

Report Number CDOT-DTD-R-2003-12
Final Report

**ENVIRONMENTAL JUSTICE
IN TRANSPORTATION PLANNING
PHASE II**

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DMJM+HARRIS



December 2003

**COLORADO DEPARTMENT OF TRANSPORTATION
RESEARCH BRANCH**

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1. Report No CDOT-DTD-R-2003-12		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle ENVIRONMENTAL JUSTICE IN TRANSPORTATION PLANNING PHASE II				5. Report Date December, 2003	
				6. Performing Organization Code	
7. Author(s) Cally Grauberger Debora Van Orden				8. Performing Organization Report No. CDOT-DTD-R-2003-12	
9. Performing Organization Name and Address DMJM+HARRIS 2950 Professional Place Colorado Springs, Colorado 80904				10. Work Unit No. (TRAIS)	
				11. Contract or Grant No.	
12. Sponsoring Agency Name and Address Colorado Department of Transportation - Research 4201 E. Arkansas Avenue Denver, Colorado 80222				13. Type of Report and Period Covered	
				14. Sponsoring Agency Code 32.45	
15. Supplementary Notes Prepared in cooperation with the U.S. Department of Transportation, Federal Highway Administration					
16. Abstract The research for this study began with Phase 1. Various Phase 1 recommendations were forwarded into a second phase of EJ research to provide additional tools for enhancing Colorado's statewide and regional transportation planning process. The study began with a phone survey of Colorado community leaders and representatives. The surveys were conducted to gather input on processes currently used by community leaders for their public outreach. The next step was to update low-income and minority mapping with recently released 2000 Census data. Having identified where the low-income households and minority populations reside in the State, a summary of public involvement techniques and tools was prepared to accompany the census mapping. Since a key component of long-range planning is the ability to measure the distribution of benefits from transportation plans, techniques to measure the benefits of transportation investments and enhanced public involvement were researched.					
<p>Implementation To provide consistency in the application of environmental justice for statewide and regional transportation planning purposes, a Guidebook was developed from the Phase 1 and 2 research. The guidebook is a resource for those involved in the transportation decision-making process. It provides a common understanding of the EJ requirements including techniques for enhancing public outreach, background on regulatory requirements, and technical issues to consider in the planning process.</p>					
17. Key Words low-income populations, minority populations				18. Distribution Statement No restrictions. This document is available from the National Technical Information Service, 5825 Port Royal Road, Springfield, VA 22161	
19. Security Classif. (of this report)		20. Security Classif. (of this page)		21. No. of Pages 114	22. Price

Environmental Justice in Transportation Planning Phase II

by

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Report CDOT-DTD-R-2003-12

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Sponsored by the
Colorado Department of Transportation
In Cooperation with
U.S. Department of Transportation
Federal Highway Administration

December 2003

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ACKNOWLEDGMENTS

The Research Study Panel

A Phase 2 Research Study Panel was formed to assess the research and to steer the development of the environmental justice planning process. Many Phase 1 panel members continued their involvement in the Phase 2 research. Several new members joined the Panel while several substitute members replaced Phase 1 members. The panel was comprised of staff from various divisions of CDOT's Headquarters, several staff members representing the CDOT Regions, the Federal Highway Administration (FHWA), the Environmental Protection Agency (EPA), and several staff members representing Colorado Metropolitan Planning Organizations. The Study Panel met regularly throughout the development of the study. Members of the Panel include:

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EXECUTIVE SUMMARY

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 1994 was enacted to reinforce Title VI of the Civil Rights Act of 1964. In the Civil Rights Act it is stated that “No person in the United States shall, on the grounds of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” Executive Order 12898 states “Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”

The Colorado Department of Transportation (CDOT) is responsible for complying with many federal programs. As such, it is imperative that CDOT successfully integrate environmental justice (EJ) into its program and planning activities as an entity utilizing federal funds. A Research Study Steering Panel was formed to help to develop the EJ process.

The integration of the EJ principles into the long-range transportation planning process should be consistent throughout the engineering regions of the state, including CDOT headquarters. The implementation of EJ needs to occur for all populations in Colorado, especially for the low-income and minority populations.

The research for this study began with Phase 1. Various Phase 1 recommendations were forwarded into a second phase of the EJ research to provide additional tools for enhancing Colorado’s statewide and regional transportation planning process. The study began with a phone survey of Colorado community leaders and representatives. The surveys were conducted to gather input on processes currently used by community leaders for their public outreach.

The next step was to update census mapping completed in the Phase 1 research with recently released 2000 Census data. As identified in Phase 1 the purpose of the maps is to develop tools for enhancing public outreach, in particular, outreach to these segments of the population that have been traditionally underserved by transportation. Since the research was focused on the requirements of Executive Order 12898, maps were prepared for low-income and minority populations. Working with the Research Study Panel, the following mapping components were used from Phase 1:

- Data is to be collected to the Census Tract level.
- 2000 Census Tracts are the lowest level of geography to be analyzed (at the statewide planning level).
- 2000 Census Data is the basis for the minority population and households by income.
- Minority populations are defined as all races other than White Non-Hispanic.
- Low-income households are calculated through the use of Housing and Urban Development's (HUD) low-income thresholds established for each county in Colorado combined with total households by income as determined in the 2000 Census.
- To help locate and identify minority or low-income populations, maps are to be used. These maps will show the concentration levels where minority and low-income populations reside by percent ranges.
 - As a first level of analysis, the percent of minority populations within a given census tract is to be compared to the percent of minority populations for the State of Colorado. The percent of low-income households within a census tract is compared to the percent of low-income households in the county where the census tract is located in order to determine substantial concentrations.

Having identified where the low-income households and minority populations reside in the State, a summary of public involvement techniques and tools was prepared to accompany the census mapping.

Since a key component of long-range planning is the ability to measure the distribution of benefits from transportation plans, techniques to measure the benefits of transportation investments and enhanced public involvement were researched.

Implementation Statement

To provide consistency in the application of environmental justice for statewide and regional transportation planning purposes, a guidebook was developed from the Phase 1 and 2 research. The guidebook is a resource for those involved in the transportation decision-making process. It provides a common understanding of the EJ requirements including techniques for enhancing public outreach, background on regulatory requirements, and technical issues to consider in the planning process.

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INTRODUCTION

Background

As identified in Phase 1 of the Environmental Justice Research Study, research was conducted to identify the federal context for environmental justice policy and guidance. These basic premises have been used to conduct further research and develop recommended tools for CDOT's Division of Transportation Development.

Study Objectives

The objective of the second phase of this two-phase Environmental Justice Research Study is to enhance Phase 1 recommendations to CDOT's methods for including minority populations and low-income populations in the regional and statewide transportation planning process. This includes an update of census demographic data for considering Environmental Justice requirements in the statewide and regional transportation planning process.

Scope of Study

The tasks performed as part of the second phase of the Environmental Justice Research Study include:

1. Review of the research and recommendations from the Phase 1 research to include recommendations into final guidance documents.
2. Research various approaches to involve Colorado community leaders and representatives of traditionally underserved persons in the transportation planning process. Recommend approaches for Colorado's regional and statewide transportation planning process.
3. Recommend enhancements to CDOT's methods for including minority and low-income households in the regional and statewide transportation planning process. Recommend the types of tools and techniques that can be used inform and engage targeted population groups in the planning process.
4. Develop a guidebook of environmental justice principles that will assist in identifying and involving low-income and minority populations. Related demographic information should be used and the information obtained will be incorporated into the statewide

transportation planning process. The guidebook will include recommendations for enhancing the public involvement process in order to foster meaningful participation from all populations.

5. Research performance strategies to assess the success for involving targeted groups in the planning process.

Purpose and Intended Uses for the Recommendations

The recommendations contained in this document respond to the federal requirements for evaluating environmental justice in the context of long-range transportation planning. The intent of this research is to present a methodology that establishes the level of effort that will be necessary to sufficiently address the identification of minority and low-income populations per Executive Order 12898 and FHWA Order 6640.23.

FEDERAL REQUIREMENTS

“Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 1994

The term environmental justice has been in the government lexicon since 1994 with Executive Order 12898, Environmental Justice. The concept, however, has been in place since the Civil Rights Act of 1964, Title VI. Many of the U.S. laws, federal regulations, and policies incorporate the intent of environmental justice.

Title VI Civil Rights Act of 1964 states that “No person in the United States shall (based on race, color, religion, sex or national origin) be excluded from participation, denied benefits of or be subjected to discrimination under any program or activity receiving Federal financial assistance.”

National Environmental Policy Act of 1969 (NEPA) focuses on providing for “all Americans safe, healthful, productive, and esthetically pleasing surroundings,” and developing a “systematic, interdisciplinary approach” to aid in the decision-making for the community and environmental factors.

Federal-aid Highway Act of 1970 further establishes a basis for the equitable treatment of communities being affected by transportation projects. The Act requires that consideration be given to the anticipated effects of proposed transportation projects upon residences, businesses, farms, accessibility of public facilities, tax base, and other community resources.

Executive Order 12898 Environmental Justice, February 11, 1994 The three fundamental Environmental Justice principles as set forth by Executive Order 12898 are:

1. To avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority populations and low-income populations.
2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.

U.S. DOT Order 5610.2 to Address Environmental Justice in Minority Populations and Low-Income Populations, 1997 summarizes and elaborates upon the Executive Order 12898, Environmental Justice. The order describes the process for incorporating environmental justice principles into all existing DOT programs, policies, and activities.

U.S. DOT Order 6640.23, FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, December 1998 Requires that FHWA implement the principles of the DOT Order 5610.2 and Executive Order 12898 by incorporating environmental justice principles in all FHWA program, policies, and activities.

Why the Colorado Department of Transportation Needs to Address Environmental Justice

The Colorado Department of Transportation (CDOT) is responsible for complying with many federal programs. As such, it is imperative that CDOT works to integrate EJ into its program and planning activities as a condition for the use of federal funds. The integration of the EJ principles into the CDOT's long-range planning process should be consistent throughout the organization including the regional offices.

REVIEW OF ENVIRONMENTAL JUSTICE OUTREACH PROCESSES

One of the most critical elements of complying with the environmental justice regulation is the need to involve low-income and minority populations in the transportation planning process. A literature search continues to yield additional EJ guidance. To supplement this information from Phase 1 and 2, a series of interviews was conducted with local Colorado community leaders and representatives to gain knowledge of techniques used to generate dialog with low-income and minority households. Nine representatives were selected based on state geography and on the need to reach different populations that may be traditionally underserved by transportation:

- Locations
 - Grand Junction, Northwest, Steamboat Springs
 - Pueblo, Southwest, Southeast
 - Denver, Colorado Springs
 - Northern Colorado
- Population Groups
 - Indian Tribes
 - Migrant Workers
 - Aging Population
 - Low-Income
 - Hispanic Populations
 - African American Populations
 - Mobility Challenged

Interviews Conducted - Interviews Were Conducted with the Following Individuals:

- Mikki Kraushauer, Executive Director, Silver Key Senior Services, Colorado Springs, CO.
- Troy Ralstin, Planning and Development Director, Ute Mountain Ute Indian Tribe.
- Robert Piccoli, Director of Construction and Project Management, Southern Ute Indian Tribe.
- George Krawzoff, Director, Steamboat Springs Transit, Steamboat Springs, CO.
- Tom Pappin, Human Services Director, City of Grand Junction, CO.
- Reverend Patrick Demmer Jr. and Pastor Simmons, Denver Ministerial Alliance, Denver, CO.
- Larry Howe-Kerr, Director of Social Justice for the Archdiocese of Pueblo, CO.
- Ed Hendrickson, Director of Environmental Health, Salud Family Clinic, Fort Lupton, CO.
- Jan Anderson, Director Southeast Colorado Economic Development, Lamar, CO.

A series of interview questions was developed to explore strategies and techniques used by community leaders and representatives in conducting public outreach for their programs. Each person was contacted by either e-mail or phone to set up a time to conduct the interview over the phone. Each interview took from 35 to 40 minutes. Similar to the Phase 1 process, the survey questions were used as a guide for the conversation, rather than as a strict question and answer tool. In this way, the interviewer was able to structure the conversation in a way that obtained the most relevant information about the respondent's program.

The interviews revealed a wide range of practices; one size did not fit all. Each community representative identified a "tool box" of outreach techniques that work best in their community. Although some similarities were identified, there were also unique methods used that were found

to be the most effective for their community area. The community representatives understood the desire for the Colorado Department of Transportation to engage traditionally underserved groups in the planning process, and feel that transportation should be as high a priority as other social and human issues. Unless there was a defined project or an alarm of impacts from proposed transportation improvements, it would be difficult to involve the general public in general planning activities. Many community representatives have done specific outreach to low-income and minority households and were forthcoming with techniques that may be helpful to CDOT in its outreach efforts.

Public Outreach Techniques and Methods

The following strategies and techniques were determined from the interviews, and are listed by category:

Overall Strategies

- Develop outreach strategies that use existing community meetings or events.
- Create participation opportunities that are more informal and in smaller settings.
- Create long-lasting relationships through continuous, regular dialog.
- Understand why certain groups have not been involved. Know the history of the area and its populations.

Planning Process

- Coordinate with local community representatives to review and tailor documents and materials.
- Create a sense of heightened importance to engage people in planning.
- Tailor public outreach needs to the community and its culture.
- Communicate information at the appropriate proficiency level.
- Open houses are for the self-confident and those who are familiar with transportation planning. Consider additional venues.

Public Involvement Techniques

- Work with community leaders to place discussion topics on community group agendas.
- Use gasoline certificates, grocery store coupons to recognize citizen involvement.

- Use more pictures and graphics to explain technical information.
- Advertise activities on television community bulletin boards.
- Use informational displays and/or one-on-one conversations to generate transportation dialog, e.g. festivals, fairs, college orientations.
- Provide refreshments to create a warm, comfortable informal setting.
- Use less formal meetings and more small community meetings.
- Utilize focus groups to discuss specific issues or concerns.
- Publish notices in several languages.

DEMOGRAPHICS AND IDENTIFICATION OF MINORITY AND LOW-INCOME POPULATIONS

As identified in the Phase 1, the first step in realizing an EJ process is to identify where significant numbers of minority populations and low-income households live within a given study area. The primary purpose is to use this demographic information to identify areas for enhanced public outreach.

Definitions for Low-Income and Minority Populations

The Steering Panel members did not believe the above federal definitions would be adequate for CDOT's use. These definitions were too limiting and did not best describe the diverse population and living opportunities within the State. Therefore the definitions for minority populations and low-income populations contained in the final *US DOT Order 5610.2 on Environmental Justice in the Federal Register on April 15, 1997* were modified to better reflect low-income households and minority households within the Colorado setting.

Identification of Low-Income Populations and Minority Populations

Since the 2000 Census was under federal release at the end of the Phase 1, environmental justice maps were reprocessed to include the most recently released census data using census tract geography. The modified definitions for minority populations and low-income populations from the Phase 1 research were used for this environmental justice mapping. The transportation planning region maps generated from this process are shown in Appendix C.

ENVIRONMENTAL JUSTICE GUIDEBOOK

Federal guidance places particular emphasis on the participation of all potentially affected communities in the transportation decision-making process. This guidance is further reinforced by Title VI regulations that no person be excluded from participation, denied benefits of or be subjected to discrimination under any program or activity receiving federal financial assistance. Thus, a common understanding of these requirements by recipients or applicants (DOTs, metropolitan planning organizations (MPOs), and local governments) receiving federal funding needs to be developed that outlines techniques and methods for addressing environmental justice in the transportation planning process.

Since there has been little definitive guidance on how to incorporate environmental justice into the transportation planning process, the intent of CDOT has been to outline techniques that may be effective for enhancing Colorado planning processes and to direct the reader to additional materials that may be helpful.

Research has yielded a moderate level of information on EJ that can be used to promote environmental justice in the transportation planning process. Various technical research documents outline techniques for enhancing public outreach, background on regulatory requirements, and technical issues to consider in the planning process. Many of these techniques have been incorporated into other state and metropolitan planning organization (MPO)

documents. Colorado's Environmental Justice Guidebook has tailored this information to suit the Colorado planning process.

Some technical and guidance documents have been found to include sections on project development, emphasizing approaches for measuring environmental justice impacts. Research indicates that metropolitan planning organizations and large city governments are the primary agencies conducting these types of analyses due to the complexity and substantial data requirements. Since this research is focused on statewide and regional planning processes, specific project development techniques have not been included in the Guidebook. The Steering Panel did request that the research consider ways to measure the success of enhanced environmental justice outreach. Several technical documents along with CDOT's Performance Management Program have outlined potential public involvement measures.

From those technical and guidance documents sampled and community representative interviews, the Guidebook seeks to outline techniques that incorporate early public involvement from different socioeconomic groups to improve transportation planning. Colorado's Environmental Justice Guidebook has used national and state information to build a resource document that is tailored to the Colorado setting.

MEASURING BENEFITS/BURDENS

A key component of long-range planning is the ability to measure the distribution of benefits from transportation plans. Measuring the benefits of transportation investments and enhanced public involvement provides a tool for assessing progress toward agency goals. CDOT has an established performance management program that focuses on four statewide investment categories: safety, system quality, mobility, strategic projects, and program delivery. Since CDOT has begun a process to update Colorado's Statewide Transportation Plan, staff identified a preliminary set of measures for the statewide and regional planning process, including techniques that can be used to measure the success of public involvement activities. Discussions continue regarding the data requirements, methodologies, and data collect costs for these measures.

CDOT may not be at the stage where they can begin to quantitatively measure what is being received in terms of public involvement. However, the Steering Panel recommended that CDOT select program delivery measures that can qualitatively measure how CDOT is providing public involvement opportunities. Recent FHWA environmental justice training emphasized the need to "know the planning area and the history of the area" and to measure the success of public involvement activities with qualitative type measures.

Statewide and Regional Performance Measures

The following is a list of the public involvement measures discussed:

- How accessible were meeting locations including meeting times, modal accessibility, convenience (good, fair, poor)?
 - Was the meeting held at a location accessible to all?
 - Was the meeting held at a location near public transit?
 - Was the meeting held during hours that all felt safe to attend?
 - Was there more than one means of providing feedback available?

Other measures discussed for future CDOT research included:

- Customer satisfaction with the opportunity to have meaningful input (good, fair, poor).
- What was the level of participation of low-income and minority communities in the planning process, written or verbal (good, fair, poor).
- Number of agencies/groups involved in the process.
- Percent of minority, low-income and elderly population near proposed projects.

A review of environmental justice literature indicates that many agencies are working to identify measures. For the most part, the qualitative performance measures are being developed by Metropolitan Planning Organizations (MPOs) to assess regional transportation plans. The measures were focused on quantifiable distribution of benefits among population groups (i.e., minority versus non-minority) and for conditions prior to and after the implementation of projects. Measurement categories included:

- Accessibility to jobs or other activities;
- Travel times to selected activity centers;
- Provision and quality of transit service;
- Distribution of transportation funding among population groups; and,
- Other measures that quantify impacts, including proximity to projects, user characteristics, and asset conditions.

These measures have been primarily used for regional systems analysis and require extensive data collection efforts and complex analysis tools. Such analyses are currently not available within CDOT. CDOT's staff will continue efforts to develop more detailed performance measures for assessing benefits from transportation investments. Once such measures are determined and a baseline established, potential impacts at the statewide and regional level may then be evaluated.

TRANSPORTATION INVESTMENT/CENSUS MAPPING COMPARISONS

The Steering Panel requested that the research consider ways to evaluate potential environmental justice impacts at the statewide planning level. National research focused on the approaches to compare the distribution of impacts. The methods focused on the distribution of impacts between demographic groups, impacts between geographic areas, or conditions between status quo investments and the implementation of future options.

Since these types of assessments are primarily conducted at the MPO level and include intensive data collection and analyses, the Steering Panel felt that a more simplistic assessment was needed in the short term. The Steering Panel requested that the research evaluate the feasibility of a visual comparison between proposed transportation projects and census tract mapping for low-income and minority demographics. The purpose of the mapping comparisons would be to flag areas where future impacts could occur so enhanced public involvement could be implemented at the statewide and regional planning levels as well as future project development activities.

To test this hypothesis, a sample transportation planning area was identified, the Intermountain Transportation Planning Region. CDOT prepared a sample map of the Intermountain TPR showing the 2015 and 2020 fiscally constrained transportation projects that could then be compared to existing low-income and minority maps of the TPR. Initial conversations indicated that the hypothesis seemed valid but questions arose regarding the ability to assess impacts due to the gross level of geography for rural TPR census tracts. In many cases, one tract could encompass the majority of a rural Colorado county. Subsequently, discussions were held with the Colorado State Demographers Office to review the hypothesis.

These discussions validated the use of visual mapping comparisons since the information was to be used for general planning purposes. However, due to the large geographic area associated with rural census tract mapping, the State Demographer's Office recommended census block

group mapping for rural TPR mapping to provide for better comparisons. Other comments from the state Demographer's Office included:

- Level of geography between rural and urban TPRs should not be a concern since the comparisons are to be used to enhance public involvement
- CDOT would need to select performance measures that outline the specific types of impacts to be measured if more detailed impact assessments were to be conducted
- Maps should not be used to evaluate impacts without identifying a baseline for comparing information over time periods

APPENDIX A

Community Leader and Representative Interviews

Methodology, Purpose and Intent

The literature search yielded a moderate volume of experience and information on low-income and minority public outreach. In order to learn from local community experiences, a series of interviews was conducted with community representatives across Colorado. Representatives were chosen based on geography and for their involvement with traditionally underserved populations, including low-income and minority households.

A series of interview questions was developed to explore strategies and techniques used by community leaders and representatives in conducting public outreach for their programs. Each person was contacted by either e-mail or phone to set up a time to conduct the interview over the phone. Each interview took from 35 to 40 minutes. Similar to the Phase 1 process, the survey questions were used as a guide for the conversation, rather than as a strict question and answer tool. In this way, the interviewer was able to structure the conversation in a way that obtained the most relevant information about the respondent's program.

Mikki Kraushauer, Executive Director, Silver Key Senior Services,

Colorado Springs, Colorado

Elderly Public Outreach

Silver Key has been providing transportation services for seniors in the Pikes Peak Region for 31 years. They currently serve approximately 15,500 elderly clients a year.

The barriers to getting the elderly to participate in the public involvement process include their poor health, both physical and mental. It was suggested that the best way to contact the elderly is through written surveys. Silver Key does an annual performance assessment survey in the spring with their clients and always has a great response. Silver Key would enjoy the opportunity to collaborate with CDOT on such a survey.

A technique that should not be used when soliciting input is by asking seniors to come to a senior center or other public facilities for a public meeting or forum. The elderly, and in particular the most frail, are the ones the least apt to speak and have their voices heard.

Food is an incentive that works very well to encourage participation. Food is always a big incentive with the elderly. A lunch or brunch would be a very nice event. Money is not suggested as it gives the appearance that you are there to twist arms. A brunch would provide for a nice social experience.

Silver Key deals with their clients on a one-on-one basis often in their homes. They have found that familiar places render security. The elderly are most apt to speak when they feel secure and that is most likely at home.

Communication is best done through calendars distributed at places or organizations that are important to the elderly. This could include information placed in the Silver Key calendar, the church bulletin, or the senior center calendar. The elderly do not read public notices placed in newspapers.

The elderly do not seek out events. The reasons are often two-fold. They do not have the means to go, either financially or from a transportation standpoint, and/or they are fearful. Money and transportation are big barriers to the elderly and prohibit them from going out.

While there are many opportunities for CDOT to piggyback on a lot of senior activities, structured events would not be good. These events are great for people that are full of self-assurance, or are advocates and understand the processes. But for most elderly this is foreign territory.

Participation is more successful, the more informal, and smaller the settings. By far the best is to provide a situation where the elderly do not feel as though they need to speak out. Often, the elderly have to work through their own physiological barriers prior to participation. Human

kindness goes a long way to soliciting input. The thoughts of the elderly must be drawn out in a user-friendly environment.

Troy Ralstin, Planning and Development Director

Ute Mountain Ute Indian Tribe, Colorado

The Ute Mountain Ute Indian Tribe is part of the Southwest Transportation Planning Region and they would like to have a larger role in the transportation planning process. At the same time there is no real answer as to what processes need to be in place in order for that to happen. The tribal members have so much going on and so much to worry about that transportation issues have become very low priority for them. The barriers that currently exist could include knowledge and priorities.

CDOT has held annual meetings for the two tribes, Southern Ute and Ute Mountain Ute and this method has been very beneficial. The Tribes do not feel comfortable voicing their opinions or stating all of their needs and desires when the counties and county commissioners from multiple counties and cities are present.

The best way to solicit input would be to have open forums. The community is represented by their elected officials therefore another way would be to request the input from the leadership. This is done through the tribal leaders, as the tribe does feel that the tribal leaders do truly represent them.

Do not solicit input by holding meetings off-site from the reservation. The tribal members do not feel secure to travel to Cortez for instance to voice their opinions. They need to be in a familiar setting.

Incentives work well and are often used by the Tribe for their own meetings. Meals, in particular, tend to be the best draw.

The Tribe has many different types of methods for bringing people together. Churches, community centers, and city hall are all places to gather. Many different types of fairs or festivals, i.e. a housing fair, bring tribal members together. Booths are very prevalent often

unrelated to the event. Such gatherings would provide CDOT with a great opportunity to piggyback onto these fairs and perhaps host a booth. When public participation is solicited in this manner, the tribal members feel secure to give input in their own environment.

One of the best places to interact with the tribe is through the tribal council, which would be city hall, or any location that is on the reservation. Outreach techniques that would work include surveys and open houses as well as one-on-ones with the tribal council members.

There are several opportunities for public postings. These include the tribal newspaper that is read by most of the tribal members. There are also several locations on the reservation that flyers could be posted. There is a weekly radio show call the Ute Hour. Information could be passed along on the radio show. There are even translators for the show who translate the issues to the elderly in their own language. The tribe also has its own cable channel. This channel is designated especially for reservation news ranging from birthdays to notices of interest to members.

Robert Piccoli, Director of Construction and Project Management
Southern Ute Indian Tribe, Colorado

The Southern Ute Indian Tribe is also part of the Southwest Transportation Planning Region and they would like to have a larger role in the transportation planning process. The Southern Ute Tribe has a seat on the Statewide Transportation Advisory Committee (STAC) and the Southwest Regional Planning Commission. They are part of an established road group that meets regularly with La Plata County. They also meet with CDOT 2-3 times a year.

The Southern Ute Tribe has never had any success with attracting tribal members to public meetings. The best attendance at a meeting had between 12-15 persons. It is felt that incentives are definitely needed to attract persons in order to gain input on issues. While stated in a tongue-in-cheek manner, Mr. Piccoli was serious when he said that a bar-be-que would provide an incentive to get people to attend.

The type of events that draw people are Pow-wows and athletic events. It may be possible to set-up a booth at these events but he was not sure how well it would be perceived. Town meetings would provide another opportunity to present information. However, depending upon the topic, the meetings are generally not well attended.

Publicity for events is best made through the public radio station, newspaper ads, and flyers/posters, which are quite popular. However, it is felt that there probably has not been enough advertising in the past. Ads should be run more frequently on the radio and in the newspaper. In general publicity should be increased.

Mr. Piccoli feels as though they have tried all possible methods for soliciting input with little or no success. The thought is that people just don't care, that there is a lack of interest, and a feeling that the issues do not sufficiently impact the tribal members.

Several methods for soliciting input have been used. This has included going door to door to get input. This however was very expensive and would require approval of the tribal council for an outside body to conduct such a survey. Public meetings have been held with very low turn-outs. Mail surveys have been tried with little success even with when postage is provided.

The other possible suggestions given would require approval of the tribal council. Those include setting-up a booth in the casino or having a booth at bingo night.

