Mid-Region Council of Governments
MRRTPO COMMITTEE
Thursday, April 16, 2020 9:30a.m. - 11:30 a.m.
809 Copper Avenue NW, Albuquerque, NM 87102
**Please note this meeting will be held via teleconference.*

DANIEL WHITE, CHAIR	DEBBIE ORTIZ, VICE-CHAIR

AGENDA

This meeting will be held via teleconference.
To join on line, go to https://zoom.us/j/338083991
To call in, use one of these numbers and input the meeting ID: 338 083 991
346 248 7799
301 715 8592

- **Call to Order: The presence of a quorum will be noted**
- **Approval of agenda for April 16th, 2020**
- **Approval of meeting summary for February 20th, 2020**

PUBLIC COMMENT

TO ADDRESS THE RTPO COMMITTEE, REGISTER WITH THE COMMITTEE CHAIR PRIOR TO CALL TO ORDER.

ACTION ITEMS

- **Approval of updated by-laws**

DISCUSSION ITEMS

- COVID-19 Responses
- RTP Data sources – from NMDOT presentation

REPORTS

- **MRRTPO Report:** *Sandy Gaiser*
- **Member Report:** *All members who wish to report*
- **NMDOT Liaison Report:** *Neala Krueger*
- **NMDOT Tribal Liaison Report:** *Ron Shutiva*
- **NMDOT District 5 Report:** *Paul Brasher*
- **NMDOT District 6 Report:** *JoAnn Garcia or Marticia Holiday*

COMMITTEE MEETING ADJOURNMENT

NOTES

Next Meeting: Thursday, June 18th, 2020

Hosting Agency: Mid-Region Council of Governments
Location: TBD
Time: 9:30 am – 11:30 pm

Anyone requiring special accommodations is requested to please notify the MRCOG office at 247-1750 at least seven (7) days prior to the meeting.

MID-REGION COUNCIL OF GOVERNMENTS

REGIONAL TRANSPORTATION PLANNING ORGANIZATION

Meeting Summary

Thursday, February 20, 2020, 9:30 a.m. – 11:30 a.m.

809 Copper Avenue NW, Albuquerque, NM 87102

VOTING MEMBER				
ORGANIZATION		**MEMBER**		**ALTERNATE**
City of Moriarty		Debbie Ortiz, PHTC ***(Vice-Chair)***		Bob Hudson, Airport Manager
Town of Edgewood		John Basset, Mayor		Juan Torres, Clerk-Treasurer
			X	Korrina Christensen
				Carla Salazar
Town of Estancia		Sharalynn Lucero, PHTC		Nathan Dial, Mayor
Pueblo of Jemez	X	Sheri Bozic, Director – Planning & Development Director		Amanda Rubio, Transportation Project Manager
Pueblo of Laguna		Gaylord Siow, Transportation Specialist		Sharon Hausam, Planning Program Manager
Pueblo of Zia		Deborah Anyaibe, Public Works Director		Andrew Toribio, Public Works Manager
				Leon Gachupin, Road Maintenance Supervisor
Town of Mountainair		Dennis Fulfer, Clerk		Debbie Ortiz, PHTC
Village of Encino		Loretta Chavez, Clerk/Treasurer		Boyd Herrington, Mayor
Santa Fe County	X	Brett Clavio, Transportation Planner		Robert Griego, Planning Division Manager
				Maria Lohmann, Planner
Village of San Ysidro		Steve Lucero, Mayor	X	Daniel White, Marshal, ***(Chair)***
Torrance County	x	Leonard Lujan, Road Superintendent		Wayne Johnson, County Manager
			x	Cheryl Allen, Grants Coordinator
Sandoval County	x	Amy Griffin, R.O.W. Specialist		David Martinez
				Roseanne Verela
ELIGIBLE BUT NOT PARTICIPATING				
Jicarilla Apache Nation		Duane Sandoval, Engineer/Planner		Prestin Duncan, Engineer Tech
Village of Cuba		Richard Velarde, Mayor	x	Gilbert Dominguez, Mayor Pro-Tem
				Vandora P. Casados, Clerk
Village of Jemez Springs		Roger Wilson, Trustee		*Pending*
Village of Willard		Robert Chavez, Mayor		Angelina Halbert, Clerk

STAFF		
Mid-Region RTPO	X	Channing Hofman, Regional Planner
	X	Sandra Gaiser, Regional Planning Program Manager
	X	Maida Rubin, Senior Planner
	X	Payton Showalter, Regional Planner

NON-VOTING ASSOCIATE MEMBER

Step Into Cuba Alliance	x	Sally Davis, UNM Prevention Research Center
		Richard Kozoll, MD

NON_VOTING ADVISORY MEMBER		
ORGANIZATION		**MEMBER**
FHWA		Pending
NMDOT – District 5		Paul Brasher, District Engineer
		Manuel Miestas, T/LPA Coordinator
		Arif Kazmi, Engineering Support
NMDOT– District 6		Jan Niclos, Engineer Support
	x	JoAnn Garcia, LGRF, Capital Outlay, T/LPA Coordinator
		Marticia Holiday, Co-ops
		Bill Santiago, Local Government Coordinator
		Luke Smith – Central Region Design
NMDOT Regional Design Centers		Manuel Maestas – North Region Design
		Jessica Griffin, Planning Bureau Chief
NMDOT – Planning Division		Rosa Kozub, G2G Supervisor
	x	Neala Krueger, RTPO Liaison
		Ron Shutiva, Tribal Liaison
		Shannon Glendenning, BPE Coordinator
		Sky Tallman, CMAQ Coordinator
		Maggie Moore, TAP Coordinator
		David Harris, Transit Manager
NMDOT – Transit		Deborah Bach, Rural Transit
		Gabrielle Chavez, Transit Planning & Service
		Callie Thomason French
NMDOT - LTAP		

OTHER PARTICIPANTS

AGENDA

Call to Order:

Chair Daniel White, San Ysidro, called the meeting to order at 9:35am. A quorum was noted.

Approval of Agenda:

Amy Griffin, Sandoval County, made a motion to **approve the agenda for February 20, 2020;** the motion was seconded by **Sheri Bozic, Pueblo of Jemez** and passed unanimously.

Approval of Meeting Summary:

There was no discussion regarding changes to the meeting summary.

Amy Griffin, Sandoval County, made a motion to **approve the meeting summary for December 19, 2019;** the motion was seconded by **Sheri Bozic, Pueblo of Jemez** and passed unanimously.

PUBLIC COMMENT

No public comments were made.

ACTION ITEMS

There were no actions items.

DISCUSSION ITEMS

- RTP Update: the current RTP was distributed, Channing Hofman discussed general overview of the forthcoming update process.
- RTIPR and the LGTPF update: Channing Hofman discussed these and the PFF, made a general call for projects.

