POLYID's associated with each complete chain.Record Type R Contains only CENID.Record Type R lists the minimum and maximum possible TLID's, and the highest TLID from each census file (CENID) used to generate the current version of the TIGER/Line(TM) files.

Record Linkages: CENID and POLYID

The 1992 TIGER/Line files use both the CENID and POLYID fields to link all of the polygon record types together (Record Types A, P, F, and G) to link the GT-polygons to the associated complete chains, and to link area landmarks to GT-polygons (see Figure 1-2, TIGER/Line(TM) Record Linkages).

The CENID and POLYID fields link the 1990 geographic area codes in Record Type A to Record Type P containing the coordinates for an internal point in the GT-polygon. The 1992 TIGER/Line files include a Record Type A record for each Record Type P record. Record Type F, which contains corrected 1990 geographic area codes, and Record Type G, which reflects current geography, exist only for GT-polygons with changes to the uncorrected 1990 geography. In order to create a list of all current GT-polygons belonging to a place, search Record Type A for the relevant GT-polygon records and extract those with the matching place code. Add or subtract GT-polygons from Record Type G with matching place codes. Note that Record Type G contains all changes to the uncorrected 1990 codes including those contained in Record Type F, unless further changes have since changed the codes in Record Type F.

Record Type I provides a link between the GT-polygon records and the record types containing complete chain attributes (Record Types 1, 2, 3, 4, and 6). Each Record Type I record identifies a complete chain by TLID with a left and right side GT-polygon. Here CENIDL and POLYIDL contain the CENID and POLYID numbers for the GT-polygon on the left side of the line. Likewise, CENIDR and POLYIDR contain the CENID and POLYID numbers for the GT-polygon on the right side of the line. There is a Record Type I record for each record in Record Type 1. All CENID and POLYID numbers appear in Record Type I.

To find all of the complete chains that form the boundary of a specific GT-polygon, search Record Type I for a match with either the left or right CENID and POLYID. Where left and right CENID and POLYID numbers are the same, the complete chain is internal to the GT-polygon (e.g., a dead end street).

Record Type 8 provides a link between the GT-polygons and the landmark feature records. See the section below on landmark identification numbers.

Sort Sequence: CENID and POLYID

The POLYID numbers appear in sequential order by CENID in Record Types A, F, G, and P.

TIGER/Line(TM) Landmark Identification Numbers (LAND)

Identification

The landmark feature identification number (LAND) is a 10-digit number that uniquely identifies both point and area land marks within each county file. LAND is not a permanent number; the Census Bureau assigns the LAND's each time a new version of the TIGER/Line(TM) files are produced.

In rare situations, Record Type 7 may list the same LAND number more than once if the landmark has more than one feature name. Each name appears as a separate data record in Record Type 7. These data records describe the same landmark and have the same LAND.

Overlapping landmarks e.g., a pond located in a park, also assign more than one name to a GT-polygon. However, overlapping landmarks are separate features with different LAND's.

Codes: LAND

The LAND is an integer number that does not contain leading zeros. It is assigned during the extraction of the data and is not a permanent number. There may be gaps in the sequence of the LAND's in Record Type 7 because of the way this information is extracted.

Record Locations: LAND

The LAND field appears in the following record types:

Record Type 7	Landmark attributes
Record Type 8	Linkage record containing both the LAND and CENID and POLYID fields.

Record Linkages: LAND

Record Type 8 links each area landmark's LAND with a CENID-POLYID. Each area landmark will have one or more Record Type 8 records that together identify all of the GT-polygons that make up the landmark.

Sort Sequence: LAND

Record Type 7 and 8 contain records sorted in ascending order by LAND. In Record Type 8, each LAND is repeated for each GT-polygon covered by the area landmark.

TIGER/Line(TM) Files, 1992

Chapter 3:

Geographic Objects in the TIGER/Line(TM) File

Line Features

Feature Identifiers

Identification

The "feature identification" fields contain either a general type label or a specific proper name assigned to a complete chain that identifies the feature. Each complete chain that comprises a named feature, such as US Highway 1, has the same feature identifier. The TIGER/Line(TM) files do not support a data level above the complete chain that allows the construction of higher level objects (features). Note that complete chains with the same name may represent separate features; for example, a county may contain several Main Streets located in different geographic entities (e.g., towns or cities) scattered throughout the county.

The ability to group chains together to include the entire length of a street feature, such as US Route 66, depends on the uniqueness of the identifiers and the consistency of the feature identifiers along the length of the feature. The Census Bureau makes no guarantee that the complete chains have uniform names or contain all of the known feature identifiers.

Also note that the Census Feature Class Codes (CFCC's) may vary for chains with the same feature identifier. For example, the most frequent CFCC for a state highway is A21, but the complete chains marking the location of State Highway 32 may have a CFCC of A01, A40, or A21 (see the section on Census Feature Class Codes, Chapter 3).

The TIGER/Line(TM) files use several related data fields to provide a structured description of the feature identifier:

* Feature Direction Prefix (e.g., N. Adams Ave.)
* Feature Name (e.g., US Highway 1, Jefferson St.)
* Feature Type (Roosevelt Blvd., Mangosteen River)
* Feature Direction Suffix (e.g., Providence St. N.E.)

Most named street/highway features have a feature type. Numerous exceptions exist; for example, "Broadway" consists of a feature name with no type specified. Do not confuse feature types that form proper names with the CFCC classification scheme.

The feature identifiers may include either a direction prefix or suffix. Some may have both a direction prefix and suffix.

The feature name fields may contain both a name and a feature type. For all hydrography and for all non-road features, the feature type normally will follow the feature name in the feature name field. In some instances, the type is commonly considered part of the name and is combined with the feature name in TIGER/Line(TM) files to avoid confusion; for example, US Hwy 1. The TIGER System

identifies "US Hwy" as a feature type used as a prefix to the name and "1" as the feature name. Note that the feature types such as US Highway, State Highway, and Interstate, normally precede the name, appear in the name field, and are excluded from the Standard Feature Types list below.

Generic feature identifiers have a name listed in the names field, but do not have a feature type or direction. Some examples of generic names include:

* Ramp
* Power line
* Reservoir

Generic feature identifiers were selectively added to features that do not have proper names. In most cases, complete chains without proper names will have no feature identifier.

The TIGER/Line(TM) file structure allows up to 4,996 feature identifiers for a complete chain. The primary feature identifier appears in Record Type 1. For street features, the primary feature identifier is usually the name most commonly associated with the address range. Up to five alternate feature identifiers are cross-referenced in each Record Type 4 record, and a single complete chain can have up to 999 Record Type 4 records. Alternate feature identifiers include highway designation numbers for named streets, former names, and alternate spellings where source material provided conflicting data.

Where the complete chain represents a limited access highway, the highway type and route designator, such as I-95, should ideally become the primary name, and the local designation, such as Cross County Expressway or Capital Beltway, should become the alternate name. However, this is not always true in the TIGER/Line(TM) files.

The primary and alternate feature identifiers can be independent of each other. There is no assurance that the same combination of primary and alternate feature identifiers will appear together on sequence of complete chains. There also is no assurance that a feature identifier will consistently appear as the primary identifier; it might be recorded as an alternate feature identifier for some complete chains and a primary feature identifier for others.

Record Type 5 contains a record for each feature identifier used as either a primary or an alternate name. The TIGER/Line(TM) files link the alternate names in Record Type 5 to Record Type 1 through the use of the alternate feature identification code index that forms Record Type 4. See the section on Feature Name Record Linkage in Chapter 3.

Record Locations: Feature Identifiers

RT	Field Name	Description
1	FEDIRP	Directional (prefix type)
1	FENAME	Primary feature name
1	FETYPE	Feature type
1	FEDIRS	Directional (suffix type)
5	FEDIRP	Directional (prefix type)
5	FENAME	Alternate and primary feature

		name
5	FETYPE	Feature type
5	FEDIRS	Directional (suffix type)

Codes: Feature Identifier

Directionals (Prefix and Suffix)

Directionals consist of a 2-character abbreviation.

Abbreviation	Explanation
(Blank)	No Direction
N	North, Norte
S	South, Sur
E	East, Este
W	West, Oeste
NE	Northeast, Norte Este, Nordeste
NW	Northwest, Norte Oeste, Noroeste
SE	Southeast, Sur Este, Sudeste
SW	Southwest, Sur Oeste, Sudoeste
EX	Extended, Extension

Feature Names

Feature names consist of a 30-character text string with words separated by blanks. Feature names contain upper- and lower-case characters. The feature name is truncated if it is over 30 characters long.

For Puerto Rico, the TIGER/Line(TM) file contains the following codes to represent diacritical marks:

]	Preceding character has acute accent («)
[	Preceding character has dieresis (¬)
#	Preceding character has tilde (~)

The names field may contain abbreviations to represent some feature types. See Appendix D - Standard Abbreviations and the list of Standard Feature Types below.

Feature Types

The feature type field consist of a 4-character text string. For all hydrography and for all non-road features, the feature type normally will follow the feature name in the feature name field. The following abbreviations may appear in the feature type field or the feature name field. If the feature type is not one of the types that appears in the following list, the feature type will appear in the feature name field.

Standard Feature Types

Abbr.	Name	Abbr.	Name
Al	Alley	Park	Park
Arc	Arcade	Pkwy	Parkway
Ave	Avenue, Avenida	Pass	Pass
Blvd	Boulevard	Path	Path
Br	Branch	Pike	Pike
Brdg	Bridge	Pl	Place
Byp	Bypass	Plz	Plaza
C	Calle	Pt	Point
Cswy	Causeway	Ramp	Ramp
Ctr	Center	Road	Road

Cir	Circle	Row	Row
Ct	Court	Rue	Rue
Cove	Cove	Skwy	Skyway
Cres	Crescent	Sq	Square
Crsg	Crossing	St	Street
Dr	Drive	Ter	Terrace
Exwy	Expressway	Thwy	Throughway
Frwy	Freeway	Tfwy	Trafficway
Hwy	Highway	Trl	Trail
Loop	Loop	Tpke	Turnpike
Mall	Mall	Unp	Underpass
Mtwy	Motorway	Wall	Wall
Oval	Oval	Walk	Walk
Ovps	Overpass	Way	Way
Pkwy	Parkway		

Data Limitations and Notes

In the GBF/DIME-File coverage areas, users may not find many roads with alternate names; if an alternate name is provided, it usually represents another local name and not a route number.

Corporate Corridors and Corporate Offset Boundaries

A corporate corridor is a narrow, linear part of an incorporated place. The corporate corridor includes the street and/or right-of-way or a portion of the street and/or right-of-way within the incorporated place. It excludes from the incorporated place those structures, such as houses, apartments, or businesses, that front along the street or road.

A corporate limit offset boundary exists where the incorporated place lies on one side of the street and includes all or part of the street and/or right-of-way, but excludes from the incorporated place the structures located along that side of the street. See the section on Places, Chapter 4.

To facilitate address coding, the Census TIGER data base contains duplicate street name and address ranges on complete chains with a CFCC of F11, (nonvisible offset boundary) or F12 (nonvisible corporate corridor). The duplicate street names for the F11 and F12 features are on Record Type 5. Record Type 1 will not contain feature identifiers for complete chains with CFCC's of F11 or F12.

Feature Identifier Record Linkage

Concepts

Record Type 4 provides the link required to find any alternate feature identifiers belonging to a complete chain. Record Type 4 cross references each TLID with an Alternate Feature ID code (FEAT) assigned to each record in Record Type 5. Record Type 5 contains all feature identifiers including those that are used only as primary identifiers. However, only the FEAT's for complete chains that have alternate feature identifiers appear in Record Type 4. Complete chains that have no alternate feature identifier will have no Record Type 4 record.

To find the alternate feature identifiers for a complete chain, begin by determining the TLID for the complete

chain. Then search for this TLID in Record Type 4. If the complete chain has any alternate feature identifiers, Record Type 4 should provide at least one record.

Once found, the Record Type 4 entries will each contain from one to five FEAT numbers. The feat fields are blank when no further alternative identifiers exist. The first FEAT field (FEAT1) should always have a valid FEAT number. Finally find the records in Record Type 5 file that match the FEAT codes from Record Type 4. The TIGER/Line(TM) file provides a record sequence number to identify multiple Record Type 4 records that might exist for one TLID.

Even though Record Type 5 contains all feature identifiers, Record Type 4 contains only references for alternate feature identifiers. Data users cannot link all of the names in Record Type 5 to all of the associated complete chains in Record Type 1 by using Record Type 4.

Record Locations: Feature Identification Numbers

RT	Field Name	Description
1	TLID	Permanent record number
4	TLID	Permanent record number
4	RTSQ	Record Type 4, record sequence number
4	FEAT1	Alternative feature identification code #1
4	FEAT2	Alternative feature identification code #2
4	FEAT3	Alternative feature identification code #3
4	FEAT4	Alternative feature identification code #4
4	FEAT5	Alternative feature identification code #5
5	FEAT	Alternate and primary feature identification codes

Codes: Feature Identification Numbers

The FEAT data field contains an 8-digit integer number (without leading zeros). The TIGER/Line(TM) files assigns a FEAT to each feature identifier in Record Type 5 sequentially beginning with 1 in each TIGER/Line(TM) file. The FEAT is not a permanent identification number.

TLID is the record identifier for the complete chain. See Chapter 2 for a full discussion of TLID's.

RTSQ is a 3-digit integer number that uniquely identifies multiple Record Type 4 records with the same TLID. RTSQ equals 1 for the first occurrence of a TLID in Record Type 4 and can reach a maximum of 999 for subsequent occurrences.

Address Ranges and ZIP Codes(R)

Identification

The TIGER/Line(TM) files contain address ranges rather than individual addresses. The term "address range" refers to the first possible structure number and the last possible

structure number along a complete chain side relative to the direction in which the complete chain is coded. The address ranges in the TIGER/Line(TM) files are predominantly potential ranges that include the full range of possible structure numbers even though the actual structures might not exist.

The address numbers used to create the address ranges are commonly known as city-style addresses. A city-style address consists of a structure number, street name, and a ZIP Code(R), for example; 213 Main St. 90210. In the TIGER/Line(TM) files, the ZIP Codes(R) appear only on those complete chains that have address ranges identified.

Address Ranges -- Complete chains in the TIGER/Line(TM) files have one end point labeled as the "start" node and the other end point labeled as the "end" node. The "start" and "end" nodes also are referred to as "from and "to." The "start" node always corresponds to the beginning of the complete chain identified by the "start" node coordinates FRLAT and FRLONG. The order of the addresses follows the sequence of the nodes on the complete chain and is not related to the low to high orientation of the address range. The "start" address may be higher or lower than the "end" address for a complete chain. Structure numbers usually, but not always, systematically increase or decrease while moving down a street in a set direction from one complete chain to the next.

Record Type 1 contains the initial address ranges for the left and right sides of a complete chain. A complete chain side may have multiple address ranges. The TIGER/Line(TM) files use record type 6 to store any additional ranges as required. The Record Type 1 record will hold the ranges with the largest sequence of numbers. However, Record Type 6 may hold a significant number of additional ranges. Data users must use Record Type 6 to obtain the complete picture of the possible address ranges along a complete chain.

In Record Types 1 and 6, the left- and right-side address ranges each have a "start" and an "end" address range field that can contain a maximum of 11-alphanumeric characters. The address range fields are right-justified.

Each address range in the TIGER/Line(TM) files has only one parity. Only odd-numbered addresses are contained within an address range with odd "start" and odd "end" structure numbers. Likewise, only even-numbered addresses belong to an address range with even "start" and "end" structure numbers. Generally, the left and right sides of a complete chain will have opposite parities. If both odd and even addresses exist on the same side of a complete chain, the TIGER/Line(TM) will provide both an even and a separate odd parity range for that side of the complete chain. One of the ranges may appear in Record Type 1, or Record Type 6 if other ranges exist for the file, while the other will appear separately in Record Type 6.

Some address ranges may include single value ranges, such as 16-16, referred to as an "include" address. These "include" addresses are anomalies; they may have a parity opposite to the prevailing address range on the complete chain side, or appear as an outlier from an adjoining range that does not fit within the range belonging to the complete chain where it is located. For example, the location of 16 Osage St. falls on the odd-numbered side of the street with address range 1-99. The range 16-16 will

appear as an additional "include" range on the left side of the street. The even address range 2-98 on the right side of the street must exclude the number 16 structure number; the right address range becomes two ranges: 2-14 and 18-98. Outliers follow the same pattern. For example, 10 Persimmon St. may appear on the side of the complete chain with the range 100-198 and not on the complete chain with the range 2-98. As before, 10-10 would become an additional range added to the complete chain with the range 100-198, and the address range 2-98 will become two ranges: 2-8 and 12-98. Because "include" address ranges require complex edits that would possibly involve several complete chains, the Census Bureau cannot guarantee that all duplications of addresses were identified and eliminated.

Some basic characteristics of address ranges are as follows:

* The TIGER/Line(TM) file contains only those city-style address ranges used for mail delivery. It does not show rural route and post office box addresses, or structure numbers assigned in select areas for emergency use only.

* Gaps may exist between multiple ranges for a single complete chain. A gap may be significant, since any numbers missing from one complete chain may actually appear on another complete chain, in the case of an address anomaly such as out of parity or out of sequence addresses.

* Address ranges (consisting of a unique combination of structure number, ZIP Code(R), feature name, feature type, and directional) should not overlap; addresses should belong only to one range. The Census Bureau edits the address ranges to locate possible overlaps, but cannot guarantee that all possible overlap situations have been identified.

* Address ranges exist only for street features and in some cases corporate corridor and corporate offset boundary features.

* Address ranges in the TIGER/Line(TM) files are associated with both the primary and alternate feature identifiers.

* In a few rare cases, address ranges can include numbers with alphabetic characters. These characters help uniquely identify the address within the county. For instance, certain unincorporated areas of Genesee County, Michigan prefix the address number with the letter "G." The characters are consistently placed within the address range field; for example, the letter G maintains a consistent column placement in the range "G 1" to "G99".

Some address systems use the "-" character to separate avenue numbers, private road designators, and grid cell numbers from the structure numbers; for example, 10-01 Reynolds St. uses a hyphen to separate the avenue number from the structure number.

See Figures 3-1 through 3-3 for examples of the different address range situations and how they are coded in the TIGER/Line(TM) files.

Imputed Address Ranges -- Imputed address ranges occur during the process of updating the Census TIGER data base,

when a new complete chain intersects an existing complete chain with address ranges. The intersection splits the existing complete chain and produces two new complete chains connected by a new node located at the intersection point. The update program divides the old address ranges among the two new complete chains and "imputes" the address range ends at the new node. The impute process allocates parts of each original address range to each of the complete chains in proportion to their lengths. Where a complete chain has multiple address ranges, the update program imputes address range breaks for each original address range independent of the other address ranges and without regard to the actual location of the addressed structures along the street. See Figure 3-4 for an example of an imputed address range.

Census Bureau staff also identified some ranges as imputed during an address range coding and correction operation prior to the 1990 census. These imputed address ranges appear in situations where the address reference sources showed a single range covering several complete chains that form the same block side in the Census TIGER data base. A typical example occurs with "T" intersections; the reference source might provide one range that would span the top of the "T" where the Census TIGER data base shows two complete chains. The use of impute flags indicates that the assignment of the reference source range to one or more of the complete chains was arbitrary.

The impute/source flags identify address ranges that have been through the impute process. Each record in the TIGER/Line(TM) files contain four separate 1-character impute/source flag fields, one for each address range end. For the 1992 TIGER/Line files, the possible flag values are extended to identify the address range source as well as imputed address values. The flags distinguish between those ranges created from information contained in the 1990 census ACF from those that were already present in the Census TIGER data base before that operation (see the Address Information Methodology subsection for more details on ACF address ranges).

ZIP Codes(R)-- The ZIP Code(R) is a complete chain attribute that only exists for complete chains that have address ranges. The TIGER/Line(TM) files have a 5-character ZIP Code(R) field containing a numeric code with leading zeros. Each address range belonging to a complete chain can have a different ZIP Code(R). Since the ZIP Codes(R) in the TIGER/Line(TM) file relate to mail delivery along addressed streets, they are not true area features. It is possible that a polygon may contain addresses associated with more than one delivery ZIP Code(R).

NOTE: Where streets form ZIP Code(R) boundaries, the complete chain has different left and right side ZIP Codes(R). The Census TIGER data base contains only one ZIP Code(R) for each address range record. Address ranges with different ZIP Codes(R) must therefore appear in separate records. The address range(s) with one ZIP Code(R) will appear in Record Type 1, and the other address range(s) with the other ZIP Code(R)(s) will appear in Record Type 6. For example, one complete chain making up Duke Street is a ZIP Code(R) boundary; the left side range 1-99 has ZIP Code(R) 12345, and the right side range 2-98 has ZIP Code(R) 54321. The range 1-99 with ZIP Code(R) 12345 will appear in Record Type 1; note that the right-side range fields will be blank. The range 2-98 with ZIP Code(R)

54321 will appear in Record Type 6; note this time that the left-side range fields will be blank. If the complete chain held additional address ranges with either ZIP Code(R) 12345 or 54321, they would appear with the existing range or as an additional Record Type 6 record. For example, a right-side range of 150-198 with ZIP Code(R) 12345 could appear on the Record Type 1 record with the range 1-99. However, a right-side range of 150-198 with ZIP Code(R) 54321 could not appear on the Record Type 6 record with the range 2-98. Instead, the range must appear in a second Record Type 6 record.

Address Information Methodology

Pre-1990 Census Address Ranges -- Before the 1990 census, the Census TIGER data base contained address range coverage only for the area covered by GBF/DIME-Files and a few file extension area. The Census Bureau obtained the address ranges from reference sources and the GBF/DIME-File before the 1990 canvassing operations. These ranges were used to geocode a list of addresses to geographic areas for use in questionnaire mail-out.

The Census Bureau purchased the list of addresses from commercial vendors for the geographic areas where the Census TIGER data base included address ranges. To verify the accuracy of the addresses, the Census Bureau began with an initial assignment of residential addresses to the 1990 census tracts and blocks. Clerical review of the results of the assignment process resulted in additional address range updates. All of the address ranges in the Census TIGER data base coming from the GBF/DIME-Files, the file extension areas, and the clerical review process are identified in the TIGER/Line(TM) file by impute/source flag values of 0 or 1.

Although an address range in the TIGER/Line(TM) file may be incorrect, the Census Bureau implemented procedures to ensure that the error did not adversely affect the accuracy or the quality of the 1990 census. In later field operations, enumerators verified, corrected, and updated the list of addresses assigned to each block by walking the perimeter and all interior streets of each block and checking the list against their observations.

Expanded Addresses -- The Census Bureau has expanded the address range coverage for the entire United States by creating new ranges based on the ACF used in the 1990 decennial census. The ACF is a master list of addresses geocoded to the census block level. For each block, the individual structure addresses were grouped by feature identifier and sorted into numerical order to extract an actual range. The order of the addresses relative to the start and end nodes comes from the order of addresses for the street feature as a whole (i.e., the collection of linked complete chains with the same feature identifier). Likewise, the overall parity of the street feature sets the standard for identifying and editing anomalies along the complete chains.

To maintain confidentiality of individual addresses, the Census Bureau converted the actual range to a potential range by expanding the range to complete a hundred range, split the difference between coverage gaps, and in some cases disguised the range by the random addition or subtraction of addresses.

The Relationship Between Pre-existing and ACF Address Ranges -- Where a complete chain contains both an ACF and a pre-existing address range in the Census TIGER data base, the pre-existing address range appears in the 1992 TIGER/Line files. A complete chain that contains a mixture of ACF and non-ACF ranges will show entire ACF based address range on a complete chain side with only an ACF based address range. For example, a complete chain has the following addresses in the Census TIGER data base: a non-ACF range of 1-99 on the left side, and the ACF ranges 1-107 on the left side, and 50-108 on right side. In the 1992 TIGER/Line files, the non-ACF range will appear on the left side, but the ACF based range 50-108 will appear on the right side. No attempt has been made to resolve differences between the two sources. The ACF range may create overlaps with non-ACF ranges on the adjoining complete chains.

Record Locations: Address Ranges

RT	Field Name	Description
1	FRADDL	"Start" address (left side of complete chain)
1	TOADDL	"End" address (left side of complete chain)
1	FRADDR	"Start" address (right side of complete chain)
1	TOADDR	"End" address (right side of complete chain)
6	FRADDL	Additional "start" address (left side of complete chain)
6	TOADDL	Additional "end" address (left side of complete chain)
6	FRADDR	Additional "start" address (right side of complete chain)
6	TOADDR	Additional "end" address (right side of complete chain)

Record Locations: Impute Flags

RT	Field Name	Description
1	FRADDL	"Start" address flag (left side of complete chain)
1	TOIADDL	"End" address flag (left side of complete chain)
1	FRIADDR	"Start" address flag (right side of complete chain)
1	TOIADDR	"End" address flag (right side of complete chain)
6	FRIADDL	"Start" address flag for additional range (left side of complete chain)
6	TOIADDL	"End" address flag for additional range (left side of complete chain)
6	FRIADDR	"Start" address flag for additional range (right side of complete chain)
6	TOIADDR	"End" address flag for additional range (right side of complete chain)

Record Locations: ZIP Codes(R)

RT	Field Name	Description
1	ZIPL	5-digit ZIP Code(R) (left side of complete chain)
1	ZIPR	5-digit ZIP Code(R) (right side of complete chain)
6	ZIPL	5-digit ZIP Code(R) for additional range (left side of complete chain)
6	ZIPR	5-digit ZIP Code(R) for additional range (right side of complete chain)

Codes: Address Ranges and Impute Flags

Address Ranges

* Numeric characters or a mixture of numeric and alphabetic characters (maximum of 11 characters)

* Ranges beginning or ending with zero (0) are not valid

* Address range fields are blank when no address range is available. Both the "start" and "end" address range fields are blank or have non-zero values. One field is not blank while the other contains a valid address.

Impute Flags/Source Flags (1-character numeric code)

* No address range available " "

* Not imputed, address range derived from reference sources "0"

* Imputed, address range derived from reference sources "1"

* Not imputed, address range derived from the 1990 census ACF "2"
* Imputed addresses, derived from 1990 census ACF "3"

ZIP Codes(R)

See U. S. Postal Service (USPS) Publication 65, National Five-Digit ZIP Code and Post Office Directory for a list of valid 5-digit ZIP Codes(R). The 1992 TIGER/Line files will not contain delivery ZIP Codes(R) established since the 1990 census operations or non-delivery ZIP Codes(R). The distribution of ZIP Codes(R) in the TIGER/Line(TM) files may not reflect the exact USPS ZIP Code(R) service area.

Limitations

Users of the TIGER/Line(TM) file's address ranges should check for address range overlaps, gaps, odd/even reversals, and other situations that may be incorrect.

Corporate Corridors and Corporate Limit Offset Boundaries

A corporate corridor is a narrow, linear part of an incorporated place. The corporate corridor includes the street and/or right-of-way or a portion of the street and/or right-of-way within the incorporated place. It excludes from the incorporated place those structures, such as houses, apartments, or businesses, that front along the

street or road.

A corporate limit offset boundary exists where the incorporated place lies on one side of the street and includes all or part of the street and/or right-of-way, but not the structures located on that side of the street. See the section on Places, Chapter 4.

To facilitate the coding of address to the correct geographic entity, the Census TIGER data base contains duplicate street name and address ranges on complete chains with a CFCC of F11 (nonvisible offset boundary) or F12 (nonvisible corporate corridor). The duplicate street names for the F11 and F12 features are on Record Type 5, and the duplicate address ranges are on Record Type 6. Complete chains with CFCC's of F11 or F12 will not contain the duplicated names or address ranges in Record Type 1. Record Type 1 does not indicate that the street or right-of-way lies within a corporate corridor or offset boundary and that the address ranges lie outside the corporate corridor or offset boundary and are encoded on either side of these lines. Data users planning to geocode addresses in areas with these boundary types must identify the duplicated feature identifiers and ranges from Record Type 5 and 6 (the names and address ranges for CFCC F11 and F12 features), locate the street feature with that range, and remove the street feature's address ranges and geographic codes from the geocoding process.

Record Linkages

The TIGER/Line(TM) files store address range information in two record types. Record Type 1 contains the basic complete chain attributes, including one basic address range. Record Type 6 stores the additional ranges when the complete chain has more that one range on one or both sides.

The TLID field links Record Types 1 and 6. Since a complete chain can have more than one set of ranges, multiple Record Type 6 records can exist with the same TLID. The TIGER/Line(TM) files distinguish these records with a record sequence number (RTSQ). All Record Type 6 records that have the same TLID appear sequentially in the file even though the records are not sorted by TLID. The TIGER/Line(TM) files do not contain a field indicating whether a Record Type 6 record exists for a specific TLID; the user must scan any existing records in Record Type 6 for a TLID match.

Boundaries of Geographic Entities

Identification

The TIGER/Line(TM) files store geographic codes as either a polygon or complete chain attribute. In the case of State and county level geography, the codes appear in both complete chain and polygon record types. To learn more about the available complete chain attribute codes, refer to the description of Record Types 1 and 3 in Chapter 6; or see the description of Record Types A, F, and G also in Chapter 6 for a list of polygon attribute codes. To find out what codes are available for a specific level of geography, see Chapter 4.

Record Linkages and Boundary Extraction

The codes assigned to the complete chain belong to the areas referenced by the left and right sides of a complete

chain. Only those features that have different geographic codes on the left and right sides of a line become boundary features. Some geographic entities require information from multiple TIGER/Line(TM) data fields in order to uniquely identify that entity's boundary. For instance, both the census block and census tract/BNA codes are required to identify a block boundary. For instance, block 101 in census tract 2101 could neighbor block 101 in census tract 2998. Be sure to use both the basic number and suffix when extracting either census tract or block boundaries. Data users who have combined TIGER/Line(TM) files should include the county/county equivalent code to extract census tract/BNA boundaries.

The extraction of boundary features from polygon attribute codes requires making a link between the polygon and the complete chain data records, and then identifying the features with different left- and right-side geographic codes. For a description of the record linkage process, see the section on Record Linkages to Polygons and Chains, in Chapter 3.

Boundary rings consist of multiple complete chains that are sequentially linked together and connect to form a closed ring. The process of linking all of the boundary complete chains that outline the same geographic entity requires the extraction of all complete chains that have that entity's code on either the left or right side (but not both). Linking the chains together will form a polygon; each polygon may represent one of the GT-polygons described in Record Types A and P, or a collection of those GT-polygons. Record Types A and P describe only the most elementary polygons.

Caution: Some types of geographic areas must end at a county/file boundary while others can continue into adjoining counties/files. For example, MCD's stop at a county boundary, whereas incorporated places can exist in several counties (See the section on Record Linkages/ Feature Chaining).

Single-Side Flags and County Boundaries

The TIGER/Line(TM) files use the 1990 counties/county equivalents as the basis for the file coverage area. The boundaries do not reflect post-1990 census corrections or changes. Each county file contains all of the codes relevant to that county.

County boundary features are duplicated between adjoining pairs of counties so that each file is complete. However, the complete chains that constitute the boundary features contain only the geographic entity codes and address ranges relevant to each county based TIGER/Line(TM) file. The geographic entity codes are blanked out on the outside edge of the county, even though some of these fields must normally have a non-blank code. The TIGER/Line(TM) file identifies these complete chains with a 1-character, "single side segment flag."

When combining several TIGER/Line(TM) files to form a State or regional data set, the data user will need to eliminate duplicate boundary lines. Because each one of the duplicate boundary complete chains has either the left- or right-side geographic entity codes and address ranges, the elimination process will need to combine the codes and address ranges from both lines.

The same situation applies to the polygon identification codes. Record Type I contains CENID's and POLYID's for GT-polygons within the county. If the GT-polygon is in the adjacent county, the CENID and POLYID fields are blank.
Record Locations: Single-Side Flag

RT	Field Name	Description
1	1SIDE	flag

Codes: Single-Side Flag

The complete chain is a county boundary	"1"
The complete chain is not a county boundary	" "

CFCC's

Identification

The CFCC is a 3-character classification code that provides a basic feature description. All complete chains and landmarks have a CFCC. GT-polygons do not have a CFCC unless they are associated with an area landmark.

In the portion of the TIGER/Line(TM) file prepared from the GBF/DIME-Files, the roads are classified as Class 4 roads with a few exceptions. The interstate highways that were identified by name in the GBF/DIME-File are classified as Class 1 roads.

Record Locations: CFCC

RT	Field Name	Description
1	CFCC	Code assigned to the complete chain

Codes: CFCC's

Appendix E lists the potentially available CFCC's. The list of CFCC's provides for the possible inclusion of these types of features. For example, a property line (F40) will appear in the file only when a statistical or political boundary is known to follow that property line. Note that most CFCC's refer only to complete chains while others may describe only entity points (point landmarks) or area landmarks. In a few cases, the same CFCC can apply to entity points, complete chains, and area landmarks.
CFCC's Used for Both Complete Chains and Landmarks

CFCC	Description
D00	Landmark feature, classification unknown, or not elsewhere classified
D50	Transportation terminal
D51	Airport or airfield
H10	Stream
H11	Perennial stream
H12	Intermittent stream or wash
H13	Braided stream
H20	Canal, ditch, or aqueduct
H21	Perennial canal, ditch, or aqueduct
H22	Intermittent canal, ditch, or aqueduct

Points Describing the Complete Chain

Identification

The TIGER/Line(TM) files describe the spatial/geometric position and shape of a complete chain using shape points and nodes; see the discussion on TIGER topology in Chapter 1. Latitude and longitude coordinate fields identify the shape points and nodes. The Census TIGER data base does not support node identification numbers.

Nodes -- Nodes are topological objects that mark the end location of each complete chain. Every chain has two nodes, a "start" node and an "end" node (using the SDTS terminology). Earlier releases of the TIGER/Line(TM) files refer to theses nodes as the "from" node and the "to" node. The order of the nodes establishes left and right sides of the line and sets the sequencing order for the shape points. The node coordinates are stored in Record Type 1.

Shape Points -- The Census Bureau uses the term "shape points" to describe the non-topological points that describe the position and shape of a chain. Shape points exist only where required; straight line complete chains require no shape points. Shape points are associated only with one complete chain and are listed in order from "start" node to "end" node. The TIGER/Line(TM) files store shape points in Record Type 2 and links them to the nodes in Record Type 1 using the TLID. The shape points for a chain can fill several Record Type 2 records.

Coordinates for Nodes and Shape Points

Coordinates are expressed in standard FIPS notation, where a positive latitude represents the Northern Hemisphere and a negative longitude represents the Western Hemisphere. All coordinates are expressed as a signed integer with six decimal places of precision implied.

Actual	TIGER/Line(TM) File
Latitude 15 Deg. S to 72 Deg.	N -15000000 to +72000000
Longitude 64 Deg. W to 131 Deg.	E -64000000 to -180000000
	+131000000 to +179999999

The TIGER/Line(TM) files use coordinates based on the North American Datum of 1927 (NAD27) (see reference McKenzie and LaMacchia, 1987).

Beginning with the 1990 Census TIGER/Line files, the + and - signs appear to the left of the left-most digit with the preceding character blank-filled if it is not in use in the field. The representation is now "standard" FORTRAN where the sign "floats" in front of the number.

Please note that the Census Bureau changed the way the + and - signs appear in the coordinate fields beginning with the 1990 Census TIGER/Line files. In the TIGER/Line(TM) Files Initial Voting District Codes, 1990 the + and - signs were fixed in the left-most character position of the field.

Example:	" +98123456"	1990 Census TIGER/Line file and later versions
	"+ 98123456"	TIGER/Line(TM) File Initial

Record Locations: Coordinates for Nodes and Shape Points

RT	Field Name	Description
1	FRLONG	Start node (or "from" node) longitude
1	FRLAT	Start node (or "from" node) latitude
1	TOLONG	End node (or "to" node) longitude
1	TOLAT	End node (or "to" node) latitude
2	LONG1	1st shape point longitude
2	LAT1	1st shape point latitude
2	LONG2	2nd shape point longitude
2	LAT2	2nd shape point latitude
2	LONG3	3rd shape point longitude
2	LAT3	3rd shape point latitude
.	.	.
.	.	.
.	.	.
2	LONG10	10th shape point longitude
2	LAT10	10th shape point latitude

Values: Coordinates

All nodes have non-zero coordinates within the range specified above. Shape point coordinates are expressed in the same manner. However, unused Record Type 2 fields are zero filled with a "+" sign.