George Krawzoff, Director, Steamboat Springs Transit

Steamboat Springs, Colorado

Resort Worker and Student Population Outreach

Steamboat Springs has found that focusing on specific important issues and highlighting them in the community is the best way to draw the public into community discussions. The issues must be presented in a way to create a need and communicate why it is important to them. Also, the more specific the issue is, particularly in a given area, the more the community will want to provide their input.

Successes have been experienced through the use of small community meetings. Meetings are held in the various bedroom communities either after work or during lunch to discuss service issues. There is a need to expand Transit to additional areas within and outside the City; therefore there is a need to have City or Town officials more involved in planning processes since they directly hear from their constituents.

Steamboat Springs Transit has found that the daily newspaper is also an important way to reach citizens. News articles are bought and placed in the newspapers to communicate issues, provide schedule changes, and invite the public to meetings. Transit information is also provided in several tourist brochures. TV advertisements have also been tried with varying results.

Transit staff attends community events to reach out and provide information on transit services. They have set up booths at the Ski Job Fairs, and College orientation. Transit staff has found that the orientation sessions have been very productive in informing students of available Transit services. Transit staff has even dropped by pool leagues (billiards halls) to reach out to younger populations.

Steamboat Springs has used written and telephone type surveys to reach a larger constituent base. They have found that low-income groups are under represented in these analyses and have low response rates. One interesting finding is that older and more affluent residents tend to respond to the surveys in the Steamboat Springs area.

There does seem to be the feeling that language barriers do exist in the area but not just for Spanish speaking residents but also the Russian Slavic residents. There is a need for information to be translated. The Transit staff work with City staff, private groups, and CDOT's Transit Unit to identify translation partners. However, there is a lack of consistency and therefore new partners need to be identified periodically.

Transit staff and the Ski resort have been working together to provide transit bus passes. Three resort anchors have been partners with the City by providing discounted passes for their employees.

Steamboat Springs Transit has provided food as an incentive to bring citizens to meetings. Staff has also held dinner meetings to draw more attendees. These two approaches have helped to provide better attendance.

Transit staff met with the schools and several apartment complexes to discuss transportation needs for the transit dependent. Also, Moffat County Social Services has received grant funding to provide passes for low-income users. One issue that has arisen is the use of different color passes for different users. Moffat County has found that users did not want to use the passes since the colored ones singled some groups out from the rest of the population.

Tom Pappin, Human Services Director,
City of Grand Junction, Colorado
Low-Income and Minority Outreach

Overall, low income and minority citizens feel that they have a voice regarding transportation issues in the area. The area has an established transit system and the community has a voice in its service.

To get involve low-income and minority citizens involved in the planning processes, they need to find out where they are located and “get them to the table”. Human Services uses their GIS system to indicate where low-income addresses are through Food Stamp Case Loads. However, the City staff aggregate the data to ensure that individuals are not identified. The more gross data is used to identify where the population pockets are that they want to reach out with information, education, and assistance. Business addresses and economic development data are also used to overlay the demographic data so City staff can identify were jobs are in relation to populations. Federal Temporary Assistance to Needy Families (TANF) Funds were used to help fund this journey to work process.

Also, Human Services staff is heavily involved with the Transit service and it’s planning. Staff was instrumental in helping to plan and update the City’s Transit Plan and bus route system.

In Grand Junction, “getting them to the table” doesn’t seem to be as much of a problem as it might be in other areas of Colorado. The feeling from most citizens is that “the world is run by those who show up”. They want to be treated straightforward and fairly. Citizens have a tendency to get irritated if they are not invited.

Most public involvement techniques have been tried and seem to work in the Grand Junction area. These include:

- School events and notices – send flyers home with the elementary school children and then join school meetings. This technique works better than most.
- Community centers and faith based institutions – Human Services staff work with local community leaders to join their meetings. This is done on a regular basis.
- Community Development meetings – attend job fairs, information fairs, Senior Days at the Mall.
- Phone surveys – this technique has been used and the surveys have resulted in a very good response. This may be due to the demographics of the area. Human Services has used Mesa State to conduct these surveys.
- Internet and Web Site information – their Internet site seems to generate a good response from businesses, the Health Care Community, and some citizens
- Focus groups – this technique has been the least successful with mixed results. Incentives are definitely needed to bring people to the table. Human Services has offered gasoline coupons, Wal-Mart certificates, and City Market coupons.

Providing childcare for parents who want to attend meetings has been used in the past. Either College students have been provided on-site or the agency has reimbursed parents for babysitting services when a receipt has been provided.

In general, community meetings seem to be the best avenues for soliciting public input in the Grand Junction area. The reason is that the staff can identify a “major issue”. This is used to bring the citizens to the table and then staff can ask what else is an issue. This approach would provide more opportunities to dialog with the low income and minority citizens.

The Human Services staff does use formal communication techniques to also reach out to low income and minority citizens or groups. Radio announcements, TV advertisement and newspapers are used. Flyers have been distributed through other community meetings as well as through targeted mailings to directly reach specific groups. Experience has shown that more pictures and graphs are needed to help explain complex transportation concepts and issues.

In the Grand Junction area, 15% of the population is bilingual. Although there is a growing Hispanic population, staff is unaware of any population-based newspapers. Human Services has lots of bilingual staff if CDOT is ever in need of assistance.

Reverend Patrick Demmer Jr. and Pastor Simmons, Denver Ministerial Alliance,
Denver, Colorado
Urban, Large City Public Involvement Outreach

Generally, an agency would need to build a trust with the communities in order to be effective. To be involved local stakeholders need to know that what they say matters! Community leaders and representatives may need to be convinced that their input will be heard and used. It is also important to recap with community leaders and let them know how their input was used.

CDOT needs to commit to being a partner with the community and not just to come around when something is needed. They want to challenge CDOT to do more and share their business with the communities. Concepts that were discussed included partnerships in job fairs, entry level training and after school programs as well as opportunities for small emerging business groups.

It was felt that CDOT projects could have an impact on local communities and businesses. CDOT needs to do more, particularly during corridor studies, to address transportation impacts such as providing bus tokens during construction projects, partnering to address housing issues and business impacts created by projects. CDOT should work with businesses to help them through this time and not abandon them to survive on their own.

When asked if it is better to reach the general public or work with community leaders, it was felt that CDOT needed to work with key representatives and educate them to minimize confusion. However, they were quick to say that no one group or person can truly represent the issues and needs of the African American community. The independent thought of this group will dictate the need for larger outreach efforts and more one-on-one discussions. This will provide opportunities for everyone to receive information and provide their individual comments.

Holding community discussions at a neutral site within the communities is a key issue. Religious leaders are seen as the principal facilitators of these discussions. These neutral sites will provide opportunities for open community input. Examples identified included churches, community centers and City Hall.

It is also important that CDOT discussions piggyback on existing on community meetings. CDOT needs to develop a list of community groups and leaders and get to know them so they can be “sponsored” on agendas to discuss transportation issues. The T-REX project has developed a list of local meetings and community representatives that should be shared. Several community groups were discussed including the Urban League, the Black Chamber of Commerce (Bill Roberts), Denver Ministerial Services, and the Colorado Black Women for Political Action group.

When asked how people hear about events that affect their communities, the overwhelming response was through verbal discussions. Whether through church or religious groups, local community groups or organization meetings, or radio advertisements, verbal announcements were by far the best way to inform citizens of important issues and raise their awareness of local events. Flyers should also be provided that includes the date, time and locations of the meetings.

If larger community meetings are to be held, there is a need to advertise meetings on the radio or through local neighborhood newspapers such as Urban Spectrum, Body of Christ, and La Voz. It was felt that bringing all the groups together in a bigger setting is helpful so they can hear what each other is saying. Another approach for these meetings are to let the communities host these meetings (giving them the resources). Also food and day care should be provided.

There is also a need to provide more education on transportation to community leaders and stakeholders so they can consider how transportation connects to their daily lives. Topics should include:

- How does the process work?
- What will the community's role be?
- What are the issues?
- What is being planned in the future?
- Are there specific improvements planned?

One type of venue that has been used in the past to reach the public about community issues is the use of information tables set up during local events such as Juneteenth. Local experience has shown that these opportunities have not been successful. Thus, the preferred approach is to use existing local community meetings.

**Larry Howe-Kerr, Director of Social Justice for the Archdiocese
Pueblo, Colorado**

The geographic area that Mr. Howe-Kerr serves covers the southern half of Colorado. He works with a total of 60 churches and 60 missions. The population that he generally works with includes those concerned with poverty, social and health issues.

He felt that the community he serves does not have a voice in transportation issues. This is most likely due to a lack of awareness. The lack of awareness he felt was more prevalent with the low-income community because they are busy surviving and don't have the time or the confidence to show up to public meetings.

Transportation issues of concern to the low-income populations are related to developing more effective and efficient mass transit. Therefore, Mr. Howe-Kerr feels that meeting centered on roadway projects will hold little interest.

He stated that Parish Festivals is where the neighborhood groups show-up. These festivals, in fact, have now become a series of booths. Mr. Howe-Kerr stated that CDOT indeed could have a booth at a festival.

He mentioned that food should be an incentive to bring people out to meetings. However, he said that even within the church food has not always guaranteed good participation.

It was stated that direct mailings of information is the best method for reaching out. The mailing should contain information that has been explained in a manner that everyone can understand. Mr. How-Kerr said that while it is worth putting information in the church bulletin, it is not the most effective way to reach the parishioners. A method that is not favorable to Mr. Howe-Kerr is what he calls “availability sessions”. The format he described is similar to what is often referred to as “open houses”. The negative related to these meetings according to Mr. Howe-Kerr is that these meetings seem to be controlling the public and do not provide for any dialog with the community in attendance.

Mr. Howe-Kerr believes that the best approach that CDOT could take to improve the public involvement process is to provide to the public a sense that they are soliciting input for the common good and not just using the process to say they have done it. They need to impart to the public that the process is undertaken because it is the right thing to do, and that CDOT is serious about environmental justice and that are actually going to use and consider public input in their decision-making.

Ed Hendrickson, Director of Environmental Health, Salud Family Clinic,

Fort Lupton, CO

Immigrant and Migrant Workers Public Involvement Outreach

The migrant workers and immigrants do not feel as though they have a voice related to transportation issues. This is most likely the case because they do not have time to provide input. They are on often on the road and their first priority is to find a place to live and to earn a

wage. Additionally, they are reluctant and leery to participate with a state agency like CDOT. It is felt that transportation in general might have a connection to the State Patrol. Even though, many immigrants and migrants are legal anything to do with transportation has them suspicious.

Language is a barrier to participation. Additionally, were a written questionnaire presented to be filled out, the questionnaire would need to be written to the 4th grade level and not the 6th- 8th grade level which is most prevalent.

They have had success by conducting health research at rest stops. They have tried incentives but have had little or no success with them. Additionally, he mentioned how much work it is to provide incentives. They have offered meals at the clinics and have little success. They have offered free physicals that were also unsuccessful.

Events that bring out large crowds are the health fairs. Approximately 40 health fairs take place annually around the state. These fairs would provide CDOT with a good opportunity to have a booth to solicit information. The fairs are advertised through the Spanish radio stations, flyers and word-of-mouth.

It was mentioned by Mr. Hendrickson that as well as attending these health fairs, CDOT would do well to visit the 40 clinics in the State. The clinics are funded with public health money and benefit community and migrant health. Across the State they have 210,000 visits a year and 120,000 of those visits are from immigrants and migrants. He felt that just going to the waiting rooms to conduct surveys would be good.

He mentioned that they are approximately 400 migrant camps around the State. Some are formal and others are informal such as those that exist in Commerce City. When asked the locations for these camps, Mr. Hendrickson mentioned that he maybe the only person that really knows where these camps are located. His estimated is that in the year 2002 there were approximately 44,950 migrant farm workers in Colorado.

Jan Anderson, Director Southeast Colorado Economic Development
Lamar, Colorado

SECED, Inc. is a non-profit organization that provides services to enhance economic growth in the southeastern area of the state. SECED also administers a rental housing and a workforce employment center.

It was suggested that the best way to contact the low-income or minority residents in southeast Colorado is through the use of the two radio stations in the area. Due to the remoteness of the area, most residents hear about local events and activities through the reports given on these stations. Another method to communicate events is the local TV community bulletin board.

Community events are often considered the best ways to connect with local community leaders who may work directly work with low-income and minority households. Some of the events mentioned included Cinco de Mayo, the local county fairs, and rodeos.

Since CDOT may want to channel transportation discussions through existing community meetings, it is important to talk with local community representatives in advance to identify these opportunities. Opportunities exist through the schools, various town meetings, Department of Social Services and the local colleges. Southeast Colorado also has a strong Ministerial Alliance. Representatives of each town come together to discuss social and community issues.

There are strong community relationships in southeast Colorado so it is important to not be singled out and feel part of the community. CDOT should create opportunities for all populations unless one-on-one conversations are used. Work with local representatives to get on their agendas.

Although CDOT may want to involve the low-income and minority communities, it should not be surprising if they do not attend meetings. They may have other issues that are more important and immediate.

CDOT representatives who want to work with people in southeast Colorado need to be understand the rural culture and not take what works in Denver and apply it in the southeast. It is important to be down to earth but not talk down to folks. Also, many people in southeast Colorado speak English instead of Spanish in public. Many have been discouraged from speaking Spanish in public so Spanish is spoken at home with their families.

APPENDIX B

Low Income Methodology

DATA ASSUMPTIONS:

- Low-income thresholds are to be determined by Housing and Urban Development (HUD) developed for the counties in the State of Colorado for use by the Department of Local Affairs (DOLA) in the allocation of the Community Development Block Grants.
- The average household size by census tract is to be determined through the use of the 2000 Census.
- Total household income by census tract is to be determined through the use of the 2000 Census.

EXAMPLE

Tract 1, County X

Low-income thresholds for County X

Persons per Household	1 Person	2 Person	3 Person	4 Person	5 Person	6 Person	7 Person	8 Person
Low Income	\$24,450	\$27,950	\$31,450	\$34,950	\$37,750	\$40,550	\$43,350	\$46,150

Average household size= 3.25 persons per household.

Total Household Income ranges:

Household Income	Total households
Less than \$10,000	50
\$10,000 to \$14,999	60
\$15,000 to \$19,999	70
\$20,000 to \$24,999	80

\$25,000 to \$29,999	90
\$30,000 to \$34,999	100
\$35,000 to \$39,999	100
\$40,000 to \$44,999	200
\$45,000 to \$49,999	100
\$50,000 to \$59,999	100
\$60,000 to \$74,999	100
\$75,000 to \$99,999	100
\$100,000 to \$124,999	100
\$125,000 to \$149,999	100
\$150,000 to \$199,999	100
\$200,000 or more	100

Given the data, the number of household that are considered to be low-income in Tract 1 is calculated as follows:

Low-Income Threshold

$\$34,950$ (4-person household income) - $\$31,450$ (3-person household income) = $\$3,500$

$\$3,500 \times .25 = \875

Low-income threshold for Tract 1: $\$31,450 + \$875 = \mathbf{\$32,325}$

(If the household size were 3.5, the threshold would be $\$3,500 \times .5 = \$1,750$:
 $\$31,450 + \$1,750 = \$33,200$)

Referring back to the total household income, the total number of household with incomes at or below $\$32,325$ would be

HOUSEHOLD INCOME	Total households
Universe: Households:	
Less than \$10,000	50
\$10,000 to \$14,999	60
\$15,000 to \$19,999	70
\$20,000 to \$24,999	80

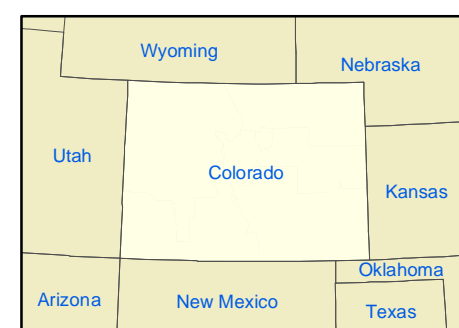
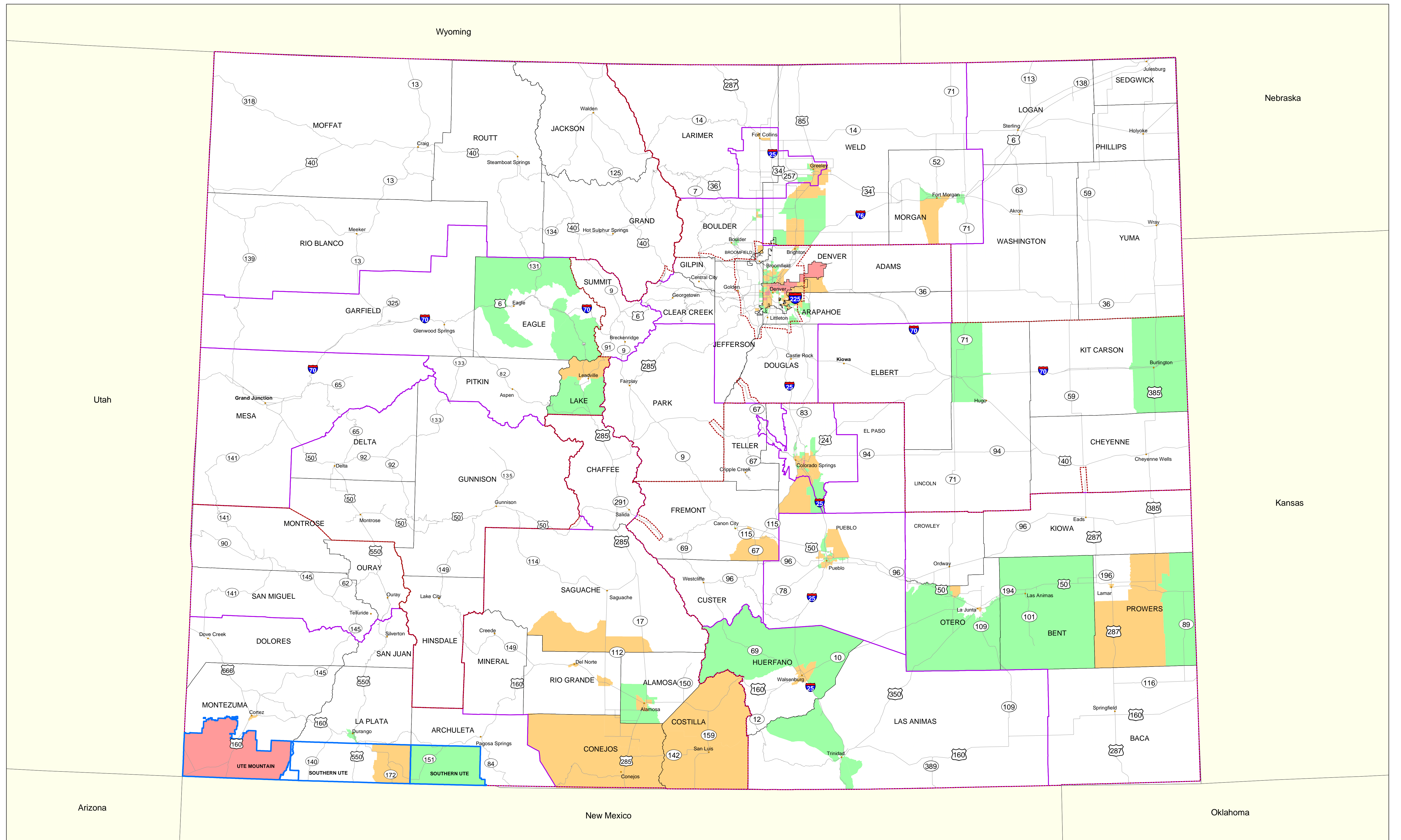
\$25,000 to \$29,999	90
\$30,000 to \$34,999	<u>100</u>
TOTAL	450

Note: It is necessary to count those households that fall in the same income range even though the income is higher than the calculate threshold.

This analysis is being developed for planning purposes only. Therefore, the actual number may represent an under estimate or an over estimate of actual number of households living in poverty.

APPENDIX C

Maps



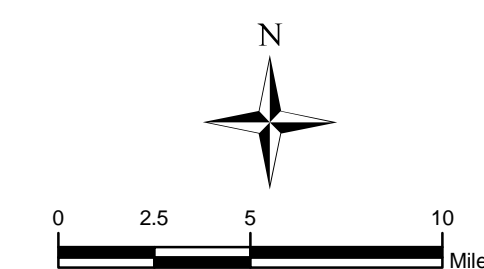
Minority Populations⁽¹⁾

- 0% - 17%⁽²⁾
- 18% - 24%
- 25% - 49%
- 50% - 100%

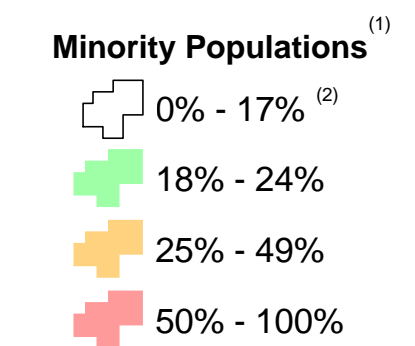
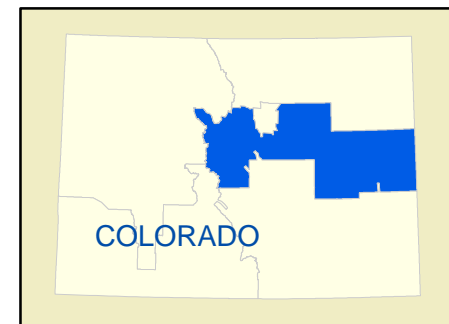
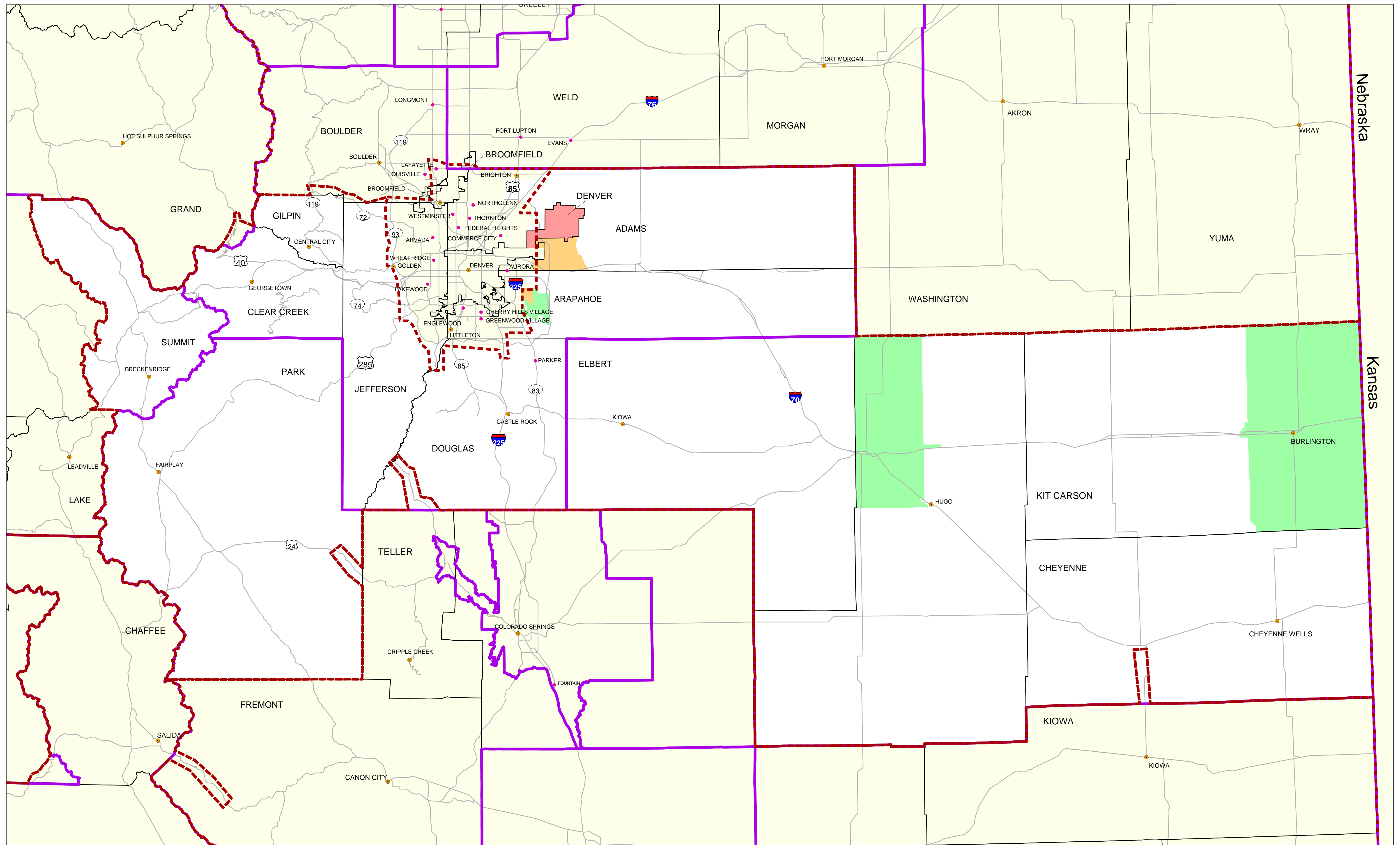
- CDOT Region
- Transportation Planning Region
- Tribal Boundaries
- County Boundaries
- County Seat
- Roads

(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%



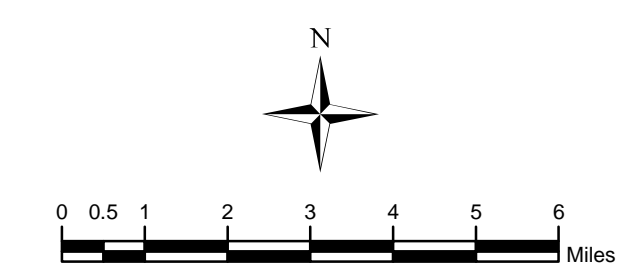
**Minority Populations
COLORADO**



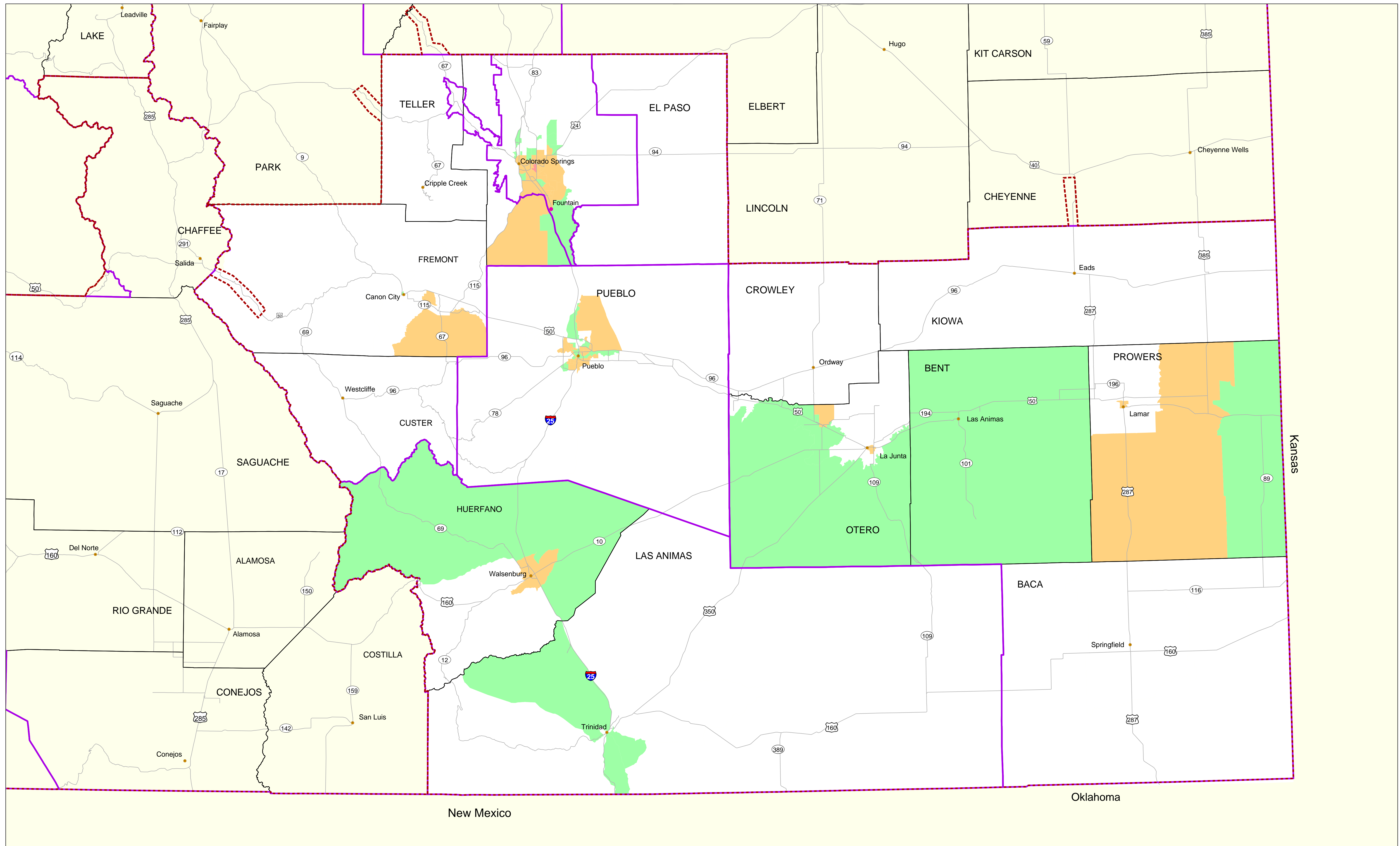
- CDOT Region
- Transportation Planning Region
- County Boundaries
- County Seat
- Cities and Towns > 5000 Persons
- Roads

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(2) The state-wide minority population is 17.23%.