REPORTS

MRRTPO Staff Report: Sandy Gaiser led a discussion on the process of bundling projects, which the Pueblo of Jemez had some experience with. The possibility of having a presentation about the process was raised

Member Report: No member reports were given

NMDOT Liaison Report: Neala Krueger gave updates on PFF's, the LGTPF, and discussed the PPM amendments, the National Scenic By-way competition

NMDOT Tribal Liaison Report: Nothing to report

NMDOT District 5 Report: Reiterated the call for projects for the LGRF and process

NMDOT District 6 Report: Reiterated Liaison Report

NM/LTAP Report: no report

Committee Meeting Adjournment

The meeting adjourned at: 10:16 a.m.

Next Meeting: April 16, 2020, 9:30 a.m. to 11:30 a.m. at MRCOG, 809 Copper Avenue NW, Albuquerque NM 87102.

Anyone requiring special accommodations is requested to please notify the MRCOG office at 247-1750 at least seven (7) days prior to the meeting

_____

Daniel White, Chair - or-
Debbie Ortiz, Vice-Chair
Mid-Region RTPO Committee

ATTEST:

_____

Dewey V. Cave, Executive Director

MID-REGION COUNCIL OF GOVERNMENTS (MRCOG) OF NEW MEXICO
RURAL TRANSPORTATION PLANNING ORGANIZATION (RTPO)
For
NON-METROPOLITAN TRANSPORTATION PLANNING

BYLAWS

ARTICLE 1. Definitions

As used in these Bylaws, the following words and terms shall have the following meanings:

1. "State Planning and Development District No. 3" referred to as "SPDD3" shall mean all the territory encompassed within the four counties of Bernalillo, Sandoval, Torrance, and Valencia, in the State of New Mexico.

2. "Member" shall mean a Governmental Unit, as defined in this section, which is wholly or partially contained in the RTPO Planning Area as defined in this section.

3. "Associate Member" shall mean any public, quasi-public agency, political subdivision of the state, or other organization determined appropriate for non-voting membership in the MRCOG. Entities that may be eligible for Associate Member status include but are not limited to chambers of commerce, land grant communities, tax increment development districts (TIDDs), business and trade groups and associations, neighborhood associations, and economic development groups. The RTPO Committee will make a final determination regarding acceptance of requests for Associate Members.

4. "Representative" shall mean any person duly designated by a member governmental unit to represent that governmental unit or by an associate member agency to represent that agency.

5. "Advisory Member" shall mean any person or persons representing local, State, or Federal agencies or other organizations having a direct responsibility for transportation planning and programs within the RTPO Planning Area. Such persons shall be considered "non-voting" representatives and will act in an advisory capacity to the RTPO Committee.

6. "Governmental Unit" shall mean general or special units of government, including but not limited to municipalities, cities, town, villages, counties, school districts, flood control authorities, conservancy districts, institutions of higher education, Indian tribes, Indian pueblos, Indian reservations, public transportation providers, and any other general or special unit of government as determined by the RTPO Committee.

7. "Filled position" shall mean any position, including officers, that has an appointed representative to the RTPO Committee. A vacancy is not a filled position.

8. RTPO Planning Area. The non-metropolitan portion of SPDD3 and includes all or portions of Torrance and Sandoval Counties along with a portion of southern Santa Fe County that lies outside SPDD3. The RTPO Planning Area is located outside the Albuquerque Metropolitan Planning Area (AMPA) for the designated Metropolitan

Planning Organization and is shown on the map which is annexed to these Bylaws and marked APPENDIX A.

ARTICLE 1. Name

The name of this association shall be the Rural Transportation Planning Organization Committee for the Mid-Region Council of Governments (hereinafter referred to as the RTPO Committee) for non-metropolitan transportation planning.

ARTICLE 2. Composition

A. The RTPO Committee shall be composed of voting members and nonvoting associate and advisory members representing the pertinent organization with the RTPO Planning Area, as defined herein.

B. Voting members of the RTPO Committee shall be elected officials or their designated representative of RTPO member agencies within the RTPO Planning Area, as defined herein. Each member agency shall have one vote in the RTPO Committee.

C. Participation in the RTPO Committee shall not be contingent on membership in the Mid-Region Council of Governments.

D. Each member may appoint one primary member who shall represent their agency or community on the Committee. Up to two alternate representatives may also be appointed by each member to represent them in the absence of the primary representative in order to insure that one representative is seated at meetings of the Committee. The appointment of representatives shall be made in writing via email or letter to MRCOG.

E. An RTPO Committee member can be appointed to represent up to two (2) communities. For example, an RTPO Committee member can be appointed as the representative for the City of Moriarty and the Town of Estancia.

F. The representatives, including alternates, appointed to serve as members of the RTPO Committee shall have indefinite terms. Annual reaffirmation of representatives will be requested by the MRCOG staff.

F. Non-attendance of a representative for more than one calendar year shall be cause for removal from the Active Roster of the RTPO Committee and reassignment to a list of eligible, but non-participating members of the RTPO Committee. All eligible, but non-participating members of the RTPO Committee shall not have a seat or a vote on the RTPO Committee until such time as they send a representative to a Committee meeting.

G. Any voting Member, or non-voting Associate or Advisory Member may revoke the appointment of a representative or alternate at any time, and appoint or reappoint a new representative or alternate, by sending the appropriate written notice (email or letter) to MRCOG staff.

ARTICLE 3. Purpose and Function

The purpose of the RTPO Committee shall include but not be limited to the following:

A. To provide a regional forum for cooperative decision making on transportation issues among the various county, municipal, tribal and special purpose units of government which have jurisdiction within the RTPO Planning Area;

B. To establish a regional liaison between the local governments of the RTPO Planning Area and the New Mexico Department of Transportation;

C. To provide policy guidance, needs assessment, project priorities, and technical assistance in the development of transportation plans and special programs in the RTPO Planning Area; and

D. To perform the function of the regional transportation planning policy committee required by the Moving Ahead for Progress in the 21st Century (MAP21), including

1. Developing and maintaining, in cooperation with the State, regional long-range multimodal transportation plans,

2. Developing a regional transportation improvement program for consideration by the State,

3. Fostering the coordination of local planning, land use, and economic development plans with State, regional, and local transportation plans and programs,

4. Providing technical assistance to local officials,

5. Participating in national, multistate, and state policy and planning development processes to ensure the regional and local input of nonmetropolitan areas,

6. Providing a forum for public participation on the statewide and regional transportation planning processes,

7. Considering and sharing plans and programs with neighboring regional transportation planning organizations, metropolitan planning organizations, and tribal organizations, and

8. Conducting other duties, as necessary, to support and enhance the statewide planning process

ARTICLE 4. Meetings

A. The RTPO Committee shall meet on a bi-monthly basis at such time and place as the RTPO Committee may determine by appropriate action.

B. Since the RTPO Committee is a diverse assembly consisting of member governments from a large geographic area, thirty-three percent (33%) of the voting representatives shall constitute a quorum for formal actions. Committee members that are unable to attend in person, but are able to call-in to the meeting will be counted part of a quorum.

C. The RTPO Committee is a forum for cooperative decision making and every effort shall be made to achieve consensus on any issue or question presented to the RTPO

Committee. In the event that a consensus cannot be achieved by the RTPO Committee, a majority vote of the members present at a meeting will decide in the affirmative or negative any issue or question presented to the RTPO Committee.