Record Linkages/Feature Chaining

The plotting of a complete chain requires using the nodes from Record Type 1 and all of the shape point records in Record Type 2 with the same TLID if any. Plot start node first. Search Record Type 2 for any matching records. If there is a match, the record will contain from 1 to 10 shape points. If all 10 point fields are filled with non-zero values, then there may be an additional matching Record Type 2 record. Record Type 2 records are not sorted by TLID, but all records with the same TLID should appear together in sequence by the record sequence number (RTSQ). Plot the shape points from all Record Type 2 records and end the complete chain by plotting the end node.

Street features may consist of multiple complete chains that are sequentially linked together. Linking all of the features with the same name requires the extraction of all Record Types 1 and 2 records with the same feature identifiers in Record Types 1 and 5.

Boundary generation requires the extraction of all features that have different left and right geographic codes. The placement of the complete chains into a travel or polygon ring sequence requires a procedure to match the end of one complete chain to the beginning or end of the next complete chain. Note that the complete chains will probably not have the same "to-from" or "start-end" orientation down the length of the street or boundary. Therefore, the procedure must reverse the order of the nodes and shape points that form some complete chains to achieve a correct/consistent sequence of nodes and shape points. Since the nodes that identify the ends of the complete chains do not have an identification number, the procedure will have to match the nodes based on the latitude and longitude coordinates. The procedure might facilitate the match by combining the

coordinates into a single peano key code composed of the alternating latitude and longitude digits. Sorting the nodes using the peano key clusters nodes that are spatially close together.

Polygons

Overview of Polygon Features

Description

The TIGER/Line(TM) files contain identification and geographic codes for each GT-polygon in the Census TIGER data base. These GT-polygons are the smallest areas identified in the TIGER/Line(TM) files. Geographic entities and area landmarks have specific identification codes and form more complex polygons. The TIGER/Line(TM) files link these features to GT-polygons, but do not identify the more complex polygons directly.

GT-polygons are building blocks that form features. They are not features and therefor do not have their own feature name or CFCC. However, they can belong to many area landmark features each with its own feature name and CFCC.

GT-polygons have unique GT-polygon identification codes (CENID and POLYID); a set of geographic entity codes associated with the GT-polygon and an internal point location. Refer to Chapter 2 for more information about the GT-polygon identification codes. Chapter 4 inventories the geographic entities in the TIGER/Line(TM) file and lists the record type location.

Information and record linkage keys for GT-polygons are distributed over several record types:

* Record Type P provides the GT-polygon internal point location.
* Record Type A describes the 1990 census geographic entity codes.
* Record Type F contains GT-polygons with geographic code corrections.
* Record Type G contains GT-polygons with current changes to the geographic codes.
* Record Type 8 Links GT-polygons to area landmarks.
* Record Type I links GT-polygons to complete chains.

Every GT-polygon has a corresponding Record Type A and P. Each version of the TIGER/Line(TM) files will have a single, unique set of GT-polygons. The GT-polygons in Record Types F and G are a subset of the GT-polygons identified in Record Types A and P and appear on an as needed basis. The CENID and POLYID identification codes link records together, but are not permanent GT-polygon identification codes. Record Type G will identify the Record Type F GT-polygons and codes if the code correction reflects current geography. If the geographic entity codes or boundaries have changed since the 1990 corrections, Record Type G will contain the new codes for the GT-polygon and not those of Record Type F, which remain fixed.

Updates to the Census TIGER data base may include new complete chains for streets and boundaries that can create new GT-polygons. The set of GT-polygons is unique to each

version of the TIGER/Line(TM) files. The new GT-polygons only appear in Record Types F or G when they show a geographic entity code change. Record Types F and G also contain GT-polygons that have a code change, but are not new polygons created through the addition of a boundary complete chain.

Geographic Entity Codes

Identification

Geographic entity codes can appear in Record Types A, F, and G associated with a set of polygons, Record Types 1 and 3 as an attribute of the complete chain, or both. See the description of Record Types A, F, and G in Chapter 6. For a list of data fields available for a specific geographic entity, see Chapter 4.

Internal Points

Identification

The internal point is a point location within each GT-polygon that is unique to that GT-polygon. The TIGER/Line(TM) files exclude the internal points from the node-complete chain-polygon-topology; do not confuse the internal point with a centroid. Unlike true centroids, the internal points always fall within the GT-polygon or on the GT-polygon boundary.

Some of the GT-polygons (approximately 400 nationwide) are so small that the internal point given may be identical to a point on one of the lines bounding the GT-polygon or identical to one of the nodes. Depending upon the precision of a particular software or hardware system, the data user may find the internal point outside the correct GT-polygon or find that a GT-polygon may contain two internal points.

Changes to the shape and location of complete chains forming polygon boundaries will change the polygon interior point coordinates even though the topology of the polygon remains the same. Such changes complicate the matching of polygons from different versions of the TIGER/Line(TM) files using interior point coordinates.

Coordinate Notation

Coordinates are expressed in standard FIPS notation. See the section on Complete Chains, Coordinates for Nodes and Shape Points in Chapter 3.

Record Locations: GT-Polygon Internal Point Coordinates

RT	Field Name	Description
P	POLYLONG	Internal point longitude
P	POLYLAT	Internal point latitude

Values: Coordinates

All internal points have non-zero coordinates within the range specified above. See the section on Complete Chains, Coordinates for Nodes and Shape Points in Chapter 3.

Record Linkages

Description

The topological network of complete chains divide up the surface area into all of the GT-polygons in the TIGER/Line(TM) files. There will be a one-to-one relationship between the GT-polygons constructed from Record Types 1 and 2 and those appearing in Record Type P.

In constructing GT-polygons from Record Types 1 and 2, users are cautioned to be sure their software has the necessary coordinate precision and does not "snap" complete chains that are close together.

Record Type I provides a direct link from each complete chain in the TIGER/Line(TM) file to its adjoining GT-polygons. It contains both TLID and the polygon identification codes for each side of the GT-polygon. Record Type I facilitates the transfer of polygon geographic codes to the complete chain, but also provides the link back from polygon to complete chain. In this case, finding all complete chains associated with a GT-polygon is more difficult because a procedure will need to search every Record Type I record for all instances where a CENID and POLYID appear on either the left or right side of a complete chain.

Area landmarks also must link to the GT-polygons in order to establish their geographic location. Record Type 8 provides the link from GT-polygon to area landmark. See the section on Area Landmarks below.

Landmark Features

Overview of Landmark Features

Description

The Census Bureau includes landmarks in the Census TIGER data base to locate special features and for map orientation. Some of the more common landmark types include airports, cemeteries, parks, and educational facilities.

The Census Bureau added landmark features on an as needed basis and made no attempt to ensure that all instances of a particular feature were included. The absence of a landmark does not mean that the living quarters, e.g., hospitals and group quarters associated with the landmark were excluded from the 1990 enumeration. The address list used for the census was maintained apart from the landmark data.

A landmark can be either a point, line, or area type. In some cases, the Census TIGER data base permits a choice of types. For instance, an airport or airfield might appear as a point, line, or area; the approach depends on the size of the feature and the depiction of the feature in the source document.

Line features such as airfields could appear as one or more complete chains and as such are not identified in the landmark record types described below. See the section on Point, Line, and Area Landmark CFCC's in Chapter 3 to identify the possible codes that could appear as complete chains.

In addition to landmark data, the TIGER/Line(TM) files contain the CFCC's and names for bodies of water including ponds, lakes, oceans, and the area covered by large streams depicted as double line drainage. Note that these water areas have block numbers ending in "99" with some exceptions.

Landmark and water features can overlap. The most common situation is a park or other special land use feature that includes a lake or pond. In this case, the GT-polygon covered by the lake or pond belongs to a water feature landmark and a park landmark feature. Other kinds of landmarks can overlap as well. Area landmarks can contain point landmarks; these are not linked in the TIGER/Line(TM) files.

Record Type 7 contains the water area labels, and area and point landmarks in the Census TIGER data base. During the extraction of this data, the Census Bureau assigned a temporary LAND to each landmark record. Record Type 8 uses the LAND to link the area landmark records in Record Type 7 to the GT-polygons. Record Type 7 and Record Type 8 exist only when the county file identifies landmark features or uses water feature labels.

Point, Line, and Area Landmark CFCC's

Identification

All landmarks have a CFCC. In the Census TIGER data base the CFCC's of the complete chains forming the polygon boundary are independent of the CFCC's assigned to the area landmark or water feature filling the polygon.

Record Locations: Landmark CFCC's

RT	Field Name	Description
7	CFCC	Code assigned to point and area landmarks

Codes: Landmark CFCC's

CFCC	Description	Point	Line	Area
D00	Landmark feature, classification unknown, or not elsewhere classified	P	L	A
D10	Military installation	P		A
D20	Multi-household and transient quarters	P		A
D21	Apartment building or complex	P		A
D22	Rooming or boarding house	P		
D23	Trailer court or mobile home park	P		A
D24	Marina	P		A
D25	Crew of vessel			A
D26	Housing facility for workers	P		A
D27	Hotel, motel, resort, spa, YMCA, or YWCA	P		A
D28	Campground	P		A
D29	Shelter or mission	P		A
D30	Custodial facility	P		A
D31	Hospital	P		A
D32	Halfway house	P		
D33	Nursing home, retirement home,			

	or home for the aged	P		A
D34	County home or poor farm	P		A
D35	Orphanage	P		A
D36	Jail or detention center	P		A
D37	Federal penitentiary, state prison, or prison farm	P		A
D40	Educational or religious institution	P		A
D41	Sorority or fraternity	P		
D42	Convent or monastery	P		A
D43	Educational institution	P		A
D44	Religious institution	P		A
D50	Transportation terminal	P	L	A
D51	Airport or airfield	P	L	A
D52	Train station	P		A
D53	Bus terminal	P		A
D54	Marine terminal	P		A
D55	Seaplane anchorage	P		A
D60	Employment center	P		A
D61	Shopping center or major retail center	P		A
D62	Industrial building or industrial park	P		A
D63	Office building or office park	P		A
D64	Amusement center	P		A
D65	Government center	P		A
D66	Other employment center	P		A
D70	Tower	P		
D71	Lookout tower	P		
D80	Open space	P		A
D81	Golf course	P		A
D82	Cemetery	P		A
D83	National park or forest	P		A
D84	Other federal land	P		A
D85	State or local park or forest	P		A
D90	Special purpose landmark	P		A
D91	Post office box ZIP Code(R)	P		A
H00	Water feature, classification unknown, or not elsewhere classified	P	L	A
H10	Stream		L	A
H11	Perennial stream		L	A
H12	Intermittent stream or wash		L	A
H13	Braided stream		L	A
H20	Canal, ditch, or aqueduct		L	A
H21	Perennial canal, ditch, or aqueduct		L	A
H22	Intermittent canal, ditch, or aqueduct		L	A
H30	Lake or pond			A
H31	Perennial lake or pond			A
H32	Intermittent lake or pond			A
H40	Reservoir			A
H41	Perennial reservoir			A
H42	Intermittent reservoir			A
H50	Bay, estuary gulf, sound, sea, or ocean			A
H51	Bay, estuary gulf, or sound			A
H53	Sea, or ocean			A
H60	Gravel pit or quarry filled with water			A

Landmark Feature Name

Identification

The TIGER/Line(TM) files contain an optional 30-character

text string used to identify the proper name of the feature or water area label. The text string includes upper and lower case characters. The feature name may carry an imbedded feature type (e.g., River, Military Reservation, Garden, Park, and Lake). The Census Bureau has not standardized or edited the feature types or names in the Census TIGER data base.

The Census Bureau does not guarantee that the landmarks or water area labels are consistently identified in the TIGER/Line(TM) files. Area landmarks added to the Census TIGER data base in different update actions with the same name and CFCC will produce separate landmark records in the TIGER/Line(TM) files. The landmark records may contain variant spellings of the feature name or different CFCC's even though they refer to the same feature. These differences could result in the fragmentation of a large landmark; for instance, part of a large military base could have the name Fort James while another part could have the name Fort James Military Reservation. Because area landmarks can overlap, it is possible, though not likely, that one polygon can belong to both Fort James and Fort James Military Reservation.

Area landmarks and water area labels can have alternate names. Each feature name will appear as a separate record in Record Type 7, but each record will have the same LAND. Record Type 7 records with the same LAND will belong to the same landmark or water area label. Each unique combination of primary and alternate names becomes a separate landmark record even though the primary name and CFCC's match adjoining landmark features.

Record Locations: Landmark Feature

RT	Field Name	Description
7	LANAME	Water area label, and point and area landmark name.

Codes: Landmark Feature Names

The LANAME field may include any ASCII text string. The field can be blank where the feature is unnamed.

Point Landmark Locations

Identification

The TIGER/Line(TM) files identify the location of point landmarks with a single point. The presence of coordinate data in Record Type 7 distinguishes point landmarks from area landmarks which have blank coordinate fields.

Coordinates

Coordinates are expressed in standard FIPS notation. See the section on Complete Chains, Coordinates for Nodes and Shape Points in Chapter 3 for additional information.

Record Locations: Point Landmark Location Point Coordinates

RT	Field Name	Description
7	LALONG	Location point longitude
7	LALAT	Location point latitude

Values: Coordinates

All point landmarks have non-zero coordinates within the range specified above. The coordinate fields for area landmarks are blank filled.

Area Landmark Locations

Identification

To find the locations of area landmarks, link the basic landmark description in Record Type 7 to all of the elementary polygons that belong to the landmark. Record Type 8 serves as a bridge between these two record types. The TIGER/Line(TM) files provides a Record Type 8 record for each polygon linked to a specific landmark. Polygons belonging to multiple landmarks appear once for each landmark. The TIGER/Line(TM) files uses the LAND and the polygon identification codes (CENID and POLYID) to actually make the link. See Chapter 2 for a description of the LAND, CENID, and POLYID codes and fields. Locate the polygons for an area landmark by searching Record Type 8 for all of the CENID's and POLYID's with the specified LAND. Record Type 8 is in LAND sort sequence.

Once the polygons are linked to the area landmark, use Record Type I to locate the complete chains that form the landmark's polygon boundaries. Note that Record Type I contains a record for all complete chains and identifies the polygons located on either side of the complete chains. The search procedure must search all instances of Record Type I and evaluate the left- and right-side polygon identifiers for a possible match. Data users may need to eliminate complete chains that are internal to the polygon and landmark depending on the application.

TIGER/Line(TM) Files, 1992

Chapter 4:
Geographic Entities

Overview

Introduction

The 1992 TIGER/Line files contain the boundaries of the legal entities certified as legally in effect on January 1, 1990, most of the statistical entities for which the Census Bureau tabulated the data from the 1990 census, such as blocks, census tracts, and census designated places (CDP's), and the post-1990 changes and corrections. The files include the codes used in the 1990 decennial census, corrections to these codes, and codes for new entities. The TIGER/Line(TM) files also contain select legal and statistical entity codes used during the 1980 census. See Appendix F for the number of legal and statistical entities.

The inventory and boundaries of the current political entities included in the post 1990 changes are those reported in the 1992 Boundary and Annexation Survey and depict for the most part, the inventory and boundaries in effect as of the January 1, 1992. There are some areas for which the Census Bureau obtained post-January 1, 1992 information.

Census geography is hierarchical; Figure 4-1 shows the progression of geographic areas from the Nation to the block level. Figure 4-2 provides an example of the geographic relationships for small-area statistical entities, and Figure 4-3 provides an example for legal and statistical entities.

The TIGER/Line(TM) files identify geographic entity codes in two ways:

* The assignment of codes to the right and left sides of the complete chain, and

* The identification of codes that belong to each GT-polygon.

Some 1990 geographic entities such as State, county, county subdivision, place, census tract/BNA, and census block are identified in both complete chain and polygon records.

Boundary and Area Changes

Since the release of the1990 Census TIGER/Line files, the Census Bureau has shifted and reshaped some line features including boundary lines. These changes involve the realignment of complete chains associated with corporate boundary corrections and current changes. The maps used by the local officials to identify boundary changes may include additional changes to the shape and position of other features effecting other statistical entities (including census tracts/BNA, blocks, and so forth). The shape and area of the 1990 geographic entities depicted in the 1992 TIGER/Line files may differ from the earlier version. However, the inventory of 1990 census tabulation entities will remain the same. Changes to the shape and location of complete chains also will change the polygon interior point coordinates.

Codes for Entities

The list of FIPS State and county codes appears in Appendix A. A list of valid codes and names for legal entities (e.g., places and county subdivisions) other than counties and county equivalents does not appear in the 1992 TIGER/Line file documentation.

The TIGER/Line(TM) Geographic Names files list geographic entity codes and names, and is available as a separate data product. This product replaces the TIGER Geographic Reference File--Names, 1990 (PUBGRF90).

Also see FIPS Publication 55-3, CODES FOR NAMED POPULATED PLACES, PRIMARY DIVISIONS, AND OTHER LOCATIONS OF THE UNITED STATES (FIPS PUB 55-3) for a list of entity codes, names, and class codes that identify each entity's type and status. FIPS PUB 55-3 describes the updated FIPS standard used for the 1990 census.

A description of the Census Bureau's geographic codes for its "high-level" legal and statistical entities appears in the TIGER/GICS(TM) (Geographic Identification Code Scheme). The TIGER/GICS contains both FIPS and Census Bureau codes and names for an inventory of the geographic entities in the census.

GEOGRAPHIC ENTITIES

AI/ANA's

Identification

The AI/ANA's are represented in the TIGER/Line(TM) files by both a 5-numeric character FIPS code field and a 4-numeric character census code field. The TIGER/Line(TM) files use a single set of fields to identify a series of legal and statistical AI/ANA's:

Legal Entities

* American Indian reservations (AIR's) are legal entities having boundaries established by treaty, statute, and/or executive or court order. They are identified by either the Bureau of Indian Affairs (BIA) for Federal reservations or the individual States for State reservations.

* American Indian trust lands included in the census are the off-reservation lands associated with a specific tribe or reservation held in trust by the Federal Government. They are identified by the BIA and State governments.

Trust lands may be either tribal (held in trust for the tribe) or individual (held in trust for an individual member of the tribe).

Trust lands are assigned the same codes as the reservation. Trust lands not associated with a reservation are assigned codes based on the tribal name. The TIGER/Line(TM) files do not distinguish AIR's and trust lands with the same code.

Statistical Entities

* Alaska Native village statistical areas (ANVSA's) are 1990 census statistical areas that delineate the

settled area of each Alaska Native village (ANV). ANV's consists of tribes, bands, clans, villages, communities, and associations that are recognized in pursuant to the Alaska Native Claims Settlement Act (PL 92-203), but do not have legally recognized boundaries. Officials of Alaska Native Regional Corporations (ANRC's) and other knowledgeable officials delineated the ANVSA's for the Census Bureau for the purpose of presenting census data for these entities.

* Tribal designated statistical areas (TDSA's) are geographic areas delineated for 1990 census data tabulation purposes by tribal officials of federally and State-recognized tribes outside of Oklahoma that do not have a legally defined reservation or associated trust lands. They define areas only for data presentation purposes that generally contain population under tribal jurisdiction and/or for which the tribe provides benefits and services to its members.

* Tribal jurisdiction statistical areas (TJSA's) are geographic areas delineated for 1990 census data tabulation purposes in Oklahoma by federally recognized tribes that do not have a legally defined reservation. They define areas only for data presentation purposes that generally contain American Indian population over which one or more tribal governments have jurisdiction. They replace the single "Historic Areas of Oklahoma (excluding UA's)" recognized for the 1980 census.

Record Locations: AI/ANA Codes

RT	Field Name	Description
1	FAIRL	FIPS PUB 55-3 code (left side of complete chain)
1	FAIRR	FIPS PUB 55-3 code (right side of complete chain)
3	AIRL	1990 census code (left side of complete chain)
3	AIRR	1990 census code (right side of complete chain)
A	FAIR	FIPS PUB 55-3 code (polygon)
F	FAIR90	FIPS PUB 55-3 code for a polygon with corrected 1990 code(s)
G	FAIRCU	FIPS PUB 55-3 code for a polygon with updated code(s) from boundary changes since January 1, 1990

Codes: AI/ANA's

Please refer to the TIGER/Line(TM) Geographic Names files, FIPS PUB 55-3, or the Census Bureau's TIGER/GICS for a list of valid codes and entity names. A range of census codes is allocated to each type of AI/ANA:

AIR	"0001"	to	"4989"
TJSA	"5001"	to	"5989"
ANVSA	"6001"	to	"8989"
TDSA	"9001"	to	"9589"

Note: The data fields are blank if there are no AI/ANA's.

ANRC's

Identification

ANRC's are corporate entities established by the Alaska Native Claims Settlement Act (PL 92-203) to carry out business and nonprofit operations for Alaska Natives. The 12 ANRC's have specific boundaries and cover the State of Alaska except for the Annette Islands Reserve.

Record Locations: ANRC Codes

RT	Field Name	Description
1	ANRCL	1990 census code (left side of complete chain)
1	ANRCR	1990 census code (right side of complete chain)

Codes: ANRC's

Please refer to the TIGER/Line(TM) Geographic Names files or the TIGER/GICS for a list of valid codes and entity names.

Note: The data field is blank if there are no ANRC's.

Block Groups (BG's)

Identification

* Geographic BG's are clusters of blocks, within the same census tract or BNA, having the same first digit of their 3-digit block numbers; for example, blocks 101, 102, 103,...,199 in census tract 1210.02 belong to BG 1. BG's never cross county or census tract/BNA boundaries, but may cross the boundaries of county subdivisions, places, UA's, VTD's, congressional districts, and AI/ANA's. BG's generally contain between 250 and 550 housing units. Each BG usually covers a contiguous area. Each census tract/BNA contains at least one BG. BG's are uniquely numbered within census tract/BNA.

* Tabulation BG's are geographic BG's split to present data for every unique combination of county subdivision,place, UA's, VTD's, congressional districts, U/R, and AI/ANA's shown in the data tabulation products.

The TIGER/Line(TM) files do not have a separate BG data field. Data users can determine the geographic BG by using the first digit of the block number and the tabulation BG by using the geographic BG in combination with the codes for the entities listed above. STF 1A and 3A present data for both geographic and tabulation BG's.

Record Locations: BG Numbers

See the section on census blocks for record locations and field names. The BG is the compilation of all blocks with the same first digit of their block number in a specific census tract/BNA.

Codes: BG's

Number: "0" to "9"

Note: All polygons have a non-blank BG number. The left and right side complete chain block numbers should not be blank except where they are located along the outside edge of the county boundary. The TIGER/Line(TM) files do not contain codes for areas outside the county file.

Some BG's may have a number equal to "0" in some coastal and Great Lakes waters. Rather than extending the census tract/BNA boundary into the Great Lakes or out to the three-mile limit, the Census Bureau closed some census tract/BNA boundaries along the shoreline or just offshore. The Census Bureau assigned a default census tract/BNA number "0000" and block number "099" to the offshore areas.

Census Blocks

Identification

Census blocks usually are small areas bounded on all sides by visible features such as streets, roads, streams, and railroad tracks, and by invisible boundaries such as property lines, legal limits, and short imaginary extensions of streets and roads. Blocks never cross county or census tract/BNA boundaries. In rare instances, parts of a block may be discontiguous, but all parts of a tabulation block will be in the same geographic or governmental unit. Blocks are composed of one or more GT-polygons; that is, several GT-polygons can share the same block number.

Census Block Numbers - - Blocks are numbered uniquely within each census tract or BNA. A census block is identified by a 3-character basic block number field and a character block suffix field. The suffix field often is blank. The 3-character basic block number identifies the "collection" block used in the 1990 census field operations. The first digit of the basic block number identifies the BG.

The Census Bureau refers to the combined basic collection block number and suffix (if a suffix exists) as the "tabulation" block number. The 1990 tabulation block numbers identified in Record Types 1 and A have a 1-character suffix field. The corrected 1990 geography identified in Record Type F allows for a second suffix character. See the section below on Correction block suffix for 1990 corrected geography for examples of tabulation block suffixes.

The suffix character is blank for whole collection blocks that also are tabulation blocks. Block numbers with suffixes usually represent collection blocks that were split in order to identify separate geographic entities that divide the original block. For example, when a city limit runs through collection block 101, the portion inside the city is tabulated in block 101A and the portion outside in block 101B.

Water Blocks - - A 3-character basic block number that ends in "99" signifies water area. As there is only one number ending in "99" within a BG, many water polygons can have the same block number. Water blocks have suffixes if parts of the same block are located in different geographic entities.

Rather than extending the census tract/BNA boundary into the Great Lakes or out to the three-mile limit, the Census Bureau closed some census tract/BNA boundaries along the shoreline or just offshore. The Census Bureau assigned a default census tract/BNA number "0000" and block number "099" to the offshore areas. Note that blocks in the default census tract/BNA's may have numbers other than "099."

Water blocks do not appear in the 1990 census STF's files. Census maps and data files do not display the block numbers for water areas. The principal purpose for census block numbers assigned to water areas is to identify all areas of the United States and its territories and to allocate the water areas to geographic entities. Water GT-polygons with the same block number may not be contiguous to each other, but these GT-polygons will be in the same geographic or governmental unit.

Changes to boundaries made since the release of the 1990 Census TIGER/Line files have altered or removed block boundary features between parts of some water blocks and have changed the block numbers (the BG designator) for parts of some blocks affected. Because these water blocks have no population or housing, the tabulation of the 1990 census is unaffected.

Some water blocks in the 1990 Census TIGER/Line files Supplemental CD-ROM may contain census block suffixes that do not match the 1992 TIGER/Line files.

1980 Census Blocks - - The TIGER/Line(TM) files contain 1980 block numbers for the primarily urban parts of the Nation that were block numbered for the 1980 census and covered by the GBF/DIME-Files.

The TIGER/Line(TM) files may contain 1980 block numbers for portions of the country where the Census Bureau did not tabulate 1980 census data by block and BG. These situations occur because these portions of the Census TIGER data base originated from the parts of the 1980 GBF/DIME-Files that extended beyond the 1980 block-numbered area. Data users concerned about the validity of 1980 block numbers are advised to discard all 1980 block numbers that do not correspond to block numbers in the 1980 STF 1B.

In addition, the 1980 block number shown in the TIGER/Line(TM) files for a GT-polygon may not agree with the number used in the 1980 census for the equivalent area. Sometimes more than one 1980 block number fell within the same polygon in the Census TIGER data base; the Census Bureau made changes to the 1980 block assignments in order to insert the 1980 block numbers into the Census TIGER data base. If the street pattern changed between 1980 and 1990, the block numbers will be different. Data users concerned with the correctness of 1980 block numbers are advised to check them against the maps published with the 1980 Block Statistics Reports, the Metropolitan Map Series.

Note: The 1980 block numbers do not have a block suffix.

Corrected 1990 Block Numbers With a Second Suffix - - Record Type F contains corrected geographic entity codes. After the initial release of census counts, a number of governmental unit boundaries were corrected. These revised boundaries may have cut through an existing block. To provide the correct population and housing counts for the governmental units, the

Census Bureau had to create additional blocks. Because the newly split blocks may have already had a block suffix, the Census Bureau retained the original suffix and added a second suffix to identify each part of the new split. Record Type F has a 2-character suffix field reserved for the original and second correction suffix. The second suffix is reserved for the correction block suffix; blocks that had no suffix before correction may receive a second suffix, but not a first suffix. Some boundary corrections did not split any 1990 tabulation blocks, so Record Type F may not include a second suffix for the block, even though space is reserved for one.

Current Geography - - Record Type G identifies geographic entity changes from the 1992 Boundary and Annexation Survey. It does not show new block numbers. Even though the Census Bureau continues to conduct its Boundary and Annexation Survey to identify postcensus changes to the boundaries of legal entities, the 1990 and corrected 1990 block numbers remain in effect for all new polygons created by the postcensus boundary changes. The Census Bureau will not systematically update block numbering to reflect current geographic boundaries until it prepares for the 2000 census.

Record Locations: Census Block Numbers

RT	Field Name	Description
1	BLKL	Basic no. and suffix (left side of complete chain)
1	BLKR	Basic no. and suffix (right side of complete chain)
3	BLK80L	1980 basic no. (left side of complete chain)
3	BLK80R	1980 basic no. (right side of complete chain)
A	BLK	Basic no. and suffix (polygon)
F	BLK90	Basic no. and double suffix for a polygon with corrected 1990 code(s)

Codes: Census Blocks

land blocks:
First character = BG number: "1" to "9"
2nd and third characters: "01" to "97"

water block (blocks ending in "99"):
First character = BG number: "0" to "9"
2nd and third characters: "99"

Note: Coastal water blocks may have the default BG number "0" (see the section on Water Blocks above).

Note: Block numbers ending in "98" were not used.

Note: All polygons have a non-blank basic census block number. The left and right side complete chain block numbers are not blank except where they are located along the outside edge of the county. The TIGER/Line(TM) files do not contain geographic codes for the area outside of the county file. The TIGER/Line(TM) files identify boundary complete chains by placing a "1" in the single-side segment field in Record Type 1.

Tabulation block suffix (first character):

```
  Codes for land blocks with a suffix:          "A" to "Y"
  Codes for water blocks with a suffix:         "A" to "Y"
                                                "a" to "y"
Code for blocks without any suffix:                 " "
  Code for   blocks
  (see the section on crews-of-vessels
  for an explanation of the codes):                 "Z"

Correction block suffix for 1990 corrected geography
    (Record Type F):
  Codes for second suffix (second character):
  Codes for land blocks with a suffix:          "A" to "Y"
  Codes for water blocks with a suffix:         "A" to "Y"
                                                "a" to "y"
Code for blocks without any correction suffix
  and crews-of-vessels blocks:                      " "

  Filler for tabulation block suffix when the
    correction  block suffix is used, but there
    is no tabulation block suffix                   "*"
```

Examples:

"102 " Census block with a blank tabulation block suffix. This block has not been split by any tabulation boundary. The tabulation block number is the same as the collection block number.

"102B " Census block with only a tabulation block suffix (B) and a blank correction block suffix. This block may have received a corrected 1990 geographic entity code, but the corrected boundary does not split the block.

"101BA" Census block with a tabulation block suffix (B) and a correction block suffix (A) resulting from a correction to the boundary of a 1990 geographic entity. The corrected boundary splits tabulation block 101B requiring a new correction block suffix for each part of the original block 101B. For example, block 101B is split into blocks 101BA and 101BB.

"101*A" Census block with no tabulation block suffix, but a correction block suffix (A) resulting from a correction to a 1990 geographic entity. The corrected boundary splits block 101 requiring a new block suffix for each part of the original block 101. For example, block 101 is split into blocks 101*A and 101*B.

Census Tracts and BNA's

Identification

* Census tracts are geographic entities within a county (or statistical equivalent of a county) defined by a committee of local data users. When first established, census tracts should have relatively homogeneous demographic characteristics. Generally, census tracts have a population size between 2,500 and 8,000 people, and average about 4,000 people. The committee of local

data users can delineate census tracts for special land uses, such as military installations and AIR's.

* BNA's are areas delineated by State agencies and/or the Census Bureau for counties without census tracts. The delineation of BNA's follows the same basic criteria as census tracts. Because BNA's appear more often in lightly populated counties, they may have fewer people.

Numbering - - The TIGER/Line(TM) files store census tract and BNA numbers in a 4-character basic number field and an optional 2-character suffix number field. The Census Bureau uses a decimal point "." to separate the basic number from the suffix, however, in the TIGER/Line(TM) files, the decimal point is implied. The basic number and the suffix appear together in a single 6-character field. A basic number smaller than 1000 will contain leading zeros. Leading zeros are shown on machine-readable products; they are not part of the basic number, and they are not shown in printed reports and on census maps.

The TIGER/Line(TM) files reserve the right-most two characters in the census tract/BNA field for the suffix. These two characters are blank if the census tract/BNA number does not have a suffix. Suffixes smaller than 10 have a leading zero, for example, census tract 0077.01.

The Census Bureau uses suffixes to help identify census tract changes for comparison purposes. Local census statistical areas committees (CSAC's) have an opportunity to review the existing census tracts before each census. If a committee splits a census tract, the split parts usually retain the basic number but receive different suffixes. In a few counties, the committees approved major changes to the census tracts and renumbered the census tracts. Note that changes to census tract boundaries usually do not result in census tracts numbering changes. The Census Bureau documents changes to census tract boundaries but reports only a selection of the changes in print. Data users are cautioned to compare the census tract boundaries before making comparisons using 1980 and 1990 data.

Boundaries and Boundary Changes - - Census tract/BNA boundaries generally follow visible, physical features, and county boundaries. The CSAC's may use MCD and incorporated place boundaries as census tract/BNA boundaries in New Jersey, New York, Pennsylvania, and the New England States because the boundaries tend to be stable and locally known.

In a few rare instances, a census tract or BNA may consist of discontiguous areas. These discontiguous areas may occur where the census tracts are coextensive with all or parts of legal entities that are themselves discontiguous.

Any updates and corrections to county boundaries following the assignment of block numbers in 1988 resulted in the creation of new census tracts/BNA's because Census Tracts/BNA's must nest within a county, and the existing 1990 census tracts were in place for the 1990 census and could not be shifted. At the request of some local CSAC's, the Census Bureau also has resolved a number of census tract boundary discrepancies.

The Census Bureau identified the revised census tracts/BNA's with a unique suffix ranging from .70 to .98

(e.g., 1234.98), so that the data users can easily determine which census tracts/BNA's are affected.

The Census Bureau made these changes after the release of the TIGER/Line(TM) Precensus Files, 1990. The census tract boundaries follow legal county boundaries as of January 1, 1990.

Relationship to Other Geographic Entities - - The census tracts and BNA's represent the same level of geography and share the same field in the TIGER/Line(TM) files.

Census tracts or BNA's entirely cover a county. A county contains either census tracts or BNA's, but not a combination of both.

Census BG's and blocks are uniquely numbered within census tracts and BNA's.

Record Locations: Census Tract/BNA Codes

RT	Field Name	Description
1	CTBNAL	Basic number and suffix (left side of complete chain)
1	CTBNAR	Basic number and suffix (right side of complete chain)
3	CTBNA80L	1980 basic no. and suffix (left side of complete chain)
3	CTBNA80R	1980 basic no. and suffix (right side of complete chain)
A	CTBNA	Basic number and suffix (polygon)
F	CTBNA90	Basic number and suffix for a polygon with corrected 1990 code(s)

Codes: Census Tracts/BNAs

Basic number range for census tracts: "0001" to "9499"
Basic number range for BNA's: "9500" to "9989"
Default basic number range for census tracts/BNA's "0000"

Note: All polygons have a non-blank census tract/BNA basic number. The left and right side complete chain tract/BNA numbers are not blank except where they are located along the outside edge of the county boundary. The TIGER/Line(TM) files do not contain geographic codes for the area outside of the county file. The TIGER/Line(TM) files identify boundary complete chains by placing a "1" in the single-side segment field in Record Type 1.

The Census Bureau assigned a default census tract/BNA number "0000" in some coastal and Great Lakes waters rather than extend the census tract/BNA boundary into the Great Lakes or out to the three-mile limit. The Census Bureau closed some census tract/BNA boundaries along the shoreline or just offshore, and assigned the default census tract/BNA and special block numbers to the offshore areas.

Suffix:
Suffix codes for census tracts: "01" to "99"
Suffix codes for BNA's: "85" to "99"
Suffix code for census tracts and BNA's without a suffix: " "

Suffix code for crews-of-vessels census tracts/BNA's (see the section on crews-of-vessels for explanation): "99"

Counties and Statistically Equivalent Entities

Identification

The first-order divisions of each State are counties for 48 States, parishes for Louisiana, and boroughs and census areas for Alaska. In addition, the Census Bureau treats the following entities as equivalents of counties for purposes of data presentation: independent cities in Maryland, Missouri, Nevada, and Virginia; the portion of Yellowstone National Park in Montana; "District of Columbia" for the District of Columbia; municipios in Puerto Rico; and a variety of entities in the outlying areas.

The TIGER/Line(TM) files contain several 3-numeric character fields identifying the FIPS county code for the 1980 and 1990 censuses and the FIPS county codes for corrected and current entities. The TIGER/Line(TM) files use some State and county code fields to identify specific TIGER/ Line(TM) files.