**Minority Populations
CDOT Transportation Region 1**



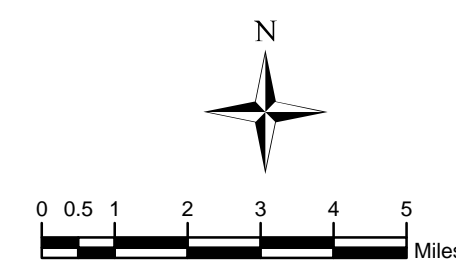
Minority Populations⁽¹⁾

- 0% - 17%⁽²⁾
- 18% - 24%
- 25% - 49%
- 50% - 100%

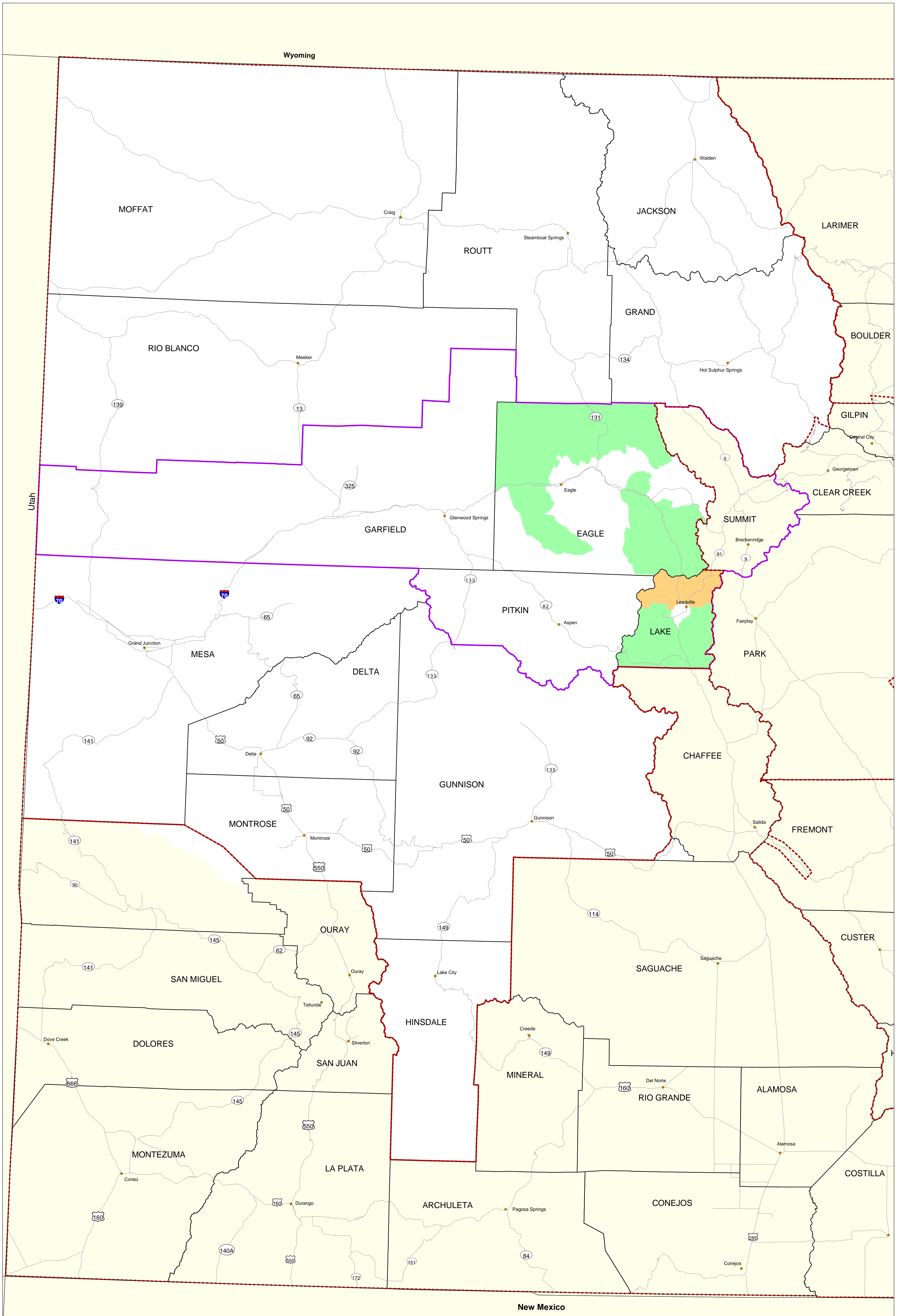
- CDOT Region
- Transportation Planning Region
- County Boundaries
- County Seat
- Cities and Towns > 5000 Persons
- Roads

(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%



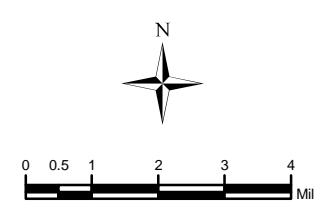
Minority Populations CDOT Transportation Region 2



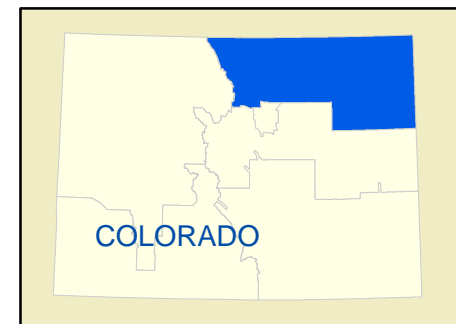
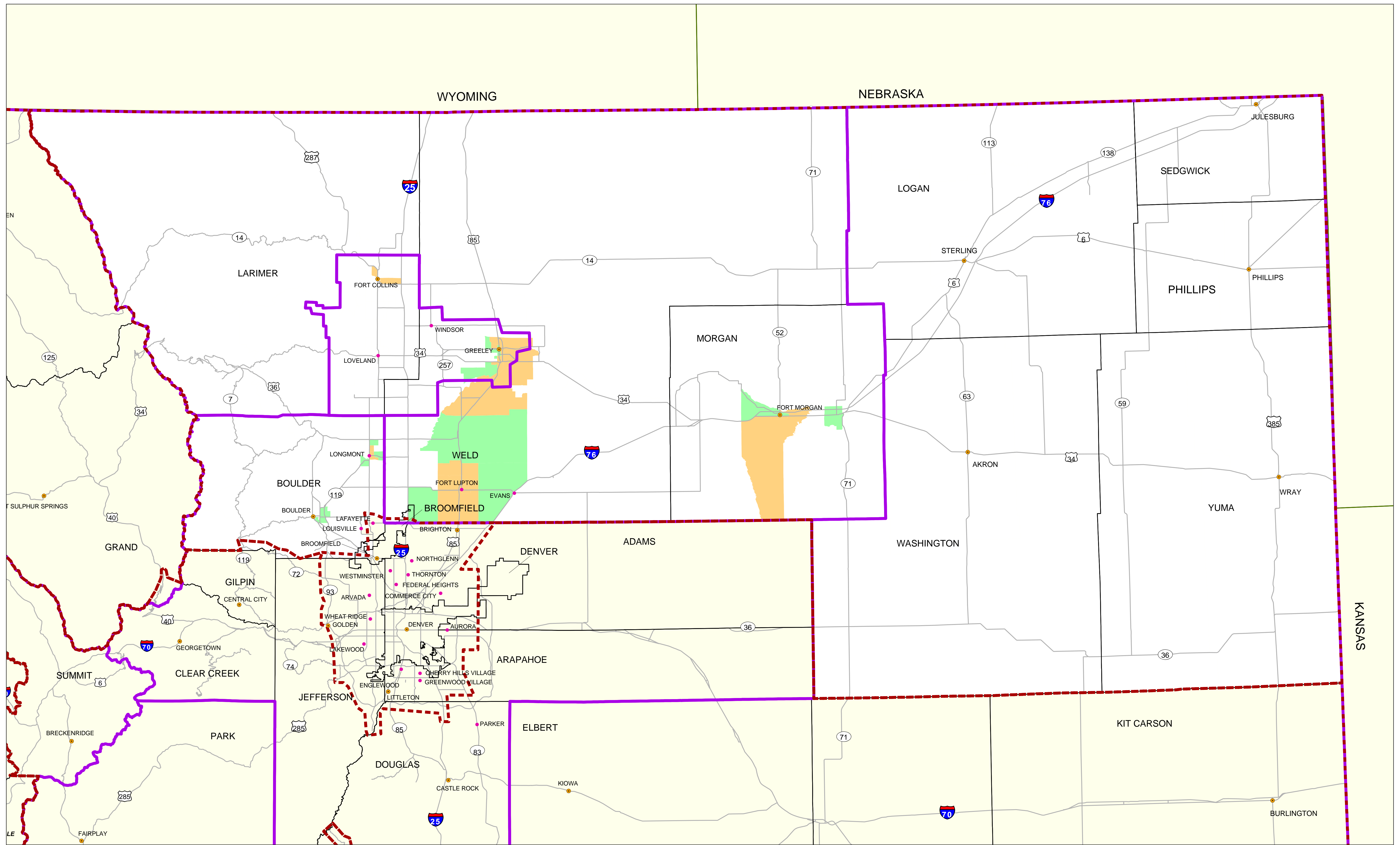
- Minority Populations⁽¹⁾**
- 0% - 17%⁽²⁾
 - 18% - 24%
 - 25% - 49%
 - 50% - 100%
- CDOT Region**
- Transportation Planning Region
 - County Boundaries
 - County Seat
 - Roads

(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%



**Minority Populations
CDOT Transportation Region 3**



Minority Populations ⁽¹⁾

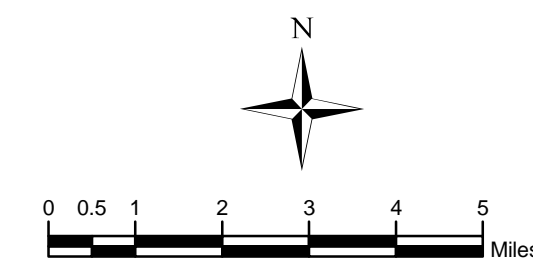
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- 18% - 24%
- 25% - 49%
- 50% - 100%

CDOT Region

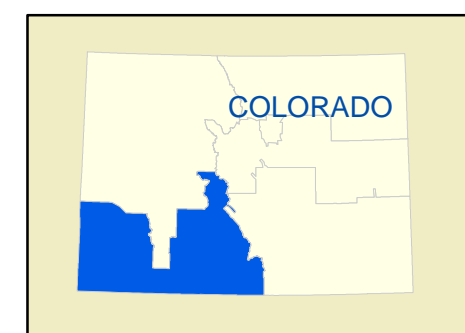
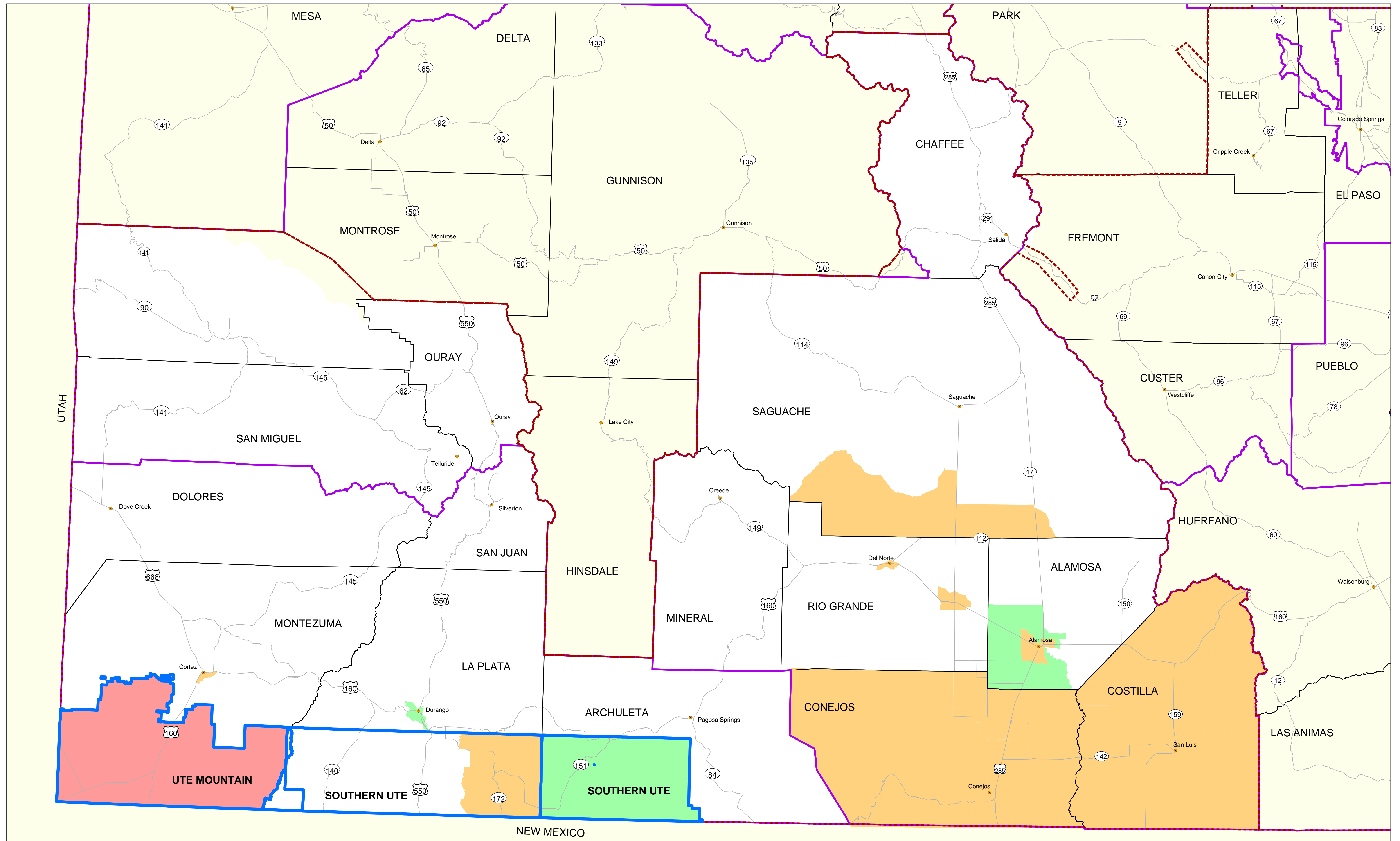
- Transportation Planning Region
- County Boundaries
- County Seat
- Cities and Towns > 5000 Persons
- Roads

(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%.



**Minority Populations
CDOT Transportation Region 4**



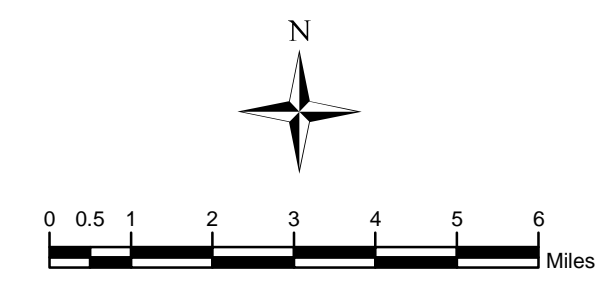
Minority Populations⁽¹⁾

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- 25% - 49%
- 50% - 100%

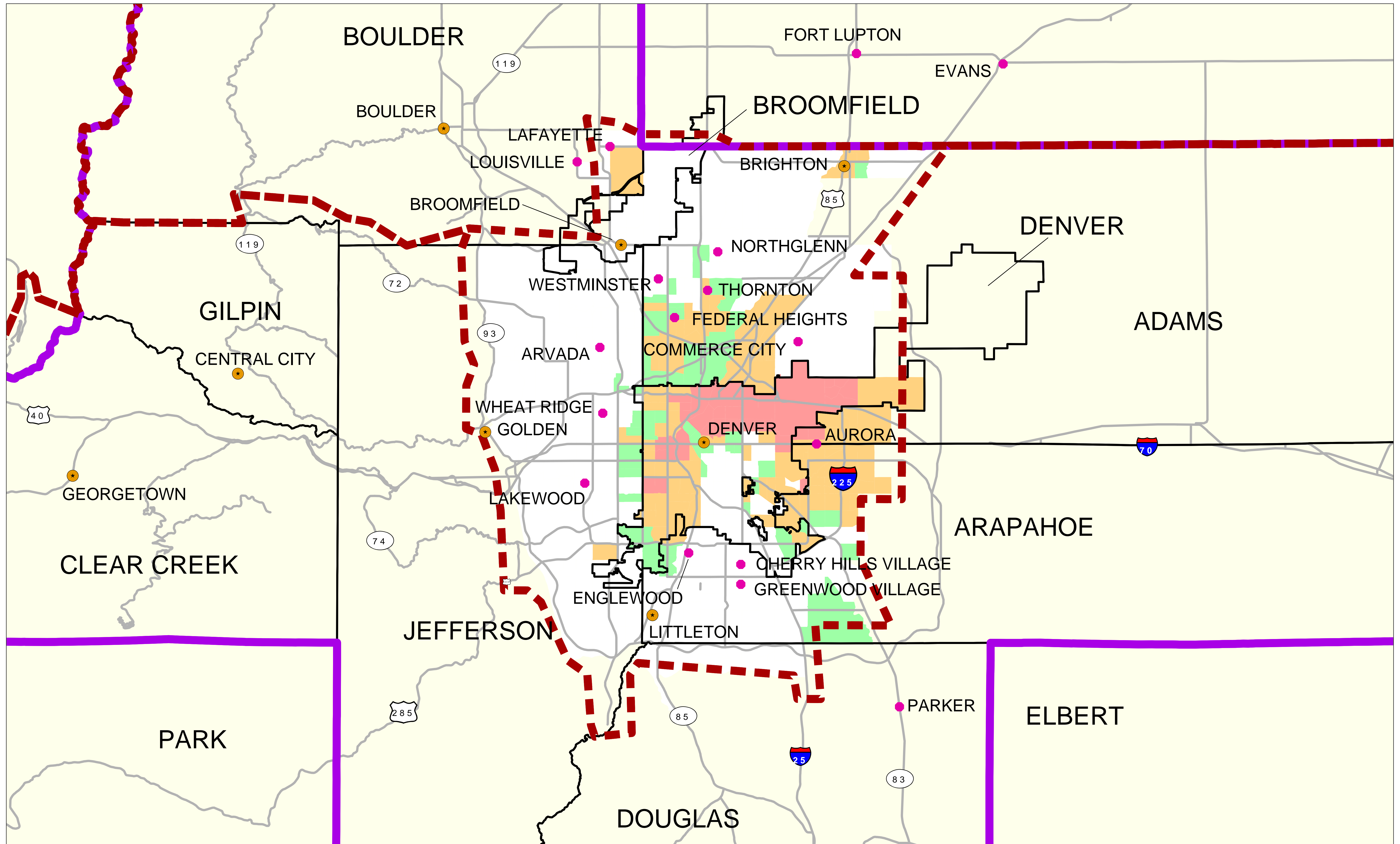
- CDOT Region
- Transportation Planning Region
- Tribal Boundaries
- County Boundaries
- County Seat
- Roads

(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%



**Minority Populations
CDOT Transportation Region 5**



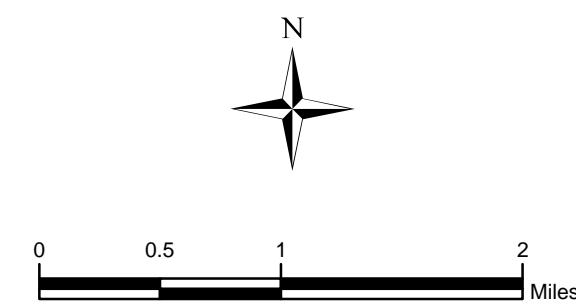
Minority Populations ⁽¹⁾

- 0% - 17% ⁽²⁾
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- 25% - 49%
- 50% - 100%

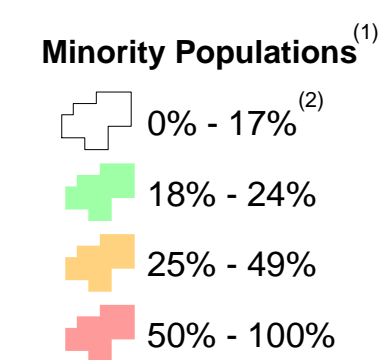
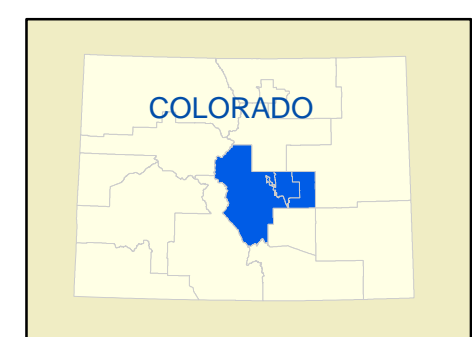
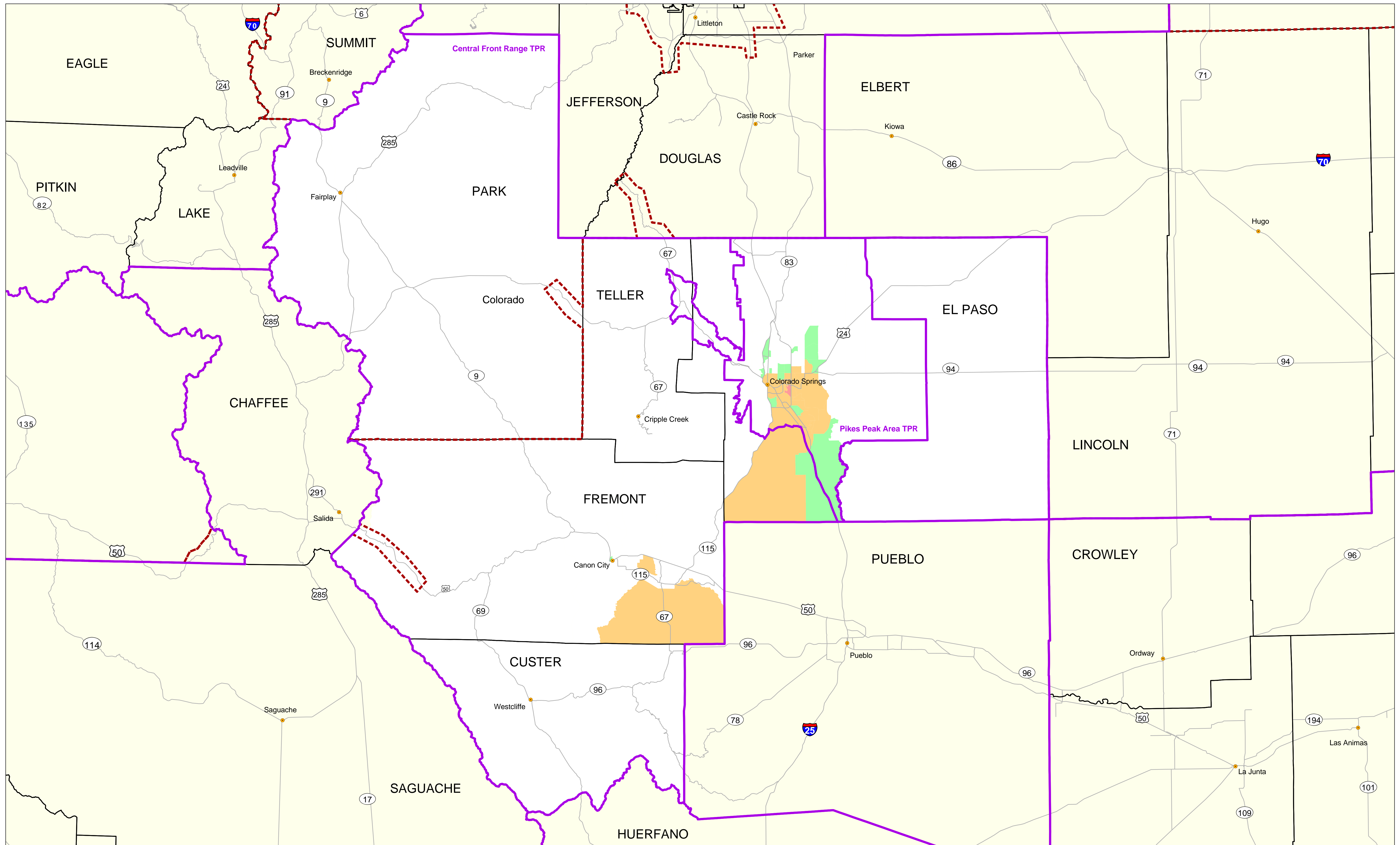
- CDOT Region
- Transportation Planning Region
- County Boundaries
- County Seat
- Cities and Towns > 5000 Persons
- Roads

(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%.