D. All meetings and workshops of the RTPO Committee shall be advertised and open to the public, in accordance with the Open Meetings Resolution of the MRCOG.

ARTICLE 5. Subcommittees

A. In order to achieve specific objectives in the regional transportation planning process, the RTPO Committee may create subcommittees as specialized task groups. Subcommittees may be formed to evaluate and report on a particular issue or to conduct transportation planning activities in a designated portion of the region.

B. Subcommittees created by the RTPO Committee shall be active for an indefinite period of time and may be rescinded at any time by action of the RTPO Committee.

C. Subcommittees shall establish rules of conduct for purposes of holding advertised meetings and maintaining active participation.

D. Subcommittees shall schedule their respective meeting dates at locations and times deemed appropriate by the members of the subcommittee.

ARTICLE 6. Officers

A. The officers of the RTPO Committee shall be chosen from among the voting representatives comprising the RTPO Committee and shall consist of a Chair and Vice Chair.

B. The Chair and Vice Chair shall be elected at the first scheduled meeting of the federal fiscal year (October 1 to September 30) by a majority vote of the representatives present at the meeting. The Chair and Vice Chair shall take office immediately following the election.

C. The term of office for the Chair and Vice Chair shall be one year, and each officer may be elected for an indefinite number of terms.

D. The Chair shall preside at all meetings of the RTPO Committee. During the absence or disability of the Chair, or during when a vacancy exists in the office of Chair, the Vice Chair shall preside over meetings of the RTPO Committee. In the event that neither the Chair nor the Vice Chair is present to open a meeting of the RTPO Committee, a Chair Pro Tem shall be selected by a consensus of the members present to conduct the meeting.

E. If a vacancy occurs in the office of the Chair or Vice Chair, the unexpired term shall be filled in the same manner in which such officers were originally elected. Until the election of a new Chair, the Vice Chair shall serve as Chair. The unexcused absence of a Chair or Vice Chair for two consecutive meetings may be considered a vacancy.

ARTICLE 7. Staff

A. The MRCOG will provide the RTPO Committee and any of its subcommittees with the necessary staff and technical assistance to support the regional transportation planning process.

B. The MRCOG staff will be responsible for assembling information and preparing the documentation of plans, programs, correspondence, and other records necessary to conduct the regional transportation planning process.

ARTICLE 8. Approval and Amendments

A. These Bylaws shall be in effect upon approval by the Mid-Region RTPO Committee and concurrence by the New Mexico Department of Transportation.

B. These Bylaws may be amended by the Mid-Region RTPO Committee with an affirmative majority vote, subject to concurrence by the New Mexico Department of Transportation.

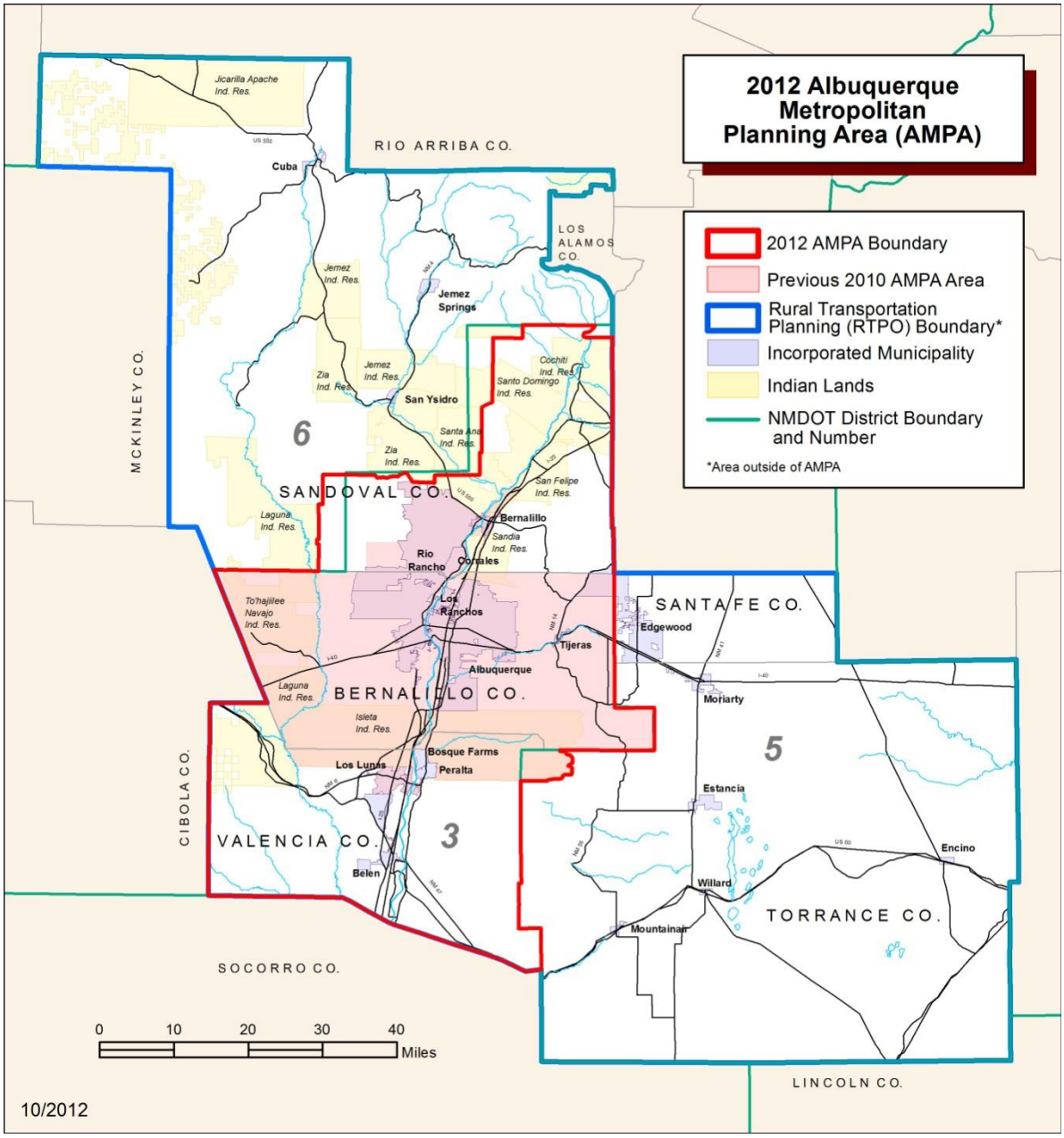
PASSED, ADOPTED, and APPROVED this 22nd day of October 2015, by the Mid-Region RTPO Committee of the Mid-Region Council of Governments of New Mexico.