Record Locations: County and County Equivalents Codes

RT	Field Name	Description
1	COUNTYL	FIPS code (left side of complete chain)
1	COUNTYR	FIPS code (right side of complete chain)
3	COUN80L	FIPS code for 1980 (left side of complete chain)
3	COUN80R	FIPS code for 1980 (right side of complete chain)
5	COUNTY	FIPS code for file identification (complete chain)
7	COUNTY	FIPS code for file identification (polygon)
8	COUNTY	FIPS code for file identification (polygon)
A	COUNTY	FIPS code for file identification (polygon)
F	COUNTY	FIPS code for file identification (polygon)
F	COUNTY90	FIPS code for a polygon with corrected 1990 code(s)
G	COUNTY	FIPS code for file identification (polygon)
G	COUNTYCU	FIPS code for a polygon with updated code(s) from boundary changes since January 1, 1990
I	COUNTY	FIPS code for file identification (polygon)
P	COUNTY	FIPS code for file identification (polygon)
R	COUNTY	FIPS code for file identification (polygon)

Codes: County and County Equivalents

See Appendix A for a list of FIPS county and county-

equivalent codes by State and State-equivalent entity.

Note: All polygons have a non-blank county code. The left- and right-side county codes on complete chains are not blank except where they are located along the outside edge of the county boundary feature. The TIGER/Line(TM) files do not contain geographic codes for the area outside the county file. The TIGER/Line(TM) files identify boundary complete chains by placing a "1" in the single-side segment field in Record Type 1.

County Subdivisions (MCD's, Census County Division [CCD's], and Unorganized Territories [UT's])

Identification

The TIGER/Line(TM) files contain both 3-numeric character census code fields and the 5-numeric character FIPS code fields for county subdivisions.

The TIGER/Line(TM) files use a single set of fields to identify the two types of county subdivisions.

Legal Entities

* MCD's are legally defined subcounty areas such as towns (in eight States) and townships. For the 1990 census, these occur in 28 States, Puerto Rico, and the Outlying Areas.

* Some States have incorporated places that are not part of any MCD. These places also serve as primary legal subdivisions and have a unique census MCD code in addition to the census place code. The TIGER/Line(TM) files will show the same FIPS PUB 55-3 code in the FIPS county subdivision code field and the FIPS place code field.

* In New York and Maine, AIR's exist outside the jurisdiction of any town (MCD) and thus also serve as MCD-equivalent entities.

Statistical Entities

* CCD's are areas delineated by State officials and the local CSAC's for statistical purposes. CCD's exist where:

1. There are no legally established MCD's;

2. The MCD's do not have governmental or administrative purposes;

3. The boundaries of the MCD's change frequently; and/or

4. The MCD's are not generally known to the public.

CCD boundaries usually follow visible features and in most cases, coincide with census tract or BNA boundaries.

CCD's have been established for the following 21

States:

Alabama	Nevada#
Arizona	New Mexico
California	Oklahoma
Colorado	Oregon
Delaware	South Carolina
Florida	Tennessee
Georgia	Texas
Hawaii	Utah
Idaho	Washington
Kentucky	Wyoming
Montana	

For the 1980 census, the county subdivisions recognized for Nevada were MCD's.

* Census Subareas - - These are subdivisions of boroughs and census areas, the county equivalent entities in Alaska. The State of Alaska and the Census Bureau cooperatively delineated the census subareas to serve as the statistical equivalents of MCD's.

* UT's - - For States with partial MCD coverage, the Census Bureau assigns one or more UT codes to the non-MCD area. UT's have county subdivision codes and names that are identified in the TIGER/GICS data product. Nine States have UT's for the 1990 census:

Arkansas	Minnesota
Iowa	North Carolina
Kansas#	North Dakota
Louisiana	South Dakota
Maine	Indiana#

For Record Types F and G, Indiana has UT's and Kansas no longer has UT's.

Record Locations: County Subdivision Codes

RT	Field Name	Description
1	FMCDL	Code (left side of complete chain)
1	FMCDR	FIPS PUB 55-3 code (right side complete chain)
3	FMCD80L	FIPS PUB 55-3 code 1980 (left side of complete chain)
3	FMCD80R	FIPS PUB 55-3 code 1980 (right side of complete chain)
3	MCD80L	1980 census code (left side of complete chain)
3	MCD80R	1980 census code (right side of complete chain)
3	MCDL	1990 census code (left side of complete chain)
3	MCDR	1990 census code (right side of complete chain)
A	FMCD	FIPS PUB 55-3 code (polygon)
F	FMCD90	FIPS code for a polygon with corrected 1990 code(s)
G	FMCDCU	FIPS code for a polygon with updated code(s) from boundary changes since January 1, 1990

Codes: County Subdivisions

Please refer to the PUBGRF, FIPS PUB 55-3, or the Census Bureau's TIGER/GICS for a list of valid codes and entity names.

Note: All polygons have a non-blank county subdivision code. The left-and right-side MCD/CCD numbers are not blank except where they are located along the outside edge of the county boundary feature. The TIGER/Line(TM) files do not contain geographic codes for the area outside of the county file. The TIGER/Line(TM) files identify boundary complete chains by placing a "1" in the single-side segment field in Record Type 1.

The Census Bureau assigned a default MCD number "000" in some coastal and Great Lakes waters where MCD's do not extend into the Great Lakes or out to the three-mile limit. Similarly, the Census Bureau closed some census tract/BNA boundaries along the shoreline or just offshore, and assigned the default census tract/BNA and special block numbers to the offshore areas.

Congressional District

Identification

The TIGER/Line(TM) files contain 2-character numeric code fields for the 101st and 103rd Congressional districts. Congressional districts are numbered uniquely within State.

Record Locations: Congressional Districts

RT	Field Name	Description
A	CD101	101st Congress (polygon)
A	CD103	103rd Congress (polygon)

Codes: Congressional Districts

Congressional district codes -- 101st Congress:	"01" to "45"
Congressional district codes -- 103rd Congress:	"01" to "52"
"At large":	"00"
Nonvoting delegate:	"98"
No representation in Congress:	"99"

Note: The congressional district field always has a value other than blank for all polygons.

Crews-of-Vessels

Identification

Crews-of-vessels represent the population on military (including Coast Guard) and/or merchant ships; it does not include the inhabitants of houseboats or marinas. The census population tables show the vessels population in a unique census tract/BNA and census block. A crews-of-vessels census tract/BNA and block appear on census maps as an anchor symbol with its census tract/BNA and block numbers, rather than as a delimited area.

Crews-of-vessels census tract/BNA numbers use the same basic census tract/BNA number as the nearby land census tract/BNA with which the vessel(s) is associated, plus a suffix of "99," shown in decimal notation; for example,

census tract 1234.99. Crews-of-vessels block numbers use the same basic block number as the associated land block in that census tract/BNA, plus a block suffix of "Z;" for example, block 901Z in census tract 1234.99. In such a situation, the related land block also receives a suffix, even though it may not be split by a boundary; for example, the addition of a crews-of-vessels associated with block 901 creates blocks 901A and 901Z. The Census Bureau will not use the "Z" census block suffix for any purpose other than crews-of-vessels.

Either the left or right census tract/BNA and census block identified in Record Type 1 will indicate the location where the population is assigned. The census tract/BNA and census block for the crews-of-vessels is infinitesimally small requiring only one complete chain with a start node equal to the end node and two of shape points so that the polygon appears as a minute triangle. The coordinates on Record Type 1 and Record Type 2 will place the census block on the shore inside the land block with the same 3-digit collection block number, not in the water as shown on the census maps. The area measurement enclosed by the special crews-of-vessels census tract/BNA and block is defined as zero.

On a census map sheet, an anchor symbol appears in the water accompanied by the census tract/BNA number and the Z-suffixed block number. The location of the anchor symbol is arbitrary and reflects neither the location of the vessel(s) at the time of the census nor the crews-of-vessels census tract/BNA and block as it appears in the TIGER/Line(TM) file.

Record Locations: Crews-of-Vessels

The crews-of-vessels entities are identified by unique census tract/BNA codes and block number suffixes. See the sections on census tracts and census blocks for record locations and field names.

Codes: Crews-of-Vessels

Census tract/BNA suffix: "99"

Block number suffix: "Z"

Places

Identification

The TIGER/Line(TM) files use a single set of fields to identify places that are legal entities and places that are statistical entities:

Legal Entities

* Incorporated Places are legal entities incorporated under individual State law. An incorporated place can be a legal city, town, borough, or village. Incorporated places exclude:

    1. The boroughs in Alaska, which are treated as county equivalents;

    2. Towns in the New England States, New York, and Wisconsin, which are treated as MCD's; and

3. The boroughs of New York which are treated as MCD's.

* A consolidated city exists where an incorporated place has consolidated its government with the larger county or MCD and one or more separately incorporated places. The incorporated place(s) and the county or MCD continue to exist as legal entities even though they are included in the consolidated city government. The primary incorporated place is referred to as a "consolidated city."

  The TIGER/Line(TM) files do not contain codes for consolidated cities. In order to use TIGER/Line(TM) data for consolidated cities, the data user must assign a code to all coextensive entities or aggregate places.

Statistical Entities

* CDP's -- CDP's are recognizable communities or concentrations of population that are not incorporated places. CDP's may have a locally recognized name, but do not have legally defined corporate limits or corporate powers. The Census Bureau defines CDP's in cooperation with State officials, AIR officials, and local data users for data presentation.

Places may extend across county and county subdivision boundaries. The census and FIPS place codes uniquely identify a place within a State.

Note that legally incorporated places and CDP's are mutually exclusive and are identified in the same TIGER/Line(TM) field.

Dependent and Independent Places -- Depending on the State, incorporated places are either dependent within or independent of county subdivisions, or have a mixture of dependent or independent places. Dependent places are part of the county subdivision; the place's county subdivision code is the same as the underlying county subdivision(s). Independent places are separate from the adjoining county subdivisions and have their own county subdivision code (or codes if the place lies in multiple counties). These places also serve as primary county subdivisions and have a unique Census MCD code in addition to the Census place code. The TIGER/Line(TM) files will show the same FIPS PUB 55-3 code in the FIPS county subdivision code field and the FIPS place code field.

CDP's always are dependent within county subdivisions.

Corporate Corridors and Offset Corporate Boundaries -- A corporate corridor is a narrow, linear part of an incorporated place. The corporate corridor includes the street and/or right-of-way or a portion of the street and/or right-of-way within the incorporated place. It excludes from the incorporated place those structures, such as houses, apartments, or businesses, that front along the street or road; see Figure 4-4.

A corporate limit offset boundary exists where the incorporated place lies on only one side of the street and includes all or part of the street and/or the right-of-way. It does not include the houses or land that adjoin the side of the street with the corporate limit offset boundary. It

is possible to have two or more corporate limit offset boundaries in the same street or right-of-way.

In order to reduce the overprinting of symbols on the printed or plotted census maps, a corporate corridor is shown by only one symbol along its center line rather than by a symbol that follows its outer boundary. Corporate offset limit boundaries use the same map symbology as non-offset boundaries. Figure 4-4 shows the place level mapping symbols for corporate corridors and corporate offset limits.

To facilitate address coding, the street name and address ranges are generally duplicated on complete chains with a CFCC of F11 (nonvisible offset boundary) or F12 (nonvisible corporate corridor). The duplicate street names for the F11 and F12 features are on Record Type 5 and the duplicate address ranges are on Record Type 6. However, Record Type 1 will not indicate that the street or right-of-way lies within a corporate corridor or offset boundary and that the address ranges lie outside the corporate corridor or offset boundary and are encoded on either side of these lines.

When data users find duplicate address ranges where one of the duplicates is on a complete chain with a CFCC of F11 or F12, use this address range for address geocoding rather than the range on the street feature with a CFCC beginning with "A" (see Figure 4-5). Likewise, use the street name and address ranges on the related street feature (CFCC beginning with "A") for mapping or vehicle routing.

Field Size -- Places are represented in the TIGER/Line(TM) files by either a 5-numeric character FIPS code or a 4-numeric character census code.

Record Locations: Incorporated Place/CDP Codes

RT	Field Name	Description
1	FPLL	FIPS PUB 55-3 code (left side of complete chain)
1	FPLR	FIPS PUB 55-3 code (right side of complete chain)
3	FPL80L	1980 FIPS PUB 55-3 code (left side of complete chain)
3	FPL80R	1980 FIPS PUB 55-3 code (right side of complete chain)
3	PL80L	1980 census code (left side of complete chain)
3	PL80R	1980 census code (right side of complete chain)
3	PLL	1990 census code (left side of complete chain)
3	PLR	1990 census code (right side of complete chain)
A	FPL	FIPS PUB 55-3 code (polygon)
F	FPL90	FIPS PUB 55-3 code for a polygon with corrected 1990 code(s)
G	FPLCU	FIPS PUB 55-3 code for a polygon with updated code(s) from boundary changes since January 1, 1990

Codes: Incorporated Places/CDP's

Please refer to the TIGER/Line(TM) Geographic Names files,

FIPS PUB 55-3, or the Census Bureau's TIGER/GICS product for a list of valid codes and entity names.

Note: The data field is blank where there are no places.
School Districts

Identification

The Census Bureau is releasing the school district codes in the
1992 TIGER/Line files as part of the National School District Program sponsored by the U.S. Department of Education, National Center for Education Statistics. This program was designed to provide 1990 census data tabulations for school districts. The program identifies three possible levels of school districts representing different segments of the school-age population (elementary, intermediate, and secondary) and a "unified" category to identify those school districts that represent all grade levels.

The elementary, intermediate, and secondary levels of school district can overlap another because they represent different segments of the school-age population; for example, an intermediate school district could cover parts of several elementary school districts. The
1992 TIGER/Line files use separate fields to accommodate for the overlap. The 1992 TIGER/Line files may not contain a code for all grade levels.

The 1992 TIGER/Line files contain a "unified" school district code for those school districts where all levels are represented in a single district. The elementary, intermediate, and secondary school district code fields are blank if there is a unified school district code. Exceptions exist for the State of Hawaii and the five New York City Boroughs; New York City and Hawaii are each single school districts. The National School District Program has mapped Attendance Zones for each school in these two districts.

School districts may cut through existing census blocks. In such instances, the Census Bureau created new complete chains and GT-polygons. However, the school district boundaries did not create new blocks. The tabulation blocks may contain more than one polygon, and each polygon may have a different school district code. The block parts/polygons allocated to the different school districts do not have separate tabulation block numbers.

The 1992 TIGER/Line files store the school district codes in a set of four 5-character fields. All codes consist of numeric characters.

Record Locations: School District Codes

RT	Field Name	Description
A	SDELM	Elementary school district code (polygon)
A	SDMID	Middle school district code (polygon)
A	SDSEC	Secondary school district code (polygon)
A	SDUNI	Unified school district code (polygon)

Codes: School Districts

The U.S. Department of Education's Common Core Data File contains the school district names associated with the codes. For information about the relationship between the school district codes and their names, contact:

Lee Hoffman
Chief, General Survey and Analysis Branch
Rm. 410F
National Center for Education Statistics
555 New Jersey Ave., NW
Washington, DC 20208

Phone: (202) 219-1621

Unified and elementary, intermediate, and secondary school districts may have blank values (see discussion above). It is possible that an area may have a blank code for some grade level school districts.

Note that "99999" is a pseudo school district code assigned to non-water blocks for which the National School District Program does not report a school district. Some large water areas have a pseudo school district code of "99998."

States and Statistically Equivalent Entities

Identification

In addition to the 50 States, the Census Bureau treats the District of Columbia, Puerto Rico, and each of the outlying areas (American Samoa, Guam, the Northern Mariana Islands, Palau, and the Virgin Islands of the United States) as the statistical equivalent of a State for the purpose of data presentation. The Census Bureau also produces TIGER/Line(TM) files for the Midway Islands. The Census Bureau generated the 1990 Census TIGER/Line file for the Marshall Islands and the Federated States of Micronesia, but these areas are excluded from the version 5 release.

Record Locations: State Codes

RT	Field Name	Description
1	STATEL	FIPS code (left side of complete chain)
1	STATER	FIPS code (right side complete chain)
3	STATE80L	FIPS code for 1980 (left side of complete chain)
3	STATE80R	FIPS code for 1980 (right side of complete chain)
5	STATE	FIPS code for file identification (complete chain)
7	STATE	FIPS code for file identification (polygon)
8	STATE	FIPS code for file identification (polygon)
A	STATE	FIPS code for file identification (polygon)
F	STATE	FIPS code for file identification (polygon)
F	STATE90	FIPS code for a polygon with corrected 1990 code(s)
G	STATE	FIPS code for file identification

		(polygon)
G	STATECU	FIPS code for a polygon with updated code(s) from boundary changes since January 1, 1990
I	STATE	FIPS code for file identification (polygon)
P	STATE	FIPS code for file identification (polygon)
R	STATE	FIPS code for file identification (polygon)

Codes: States

Please refer to Appendix A for a list of FIPS State codes.

Note: All polygons have a non-blank 2-character numeric State code. The State codes for the left-and right-side of a complete chain are not blank except where they are located along the outside edge of the county boundary feature; the TIGER/Line(TM) files do not contain geographic codes for the area outside of the county file. The TIGER/Line(TM) files identify boundary complete chains by a "1" in the single-side segment field in Record Type 1.

Sub-MCD's

Identification

Legally defined subdivisions of a MCD used for subbarrios in Puerto Rico and municipal districts in the Federated States of Micronesia.

The TIGER/Line(TM) files contain both the 2-numeric character census and the 5-numeric character FIPS codes.

Record Locations: Sub-MCD Codes

RT	Field Name	Description
1	FSMCDL	FIPS PUB 55-3 code (left side of complete chain)
1	FSMCDR	FIPS PUB 55-3 code (right side of complete chain)
3	SMCDL	1990 census code (left side of complete chain)
3	SMCDR	1990 census code (right side of complete chain)
F	FSMCD90	FIPS PUB 55-3 code for a polygon with corrected 1990 code(s)
G	FSMCDCU	FIPS PUB 55-3 code for a polygon with updated code(s) from boundary changes since January 1, 1990

Codes: Sub-MCD's

Please refer to the TIGER/Line(TM) Geographic Names files, FIPS PUB 55-3, or the Census Bureau's TIGER/GICS product for a list of valid codes and entity names.

Note: The data field is blank if there is no sub-MCD.

Traffic Analysis Zone (TAZ)

Identification

Many metropolitan planning organizations established TAZ's for use in tabulating 1990 census data for the Census Transportation Planning Package. The TAZ's are established outside the Census Bureau and do not appear in the Census TIGER data base. The Census Bureau will not show them in any 1990 Census TIGER extract, but the Census Bureau may add them to the Census TIGER data base and extracts at a later time.

Record Locations: TAZ Codes

RT	Field Name	Description
A	TAZ	Code (polygon)

Codes: TAZ's

No data is currently available for TAZ's; all records contain a blank TAZ field.

Urbanized Areas (UA's)

Identification

A UA comprises a place and the adjacent densely-settled surrounding territory that together have a minimum population of 50,000 people. The densely-settled surrounding territory generally consists of an area with continuous residential development and an overall population density of at least 1,000 people per square mile. The TIGER/Line(TM) files identify UA's with a 4-character numeric code field.

All polygons that have a UA code (other than blank) will have a U/R flag equal "U." See the discussion on U/R flags.

Record Locations: UA Codes

RT	Field Name	Description
A	UA	1990 census UA code (polygon)

Codes: UA's

The UA code is a 4-character numeric census code. The names associated with the code appear in the TIGER/GICS product. Appendix G lists the UA names and codes.

Urban/Rural Designation (U/R)

Identification

The TIGER/Line(TM) files include a 1-character U/R flag:

"R" Rural, not urban
"U" Urban, in a UA or an urban place

The Census Bureau defines "urban" for the 1990 census as comprising all territory and population in UA's and in places of 2,500 or more people located outside of the UA's.

The Census Bureau also distinguishes the urban and rural population, within incorporated places whose boundaries contain large, sparsely populated--or even unpopulated--area. These "extended cities" have either 25 percent of their land area or at least 25 square miles classified as

"sparsely-settled." The sparsely-settled area must consist of at least one group of one or more contiguous census blocks. Each group must be at least 5 square miles in area and have an overall population density of less than 100 people per square mile. Polygons in the group of sparsely-settled blocks will have a flag equal to "R;" the densely-populated blocks will have a flag equal to "U." Incorporated places (based on 1990 census boundaries) with both urban and rural flagged polygons are extended cities. For the 1990 census, 280 incorporated places were defined as extended cities. Extended cities exist both inside and outside of UA's.

The Census Bureau assigns the U/R flag to tabulation blocks, so all GT-polygons within a block have the same U/R flag. All blocks that have a UA code (other than blank) will have an U/R flag equal "U." Blocks in places that qualify as urban places, but not in a UA, do not have a UA code, but do have a U/R flag equal to "U." Rural areas are identified by a "R" flag and will not have a UA code.

Record Locations: U/R Flags

RT	Field Name	Description
A	URBFLAG	1990 census U/R flag (polygon)

Codes: U/R Flags

Urban:	"U"
Rural:	"R"

Voting Districts (VTD's)

Identification

For the 1990 census, the term "VTD" replaces the 1980 census term "election precinct." A VTD is any of a variety of areas (for example, election districts, precincts, legislative districts, and wards) defined by State and local governments for purposes of elections. The 1990 VTD codes that appear in the TIGER/Line(TM) files were supplied by the State governments in response to the requirements of the 1990 Census Redistricting Data Program. The boundaries of the VTD's recorded in the TIGER/Line(TM) files may represent "pseudo-VTD's." The States may have relocated the boundaries of the actual VTDs to a nearby block boundary because they were required to submit VTD's that follow 1990 census block boundaries. The pseudo-VTD's are identified in the TIGER/Line(TM) Geographic Names files. States had the option of participating in the program on a county-by-county or even a partial county basis. The VTD's do not appear in all or throughout some TIGER/Line(TM) files.

The following States did not participate in the VTD program:

Kentucky	Montana
Mississippi	Oregon

The following States have partial VTD coverage:

Alabama	VTD's for 59 of the 67 counties
Georgia	VTD's for 158 of the 159 counties
Idaho	VTD's for 32 of the 44 counties

North Carolina	VTD's for 48 of the 100 counties
Ohio	VTD's for 55 of the 88 counties
South Dakota	VTD's for 65 of the 66 counties
Texas	VTD's for 87 of the 254 counties
Wisconsin	VTD's for 70 of the 72 counties

The VTDs are represented by a 4-character alphanumeric code. Descriptions of the codes appear in the TIGER/Line(TM) Geographic Names files.

Record Locations: VTD Codes

RT	Field Name	Description
3	VTDL	Code (left side of complete chain)
3	VTDR	Code (right side of complete chain)

Codes: VTD's

A VTD code consists of any non-zero combination of numbers and alphabetic characters.

Note: A VTD code equal to "ZZZZ" is used to designate coastal water areas excluded from the VTD's. Some States did extend VTD coverage into water areas.

Blank space indicates that VTD coverage is not available for a whole county.

TIGER/Line(TM) Files, 1992

Chapter 5:
Data Quality

Introduction

This section provides detailed information on the lineage, positional accuracy, attribute accuracy, logical consistency, and completeness of the 1992 TIGER/Line files. Data users can use this information to help evaluate the adequacy and applicability of this geographic file for a particular use.

Lineage

Geometric Properties

Generic source codes that specify the original digital source of complete chains in the TIGER/Line(TM) files are listed in Appendix H. These source codes are derivations of five separate categories of source codes in the Census TIGER data base: original source, computer operations, office operations, enumerator operations, and local official updates.

The initial sources used to create the Census TIGER data base were the USGS 1:100,000-scale Digital Line Graph (DLG), USGS 1:24,000-scale quadrangles, and the Census Bureau's GBF/DIME-Files. The DLG coverage is extensive, albeit of variable currency, and comprises most of the rural, small city, and suburban area of the TIGER/Line(TM) files. GBF/DIME-File coverage areas were updated through 1987 with the manual translation of features from the most recent aerial photography available to the Census Bureau.

In order to create a current geographic data base for the 1990 decennial census, the Census Bureau used various internal and external procedures through 1990 to update and maintain the Census TIGER data base. While the Census Bureau has made a reasonable and systematic attempt to gather the most recent information available about the features that this file portrays, the Census Bureau cautions users that the files are no more complete than the source documents used in their compilation, the vintage of those source documents, and the translation of the information on those source documents.

The Census Bureau added enumerator updates compiled during 1988-1990 census operations to the Census TIGER data base. The updates came from map annotations that the enumerators made as they attempted to locate living quarters by traversing every street feature that appeared on a set of large scale TIGER-generated map sheets. The Census Bureau digitized the enumerator updates directly into the Census TIGER data base without geodetic controls or the use of aerial photography to confirm the features' existence or location accuracy.

The Census Bureau also made other corrections and updates to the map sheets supplied by local participants in Census Bureau programs. Unconfirmed local updates originate from map reviews by local government officials or their liaisons. Maps were sent to the highest elected official of a governmental unit in 1989 and 1990 for use in various census programs, and some maps were returned with update annotations and corrections. The Census Bureau generally added the updates to the Census TIGER data base without extensive checks when the elected official approved the boundary or

feature correction. The governmental unit supplied ordinance numbers if the changes affected a legal boundary. Changes made by local officials do not have geodetic control.

Address Ranges and ZIP Codes(R)

The 1992 TIGER/Line files contain potential address ranges and ZIP Codes(R) for most areas of the United States where city-style address ranges exist. The maps in Figure I-1 and Figure I-2 show the extent of address coverage for the lower 48 States and the District of Colombia. The address ranges in the urban core of metropolitan areas and some additional areas are the same as those in the 1990 Census TIGER/Line files. For the most part, these address ranges and ZIP Codes(R) have had only minor changes since the release of the 1980 GBF/DIME-Files. All other address ranges and ZIP Codes(R) (those added since the release of the 1990 Census TIGER/Line files) are derived from the 1990 decennial master list of addresses, the ACF.

ZIP Codes(R) are derived from two sources: those already existing in the 1990 Census TIGER/Line files and those derived from the ACF. These ZIP Codes(R) will be updated and corrected by matching the Census TIGER data base with updated USPS ZIP+4 files in a future version of the TIGER/Line(TM) files and all subsequent versions of the TIGER/SDTS(TM).

Source Codes

For complete chain and landmark features, the TIGER/Line(TM) files identify a 1-alphanumeric character source code, see Appendix H.

The TIGER/Line(TM) files use the address impute flag fields to identify the general source of the address range.

* A value of 0 or 1 indicates that the address range was entered/ corrected in the Census TIGER data base from a precensus source including the 1980 GBF/DIME-Files, the extension areas, and corrections from the initial vender file match.

* A value of 2 or 3 indicates that the address range was entered/ corrected based on the ACF.
  Record Locations: Source Codes

RT	Field Name	Description
1	source	Source code for the chain (excluding the geographic entity codes)
1	FRIADDL	"From" address (left side of complete chain)
1	TOIADDL	"To" address (left side of complete chain)
1	FRIADDR	"From" address (right side of complete chain)
1	TOIADDR	"To" address (right side of complete chain)
6	FRIADDL	Additional "from" address (left side of complete chain)
6	TOIADDL	Additional "to" address (left side of complete chain)
6	FRIADDR	Additional "from" address (right side of complete chain)
6	TOIADDR	Additional "to" address (right

		side of complete chain)
7	source	Source code for the landmark feature

Positional Accuracy

General

The Census Bureau's mission to count and profile the Nation's people and institutions does not require positional accuracy in its geographic products. Its files and maps are designed to show only the relative positions of elements. For features based on the DLG files, the positional accuracy of the information is no greater than the established National Map Accuracy standards for 1:100,000-scale maps from the USGS (approximately +/- 167 feet); thus, it is not suitable for high-precision measurement applications such as engineering problems, property transfers, or other uses that might require highly accurate measurements of the earth's surface. The Census Bureau cannot specify the accuracy of feature updates or features derived from the GBF/DIME-Files. Geographic elements should show positional consistency with elements in adjacent data sets; therefore, they should not require edge alignment. Visual comparison tests against source materials were made with check plots.

Attribute Accuracy

Geometric Properties

The attribute accuracy of the TIGER/Line(TM) files is as accurate as the source used during the creation or update of the Census TIGER data base. Accuracy statements on the Census TIGER data base are based on deductive estimates. No field tests for attribute accuracy have been conducted on the files, although in most cases the operations and procedures followed by the Census Bureau ensure these attributes are as accurate as possible. For one source (USGS's DLG), the Census Bureau made a visual comparison with test plots. The Census Bureau overlayed element identification numbers on a graphic source and visually cross-referenced them with an attribute printout containing corresponding identification numbers. Experience suggests that attribute codes reflect the graphic source with less than a two-percent error.

The feature network of complete chains (as represented by Record Types 1 and 2) is complete for census purposes. Data users should be aware that they may not be able to trace a specific feature by name or by CFCC as a continuous line throughout the TIGER/Line(TM) files without making additional edits. For example, State Highway 32 may cross the entire county. The TIGER/Line(TM) files will contain complete chains in the file at the location of State Highway 32, but the complete chains may individually have one of a collection of local names such as S. Elm Street, or Smallville Highway, with or without State Highway 32 as an alternate. The most frequent CFCC for a state highway is A21, but the complete chains at the location of State Highway 32 may have a variety of class codes such as A01, A40, or A21.

Boundaries and Geographic Entity Codes

The Census Bureau collects and tabulates information for both legal and statistical entities. Record Types 1, 3, A, and F identify the boundaries and codes for legal entities as reported to the Census Bureau to be legally in effect on

January 1, 1990. Record Type G identifies the boundaries and code changes for counties and places with populations of at least 2,500, certified to be in affect on January 1, 1992, and occasionally later. They also contain the final 1990 census tabulation geographic entity codes for those entities. These boundaries are based on the annotations made by local officials in response to the Census Bureau's Boundary and Annexation Surveys.

CSAC's generally define and delineate statistical entities following Census Bureau guidelines. However, there are several exceptions: UA's are defined strictly by the Census Bureau based on technical considerations; school districts, delineated by State Departments of Education; and VTD's, by an agency selected by the Governor of each State.

Other attribute data in the TIGER/Line(TM) files were gathered from many sources. The Census Bureau's staff linked the attribute information to the spatial framework of features. Most procedures for gathering the needed attributes are clerical. The quality of these attributes was ensured by various tests conducted before, during, and after the time that the attribute information was entered into the Census TIGER data base. Tests included source material selection and evaluation checks, quality control checks on staff work, independent reviews by local and tribal leaders of maps produced from the Census TIGER data base, and staff reviews of computer-performed operations.

Address Ranges and ZIP Codes(R)

The conversion from the GBF/DIME-Files to the TIGER format involved neither verification of previously existing address ranges nor any significant updates or corrections (except as noted below). Prior to the release of this 1992 TIGER/Line files, the address ranges for an area were generally the same as those in the corresponding 1980 GBF/DIME-File. Preparations for the 1990 census involved making some minor updates in selected areas, but generally did not include changes in address numbering systems during the decade. The 1992 TIGER/Line files include ACF address ranges for existing and new features identified during census operations. Users of the 1992 TIGER/Line file's address ranges should check for address range overlaps, gaps, odd/even reversals, and other situations that may be incorrect.

Although an address range in the TIGER/Line(TM) files may be incorrect, the Census Bureau implemented procedures to ensure that the error did not adversely affect the accuracy or the quality of the 1990 census. For the geographic areas with the GBF/DIME-File and extension area coverage, the Census Bureau used the address ranges to perform an initial assignment of residential addresses (purchased from a commercial vendor) to the 1990 census tract and block numbers and made a number of corrections to the address ranges. Later during field operations, enumerators updated, verified, and corrected, when necessary, the addresses assigned to each block number by walking the perimeter and all interior streets of each census block.

Logical Consistency

General

Node-line-area relationships satisfy topological

requirements. These requirements include:

1. Complete chains must begin and end at nodes;
2. Complete chains must connect to each other at nodes;
3. Complete chains do not extend through nodes;
4. Left and right polygons are defined for each complete chain element and are consistent for complete chains connecting at nodes;
5. Complete chains representing the limits of a file are free from gaps.

The Census Bureau performed automated tests to ensure logical consistency and limits of file. Some polygons in the TIGER/Line(TM) files may be extremely small such that the polygon internal point has been manually placed on a node that defines the polygon perimeter. These small polygons have been detected, and corrections will be incorporated in the Census TIGER data base in the future. Programs and software have been developed by the Census Bureau programmers. The Census Bureau uses its internally developed Geographic Update System to enhance and modify spatial and attribute data to the Census TIGER data base.

Standard geographic codes, such as FIPS codes for States, counties, municipalities, and places are used when encoding spatial entities. The Census Bureau has done spatial data tests for logical consistency of the codes during compilation of the original Census TIGER data base files.

Completeness

General

The GBF/DIME-Files and the USGS's DLG were the two main sources of spatial attribute data. For these two sources, data for a given category will contain attribute codes that reflect the information portrayed on the source. The digital line data for a given category of data contain at least the same level of content and detail as shown on the source.

The TIGER/Line(TM) files also use the Census Bureau's internal coding scheme which parallels the FIPS codes in some cases. Information used to create the file is as complete as possible.

The feature network of complete chains is complete for census purposes. Enumerators identified new and previously unreported street features for the entire Nation during a series of decennial census operations. In some areas, local officials reviewed the census maps and identified new features and feature changes. The TIGER/Line(TM) files contain limited point and area landmark data. Enumerator updates do not include landmark features except for possibly a few rare instances.