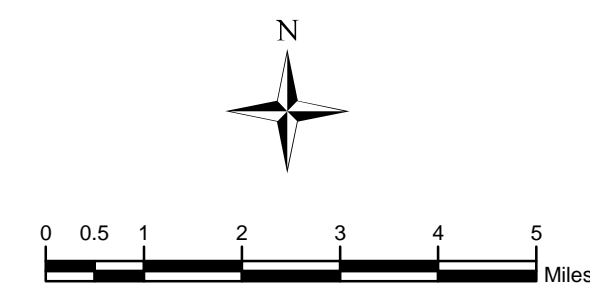
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CDOT Transportation Region 6**



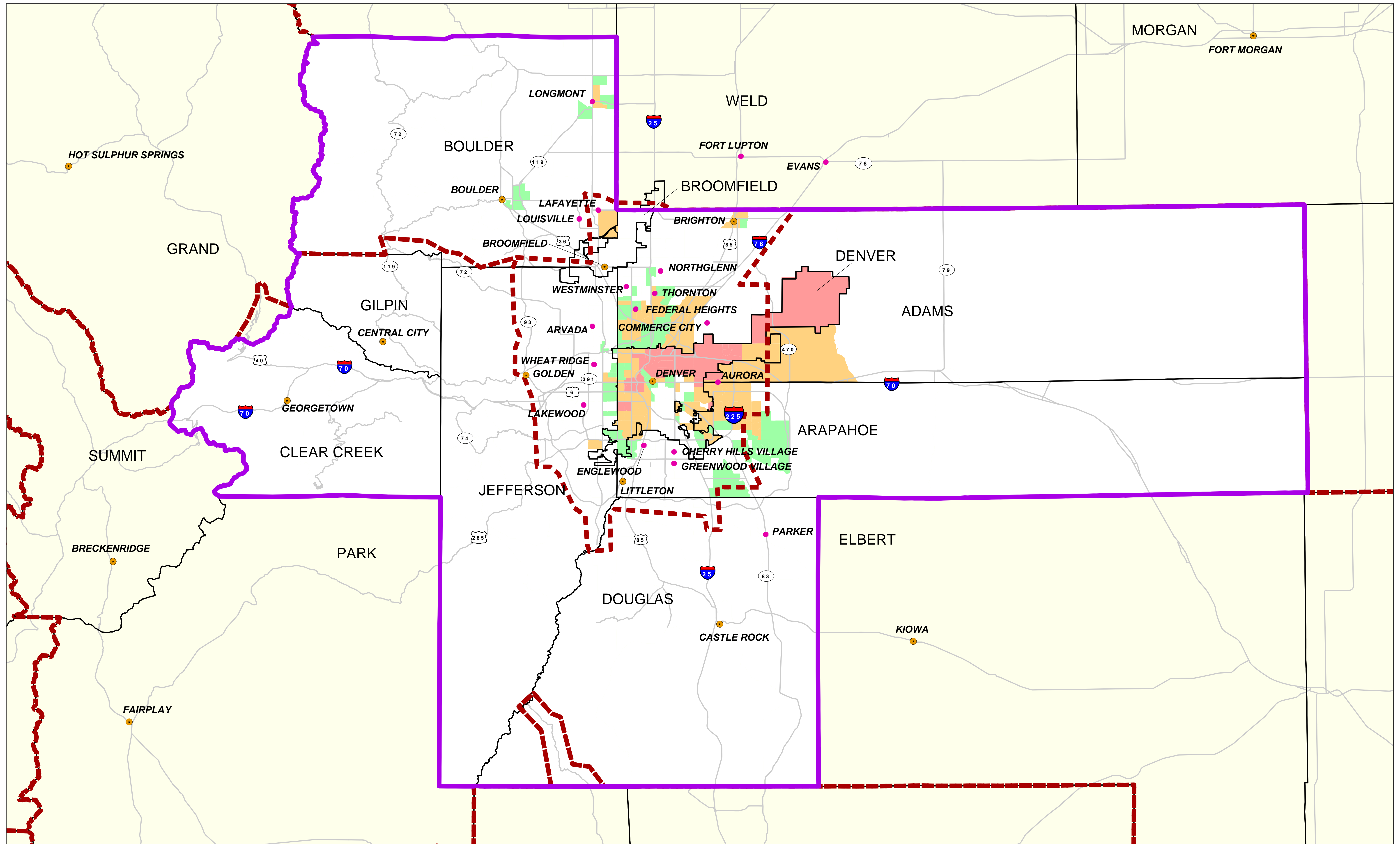
- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seat
- Cities and Towns > 5000 Persons
- Roads

(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%



**Minority Populations
Central Front Range and Pikes Peak Area
Transportation Planning Regions**

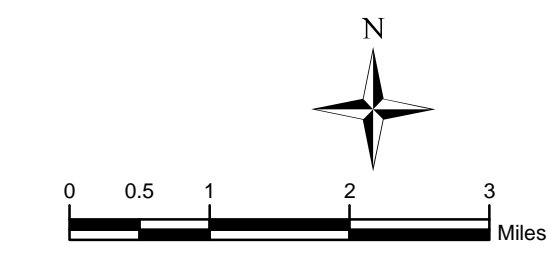


- Minority Populations⁽¹⁾**
- 0% - 17%⁽²⁾
 - 18% - 24%
 - 25% - 49%
 - 50% - 100%

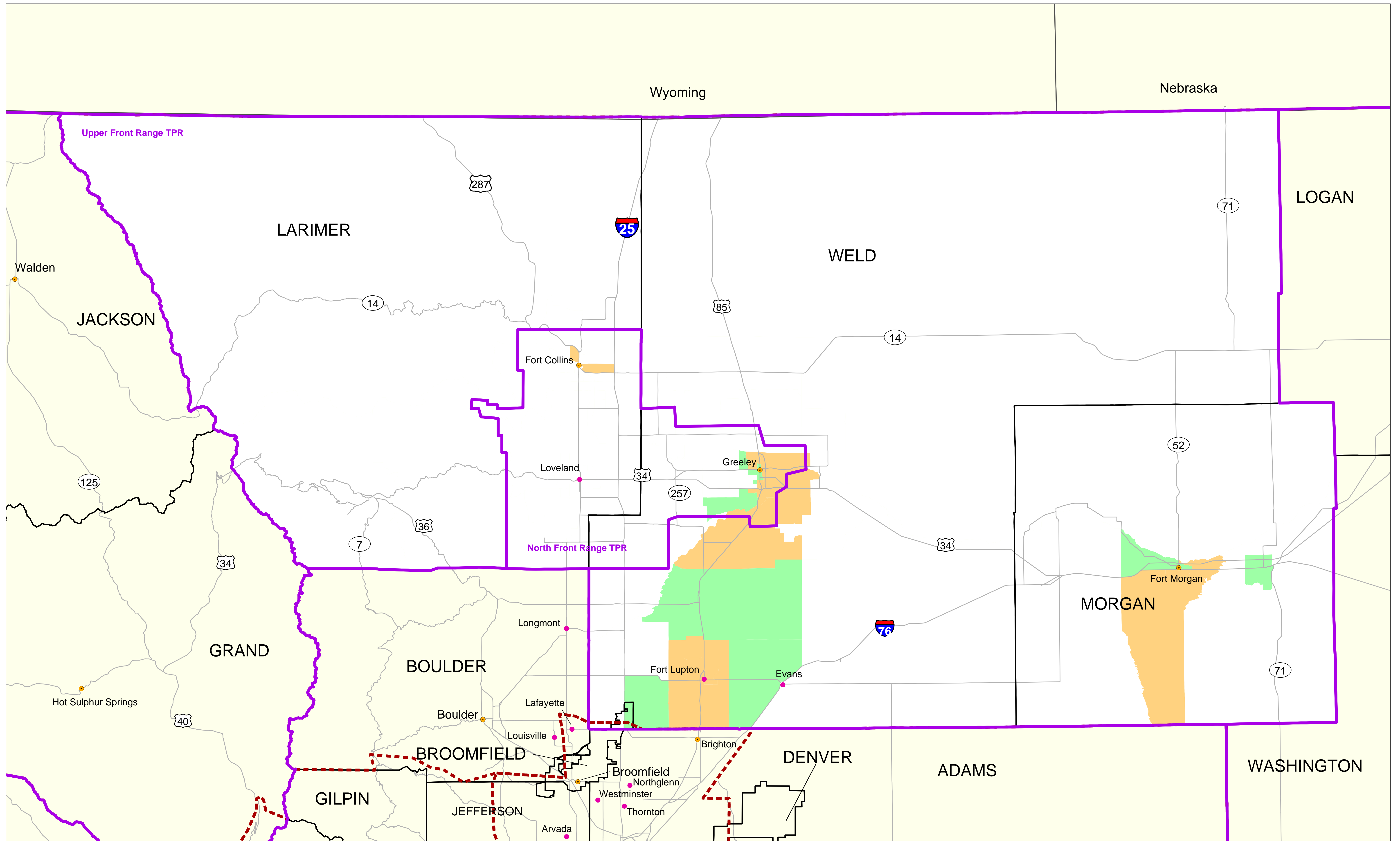
- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seat
- Cities and Towns > 5000 Persons
- Roads

(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%



**Minority Populations
Greater Denver Area Transportation Planning Region**



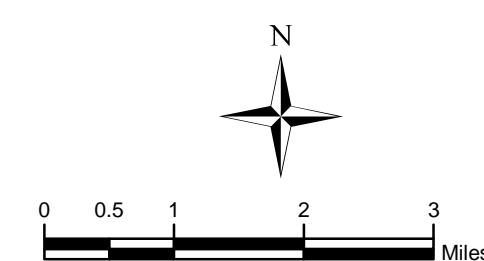
Minority Populations⁽¹⁾

- 0% - 17%⁽²⁾
- 18% - 24%
- 25% - 49%
- 50% - 100%

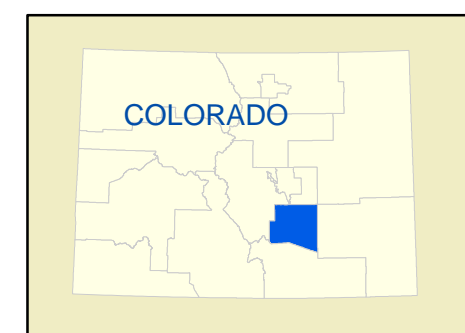
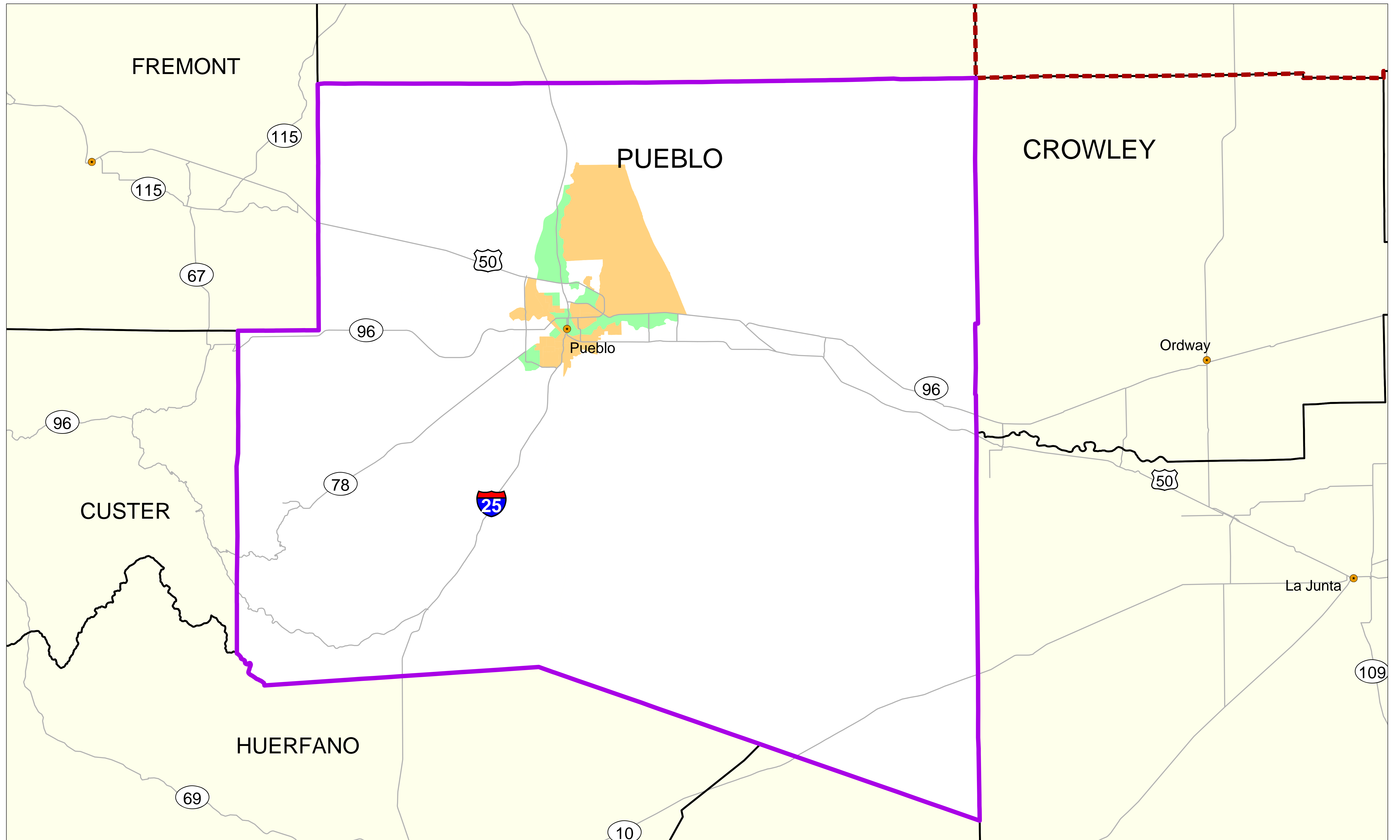
- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seat
- Cities and Towns > 5000 Persons
- Roads

(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%



Minority Populations Upper Front and North Front Range Transportation Planning Regions



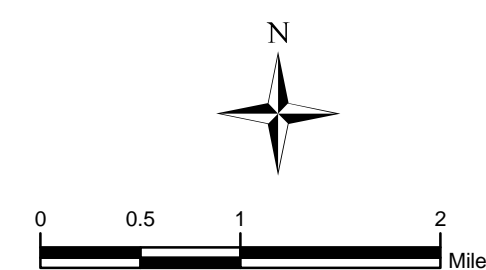
Minority Populations⁽¹⁾

- 0% - 17%⁽²⁾
- 18% - 24%
- 25% - 49%
- 50% - 100%

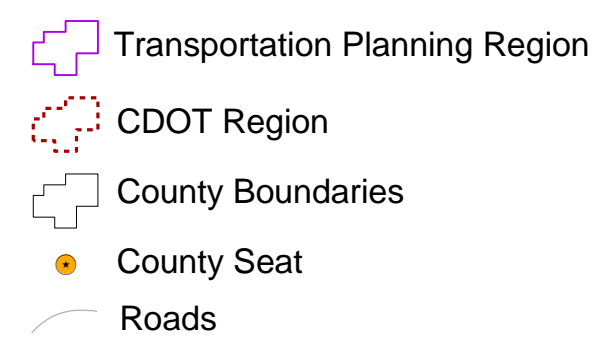
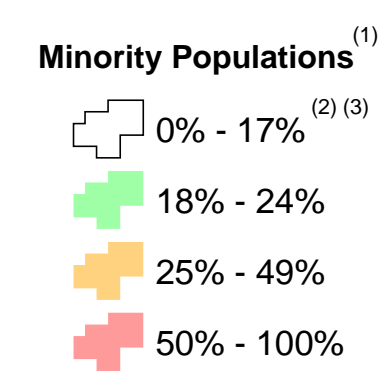
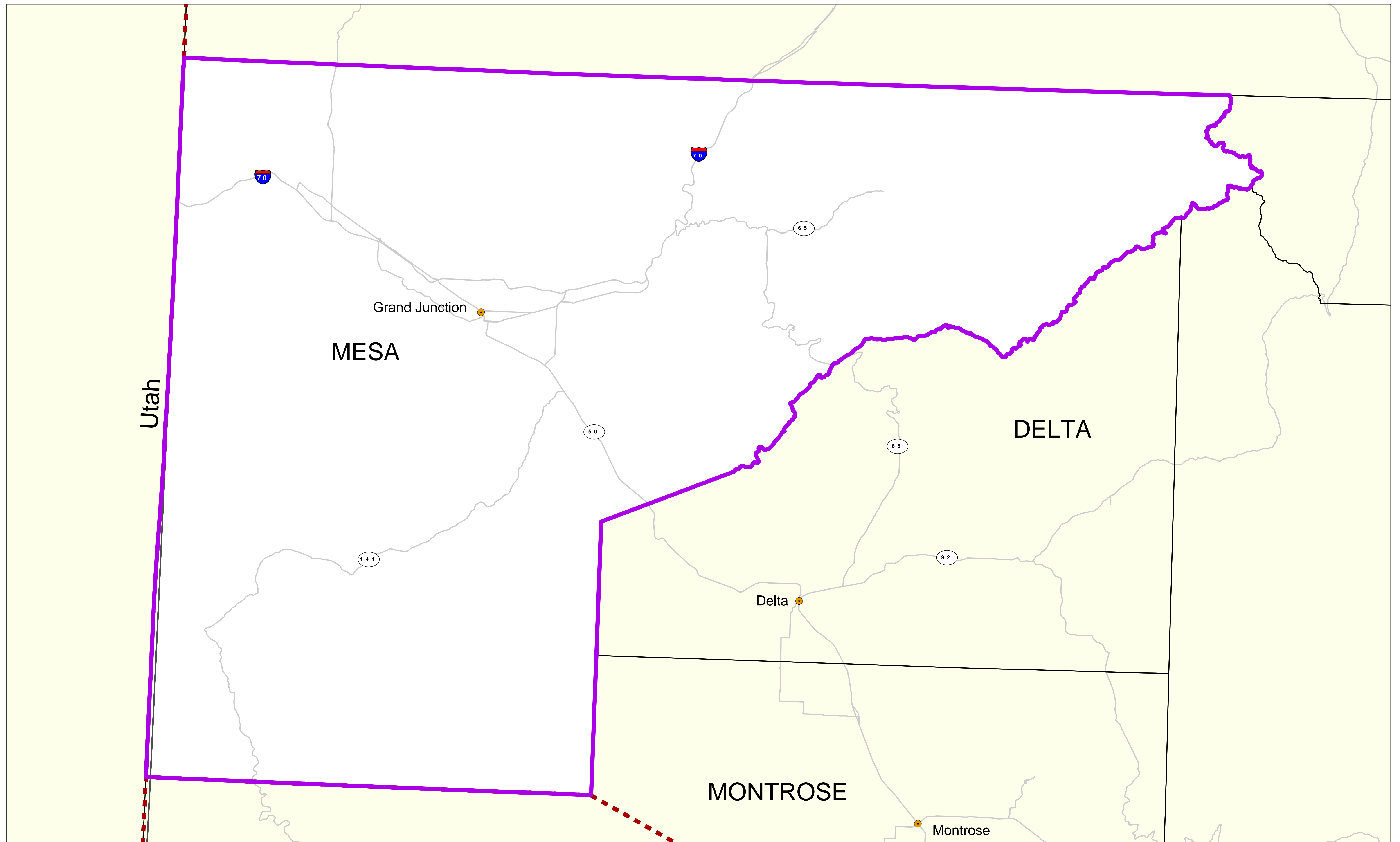
- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seat
- Roads

(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%



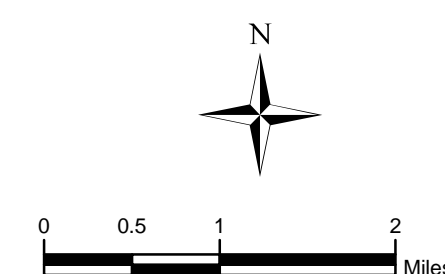
**Minority Populations
Pueblo Transportation Planning Region**



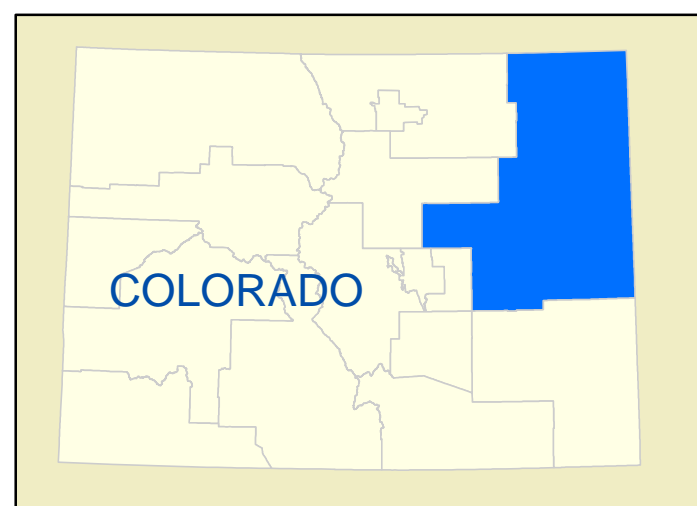
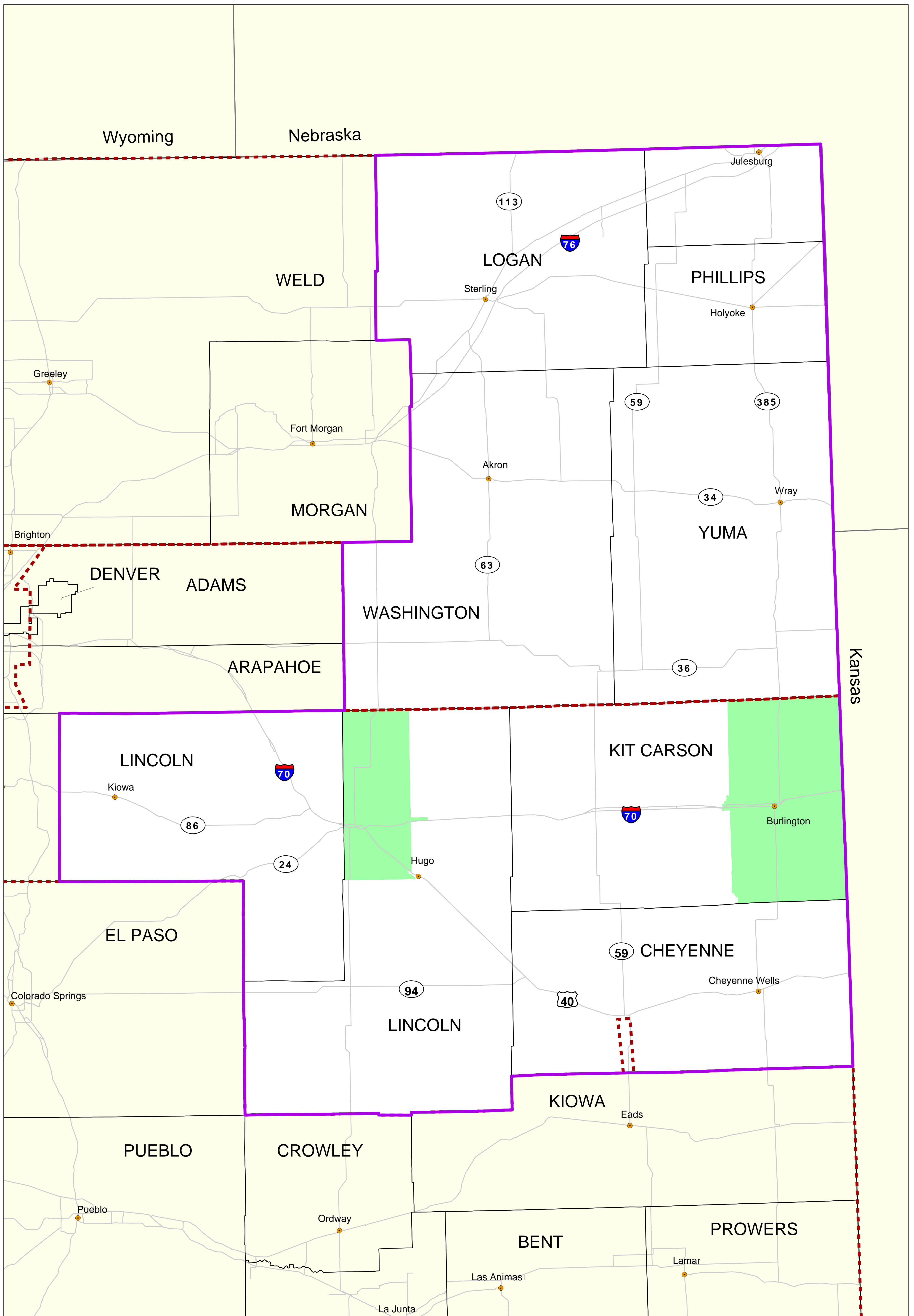
(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%

(3) Grand Junction TPR has no census tracts above 17.23%



**Minority Populations
Grand Junction Transportation Planning Region**



Minority Populations ⁽¹⁾

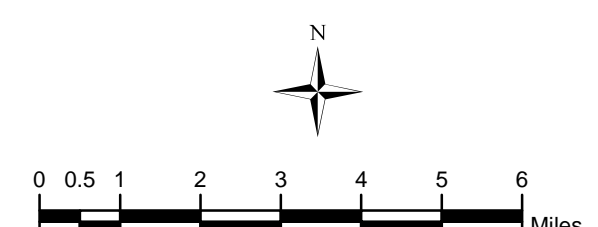
- 0% - 17% ⁽²⁾
- 18% - 24%
- 25% - 49%
- 50% - 100%

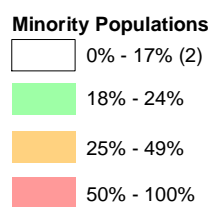
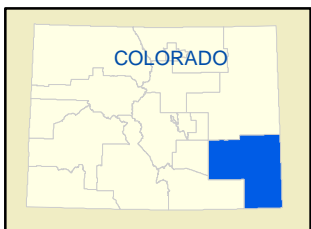
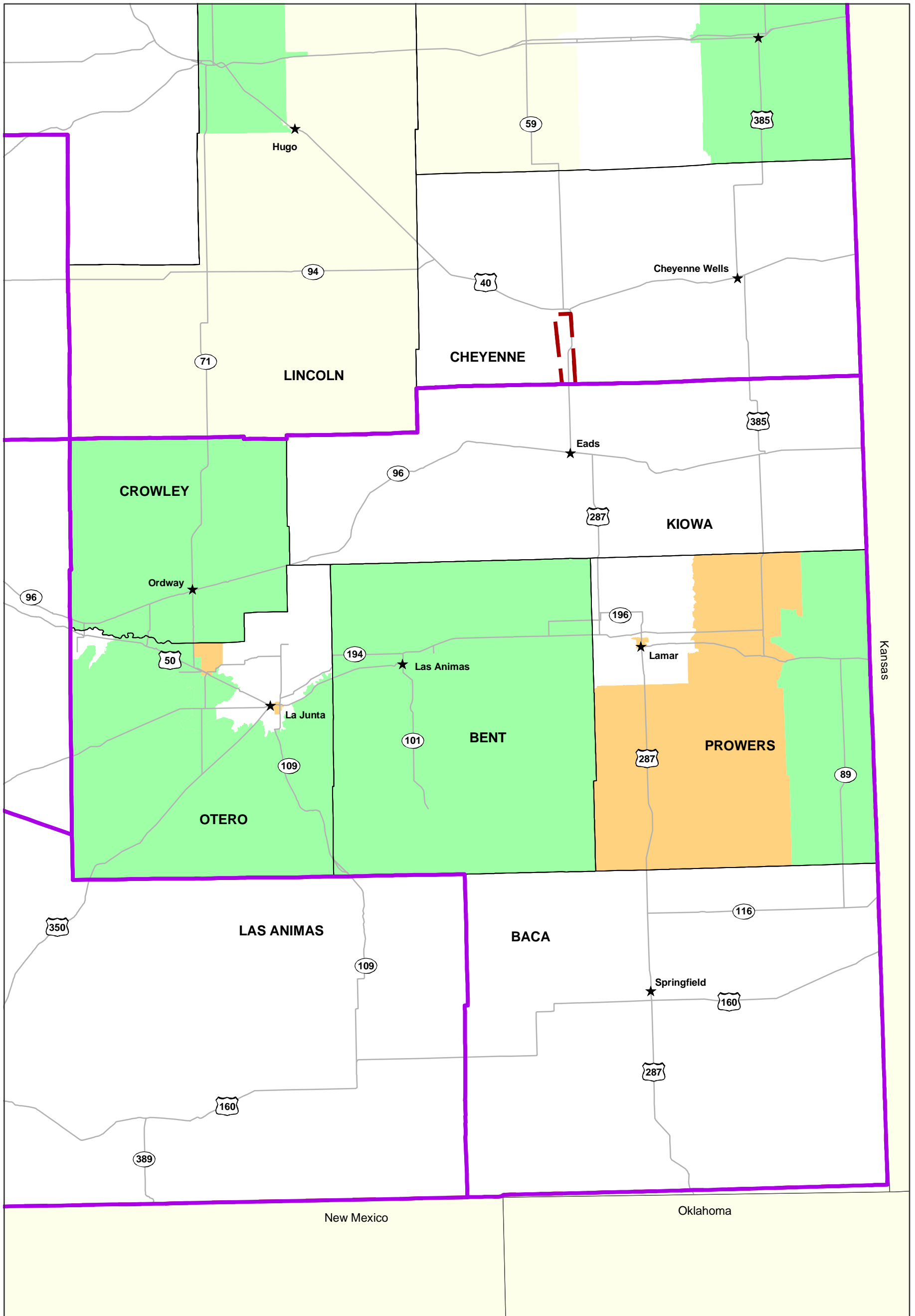
- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seats
- Roads

**Minority Populations
Eastern Transportation Planning Region**

(1) Minority population census tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the Transportation Planning Region.