_____
Daniel White, Chair or Gilbert Dominguez.
Vice Chair, Mid-Region RTPO Committee

ATTEST:

_____
Dewey V. Cave
MRCOG Executive Director

APPENDIX A


2012 Albuquerque Metropolitan Planning Area (AMPA)
2012 AMPA Boundary
Previous 2010 AMPA Area
Rural Transportation Planning (RTPO) Boundary*
Incorporated Municipality
Indian Lands
NMDOT District Boundary and Number
*Area outside of AMPA
RIO ARRIBA CO.
LOS ALAMOS CO.
MCKINLEY CO.
SANDOVAL CO.
SANTA FE CO.
BERNALILLO CO.
VALENCIA CO.
CIBOLA CO.
SOCORRO CO.
TORRANCE CO.
LINCOLN CO.
Jicarilla Apache Ind. Res.
Cuba
Jemez Ind. Res.
Jemez Springs
Zia Ind. Res.
San Ysidro
Cochiti Ind. Res.
Santo Domingo Ind. Res.
Santa Ana Ind. Res.
San Felipe Ind. Res.
Laguna Ind. Res.
Bernalillo
Sandia Ind. Res.
Rio Rancho
Corrales
Los Ranchos
Tohajiilee Navajo Ind. Res.
Edgewood
Tijeras
Albuquerque
Isleta Ind. Res.
Bosque Farms
Peralta
Los Lunas
Belen
Moriarty
Estancia
Encino
Willard
Mountainair
6
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10/2012

New Mexico DEPARTMENT OF TRANSPORTATION MOBILITY FOR EVERYONE | Statewide Planning Bureau

Data Sources and Uses for Regional Transportation Planning Organizations

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Introduction

There is a wide range of data which is useful for Regional Transportation Planning Organizations (RTPOs). Data about physical road networks, traffic volumes and speeds, road conditions, and crash statistics can support transportation planning. Demographic and economic information, tourism statistics, as well as locations of homes, employment, and other traffic generators can also inform RTPO planning efforts, as well as project development and review.

The Technical and Freight Planning Unit within the Statewide Planning Bureau can provide advice and some support about acquiring and processing data. RTPOs may find it helpful to discuss data needs with their New Mexico Department of Transportation (NMDOT) Government to Government (GTG) liaisons, to help define the questions and scope, which can help narrow down which data sets to use.

This document includes general details about data sources, their potential uses, and some limitations. This list is not all-inclusive, and additional data is available nationally, regionally, and locally. Discussing planning projects with a wide range of stakeholders may identify new data sources and uses.

Land Area and Roadway Designations

Land use and roadway classifications go hand-in-hand, as one can determine or shape the other. Both land area and roadway designations defined here are about existing use patterns.

Urban Area Boundaries

Data type: Geographic area (polygon)

Data format: Fully processed; online map, GIS shapefile, Google Maps KMZ/KML

Data provider: Statewide Planning Bureau

Every ten years, the U.S. Census Bureau collects population information, and produces a number of data products for use by a wide range of professions in a wide range of applications. One key product for transportation planning is **urban area boundaries**, which informs funding eligibility, and is used in reporting data back to the Federal Highway Administration (FHWA).

These come from the Census Bureau as Topologically Integrated Geographic Encoding and Referencing (TIGER)/Line shapefiles for the urban area, urban cluster (UC), and urbanized area boundaries. *Please note that there are differences between the urban designations from the Census Bureau and FHWA*. Boundaries of urban areas according to FHWA—those with a population greater than or equal to 5,000 —are allowed by federal legislation to be expanded for transportation planning purposes.

NMDOT SPB maintains these boundary files, working with Metropolitan Planning Organizations (MPOs) and local jurisdictions to "smooth" boundaries, based on FHWA requirements. SPB reports those adjusted urban area boundaries to FHWA, and will post them online in a web map, and can distribute GIS and Google Maps (KMZ or KML) files.

Please note: when an area is referred to as "urban" or "rural," it is in reference to this designation process, not to city or town boundaries. In fact, urban boundaries typically extend beyond these designations, which is why it is critical to make sure you are referring to the appropriate boundaries.

Roadway Classifications

Data type: Roadway segments

Data format: Fully processed; online maps, GIS shapefiles

Data provider: Statewide Planning Bureau

There are a number of roadway classifications, including but not limited to Functional System (FSys), National Highway System (NHS), and National Highway Freight Network (NHFN). Each have related federal regulations and requirements, and related funding eligibilities. NMDOT manages and maintains these classifications, submitting reclassification proposals to FHWA for review and approval.

While GIS files with roadway classifications can be downloaded from FHWA, NMDOT can also maintains these GIS files, which have been geographically corrected to reflect on-the-ground realities of New

Mexico roadways. Some of these are available in online maps, while others can be downloaded and used with ArcMap or other GIS programs.

Functional System

Public roadways are classified by FHWA into seven **Functional System** (Fsys) categories:

1. Interstate
2. Other Freeway and Expressway (OFE)
3. Principal Arterial
4. Minor Arterial
5. Major Collector
6. Minor Collector
7. Local

These classifications are based on a number of factors, including traffic volumes, amount of access control, number of lanes, posted speeds, and other features. NMDOT maintains these Functional System Classifications.

Revisions to the urban area boundaries may result in revisions to the functional classification of the state's roadways. Changes in the land use and development patterns, which are reflected in the changing census designations for urban area boundaries (addressed previously) and traffic counts (covered below), may support modifications to functional classifications, to better reflect actual roadway uses as communities change.

Link: https://nmdot.maps.arcgis.com/home/index.html and look for "Roadway Functional Class" map

National Highway System

The **National Highway System** (NHS) includes the Interstate Highway System (Interstates) as well as other roads important to the nation's economy, defense, and mobility. These roads include non-Interstate Strategic Highway Network (STRAHNET) routes and connectors, intermodal connectors, and MAP-21 Principal Arterials.

Link: https://www.fhwa.dot.gov/planning/national_highway_system/nhs_maps/

National Highway Freight Network

The **National Highway Freight Network** (NHFN) was designated in the FAST Act to strategically direct Federal resources and policies toward improved performance of highway portions of the U.S. freight transportation system. The NHFN consists of the Primary Highway Freight System (PHFS), and Critical Rural and Urban Freight Corridors (CRFC and CUFC). PHFS is selected at the national level, while CRFC and CUFC are designated at the state level, based on federal criteria.

Link: https://ops.fhwa.dot.gov/freight/infrastructure/nfn/index.htm

Traffic Data

NMDOT also collects, processes, and provides data about vehicle travel patterns, including the volume and types of vehicles traveling on the roadways, and the locations and severity of crashes, to name two major traffic data types.

Traffic Count Data

Data type: Roadway segment (traffic count segment), annualized

Data format: Fully processed; CSV, Excel, map, PDF

Data provider: Data Management Bureau, and possibly local entities

Link: https://dot.state.nm.us/content/nmdot/en/Data_Management_Bureau.html ; fill out and email the "Traffic Monitoring Data Request Form" to request data.

Traffic counts describe the number of vehicles crossing a point of a roadway segment. The Data Management Bureau (DMB) reports traffic counts as Average Annual Daily Traffic (AADT), typically available early in a calendar year for the prior year. Additionally, local entities, MPOs and RTPOs can and may conduct their own traffic counts.