TIGER/Line(TM) Files, 1992

Chapter 6:
The 1992 TIGER/Line Files
Data Dictionary

Record Type 1 -- Basic Data Record for Complete Chains

Field	Type	Fmt	Beg	End	Size	BV	Description and Notes
RT	L	A	1	1	1	N	Record Type (Record Type is "1")
VERSION	L	N	2	5	4	N	Version Number (Value "0005" identifies the 1992 TIGER/Line files)
TLID	R	N	6	15	10	N	TIGER/Line(TM) Record ID Number (Permanent complete chain identification number)
1SIDE	R	N	16	16	1	Y	Single-Side Segment Code (Value "1" signifies data only exists for one side of the complete chain)
SOURCE	L	A	17	17	1	Y	Source Code
FEDIRP	L	A	18	19	2	Y	Feature Direction, Prefix
FENAME	L	A	20	49	30	Y	Feature Name
FETYPE	L	A	50	53	4	Y	Feature Type
FEDIRS	L	A	54	55	2	Y	Feature Direction, Suffix
CFCC	L	A	56	58	3	Y	CFCC
FRADDL	R	A	59	69	11	Y	Start Address, Left Side
TOADDL	R	A	70	80	11	Y	End Address, Left Side
FRADDR	R	A	81	91	11	Y	Start Address, Right Side
TOADDR	R	A	92	102	11	Y	End Address, Right Side
FRIADDL	R	N	103	103	1	Y	Start Address, Impute Flag Left Side
TOIADDL	R	N	104	104	1	Y	End Address, Impute Flag Left Side
FRIADDR	R	N	105	105	1	Y	Start Address, Impute Flag Right Side
TOIADDR	R	N	106	106	1	Y	End Address, Impute Flag Right Side
ZIPL	L	N	107	111	5	Y	ZIP Code(R), Left Side (A non-blank value appears only when left address range is present)
ZIPR	L	N	112	116	5	Y	ZIP Code(R), Right Side (A non-blank value appears only when right address

							range present)
FAIRL	L	N	117	121	5	Y	AI/ANA FIPS PUB 55-3 Code, Left Side
FAIRR	L	N	122	126	5	Y	AI/ANA FIPS PUB 55-3 Code, Right Side
ANRCL	L	N	127	128	2	Y	ANRC, Census Code, Left Side
ANRCR	L	N	129	130	2	Y	ANRC Census Code, Right Side,
STATEL	L	N	131	132	2	Y	FIPS State Code, Left Side
STATER	L	N	133	134	2	Y	FIPS State Code, Right Side
COUNTYL	L	N	135	137	3	Y	FIPS County Code, Left Side
COUNTYR	L	N	138	140	3	Y	FIPS County Code, Right Side
FMCDL	L	N	141	145	5	Y	County Subdivision FIPS PUB 55-3 Code, Left Side
FMCDR	L	N	146	150	5	Y	County Subdivision FIPS PUB 55-3 Code, Right Side
FSMCDL	L	N	151	155	5	Y	Sub-MCD FIPS PUB 55-3 Code, Left Side
FSMCDR	L	N	156	160	5	Y	Sub-MCD FIPS PUB 55-3 Code, Right Side
FPLL	L	N	161	165	5	Y	Place FIPS PUB 55-3 Code, Left Side
FPLR	L	N	166	170	5	Y	Place FIPS PUB 55-3 Code, Right Side
CTBNAL	L	N	171	176	6	Y	Census Tract/BNA Code, Left Side
	L	N	171	174	4	Y	Basic number
	L	N	175	176	2	Y	suffix
CTBNAR	L	N	177	182	6	Y	Census Tract/BNA Code, Right Side
	L	N	177	180	4	Y	Basic number
	L	N	181	182	2	Y	suffix
BLKL	L	A	183	186	4	Y	Block Number, Left Side
	L	N	183	185	3	Y	Basic number
	L	A	186	186	1	Y	suffix
BLKR	L	A	187	190	4	Y	Block Number, Right Side
	L	N	187	189	3	Y	Basic number
	L	A	190	190	1	Y	suffix
FRLONG	R	N	191	200	10	N	Start Node Longitude (Implied 6 decimal places)
FRLAT	R	N	201	209	9	N	Start Node Latitude (Implied 6 decimal places)
TOLONG	R	N	210	219	10	N	End Node Longitude (Implied 6 decimal places)

TOLAT	R	N	220	228	9	N	End Node Latitude (Implied 6 decimal places)

Record Type 2 -- Shape Point Coordinates

Field	Type	Fmt	Beg	End	Size	BV	Description and Notes
RT	L	A	1	1	1	N	Record Type (Record Type is "2")
VERSION	L	N	2	5	4	N	Version (Value "0005" identifies the 1992 TIGER/Line files)
TLID	R	N	6	15	10	N	TIGER/Line(TM) Record ID Number (Permanent complete chain identification number)
RTSQ	R	N	16	18	3	N	Record Sequence Number (Sequentially numbered from 1 for each TLID)
LONG1	R	N	19	28	10	N	Point 1, Longitude
LAT1	R	N	29	37	9	N	Point 1, Latitude
LONG2	R	N	38	47	10	Y	Point 2, Longitude
LAT2	R	N	48	56	9	Y	Point 2, Latitude
LONG3	R	N	57	66	10	Y	Point 3, Longitude
LAT3	R	N	67	75	9	Y	Point 3, Latitude
LONG4	R	N	76	85	10	Y	Point 4, Longitude
LAT4	R	N	86	94	9	Y	Point 4, Latitude
LONG5	R	N	95	104	10	Y	Point 5, Longitude
LAT5	R	N	105	113	9	Y	Point 5, Latitude
LONG6	R	N	114	123	10	Y	Point 6, Longitude
LAT6	R	N	124	132	9	Y	Point 6, Latitude
LONG7	R	N	133	142	10	Y	Point 7, Longitude
LAT7	R	N	143	151	9	Y	Point 7, Latitude
LONG8	R	N	152	161	10	Y	Point 8, Longitude
LAT8	R	N	162	170	9	Y	Point 8, Latitude
LONG9	R	N	171	180	10	Y	Point 9, Longitude
LAT9	R	N	181	189	9	Y	Point 9, Latitude
LONG10	R	N	190	199	10	Y	Point 10, Longitude
LAT10	R	N	200	208	9	Y	Point 10, Latitude

Note: The TIGER/Line(TM) files contain a maximum of 10 shape points on one record. The number of shape point

records for a complete chain may be 0, 1, or more.
Coordinates have an implied 6 decimal places.

Record Type 3 -- Additional 1990 and 1980 Decennial Census Geographic Entity Codes

Field	Type	Fmt	Beg	End	Size	BV	Description and Notes
RT	L	A	1	1	1	N	Record Type (Record Type is "3")
VERSION	L	N	2	5	4	N	Version Number (Value "0005" identifies the 1992 TIGER/Line files)
TLID	R	N	6	15	10	N	TIGER/Line(TM) Record ID Number (Permanent complete chain identification number)
STATE80L	L	N	16	17	2	Y	1980 FIPS State Code, Left Side
STATE80R	L	N	18	19	2	Y	1980 FIPS State Code, Right Side
COUN80L	L	N	20	22	3	Y	1980 FIPS County Code, Left Side
COUN80R	L	N	23	25	3	Y	1980 FIPS County Code, Right Side
FMCD80L	L	N	26	30	5	Y	County Subdivision, 1980 FIPS PUB 55-3 Code, Left Side
FMCD80R	L	N	31	35	5	Y	County Subdivision, 1980 FIPS PUB 55-3 Code, Right Side
FPL80L	L	N	36	40	5	Y	Place, 1980 FIPS PUB 55-3 Code, Left Side
FPL80R	L	N	41	45	5	Y	Place, 1980 FIPS PUB 55-3 Code, Right Side
CTBNA80L	L	N	46	51	6	Y	1980 Census Tract/BNA Code, Left Side
	L	N	46	49	4	Y	Basic number
	L	N	50	51	2	Y	suffix
CTBNA80R	L	N	52	57	6	Y	1980 Census Tract/BNA Code, Right Side
	L	N	52	55	4	Y	Basic number
	L	N	56	57	2	Y	suffix
BLK80L	L	N	58	60	3	Y	1980 Block Number, Left Side
BLK80R	L	N	61	63	3	Y	1980 Block Number, Right Side
MCD80L	L	N	64	66	3	Y	County Subdivision, 1980 Census Code, Left Side

MCD80R	L	N	67	69	3	Y	County Subdivision, 1980 Census Code, Right Side
PL80L	L	N	70	73	4	Y	Place, 1980 Census Code, Left Side
PL80R	L	N	74	77	4	Y	Place, 1980 Census Code, Right Side
AIRL	L	N	78	81	4	Y	AI/ANA Census Code, Left Side
AIRR	L	N	82	85	4	Y	AI/ANA Census Code, Right Side
MCDL	L	N	86	88	3	Y	County Subdivision Census Code, Left Side
MCDR	L	N	89	91	3	Y	County Subdivision Census Code, Right Side
SMCDL	L	N	92	93	2	Y	Sub-MCD Census Code, Left Side
SMCDR	L	N	94	95	2	Y	Sub-MCD Census Code, Right Side
PLL	L	N	96	99	4	Y	Place, Census Code, Left Side
PLR	L	N	100	103	4	Y	Place, Census Code, Right Side
VTDL	L	A	104	107	4	Y	1990 VTD Code, Left Side
VTDR	L	A	108	111	4	Y	1990 VTD Code, Right Side

Record Type 4 -- Index to Alternate Feature Identifiers

Field	Type	Fmt	Beg	End	Size	BV	Description and Notes
RT	L	A	1	1	1	N	Record Type (Record Type is "4")
VERSION	L	N	2	5	4	N	Version (Value "0005" identifies the 1992 TIGER/Line files)
TLID	R	N	6	15	10	N	TIGER/Line(TM) Record ID Number (Permanent complete chain identification numbers)
RTSQ	R	N	16	18	3	N	Record Sequence Number (Sequentially numbered from 1 for each TLID/Complete Chain)
FEAT1	R	N	19	26	8	N	Identification Number for 1st Alternate Feature Identifier
FEAT2	R	N	27	34	8	Y	Identification Number for 2nd Alternate Feature Identifier
FEAT3	R	N	35	42	8	Y	Identification Number for 3rd Alternate Feature Identifier
FEAT4	R	N	43	50	8	Y	Identification Number for

							4th Alternate Feature Identifier
FEAT5	R	N	51	58	8	Y	Identification Number for 5th Alternate Feature Identifier

Record Type 5 -- Feature Identifier List

Field	Type	Fmt	Beg	End	Size	BV	Description and Notes
RT	L	A	1	1	1	N	Record Type (Record Type is "5")
STATE	L	N	2	3	2	N	FIPS State Code
COUNTY	L	N	4	6	3	N	FIPS County Code
FEAT	R	N	7	14	8	N	Identification Number for the Feature Identifier
FEDIRP	L	A	15	16	2	Y	Feature Direction, Prefix
FENAME	L	A	17	46	30	Y	Feature Name
FETYPE	L	A	47	50	4	Y	Feature Type
FEDIRS	L	A	51	52	2	Y	Feature Direction, Suffix

Record Type 6 -- Additional Address Range and ZIP Code(R) Data

Field	Type	Fmt	Beg	End	Size	BV	Description and Notes
RT	L	A	1	1	1	N	Record Type (Record Type is 6")
VERSION	L	N	2	5	4	N	Version (Value "0005" identifies the 1992 TIGER/Line files)
TLID	R	N	6	15	10	N	TIGER/Line(TM) Record ID Number (Permanent complete chain identification numbers)
RTSQ	R	N	16	18	3	N	Record Sequence Number (Sequentially numbered from 1 for each TLID)
FRADDL	R	A	19	29	11	Y	Start Address, Left Side
TOADDL	R	A	30	40	11	Y	End Address, Left Side
FRADDR	R	A	41	51	11	Y	Start Address, Right Side
TOADDR	R	A	52	62	11	Y	End Address, Right Side
FRIADDL	R	N	63	63	1	Y	Start Address, Impute Flag, Left Side
TOIADDL	R	N	64	64	1	Y	End Address, Impute Flag, Left Side

FRIADDR	R	N	65	65	1	Y	Start Address, Impute Flag, Right Side
TOIADDR	R	N	66	66	1	Y	End Address, Impute Flag, Right Side
ZIPL	L	N	67	71	5	Y	ZIP Code(R), Left Side (A non-blank value appears only when left address range is present)
ZIPR	L	N	72	76	5	Y	ZIP Code(R), Right Side (A non-blank value appears only when left address range is present)

Record Type 7 -- Landmark Features

Field	Type	Fmt	Beg	End	Size	BV	Description and Notes
RT	L	A	1	1	1	N	Record Type (Record Type is "7")
VERSION	L	N	2	5	4	N	Version (Value "0005" identifies the 1992 TIGER/Line files)
STATE	L	N	6	7	2	N	FIPS State Code
COUNTY	L	N	8	10	3	N	FIPS County Code
LAND	R	N	11	20	10	N	Landmark Identification Number
SOURCE	L	A	21	21	1	Y	Source Code
CFCC	L	A	22	24	3	Y	CFCC
LANAME	L	A	25	54	30	Y	Landmark Feature Identifier
LALONG	R	N	55	64	10	Y	Longitude (Implied 6 decimal places, only for point landmarks)
LALAT	R	N	65	73	9	Y	Latitude (Implied 6 decimal places, only for point landmarks)
FILLER	L	A	74	74	1	Y	Filler (to make even character count) (contains a blank character space)

Record Type 8 -- Polygons Linked to Area Landmarks

Field	Type	Fmt	Beg	End	Size	BV	Description and Notes
RT	L	A	1	1	1	N	Record Type (Record Type is "8")
VERSION	L	N	2	5	4	N	Version (Value "0005" identifies the 1992 TIGER/Line files)
STATE	L	N	6	7	2	N	FIPS State Code

COUNTY	L	N	8	10	3	N	FIPS County Code
CENID Code	L	N	11	15	5	N	Census File Identification
POLYID	R	N	16	25	10	N	Polygon Identification Number (Polygon number is unique to CENID)
LAND	R	N	26	35	10	N	Landmark Identification Number
FILLER	L	A	36	36	1	Y	Filler (to make even character count) (contains a blank character space)

Record Type A -- Additional Polygon Geographic Entity Codes

Field	Type	Fmt	Beg	End	Size	BV	Description and Notes
RT	L	A	1	1	1	N	Record Type (Record Type is "A")
VERSION	L	N	2	5	4	N	Version (Value "0005" identifies the 1992 TIGER/Line files)
STATE	L	N	6	7	2	N	FIPS State Code
COUNTY	L	N	8	10	3	N	FIPS County Code
CENID	L	N	11	15	5	N	Census File Identification Code
POLYID	R	N	16	25	10	N	Polygon Identification number (number is unique to CENID)
FAIR	L	N	26	30	5	Y	AI/ANA FIPS PUB 55-3 Code
FMCD	L	N	31	35	5	N	County Subdivision FIPS PUB 55-3 Code
FPL	L	N	36	40	5	Y	Place FIPS PUB 55-3 Code
CTBNA	L	N	41	46	6	N	Census Tract/BNA Code
	L	N	41	44	4	N	Basic number
	L	N	45	46	2	Y	suffix
BLK	L	A	47	50	4	N	Block Number
	L	N	47	49	3	N	Basic number
	L	A	50	50	1	Y	suffix
CD101	L	N	51	52	2	Y	101st Congressional District Code
CD103	L	N	53	54	2	Y	103rd Congressional District Code
SDELM	L	A	55	59	5	Y	Elementary School District Code
SDMID	L	A	60	64	5	Y	Middle School District Code

SDSEC	L	A	65	69	5	Y	Secondary School District Code
SDUNI	L	A	70	74	5	Y	Unified School District Code
TAZ	L	A	75	80	6	Y	TAZ Code
UA	L	N	81	84	4	Y	Census UA Code
URBFLAG	L	A	85	85	1	N	U/R Flag
RS	L	A	86	98	13	Y	Reserved Space (The field is reserved, but currently contains contains a blank character space)

Record Type F-- Corrected Geographic Area Codes for the 1990 Census*

Field	Type	Fmt	Beg	End	Size	BV	Description and Notes
RT	L	A	1	1	1	N	Record Type (Record Type is "F")
VERSION	L	N	2	5	4	N	Version (Value "0005" identifies the 1992 TIGER/Line files)
STATE	L	N	6	7	2	N	FIPS State Code
COUNTY	L	N	8	10	3	N	FIPS County Code
CENID	L	N	11	15	5	N	Census File Identification Code
POLYID	R	N	16	25	10	N	Polygon Identification Number (number is unique to CENID)
STATE90	L	N	26	27	2	N	1990 FIPS State Code
COUNTY90	L	N	28	30	3	N	1990 FIPS County Code
FAIR90	L	N	31	35	5	Y	1990 AI/ANA FIPS PUB 55-3 Code
FMCD90	L	N	36	40	5	Y	1990 County Subdivision FIPS PUB 55-3 Code
FSMCD90	L	N	41	45	5	Y	1990 Sub-MCD FIPS PUB 55-3 Code
FPL90	L	N	46	50	5	Y	1990 Place FIPS PUB 55-3 Code
CTBNA90	L	N	51	56	6	Y	1990 Census Tract/BNA Code
	L	N	51	54	4	Y	Basic number
	L	N	55	56	2	Y	suffix
BLK90	L	A	57	61	5	Y	1990 Block Number
	L	N	57	59	3	Y	Basic number
	L	A	60	60	1	Y	2 character suffix
	L	A	61	61	1	Y	Collection Suffix
FILLER	L	A	62	62	1	Y	Filler (to make even character count) (contains a blank character space)

*Present only when different from Record Type 1 or A.

Record Type G -- 1992 Geographic Codes and Entity Changes*

Field	Type	Fmt	Beg	End	Size	BV	Description and Notes
RT	L	A	1	1	1	N	Record Type (Record Type is "G")
VERSION	L	N	2	5	4	N	Version Number (Value "0005" identifies the 1992 TIGER/Line files)
STATE	L	N	6	7	2	N	FIPS State Code
COUNTY	L	N	8	10	3	N	FIPS County Code
CENID	L	N	11	15	5	N	Census File Identification Code
POLYID	R	N	16	25	10	N	Polygon Identification Number (number is unique to CENID)
STATECU	L	N	26	27	2	N	Current FIPS State Code
COUNTYCU	L	N	28	30	3	N	Current FIPS County Code
FAIRCU	L	N	31	35	5	Y	Current AI/ANA FIPS PUB 55-3 Code
FMCDCU	L	N	36	40	5	Y	Current County Subdivision FIPS PUB 55-3 Code
FSMCDCU	L	N	41	45	5	Y	Current Sub-MCD FIPS PUB 55-3 Code
FPLCU	L	N	46	50	5	Y	Current Place FIPS PUB 55-3 Code
CDCU	L	N	51	52	2	Y	Current 103rd Congressional District Code

*Present only when different from Record Type 1 or A.

Record Type I: The Link Between Complete Chains and Polygons

Field	Type	Fmt	Beg	End	Size	BV	Description and Notes
RT	L	A	1	1	1	N	Record Type (Record Type is "I")
VERSION	L	N	2	5	4	N	Version Number (Value "0005" identifies the 1992 TIGER/Line files)
TLID	R	N	6	15	10	N	TIGER/Line(TM) Record ID Number (Permanent complete chain identification number)
STATE	L	N	16	17	2	N	FIPS State Code
COUNTY	L	N	18	20	3	N	FIPS County Code
RTLINK	L	A	21	21	1	N	Area Pointer Type Code ("P" = polygon identification

							code)
CENIDL	L	N	22	26	5	Y	Census File Identification Code, Left Side
POLYIDL	R	N	27	36	10	Y	Polygon Identification Number, Left Side (number is unique to CENID)
CENIDR	L	N	37	41	5	Y	Census File Identification Code, Right Side
POLYIDR	R	N	42	51	10	Y	Polygon Identification Number, Right Side
FILLER	L	A	52	52	1	Y	Filler (to make even character count) (contains a blank character space)

Record Type P -- Polygon Internal Point

Field	Type	Fmt	Beg	End	Size	BV	Description and Notes
RT	L	A	1	1	1	N	Record Type (Record Type is "P")
VERSION	L	N	2	5	4	N	Version (Value "0005" identifies the 1992 TIGER/Line files)
STATE	L	N	6	7	2	N	FIPS State Code
COUNTY	L	N	8	10	3	N	FIPS County Code
CENID	L	N	11	15	5	N	Census File Identification Code
POLYID	R	N	16	25	10	N	Polygon Identification Number, unique to CENID
POLYLONG	R	N	26	35	10	N	Longitude (Implied 6 decimal places)
POLYLAT	R	N	36	44	9	N	Latitude (Implied 6 decimal places)

Record Type R -- Record Number Range

Field	Type	Fmt	Beg	End	Size	BV	Description and Notes
RT	L	A	1	1	1	N	Record Type (Record Type is "R")
VERSION	L	N	2	5	4	N	Version (Value "0005" identifies the 1992 TIGER/Line files)
STATE	L	N	6	7	2	N	FIPS State Code
COUNTY	L	N	8	10	3	N	FIPS County Code
CENID	L	N	11	15	5	N	Census File Identification Code
MAXID	R	N	16	25	10	N	Maximum TLID Value for this CENID

							(For all TIGER/Line(TM) files using this CENID)
MINID	R	N	26	35	10	N	Minimum TLID Value for this CENID (For all TIGER/Line(TM) files using this CENID)
HIGHID	R	N	36	45	10	N	Current TLID Value (Used for this CENID in this file version)
FILLER	L	A	46	46	1	N	Filler (to make even character count) (contains a blank character space)

Note: See Appendix B for a list of field name changes since the 1990 Census TIGER/Line files.

Type:
- L = Left-Justified (numeric fields have leading zeros and may be interpreted as character data)
- R = Right-justified (numeric fields do not have leading zeros, and may be interpreted as integer data)

Fmt:
- A = Alphanumeric
- N = Numeric

BV:
- Y = Blank value is valid
- N = Blank value is not valid

TIGER/Line(TM) Files, 1992

Bibliography

The following is a bibliography of TIGER System related papers for further reference:

Beard, C. and A.M. Robbins Scale Determination and Inset Selection Within a Totally Automated Map Production System, Cartography and Geographic Information Systems, 17(1): 49-56, January 1990.

Bishton, A. Designing and Using a Cartographic Extract: Mapping From the TIGER System, paper presented at the 26th Annual Conference of the Urban and Regional Information Systems Association (URISA), Los Angeles, California, August 1988.*

Bishton, A. A Cartographic Extract of the TIGER File: Implication for Mapping Applications, Proceedings: Ninth International Symposium on Computer-Assisted Cartography, Baltimore, Maryland, April 1989, pp. 697-704.

Bishton, A. Mapping From a Cartographic Extract, Cartography and Geographic Information Systems, 17(1): 21-26, January 1990.

Boudriault, G. Topology in the TIGER File, Proceedings: Eighth International Symposium on Computer-Assisted Cartography:
258-263, 1987.

Broome, F.R., C. Beard, and A. Martinez Automated Map Inset Determination, Proceedings: Eighth International Symposium on Computer-Assisted Cartography, pp. 466-470, 1987.

Broome, F.R. and L. Godwin The Census Bureau's Publication Map Production System, Cartography and Geographic Information Systems, 17(1): 79-88, January 1990.

Broome, F.R. and D.B. Meixler The TIGER Data Base Structure, Cartography and Geographic Information Systems, 17(1): 39-48, January 1990.

Carbaugh, L.W. and R. W. Marx The TIGER System: A Census Bureau Innovation Serving Data Analysts, Government Information Quarterly 7(3): 285-306, 1990.

Davis, B.A. et al. TIGER/SDTS: Standardizing an Innovation, Cartography and Geographic Information Systems, 19(5): January 1993 (in press).

Ebinger, L.R. and A.M. Goulette Automated Names Placement in a
Non-Interactive Environment, Proceedings: Ninth International Symposium on Computer-Assisted Cartography, Baltimore, Maryland, April 1989, pp. 205-214.

Ebinger, L.R. and A.M. Goulette Noniteractive Automated Names Placement for the 1990 Decennial Census, Cartography and Geographic Information Systems, 17(1): 69-78, January 1990.

Fairchild, D. The Display of Boundary Information: A Challenge in Map Design in an Automated Production System, Proceedings: Eighth International Symposium on Computer-

Assisted Cartography,
pp. 456-465, 1987.

Kinnear, C. The TIGER Structure, Proceedings: Eighth International Symposium on Computer-Assisted Cartography, pp. 249-257, 1987.

LaMacchia, R.A. Census Data Available for Transportation Planners, paper presented at the Third International Conference on Microcomputers in Transportation, San Francisco, California, June 22, 1989.*

LaMacchia, R.A. The TIGER File and Redistricting, paper presented at the National Conference of State Legislatures, Orlando, Florida, December 1989.*

LaMacchia, R.A. The TIGER System, Exemplary Systems in Government Awards, 1990. Urban and Regional Information Systems Association, Washington, D.C., pp. 25-36.

LaMacchia, R.A. and S.G. Tomasi Planned TIGER System Products, paper distributed at the 1990 Annual Spring Conference of the Government Publications Libraries of New England, March 1990.

Martinez, A. Application of Expert Rules in Automated Cartography, paper presented at the 10th Annual Applied Geography Conference, October 1987.*

Martinez, A. Automated Insetting: An Expert Component Embedded in the Census Bureau's Map Production System, Proceedings: Ninth International Symposium on Computer-Assisted Cartography, Baltimore, Maryland, April 1989, pp. 181-190.

Marx, R.W. The TIGER System: Automating the Geographic Structure of the United States Census, Government Publications Review, Vol. 13, pp. 181-201, 1986.

Marx, R.W. Computer Mapping and the Census Bureau: The Future and You, paper presented at the AM/FM International Eastern Regional Conference, Williamsburg, Virginia, May 1986.*

Marx, R.W. The TIGER System: Six Years to Success, Proceedings:
13th International Conference of the International Cartographic Association, pp 633-645, October 1987.*

Marx, R.W. and A.J. Saalfeld Programs for Assuring Map Quality at the Bureau of the Census, Proceedings: The 4th Annual Research Conference, U.S. Department of Commerce, Bureau of the Census, Washington, DC 1988, pp. 239-259.

Marx, R.W. LIS/GIS Activities of the United States Census Bureau, paper presented at the Information Exchange sponsored by the Embassy of the United States of America on Development, Innovation, and Technology Transfer Regarding Land Information Management Based on a Cadastral Concept, Bonn, Federal Republic of Germany, November 1988.*

Marx, R.W. GIS, TIGER, and Other Useful Acronyms, Proceedings: National Conference Challenge for the 1990s Geographic Information Systems, Ottawa, Canada, 1989, pp. 439-452.

Marx, R.W. The TIGER System: Yesterday, Today, and Tomorrow, Cartography and Geographic Information Systems, 17(1): 89-97, January 1990.

Marx, R.W. (ed.) Cartography and Geographic Information Systems: The Census Bureau's TIGER System, Journal of American Congress on Surveying and Mapping, Vol. 17, No. 1, January 1990.

McDowell, T., D. Meixler, P. Rosenson, and B. Davis Maintenance of Geographic Structure Files at the Bureau of the Census, Proceedings: Eighth International Symposium on Computer-Assisted Cartography, pp. 264-269, 1987.

McKenzie, B.Y. and R.A. LaMacchia The U.S. Geological Survey - U.S. Bureau of the Census Cooperative Digital Mapping Project: A Unique Success Story, paper presented at the fall meeting of the American Congress on Surveying and Mapping, Reno, Nevada, October 1987.*

Meixler, D. and A.J. Saalfeld Polygonization and Topological Editing at the Bureau of the Census, Proceedings: Eighth International Symposium on Computer-Assisted Cartography, pp. 731-737, 1987.

Sobel, J. Principal Components of the Census Bureau's TIGER File, Research in Contemporary and Applied Geography: A Discussion Series, Vol. X, No. 3, pp. 1-16, 1986.

Sperling, J. Development and Maintenance of the TIGER Data Base: Experiences in Spatial Data Sharing at the U.S. Bureau of the Census, National Center for Geographic Information and Analysis (Initiative 19). San Diego, California, 1992.
Sperling, J. Understanding Census Geography in the TIGER Data Base: The Case of Puerto Rico, Proceedings: Middle Atlantic Division of the Association of American Geographers, pp.121-133, 1992.

Tomasi, S.G. Why the Nation Needs a TIGER System, Cartography and Geographic Information Systems, 17(1): 21-26, January 1990.

Trainor, T.F. Fully Automated Cartography: A Major Transition at the Census Bureau, Cartography and Geographic Information Systems, 17(1): 21-26, January 1990.

Trainor, T.F. Attribute Coding Scheme: Identification of Features in the
U.S. Census Bureau's TIGER System, Proceedings: AUTO CARTO London, Vol. 1, pp. 117-126, September 1986.

U.S. Bureau of the Census, Strength in Numbers: Your Guide to 1990 Census Redistricting Data From the U.S. Bureau of the Census,, Washington, D.C. January 1990.

U.S. Bureau of the Census, TIGER: The Coast-to-Coast Digital Map Data
Base, Washington, D.C., 1990

U.S. Geological Survey, 1:100,000-Scale Digital Cartographic Data Base for Federal Requirements, Yearbook, Fiscal Year 1984, Reston, Virginia.

Wanie, T.L. Estimating Production Parameters for Large-Volume Automated Mapping on a Raster Plotter, Proceedings: Eighth International Symposium on Computer-Assisted Cartography, pp. 1-8, 1987.

---

* A package of all unpublished papers is available for $10 from
Customer Services, Data User Services Division, Bureau of the Census, Washington, DC 20233 (301) 763-4100; FAX (301) 763-4794.

TIGER/Line(TM) Files, 1992

APPENDIX A
FIPS State and County Codes

ST	COU	AREA NAME	ADR#
01		Alabama	
01	001	Autauga County	half
01	003	Baldwin County	some
01	005	Barbour County	some
01	007	Bibb County	few
01	009	Blount County	few
01	011	Bullock County	few
01	013	Butler County	some
01	015	Calhoun County	majority
01	017	Chambers County	half
01	019	Cherokee County	few
01	021	Chilton County	few
01	023	Choctaw County	few
01	025	Clarke County	some
01	027	Clay County	few
01	029	Cleburne County	few
01	031	Coffee County	half
01	033	Colbert County	half
01	035	Conecuh County	few
01	037	Coosa County	few
01	039	Covington County	some
01	041	Crenshaw County	few
01	043	Cullman County	few
01	045	Dale County	some
01	047	Dallas County	half
01	049	DeKalb County	few
01	051	Elmore County	some
01	053	Escambia County	some
01	055	Etowah County	half
01	057	Fayette County	few
01	059	Franklin County	few
01	061	Geneva County	some
01	063	Greene County	few
01	065	Hale County	few
01	067	Henry County	some
01	069	Houston County	half
01	071	Jackson County	few
01	073	Jefferson County	majority
01	075	Lamar County	few
01	077	Lauderdale County	some
01	079	Lawrence County	half
01	081	Lee County	half
01	083	Limestone County	some
01	085	Lowndes County	few
01	087	Macon County	some
01	089	Madison County	majority
01	091	Marengo County	some
01	093	Marion County	few
01	095	Marshall County	some
01	097	Mobile County	majority
01	099	Monroe County	few
01	101	Montgomery County	majority
01	103	Morgan County	half
01	105	Perry County	few
01	107	Pickens County	few
01	109	Pike County	some
01	111	Randolph County	few
01	113	Russell County	some
01	115	St. Clair County	few

01	117	Shelby County	some
01	119	Sumter County	few
01	121	Talladega County	some
01	123	Tallapoosa County	some
01	125	Tuscaloosa County	half
01	127	Walker County	few
01	129	Washington County	few
01	131	Wilcox County	few
01	133	Winston County	few
02		Alaska	
02	013	Aleutians East Borough+	few
02	016	Aleutians West Census Area+	few
02	020	Anchorage Borough	majority
02	050	Bethel Census Area	few
02	060	Bristol Bay Borough	few
02	068	Denali Borough*	no data
02	070	Dillingham Census Area	few
02	090	Fairbanks North Star Borough	half
02	100	Haines Borough	few
02	110	Juneau Borough	half
02	122	Kenai Peninsula Borough	few
02	130	Ketchikan Gateway Borough	half
02	150	Kodiak Island Borough	half
02	164	Peninsula and Lake Borough	no data
02	170	Matanuska-Susitna Borough	few
02	180	Nome Census Area	few
02	185	North Slope Borough	few
02	188	Northwest Arctic Borough	few
02	201	Prince of Wales-Outer Ketchikan Census Area	few
02	220	Sitka Borough	half
02	231	Skagway-Yakutat-Angoon Census Area**	few
02	232	Skagway-Hoonah-Angoon Census Area**	no data
02	240	Southeast Fairbanks Census Area*	few
02	261	Valdez-Cordova Census Area	few
02	270	Wade Hampton Census Area	few
02	280	Wrangell-Petersburg Borough	some
02	282	Yakutat Borough**	no data
02	290	Yukon-Koyukuk Census Area	few

* Denali Borough was established in December 1990 out of part of Yukon-Koyukuk Census Area and a small portion of Southeast Fairbanks Census Area. This new borough only appears in the current geography.

** Yakutat Borough was established in September 1992 out of a portion of Skagway-Yakutat-Angoon Census Area; the remainder of the census area was renamed Skagway-Hoonah-Angoon Census Area. These new areas only appear in current geography, and replace Skagway-Yakutat-Angoon Census Area.

04		Arizona	
04	001	Apache County	few
04	003	Cochise County	half
04	005	Coconino County	half
04	007	Gila County	some
04	009	Graham County	some
04	011	Greenlee County	some
04	012	La Paz County	half
04	013	Maricopa County	full
04	015	Mohave County	majority
04	017	Navajo County	few
04	019	Pima County	majority
04	021	Pinal County	majority
04	023	Santa Cruz County	half
04	025	Yavapai County	half
04	027	Yuma County	majority
05		Arkansas	
05	001	Arkansas County	half
05	003	Ashley County	some
05	005	Baxter County	some
05	007	Benton County	half
05	009	Boone County	some
05	011	Bradley County	some
05	013	Calhoun County	few
05	015	Carroll County	some
05	017	Chicot County	some
05	019	Clark County	some
05	021	Clay County	some
05	023	Cleburne County	few
05	025	Cleveland County	few
05	027	Columbia County	some
05	029	Conway County	some
05	031	Craighead County	half
05	033	Crawford County	some
05	035	Crittenden County	majority
05	037	Cross County	some
05	039	Dallas County	some
05	041	Desha County	half
05	043	Drew County	some
05	045	Faulkner County	some
05	047	Franklin County	few
05	049	Fulton County	few
05	051	Garland County	majority
05	053	Grant County	few
05	055	Greene County	half
05	057	Hempstead County	some
05	059	Hot Spring County	some
05	061	Howard County	some
05	063	Independence County	majority
05	065	Izard County	few
05	067	Jackson County	some
05	069	Jefferson County	majority
05	071	Johnson County	some
05	073	Lafayette County	few
05	075	Lawrence County	some
05	077	Lee County	some
05	079	Lincoln County	few
05	081	Little River County	few
05	083	Logan County	some
05	085	Lonoke County	some
05	087	Madison County	few
05	089	Marion County	few
05	091	Miller County	half
05	093	Mississippi County	half

05	095	Monroe County	some
05	097	Montgomery County	few
05	099	Nevada County	few
05	101	Newton County	few
05	103	Ouachita County	half
05	105	Perry County	few
05	107	Phillips County	half
05	109	Pike County	few
05	111	Poinsett County	some
05	113	Polk County	some
05	115	Pope County	some
05	117	Prairie County	few
05	119	Pulaski County	majority
05	121	Randolph County	some
05	123	St. Francis County	some
05	125	Saline County	half
05	127	Scott County	few
05	129	Searcy County	none
05	131	Sebastian County	majority
05	133	Sevier County	some
05	135	Sharp County	few
05	137	Stone County	few
05	139	Union County	half
05	141	Van Buren County	few
05	143	Washington County	half
05	145	White County	some
05	147	Woodruff County	few
05	149	Yell County	few

06 California

06	001	Alameda County	full
06	003	Alpine County	few
06	005	Amador County	half
06	007	Butte County	majority
06	009	Calaveras County	some
06	011	Colusa County	some
06	013	Contra Costa County	full
06	015	Del Norte County	majority
06	017	El Dorado County	half
06	019	Fresno County	full
06	021	Glenn County	half
06	023	Humboldt County	majority
06	025	Imperial County	majority
06	027	Inyo County	half
06	029	Kern County	majority
06	031	Kings County	majority
06	033	Lake County	some
06	035	Lassen County	some
06	037	Los Angeles County	full
06	039	Madera County	half
06	041	Marin County	full
06	043	Mariposa County	half
06	045	Mendocino County	half
06	047	Merced County	full
06	049	Modoc County	some
06	051	Mono County	few
06	053	Monterey County+	majority
06	055	Napa County	full
06	057	Nevada County	majority
06	059	Orange County	full
06	061	Placer County	majority
06	063	Plumas County	some
06	065	Riverside County	majority
06	067	Sacramento County	full
06	069	San Benito County	majority
06	071	San Bernardino County	majority

06	073	San Deigo County+	full
06	075	San Francisco County	full
06	077	San Joaquin County	full
06	079	San Luis Obispo County++	majority
06	081	San Mateo County	full
06	083	Santa Barbara County	full
06	085	Santa Clara County	full
06	087	Santa Cruz County	full
06	089	Shasta County	majority
06	091	Sierra County	few
06	093	Siskiyou County	half
06	095	Solano County	full
06	097	Sonoma County	majority
06	099	Stanislaus County	full
06	101	Sutter County	full
06	103	Tehama County	majority
06	105	Trinity County	few
06	107	Tulare County	majority
06	109	Tuolumne County	half
06	111	Ventura County	full
06	113	Yolo County	majority
06	115	Yuba County	majority
08		Colorado	
08	001	Adams County	full
08	003	Alamosa County	majority
08	005	Arapahoe County	full
08	007	Archuleta County	few
08	009	Baca County	half
08	011	Bent County	half
08	013	Boulder County	majority
08	015	Chaffee County	half
08	017	Cheyenne County	few
08	019	Clear Creek County	half
08	021	Conejos County	few
08	023	Costilla County	few
08	025	Crowley County	majority
08	027	Custer County	some
08	029	Delta County	majority
08	031	Denver County	full
08	033	Dolores County	some
08	035	Douglas County	majority
08	037	Eagle County	some
08	039	Elbert County	majority
08	041	El Paso County	full
08	043	Fremont County	majority
08	045	Garfield County	majority
08	047	Gilpin County	some
08	049	Grand County	few
08	051	Gunnison County	half
08	053	Hinsdale County	few
08	055	Huerfano County	half
08	057	Jackson County	some
08	059	Jefferson County	full
08	061	Kiowa County	few
08	063	Kit Carson County	half
08	065	Lake County	majority
08	067	La Plata County	half
08	069	Larimer County	majority
08	071	Las Animas County	half
08	073	Lincoln County	some
08	075	Logan County	majority
08	077	Mesa County	majority
08	079	Mineral County	few
08	081	Moffat County	majority