(2) The state-wide minority population is 17.23%

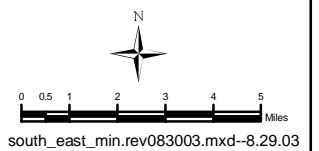


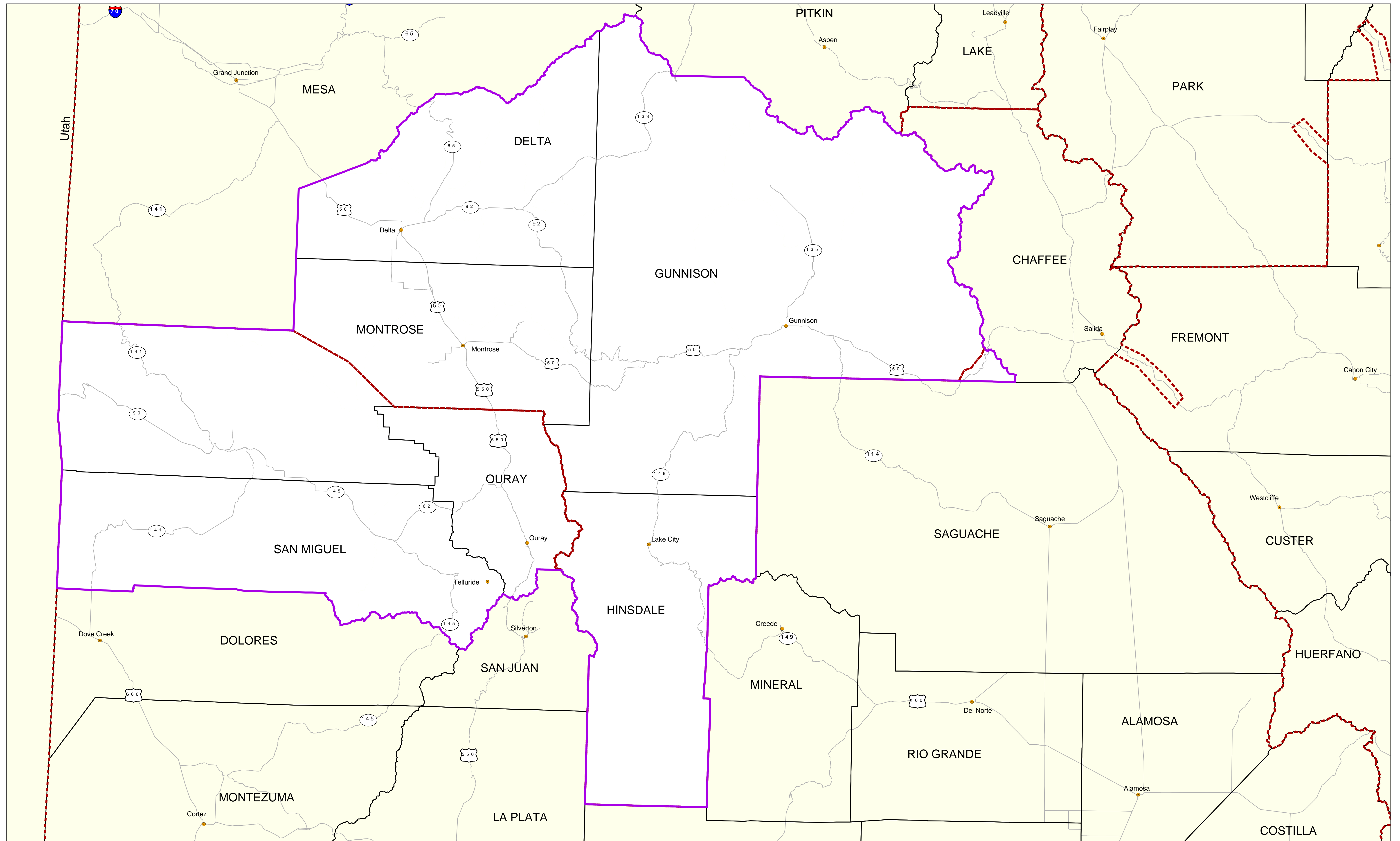


- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seats
- Roads

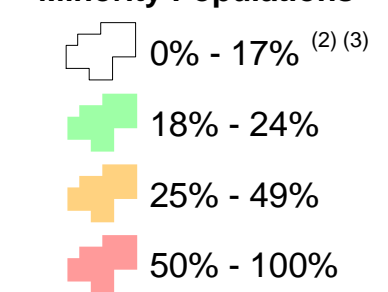
Minority Populations Southeast Transportation Planning Region

(1) Minority population census tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the Transportation Planning Region.
 (2) The state-wide minority population is 17.23%





Minority Populations⁽¹⁾



Transportation Planning Region

CDOT Region

County Boundaries

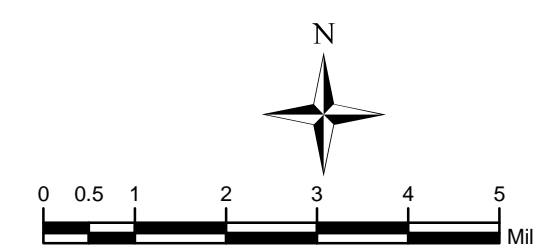
County Seat

Roads

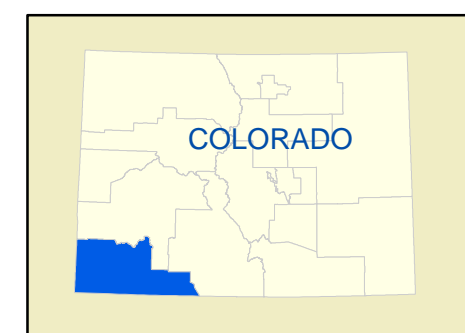
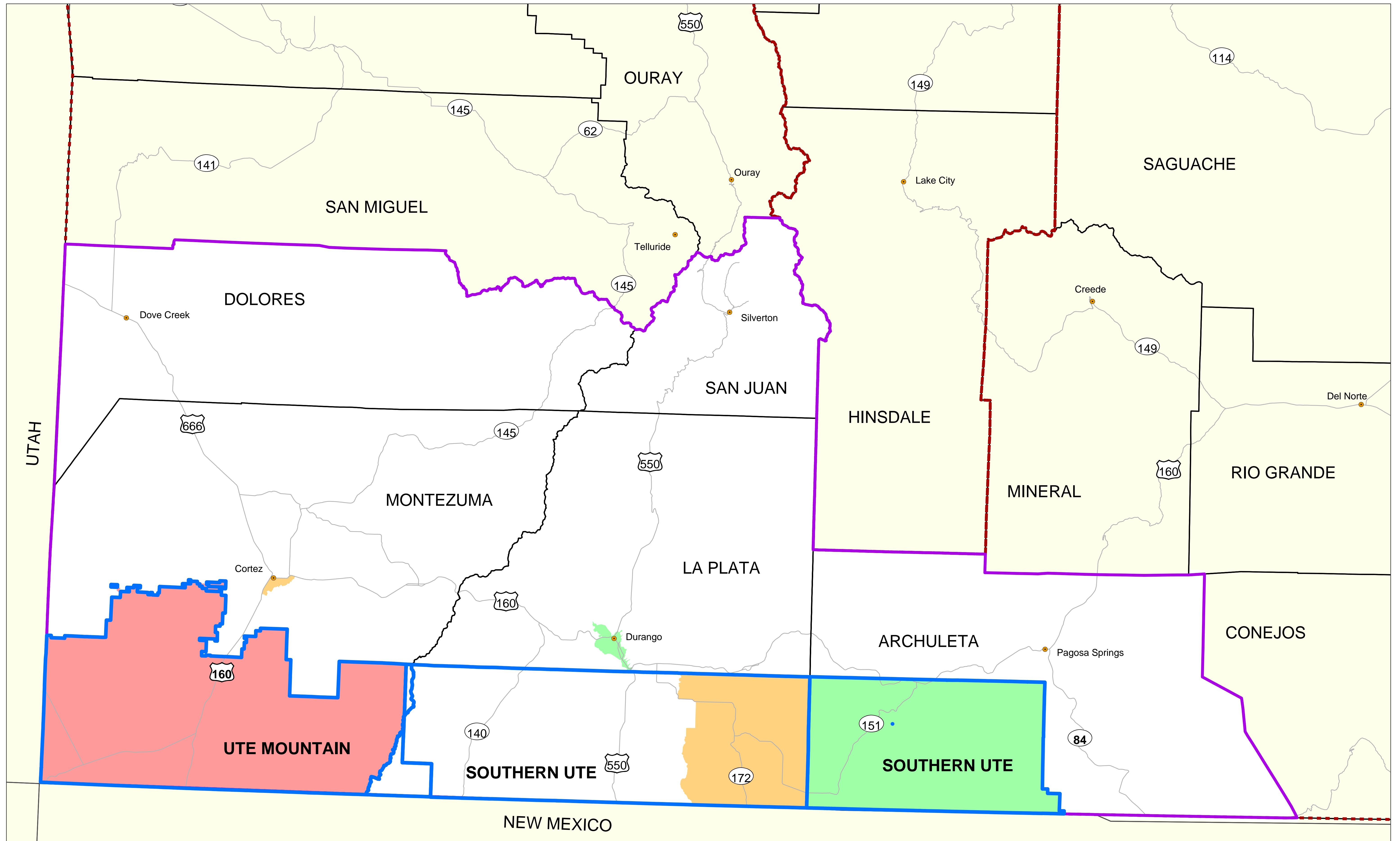
(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%

(3) Gunnison Valley TPR has no census tracts above 17.23%



**Minority Populations
Gunnison Valley Transportation Planning Region**



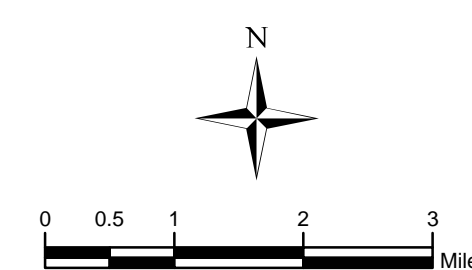
Minority Populations⁽¹⁾

- 0% - 17%⁽²⁾
- 18% - 24%
- 25% - 49%
- 50% - 100%

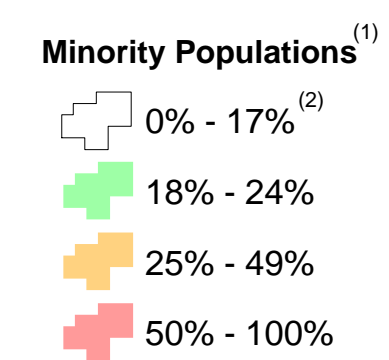
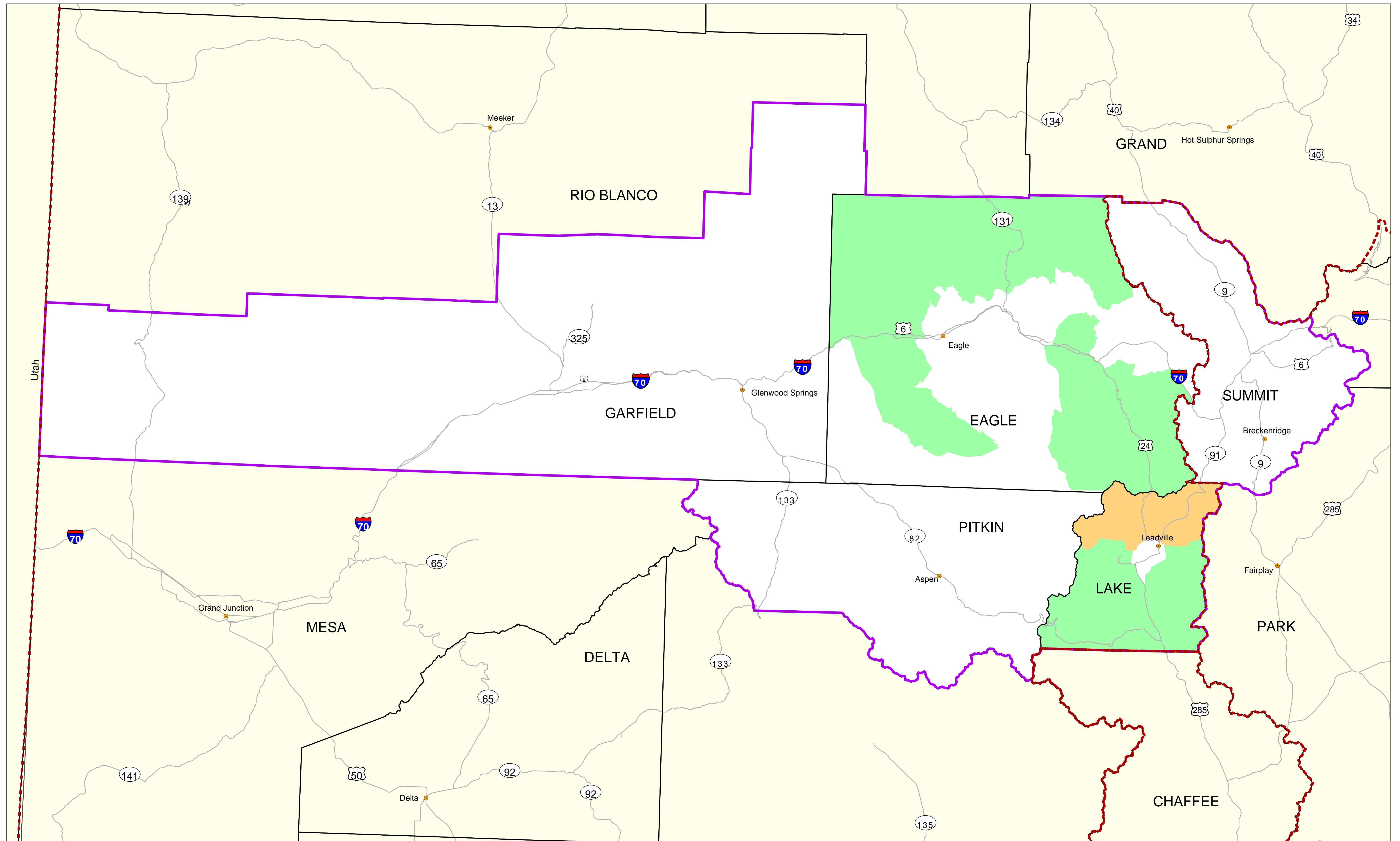
- Transportation Planning Region
- CDOT Region
- Tribal Boundaries
- County Boundaries
- County Seat
- Roads

(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%



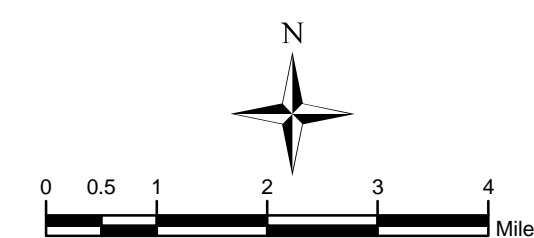
**Minority Populations
Southwest Transportation Planning Region**



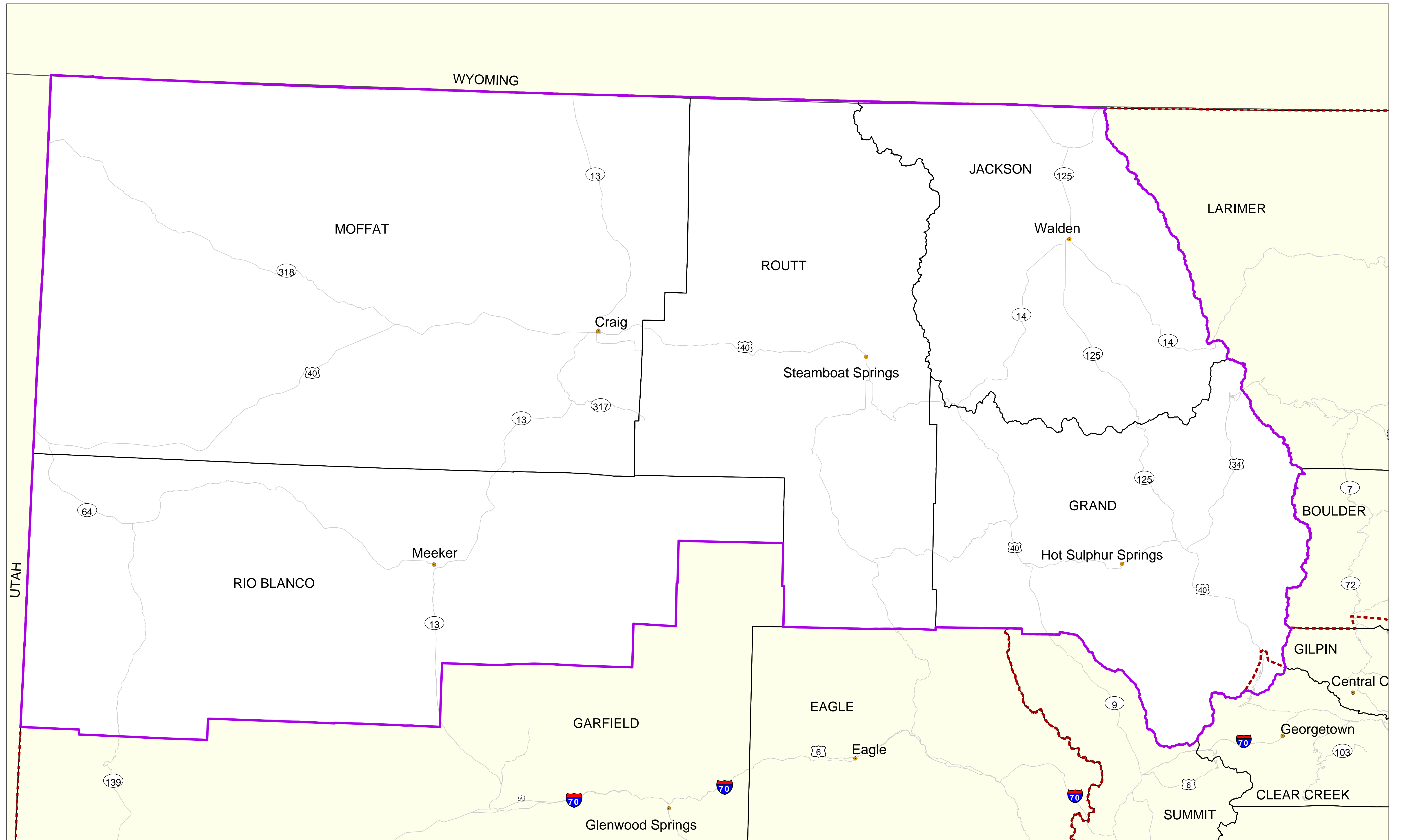
- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seat
- Roads

(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%



Minority Populations Intermountain Transportation Planning Region



Minority Populations⁽¹⁾

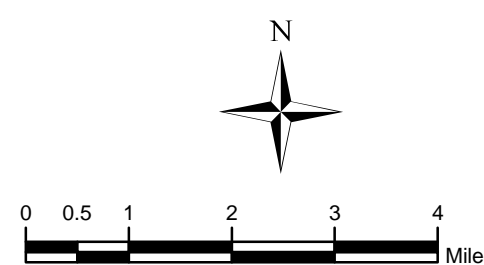
- + 0% - 17% ⁽²⁾⁽³⁾
- + 18% - 24%
- + 25% - 49%
- + 50% - 100%

- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seat
- Roads

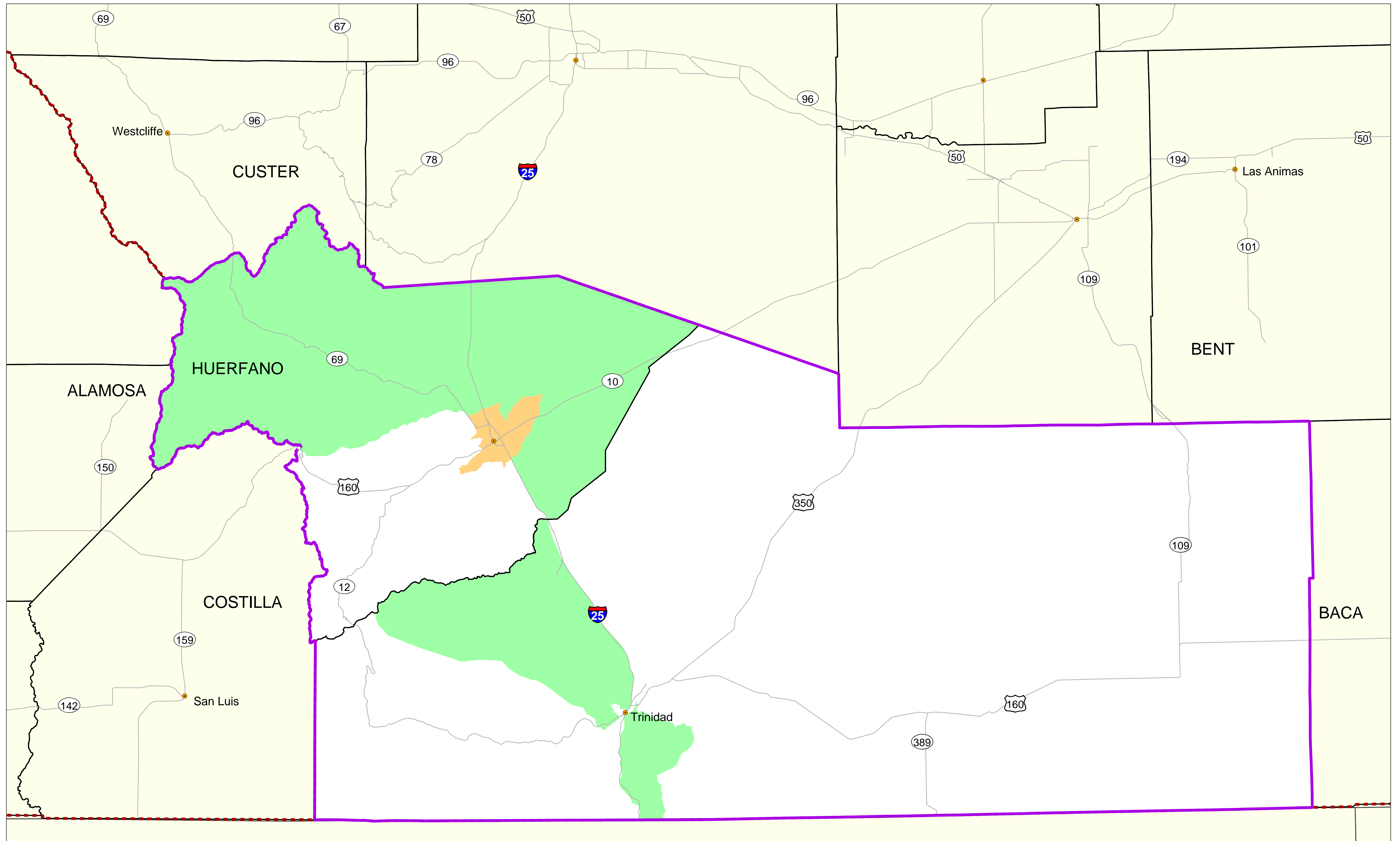
(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%

(3) Northwest TPR has no census tracts above 17.23%



**Minority Populations
Northwest Transportation Planning Region**



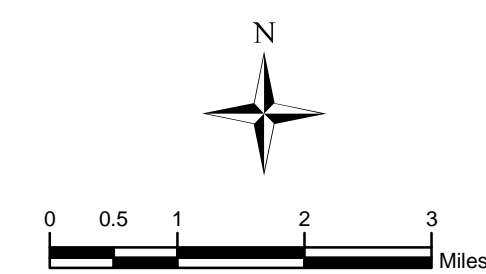
Minority Populations⁽¹⁾

- 0% - 17%⁽²⁾
- 18% - 24%
- 25% - 49%
- 50% - 100%

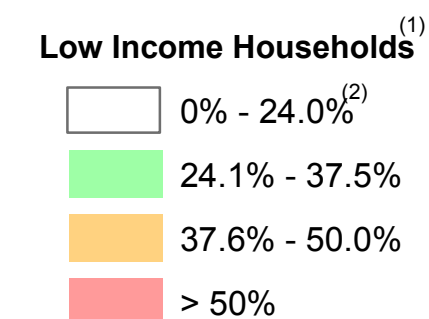
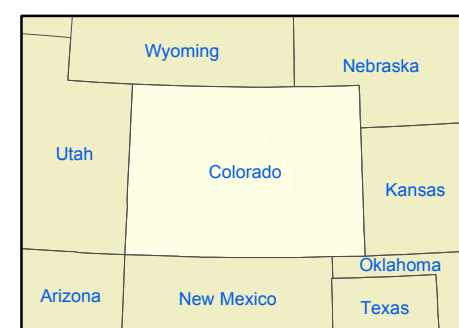
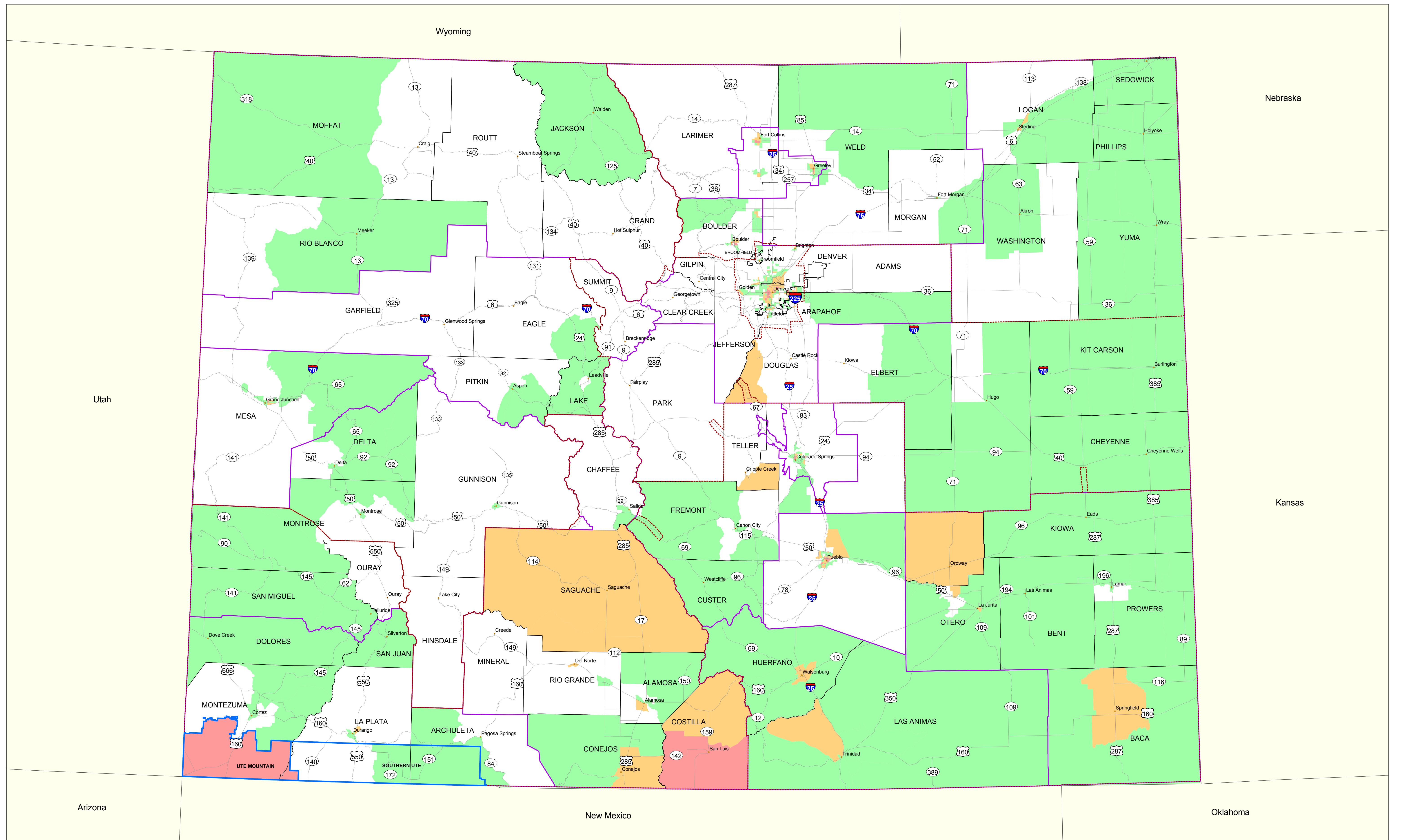
- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seat
- Roads

(1) Minority Population Census Tracts are defined as those tracts that have a percentage of minority population that is greater than the percentage of minority population for the State of Colorado.