DMB collects and processes traffic counts for roadways of all functional classifications. NMDOT has 116 Continuous Count Stations (CCS) and 18 Weigh-in Motion (WIM) stations that collect traffic data twenty-four hours per day, every day. Additionally, DMB oversees the collection of short duration (50-hour) traffic counts, covering the rest of the state on a rotating schedule as part of their Traffic Monitoring Program. This work is done by NMDOT staff, contractor support, and by Mid Region Metropolitan Planning Organization (MRMPO) and Mesilla Valley Metropolitan Planning Organization (MVMPO) in their respective planning areas.

Not all roads are counted every year, with the result that traffic on many road segments is estimated by reviewing traffic counts from similar road facility types in other parts of New Mexico. These rotating counts are collected on a road segment for a short period, typically 48-50 hours.

Code	Functional System Classification	Minimum Count Frequency
1	Interstate	Every 3 years
2	Other Freeway and Expressway (OFE)	Every 3 years
3	Principal Arterial	Every 3 years
4	Minor Arterial	Every 6 years
5	Major Collector	Every 6 years
6	Minor Collector	*Urban*: every 6 years; *Rural*: every 12
7	Local	Every 12 years
	Ramps	Every 6 years

Table 1: New Mexico Roadway Functional Classification

After collecting short term traffic counts, NMDOT's DMB processes this traffic data to annualize it, applying day of week and month of year factors, which yields AADT values, as well as truck counts. Without this processing, unadjusted traffic counts may not accurately represent typical traffic volumes.

Traffic counts may also be collected for specific time(s) of day, day(s) of the week, or time of year without intending to average for annual values, to capture traffic volumes related to special events or seasonal peaks.

The CCS collect volume, vehicle class, and/or speed data, depending on the sensor layout in the roadway. WIM stations collect the same data with the addition of the vehicle weight. Short duration traffic counts can collect volume, class, and speed data. (See Appendix A for additional details.) It is important to determine the type of data you want when requesting or collecting data.

Traffic Counts by RTPOs

RTPOs are not required to conduct traffic counts, but RTPO counts can collect counts on roads of interest and supplement what is collected by NMDOT. The RTPO counts can be useful to a local entity or an RTPO seeking to plan a project or submit a grant for a road that has not had a recent traffic count, and can be used to nominate a roadway for a higher functional system classification.

If an RTPO is looking to conduct or contract for traffic counts, first reach out to DMB to see if the roadway segment(s) of interest may be covered in upcoming counts. If an RPTO wishes to proceed and conduct or contract for their own counts, in order for to have the counts coordinated with and accepted by the NMDOT DMB, DMB requires the counts to be conducted in accordance with the current NMDOT State Traffic Monitoring Standards. The DMB can also provide Traffic Monitoring Training to support safe traffic counter setup, and consistency in data gathering and analysis.

Bicycle Counters

NMDOT can also provide RTPOs with bicycle counters to count bicycle traffic on roads and/or hard-surface trails, to support multimodal planning and gather data for bicycle projects. For more information on the Bicycle Count Program, please see the Bicycle Count Program Guide online: dot.state.nm.us/content/dam/nmdot/planning/ActiveProg/NMDOT_Bicycle_Count_Program_Guide.pdf

Furthermore, the Statewide Planning Bureau's Active Transportation Program developed the State Bicycle Guideline Map: https://tinyurl.com/NMBicycleGuideMap -- short URL; expanded: nmdot.maps.arcgis.com/apps/webappviewer/index.html?id=25379a5f300c4aafbd36147c7c7127d1

New Mexico Traffic Safety/Crash Data

Data type: Maps, trends and statistics

Data format: Fully processed; formats described below

Data provider: University of New Mexico

NMDOT's Traffic Records Program includes the Statewide Traffic Records System and the State Crash Data System. The University of New Mexico (UNM) is contracted by NMDOT to collect, analyze, and present New Mexico traffic crash data. Crash maps and reports are available through the UNM webpage: https://gps.unm.edu/tru. You can request crash data by submitting a data request form, available on that website. Available data on the UNM site includes:

- Traffic crash trends and statistics
- Impact of traffic safety programs
- Analytical reports on crash-related issues
- Maps displaying traffic crash data

The NMDOT State Traffic Records System, which coordinates with UNM, includes a link to the Uniform Crash Report form. On the site (https://nmtrafficrecords.com), you can find additional resources, including a list of helpful links to related subjects.

National Performance Management Research Data Set (Travel Speed Probe Data)

Data type: Tabular with a network reference geospatial file

Data format: Raw travel data, in as small as 5 minute increments

Data provider: Inrix via the Center for Advanced Transportation Technology Laboratory (CATT Lab) at the University of Maryland (NMDOT has access to the data)

FHWA supports State DOT efforts to report on travel time reliability, to comply with federal planning reporting requirements by offering the National Performance Management Research Data Set (NPMRDS). This is travel speed data, reported for the NHS, based on probe data (individual data points to represent larger patterns). This comes from Location-Based Services (LBS) data, such as smart phone apps and GPS devices. This data is gathered and anonymized, then reported as the time to travel across a roadway segment, in seconds. From this information, a travel speed can be calculated.

For federal reporting, reliability is evaluated on how much travel speeds vary from day to day, over a year. This data can also be used for other evaluations on travel speeds, as long there is sufficient probe data to answer your question (in rural areas, there may be fewer vehicles traveling, and fewer vehicles with smart devices reporting location information).

Because of the size of the data set, processing the data requires significant preparation. At this time, NMDOT is only using this data for statewide travel time performance measures.

Socioeconomic Data

Population and employment data is available from a range of sources, and in varying levels of detail. Some comes from New Mexico experts, and other is available from federal government agencies.

Bureau of Business & Economic Research

Data type: Tabular and graphed/charted

Data format: Fully processed

Data provider: University of New Mexico

Link: https://bber.unm.edu/

The UNM Bureau of Business & Economic Research (BBER) is the key source for socioeconomic data for the state of New Mexico. Their website hosts a number of ready-to-use graphs and charts, pulling from U.S. Census Bureau figures and the Bureau's own research and analysis.

BBER data is also available as geospatial datasets from RGIS, which is discussed later in this document.

Other Sources for Employment Data

Data type: Tabular

Data format: Varies; typically CSV or Excel

Data provider: U.S. Bureau of Economic Analysis, U.S. Census, NM Department of Workforce Solutions, and private companies

Employment data is key for understanding locations and trends for working populations and production, and can be obtained from a number of different sources, including U.S. Bureau of Economic Analysis (BEA), U.S. Census (specifically the Longitudinal Employer-Household Dynamics, or LEHD), New Mexico Department of Workforce Solutions (NMDWS), and private companies that specialize in data collection.

Links: BEA – www.bea.gov ; LEHD – lehd.ces.census.gov ; NMDWS – www.dws.state.nm.us

To protect the privacy of individuals and companies, publicly available data is typically aggregated, to obscure the information about individual employees and employers. For example, BEA reports employment figures at the county level, while LEHD is reported down to census Blocks. LEHD data is accessible via a dynamic, online mapping tool, OnTheMap: https://onthemap.ces.census.gov/ .