08	083	Montezuma County	half
08	085	Montrose County	majority
08	087	Morgan County	majority
08	089	Otero County	majority
08	091	Ouray County	some
08	093	Park County	some
08	095	Phillips County	half
08	097	Pitkin County	half
08	099	Prowers County	majority
08	101	Pueblo County	full
08	103	Rio Blanco County	half
08	105	Rio Grande County	half
08	107	Routt County	few
08	109	Saguache County	some
08	111	San Juan County	half
08	113	San Miguel County	few
08	115	Sedgwick County	half
08	117	Summit County	few
08	119	Teller County	half
08	121	Washington County	half
08	123	Weld County	majority
08	125	Yuma County	half
09		Connecticut	
09	001	Fairfield County++	full
09	003	Hartford County	full
09	005	Litchfield County	majority
09	007	Middlesex County++	majority
09	009	New Haven County++	full
09	011	New London County++	majority
09	013	Tolland County	full
09	015	Windham County	majority
10		Delaware	
10	001	Kent County	some
10	003	New Castle County	full
10	005	Sussex County	some
11		District of Columbia	
11	001	District of Columbia	full
12		Florida	
12	001	Alachua County	majority
12	003	Baker County	few
12	005	Bay County	majority
12	007	Bradford County	few
12	009	Brevard County	full
12	011	Broward County	full
12	013	Calhoun County	few
12	015	Charlotte County	majority
12	017	Citrus County+	majority
12	019	Clay County	majority
12	021	Collier County+	majority
12	023	Columbia County	some
12	025	Dade County	full
12	027	DeSoto County	some
12	029	Dixie County	few
12	031	Duval County	full
12	033	Escambia County	majority
12	035	Flagler County	majority
12	037	Franklin County	few
12	039	Gadsden County	some
12	041	Gilchrist County	few
12	043	Glades County	few

12	045	Gulf County	some
12	047	Hamilton County	few
12	049	Hardee County	some
12	051	Hendry County	half
12	053	Hernando County	majority
12	055	Highlands County	majority
12	057	Hillsborough County	majority
12	059	Holmes County	few
12	061	Indian River County	majority
12	063	Jackson County	few
12	065	Jefferson County	few
12	067	Lafayette County	few
12	069	Lake County	half
12	071	Lee County	majority
12	073	Leon County	majority
12	075	Levy County	few
12	077	Liberty County	few
12	079	Madison County	few
12	081	Manatee County	majority
12	083	Marion County	half
12	085	Martin County	majority
12	087	Monroe County	half
12	089	Nassau County	some
12	091	Okaloosa County	majority
12	093	Okeechobee County	majority
12	095	Orange County	full
12	097	Osceola County	majority
12	099	Palm Beach County+	majority
12	101	Pasco County	majority
12	103	Pinellas County	full
12	105	Polk County	majority
12	107	Putnam County	few
12	109	St. Johns County+	majority
12	111	St. Lucie County	majority
12	113	Santa Rosa County	half
12	115	Sarasota County++	majority
12	117	Seminole County	majority
12	119	Sumter County	few
12	121	Suwannee County	few
12	123	Taylor County	some
12	125	Union County	few
12	127	Volusia County	full
12	129	Wakulla County	none
12	131	Walton County	few
12	133	Washington County	some
13		Georgia	
13	001	Appling County	few
13	003	Atkinson County	few
13	005	Bacon County	some
13	007	Baker County	few
13	009	Baldwin County	majority
13	011	Banks County	few
13	013	Barrow County	few
13	015	Bartow County	majority
13	017	Ben Hill County	some
13	019	Berrien County	few
13	021	Bibb County	full
13	023	Bleckley County	few
13	025	Brantley County	few
13	027	Brooks County	some
13	029	Bryan County	few
13	031	Bulloch County	some
13	033	Burke County	few
13	035	Butts County	few
13	037	Calhoun County	few

13	039	Camden County	some
13	043	Candler County	some
13	045	Carroll County	majority
13	047	Catoosa County	some
13	049	Charlton County	some
13	051	Chatham County	majority
13	053	Chattahoochee County	half
13	055	Chattooga County	some
13	057	Cherokee County	half
13	059	Clarke County	majority
13	061	Clay County	few
13	063	Clayton County	full
13	065	Clinch County	some
13	067	Cobb County	full
13	069	Coffee County	some
13	071	Colquitt County	some
13	073	Columbia County	half
13	075	Cook County	few
13	077	Coweta County	majority
13	079	Crawford County	few
13	081	Crisp County	half
13	083	Dade County	few
13	085	Dawson County	few
13	087	Decatur County	some
13	089	DeKalb County	full
13	091	Dodge County	few
13	093	Dooly County	few
13	095	Dougherty County	full
13	097	Douglas County	majority
13	099	Early County	some
13	101	Echols County	none
13	103	Effingham County	few
13	105	Elbert County	some
13	107	Emanuel County	few
13	109	Evans County	some
13	111	Fannin County	few
13	113	Fayette County	majority
13	115	Floyd County	majority
13	117	Forsyth County	half
13	119	Franklin County	few
13	121	Fulton County	full
13	123	Gilmer County	few
13	125	Glascock County	few
13	127	Glynn County	half
13	129	Gordon County	half
13	131	Grady County	some
13	133	Greene County	some
13	135	Gwinnett County	majority
13	137	Habersham County	few
13	139	Hall County	majority
13	141	Hancock County	few
13	143	Haralson County	half
13	145	Harris County	few
13	147	Hart County	few
13	149	Heard County	few
13	151	Henry County	majority
13	153	Houston County	majority
13	155	Irwin County	few
13	157	Jackson County	few
13	159	Jasper County	few
13	161	Jeff Davis County	few
13	163	Jefferson County	some
13	165	Jenkins County	few
13	167	Johnson County	few
13	169	Jones County	few
13	171	Lamar County	some
13	173	Lanier County	some

13	175	Laurens County	some
13	177	Lee County	some
13	179	Liberty County	some
13	181	Lincoln County	few
13	183	Long County	few
13	185	Lowndes County	half
13	187	Lumpkin County	few
13	189	McDuffie County	some
13	191	McIntosh County	few
13	193	Macon County	few
13	195	Madison County	few
13	197	Marion County	few
13	199	Meriwether County	few
13	201	Miller County	few
13	205	Mitchell County	some
13	207	Monroe County	few
13	209	Montgomery County	few
13	211	Morgan County	half
13	213	Murray County	few
13	215	Muscogee County	full
13	217	Newton County	majority
13	219	Oconee County	half
13	221	Oglethorpe County	few
13	223	Paulding County	half
13	225	Peach County	half
13	227	Pickens County	few
13	229	Pierce County	few
13	231	Pike County	few
13	233	Polk County	majority
13	235	Pulaski County	some
13	237	Putnam County	majority
13	239	Quitman County	few
13	241	Rabun County	few
13	243	Randolph County	some
13	245	Richmond County	full
13	247	Rockdale County	majority
13	249	Schley County	few
13	251	Screven County	few
13	253	Seminole County	few
13	255	Spalding County	full
13	257	Stephens County	some
13	259	Stewart County	few
13	261	Sumter County	half
13	263	Talbot County	none
13	265	Taliaferro County	few
13	267	Tattnall County	few
13	269	Taylor County	few
13	271	Telfair County	few
13	273	Terrell County	half
13	275	Thomas County	half
13	277	Tift County	half
13	279	Toombs County	some
13	281	Towns County	few
13	283	Treutlen County	some
13	285	Troup County	majority
13	287	Turner County	some
13	289	Twiggs County	few
13	291	Union County	few
13	293	Upson County	majority
13	295	Walker County	some
13	297	Walton County	some
13	299	Ware County	majority
13	301	Warren County	some
13	303	Washington County	some
13	305	Wayne County	some
13	307	Webster County	none
13	309	Wheeler County	few

13	311	White County	few
13	313	Whitfield County	majority
13	315	Wilcox County	few
13	317	Wilkes County	some
13	319	Wilkinson County	few
13	321	Worth County	some
15		Hawaii	
15	001	Hawaii County+	some
15	003	Honolulu County	half
15	005	Kalawao County	few
15	007	Kauai County+	some
15	009	Maui County+	majority
16		Idaho	
16	001	Ada County	full
16	003	Adams County	few
16	005	Bannock County	full
16	007	Bear Lake County	half
16	009	Benewah County	few
16	011	Bingham County	some
16	013	Blaine County	few
16	015	Boise County	few
16	017	Bonner County	some
16	019	Bonneville County	majority
16	021	Boundary County	few
16	023	Butte County	few
16	025	Camas County	none
16	027	Canyon County	majority
16	029	Caribou County	some
16	031	Cassia County	half
16	033	Clark County	few
16	035	Clearwater County	some
16	037	Custer County	few
16	039	Elmore County	some
16	041	Franklin County	few
16	043	Fremont County	few
16	045	Gem County	majority
16	047	Gooding County	some
16	049	Idaho County	some
16	051	Jefferson County	few
16	053	Jerome County	some
16	055	Kootenai County	majority
16	057	Latah County	half
16	059	Lemhi County	some
16	061	Lewis County	some
16	063	Lincoln County	few
16	065	Madison County	some
16	067	Minidoka County	some
16	069	Nez Perce County	majority
16	071	Oneida County	some
16	073	Owyhee County	few
16	075	Payette County	majority
16	077	Power County	majority
16	079	Shoshone County	some
16	081	Teton County	few
16	083	Twin Falls County	half
16	085	Valley County	few
16	087	Washington County	half
17		Illinois	
17	001	Adams County	half
17	003	Alexander County	some
17	005	Bond County	some

17	007	Boone County	majority
17	009	Brown County	some
17	011	Bureau County	half
17	013	Calhoun County	few
17	015	Carroll County	half
17	017	Cass County	half
17	019	Champaign County	majority
17	021	Christian County	half
17	023	Clark County	some
17	025	Clay County	half
17	027	Clinton County	half
17	029	Coles County	majority
17	031	Cook County++	full
17	033	Crawford County	half
17	035	Cumberland County	few
17	037	DeKalb County	majority
17	039	De Witt County	half
17	041	Douglas County	half
17	043	DuPage County	majority
17	045	Edgar County	half
17	047	Edwards County	some
17	049	Effingham County	some
17	051	Fayette County	some
17	053	Ford County	half
17	055	Franklin County	half
17	057	Fulton County	some
17	059	Gallatin County	few
17	061	Greene County	half
17	063	Grundy County	majority
17	065	Hamilton County	few
17	067	Hancock County	some
17	069	Hardin County	few
17	071	Henderson County	few
17	073	Henry County	half
17	075	Iroquois County	some
17	077	Jackson County	some
17	079	Jasper County	some
17	081	Jefferson County	some
17	083	Jersey County	some
17	085	Jo Daviess County	majority
17	087	Johnson County	few
17	089	Kane County	majority
17	091	Kankakee County	half
17	093	Kendall County	majority
17	095	Knox County	majority
17	097	Lake County++	full
17	099	La Salle County	majority
17	101	Lawrence County	half
17	103	Lee County	majority
17	105	Livingston County	half
17	107	Logan County	half
17	109	McDonough County	half
17	111	McHenry County	full
17	113	McLean County	majority
17	115	Macon County	majority
17	117	Macoupin County	some
17	119	Madison County	majority
17	121	Marion County	half
17	123	Marshall County	half
17	125	Mason County	some
17	127	Massac County	some
17	129	Menard County	some
17	131	Mercer County	some
17	133	Monroe County	half
17	135	Montgomery County	half
17	137	Morgan County	half
17	139	Moultrie County	some

17	141	Ogle County	majority
17	143	Peoria County	full
17	145	Perry County	some
17	147	Piatt County	half
17	149	Pike County	some
17	151	Pope County	few
17	153	Pulaski County	few
17	155	Putnam County	some
17	157	Randolph County	some
17	159	Richland County	half
17	161	Rock Island County	majority
17	163	St. Clair County	majority
17	165	Saline County	some
17	167	Sangamon County	majority
17	169	Schuyler County	some
17	171	Scott County	some
17	173	Shelby County	some
17	175	Stark County	some
17	177	Stephenson County	full
17	179	Tazewell County	majority
17	181	Union County	some
17	183	Vermilion County	majority
17	185	Wabash County	half
17	187	Warren County	half
17	189	Washington County	few
17	191	Wayne County	some
17	193	White County	some
17	195	Whiteside County	majority
17	197	Will County	majority
17	199	Williamson County	half
17	201	Winnebago County	full
17	203	Woodford County	half
18		Indiana	
18	001	Adams County	some
18	003	Allen County	full
18	005	Bartholomew County	majority
18	007	Benton County	some
18	009	Blackford County	half
18	011	Boone County	half
18	013	Brown County	few
18	015	Carroll County	few
18	017	Cass County	half
18	019	Clark County	majority
18	021	Clay County	some
18	023	Clinton County	half
18	025	Crawford County	few
18	027	Daviess County	some
18	029	Dearborn County	half
18	031	Decatur County	some
18	033	De Kalb County	half
18	035	Delaware County	majority
18	037	Dubois County	some
18	039	Elkhart County	majority
18	041	Fayette County	half
18	043	Floyd County	majority
18	045	Fountain County	some
18	047	Franklin County	half
18	049	Fulton County	some
18	051	Gibson County	some
18	053	Grant County	majority
18	055	Greene County	some
18	057	Hamilton County	majority
18	059	Hancock County	half
18	061	Harrison County	some
18	063	Hendricks County	half

18	065	Henry County	half
18	067	Howard County	majority
18	069	Huntington County	half
18	071	Jackson County	half
18	073	Jasper County	some
18	075	Jay County	half
18	077	Jefferson County	half
18	079	Jennings County	some
18	081	Johnson County	majority
18	083	Knox County	half
18	085	Kosciusko County	few
18	087	Lagrange County	few
18	089	Lake County++	full
18	091	La Porte County++	majority
18	093	Lawrence County	some
18	095	Madison County	majority
18	097	Marion County	full
18	099	Marshall County	majority
18	101	Martin County	few
18	103	Miami County	half
18	105	Monroe County	majority
18	107	Montgomery County	half
18	109	Morgan County	majority
18	111	Newton County	some
18	113	Noble County	some
18	115	Ohio County	some
18	117	Orange County	few
18	119	Owen County	few
18	121	Parke County	few
18	123	Perry County	half
18	125	Pike County	few
18	127	Porter County++	majority
18	129	Posey County	half
18	131	Pulaski County	few
18	133	Putnam County	some
18	135	Randolph County	some
18	137	Ripley County	few
18	139	Rush County	some
18	141	St. Joseph County	full
18	143	Scott County	some
18	145	Shelby County	some
18	147	Spencer County	few
18	149	Starke County	few
18	151	Steuben County	few
18	153	Sullivan County	some
18	155	Switzerland County	few
18	157	Tippecanoe County	majority
18	159	Tipton County	some
18	161	Union County	some
18	163	Vanderburgh County	full
18	165	Vermillion County	some
18	167	Vigo County	majority
18	169	Wabash County	half
18	171	Warren County	few
18	173	Warrick County	majority
18	175	Washington County	few
18	177	Wayne County	majority
18	179	Wells County	half
18	181	White County	some
18	183	Whitley County	some
19		Iowa	
19	001	Adair County	some
19	003	Adams County	some
19	005	Allamakee County	some
19	007	Appanoose County	some

19	009	Audubon County	some
19	011	Benton County	some
19	013	Black Hawk County	full
19	015	Boone County	half
19	017	Bremer County	half
19	019	Buchanan County	half
19	021	Buena Vista County	half
19	023	Butler County	few
19	025	Calhoun County	some
19	027	Carroll County	half
19	029	Cass County	half
19	031	Cedar County	half
19	033	Cerro Gordo County	majority
19	035	Cherokee County	half
19	037	Chickasaw County	few
19	039	Clarke County	some
19	041	Clay County	half
19	043	Clayton County	some
19	045	Clinton County	majority
19	047	Crawford County	half
19	049	Dallas County	some
19	051	Davis County	few
19	053	Decatur County	some
19	055	Delaware County	some
19	057	Des Moines County	majority
19	059	Dickinson County	few
19	061	Dubuque County	full
19	063	Emmet County	half
19	065	Fayette County	half
19	067	Floyd County	half
19	069	Franklin County	half
19	071	Fremont County	some
19	073	Greene County	some
19	075	Grundy County	some
19	077	Guthrie County	few
19	079	Hamilton County	majority
19	081	Hancock County	some
19	083	Hardin County	half
19	085	Harrison County	some
19	087	Henry County	some
19	089	Howard County	some
19	091	Humboldt County	some
19	093	Ida County	half
19	095	Iowa County	some
19	097	Jackson County	half
19	099	Jasper County	half
19	101	Jefferson County	half
19	103	Johnson County	majority
19	105	Jones County	half
19	107	Keokuk County	few
19	109	Kossuth County	some
19	111	Lee County	half
19	113	Linn County	full
19	115	Louisa County	some
19	117	Lucas County	some
19	119	Lyon County	some
19	121	Madison County	some
19	123	Mahaska County	half
19	125	Marion County	half
19	127	Marshall County	full
19	129	Mills County	some
19	131	Mitchell County	some
19	133	Monona County	half
19	135	Monroe County	some
19	137	Montgomery County	majority
19	139	Muscatine County	majority
19	141	O'Brien County	half

19	143	Osceola County	some
19	145	Page County	half
19	147	Palo Alto County	some
19	149	Plymouth County	some
19	151	Pocahontas County	half
19	153	Polk County	full
19	155	Pottawattamie County	half
19	157	Poweshiek County	some
19	159	Ringgold County	few
19	161	Sac County	half
19	163	Scott County	full
19	165	Shelby County	half
19	167	Sioux County	half
19	169	Story County	majority
19	171	Tama County	some
19	173	Taylor County	some
19	175	Union County	half
19	177	Van Buren County	few
19	179	Wapello County	half
19	181	Warren County	majority
19	183	Washington County	some
19	185	Wayne County	some
19	187	Webster County	half
19	189	Winnebago County	some
19	191	Winneshiek County	some
19	193	Woodbury County	majority
19	195	Worth County	some
19	197	Wright County	half
20		Kansas	
20	001	Allen County	half
20	003	Anderson County	some
20	005	Atchison County	half
20	007	Barber County	half
20	009	Barton County	majority
20	011	Bourbon County	half
20	013	Brown County	half
20	015	Butler County	half
20	017	Chase County	few
20	019	Chautauqua County	some
20	021	Cherokee County	some
20	023	Cheyenne County	some
20	025	Clark County	few
20	027	Clay County	half
20	029	Cloud County	majority
20	031	Coffey County	some
20	033	Comanche County	few
20	035	Cowley County	majority
20	037	Crawford County	half
20	039	Decatur County	half
20	041	Dickinson County	half
20	043	Doniphan County	few
20	045	Douglas County	majority
20	047	Edwards County	half
20	049	Elk County	some
20	051	Ellis County	majority
20	053	Ellsworth County	some
20	055	Finney County	majority
20	057	Ford County	half
20	059	Franklin County	half
20	061	Geary County	majority
20	063	Gove County	few
20	065	Graham County	some
20	067	Grant County	half
20	069	Gray County	some
20	071	Greeley County	few

20	073	Greenwood County	half
20	075	Hamilton County	few
20	077	Harper County	half
20	079	Harvey County	majority
20	081	Haskell County	few
20	083	Hodgeman County	some
20	085	Jackson County	some
20	087	Jefferson County	few
20	089	Jewell County	some
20	091	Johnson County	full
20	093	Kearny County	some
20	095	Kingman County	some
20	097	Kiowa County	half
20	099	Labette County	half
20	101	Lane County	some
20	103	Leavenworth County	half
20	105	Lincoln County	some
20	107	Linn County	few
20	109	Logan County	half
20	111	Lyon County	majority
20	113	McPherson County	half
20	115	Marion County	half
20	117	Marshall County	half
20	119	Meade County	few
20	121	Miami County	some
20	123	Mitchell County	half
20	125	Montgomery County	majority
20	127	Morris County	some
20	129	Morton County	few
20	131	Nemaha County	half
20	133	Neosho County	half
20	135	Ness County	some
20	137	Norton County	half
20	139	Osage County	some
20	141	Osborne County	half
20	143	Ottawa County	half
20	145	Pawnee County	half
20	147	Phillips County	some
20	149	Pottawatomie County	some
20	151	Pratt County	majority
20	153	Rawlins County	some
20	155	Reno County	majority
20	157	Republic County	some
20	159	Rice County	half
20	161	Riley County	majority
20	163	Rooks County	half
20	165	Rush County	some
20	167	Russell County	half
20	169	Saline County	majority
20	171	Scott County	majority
20	173	Sedgwick County	full
20	175	Seward County	majority
20	177	Shawnee County	full
20	179	Sheridan County	some
20	181	Sherman County	half
20	183	Smith County	some
20	185	Stafford County	half
20	187	Stanton County	some
20	189	Stevens County	half
20	191	Sumner County	half
20	193	Thomas County	half
20	195	Trego County	half
20	197	Wabaunsee County	few
20	199	Wallace County	few
20	201	Washington County	some
20	203	Wichita County	some
20	205	Wilson County	half

20	207	Woodson County	some
20	209	Wyandotte County	full
21		Kentucky	
21	001	Adair County	half
21	003	Allen County	half
21	005	Anderson County	majority
21	007	Ballard County	few
21	009	Barren County	majority
21	011	Bath County	few
21	013	Bell County	some
21	015	Boone County	majority
21	017	Bourbon County	half
21	019	Boyd County	majority
21	021	Boyle County	majority
21	023	Bracken County	few
21	025	Breathitt County	few
21	027	Breckinridge County	few
21	029	Bullitt County	some
21	031	Butler County	some
21	033	Caldwell County	half
21	035	Calloway County	some
21	037	Campbell County	majority
21	039	Carlisle County	few
21	041	Carroll County	some
21	043	Carter County	few
21	045	Casey County	few
21	047	Christian County	majority
21	049	Clark County	majority
21	051	Clay County	few
21	053	Clinton County	few
21	055	Crittenden County	few
21	057	Cumberland County	half
21	059	Daviess County	majority
21	061	Edmonson County	some
21	063	Elliott County	few
21	065	Estill County	half
21	067	Fayette County	full
21	069	Fleming County	few
21	071	Floyd County	few
21	073	Franklin County	majority
21	075	Fulton County	half
21	077	Gallatin County	few
21	079	Garrard County	half
21	081	Grant County	few
21	083	Graves County	some
21	085	Grayson County	some
21	087	Green County	few
21	089	Greenup County	half
21	091	Hancock County	few
21	093	Hardin County	majority
21	095	Harlan County	few
21	097	Harrison County	some
21	099	Hart County	some
21	101	Henderson County	majority
21	103	Henry County	few
21	105	Hickman County	some
21	107	Hopkins County	majority
21	109	Jackson County	few
21	111	Jefferson County	full
21	113	Jessamine County	majority
21	115	Johnson County	few
21	117	Kenton County	majority
21	119	Knott County	few
21	121	Knox County	few
21	123	Larue County	half

21	125	Laurel County	some
21	127	Lawrence County	few
21	129	Lee County	few
21	131	Leslie County	few
21	133	Letcher County	few
21	135	Lewis County	few
21	137	Lincoln County	some
21	139	Livingston County	few
21	141	Logan County	half
21	143	Lyon County	few
21	145	McCracken County	majority
21	147	McCreary County	few
21	149	McLean County	half
21	151	Madison County	majority
21	153	Magoffin County	few
21	155	Marion County	some
21	157	Marshall County	few
21	159	Martin County	none
21	161	Mason County	some
21	163	Meade County	few
21	165	Menifee County	none
21	167	Mercer County	majority
21	169	Metcalfe County	half
21	171	Monroe County	half
21	173	Montgomery County	half
21	175	Morgan County	few
21	177	Muhlenberg County	few
21	179	Nelson County	majority
21	181	Nicholas County	half
21	183	Ohio County	few
21	185	Oldham County	majority
21	187	Owen County	few
21	189	Owsley County	few
21	191	Pendleton County	few
21	193	Perry County	few
21	195	Pike County	few
21	197	Powell County	few
21	199	Pulaski County	half
21	201	Robertson County	few
21	203	Rockcastle County	few
21	205	Rowan County	few
21	207	Russell County	few
21	209	Scott County	majority
21	211	Shelby County	some
21	213	Simpson County	majority
21	215	Spencer County	few
21	217	Taylor County	majority
21	219	Todd County	half
21	221	Trigg County	some
21	223	Trimble County	none
21	225	Union County	some
21	227	Warren County	majority
21	229	Washington County	some
21	231	Wayne County	few
21	233	Webster County	some
21	235	Whitley County	few
21	237	Wolfe County	few
21	239	Woodford County	half
22		Louisiana	
22	001	Acadia Parish	some
22	003	Allen Parish	few
22	005	Ascension Parish	majority
22	007	Assumption Parish	some
22	009	Avoyelles Parish	few
22	011	Beauregard Parish	some

22	013	Bienville Parish	few
22	015	Bossier Parish	majority
22	017	Caddo Parish	full
22	019	Calcasieu Parish	majority
22	021	Caldwell Parish	few
22	023	Cameron Parish	few
22	025	Catahoula Parish	few
22	027	Claiborne Parish	some
22	029	Concordia Parish	some
22	031	De Soto Parish	few
22	033	East Baton Rouge Parish	full
22	035	East Carroll Parish	some
22	037	East Feliciana Parish	few
22	039	Evangeline Parish	some
22	041	Franklin Parish	few
22	043	Grant Parish	few
22	045	Iberia Parish++	majority
22	047	Iberville Parish	some
22	049	Jackson Parish	some
22	051	Jefferson Parish	full
22	053	Jefferson Davis Parish	half
22	055	Lafayette Parish	majority
22	057	Lafourche Parish	half
22	059	La Salle Parish	few
22	061	Lincoln Parish	half
22	063	Livingston Parish	half
22	065	Madison Parish	half
22	067	Morehouse Parish	half
22	069	Natchitoches Parish	some
22	071	Orleans Parish	full
22	073	Ouachita Parish	majority
22	075	Plaquemines Parish	some
22	077	Pointe Coupee Parish	few
22	079	Rapides Parish	majority
22	081	Red River Parish	few
22	083	Richland Parish	some
22	085	Sabine Parish	few
22	087	St. Bernard Parish++	full
22	089	St. Charles Parish+	half
22	091	St. Helena Parish	few
22	093	St. James Parish	some
22	095	St. John the Baptist Parish	half
22	097	St. Landry Parish	some
22	099	St. Martin Parish	some
22	101	St. Mary Parish+	half
22	103	St. Tammany Parish+	half
22	105	Tangipahoa Parish	some
22	107	Tensas Parish	few
22	109	Terrebonne Parish++	majority
22	111	Union Parish	few
22	113	Vermilion Parish	half
22	115	Vernon Parish	some
22	117	Washington Parish	some
22	119	Webster Parish	some
22	121	West Baton Rouge Parish	majority
22	123	West Carroll Parish	few
22	125	West Feliciana Parish	few
22	127	Winn Parish	some
23		Maine	
23	001	Androscoggin County	half
23	003	Aroostook County	some
23	005	Cumberland County++	half
23	007	Franklin County	few

23	009	Hancock County	few
23	011	Kennebec County	some
23	013	Knox County++	some
23	015	Lincoln County++	few
23	017	Oxford County	few
23	019	Penobscot County	half
23	021	Piscataquis County	few
23	023	Sagadahoc County++	some
23	025	Somerset County	few
23	027	Waldo County++	few
23	029	Washington County	few
23	031	York County++	some
24		Maryland	
24	001	Allegany County	half
24	003	Anne Arundel County	full
24	005	Baltimore County	full
24	009	Calvert County	half
24	011	Caroline County	few
24	013	Carroll County	majority
24	015	Cecil County	majority
24	017	Charles County	half
24	019	Dorchester County++	half
24	021	Frederick County	majority
24	023	Garrett County	few
24	025	Harford County	full
24	027	Howard County	full
24	029	Kent County	few
24	031	Montgomery County	full
24	033	Prince George's County	full
24	035	Queen Anne's County	some
24	037	St. Mary's County	some
24	039	Somerset County	few
24	041	Talbot County	some
24	043	Washington County	half
24	045	Wicomico County	half
24	047	Worcester County++	half
24	510	Baltimore city	full
25		Massachusetts	
25	001	Barnstable County++	half
25	003	Berkshire County	majority
25	005	Bristol County++	full
25	007	Dukes County++	few
25	009	Essex County++	full
25	011	Franklin County	half
25	013	Hampden County	full
25	015	Hampshire County	majority
25	017	Middlesex County	full
25	019	Nantucket County++	some
25	021	Norfolk County	full
25	023	Plymouth County++	majority
25	025	Suffolk County++	full
25	027	Worcester County	majority
26		Michigan	
26	001	Alcona County++	half
26	003	Alger County++	few
26	005	Allegan County++	majority
26	007	Alpena County++	majority
26	009	Antrim County++	few
26	011	Arenac County++	half
26	013	Baraga County++	few
26	015	Barry County	majority

26	017	Bay County++	majority
26	019	Benzie County++	some
26	021	Berrien County++	majority
26	023	Branch County	majority
26	025	Calhoun County	majority
26	027	Cass County	majority
26	029	Charlevoix County++	some
26	031	Cheboygan County++	some
26	033	Chippewa County++	some
26	035	Clare County	some
26	037	Clinton County	majority
26	039	Crawford County	few
26	041	Delta County++	half
26	043	Dickinson County	half
26	045	Eaton County	majority
26	047	Emmet County++	half
26	049	Genesee County	majority
26	051	Gladwin County	half
26	053	Gogebic County++	some
26	055	Grand Traverse County++	majority
26	057	Gratiot County	majority
26	059	Hillsdale County	majority
26	061	Houghton County++	some
26	063	Huron County++	half
26	065	Ingham County	full
26	067	Ionia County	majority
26	069	Iosco County++	half
26	071	Iron County	half
26	073	Isabella County	majority
26	075	Jackson County	majority
26	077	Kalamazoo County	full
26	079	Kalkaska County	some
26	081	Kent County	full
26	083	Keweenaw County++	few
26	085	Lake County	few
26	087	Lapeer County	majority
26	089	Leelanau County++	some
26	091	Lenawee County	majority
26	093	Livingston County	half
26	095	Luce County++	few
26	097	Mackinac County++	few
26	099	Macomb County++	full
26	101	Manistee County++	majority
26	103	Marquette County++	half
26	105	Mason County++	majority
26	107	Mecosta County	half
26	109	Menominee County++	some
26	111	Midland County	full
26	113	Missaukee County	half
26	115	Monroe County++	majority
26	117	Montcalm County	majority
26	119	Montmorency County	few
26	121	Muskegon County++	full
26	123	Newaygo County	half
26	125	Oakland County	full
26	127	Oceana County++	some
26	129	Ogemaw County	half
26	131	Ontonagon County++	some
26	133	Osceola County	some
26	135	Oscoda County	some
26	137	Otsego County	half
26	139	Ottawa County++	full
26	141	Presque Isle County++	some
26	143	Roscommon County	half
26	145	Saginaw County	full
26	147	St. Clair County++	majority
26	149	St. Joseph County	majority

26	151	Sanilac County++	majority
26	153	Schoolcraft County++	some
26	155	Shiawassee County	majority
26	157	Tuscola County++	majority
26	159	Van Buren County++	half
26	161	Washtenaw County	full
26	163	Wayne County	full
26	165	Wexford County	half
27		Minnesota	
27	001	Aitkin County	few
27	003	Anoka County	full
27	005	Becker County	few
27	007	Beltrami County	half
27	009	Benton County	majority
27	011	Big Stone County	some
27	013	Blue Earth County	half
27	015	Brown County	half
27	017	Carlton County	half
27	019	Carver County	majority
27	021	Cass County	few
27	023	Chippewa County	some
27	025	Chisago County	half
27	027	Clay County	half
27	029	Clearwater County	few
27	031	Cook County++	few
27	033	Cottonwood County	half
27	035	Crow Wing County	some
27	037	Dakota County	full
27	039	Dodge County	some
27	041	Douglas County	some
27	043	Faribault County	some
27	045	Fillmore County	some
27	047	Freeborn County	half
27	049	Goodhue County	half
27	051	Grant County	some
27	053	Hennepin County	full
27	055	Houston County	half
27	057	Hubbard County	few
27	059	Isanti County	few
27	061	Itasca County	some
27	063	Jackson County	some
27	065	Kanabec County	few
27	067	Kandiyohi County	half
27	069	Kittson County	few
27	071	Koochiching County	some
27	073	Lac qui Parle County	some
27	075	Lake County++	some
27	077	Lake of the Woods County	few
27	079	Le Sueur County	some
27	081	Lincoln County	some
27	083	Lyon County	half
27	085	McLeod County	half
27	087	Mahnomen County	few
27	089	Marshall County	few
27	091	Martin County	half
27	093	Meeker County	some
27	095	Mille Lacs County	few
27	097	Morrison County	few
27	099	Mower County	majority
27	101	Murray County	some
27	103	Nicollet County	half
27	105	Nobles County	half
27	107	Norman County	some
27	109	Olmsted County	majority

27	111	Otter Tail County	few
27	113	Pennington County	half
27	115	Pine County	few
27	117	Pipestone County	half
27	119	Polk County	half
27	121	Pope County	few
27	123	Ramsey County	full
27	125	Red Lake County	few
27	127	Redwood County	some
27	129	Renville County	few
27	131	Rice County	majority
27	133	Rock County	half
27	135	Roseau County	few
27	137	St. Louis County++	majority
27	139	Scott County	majority
27	141	Sherburne County	majority
27	143	Sibley County	some
27	145	Stearns County	majority
27	147	Steele County	half
27	149	Stevens County	some
27	151	Swift County	some
27	153	Todd County	few
27	155	Traverse County	some
27	157	Wabasha County	half
27	159	Wadena County	some
27	161	Waseca County	half
27	163	Washington County	full
27	165	Watonwan County	half
27	167	Wilkin County	half
27	169	Winona County	half
27	171	Wright County	some
27	173	Yellow Medicine County	some
28		Mississippi	
28	001	Adams County	majority
28	003	Alcorn County	some
28	005	Amite County	few
28	007	Attala County	some
28	009	Benton County	few
28	011	Bolivar County	some
28	013	Calhoun County	few
28	015	Carroll County	few
28	017	Chickasaw County	some
28	019	Choctaw County	few
28	021	Claiborne County	few
28	023	Clarke County	few
28	025	Clay County	some
28	027	Coahoma County	half
28	029	Copiah County	some
28	031	Covington County	few
28	033	DeSoto County	majority
28	035	Forrest County	majority
28	037	Franklin County	few
28	039	George County	few
28	041	Greene County	few
28	043	Grenada County	half
28	045	Hancock County++	half
28	047	Harrison County++	majority
28	049	Hinds County	majority
28	051	Holmes County	some
28	053	Humphreys County	some
28	055	Issaquena County	none
28	057	Itawamba County	few
28	059	Jackson County++	majority
28	061	Jasper County	few
28	063	Jefferson County	few

28	065	Jefferson Davis County	none
28	067	Jones County	some
28	069	Kemper County	few
28	071	Lafayette County	some
28	073	Lamar County	some
28	075	Lauderdale County	half
28	077	Lawrence County	few
28	079	Leake County	few
28	081	Lee County	some
28	083	Leflore County	half
28	085	Lincoln County	some
28	087	Lowndes County	some
28	089	Madison County	half
28	091	Marion County	few
28	093	Marshall County	few
28	095	Monroe County	some
28	097	Montgomery County	few
28	099	Neshoba County	some
28	101	Newton County	few
28	103	Noxubee County	few
28	105	Oktibbeha County	some
28	107	Panola County	few
28	109	Pearl River County	few
28	111	Perry County	few
28	113	Pike County	some
28	115	Pontotoc County	few
28	117	Prentiss County	some
28	119	Quitman County	few
28	121	Rankin County	majority
28	123	Scott County	few
28	125	Sharkey County	some
28	127	Simpson County	few
28	129	Smith County	few
28	131	Stone County	few
28	133	Sunflower County	half
28	135	Tallahatchie County	few
28	137	Tate County	few
28	139	Tippah County	few
28	141	Tishomingo County	few
28	143	Tunica County	few
28	145	Union County	some
28	147	Walthall County	few
28	149	Warren County	half
28	151	Washington County	half
28	153	Wayne County	few
28	155	Webster County	few
28	157	Wilkinson County	few
28	159	Winston County	some
28	161	Yalobusha County	few
28	163	Yazoo County	some
29		Missouri	
29	001	Adair County	half
29	003	Andrew County	some
29	005	Atchison County	some
29	007	Audrain County	half
29	009	Barry County	few
29	011	Barton County	some
29	013	Bates County	some
29	015	Benton County	few
29	017	Bollinger County	none
29	019	Boone County	majority
29	021	Buchanan County	majority
29	023	Butler County	some
29	025	Caldwell County	few
29	027	Callaway County	some