(2) The state-wide minority population is 17.23%



**Minority Populations
South Central Transportation Planning Region**

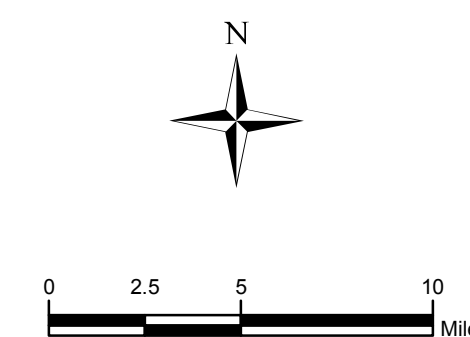


- CDOT Region
- Transportation Planning Region
- Tribal Boundaries
- County Boundaries
- County Seat
- Roads

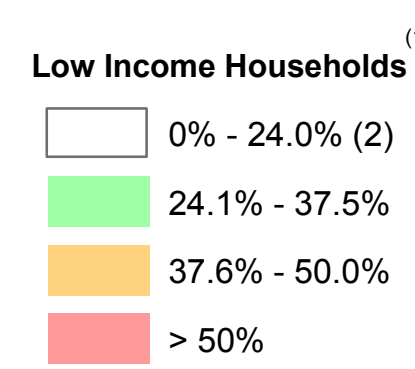
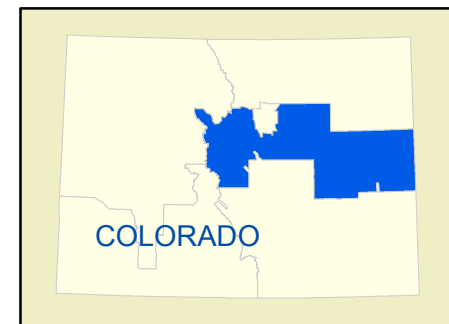
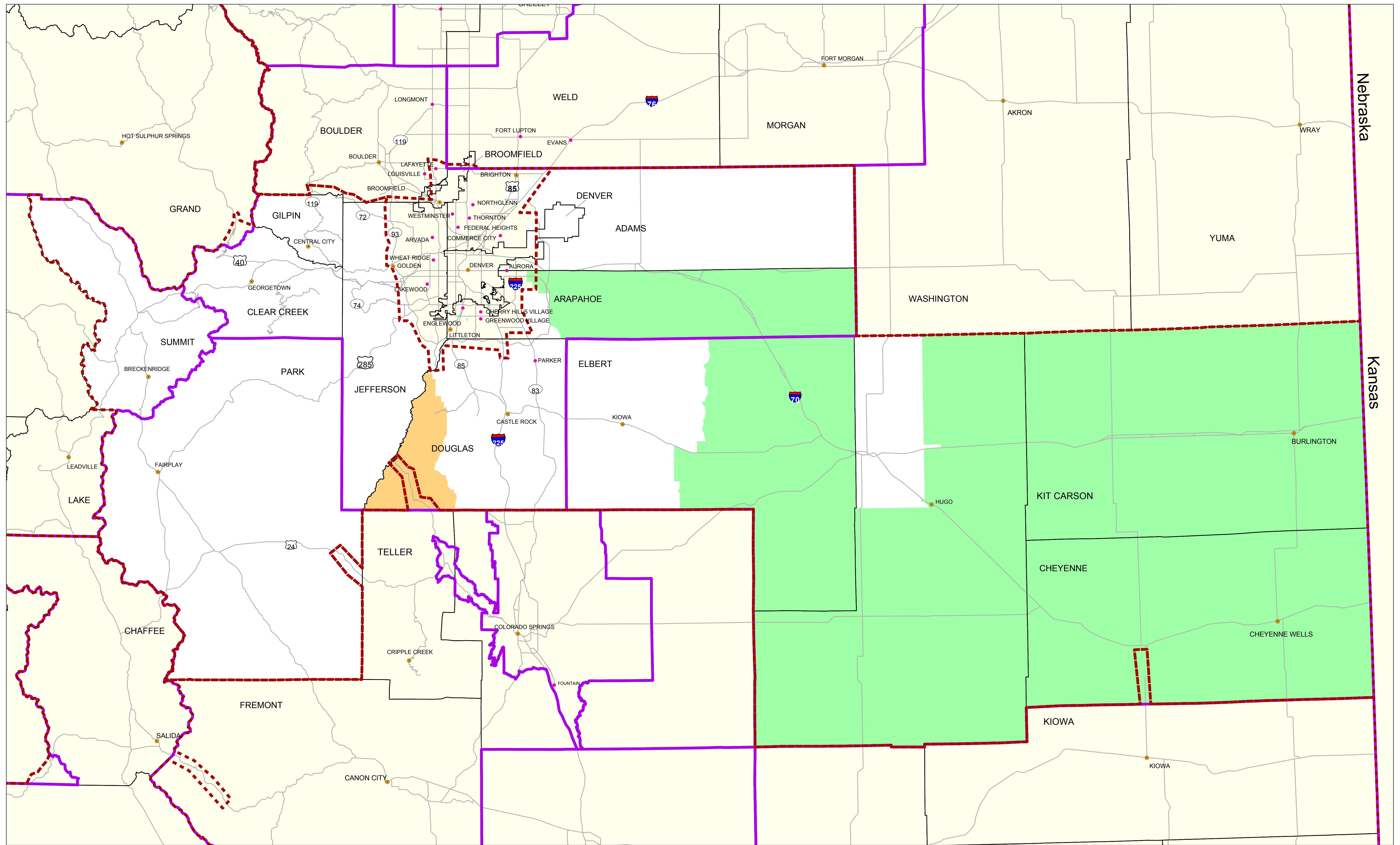
(1) Low income census tracts are defined as those with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.

(2) The state-wide percent for low income households is 24%

The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.



Low Income Households COLORADO

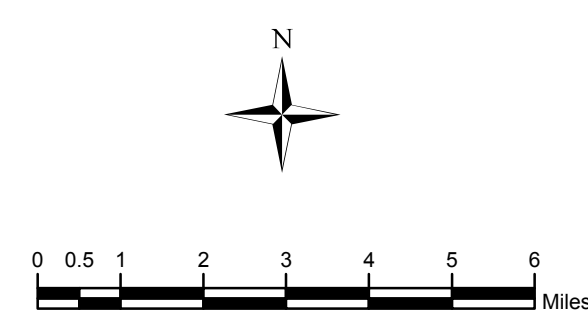


- CDOT Region
- Transportation Planning Region
- County Boundaries
- County Seat
- Cities and Towns > 5000 Persons
- Roads

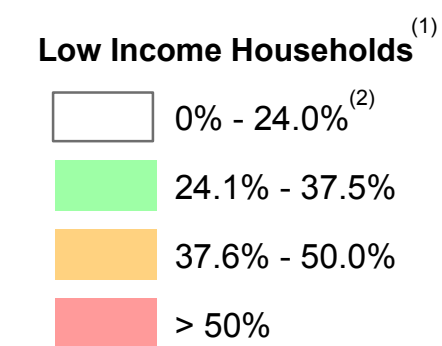
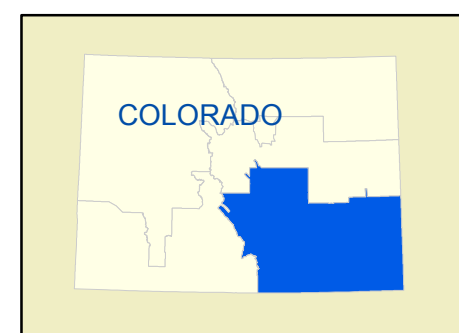
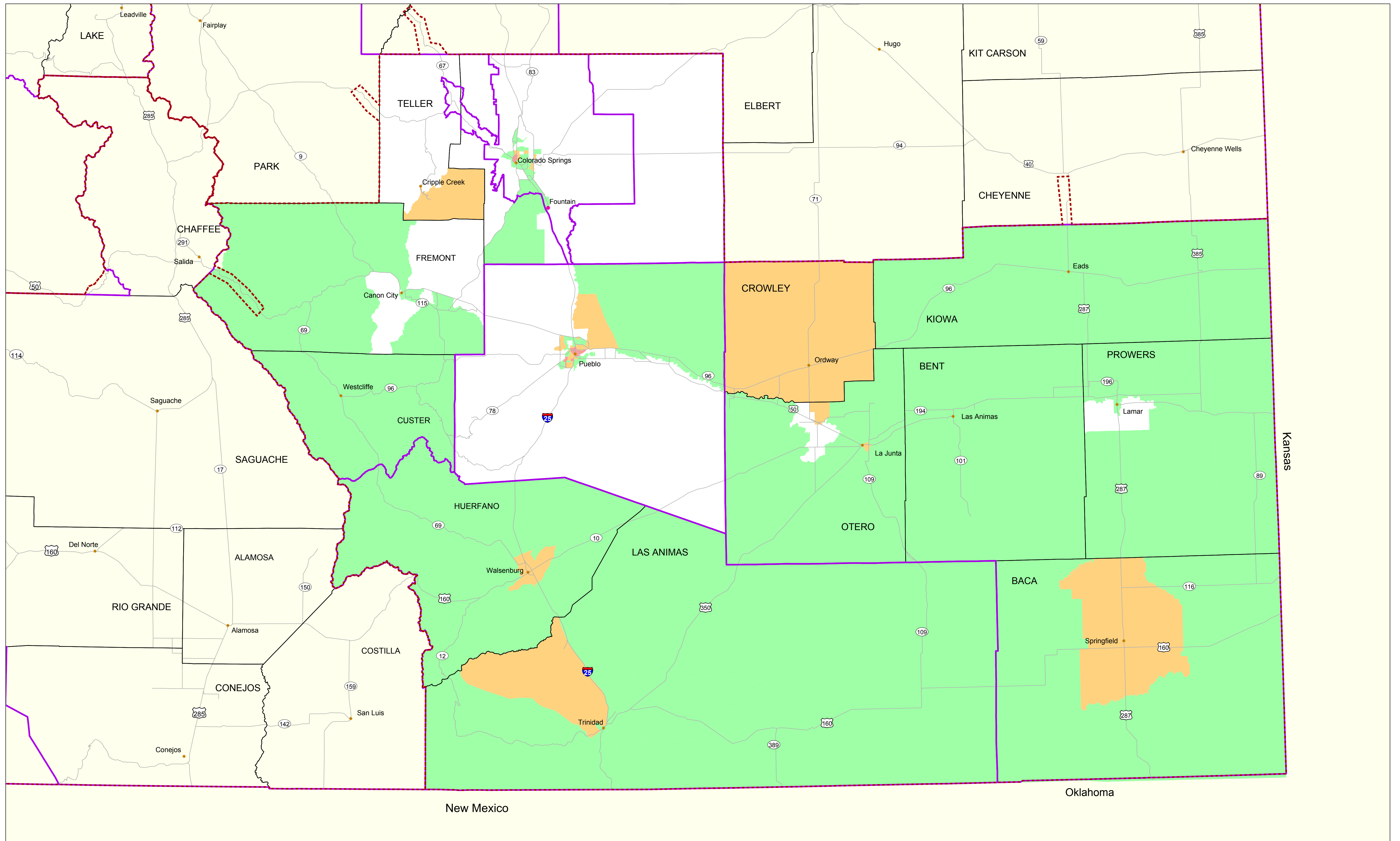
(1) Low income census tracts are defined as those with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.

(2) The state-wide percent for low income households is 24%

The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.



**Low Income Households
CDOT Transportation Region 1**

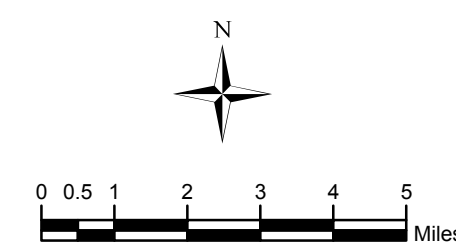


- CDOT Region
- Transportation Planning Region
- County Boundaries
- County Seat
- Cities and Towns > 5000 Persons
- Roads

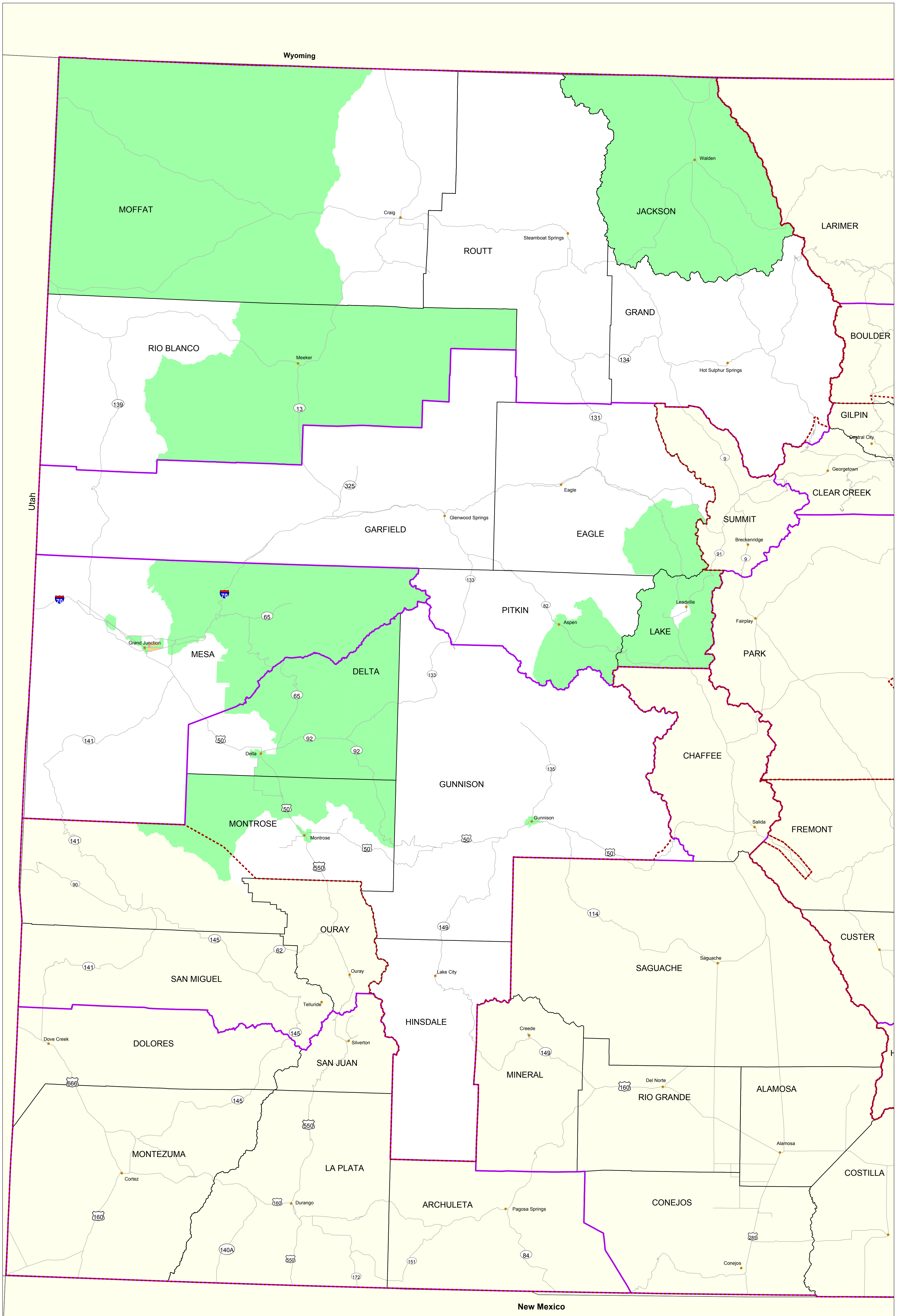
(1) Low income census tracts are defined as those with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.


(2) The state-wide percent for low income households is 24%

The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.



Low Income Households CDOT Transportation Region 2



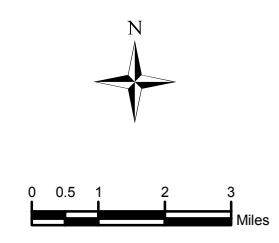


Low Income Households⁽¹⁾

- 0.0 - 24.0⁽²⁾
- 24.1 - 37.5
- 37.6 - 50.0
- > 50%

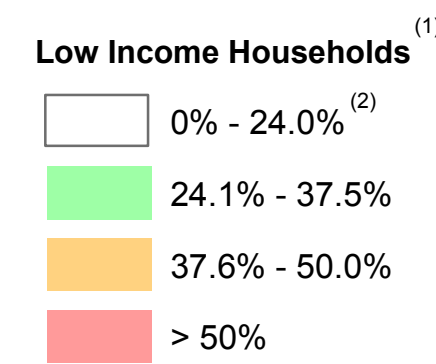
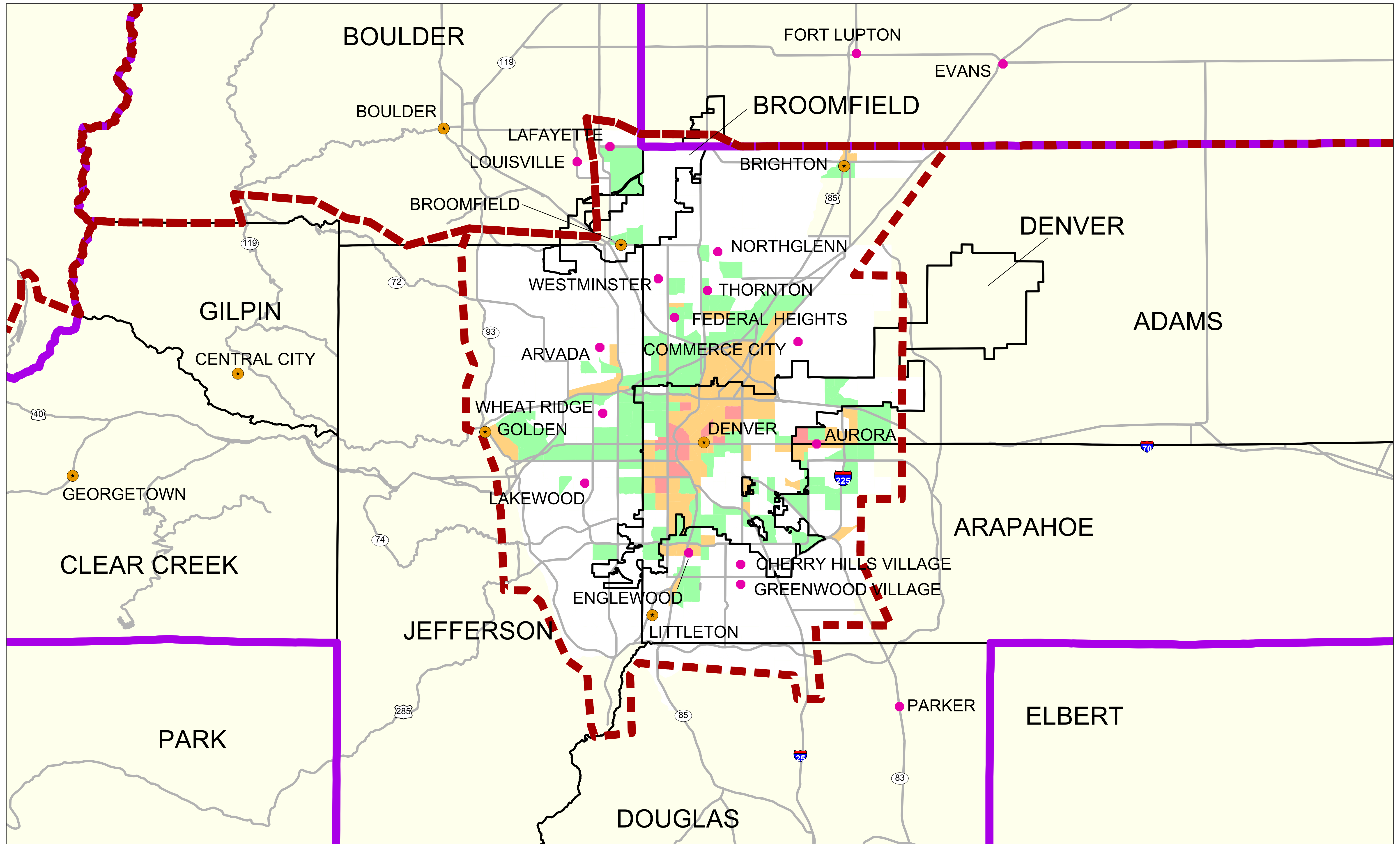
CDOT Region
— Transportation Planning Region
 County Boundaries
● County Seat
— Roads

(1) Low income census tracts are defined as those with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.
 (2) The state-wide percent for low income households is 24%
 The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.



**Low Income Households
 CDOT Transportation Region 3**

cdot_Regio3_low_income.mxd 12.12.03

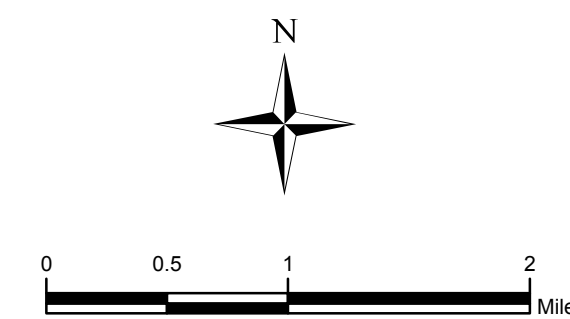


- CDOT Region
- Transportation Planning Region
- County Boundaries
- County Seat
- Cities and Towns > 5000 Persons
- Roads

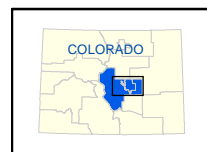
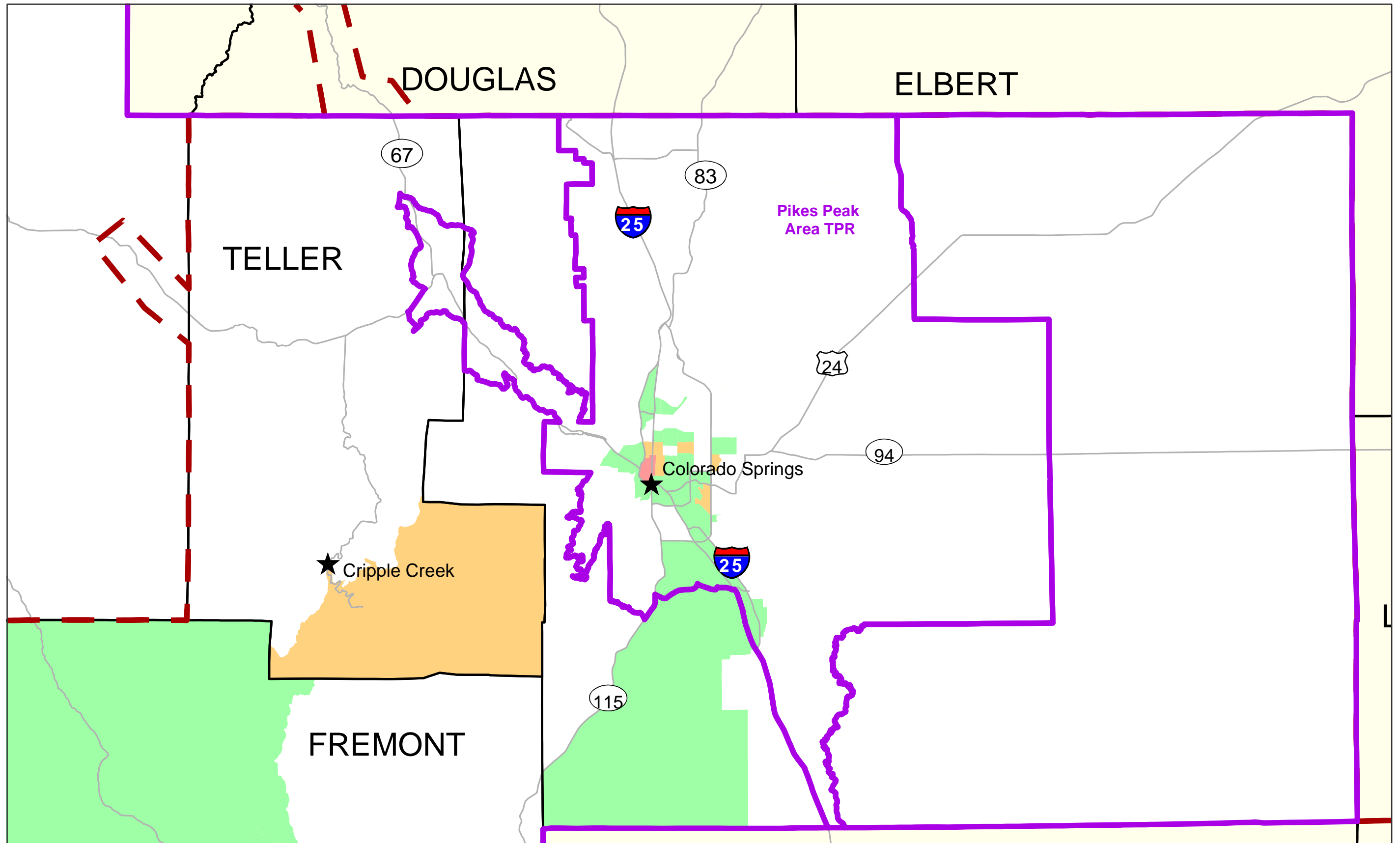
(1) Low income census tracts are defined as those with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.