Additionally, some agencies collect and report data with a focus total employment by company, and report employment addresses as a central headquarters or human resources department, which is often the case for retail chains; this centralization is called "headquartering," and obscures the actual number of employees in dispersed locations.

An alternative is to license data from a private data vendor. This can provide specific employment figures at fixed addresses, but typically misses some percentage of employment (for example, self-employed individuals, and companies who decline to answer inquiries of this nature). There is a cost associated with this data licensing, both for initially acquiring the data, and possibly to "clean" the data, or checked for errors and accuracy. A number of local, regional and state-wide agencies license and clean this data from time to time, and data licenses may be set up in advance, or modified after the fact, to allow RTPOs to also use this data.

US Census Bureau Data

Decennial Census Data

Data type: Tabular and geospatial

Data format: Varies; CSV, Excel and GIS

Links: https://data.census.gov/cedsci/advanced?tid=GOVSTIMESERIES.CG00ORG01 and https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.html

The Census Bureau has a number of online sources for obtaining data population-related data, collected from the decennial census. Two of the main sources are Census Advanced Search (formerly American

Factfinder) and TIGER[1]. Depending on the data density, the data may be available down to the smallest geographic area, the Census Block, or may only be available at larger geographies (Block Group or Tract).

The Census Advanced Search page gives users the ability to obtain data based on a number of options, which include, but are not limited to:

- Topics (e.g., population, housing, business/industry, year etc.)
- Geographies (e.g., United States, specific state, county, census tract, census block etc.)
- Race and Ethnicity
- Economic/Industry (North American Industry Classification System codes, or NAICS codes, number of employees, etc.)

Census data varies greatly in utility based on:

- When it was collected (data age or vintage)
- Sample size (statistic for neighborhood block, community region, or county-wide)
    - Note: some data sets are not available at small geographies

The TIGER/Line Shapefiles webpage offers downloads of GIS files corresponding to census geography boundaries (e.g., states, counties, tracts, block groups etc.).

American Community Survey

Data type: Geospatial

Data format: Aggregated for data privacy; GIS shapefile

Link: https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-data.html

In addition to the decennial census, the Census Bureau also runs the American Community Survey (ACS), an ongoing survey. It regularly gathers information previously contained only in the long form of the decennial census, such as ancestry, citizenship, educational attainment, income, language proficiency, migration, disability, employment, and housing characteristics, many times down to the Census Block. This information is vital for transportation planning, but may take a significant amount of analysis to provide or produce a good summary or report. Also, like the long form, this is information gathered from a sample of the total population, instead of the total population of the decennial census.

Census Reporter

Data type: Geospatial

Data format: Fully processed, displayed as graphs

Link: https://censusreporter.org

A fourth Census data tool is the Census Reporter, which provides convenient graphics and tables for a geographic area (e.g., city or town) and specific topic (e.g., population or age) when additional analysis and data work is not required. This site uses ACS and decennial census data, depending on what information is presented.

[1] TIGER is an acronym for Topologically Integrated Geographic Encoding and Referencing and related to Geographic Information System (GIS) files. TIGER was also an acronym used to describe unrelated USDOT transportation grants.

Census Reporter displays the statistics in ready-to-use graphs, and includes citations for reports. And because some area selections might have very low populations, Census Reporter will also include notes when the data is not statically representative due to limited sample sizes.

See Appendix A for a more technical discussion of statistics along these lines.

Census Transportation Planning Products Program

Data type: Tabular

Data format: Aggregated and processed

Link: https://ctpp.transportation.org/

The Census Transportation Planning Products (CTPP) Program is a State DOT-funded, cooperative program that produces special tabulations of ACS data that have enhanced value for transportation planning, analysis, and strategic direction. Additionally, the program provides universal access to that data, funds and conducts research, and provides training and technical assistance to the transportation planning community, all to increase understanding of the needs of the traveling public in support of policy and programming decision making.

One caveat is that CTPP data sets, to ensure adequate privacy, are often aggregated up to larger geographies. In some instances, data is reported at the county level, which is informative to see movements into and out of a county, but data may not be available for smaller-scale planning efforts.

Economic and Freight Data

Energy, Minerals and Natural Resources Department (EMNRD)

Data type: Point data (information about mines, and oil and gas wells)

Data format: Varies; online maps, downloadable GIS files, detailed reports

Data provider: EMNRD

ENMRD maintains location and other details of extractive industry operations, which can inform economic and transportation plans and projects.

The **Mines and Minerals Division** maintains both online maps and additional data: http://www.emnrd.state.nm.us/MMD/gismapminedata.html

The **Oil Conservation Division** has some online information about individual wells and more GIS data available: http://www.emnrd.state.nm.us/ocd/ocdonline.html

National Freight Flows

Data type: Tabular and geospatial

Data format: Fully processed, displayed in tables and as geospatial (network flow) files

Link: https://ops.fhwa.dot.gov/freight/freight_analysis/faf/

FHWA collects and reports national freight data available, through a partnership with the Bureau of Transportation Statistics (BTS). This Freight Analysis Framework (FAF) data is available for free online at

and it presents a snapshot of freight movements by mode (truck, rail, air, pipeline, and mixed modes), by tonnage and value, for the entirety of New Mexico, per year, with a forecast year for projected future volumes and values. You can find other sources for specific commodities and modes, and more granular data is available for all modes from private data providers, but is often costly.

Other Data Collections and Sources

There are also a few notable collections of different data sources and types, which don't easily fit into the previously listed categories.

New Mexico GIS Data Collection

Data type: A variety of geospatial information

Data format: Varies; GIS files in various formats

Data provider: UNM

Link: http://rgis.unm.edu/

UNM hosts a clearinghouse of local and regional New Mexico GIS data at the Resource Geographic Information System (RGIS). Data sets are sorted into topic area, and include agriculture, Census and demography, climate, elevation and terrain, FEMA Risk Map products, hazards, health, public safety, transportation, utilities and communication, water, and more.

FHWA Planning, Environment, Reality (HEP) online GIS, HEPGIS

Data type: Geospatial data

Data format: Mapped data, with some downloads available

Data provider: FHWA

Link: https://hepgis.fhwa.dot.gov/fhwagis/

FHWA's office of Planning, Environment and Real Estate also uses the acronym HEP. This group oversees a broad range of programs and projects that produce and/or rely on GIS data, so they created the HEPGIS online map, which currently includes the following categories:

- Performance Metrics
  - Annual Travel Time Reliability Index
  - Annual Peak Hour Excessive Delay
- Highway System
  - National Highway System (NHS)
  - Alternative Fuel National Corridors
  - 2017 HPMS Annual Average Daily Traffic (AADT)
  - And other sets
- Fatal Crashes
  - Annual maps for 2018–2009
  - Pedestrian & Cyclist crashes for 2014–2018
- Monthly Reliability Index, 2018–2019
  - Car Travel Time: weekday 6am-10am, 10am-4pm, and 4pm-8pm; weekend 6am-8pm

    - Truck Travel Time: weekday 6am-10am, 10am-4pm, and 4pm-8pm; weekend 6am-8pm, overnight 8pm-6am
- MPO & Megaregion
    - MPO and Census Urbanized Areas
    - TMA and MPO Boundaries
    - FHWA Adjusted Urban Area
    - Air Quality Maps
    - Demographic Maps
    - Megaregion Research
- Border Flows / FAF4
    - Border Commodity Flows
    - FAF4 Origin-Destination Flows
    - FAF4 Network Flow

Appendix A:

A word about GIS data

Geospatial data sets typically require a geospatial processing program, such as Esri ArcMap, or QGIS, a free and open source alternative to ArcMap. These tools have a learning curve, and may require training to become skilled with them. While GIS analysis can be a powerful tool, it may be beneficial to first confirm that the answers or information being sought aren't available through other sources.