29	029	Camden County	few
29	031	Cape Girardeau County	half
29	033	Carroll County	some
29	035	Carter County	few
29	037	Cass County	half
29	039	Cedar County	few
29	041	Chariton County	some
29	043	Christian County	some
29	045	Clark County	few
29	047	Clay County	full
29	049	Clinton County	some
29	051	Cole County	majority
29	053	Cooper County	some
29	055	Crawford County	few
29	057	Dade County	few
29	059	Dallas County	few
29	061	Daviess County	few
29	063	DeKalb County	few
29	065	Dent County	some
29	067	Douglas County	few
29	069	Dunklin County	half
29	071	Franklin County	some
29	073	Gasconade County	some
29	075	Gentry County	some
29	077	Greene County	majority
29	079	Grundy County	half
29	081	Harrison County	some
29	083	Henry County	half
29	085	Hickory County	few
29	087	Holt County	some
29	089	Howard County	some
29	091	Howell County	some
29	093	Iron County	few
29	095	Jackson County	full
29	097	Jasper County	majority
29	099	Jefferson County	majority
29	101	Johnson County	some
29	103	Knox County	few
29	105	Laclede County	some
29	107	Lafayette County	some
29	109	Lawrence County	some
29	111	Lewis County	few
29	113	Lincoln County	few
29	115	Linn County	half
29	117	Livingston County	half
29	119	McDonald County	few
29	121	Macon County	some
29	123	Madison County	some
29	125	Maries County	few
29	127	Marion County	majority
29	129	Mercer County	few
29	131	Miller County	few
29	133	Mississippi County	half
29	135	Moniteau County	few
29	137	Monroe County	some
29	139	Montgomery County	few
29	141	Morgan County	few
29	143	New Madrid County	some
29	145	Newton County	some
29	147	Nodaway County	some
29	149	Oregon County	few
29	151	Osage County	few
29	153	Ozark County	none
29	155	Pemiscot County	some
29	157	Perry County	some
29	159	Pettis County	half
29	161	Phelps County	some

29	163	Pike County	some
29	165	Platte County	majority
29	167	Polk County	some
29	169	Pulaski County	few
29	171	Putnam County	some
29	173	Ralls County	few
29	175	Randolph County	half
29	177	Ray County	some
29	179	Reynolds County	few
29	181	Ripley County	few
29	183	St. Charles County	majority
29	185	St. Clair County	few
29	186	Ste. Genevieve County	few
29	187	St. Francois County	half
29	189	St. Louis County	full
29	195	Saline County	half
29	197	Schuyler County	none
29	199	Scotland County	some
29	201	Scott County	half
29	203	Shannon County	few
29	205	Shelby County	some
29	207	Stoddard County	some
29	209	Stone County	few
29	211	Sullivan County	few
29	213	Taney County	few
29	215	Texas County	few
29	217	Vernon County	some
29	219	Warren County	some
29	221	Washington County	few
29	223	Wayne County	few
29	225	Webster County	few
29	227	Worth County	few
29	229	Wright County	few
29	510	St. Louis city	full
30		Montana	
30	001	Beaverhead County	half
30	003	Big Horn County	few
30	005	Blaine County	few
30	007	Broadwater County	some
30	009	Carbon County	few
30	011	Carter County	none
30	013	Cascade County	majority
30	015	Chouteau County	few
30	017	Custer County	majority
30	019	Daniels County	few
30	021	Dawson County	majority
30	023	Deer Lodge County	majority
30	025	Fallon County	few
30	027	Fergus County	half
30	029	Flathead County	majority
30	031	Gallatin County	majority
30	033	Garfield County	none
30	035	Glacier County	some
30	037	Golden Valley County	few
30	039	Granite County	few
30	041	Hill County	half
30	043	Jefferson County	some
30	045	Judith Basin County	few
30	047	Lake County	some
30	049	Lewis and Clark County	majority
30	051	Liberty County	few
30	053	Lincoln County	some
30	055	McCone County	few
30	057	Madison County	few
30	059	Meagher County	few

30	061	Mineral County	some
30	063	Missoula County	majority
30	065	Musselshell County	some
30	067	Park County	some
30	069	Petroleum County	few
30	071	Phillips County	some
30	073	Pondera County	some
30	075	Powder River County	few
30	077	Powell County	half
30	079	Prairie County	few
30	081	Ravalli County	half
30	083	Richland County	half
30	085	Roosevelt County	some
30	087	Rosebud County	few
30	089	Sanders County	some
30	091	Sheridan County	some
30	093	Silver Bow County	majority
30	095	Stillwater County	few
30	097	Sweet Grass County	few
30	099	Teton County	few
30	101	Toole County	some
30	103	Treasure County	some
30	105	Valley County	some
30	107	Wheatland County	few
30	109	Wibaux County	few
30	111	Yellowstone County	majority
30	113	Yellowstone National Park	none
31		Nebraska	
31	001	Adams County	majority
31	003	Antelope County	ome
31	005	Arthur County	none
31	007	Banner County	none
31	009	Blaine County	none
31	011	Boone County	some
31	013	Box Butte County	majority
31	015	Boyd County	none
31	017	Brown County	some
31	019	Buffalo County	half
31	021	Burt County	some
31	023	Butler County	some
31	025	Cass County	some
31	027	Cedar County	few
31	029	Chase County	some
31	031	Cherry County	some
31	033	Cheyenne County	half
31	035	Clay County	some
31	037	Colfax County	some
31	039	Cuming County	some
31	041	Custer County	some
31	043	Dakota County	half
31	045	Dawes County	majority
31	047	Dawson County	half
31	049	Deuel County	few
31	051	Dixon County	few
31	053	Dodge County	majority
31	055	Douglas County	full
31	057	Dundy County	some
31	059	Fillmore County	half
31	061	Franklin County	few
31	063	Frontier County	few
31	065	Furnas County	some
31	067	Gage County	half
31	069	Garden County	few
31	071	Garfield County	some

31	073	Gosper County	few
31	075	Grant County	few
31	077	Greeley County	few
31	079	Hall County	majority
31	081	Hamilton County	half
31	083	Harlan County	some
31	085	Hayes County	none
31	087	Hitchcock County	few
31	089	Holt County	some
31	091	Hooker County	few
31	093	Howard County	some
31	095	Jefferson County	half
31	097	Johnson County	some
31	099	Kearney County	some
31	101	Keith County	some
31	103	Keya Paha County	none
31	105	Kimball County	half
31	107	Knox County	few
31	109	Lancaster County	full
31	111	Lincoln County	majority
31	113	Logan County	some
31	115	Loup County	none
31	117	McPherson County	none
31	119	Madison County	majority
31	121	Merrick County	some
31	123	Morrill County	some
31	125	Nance County	half
31	127	Nemaha County	half
31	129	Nuckolls County	half
31	131	Otoe County	half
31	133	Pawnee County	few
31	135	Perkins County	few
31	137	Phelps County	majority
31	139	Pierce County	some
31	141	Platte County	majority
31	143	Polk County	few
31	145	Red Willow County	majority
31	147	Richardson County	half
31	149	Rock County	some
31	151	Saline County	half
31	153	Sarpy County	full
31	155	Saunders County	half
31	157	Scotts Bluff County	half
31	159	Seward County	half
31	161	Sheridan County	some
31	163	Sherman County	few
31	165	Sioux County	few
31	167	Stanton County	some
31	169	Thayer County	some
31	171	Thomas County	few
31	173	Thurston County	few
31	175	Valley County	some
31	177	Washington County	half
31	179	Wayne County	half
31	181	Webster County	some
31	183	Wheeler County	none
31	185	York County	half
32		Nevada	
32	001	Churchill County	majority
32	003	Clark County	full
32	005	Douglas County	half
32	007	Elko County	half
32	009	Esmeralda County	few
32	011	Eureka County	few
32	013	Humboldt County	half

32	015	Lander County	few
32	017	Lincoln County	few
32	019	Lyon County	half
32	021	Mineral County	some
32	023	Nye County	few
32	027	Pershing County	few
32	029	Storey County	some
32	031	Washoe County	majority
32	033	White Pine County	some
32	510	Carson City	full
33		New Hampshire	
33	001	Belknap County	some
33	003	Carroll County	few
33	005	Cheshire County	some
33	007	Coos County	some
33	009	Grafton County	few
33	011	Hillsborough County	majority
33	013	Merrimack County	half
33	015	Rockingham County++	majority
33	017	Strafford County	half
33	019	Sullivan County	some
34		New Jersey	
34	001	Atlantic County++	majority
34	003	Bergen County	full
34	005	Burlington County	majority
34	007	Camden County	majority
34	009	Cape May County++	majority
34	011	Cumberland County++	majority
34	013	Essex County	full
34	015	Gloucester County	majority
34	017	Hudson County	full
34	019	Hunterdon County	some
34	021	Mercer County	full
34	023	Middlesex County	full
34	025	Monmouth County++	majority
34	027	Morris County	majority
34	029	Ocean County++	majority
34	031	Passaic County	full
34	033	Salem County++	half
34	035	Somerset County	full
34	037	Sussex County	half
34	039	Union County	full
34	041	Warren County	half
35		New Mexico	
35	001	Bernalillo County	full
35	003	Catron County	none
35	005	Chaves County	majority
35	006	Cibola County	half
35	007	Colfax County	some
35	009	Curry County	majority
35	011	DeBaca County	few
35	013	Dona Ana County	half
35	015	Eddy County	majority
35	017	Grant County	some
35	019	Guadalupe County	some
35	021	Harding County	few
35	023	Hidalgo County	some
35	025	Lea County	majority
35	027	Lincoln County	some
35	028	Los Alamos County	full
35	029	Luna County	half

35	031	McKinley County	some
35	033	Mora County	few
35	035	Otero County	half
35	037	Quay County	half
35	039	Rio Arriba County	few
35	041	Roosevelt County	half
35	043	Sandoval County	half
35	045	San Juan County	some
35	047	San Miguel County	half
35	049	Santa Fe County	half
35	051	Sierra County	half
35	053	Socorro County	some
35	055	Taos County	few
35	057	Torrance County	few
35	059	Union County	half
35	061	Valencia County	majority
36		New York	
36	001	Albany County	majority
36	003	Allegany County	some
36	005	Bronx County	full
36	007	Broome County	majority
36	009	Cattaraugus County	half
36	011	Cayuga County++	some
36	013	Chautauqua County++	half
36	015	Chemung County	majority
36	017	Chenango County	few
36	019	Clinton County	some
36	021	Columbia County	few
36	023	Cortland County	majority
36	025	Delaware County	few
36	027	Dutchess County	half
36	029	Erie County++	full
36	031	Essex County	few
36	033	Franklin County	some
36	035	Fulton County	some
36	037	Genesee County	majority
36	039	Greene County	few
36	041	Hamilton County	few
36	043	Herkimer County	some
36	045	Jefferson County++	some
36	047	Kings County	full
36	049	Lewis County	few
36	051	Livingston County	majority
36	053	Madison County	some
36	055	Monroe County++	full
36	057	Montgomery County	half
36	059	Nassau County++	full
36	061	New York County	full
36	063	Niagara County++	full
36	065	Oneida County	half
36	067	Onondaga County	full
36	069	Ontario County	majority
36	071	Orange County	half
36	073	Orleans County++	majority
36	075	Oswego County++	some
36	077	Otsego County	few
36	079	Putnam County	some
36	081	Queens County++	full
36	083	Rensselaer County++	half
36	085	Richmond County	full
36	087	Rockland County	majority
36	089	St. Lawrence County	some
36	091	Saratoga County	half
36	093	Schenectady County	majority
36	095	Schoharie County	few

36	097	Schuyler County	some
36	099	Seneca County	half
36	101	Steuben County	half
36	103	Suffolk County++	majority
36	105	Sullivan County	few
36	107	Tioga County	some
36	109	Tompkins County	majority
36	111	Ulster County	some
36	113	Warren County	some
36	115	Washington County	some
36	117	Wayne County++	majority
36	119	Westchester County	majority
36	121	Wyoming County	majority
36	123	Yates County	half
37		North Carolina	
37	001	Alamance County	majority
37	003	Alexander County	few
37	005	Alleghany County	few
37	007	Anson County	few
37	009	Ashe County	few
37	011	Avery County	few
37	013	Beaufort County	some
37	015	Bertie County	few
37	017	Bladen County	few
37	019	Brunswick County++	some
37	021	Buncombe County	half
37	023	Burke County	some
37	025	Cabarrus County	majority
37	027	Caldwell County	some
37	029	Camden County	few
37	031	Carteret County++	some
37	033	Caswell County	few
37	035	Catawba County	some
37	037	Chatham County	few
37	039	Cherokee County	few
37	041	Chowan County	some
37	043	Clay County	few
37	045	Cleveland County	half
37	047	Columbus County	few
37	049	Craven County	majority
37	051	Cumberland County	majority
37	053	Currituck County++	few
37	055	Dare County++	some
37	057	Davidson County	some
37	059	Davie County	few
37	061	Duplin County	few
37	063	Durham County	full
37	065	Edgecombe County	half
37	067	Forsyth County	majority
37	069	Franklin County	few
37	071	Gaston County	majority
37	073	Gates County	none
37	075	Graham County	few
37	077	Granville County	some
37	079	Greene County	few
37	081	Guilford County	full
37	083	Halifax County	some
37	085	Harnett County	some
37	087	Haywood County	some
37	089	Henderson County	some
37	091	Hertford County	some
37	093	Hoke County	some
37	095	Hyde County++	few
37	097	Iredell County	some
37	099	Jackson County	few

37	101	Johnston County	some
37	103	Jones County	few
37	105	Lee County	majority
37	107	Lenoir County	half
37	109	Lincoln County	few
37	111	McDowell County	few
37	113	Macon County	some
37	115	Madison County	few
37	117	Martin County	few
37	119	Mecklenburg County	full
37	121	Mitchell County	few
37	123	Montgomery County	few
37	125	Moore County	some
37	127	Nash County	half
37	129	New Hanover County++	majority
37	131	Northampton County	few
37	133	Onslow County++	half
37	135	Orange County	half
37	137	Pamlico County	few
37	139	Pasquotank County	half
37	141	Pender County++	few
37	143	Perquimans County	few
37	145	Person County	some
37	147	Pitt County	half
37	149	Polk County	some
37	151	Randolph County	some
37	153	Richmond County	some
37	155	Robeson County	some
37	157	Rockingham County	some
37	159	Rowan County	half
37	161	Rutherford County	few
37	163	Sampson County	few
37	165	Scotland County	some
37	167	Stanly County	some
37	169	Stokes County	few
37	171	Surry County	half
37	173	Swain County	few
37	175	Transylvania County	some
37	177	Tyrrell County	few
37	179	Union County	majority
37	181	Vance County	some
37	183	Wake County	majority
37	185	Warren County	few
37	187	Washington County	some
37	189	Watauga County	few
37	191	Wayne County	half
37	193	Wilkes County	few
37	195	Wilson County	half
37	197	Yadkin County	few
37	199	Yancey County	few
38		North Dakota	
38	001	Adams County	few
38	003	Barnes County	half
38	005	Benson County	few
38	007	Billings County	none
38	009	Bottineau County	few
38	011	Bowman County	few
38	013	Burke County	none
38	015	Burleigh County	majority
38	017	Cass County	majority
38	019	Cavalier County	some
38	021	Dickey County	some
38	023	Divide County	few
38	025	Dunn County	few
38	027	Eddy County	some

38	029	Emmons County	few
38	031	Foster County	half
38	033	Golden Valley County	few
38	035	Grand Forks County	majority
38	037	Grant County	few
38	039	Griggs County	few
38	041	Hettinger County	few
38	043	Kidder County	few
38	045	LaMoure County	few
38	047	Logan County	few
38	049	McHenry County	few
38	051	McIntosh County	some
38	053	McKenzie County	few
38	055	McLean County	few
38	057	Mercer County	some
38	059	Morton County	majority
38	061	Mountrail County	few
38	063	Nelson County	few
38	065	Oliver County	few
38	067	Pembina County	few
38	069	Pierce County	half
38	071	Ramsey County	some
38	073	Ransom County	some
38	075	Renville County	few
38	077	Richland County	some
38	079	Rolette County	few
38	081	Sargent County	few
38	083	Sheridan County	few
38	085	Sioux County	few
38	087	Slope County	none
38	089	Stark County	half
38	091	Steele County	few
38	093	Stutsman County	half
38	095	Towner County	some
38	097	Traill County	some
38	099	Walsh County	some
38	101	Ward County	majority
38	103	Wells County	some
38	105	Williams County	half
39		Ohio	
39	001	Adams County	majority
39	003	Allen County	full
39	005	Ashland County	majority
39	007	Ashtabula County++	majority
39	009	Athens County	half
39	011	Auglaize County	half
39	013	Belmont County	half
39	015	Brown County	majority
39	017	Butler County	full
39	019	Carroll County	majority
39	021	Champaign County	majority
39	023	Clark County	full
39	025	Clermont County	majority
39	027	Clinton County	majority
39	029	Columbiana County	majority
39	031	Coshocton County	half
39	033	Crawford County	majority
39	035	Cuyahoga County++	full
39	037	Darke County	majority
39	039	Defiance County	majority
39	041	Delaware County	majority
39	043	Erie County++	majority
39	045	Fairfield County	majority
39	047	Fayette County	majority
39	049	Franklin County	full

39	051	Fulton County	majority
39	053	Gallia County	few
39	055	Geauga County	majority
39	057	Greene County	full
39	059	Guernsey County	majority
39	061	Hamilton County	full
39	063	Hancock County	majority
39	065	Hardin County	half
39	067	Harrison County	half
39	069	Henry County	half
39	071	Highland County	majority
39	073	Hocking County	majority
39	075	Holmes County	some
39	077	Huron County	majority
39	079	Jackson County	majority
39	081	Jefferson County	half
39	083	Knox County	majority
39	085	Lake County++	full
39	087	Lawrence County	some
39	089	Licking County	majority
39	091	Logan County	half
39	093	Lorain County++	full
39	095	Lucas County+	full
39	097	Madison County	majority
39	099	Mahoning County	full
39	101	Marion County	full
39	103	Medina County	majority
39	105	Meigs County	half
39	107	Mercer County	majority
39	109	Miami County	majority
39	111	Monroe County	half
39	113	Montgomery County	full
39	115	Morgan County	few
39	117	Morrow County	half
39	119	Muskingum County	majority
39	121	Noble County	some
39	123	Ottawa County++	majority
39	125	Paulding County	few
39	127	Perry County	half
39	129	Pickaway County	majority
39	131	Pike County	majority
39	133	Portage County	full
39	135	Preble County	majority
39	137	Putnam County	half
39	139	Richland County	majority
39	141	Ross County	majority
39	143	Sandusky County	majority
39	145	Scioto County	half
39	147	Seneca County	majority
39	149	Shelby County	majority
39	151	Stark County	full
39	153	Summit County	full
39	155	Trumbull County	majority
39	157	Tuscarawas County	half
39	159	Union County	half
39	161	Van Wert County	half
39	163	Vinton County	few
39	165	Warren County	majority
39	167	Washington County	some
39	169	Wayne County	full
39	171	Williams County	half
39	173	Wood County	majority
39	175	Wyandot County	majority
40		Oklahoma	
40	001	Adair County	few

40	003	Alfalfa County	few
40	005	Atoka County	few
40	007	Beaver County	few
40	009	Beckham County	half
40	011	Blaine County	some
40	013	Bryan County	some
40	015	Caddo County	some
40	017	Canadian County	majority
40	019	Carter County	half
40	021	Cherokee County	few
40	023	Choctaw County	some
40	025	Cimarron County	few
40	027	Cleveland County	majority
40	029	Coal County	few
40	031	Comanche County	majority
40	033	Cotton County	some
40	035	Craig County	some
40	037	Creek County	half
40	039	Custer County	half
40	041	Delaware County	few
40	043	Dewey County	few
40	045	Ellis County	some
40	047	Garfield County	majority
40	049	Garvin County	some
40	051	Grady County	half
40	053	Grant County	some
40	055	Greer County	half
40	057	Harmon County	some
40	059	Harper County	some
40	061	Haskell County	few
40	063	Hughes County	some
40	065	Jackson County	majority
40	067	Jefferson County	some
40	069	Johnston County	few
40	071	Kay County	majority
40	073	Kingfisher County	some
40	075	Kiowa County	some
40	077	Latimer County	few
40	079	Le Flore County	few
40	081	Lincoln County	some
40	083	Logan County	half
40	085	Love County	some
40	087	McClain County	some
40	089	McCurtain County	some
40	091	McIntosh County	few
40	093	Major County	some
40	095	Marshall County	few
40	097	Mayes County	some
40	099	Murray County	some
40	101	Muskogee County	some
40	103	Noble County	half
40	105	Nowata County	some
40	107	Okfuskee County	few
40	109	Oklahoma County	full
40	111	Okmulgee County	half
40	113	Osage County	some
40	115	Ottawa County	some
40	117	Pawnee County	some
40	119	Payne County	majority
40	121	Pittsburg County	some
40	123	Pontotoc County	some
40	125	Pottawatomie County	half
40	127	Pushmataha County	few
40	129	Roger Mills County	few
40	131	Rogers County	some
40	133	Seminole County	some
40	135	Sequoyah County	few

40	137	Stephens County	half
40	139	Texas County	half
40	141	Tillman County	some
40	143	Tulsa County	full
40	145	Wagoner County	some
40	147	Washington County	majority
40	149	Washita County	some
40	151	Woods County	half
40	153	Woodward County	half
41		Oregon	
41	001	Baker County	half
41	003	Benton County	full
41	005	Clackamas County	full
41	007	Clatsop County	half
41	009	Columbia County	majority
41	011	Coos County	majority
41	013	Crook County	half
41	015	Curry County	some
41	017	Deschutes County	majority
41	019	Douglas County	majority
41	021	Gilliam County	few
41	023	Grant County	some
41	025	Harney County	some
41	027	Hood River County	majority
41	029	Jackson County	majority
41	031	Jefferson County	half
41	033	Josephine County	majority
41	035	Klamath County	majority
41	037	Lake County	few
41	039	Lane County	full
41	041	Lincoln County	majority
41	043	Linn County	majority
41	045	Malheur County	majority
41	047	Marion County	full
41	049	Morrow County	few
41	051	Multnomah County	full
41	053	Polk County	full
41	055	Sherman County	few
41	057	Tillamook County	half
41	059	Umatilla County	half
41	061	Union County	majority
41	063	Wallowa County	some
41	065	Wasco County	majority
41	067	Washington County	full
41	069	Wheeler County	few
41	071	Yamhill County	majority
42		Pennsylvania	
42	001	Adams County	majority
42	003	Allegheny County	full
42	005	Armstrong County	some
42	007	Beaver County	majority
42	009	Bedford County	few
42	011	Berks County	half
42	013	Blair County	half
42	015	Bradford County	some
42	017	Bucks County	majority
42	019	Butler County	half
42	021	Cambria County	half
42	023	Cameron County	few
42	025	Carbon County	some
42	027	Centre County	half
42	029	Chester County	majority
42	031	Clarion County	few

42	033	Clearfield County	some
42	035	Clinton County	some
42	037	Columbia County	half
42	039	Crawford County	some
42	041	Cumberland County	majority
42	043	Dauphin County	majority
42	045	Delaware County	full
42	047	Elk County	half
42	049	Erie County++	full
42	051	Fayette County	some
42	053	Forest County	few
42	055	Franklin County	majority
42	057	Fulton County	few
42	059	Greene County	few
42	061	Huntingdon County	few
42	063	Indiana County	some
42	065	Jefferson County	some
42	067	Juniata County	few
42	069	Lackawanna County	majority
42	071	Lancaster County	majority
42	073	Lawrence County	half
42	075	Lebanon County	majority
42	077	Lehigh County	majority
42	079	Luzerne County	majority
42	081	Lycoming County	half
42	083	McKean County	half
42	085	Mercer County	majority
42	087	Mifflin County	some
42	089	Monroe County	few
42	091	Montgomery County	majority
42	093	Montour County	some
42	095	Northampton County	majority
42	097	Northumberland County	half
42	099	Perry County	some
42	101	Philadelphia County	full
42	103	Pike County	few
42	105	Potter County	few
42	107	Schuylkill County	half
42	109	Snyder County	few
42	111	Somerset County	some
42	113	Sullivan County	few
42	115	Susquehanna County	few
42	117	Tioga County	few
42	119	Union County	some
42	121	Venango County	some
42	123	Warren County	some
42	125	Washington County	half
42	127	Wayne County	few
42	129	Westmoreland County	half
42	131	Wyoming County	few
42	133	York County	majority
44		Rhode Island	
44	001	Bristol County	full
44	003	Kent County	full
44	005	Newport County++	full
44	007	Providence County	full
44	009	Washington County++	majority
45		South Carolina	
45	001	Abbeville County	some
45	003	Aiken County	half
45	005	Allendale County	few
45	007	Anderson County	half
45	009	Bamberg County	some

45	011	Barnwell County	some
45	013	Beaufort County	some
45	015	Berkeley County	half
45	017	Calhoun County	few
45	019	Charleston County	majority
45	021	Cherokee County	some
45	023	Chester County	some
45	025	Chesterfield County	few
45	027	Clarendon County	few
45	029	Colleton County	some
45	031	Darlington County	some
45	033	Dillon County	some
45	035	Dorchester County	majority
45	037	Edgefield County	some
45	039	Fairfield County	few
45	041	Florence County	half
45	043	Georgetown County	some
45	045	Greenville County	majority
45	047	Greenwood County	half
45	049	Hampton County	few
45	051	Horry County	some
45	053	Jasper County	few
45	055	Kershaw County	majority
45	057	Lancaster County	some
45	059	Laurens County	some
45	061	Lee County	some
45	063	Lexington County	majority
45	065	McCormick County	few
45	067	Marion County	some
45	069	Marlboro County	some
45	071	Newberry County	some
45	073	Oconee County	some
45	075	Orangeburg County	some
45	077	Pickens County	half
45	079	Richland County	majority
45	081	Saluda County	few
45	083	Spartanburg County	majority
45	085	Sumter County	half
45	087	Union County	some
45	089	Williamsburg County	few
45	091	York County	majority
46		South Dakota	
46	003	Aurora County	few
46	005	Beadle County	half
46	007	Bennett County	few
46	009	Bon Homme County	few
46	011	Brookings County	half
46	013	Brown County	majority
46	015	Brule County	some
46	017	Buffalo County	none
46	019	Butte County	half
46	021	Campbell County	none
46	023	Charles Mix County	few
46	025	Clark County	some
46	027	Clay County	half
46	029	Codington County	majority
46	031	Corson County	few
46	033	Custer County	few
46	035	Davison County	majority
46	037	Day County	few
46	039	Deuel County	few
46	041	Dewey County	few
46	043	Douglas County	few
46	045	Edmunds County	some
46	047	Fall River County	some

46	049	Faulk County	few
46	051	Grant County	some
46	053	Gregory County	few
46	055	Haakon County	some
46	057	Hamlin County	few
46	059	Hand County	some
46	061	Hanson County	few
46	063	Harding County	none
46	065	Hughes County	majority
46	067	Hutchinson County	few
46	069	Hyde County	some
46	071	Jackson County	few
46	073	Jerauld County	some
46	075	Jones County	none
46	077	Kingsbury County	some
46	079	Lake County	some
46	081	Lawrence County	half
46	083	Lincoln County	some
46	085	Lyman County	few
46	087	McCook County	some
46	089	McPherson County	few
46	091	Marshall County	few
46	093	Meade County	half
46	095	Mellette County	few
46	097	Miner County	some
46	099	Minnehaha County	majority
46	101	Moody County	few
46	103	Pennington County	majority
46	105	Perkins County	some
46	107	Potter County	some
46	109	Roberts County	few
46	111	Sanborn County	few
46	113	Shannon County	none
46	115	Spink County	some
46	117	Stanley County	some
46	119	Sully County	few
46	121	Todd County	few
46	123	Tripp County	some
46	125	Turner County	few
46	127	Union County	some
46	129	Walworth County	half
46	135	Yankton County	half
46	137	Ziebach County	few
47		Tennessee	
47	001	Anderson County	half
47	003	Bedford County	half
47	005	Benton County	few
47	007	Bledsoe County	few
47	009	Blount County	some
47	011	Bradley County	half
47	013	Campbell County	few
47	015	Cannon County	few
47	017	Carroll County	some
47	019	Carter County	few
47	021	Cheatham County	some
47	023	Chester County	some
47	025	Claiborne County	few
47	027	Clay County	few
47	029	Cocke County	few
47	031	Coffee County	half
47	033	Crockett County	few
47	035	Cumberland County	few
47	037	Davidson County	full
47	039	Decatur County	few
47	041	DeKalb County	few

47	043	Dickson County	some
47	045	Dyer County	half
47	047	Fayette County	few
47	049	Fentress County	few
47	051	Franklin County	few
47	053	Gibson County	half
47	055	Giles County	some
47	057	Grainger County	few
47	059	Greene County	few
47	061	Grundy County	few
47	063	Hamblen County	majority
47	065	Hamilton County	full
47	067	Hancock County	few
47	069	Hardeman County	some
47	071	Hardin County	some
47	073	Hawkins County	few
47	075	Haywood County	some
47	077	Henderson County	few
47	079	Henry County	some
47	081	Hickman County	few
47	083	Houston County	few
47	085	Humphreys County	some
47	087	Jackson County	few
47	089	Jefferson County	few
47	091	Johnson County	few
47	093	Knox County	full
47	095	Lake County	half
47	097	Lauderdale County	few
47	099	Lawrence County	some
47	101	Lewis County	some
47	103	Lincoln County	few
47	105	Loudon County	few
47	107	McMinn County	some
47	109	McNairy County	few
47	111	Macon County	few
47	113	Madison County	majority
47	115	Marion County	few
47	117	Marshall County	some
47	119	Maury County	half
47	121	Meigs County	few
47	123	Monroe County	few
47	125	Montgomery County	majority
47	127	Moore County	few
47	129	Morgan County	few
47	131	Obion County	some
47	133	Overton County	few
47	135	Perry County	few
47	137	Pickett County	few
47	139	Polk County	few
47	141	Putnam County	some
47	143	Rhea County	few
47	145	Roane County	few
47	147	Robertson County	half
47	149	Rutherford County	majority
47	151	Scott County	few
47	153	Sequatchie County	few
47	155	Sevier County	some
47	157	Shelby County	full
47	159	Smith County	few
47	161	Stewart County	few
47	163	Sullivan County	majority
47	165	Sumner County	majority
47	167	Tipton County	few
47	169	Trousdale County	some
47	171	Unicoi County	some
47	173	Union County	few
47	175	Van Buren County	none

47	177	Warren County	some
47	179	Washington County	half
47	181	Wayne County	few
47	183	Weakley County	some
47	185	White County	few
47	187	Williamson County	majority
47	189	Wilson County	half
48		Texas	
48	001	Anderson County	some
48	003	Andrews County	majority
48	005	Angelina County	some
48	007	Aransas County	some
48	009	Archer County	some
48	011	Armstrong County	some
48	013	Atascosa County	some
48	015	Austin County	half
48	017	Bailey County	some
48	019	Bandera County	few
48	021	Bastrop County	some
48	023	Baylor County	half
48	025	Bee County	half
48	027	Bell County	majority
48	029	Bexar County	full
48	031	Blanco County	few
48	033	Borden County	none
48	035	Bosque County	few
48	037	Bowie County	half
48	039	Brazoria County	half
48	041	Brazos County	majority
48	043	Brewster County	few
48	045	Briscoe County	some
48	047	Brooks County	half
48	049	Brown County	half
48	051	Burleson County	few
48	053	Burnet County	some
48	055	Caldwell County	half
48	057	Calhoun County	some
48	059	Callahan County	few
48	061	Cameron County	majority
48	063	Camp County	some
48	065	Carson County	half
48	067	Cass County	few
48	069	Castro County	some
48	071	Chambers County	some
48	073	Cherokee County	few
48	075	Childress County	few
48	077	Clay County	some
48	079	Cochran County	half
48	081	Coke County	some
48	083	Coleman County	half
48	085	Collin County	majority
48	087	Collingsworth County	half
48	089	Colorado County	some
48	091	Comal County	half
48	093	Comanche County	some
48	095	Concho County	few
48	097	Cooke County	half
48	099	Coryell County	majority
48	101	Cottle County	half
48	103	Crane County	half
48	105	Crockett County	some
48	107	Crosby County	some
48	109	Culberson County	some
48	111	Dallam County	majority
48	113	Dallas County	full

48	115	Dawson County	half
48	117	Deaf Smith County	half
48	119	Delta County	some
48	121	Denton County	majority
48	123	DeWitt County	some
48	125	Dickens County	some
48	127	Dimmit County	half
48	129	Donley County	few
48	131	Duval County	few
48	133	Eastland County	some
48	135	Ector County	majority
48	137	Edwards County	none
48	139	Ellis County	half
48	141	El Paso County	full
48	143	Erath County	half
48	145	Falls County	some
48	147	Fannin County	some
48	149	Fayette County	few
48	151	Fisher County	some
48	153	Floyd County	some
48	155	Foard County	few
48	157	Fort Bend County	majority
48	159	Franklin County	few
48	161	Freestone County	few
48	163	Frio County	some
48	165	Gaines County	some
48	167	Galveston County	majority
48	169	Garza County	some
48	171	Gillespie County	some
48	173	Glasscock County	none
48	175	Goliad County	few
48	177	Gonzales County	some
48	179	Gray County	majority
48	181	Grayson County	half
48	183	Gregg County	majority
48	185	Grimes County	few
48	187	Guadalupe County	half
48	189	Hale County	majority
48	191	Hall County	half
48	193	Hamilton County	few
48	195	Hansford County	majority
48	197	Hardeman County	some
48	199	Hardin County	few
48	201	Harris County	full
48	203	Harrison County	some
48	205	Hartley County	half
48	207	Haskell County	few
48	209	Hays County	half
48	211	Hemphill County	half
48	213	Henderson County	few
48	215	Hidalgo County	half
48	217	Hill County	some
48	219	Hockley County	half
48	221	Hood County	some
48	223	Hopkins County	some
48	225	Houston County	few
48	227	Howard County	majority
48	229	Hudspeth County	none
48	231	Hunt County	some
48	233	Hutchinson County	majority
48	235	Irion County	some
48	237	Jack County	some
48	239	Jackson County	some
48	241	Jasper County	few
48	243	Jeff Davis County	none
48	245	Jefferson County	full
48	247	Jim Hogg County	half