(2) The state-wide percent for low income households is 24%

The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.



Low Income Households
CDOT Transportation Region 6



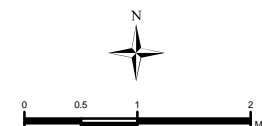
Low Income Households (1)

- 0% - 24.0% (2)
- 24.1% - 37.5%
- 37.6% - 50.0%
- > 50%

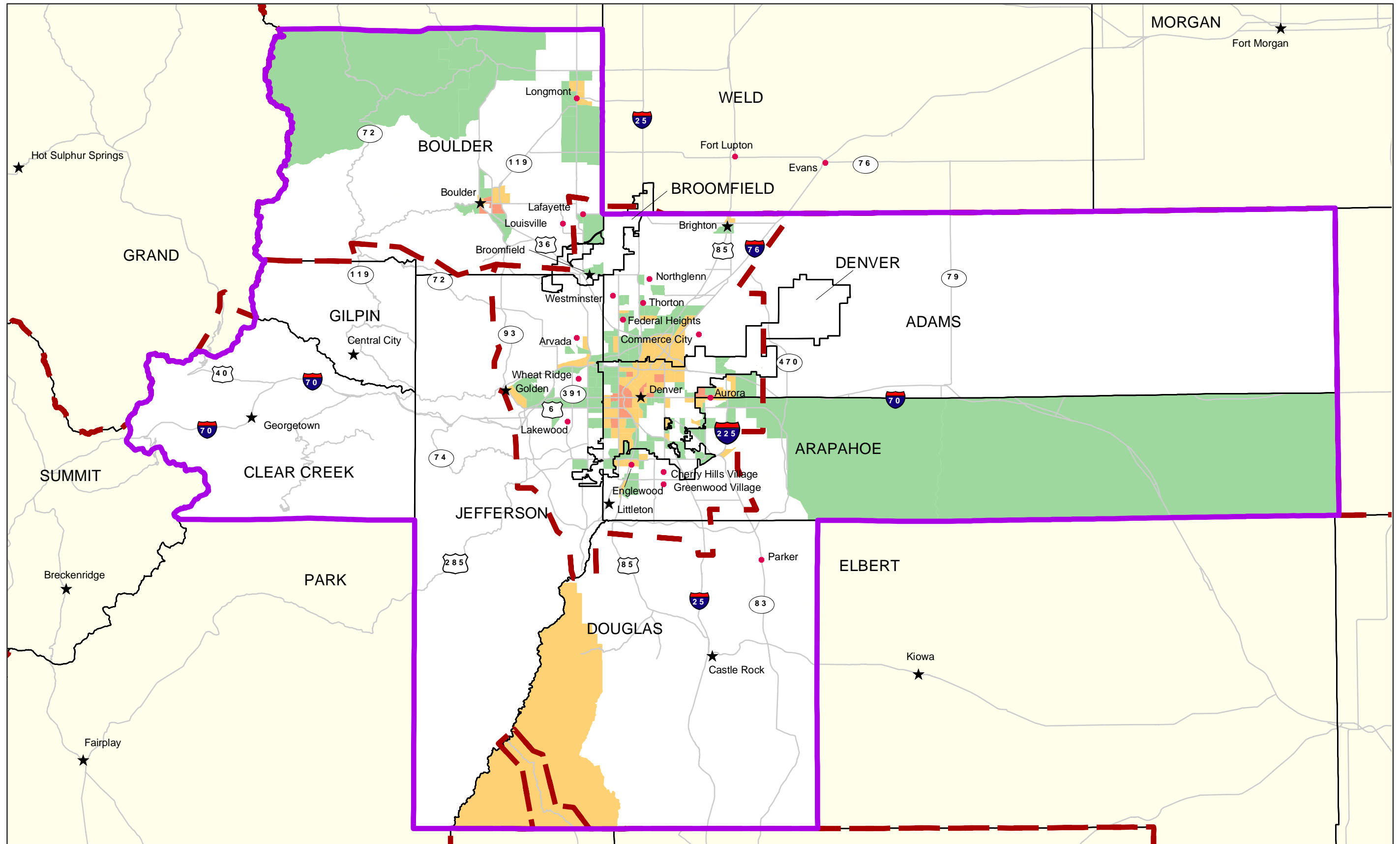
- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seat
- Cities and Towns > 5000 Persons
- Roads

1) Low-income census tracts are defined as those tracts with a percentage of low-income households that are greater than the percentage of low-income households for the State of Colorado.
 2) The state-wide percent for low-income households is 24%.

The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.



**Low Income Households
 Pikes Peak Area
 Transportation Planning Region**



Low Income Households (1)

- 0% - 24.0% (2)
- 24.1% - 37.5%
- 37.6% - 50.0%
- > 50%

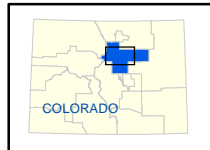
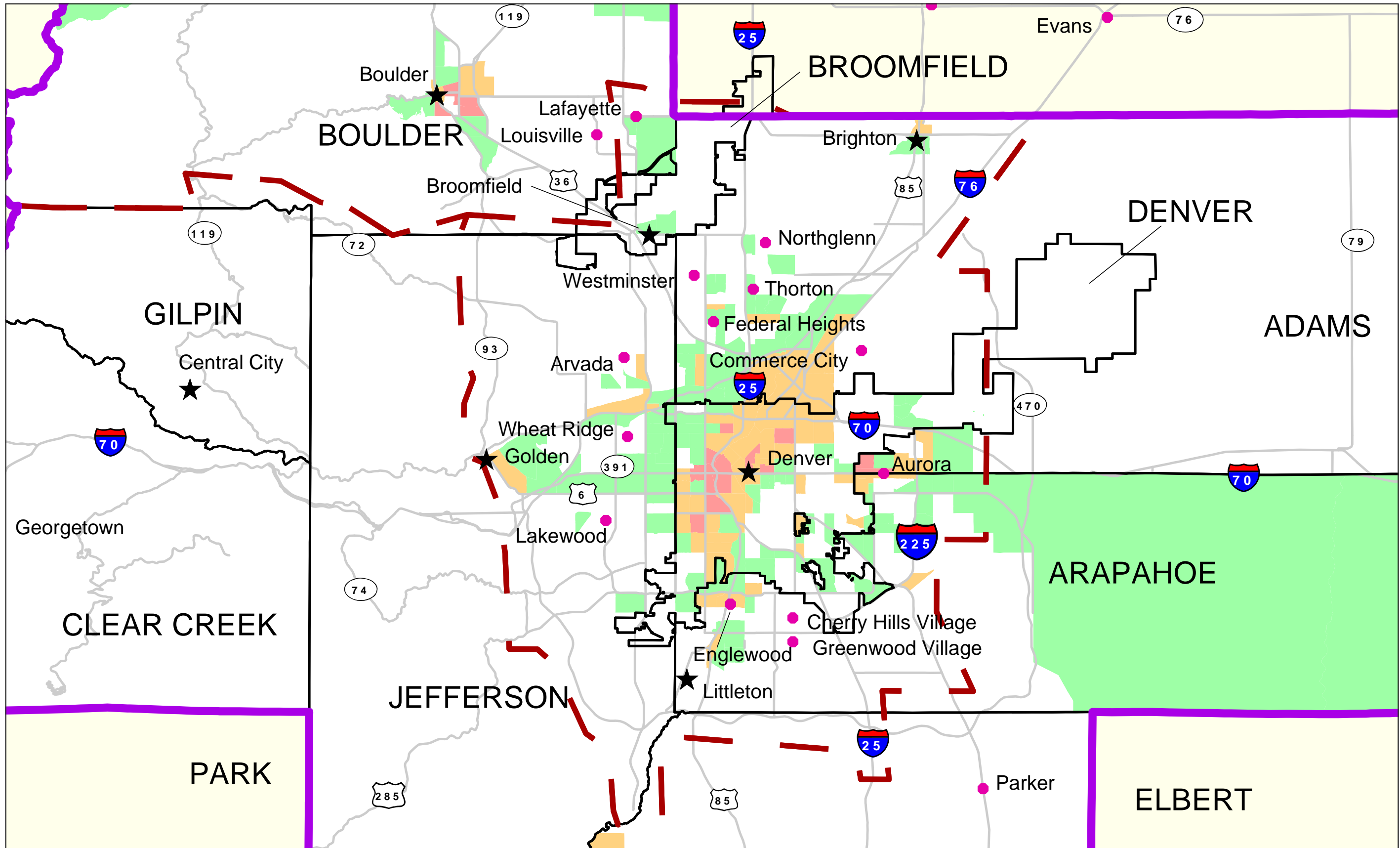
- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seat
- Cities and Towns > 5000 Persons
- Roads

1) Low income census tracts are defined as those tracts with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.
 2) The state wide percent for low income households is 24%.

The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.



**Low Income Households
Greater Denver Area Transportation Planning Region**



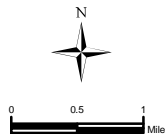
Low Income Households (1)

- 0% - 24.0% (2)
- 24.1% - 37.5%
- 37.6% - 50.0%
- > 50%

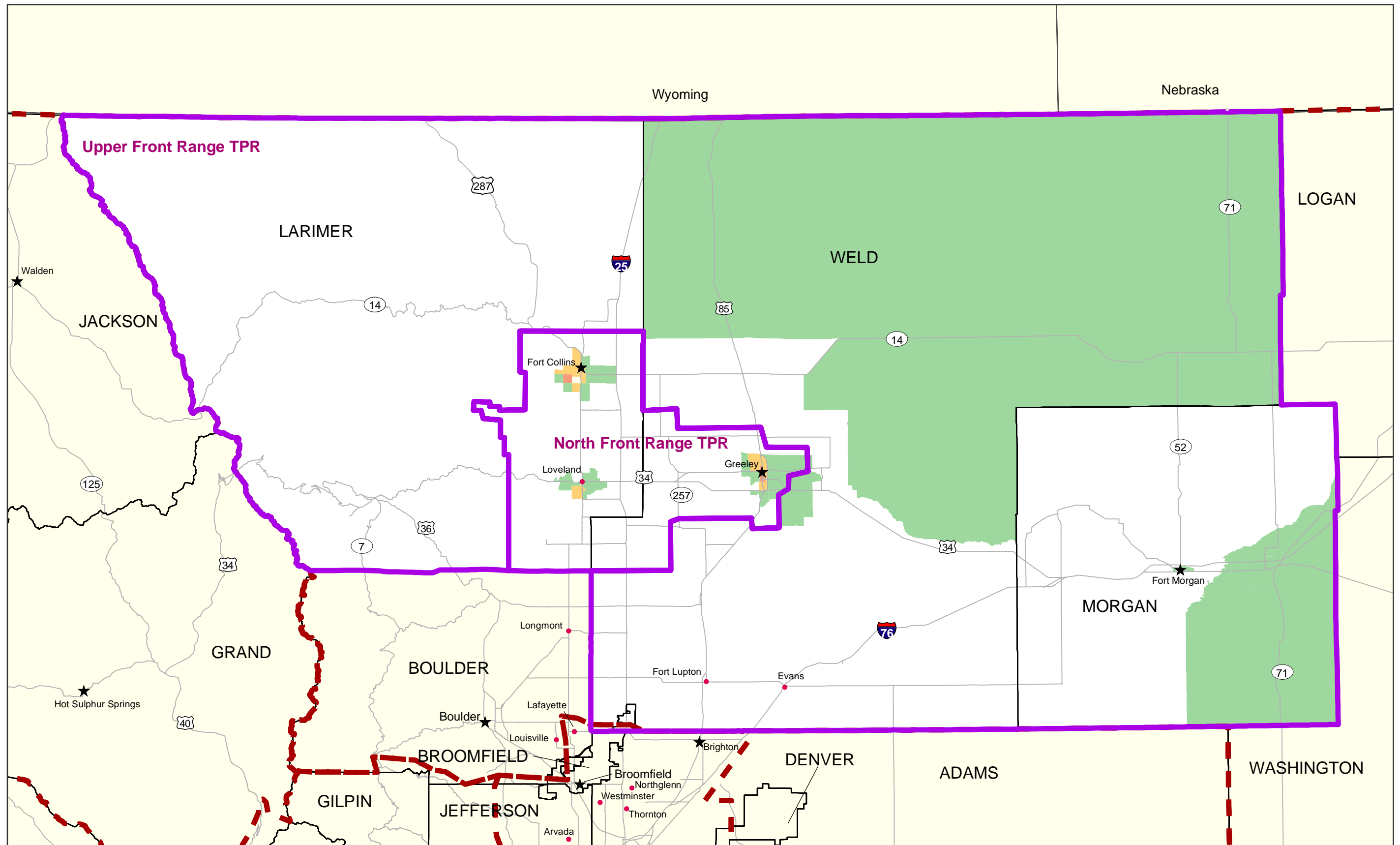
- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seat
- Cities and Towns > 5000 Persons
- Roads

1) Low-income census tracts are defined as those tracts with a percentage of low-income households that are greater than the percentage of low-income households for the State of Colorado.
 2) The state-wide percent for low-income households is 24%.

The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.



**Low Income Households
Greater Denver TPR - Detail**



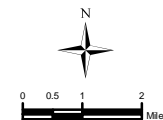
Low Income Households (1)

- 0% - 24.0% (2)
- 24.1% - 37.5%
- 37.6% - 50.0%
- > 50%

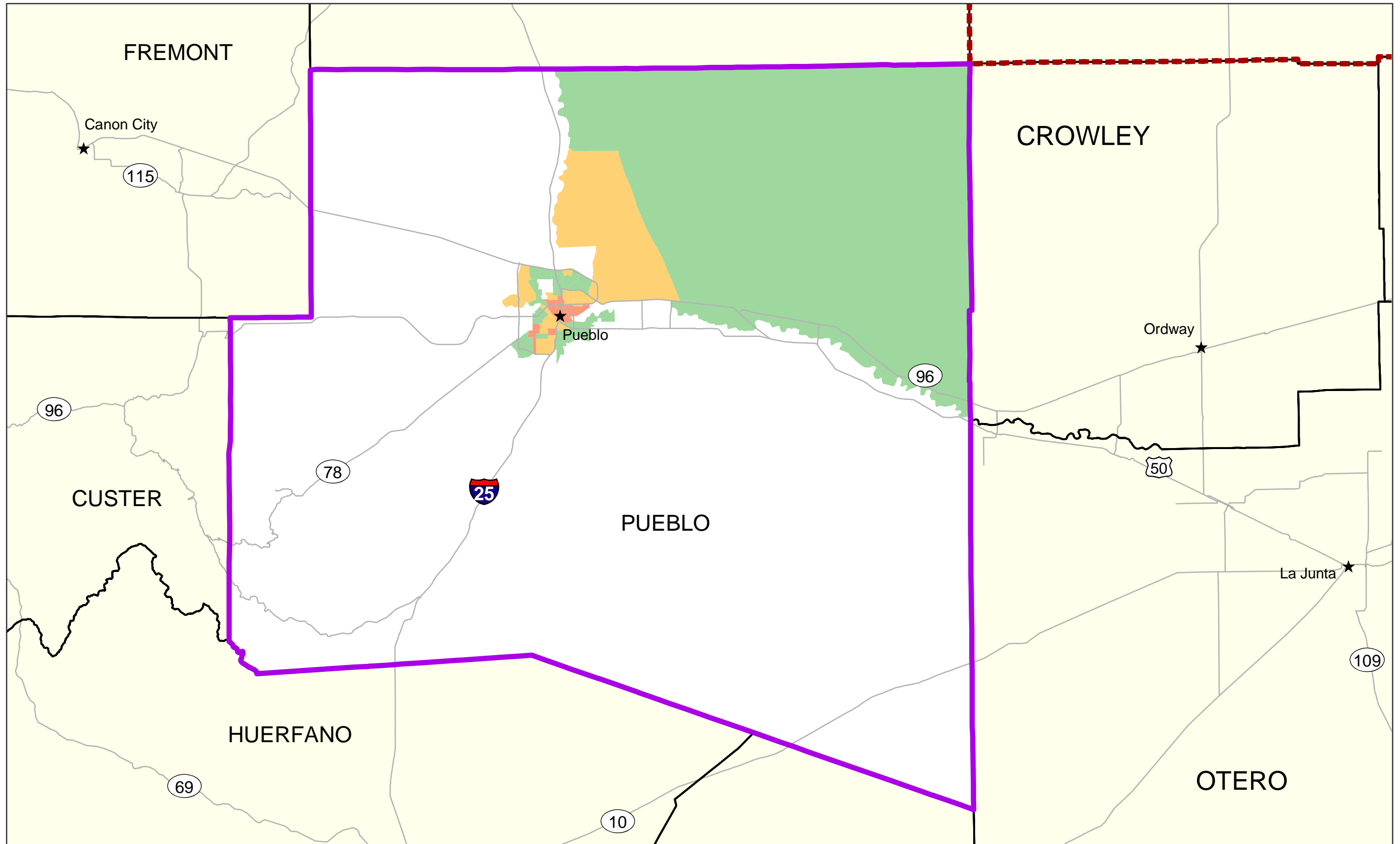
- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seat
- Cities and Towns > 5000 Persons
- Roads

1) Low income census tracts are defined as those tracts with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.
 2) The state wide percent for low income households is 24%.

The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.



Low Income Households
 Upper Front and North Front Range
 Transportation Planning Regions



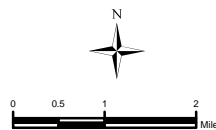
Low Income Households (1)

- 0% - 24.0% (2)
- 24.1% - 37.5%
- 37.6% - 50.0%
- > 50%

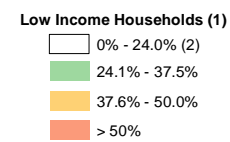
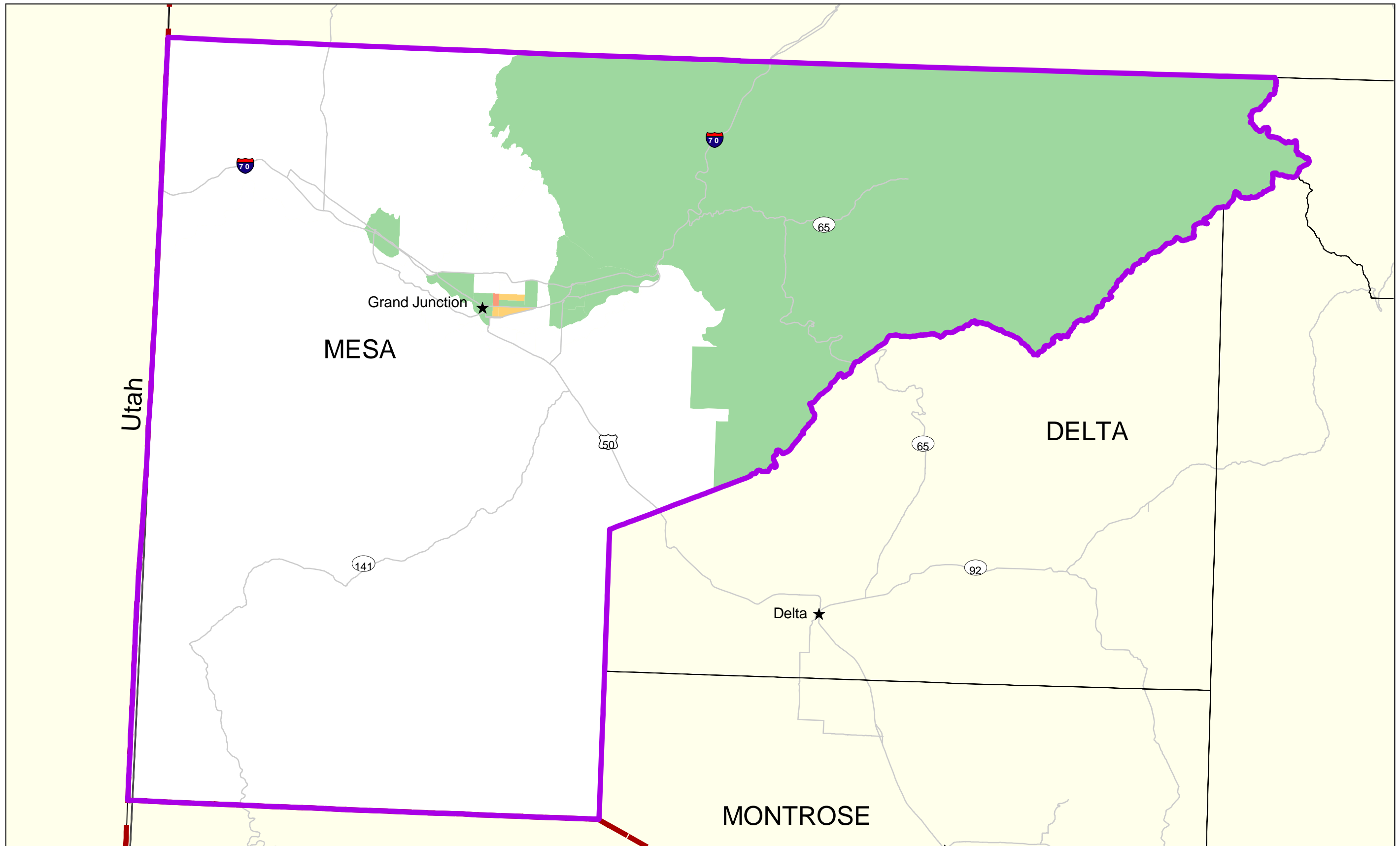
- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seat
- Roads

1) Low income census tracts are defined as those tracts with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.
 2) The state wide percent for low income households is 24%.

The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.

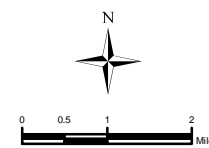


**Low Income Households
 Pueblo Transportation Planning Region**

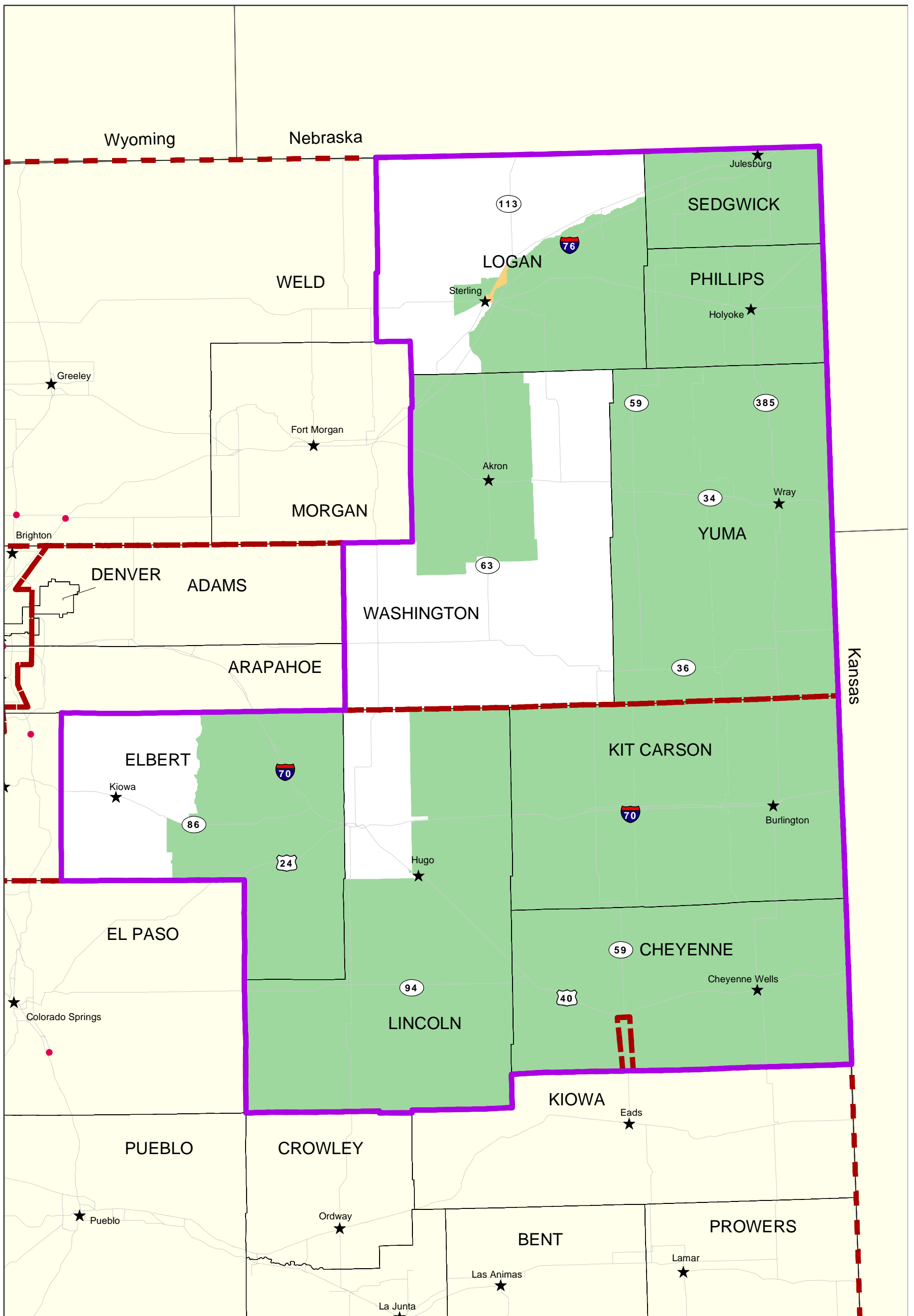


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 2) The state wide percent for low income households is 24%.

The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.



**Low Income Households
 Grand Junction Transportation Planning Region**



COLORADO

Low Income Households (1)

- 0% - 24.0% (2)
- 24.1% - 37.5%
- 37.6% - 50.0%
- > 50%

Legend:

- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seats
- Roads

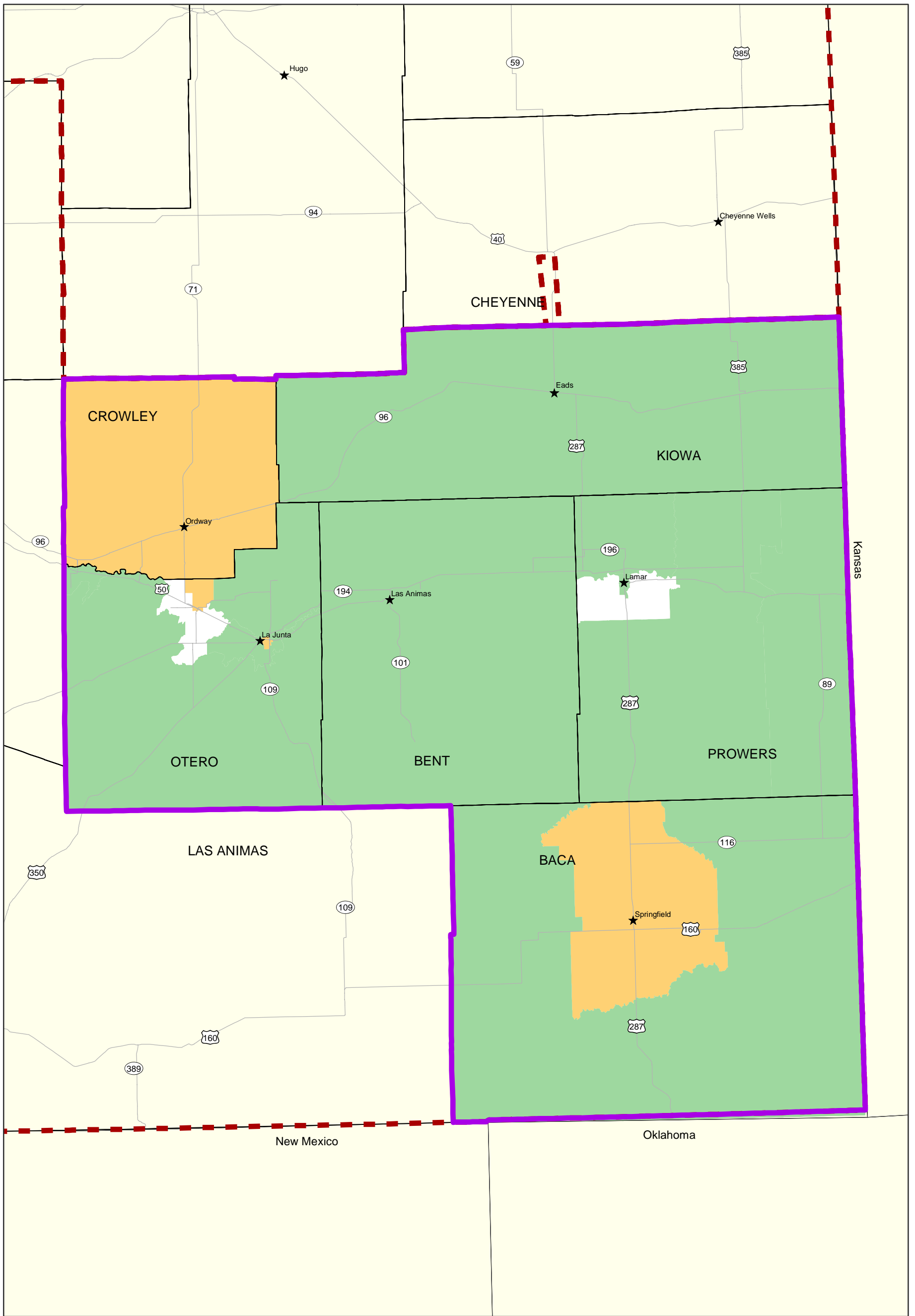
Low Income Households Eastern Transportation Planning Region

1) Low income census tracts are defined as those tracts with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.
 2) The state wide percent for low income households is 24%.