If you or someone you know who works for a public agency in a transportation-related field wishes to learn more about GIS, the New Mexico Local Technical Assistance Program (LTAP) Center, operated by the University of New Mexico (http://ltap.unm.edu/), often has GIS courses hosted around the state, for both ArcMap and QGIS. Additionally, they may be able to provide directions to good online resources for learning these platforms, with a focus on transportation planning.

Statistics and Mapping: Looking closer at Census data

Before getting into selecting data sets, let's first discuss how to determine data quality. You don't have to perform these calculations, but it is important to understand where your data comes from and its quality, both at the start of your research and when the data is presented in its final form.

Sampling Rate

The quality of a sampling rate is judged in terms of the *confidence level* and *sampling error*. For much statistical work, 90% to 95% is a good confidence level. A confidence level of 95% means that for the sample analyzed, we are 95% confident that the "true" answer falls between two values on either side of the calculated mean value. This is known as the *confidence interval*.

Figure 1 shows that a 95% confidence interval includes a range of almost two standard deviations of data on either side of the mean. The mean is the "average" value of the population attribute you are analyzing (e.g., income, age, percentage of a gender within a population etc.).

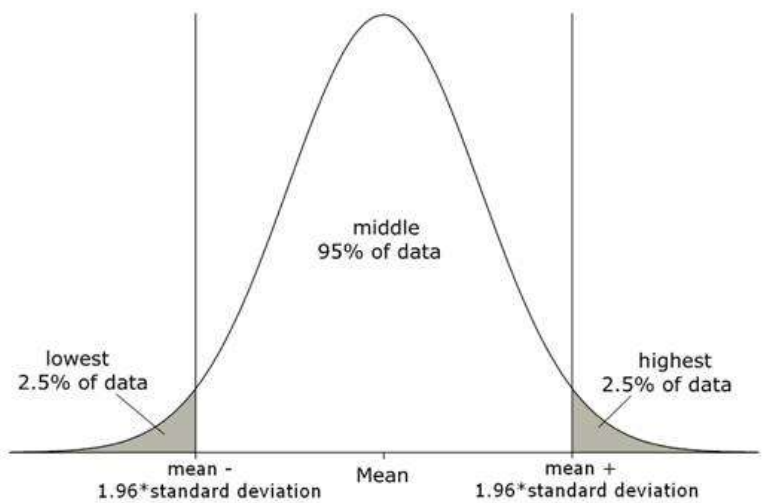

Figure 12: 95% Confidence Interval[2]

[2] from http://www.icse.xyz/msor/ssim/SDandCI.html <International Centre for Statistical Education Website>

The *sampling error* is the difference that exists between a calculated statistic and the on-the-ground reality you are trying to estimate. The fewer samples you collect from a given population, the higher the sampling error of your data. Once you select an acceptable sampling error, you can use that percentage and the total population size to calculate the necessary sample size. In other words, the census (or other data) must get information about a sufficient number of people from within the area of interest to ensure reasonably accurate estimation of attributes.

Sampling calculators tell you how many data points you need to determine a minimum sampling rate based on your population of interest (e.g., residents of a census tract or a city). An example of an online sampling calculator can be found here: https://www.surveymonkey.com/mp/sample-size-calculator/. That page also provides a helpful review of statistical concepts.

Which Census Data Set Should I Use?

The decennial census is conducted every ten years. This is the most comprehensive census dataset and has the best sampling rate. Good sampling rates look at a sufficient number of samples (which in this case are people who answer census questions) to make reasonable statistical claims for a given area or group.

The American Community Survey (ACS) is conducted more frequently (in one and five year increments), but offers fewer data categories and has a lower sampling rate. Five year ACS products combine data from across years which improves the sampling margin of error, but introduces other error related to the data being collected over different periods. Five year ACS data may be of reasonable quality for examining areas which change very little during the period in question (e.g., when you are certain that population numbers, income, and employment have not changed much over that five year period).

Even data with a low sampling rate can be useful in some situations. At the county level, a relatively low sampling rate may give the data user a reasonable idea of the composition of county residents. However, the same low sampling rate at the census block level is essentially useless except in high density areas. This consideration is generally true of one year ACS data. Five year data is better, but may also have considerable sampling error.

Furthermore, if you are looking to map or chart trends, there are considerations to make when selecting which census data sets to use. The Census Bureau has a good overview of both the data represented in the decennial census and the various ACS reports, and how these data sets can be compared, here: https://www.census.gov/programs-surveys/acs/guidance/comparing-acs-data.html

Choropleth Maps: Using Color to Communicate Census Data

Choropleth maps are thematic maps that show more or less of an attribute across areas. This could involve counties within a State, census tracts within a county, or neighborhoods within a community. These maps use a range of color (e.g., from light red to dark red) to show relative values of the attribute (e.g., average income, number of children per household, or presence of people over the age of 65). However, a range of a single color does not work well for categories that are not located along a numerical range of values. A set of varying colors (e.g., blue, green, yellow) should

be used for categories which are not numerical (e.g., for ethnicity). To avoid misinterpretation, skin tone colors should not be used to represent ethnicity in your map.

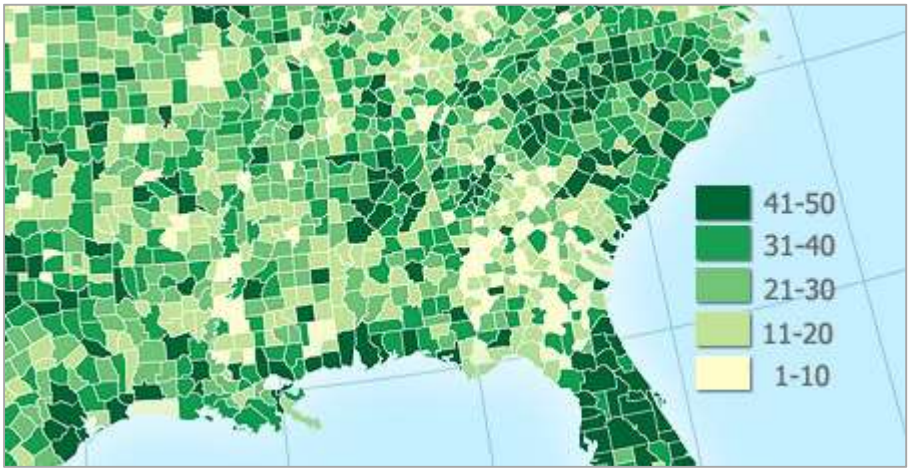

Image 1: Example of a Choropleth Map

The map above shows the relative presence of an attribute by county[3]. Note that the counties have light borders to create visual separation between counties.