48	249	Jim Wells County	half
48	251	Johnson County	half
48	253	Jones County	some
48	255	Karnes County	some
48	257	Kaufman County	some
48	259	Kendall County	some
48	261	Kenedy County	none
48	263	Kent County	none
48	265	Kerr County	half
48	267	Kimble County	some
48	269	King County	none
48	271	Kinney County	few
48	273	Kleberg County	majority
48	275	Knox County	some
48	277	Lamar County	half
48	279	Lamb County	half
48	281	Lampasas County	some
48	283	La Salle County	some
48	285	Lavaca County	some
48	287	Lee County	few
48	289	Leon County	few
48	291	Liberty County	few
48	293	Limestone County	some
48	295	Lipscomb County	half
48	297	Live Oak County	few
48	299	Llano County	few
48	301	Loving County	none
48	303	Lubbock County	majority
48	305	Lynn County	few
48	307	McCulloch County	half
48	309	McLennan County	majority
48	311	McMullen County	none
48	313	Madison County	some
48	315	Marion County	few
48	317	Martin County	few
48	319	Mason County	few
48	321	Matagorda County	some
48	323	Maverick County	half
48	325	Medina County	some
48	327	Menard County	few
48	329	Midland County	majority
48	331	Milam County	some
48	333	Mills County	few
48	335	Mitchell County	some
48	337	Montague County	some
48	339	Montgomery County	half
48	341	Moore County	majority
48	343	Morris County	some
48	345	Motley County	few
48	347	Nacogdoches County	some
48	349	Navarro County	half
48	351	Newton County	few
48	353	Nolan County	majority
48	355	Nueces County	full
48	357	Ochiltree County	majority
48	359	Oldham County	some
48	361	Orange County	majority
48	363	Palo Pinto County	some
48	365	Panola County	some
48	367	Parker County	half
48	369	Parmer County	some
48	371	Pecos County	half
48	373	Polk County	few
48	375	Potter County	full
48	377	Presidio County	few
48	379	Rains County	few
48	381	Randall County	majority

48	383	Reagan County	half
48	385	Real County	few
48	387	Red River County	some
48	389	Reeves County	half
48	391	Refugio County	some
48	393	Roberts County	some
48	395	Robertson County	some
48	397	Rockwall County	majority
48	399	Runnels County	half
48	401	Rusk County	some
48	403	Sabine County	few
48	405	San Augustine County	few
48	407	San Jacinto County	few
48	409	San Patricio County	half
48	411	San Saba County	some
48	413	Schleicher County	few
48	415	Scurry County	half
48	417	Shackelford County	some
48	419	Shelby County	few
48	421	Sherman County	half
48	423	Smith County	half
48	425	Somervell County	few
48	427	Starr County	few
48	429	Stephens County	half
48	431	Sterling County	few
48	433	Stonewall County	few
48	435	Sutton County	some
48	437	Swisher County	half
48	439	Tarrant County	full
48	441	Taylor County	majority
48	443	Terrell County	some
48	445	Terry County	majority
48	447	Throckmorton County	few
48	449	Titus County	some
48	451	Tom Green County	majority
48	453	Travis County	full
48	455	Trinity County	few
48	457	Tyler County	few
48	459	Upshur County	few
48	461	Upton County	half
48	463	Uvalde County	half
48	465	Val Verde County	majority
48	467	Van Zandt County	few
48	469	Victoria County	majority
48	471	Walker County	few
48	473	Waller County	few
48	475	Ward County	majority
48	477	Washington County	some
48	479	Webb County	majority
48	481	Wharton County	half
48	483	Wheeler County	half
48	485	Wichita County	full
48	487	Wilbarger County	majority
48	489	Willacy County	some
48	491	Williamson County	majority
48	493	Wilson County	few
48	495	Winkler County	majority
48	497	Wise County	few
48	499	Wood County	few
48	501	Yoakum County	some
48	503	Young County	half
48	505	Zapata County	few
48	507	Zavala County	half
49		Utah	
49	001	Beaver County	few

49	003	Box Elder County	some
49	005	Cache County	few
49	007	Carbon County	some
49	009	Daggett County	few
49	011	Davis County	half
49	013	Duchesne County	few
49	015	Emery County	few
49	017	Garfield County	few
49	019	Grand County	half
49	021	Iron County	some
49	023	Juab County	few
49	025	Kane County	few
49	027	Millard County	few
49	029	Morgan County	some
49	031	Piute County	few
49	033	Rich County	few
49	035	Salt Lake County	majority
49	037	San Juan County	few
49	039	Sanpete County	few
49	041	Sevier County	few
49	043	Summit County	some
49	045	Tooele County	half
49	047	Uintah County	few
49	049	Utah County	some
49	051	Wasatch County	few
49	053	Washington County	some
49	055	Wayne County	few
49	057	Weber County	half
50		Vermont	
50	001	Addison County	few
50	003	Bennington County	few
50	005	Caledonia County	few
50	007	Chittenden County	majority
50	009	Essex County	none
50	011	Franklin County	some
50	013	Grand Isle County	few
50	015	Lamoille County	few
50	017	Orange County	few
50	019	Orleans County	few
50	021	Rutland County	some
50	023	Washington County	some
50	025	Windham County	few
50	027	Windsor County	few
51		Virginia	
51	001	Accomack County++	few
51	003	Albemarle County	some
51	005	Alleghany County	few
51	007	Amelia County	few
51	009	Amherst County	some
51	011	Appomattox County	few
51	013	Arlington County	full
51	015	Augusta County	few
51	017	Bath County	none
51	019	Bedford County	few
51	021	Bland County	none
51	023	Botetourt County	few
51	025	Brunswick County	few
51	027	Buchanan County	few
51	029	Buckingham County	none
51	031	Campbell County	few
51	033	Caroline County	few
51	035	Carroll County	few
51	036	Charles City County	few

51	037	Charlotte County	few
51	041	Chesterfield County	full
51	043	Clarke County	some
51	045	Craig County	few
51	047	Culpeper County	some
51	049	Cumberland County	few
51	051	Dickenson County	few
51	053	Dinwiddie County	few
51	057	Essex County	few
51	059	Fairfax County	full
51	061	Fauquier County	some
51	063	Floyd County	few
51	065	Fluvanna County	few
51	067	Franklin County	few
51	069	Frederick County	some
51	071	Giles County	some
51	073	Gloucester County	few
51	075	Goochland County	half
51	077	Grayson County	few
51	079	Greene County	few
51	081	Greensville County	few
51	083	Halifax County	few
51	085	Hanover County	half
51	087	Henrico County	full
51	089	Henry County	few
51	091	Highland County	none
51	093	Isle of Wight County	some
51	095	James City County	majority
51	097	King and Queen County	none
51	099	King George County	few
51	101	King William County	few
51	103	Lancaster County++	few
51	105	Lee County	few
51	107	Loudoun County	half
51	109	Louisa County	few
51	111	Lunenburg County	few
51	113	Madison County	few
51	115	Mathews County++	none
51	117	Mecklenburg County	few
51	119	Middlesex County++	none
51	121	Montgomery County	half
51	125	Nelson County	few
51	127	New Kent County	few
51	131	Northampton County++	few
51	133	Northumberland County++	few
51	135	Nottoway County	some
51	137	Orange County	some
51	139	Page County	some
51	141	Patrick County	few
51	143	Pittsylvania County	few
51	145	Powhatan County	half
51	147	Prince Edward County	few
51	149	Prince George County	half
51	153	Prince William County	full
51	155	Pulaski County	some
51	157	Rappahannock County	none
51	159	Richmond County	few
51	161	Roanoke County	majority
51	163	Rockbridge County	few
51	165	Rockingham County	few
51	167	Russell County	few
51	169	Scott County	few
51	171	Shenandoah County	few
51	173	Smyth County	few
51	175	Southampton County	few
51	177	Spotsylvania County	half

51	179	Stafford County	majority
51	181	Surry County	none
51	183	Sussex County	few
51	185	Tazewell County	few
51	187	Warren County	half
51	191	Washington County	few
51	193	Westmoreland County	some
51	195	Wise County	few
51	197	Wythe County	some
51	199	York County	majority
51	510	Alexandria city	full
51	515	Bedford city	few
51	520	Bristol city	full
51	530	Buena Vista city	some
51	540	Charlottesville city	full
51	550	Chesapeake city	full
51	560	Clifton Forge city	some
51	570	Colonial Heights city	full
51	580	Covington city	half
51	590	Danville city	full
51	595	Emporia city	some
51	600	Fairfax city	full
51	610	Falls Church city	full
51	620	Franklin city	some
51	630	Fredericksburg city	half
51	640	Galax city	few
51	650	Hampton city++	full
51	660	Harrisonburg city	some
51	670	Hopewell city	half
51	678	Lexington city	some
51	680	Lynchburg city	full
51	683	Manassas city	full
51	685	Manassas Park city	full
51	690	Martinsville city	some
51	700	Newport News city	full
51	710	Norfolk city+	full
51	720	Norton city	few
51	730	Petersburg city	full
51	735	Poquoson city++	full
51	740	Portsmouth city	full
51	750	Radford city	half
51	760	Richmond city	full
51	770	Roanoke city	full
51	775	Salem city	full
51	780	South Boston city	few
51	790	Staunton city	some
51	800	Suffolk city	full
51	810	Virginia Beach city++	full
51	820	Waynesboro city	half
51	830	Williamsburg city	full
51	840	Winchester city	half
53		Washington	
53	001	Adams County	half
53	003	Asotin County	full
53	005	Benton County	majority
53	007	Chelan County	majority
53	009	Clallam County	half
53	011	Clark County	full
53	013	Columbia County	half
53	015	Cowlitz County	majority
53	017	Douglas County	majority
53	019	Ferry County	few
53	021	Franklin County	majority
53	023	Garfield County	some
53	025	Grant County	half

53	027	Grays Harbor County	half
53	029	Island County	majority
53	031	Jefferson County	half
53	033	King County	full
53	035	Kitsap County	majority
53	037	Kittitas County	some
53	039	Klickitat County	some
53	041	Lewis County	majority
53	043	Lincoln County	few
53	045	Mason County	few
53	047	Okanogan County	few
53	049	Pacific County	few
53	051	Pend Oreille County	few
53	053	Pierce County	majority
53	055	San Juan County	some
53	057	Skagit County	majority
53	059	Skamania County	few
53	061	Snohomish County	majority
53	063	Spokane County	full
53	065	Stevens County	some
53	067	Thurston County	full
53	069	Wahkiakum County	half
53	071	Walla Walla County	majority
53	073	Whatcom County	majority
53	075	Whitman County	few
53	077	Yakima County	majority
54		West Virginia	
54	001	Barbour County	few
54	003	Berkeley County	some
54	005	Boone County	few
54	007	Braxton County	few
54	009	Brooke County	half
54	011	Cabell County	majority
54	013	Calhoun County	few
54	015	Clay County	few
54	017	Doddridge County	few
54	019	Fayette County	few
54	021	Gilmer County	few
54	023	Grant County	few
54	025	Greenbrier County	some
54	027	Hampshire County	few
54	029	Hancock County	half
54	031	Hardy County	few
54	033	Harrison County	half
54	035	Jackson County	some
54	037	Jefferson County	few
54	039	Kanawha County	majority
54	041	Lewis County	some
54	043	Lincoln County	few
54	045	Logan County	few
54	047	McDowell County	few
54	049	Marion County	some
54	051	Marshall County	half
54	053	Mason County	few
54	055	Mercer County	some
54	057	Mineral County	some
54	059	Mingo County	few
54	061	Monongalia County	half
54	063	Monroe County	few
54	065	Morgan County	few
54	067	Nicholas County	few
54	069	Ohio County	majority
54	071	Pendleton County	none
54	073	Pleasants County	some
54	075	Pocahontas County	few

54	077	Preston County	few
54	079	Putnam County	some
54	081	Raleigh County	some
54	083	Randolph County	few
54	085	Ritchie County	few
54	087	Roane County	few
54	089	Summers County	few
54	091	Taylor County	some
54	093	Tucker County	few
54	095	Tyler County	some
54	097	Upshur County	some
54	099	Wayne County	some
54	101	Webster County	few
54	103	Wetzel County	some
54	105	Wirt County	few
54	107	Wood County	half
54	109	Wyoming County	few
55		Wisconsin	
55	001	Adams County	majority
55	003	Ashland County++	some
55	005	Barron County	half
55	007	Bayfield County++	few
55	009	Brown County	full
55	011	Buffalo County	few
55	013	Burnett County	half
55	015	Calumet County	half
55	017	Chippewa County	half
55	019	Clark County	some
55	021	Columbia County	half
55	023	Crawford County	some
55	025	Dane County	full
55	027	Dodge County	half
55	029	Door County++	half
55	031	Douglas County++	half
55	033	Dunn County	some
55	035	Eau Claire County	majority
55	037	Florence County	few
55	039	Fond du Lac County	majority
55	041	Forest County	few
55	043	Grant County	majority
55	045	Green County	half
55	047	Green Lake County	some
55	049	Iowa County	some
55	051	Iron County++	few
55	053	Jackson County	some
55	055	Jefferson County	half
55	057	Juneau County	some
55	059	Kenosha County++	majority
55	061	Kewaunee County++	half
55	063	La Crosse County	majority
55	065	Lafayette County	majority
55	067	Langlade County	some
55	069	Lincoln County	some
55	071	Manitowoc County++	majority
55	073	Marathon County	majority
55	075	Marinette County++	some
55	077	Marquette County	few
55	078	Menominee County	few
55	079	Milwaukee County++	full
55	081	Monroe County	some
55	083	Oconto County++	half
55	085	Oneida County	half
55	087	Outagamie County	majority
55	089	Ozaukee County++	majority
55	091	Pepin County	some

55	093	Pierce County	some
55	095	Polk County	few
55	097	Portage County	majority
55	099	Price County	few
55	101	Racine County++	full
55	103	Richland County	few
55	105	Rock County	majority
55	107	Rusk County	some
55	109	St. Croix County	half
55	111	Sauk County	half
55	113	Sawyer County	few
55	115	Shawano County	some
55	117	Sheboygan County++	majority
55	119	Taylor County	some
55	121	Trempealeau County	some
55	123	Vernon County	few
55	125	Vilas County	some
55	127	Walworth County	some
55	129	Washburn County	few
55	131	Washington County	majority
55	133	Waukesha County	half
55	135	Waupaca County	some
55	137	Waushara County	few
55	139	Winnebago County++	full
55	141	Wood County	majority
56		Wyoming	
56	001	Albany County	majority
56	003	Big Horn County	some
56	005	Campbell County	majority
56	007	Carbon County	half
56	009	Converse County	majority
56	011	Crook County	few
56	013	Fremont County	half
56	015	Goshen County	some
56	017	Hot Springs County	half
56	019	Johnson County	half
56	021	Laramie County	majority
56	023	Lincoln County	some
56	025	Natrona County	majority
56	027	Niobrara County	few
56	029	Park County	half
56	031	Platte County	half
56	033	Sheridan County	majority
56	035	Sublette County	some
56	037	Sweetwater County	majority
56	039	Teton County	few
56	041	Uinta County	half
56	043	Washakie County	majority
56	045	Weston County	half
60		American Samoa	
60	010	Eastern District+	
60	020	Manu'a District+	
60	030	Rose Island	
60	040	Swains Island	
60	050	Western District+	
64		Federated States of Micronesia	
64	002	Chuuk State	
64	005	Kosrae State++	
64	040	Pohnpei State	
64	060	Yap State	

66 Guam

66 010 Guam+

68 Marshall Islands

68 007 Ailinginae Municipality
68 010 Ailinglaplap Municipality
68 030 Ailuk Municipality
68 040 Arno Municipality
68 050 Aur Municipality
68 060 Bikar Municipality
68 070 Bikini Municipality
68 073 Bokak Municipality
68 080 Ebon Municipality
68 090 Enewetak Municipality
68 100 Erikub Municipality
68 110 Jabat Municipality
68 120 Jaluit Municipality
68 130 Jemo Municipality
68 140 Kili Municipality
68 150 Kwajalein Municipality
68 160 Lae Municipality
68 170 Lib Municipality
68 180 Likiep Municipality
68 190 Majuro Municipality
68 300 Maloelap Municipality
68 310 Mejit Municipality
68 320 Mili Municipality
68 330 Namorik Municipality
68 340 Namu Municipality
68 350 Rongelap Municipality
68 360 Rongrik Municipality
68 385 Toke Municipality
68 390 Ujae Municipality
68 400 Ujelang Municipality
68 410 Utrik Municipality
68 420 Wotho Municipality
68 430 Wotje Municipality

69 Northern Mariana Islands

69 085 Northern Islands Municipality
69 100 Rota Municipality
69 110 Saipan Municipality
69 120 Tinian Municipality

70 Palau

70 002 Aimeliik State
70 004 Airai State
70 010 Angaur State
70 050 Hatobohei State
70 100 Kayangel State
70 150 Koror State
70 212 Melekeok State
70 214 Ngaraard State
70 218 Ngarchelong State
70 222 Ngardmau State
70 224 Ngatpang State
70 226 Ngchesar State
70 227 Ngeremlengui State
70 228 Ngiwal State
70 350 Peleliu State
70 370 Sonsorol State

72 Puerto Rico

72	001	Adjuntas Municipio	few
72	003	Aguada Municipio++	few
72	005	Aquadilla Municipio++	few
72	007	Aguas Buenas Municipio	few
72	009	Aibonito Municipio	few
72	011	Anasco Municipio++	few
72	013	Arecibo Municipio++	few
72	015	Arroyo Municipio++	few
72	017	Barceloneta Municipio++	few
72	019	Barranquitas Municipio	few
72	021	Bayamon Municipio	few
72	023	Cabo Rojo Municipio++	few
72	025	Cagus Municipio	few
72	027	Camuy Municipio++	few
72	029	Canovanas Municipio	few
72	031	Carolina Municipio++	few
72	033	Catano Municipio	few
72	035	Cayey Municipio	few
72	037	Ceiba Municipio++	few
72	039	Ciales Municipio	few
72	041	Cidra Municipio	few
72	043	Coamo Municipio	few
72	045	Comerio Municipio	few
72	047	Corozal Municipio	few
72	049	Culebra Municipio++	none
72	051	Dorado Municipio++	few
72	053	Fajardo Municipio++	few
72	054	Florida Municipio	few
72	055	Guanica Municipio++	few
72	057	Guayama Municipio++	few
72	059	Guayanilla Municipio++	few
72	061	Guaynabo Municipio	few
72	063	Guarbo Municipio	few
72	065	Hatillo Municipio++	few
72	067	Hormigueros Municipio	few
72	069	Humacao Municipio++	few
72	071	Isabela Municipio++	few
72	073	Jayuya Municipio	few
72	075	Juana Diaz Municipio++	few
72	077	Juncos Municipio	few
72	079	Lajas Municipio++	few
72	081	Lares Municipio	few
72	083	Las Marias Municipio	none
72	085	Las Piedras Municipio	few
72	087	Loiza Municipio++	few
72	089	Luquillo Municipio++	few
72	091	Manati Municipio++	few
72	093	Maricao Municipio	none
72	095	Maunabo Municipio++	few
72	097	Mayaguez Municipio++	few
72	099	Moca Municipio	few
72	101	Morovis Municipio	few
72	103	Naguabo Municipio++	few
72	105	Naranjito Municipio	few
72	107	Orocovis Municipio	few
72	109	Patillas Municipio++	few
72	111	Penuelas Municipio++	few
72	113	Ponce Municipio++	few
72	115	Quebradillas Municipio++	few
72	117	Rincon Municipio++	few
72	119	Rio Grande Municipio++	few
72	121	Sabana Grande Municipio	few
72	123	Salinas Municipio++	few
72	125	San German Municipio	few
72	127	San Juan Municipio++	some

72	129	San Lorenzo Municipio	few
72	131	San Sebastian Municipio	few
72	133	Santa Isabel Municipio++	few
72	135	Toa Alta Municipio	few
72	137	Toa Baja Municipio++	few
72	139	Trujillo Alto Municipio	few
72	141	Utuado Municipio	few
72	143	Vega Alta Municipio++	few
72	145	Vega Baja Municipio++	few
72	147	Vieques Municipio++	few
72	149	Villalba Municipio	few
72	151	Yabucoa Municipio++	few
72	153	Yauco Municipio+	few
74		U.S. Minor Outlying Islands	
74	300	Midway Islands	
78		Virgin Islands of the United States	
78	010	St. Croix Island++	
78	020	St. John Island++	
78	030	St. Thomas Island++	

+ Some 1990 Census TIGER/Line files containing coastal and territorial water did not have a full compliment of geographic codes. The MCD and census tract codes may have been blank- or zero-filed. Since the release of the 1990 Census TIGER/Line files, the blank- or zero- filled codes have been assigned other codes for some files and are no longer identified for the 1992 version.

++ Some 1992 TIGER/Line files containing coastal and territorial water do not have a full compliment of geographic codes. The MCD and census tract codes may be blank- or zero-filed. These files also contained blank- or zero-filled codes for the 1990 Census TIGER/Line files.

The ADR column is based on the number of city-style addresses included in the address ranges in the Census TIGER data base relative to the total number of residential addresses in the Nation. Addresses not covered by a range either were rural addresses, PO box addresses, or city-style addresses that the Census Bureau could not match to a feature in the Census TIGER data base. The definitions of the address range coverage levels are:

full	85%	to	100%
majority	60%	to	84.99%
half	40%	to	59.99%
some	20%	to	39.99%
few	0.01%	to	19.99%
none	0%		

TIGER/LINE(TM) Files, 1992

Appendix B
SDTS Definitions for Spatial Objects

The spatial objects in TIGER/Line belong to the "Geometry and Topology" (GT) class of objects in SDTS. The definitions are from FIPS Publication 173, SPATIAL DATA TRANSFER STANDARD (SDTS) (August 28, 1992) Section 2-2, Classification and Intended Use of Objects, pp. 11-20.

* Node: "A zero-dimensional object that is a topological junction of two or more links or chains, or an end point of a link or chain," is a node.

* Entity point: "A point used for identifying the location of point features (or areal features collapsed to a point), such as towers, buoys, buildings, places, etc."

* Complete chain: "A chain [a sequence of non-intersecting line segments] that explicitly references left and right polygons and start and end nodes." The shape points combine with the nodes to form the segments that make a complete chain.

* Network chains: "A chain that explicitly references start and end nodes and not left and right polygons."

* GT-polygon: "An area that is an atomic two-dimensional component of a two-dimensional manifold, [which is defined as] one and only one planar graph and its two-dimensional objects." GT-polygons are elementary polygons that are mutually exclusive and completely exhaust the surface.

TIGER/Line(TM) Files, 1992

Appendix C
1992 TIGER/Line Files, Field Name Changes

The 1992 TIGER/Line files contains some field name changes from the 1990 Census TIGER/Line files. The size and definition of these fields remains substantially unchanged. The name changes represent a clarification of the existing field names. Note that fields may have additional valid codes, e.g., the address impute flag fields now contain a general source code for the address range.

Record Type	Census Version	1992 Version
Record Type 1		
	SIDE1	1SIDE
	FRIADDFL	FRIADDL
	TOIADDFL	TOIADDL
	FRIADDFR	FRIADDR
	TOIADDFR	TOIADDR
	AIRR	FAIRR
Record Type 3		
	80STATEL	STATE80L
	80STATER	STATE80R
	80COUNL	COUN80L
	80COUNR	COUN80R
	80FMCDL	FMCD80L
	80FMCDR	FMCD80R
	80FPLL	FPL80L
	80FPLR	FPL80R
	80CTBNAL	CTBNA80L
	80CTBNAR	CTBNA80R
	80BLKL	BLK80L
	80BLKR	BLK80R
	80MCDL	MCD80L
	80MCDR	MCD80R
	80PLL	PL80L
	80PLR	PL80R
Record Type 6		
	FRIADDFL	FRIADDL
	TOIADDFL	TOIADDL
	FRIADDFR	FRIADDR
	TOIADDFR	TOIADDR
Record Type 7		
	LONG	LALONG
	LAT	LALAT
Record Type I		
	RTPOINT	RTLINK
	POLYL	POLYIDL
	POLYR	POLYIDR

TIGER/Line(TM) Files 1992

Appendix D
Standard Abbreviations

The following text, standard abbreviation, or short abbreviation may appear in the feature name field or the landmark feature name field.

Feature Type	Standard Abbreviation	Short Abbreviation	USPS Reference	Spanish Translation	
Academia	Acade	Acad		S	Academy
Academy	Acad				
Acueducto	Acued	Acue		S	Aqueduct
Aeropuerto	Arpto	Arpt		S	Airport
Air Force Base	AFB				
Airfield	Afld				
Airpark	Airpark	Aprk			
Airport	Arpt				
Airstrip	Airstrp	Astrp			
Aljibe	Aljibe	Alj		S	Cistern
Alley	Alley	Al	ALY		
Alternate Route	Alt	Alt			
Apartment	Apt				
Aqueduct	Aque				
Arcade	Arcade	Arc	ARC		
Arroyo	Arroyo	Arryo		S	Creek
Autopista	Atpta	Apta		S	Expressway
Avenida	Avenida	Ave	AVE	S	Avenue
Avenue	Avenue	Ave	AVE		
Bahia	Bahia	B		S	Bay
Bank	Bank	Bnk			
Basin	Basin	Basn			
Bay	Bay	B			
Bayou	Bayou	Byu	BYU		
Bluff	Bluff	Blf	BLF		
Boulevard	Blvd		BLD		
Boundary	Bdy				
Branch	Branch	Br	BR		
Bridge	Bridge	Brg	BRG		
Brook	Brook	Brk	BRK		
Building	Bldg				
Bulevar	Blvr	Blv		S	Boulevard
Business Route	Bus Rte	Bus			
Bypass	Bypass	Byp	BYP		
Calle	Calle	C	CLL	S	Street
Calleja	Calleja	Cja		S	Lane
Callejon	Callej	Cjon		S	Narrow street
Camino	Camino	Cam	CAM	S	Road
Camp	Camp		CP		
Campamento	Campam	Camp		S	Campground
Campground	Campgrnd	Cmpgr			
Canal	Canal	Can			
Cano	Cano	Cno		S	Drain
Cantera	Cantera	Cant		S	Quarry
Canyon	Canyon	Cyn	CYN		

Capilla	Capilla	Cplla		S	Chapel
Carretera	Carrt	Carr		S	Road
Caserio	Cas			S	Public housing project
Causeway	Cswy		CSWY		
Cementerio	Cemt	Cem		S	Cemetery
Cemetery	Cem				
Center	Center	Ctr	CTR		
Centro	Centro	Ctro		S	Center
Channel	Chan				
Chapel	Chapel	Ch			
Church	Church	Ch			
Circle	Circle	Cir	CIR		
Circulo	Circ	Cir	CIR	S	Circle
Cliff	Cliff	Clf	CLFS		
Club	Club	Clb	CLB		
Colegio	Colegio	Col		S	College
College	College	Clg			
Condominio	Cond			S	Condominium
Condominium	Condo				
Convent	Cnvt				
Coulee	Coulee	Coul			
Country Club	Country Club	CC			
County Highway	County Hwy	CoHwy			
County Home	County Home	CoHm			
County Road	County Rd	CoRd			
County Route	County Rte	CoRt			
Court	Court	Ct	CT		
Courthouse	Cthse				
Cove	Cove	Cv	CV		
Crater	Crater	Crtr			
Creek	Creek	Cr	CRK		
Crescent	Cres	Cres	CRES		
Crossing	Xing		XING		
Cruce	Cruce	Cru		S	Crossroad
Dam	Dam	Dm	DM		
Depot	Depot	Dpo			
Detention Center	Det Ctr	DtCtr			
Ditch	Ditch	Dit			
Divide	Divide	Div	DV		
Dormitory	Dorm				
Drain	Drain	Drn			
Draw	Draw				
Drive	Drive	Dr	DR		
Edificio	Edif			S	Building
Ensenada	Ensen	Ens		S	Cove
Escarpment	Escarp	Escrp			
Escuela	Escul	Esc		S	School
Estuary	Est				
Expreso	Expo	Exp		S	Expressway
Expressway	Exwy		EXPY		
Extended	Extd				
Extension	Extn		EXT		
Fairgrounds	Fairgrnds	Fgrnd			
Falls	Falls		FLS		
Farm-to-Market Road	F-M Rd	FM			
Faro	Faro			S	Lighthouse
Federal Penitentiary	Fed Pen	FdPn			

Fence Line	Fence	Fen			
Ferry Crossing	Ferry	Fy	FRY		
Field	Field	Fld	FLD		
Floodway	Floodway	Fldwy			
Flowage	Flowage	Flow			
Flume	Flume	Flm			
Forest	Forest	For	FRST		
Fork	Fork	Frk	FRK		
Four-Wheel Drive Trail	4WD Trl	4WD			
Fraternity	Frat				
Freeway	Frwy	Fwy	FWY		
Golf Course	Golf Course	GC			
Grade	Grade	Grd			
Gravel Pit	Gr Pit	GrPt			
Gravero pit	Grav			S	Gravel
Gulch	Gulch	Gl			
Gulf	Gulf	Glf			
Gully	Gully				
Harbor	Harbor	Hbr	HBR		
High School	H S	HS			
Highway	Hwy		HWY		
Hill	Hill		HL		
Hollow	Hollow	Hllw	HOLW		
Hospital	Hosp				
Hotel	Hotel	Htl			
Iglesia	Iglesia	Igle		S	Church
Industrial Center	Indl Ctr	IndC			
Industrial Park	Indl Park	IPrk			
Inlet	Inlet	Inlt	INLT		
Inn	Inn				
Institute	Inst				
Institution	Instn				
Interstate Highway	I-				
Isla	Isla	Is		S	Island
Island	Island	Is	IS		
Islands	Islands	Is	ISS		
Jail	Jail	Jl			
Jeep Trail	Jeep Trl	4WD			
Kill	Kill				
Lago	Lago	Lag		S	Lake
Lagoon	Lagoon	Lag			
Lagoons	Lagoons	Lag			
Laguna	Laguna	Lagna		S	Lagoon
Lake	Lake	Lk	LK		
Lakes	Lakes	Lk	LKS		
Lane	Lane	Ln	LN		
Lateral	Lateral	Ltrl			
Levee	Levee	Lv			
Lighthouse	Lghthse	Lh			
Line	Line				
Loop	Loop	Lp	LOOP		
Mall	Mall	Ml			
Mar	Mar	Mr		S	Sea
Marginal road	Marg			S	Service
Marina	Marina	Mrna			
Marsh	Marsh	Mrsh			
Medical Building	Med Bldg	MdBlg			
Medical Center	Med Ctr	MdCtr			

Millpond	Mllpd	Mlpd			
Mission	Msn	MSN			
Monastery	Mony				
Monument	Mon				
Motel	Motel	Mtl			
Motorway	Mtwy				
Mount	Mount	Mt	MT		
Mountain	Mtn	Mt	MTN		
Muro	Muro	Mro		S	Wall
Natl Forest Develop Road	NFD				
Naval Air Station	NAS				
Naval Base	NB				
Nursing Home	Nrs Hme	NrsHm			
Ocean	Ocean	O			
Oceano	Oceano	O		S	Ocean
Office Building	Ofc Bldg	OfBlg			
Office Center	Ofc Ctr	OfCtr			
Office Park	Ofc Park	OfPrk			
Orphanage	Orph				
Outlet	Outlet	Outlt			
Overpass	Ovps				
Park	Park	PARK			
Parkway	Pkwy	PKY			
Parque	Parque	Prqe		S	Park
Pasaje	Pasaje	Pas		S	Passage
Paseo	Paseo	Pso		S	Drive
Paso	Paso	PSO		S	Strait
Pass	Pass	Ps	PASS		
Passage	Psge	Pas			
Path	Path		PATH		
Peak	Peak	Pek			
Pike	Pike	Pke	PIKE		
Pipeline	Pipe				
Pista	Pista	Psta		S	Track
Place	Place	Pl	PL		
Plaza	Plaza	Plz	PLZ		
Point	Point	Pt	PT		
Pond	Pond	Pd			
Ponds	Ponds	Pd			
Port	Port	Prt	PRT		
Power Line	Pwr Line	PwrLn			
Prairie	Prairie	Pr	PR		
Prison	Prison	Prsn			
Property Line	Prop Line	Prop			
Puente	Puente	Pte		S	Bridge
Quarry	Qry				
Race	Race	Rc			
Rail	Rail	R			
Railroad	RR				
Railway	Ry				
Ramal	Ramal	Rml		S	Short street
Ramp	Ramp	Rmp			
Rampa	Rampa	Rmp		S	Ramp
Rapids	Rapids	Rpds	RPDS		
Ravine	Ravine	Rav			
Reformatory	Ref				
Refuge	Refuge	Rfg			
Reservation	Res				
Reserve	Rsv				
Reservoir	Rsvr				
Reservoirs	Rsvrs				

Resort	Resort	Rsrt			
Ridge	Ridge	Rdg	RDG		
Rio	Rio	R		S	River
River	River	R	RIV		
Road	Road	Rd	RD		
Roca	Roca	Rc		S	Rock
Rock	Rock	Rk			
Rooming House	Rmg Hse	RmHse			
Route	Route	Rt			
Row	Row	ROW			
Rue	Rue				
Run	Run	RUN			
Rural Route	R Rte	Rt			
Ruta	Ruta			S	Route
Sanatorium	Sanat	San			
Sanitarium	Sanit	San			
School	School	Sch			
Sea	Sea				
Seashore	Seashore	Seash			
Seminary	Sem				
Sendero	Sndr			S	Path
Service Road	Srv Rd	SrvRd			
Shelter	Shltr	Shlr			
Shoal	Shoal	Shl	SHL		
Shopping Center	Shop Ctr	SC			
Shopping Mall	Shop Mall	SM			
Shopping Mart	Shop Mart	SMt			
Shopping Plaza	Shop Plz	SP			
Shopping Square	Shop Sq	SS			
Skyway	Skwy				
Slough	Slough	Slu			
Sonda	Sonda	Sd		S	Sound
Sorority	Soror	Sor			
Sound	Sound	Sd			
Speedway	Spdwy				
Spring	Spring	Spg	SPG		
Spur	Spur	Spr	SPUR		
Square	Square	Sq	SQ		
State Highway	State Hwy	StHwy			
State Road	State Rd	StRd			
State Route	State Rte	SR			
Station	Sta		STA		
Strait	Strait	Strt			
Stream	Stream	Str	STRM		
Street	Street	St	ST		
Strip	Strip	Strp			
Swamp	Swamp	Swp			
Tank	Tank	Tk			
Terminal	Term				
Terrace	Ter	TER			
Thoroughfare	Thoro	Thfr			
Throughway	Thwy				
Tower	Tower	Twr			
Township Highway	Twp Hwy	TwpHy			
Township Road	Twp Rd	TwpRd			
Trafficway	Tfwy	TRFY			
Trail	Trail	Trl	TRL		
Trailer Park	Trlr Pk	TrlPk			
Tributary	Trib				
Tunel	Tunel	Tun		S	Tunnel
Tunnel	Tunnel	Tun	TUNL		
Turnpike	Tpke		TPKE		
Underpass	Unps	Unp			
United States Highway	US Hwy	USHwy			

United States Route	US Rte	USRte			
Universidad	Univd	Uni		S	
University					
University	Univ				
Unnamed Road	Un Rd	UnRd			
Valley	Valley	Vl	VLY		
Vereda	Vereda	Vrda	VER	S	Trail
Via	Via			S	Way
Village	Vlge	Vlg	VLG		
Walk	Walk	Wk	WALK		
Walkway	Wlkwy	Wkwy			
Wall	Wall	Wl			
Wash	Wash	Ws			
Waterway	Wtrwy	Wwy			
Way	Way	Wy	WAY		
Wharf	Wharf	Whf			
Yard	Yard	Yd			
Yards	Yards	Yds			
Zanja	Zanja	Znja		S	Ditch

TIGER/Line(TM) Files, 1992

Appendix E
Census Feature Class Codes (CFCC)

Definition

A CFCC is used to identify the most noticeable characteristic of a feature. The CFCC is applied only once to a chain or landmark with preference given to classifications that cover features that are visible to an observer and are part of the ground transportation network. Thus a road that is also the boundary of a town would have a CFCC describing its road characteristics not its boundary characteristics. The CFCC, as used in the TIGER/Line(TM) files, is a three-character code; the first character is a letter describing the feature class; the second character is a number describing the major category; and the third character is a number describing the minor category.

Feature Classes

Feature Class A, Road

Definitions Applicable to Road

The definition of a divided highway has been the source of considerable discussion. Earlier specifications have defined a "divided" road as having "... opposing traffic lanes that are physically separated by a median strip no less than 70 feet wide in former GBF/DIME areas or no less than 200 feet wide in non-GBF/DIME areas." This definition caused confusion in the proper coding of interstates having narrow medians. To clarify the situation, the Census Bureau now uses the term "divided" to refer to a road with opposing traffic lanes separated by any size median, and "separated" to refer to lanes that are represented in the Census TIGER data base as two distinct complete chains. Earlier operations may have depicted widely separated lanes as a single line in the data base or created separate lines when the median was small, depending on the available source used during the update.

The term "rail line in center" indicates that a rail line shares the road right-of-way. The rail line may follow the center of the road or be directly next to the road, representation is dependent upon the available source used during the update. The rail line can represent a railroad, a street car line, or other carline.