Data Classification for Use in Maps

Before choropleth maps are finished, the data must be classified in a way that educates and does not mislead the viewer. This is done by deciding where each category of data starts and ends. For example, if you are representing average income, how will you divide the categories? The Census and other government agencies have guidelines for these divisions which may be useful. Another way to decide where to divide categories is to consider the question you are trying to answer. If you are interested in household income below 130% of the current poverty level, that should be one of the divisions between income categories. You may also want divisions located at 100% or 200% of the poverty level. In other cases, you may want to set divisions that correspond to equal intervals such as shown in the map above. Generally, three to seven classes works well for these types of maps.

Color Blindness and Graphics

People with color blindness cannot distinguish certain colors from other colors. The most common color blindness is red-green. With this in mind, it is best to not represent map elements which use similar line types (e.g., line thickness, dotted, or dashed etc.) while also using colors which may be difficult to distinguish. This website shows how to use colors so a red-green color blind person will have less trouble reading your map or other color-dependent graphics: http://colorbrewer2.org/#type=sequential&scheme=BuGn&n=3.

[3] from https://www.axismaps.com/guide/univariate/choropleth/

Traffic Counts Data Types Available

Traffic counts can capture volume, class, speed, and/or weight. As noted in the body of the report, the Continuous Count Stations (CCS) collect volume, class, and/or speed data, depending on the sensor layout in the roadway. The Weigh-in-Motion (WIM) stations collect the same data with the addition of the vehicle weight. Short duration traffic counts can collect volume, class, and speed data.

Volume

NMDOT collects volume counts for all short duration traffic counts conducted. Volume data represents how many vehicles pass a given location in a day. Once this data goes through year end processing and the Department applies axle correction factors and seasonal adjustment factor we are able to produce AADT.

Class

NMDOT collects vehicle classification data in accordance with FHWA's 13 vehicle classification scheme (see Table 2 below). This data tell us how many vehicles of a particular classification pass a given location in a day. The year-end process allow the Department to calculate vehicle class AADT. With this information we are able to calculate Truck AADT and Percent Truck. Federal reporting is grouped into two sets for trucks: single-unit truck and bus for vehicle classes 4 through 7, and combination trucks for vehicle classes 8 through 13.

Speed

NMDOT collects speed data on all short duration counts and at each CCS enable to collect volume and speed. The speed data allows the Department to calculate the 50th and 85th speed percentile.

Weight

NMDOT collects weight data at all WIM stations. These stations weigh of each vehicle at the axles. Weight data is important to the Department to determine the number of overweight vehicles and to calculate Equivalent Single Axle Load (ESAL). ESALs are provided to the Pavement Bureau as an input for their pavement design.

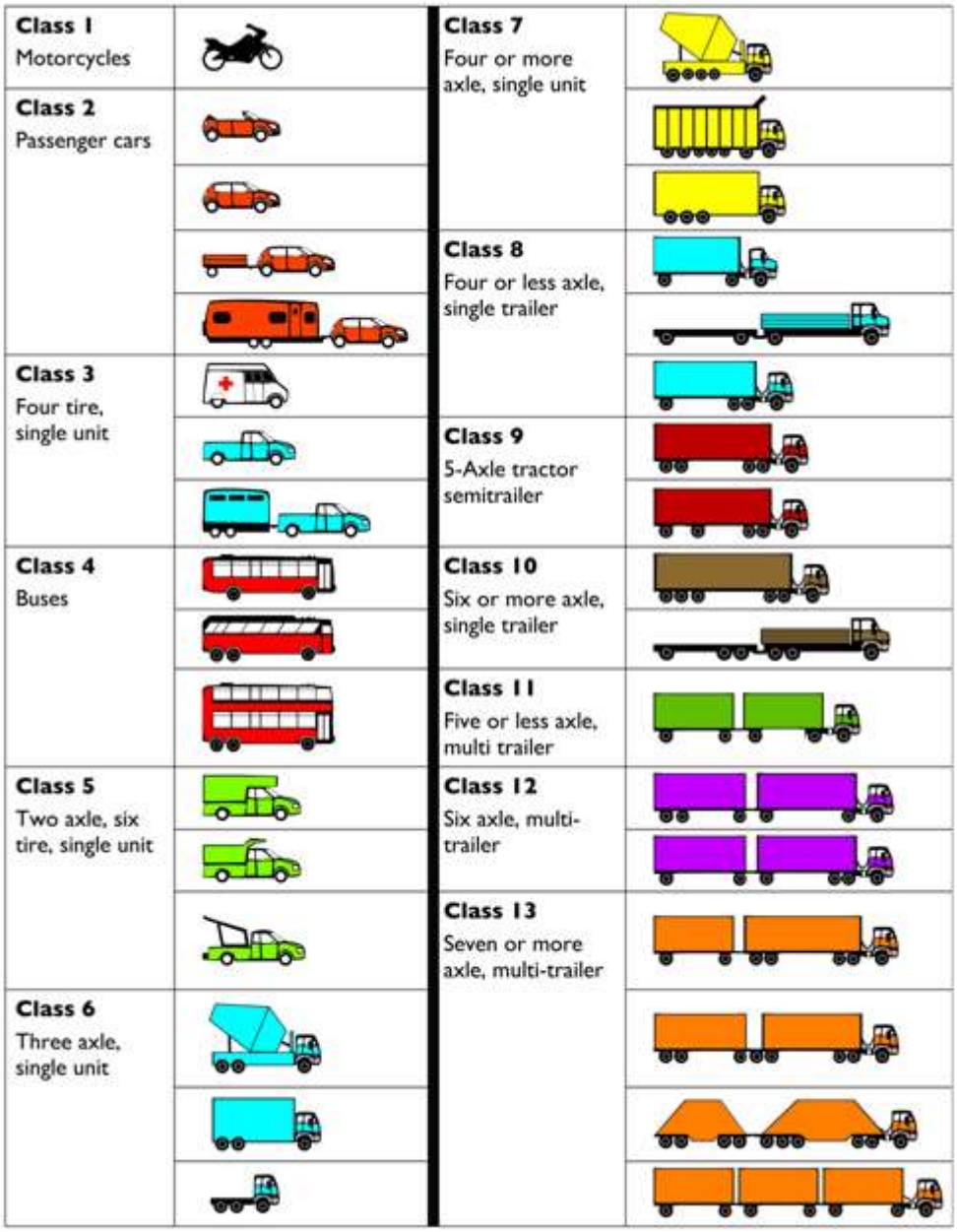

Table 2: Federal Highways Administration Vehicle Category Classifications