Road With Major Category Unknown:

Source materials do not allow determination of the major road category. These codes should not, under most circumstances, be used since the source materials usually provide enough information to determine the major category.

CFCC	Description
A00	Road, major and minor categories unknown
A01	Road, unseparated
A02	Road, unseparated, in tunnel
A03	Road, unseparated, underpassing
A04	Road, unseparated, with rail line in center
A05	Road, separated
A06	Road, separated, in tunnel
A07	Road, separated, underpassing

A08 Road, separated, with rail line in center

Primary Highway with Limited Access:

This road is distinguished by the presence of interchanges, access to the highway is by way of ramps, and there are multiple lanes of traffic. A road in this category has the opposing traffic lanes "divided" by a median strip. Interstate highways and some toll highways are in this major category. The TIGER/Line(TM) files may depict the opposing lanes of a road in this category as two distinct lines; in this case the road is called "separated."

CFCC	Description
A10	Primary road with limited access or interstate highway, major category used alone when the minor category could not be determined
A11	Primary road with limited access or interstate highway, unseparated
A12	Primary road with limited access or interstate highway, unseparated, in tunnel
A13	Primary road with limited access or interstate highway, unseparated, underpassing
A14	Primary road with limited access or interstate highway, unseparated, with rail line in center
A15	Primary road with limited access or interstate highway, separated
A16	Primary road with limited access or interstate highway, separated, in tunnel
A17	Primary road with limited access or interstate highway, separated, underpassing
A18	Primary road with limited access or interstate highway, separated, with rail line in center

Primary Road without Limited Access:

A road in this major category must be hard surface, that is, concrete or asphalt, and may be divided or undivided and have multi-lane or single lane characteristics. This road has intersections with other roads, usually controlled with traffic lights. This major category includes nationally and regionally important highways that do not have limited access as required by major category A1. Thus, major category A2 includes most U.S. and State highways and some county highways that connect cities and larger towns.

CFCC	Description
A20	Primary road without limited access, U.S. and State highway, major category used alone when the minor category could not be determined
A21	Primary road without limited access, U.S. and State highways, unseparated
A22	Primary road without limited access, U.S. and State highways, unseparated, in tunnel
A23	Primary road without limited access, U.S. and State highways, unseparated, underpassing
A24	Primary road without limited access, U.S. and State highways, unseparated, with rail line in center
A25	Primary road without limited access, U.S. and State highways, separated
A26	Primary road without limited access, U.S. and State highways, separated, in tunnel
A27	Primary road without limited access, U.S. and State highways, separated, underpassing
A28	Primary road without limited access, U.S. and State highways, separated, with rail line in center

Secondary and Connecting Road:

A road in this major category must be hard surface, that is, concrete or asphalt, usually undivided with single lane characteristics. This road has intersections with other roads, controlled with traffic lights and stop signs. This major category includes State and county highways that connect smaller towns, subdivisions, and neighborhoods, thus the road is smaller than a road in major category A2. This road, usually with a local name along with a route number, intersects with many other roads and driveways.

CFCC	Description
A30	Secondary and connecting road, State and county highways, major category used alone when the minor category could not be determined
A31	Secondary and connecting road, State and county highways, unseparated
A32	Secondary and connecting road, State and county highways, unseparated, in tunnel
A33	Secondary and connecting road, State and county highways, unseparated, underpassing
A34	Secondary and connecting road, State and county highways, unseparated, with rail line in center
A35	Secondary and connecting road, State and county highways, separated
A36	Secondary and connecting road, State and county highways, separated, in tunnel
A37	Secondary and connecting road, State and county highways, separated, underpassing
A38	Secondary and connecting road, State and county highway, separated, with rail line in center

Local, Neighborhood, and Rural Road:

A road in this major category is used for local traffic, usually with a single lane of traffic in each direction. In an urban area, this is a neighborhood road and street that is not a thoroughfare belonging in categories A2 or A3. In a rural area, this is a short distance road connecting the smallest towns; the road may or may not have a State or county route number. In addition, this major category includes scenic park roads, unimproved or unpaved roads, and industrial roads. Most roads in the Nation are classified in this major category.

CFCC	Description
A40	Local, neighborhood, and rural road, city street, major category used alone when the minor category could not be determined
A41	Local, neighborhood, and rural road, city street, unseparated
A42	Local, neighborhood, and rural road, city street, unseparated, in tunnel
A43	Local, neighborhood, and rural road, city street, unseparated, underpassing
A44	Local, neighborhood, and rural road, city street, unseparated, with rail line in center
A45	Local, neighborhood, and rural road, city street, separated
A46	Local, neighborhood, and rural road, city street, separated, in tunnel
A47	Local, neighborhood, and rural road, city street, separated, underpassing
A48	Local, neighborhood, and rural road, city street,

separated, with rail line in center

Vehicular Trail:

A road in this major category is usable only by four-wheel drive vehicles and is usually a one lane, dirt trail. The road is found almost exclusively in a very rural area, sometimes the road is called a fire road or logging road and may include an abandoned railroad grade where the tracks have been removed. Minor, unpaved roads usable by ordinary cars and trucks belong in major category A4.

CFCC	Description
A50	Vehicular trail, road passable only by four-wheel drive (4WD) vehicle, major category used alone when the minor category could not be determined
A51	Vehicular trail, road passable only by 4WD vehicle, unseparated
A52	Vehicular trail, road passable only by 4WD vehicle, unseparated, in tunnel
A53	Vehicular trail, road passable only by 4WD vehicle, unseparated, underpassing

Road with Special Characteristics:

A road, portion of a road, intersection of a road, or the ends of a road that are parts of the vehicular highway system that have separately identifiable characteristics.

CFCC	Description
A60	Road with characteristic unspecified, major category used alone when the minor category could not be determined
A61	Cul-de-sac, the closed end of a road that forms a loop or turn around (the node symbol that appears on some census maps is not included in the TIGER/Line(TM) files)
A62	Traffic circle, the portion of a road or intersection of roads that form a roundabout (the node symbol that appears on some census maps is not included in the TIGER/Line(TM) files)
A63	Access ramp, the portion of a road that forms a cloverleaf or limited access interchange (the node symbol that appears on some census maps is not included in the TIGER/Line(TM) files)
A64	Service drive, the road or portion of a road that provides access to businesses, facilities, and rest areas along a limited access highway, this frontage road may intersect other roads and be named
A65	Ferry crossing, the portion of a road over water that consists of ships, carrying automobiles, connecting roads on opposite shores

Road as Other Thoroughfare:

A road that is not part of the vehicular highway system. This road is used by bicyclists or pedestrians and is typically inaccessible to mainstream motor traffic except by service vehicles. A stair and walkway may follow a road right-of-way and be named as if it were a road. This major category includes foot and hiking trails located on park and forest land.

CFCC	Description
A70	Other thoroughfare, major category used alone when the minor category could not be determined

CFCC	Description
A71	Walkway, nearly level road for pedestrians, usually unnamed
A72	Stairway, stepped road for pedestrians, usually unnamed
A73	Alley, road for service vehicles, usually unnamed, located at the rear of buildings and property

Feature Class B, Railroad

Railroad With Major Category Unknown:

Source materials do not allow determination of the major railroad category. These codes should not, under most circumstances, be used since the source materials usually provide enough information to determine the major category.

CFCC	Description
B00	Railroad, major and minor categories unknown
B01	Railroad track, not in tunnel or underpassing, major category used alone when the minor category could not be determined
B02	Railroad track, in tunnel
B03	Railroad track, underpassing

Railroad Main Line:

A railroad in this major category is the primary track that provides service between destinations. A main line track often carries the name of the owning and operating railroad company.

CFCC	Description
B10	Railroad main track, major category used alone when the minor category could not be determined
B11	Railroad main track, not in tunnel or underpassing
B12	Railroad main track, in tunnel
B13	Railroad main track, underpassing

Railroad Spur:

A railroad in this major category is the track that leaves the main track, ending in an industrial park, factory, or warehouse area or forming a siding along the main track.

CFCC	Description
B20	Railroad spur track, major category used alone when the minor category could not be determined
B21	Railroad spur track, not in tunnel or underpassing
B22	Railroad spur track, in tunnel
B23	Railroad spur track, underpassing

Railroad Yard:

A railroad yard track has parallel tracks that form a working area for the railroad company. Train cars and engines are repaired, switched, and dispatched from a yard.

CFCC	Description
B30	Railroad yard track, major category used alone when the minor category could not be determined
B31	Railroad yard track, not in tunnel or underpassing
B32	Railroad yard track, in tunnel
B33	Railroad yard track, underpassing

Railroad with Special Characteristics:

A railroad or portions
of a railroad track that are parts of the railroad system and
have separately identifiable characteristics.

CFCC	Description
B40	Railroad ferry crossing, the portion of a railroad over water that consists of ships, carrying train cars to connecting railroads on opposite shores. These are primarily located on the Great Lakes.

Railroad as Other Thoroughfare:

A railroad that is not part of
the railroad system. This major category is for a specialized
rail line or railway that is typically inaccessible to
mainstream railroad traffic.

CFCC	Description
B50	Other rail line, major category used alone when the minor category could not be determined
B51	Carline, a track for street cars, trolleys, and other mass transit rail systems, used when the carline is not part of the road right-of-way
B52	Cog railroad, incline railway, or logging tram

Feature Class C, Miscellaneous Ground Transportation

Miscellaneous Ground Transportation With Category Unknown:

Source materials do not allow determination of the miscellaneous
ground transportation category. This code should not, under
most circumstances, be used since the source materials usually
provide enough information to determine the major category.

CFCC	Description
C00	Miscellaneous ground transportation, not road or railroad, major and minor categories unknown

Pipeline:

Enclosed pipe, carrying fluid or slurry, situated above ground or,
in special conditions, below ground when marked by a cleared
right-of-way and signage.

CFCC	Description
C10	Pipeline, major category used alone

Power Transmission Line:

High voltage electrical line, on towers, situated on cleared
right-of-way.

CFCC	Description
C20	Power transmission line, major category used alone

Miscellaneous Ground Transportation with Special
Characteristics:

A portion of a ground transportation system that has separately

identifiable characteristics. This major category is for specialized transportation, usually confined to a local area, that is separate from other ground transportation.

CFCC	Description
C30	Other ground transportation that is not a pipeline or a power transmission line. The major category is used alone when the minor category could not be determined.
C31	Aerial tramway, monorail, or ski lift

Feature Class D, Landmark

Definition Applicable to Landmark

Landmark is the general name given to a cartographic or locational landmark, a land use area, and a key geographic location. A cartographic landmark is identified for use by an enumerator while working in the field. A land use area is identified in order to minimize enumeration efforts from where people are restricted or nonexistent. A key geographic location is identified in order to more accurately geocode and enumerate a place of work or place of residence. TIGER/Line(TM) files contain only cartographic landmarks or land use areas, if identified within the county area, but not key geographic locations.

Landmark With Category Unknown:

Source materials do not allow determination of the landmark category. This code should not, under most circumstances, be used since the source materials usually provide enough information to determine the major category.

CFCC	Description
D00	Landmark, major and minor categories unknown

Military Installation:

Base, yard, or depot used by any of the armed forces or the Coast Guard

CFCC	Description
D10	Military installation or reservation, major category used alone

Multihousehold or Transient Quarters:

CFCC	Description
D20	Multihousehold or transient quarters, major category used alone when the minor category could not be determined
D21	Apartment building or complex
D22	Rooming or boarding house
D23	Trailer court or mobile home park
D24	Marina
D25	Crew of vessel
D26	Housing facility for workers
D27	Hotel, motel, resort, spa, YMCA, or YWCA
D28	Campground
D29	Shelter or mission

Custodial Facility:

This major category is for an institution that maintains guards,

nurses, caretakers, and so forth to preserve the welfare of those individuals resident in the facility.

CFCC	Description
D30	Custodial facility, major category used alone when the minor category could not be determined
D31	Hospital
D32	Halfway house
D33	Nursing home, retirement home, or home for the aged
D34	County home or poor farm
D35	Orphanage
D36	Jail or detention center
D37	Federal penitentiary, State prison, or prison farm

Educational or Religious Institution:

CFCC	Description
D40	Educational or religious institution, major category used alone when the minor category could not be determined
D41	Sorority or fraternity
D42	Convent or monastery
D43	Educational institution, including academy, school, college, and university
D44	Religious institution, including church, synagogue, seminary, temple, and mosque

Transportation Terminal:

The facility where transportation equipment is stored, the destination for travel on the transportation system, or the intermodal connection facility between transportation systems.

CFCC	Description
D50	Transportation terminal, major category used alone when the minor category could not be determined
D51	Airport or airfield
D52	Train station
D53	Bus terminal
D54	Marine terminal
D55	Seaplane anchorage

Employment Center:

This major category is for a location with high density employment.

CFCC	Description
D60	Employment center, major category used alone when the minor category could not be determined
D61	Shopping center or major retail center
D62	Industrial building or industrial park
D63	Office building or office park
D64	Amusement center
D65	Government center
D66	Other employment center

Tower:

CFCC	Description
D70	Tower, major category used alone when the minor category could not be determined
D71	Lookout tower

Open Space:

This major category contains areas of open space with no inhabitants or with inhabitants restricted to known sites within the area.

CFCC	Description
D80	Open space, major category used alone when the minor category could not be determined
D81	Golf course
D82	Cemetery
D83	National park or forest
D84	Other Federal land
D85	State or local park or forest

Special Purpose Landmark:

Use this category for landmarks not otherwise classified.

CFCC	Description
D90	Special purpose landmark, major category used alone when the minor category could not be determined
D91	Post office box ZIP Code(R)

Feature Class E, Physical Feature

Physical Feature With Category Unknown:

Source materials do not allow determination of the physical feature category. This code should not, under most circumstances, be used since the source materials usually provide enough information to determine the major category.

CFCC	Description
E00	Physical feature, tangible but not transportation or hydrographic. The major and minor categories are unknown.

Fence:

This major category describes a fence that separates property. For example, a fence around a military reservation or prison separates the reservation from civilian land, thus, a fence line is a property line marked by a fence.

CFCC	Description
E10	Fence line locating a visible and permanent fence between separately identified property

Topographic Feature:

This category refers to topographical features that may be used as boundaries or as a reference for an area. The Census TIGER data base contains topographic features used to define the limits of statistical entities in locations where no other visible feature could be identified.

CFCC	Description
E20	Topographic feature, major category used when the minor category could not be determined
E21	Ridge line, the line of highest elevation of a linear

mountain
E22 Mountain peak, the point of highest elevation of a mountain

Feature Class F, Nonvisible Features

Definition Applicable to Nonvisible Features

Nonvisible features are used to delimit tabulation entities, property areas, and legal and administrative entities. The Census Bureau separately identifies nonvisible boundaries only when they do not follow a visible feature such as a road, stream, or ridge line.

Nonvisible Boundary With Classification Unknown or Not Elsewhere Classified:

CFCC	Description
F00	Nonvisible boundary, major and minor categories unknown

Nonvisible Legal or Administrative Boundary:

This major category refers to nonvisible boundaries of legal or administrative areas.

CFCC	Description
F10	Nonvisible jurisdictional boundary of a legal or administrative entity, major category used when the minor category could not be determined
F11	Offset boundary of a legal or administrative entity
F12	Corridor boundary of a legal or administrative entity
F13	Interpolated boundary of a legal or administrative entity used for closure through hydrological areas
F14	Superseded legal or administrative boundary
F15	Superseded legal or administrative boundary, corrected through post census process

Nonvisible Features for Data Base Topology:

This category contains various types of nonvisible lines used to maintain the topology in the Census TIGER data base.

CFCC	Description
F20	Nonvisible feature for data base topology, major category used when the minor category could not be determined
F21	Automated feature extension to lengthen existing physical feature
F22	Irregular feature extension, determined manually, to lengthen existing physical feature
F23	Closure extension to complete data base topological closure between extremely close features (used to close small gaps between complete chains and create polygons to improve block labeling on cartographic products)

CFCC	Description
F24	Nonvisible separation line used with offset and corridor boundaries
F25	Nonvisible centerline of area enclosed by corridor boundary

Point-to-Point Line:

CFCC	Description
F30	Point-to-point line, follows a line of sight and should not cross any visible feature, for example, from the end of a road to a mountain peak.

Property Line:

CFCC	Description
F40	Property line, nonvisible boundary of either public or private lands, e.g., a park boundary

ZIP Code(R) Boundary:

CFCC	Description
F50	ZIP Code(R) boundary, reserved for future use in delineating ZIP Code(R) Tabulation Areas

Map Edge:

CFCC	Description
F60	Map edge, now removed, used during data base creation

Nonvisible Statistical Boundary:

CFCC	Description
F70	Statistical boundary, major category used when the minor category could not be determined
F71	1980 statistical boundary
F72	1990 statistical boundary, used to hold collection and tabulation census block boundaries not represented by existing physical features
F73	1990 statistical boundary and extent of land use, it is not classifiable as a physical feature
F74	1990 statistical boundary, used to hold a tabulation census block boundary not represented by an existing physical feature

Nonvisible Other Tabulation Boundary:

CFCC	Description
F80	Nonvisible other tabulation boundary, major category used when the minor category could not be determined
F81	School district tabulation boundary
F82	Special census tabulation boundary

Feature Class H, Hydrography

Basic Hydrography:

This category includes shorelines of all water regardless of the classification of the water itself.

CFCC	Description
H00	Water feature, classification unknown or not elsewhere classified
H01	Shoreline of perennial water feature
H02	Shoreline of intermittent water feature

Naturally Flowing Water features:

CFCC	Description
H10	Stream, major category used when the minor category could not be determined
H11	Perennial stream or river
H12	Intermittent stream, river, or wash
H13	Braided stream or river

Man-Made Channel to Transport Water:

These features are used for purposes such as transportation, irrigation, or navigation.

CFCC	Description
H20	Canal, ditch, or aqueduct, major category used when the minor category could not be determined
H21	Perennial canal, ditch, or aqueduct
H22	Intermittent canal, ditch, or aqueduct

Inland Body of Water:

CFCC	Description
H30	Lake or pond, major category used when the minor category could not be determined
H31	Perennial lake or pond
H32	Intermittent lake or pond

Man-Made Body of Water:

CFCC	Description
H40	Reservoir, major category used when the minor category could not be determined
H41	Perennial reservoir
H42	Intermittent reservoir

Seaward Body of Water:

CFCC	Description
H50	Bay, estuary, gulf, sound, sea, or ocean, major category used when the minor category could not be determined
H51	Bay, estuary, gulf, or sound
H53	Sea or ocean

Body of Water in a Man-Made Excavation:

CFCC	Description
H60	Gravel pit or quarry filled with water

Nonvisible Definition Between Water Bodies:

The Census Bureau digitizes nonvisible definition boundaries to separate named water areas, for instance, an artificial boundary is drawn to separate a named river from the connecting bay.

CFCC	Description
H70	Nonvisible water area definition boundary, used to separate named water areas and as the major category when the minor category could not be determined
H71	USGS closure line, used as maritime shoreline
H72	Census water center line, computed to use as median

positional boundary
H73 Census water boundary, international in waterways or at 12-mile limit, used as area measurement line
H74 Census water boundary, separates inland from coastal or Great Lakes, used as area measurement line
H75 Census water boundary, separates coastal from territorial at 3-mile limit, used as area measurement line

Special Water Feature:

Includes area covered by glaciers or snow fields.

CFCC	Description
H80	Special water feature, major category used when the minor category could not be determined
H81	Glacier

Feature Class X, Not Yet Classified

Classification Unknown or Not Elsewhere Classified:

CFCC	Description
X00	Feature not yet classified

Appendix F

Numbers of Decennial Census Geographic Entities

Census Geographic Entities	1980 Number	1990 Number(1)
Legal and Administrative Entities		
Unites States	1	1
States and equivalent entities	57	57(1)
States	50	50
District of Columbia	1	1
Outlying Areas	6	6(1)
counties, parishes, boroughs, municipios, and equivalent entities	3,231	3,248(1)
minor civil divisions (MCD's)	30,450	30,386(1)
sub-MCD's	265	145(1)
incorporated places	19,176	19,365
consolidated cities	---	6
American Indian reservations (AIR's)	277	310
American Indian entities with trust lands	37	52
Alaska Native villages (ANV's)	209	---
Alaska Native Regional Corporations (ANRC's)	12	12
congressional districts (CD's)	435	435
voting districts (VTD's)	36,361	148,872
school districts	16,075	14,422
Statistical Areas		
urbanized areas (UA's)	373	405
tribal jurisdiction statistical areas (TJSA's)	---	17
tribal designated statistical areas (TDSA's)	---	19
Alaska Native village statistical areas (ANVSA's)	---	217
county subdivisions	5,827	5,903(1)
census county divisions (CCD's)	5,512	5,581
unorganized territories (UT's)	274	282
other statistical entities	41	40
census designated places (CDP's)	3,733	4,423
census tracts	43,691	50,690
block numbering areas (BNA's)	3,423	11,586(1)
block groups (BG's)	156,163	229,192(1)
blocks	2,473,679	7,017,425(1)

(1) The number of entities do not include the Federated States of Micronesia and the Marshall and Midway Islands.

TIGER/Line(TM) Files, 1992

Appendix G
Urbanized Area Codes and Names

Code	Urbanized Area Name
0040	Abilene, TX
0080	Akron, OH
0120	Albany, GA
0160	Albany--Schenectady--Troy, NY
0200	Albuquerque, NM
0220	Alexandria, LA
0240	Allentown--Bethlehem--Easton, PA--NJ
0275	Alton, IL
0280	Altoona, PA
0320	Amarillo, TX
0380	Anchorage, AK
0400	Anderson, IN
0405	Anderson, SC
0435	Annapolis, MD
0440	Ann Arbor, MI
0450	Anniston, AL
0457	Antioch--Pittsburg, CA
0459	Appleton--Neenah, WI
0480	Asheville, NC
0500	Athens, GA
0520	Atlanta, GA
0560	Atlantic City, NJ
0580	Auburn--Opelika, AL
0600	Augusta, GA--SC
0619	Aurora, IL
0640	Austin, TX
0680	Bakersfield, CA
0720	Baltimore, MD
0730	Bangor, ME
0760	Baton Rouge, LA
0780	Battle Creek, MI
0800	Bay City, MI
0839	Beaumont, TX
0860	Bellingham, WA
0865	Beloit, WI--IL
0870	Benton Harbor, MI
0880	Billings, MT
0920	Biloxi--Gulfport, MS
0960	Binghamton, NY
1000	Birmingham, AL
1010	Bismarck, ND
1020	Bloomington, IN
1040	Bloomington--Normal, IL
1080	Boise City, ID
1120	Boston, MA
1125	Boulder, CO
1150	Bremerton, WA
1160	Bridgeport--Milford, CT
1170	Bristol, CT
1180	Bristol, TN--Bristol, VA
1200	Brockton, MA
1239	Brownsville, TX
1250	Brunswick, GA
1260	Bryan--College Station, TX
1282	Buffalo--Niagara Falls, NY
1300	Burlington, NC
1305	Burlington, VT
1320	Canton, OH
1350	Casper, WY

1360 Cedar Rapids, IA
1400 Champaign--Urbana, IL
1440 Charleston, SC
1480 Charleston, WV
1510 Charlotte, NC
1540 Charlottesville, VA
1560 Chattanooga, TN--GA
1580 Cheyenne, WY
1601 Chicago, IL--Northwestern Indiana
1620 Chico, CA
1640 Cincinnati, OH--KY
1659 Clarksville, TN--KY
1680 Cleveland, OH
1720 Colorado Springs, CO
1740 Columbia, MO
1760 Columbia, SC
1800 Columbus, GA--AL
1840 Columbus, OH
1880 Corpus Christi, TX
1897 Crystal Lake, IL
1900 Cumberland, MD--WV
1922 Dallas--Fort Worth, TX
1930 Danbury, CT--NY
1950 Danville, VA
1960 Davenport--Rock Island--Moline, IA--IL
1979 Davis, CA
2000 Dayton, OH
2020 Daytona Beach, FL
2030 Decatur, AL
2040 Decatur, IL
2071 Deltona, FL
2075 Denton, TX
2080 Denver, CO
2120 Des Moines, IA
2160 Detroit, MI
2180 Dothan, AL
2190 Dover, DE
2200 Dubuque, IA--IL
2240 Duluth, MN--WI
2280 Durham, NC
2290 Eau Claire, WI
2297 Elgin, IL
2300 Elkhart--Goshen, IN
2310 Elmira, NY
2320 El Paso, TX--NM
2360 Erie, PA
2400 Eugene--Springfield, OR
2440 Evansville, IN--KY
2467 Fairfield, CA
2480 Fall River, MA--RI
2520 Fargo--Moorhead, ND--MN
2560 Fayetteville, NC
2580 Fayetteville--Springdale, AR
2600 Fitchburg--Leominster, MA
2640 Flint, MI
2650 Florence, AL
2655 Florence, SC
2669 Fort Collins, CO
2680 Fort Lauderdale--Hollywood--Pompano Beach, FL
2700 Fort Myers--Cape Coral, FL
2710 Fort Pierce, FL
2720 Fort Smith, AR--OK
2750 Fort Walton Beach, FL
2760 Fort Wayne, IN
2820 Frederick, MD
2825 Fredericksburg, VA
2840 Fresno, CA

2880 Gadsden, AL
2900 Gainesville, FL
2919 Galveston, TX
2970 Gastonia, NC
2975 Glens Falls, NY
2980 Goldsboro, NC
2985 Grand Forks, ND--MN
2995 Grand Junction, CO
3000 Grand Rapids, MI
3040 Great Falls, MT
3060 Greeley, CO
3080 Green Bay, WI
3115 Greensboro, NC
3150 Greenville, NC
3155 Greenville, SC
3180 Hagerstown, MD--PA--WV
3199 Hamilton, OH
3235 Harlingen, TX
3239 Harrisburg, PA
3280 Hartford--Middletown, CT
3285 Hattiesburg, MS
3288 Hemet--San Jacinto, CA
3289 Hesperia--Apple Valley--Victorville, CA
3290 Hickory, NC
3300 High Point, NC
3317 Holland, MI
3320 Honolulu, HI
3350 Houma, LA
3360 Houston, TX
3400 Huntington--Ashland, WV--KY--OH
3440 Huntsville, AL
3455 Hyannis, MA
3460 Idaho Falls, ID
3480 Indianapolis, IN
3487 Indio--Coachella,CA
3500 Iowa City, IA
3510 Ithaca, NY
3520 Jackson, MIY
3560 Jackson, MS
3580 Jackson, TN
3600 Jacksonville, FL
3605 Jacksonville, NC
3619 Janesville, WI
3659 Johnson City, TN
3680 Johnstown, PA
3690 Joliet, IL
3710 Joplin, MO
3717 Kailua, HI
3720 Kalamazoo, MI
3740 Kankakee, IL
3750 Kannapolis, NC
3760 Kansas City, MO--KS
3800 Kenosha, WI
3809 Killeen, TX
3815 Kingsport, TN--VA
3833 Kissimmee, FL
3840 Knoxville, TN
3850 Kokomo, IN
3870 La Crosse, WI--MN
3880 Lafayette, LA
3920 Lafayette--West Lafayette, IN
3960 Lake Charles, LA
3979 Lakeland, FL
4000 Lancaster, PA
4010 Lancaster--Palmdale, CA
4040 Lansing--East Lansing, MI
4080 Laredo, TX

4100 Las Cruces, NM
4120 Las Vegas, NV
4150 Lawrence, KS
4160 Lawrence--Haverhill, MA--NH
4200 Lawton, OK
4240 Lewiston--Auburn, ME
4246 Lewisville, TX
4280 Lexington-Fayette, KY
4320 Lima, OH
4360 Lincoln, NE
4400 Little Rock--North Little Rock, AR
4403 Lodi, CA
4405 Logan, UT
4407 Lompoc, CA
4411 Longmont, CO
4413 Longview, TX
4415 Longview, WA--OR
4440 Lorain--Elyria, OH
4480 Los Angeles, CA
4520 Louisville, KY--IN
4560 Lowell, MA--NH
4600 Lubbock, TX
4640 Lynchburg, VA
4660 McAllen--Edinburg--Mission, TX
4679 Macon, GA
4720 Madison, WI
4760 Manchester, NH
4800 Mansfield, OH
4890 Medford, OR
4899 Melbourne--Palm Bay, FL
4920 Memphis, TN--AR--MS
4940 Merced, CA
5000 Miami--Hialeah, FL
5025 Middletown, OH
5040 Midland, TX
5080 Milwaukee, WI
5120 Minneapolis--St.Paul, MN
5140 Missoula, MT
5160 Mobile, AL
5170 Modesto, CA
5187 Monessen, PA
5200 Monroe, LA
5240 Montgomery, AL
5280 Muncie, IN
5320 Muskegon, MI
5330 Myrtle Beach, SC
5343 Napa, CA
5345 Naples, FL
5350 Nashua, NH
5360 Nashville, TN
5395 Newark, OH
5400 New Bedford, MA
5440 New Britain, CT
5465 Newburgh, NY
5480 New Haven--Meriden, CT
5520 New London--Norwich, CT
5560 New Orleans, LA
5570 Newport, RI
5601 New York, NY--Northeastern New Jersey
5720 Norfolk--Virginia Beach--Newport News, VA
5760 Norwalk, CT
5790 Ocala, FL
5800 Odessa, TX
5840 Ogden, UT
5880 Oklahoma City, OK
5910 Olympia, WA
5920 Omaha, NE--IA

5960 Orlando, FL
5973 Oshkosh, WI
5990 Owensboro, KY
6000 Oxnard--Ventura, CA
6012 Palm Springs, CA
6015 Panama City, FL
6020 Parkersburg, WV--OH
6025 Pascagoula, MS
6080 Pensacola, FL
6120 Peoria, IL
6140 Petersburg, VA
6160 Philadelphia, PA--NJ
6200 Phoenix, AZ
6240 Pine Bluff, AR
6282 Pittsburgh, PA
6320 Pittsfield, MA
6340 Pocatello, ID
6377 Port Arthur, TX
6390 Port Huron, MI
6400 Portland, ME
6442 Portland--Vancouver, OR--WA
6450 Portsmouth--Dover--Rochester,NH--ME
6454 Pottstown, PA
6460 Poughkeepsie, NY
6480 Providence--Pawtucket, RI--MA
6520 Provo--Orem, UT
6560 Pueblo, CO
6580 Punta Gorda, FL
6600 Racine, WI
6639 Raleigh, NC
6660 Rapid City, SD
6680 Reading, PA
6690 Redding, CA
6720 Reno, NV
6740 Richland--Kennewick--Pasco, WA
6759 Richmond, VA
6780 Riverside--San Bernardino, CA
6800 Roanoke, VA
6820 Rochester, MN
6840 Rochester, NY
6880 Rockford, IL
6885 Rock Hill, SC
6895 Rocky Mount, NC
6900 Rome, GA
6911 Round Lake Beach--McHenry, IL--WI
6920 Sacramento, CA
6959 Saginaw, MI
6980 St. Cloud, MN
7000 St. Joseph, MO--KS
7040 St. Louis, MO--IL
7080 Salem, OR
7119 Salinas, CA
7159 Salt Lake City, UT
7200 San Angelo, TX
7240 San Antonio, TX
7320 San Diego, CA
7360 San Francisco--Oakland, CA
7400 San Jose, CA
7460 San Luis Obispo, CA
7479 Santa Barbara, CA
7485 Santa Cruz, CA
7490 Santa Fe, NM
7497 Santa Maria, CA
7500 Santa Rosa, CA
7511 Sarasota--Bradenton, FL
7520 Savannah, GA
7560 Scranton--Wilkes-Barre, PA

7572 Seaside--Monterey, CA
7600 Seattle, WA
7610 Sharon, PA--OH
7620 Sheboygan, WI
7640 Sherman--Denison, TX
7680 Shreveport, LA
7702 Simi Valley, CA
7720 Sioux City, IA--NE--SD
7760 Sioux Falls, SD
7767 Slidell, LA
7800 South Bend--Mishawaka, IN--MI
7820 Spartanburg, SC
7840 Spokane, WA
7880 Springfield, IL
7920 Springfield, MO
7960 Springfield, OH
8000 Springfield, MA--CT
8020 Spring Hill, FL
8040 Stamford, CT--NY
8050 State College, PA
8080 Steubenville--Weirton, OH--WV--PA
8120 Stockton, CA
8130 Stuart, FL
8140 Sumter, SC
8160 Syracuse, NY
8200 Tacoma, WA
8240 Tallahassee, FL
8280 Tampa--St.Petersburg--Clearwater, FL
8300 Taunton, MA
8312 Temple, TX
8320 Terre Haute, IN
8360 Texarkana, TX--Texarkana, AR
8382 Texas City, TX
8395 Titusville, FL
8400 Toledo, OH--MI
8440 Topeka, KS
8480 Trenton, NJ--PA
8520 Tucson, AZ
8560 Tulsa, OK
8600 Tuscaloosa, AL
8640 Tyler, TX
8680 Utica--Rome, NY
8694 Vacaville, CA
8740 Vero Beach, FL
8750 Victoria, TX
8760 Vineland--Millville, NJ
8779 Visalia, CA
8800 Waco, TX
8835 Warner Robins, GA
8840 Washington, DC--MD--VA
8880 Waterbury, CT
8920 Waterloo--Cedar Falls, IA
8929 Watsonville, CA
8940 Wausau, WI
8960 West Palm Beach--Boca Raton--Delray Beach, FL
9000 Wheeling, WV--OH
9040 Wichita, KS
9080 Wichita Falls, TX
9140 Williamsport, PA
9160 Wilmington, DE--NJ--MD--PA
9200 Wilmington, NC
9220 Winston-Salem, NC
9227 Winter Haven, FL
9240 Worcester, MA--CT
9260 Yakima, WA
9280 York, PA
9320 Youngstown--Warren, OH

9340 Yuba City, CA
9360 Yuma, AZ--CA

Puerto Rico

0060 Aguadilla, PR
0470 Arecibo, PR
1310 Caguas, PR
1355 Cayey, PR
3380 Humacao, PR
4840 Mayaguez, PR
6360 Ponce, PR
7440 San Juan, PR
8730 Vega Baja-Manati, PR

TIGER/Line(TM) Files, 1992

Appendix H
Source Codes

The source codes specify the original sources of complete chains and landmark features.

Value	Description
" "	Not Documented Elsewhere
"A"	Updated 1980 GBF/DIME-File
"B"	USGS 1:100,000-Scale DLG-3 File
"C"	Other USGS Map
"D"	Census Bureau Update Prior to Enumeration Operations
"E"	Census Bureau Enumerator Update
"F"	Census Bureau Update from Other Operations
"G"	Unconfirmed Local Official Updates
"H"	Census Update Post-1990 Operations

TIGER/Line(TM) Files, 1992

Appendix I
Acronyms/Abbreviations

1990 Census TIGER/Line files	TIGER/Line(TM) Census Files, 1990
1992 TIGER/Line files	TIGER/Line(TM) Files, 1992
ACF	Address Control File
AI/ANA	American Indian/Alaska Native Area
AIR	American Indian reservation
ANRC	Alaska Native Regional Corporation
ANV	Alaska Native village
ANVSA	Alaska Native village statistical area
BG	block group
BIA	Bureau of Indian Affairs
BNA	block numbering area
CCD	census county division
CDP	census designated place
CFCC	census feature class code
CSAC	Census Statistical Area Committee
DLG	Digital Line Graph
FEAT	Alternate Feature Identification Code
FIPS	Federal Information Processing Standard
GICS	Geographic Identification Code Scheme
GIS	Geographic Information System
GT	geometry and topology
LAND	landmark feature identification number
MCD	minor civil division
PL	Public Law
POLYID	polygon identification number
PUBGRF90	TIGER Geographic Reference File--Names, 1990
SDTS	Spatial Data Transfer Standard
STF	Summary Tape File
TAZ	traffic analysis zone
TDSA	Tribal Designated Statistical Area
TIGER	Topologically Integrated Geographic Encoding and Referencing
TJSA	Tribal Jurisdiction Statistical Area
TLID	TIGER/Line Record Identification Number
U/R	urban/rural
UA	urbanized area

USGS	United States Geological Survey
USPS	United States Postal Service
UT	unorganized territory
VTD	voting district