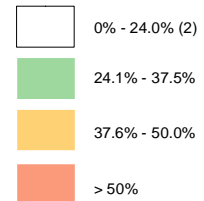
The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.

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Low Income Households (1)

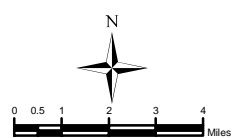


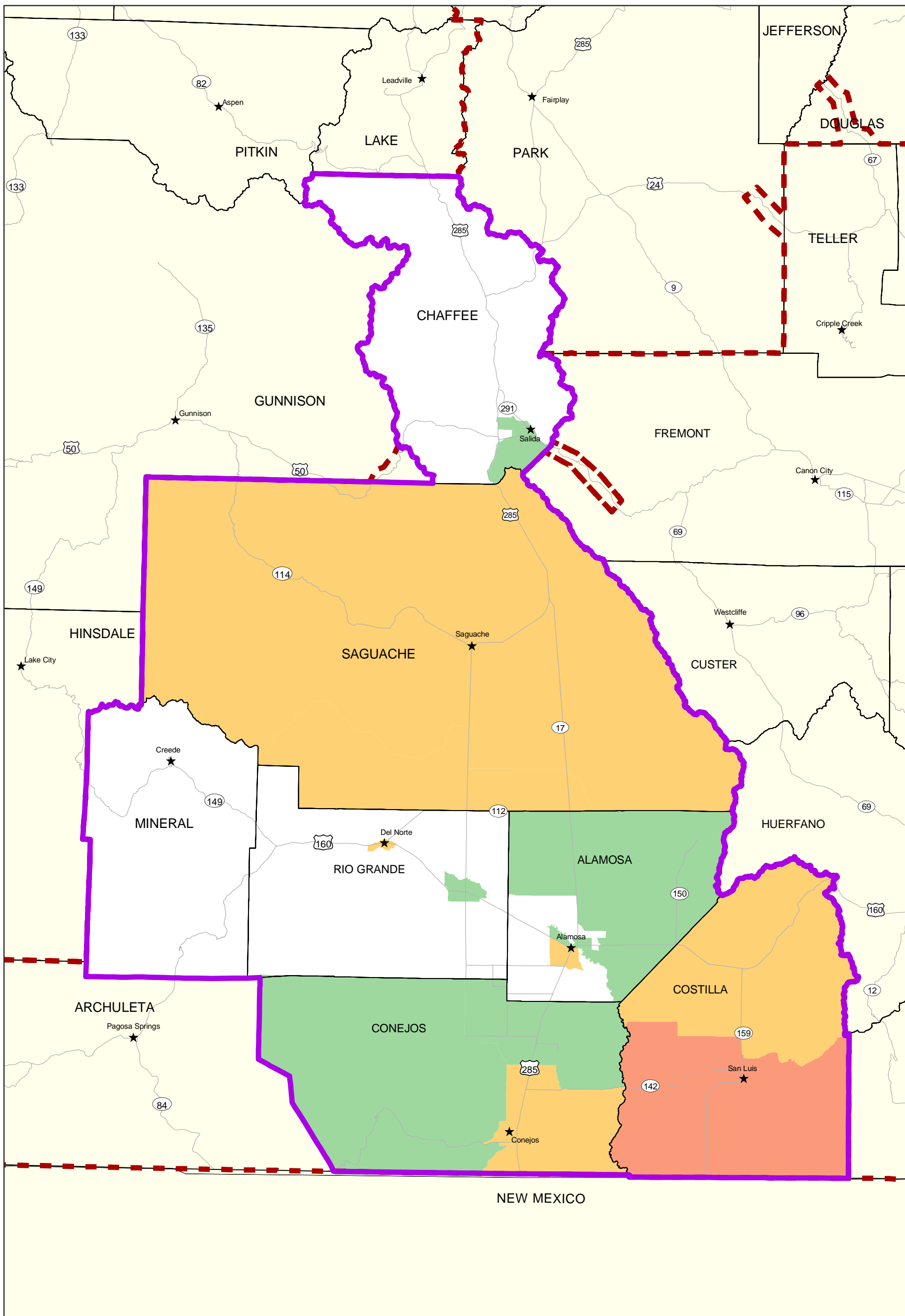
- ▬ Transportation Planning Region
- - - CDOT Region
- County Boundaries
- ★ County Seats
- Cities and Towns > 5000 Persons
- Roads

**Low Income Households
Southeast Transportation Planning Region**

1) Low income census tracts are defined as those tracts with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.
2) The state wide percent for low income households is 24%.

The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.





Low Income Households (1)

- 0% - 24.0% (2)
- 24.1% - 37.5%
- 37.6% - 50.0%
- > 50%

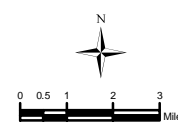
Transportation Planning Region

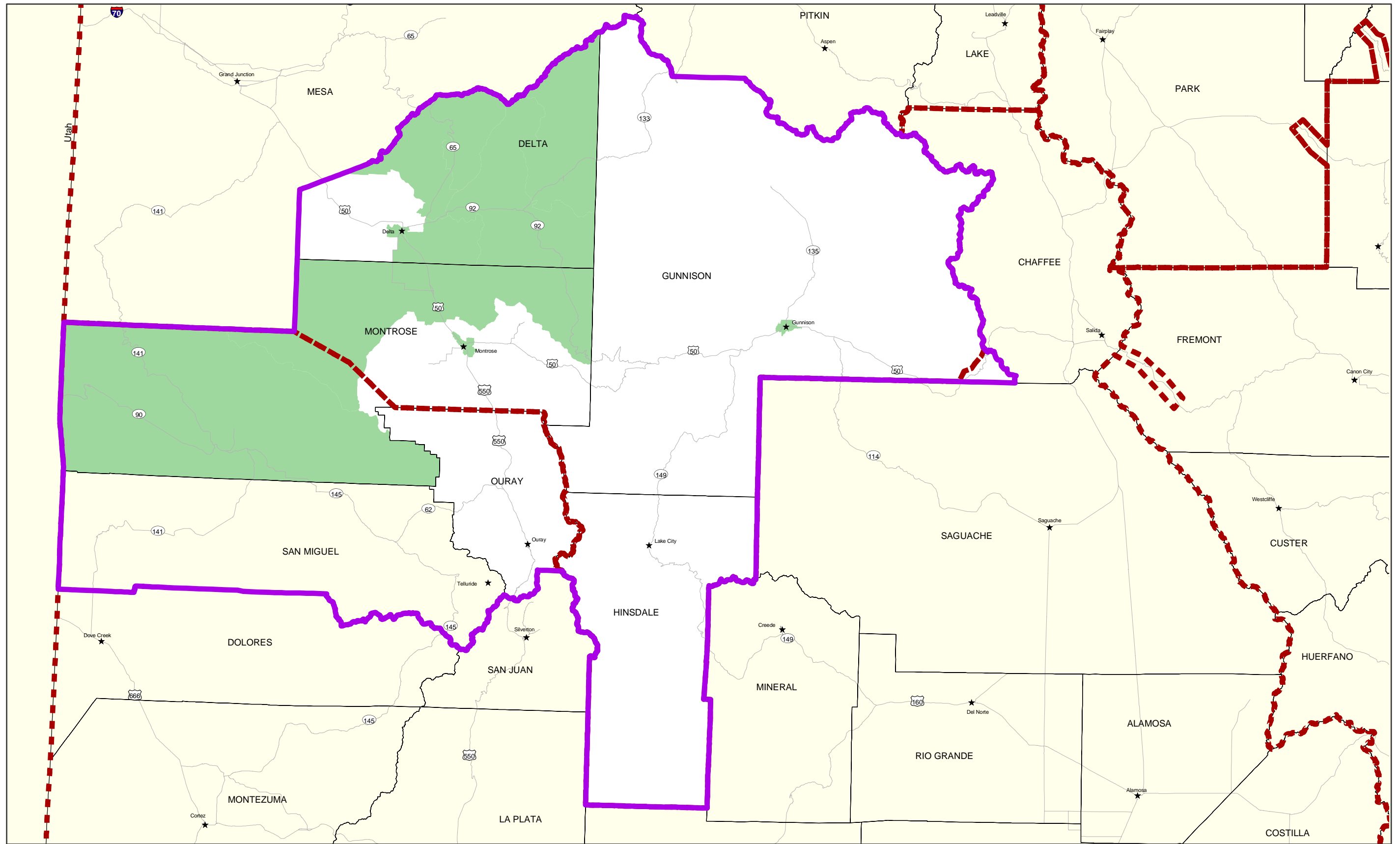
- CDOT Region
- County Boundaries
- County Seats
- Roads

**Low Income Households
San Luis Valley Transportation Planning Region**

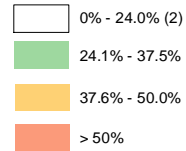
1) Low income census tracts are defined as those tracts with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.
2) The state wide percent for low income households is 24%.

The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.





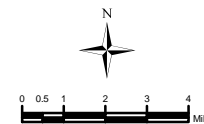
Low Income Households (1)



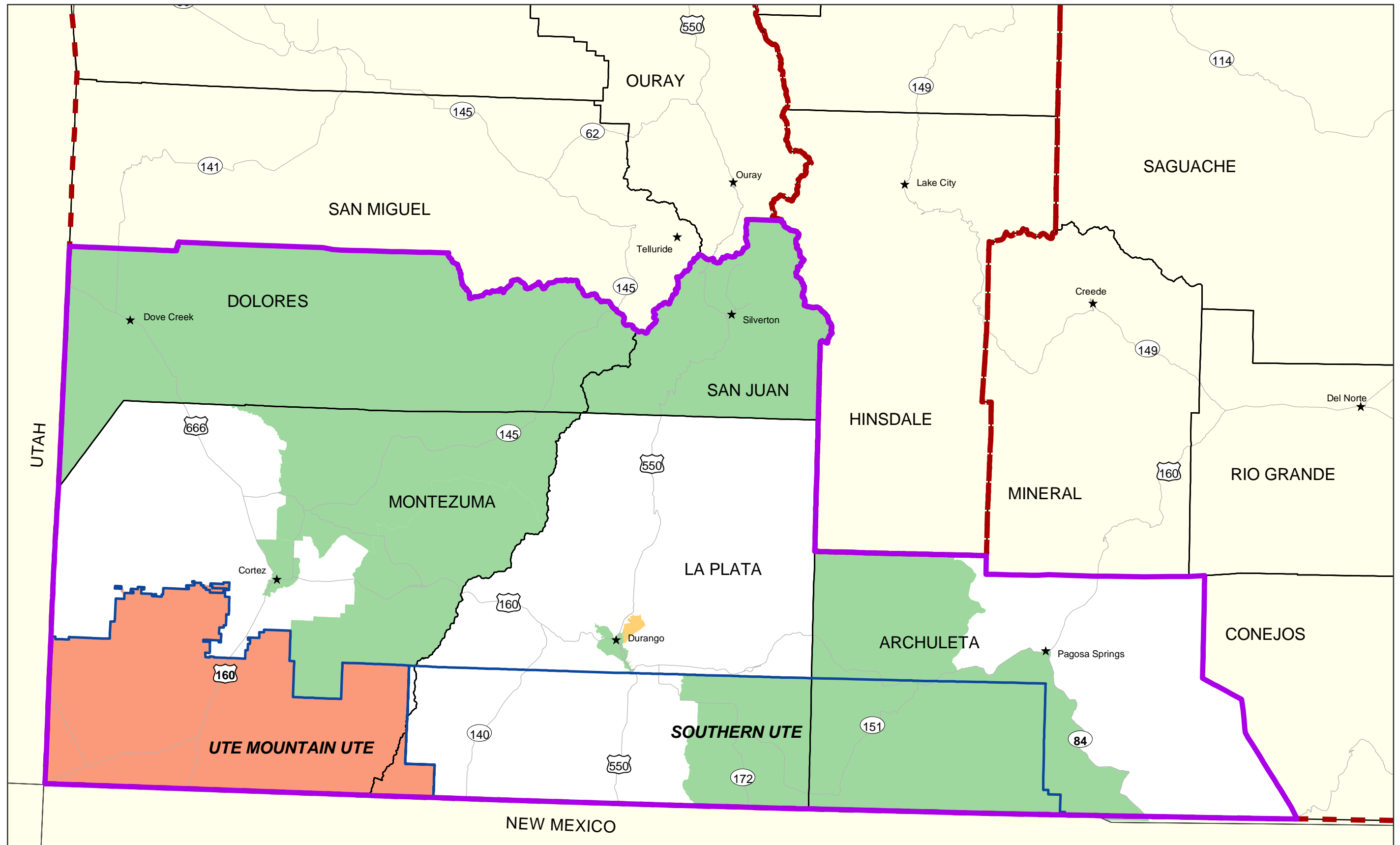
- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seat
- Roads

1) Low income census tracts are defined as those tracts with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.
 2) The state wide percent for low income households is 24%.

The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.



**Low Income Households
 Gunnison Valley Transportation Planning Region**



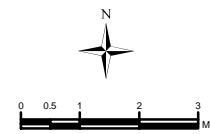
Low Income Households (1)

- 0% - 24.0% (2)
- 24.1% - 37.5%
- 37.6% - 50.0%
- > 50%

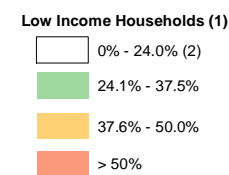
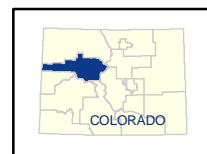
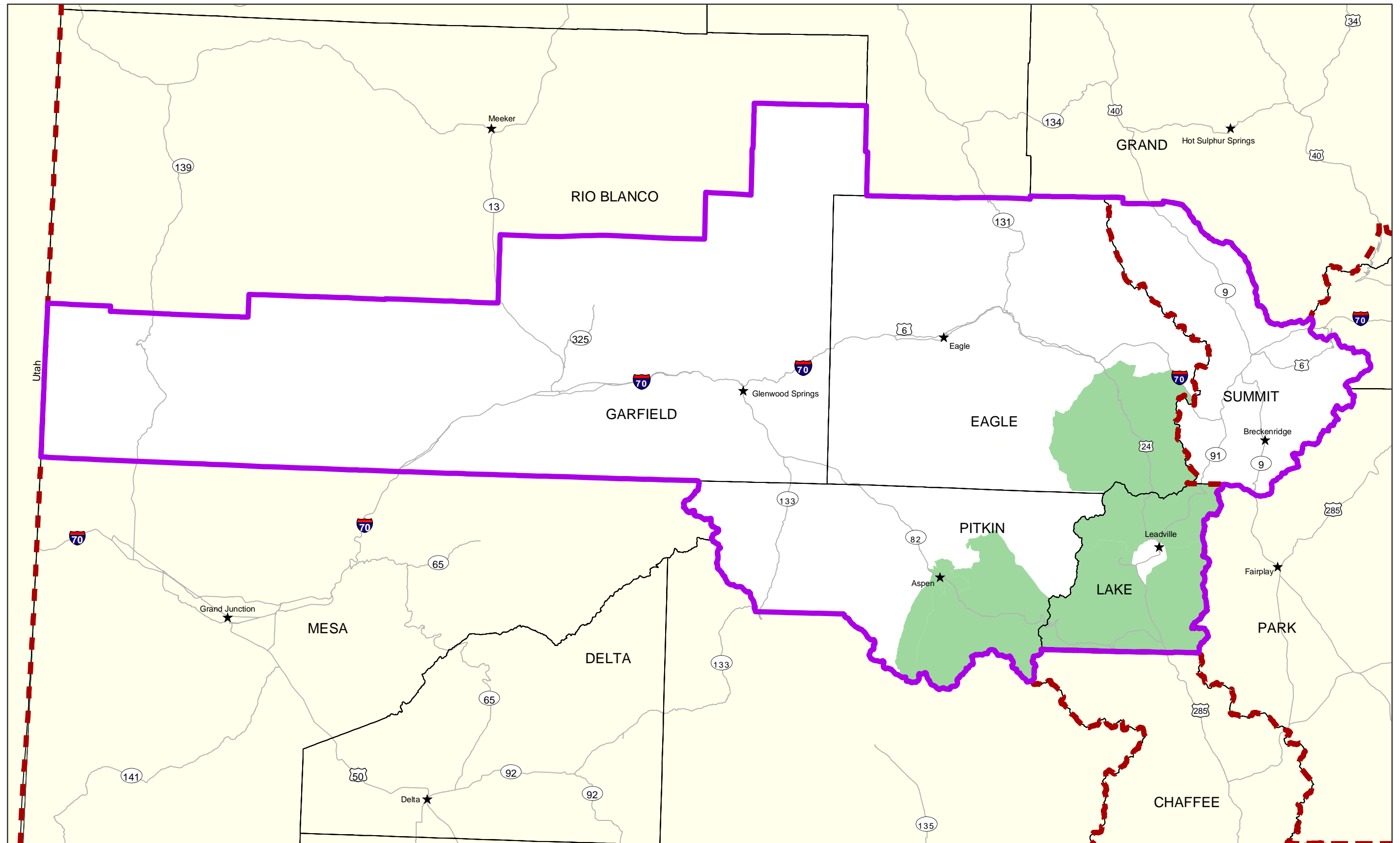
- Transportation Planning Region
- CDOT Region
- Tribal Boundaries
- County Boundaries
- County Seat
- Roads

1) Low income census tracts are defined as those tracts with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.
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The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.

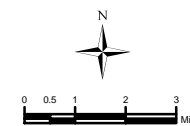


**Low Income Households
 Southwest Transportation Planning Region**

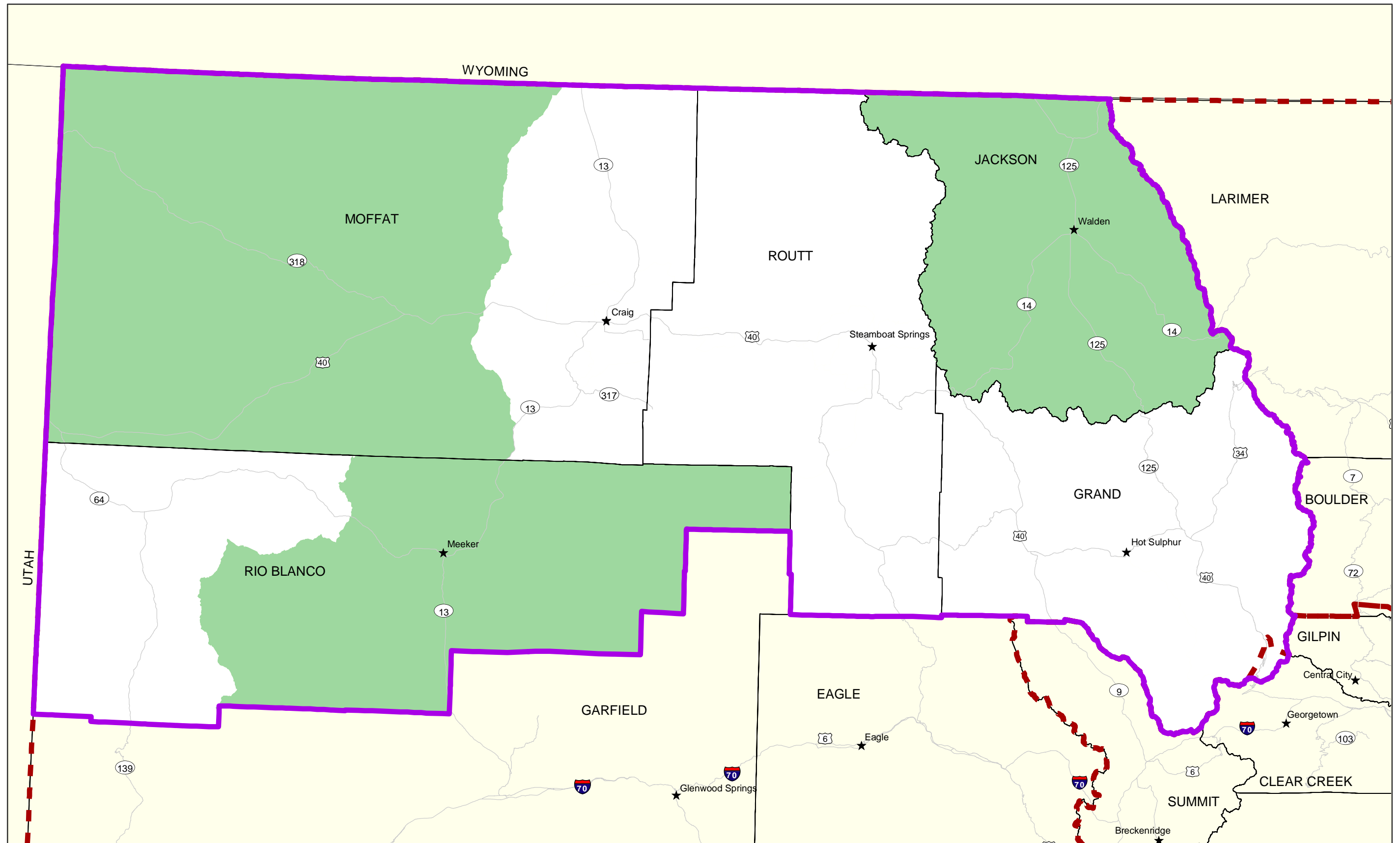


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 2) The state wide percent for low income households is 24%.

The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.



**Low Income Households
 Intermountain Transportation Planning Region**



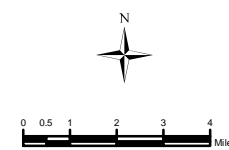
Low Income Households (1)

- 0% - 24.0% (2)
- 24.1% - 37.5%
- 37.6% - 50.0%
- > 50%

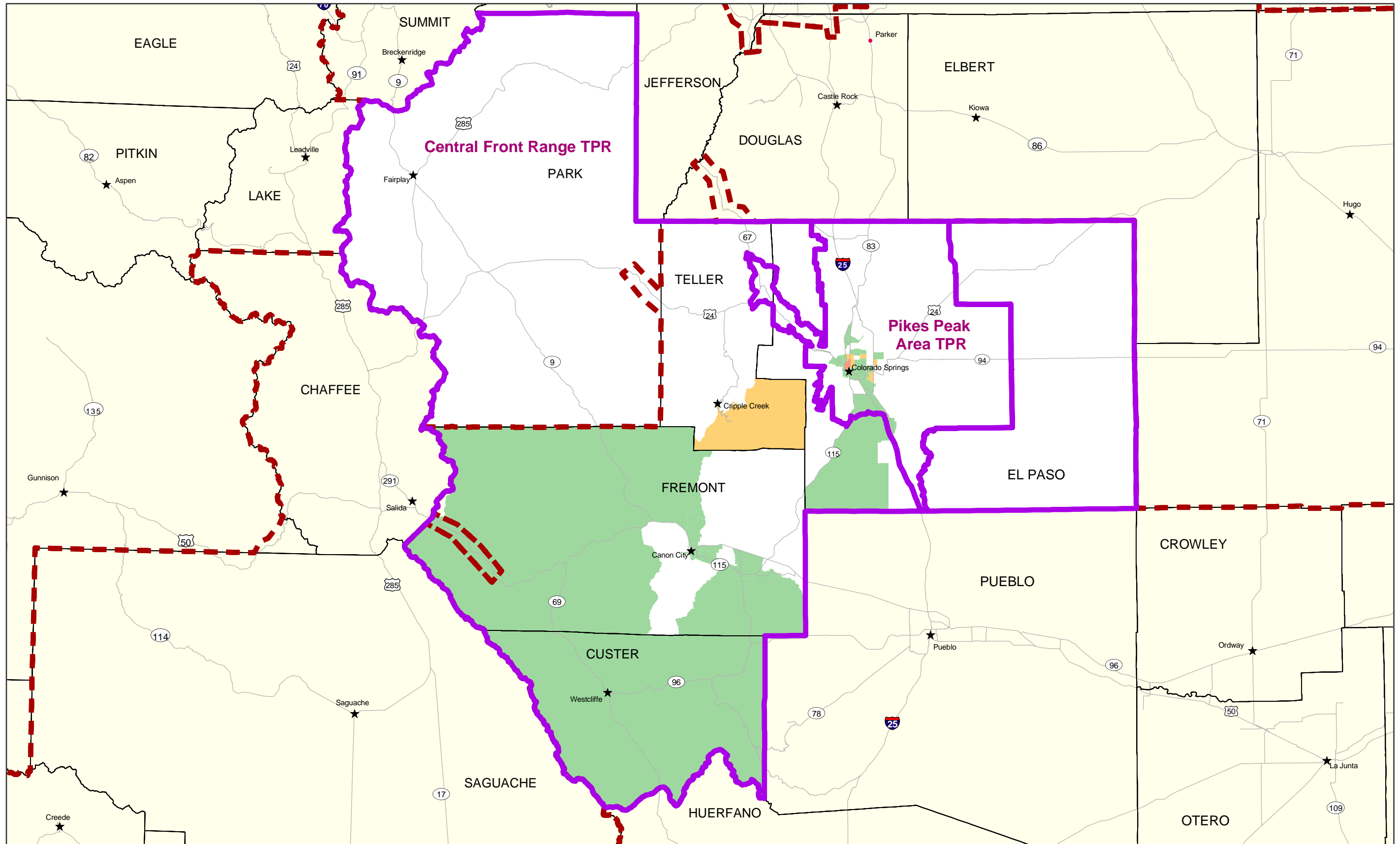
- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seat
- Roads

1) Low income census tracts are defined as those tracts with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.
 2) The state wide percent for low income households is 24%.

The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.



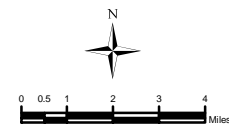
**Low Income Households
 Northwest Transportation Planning Region**



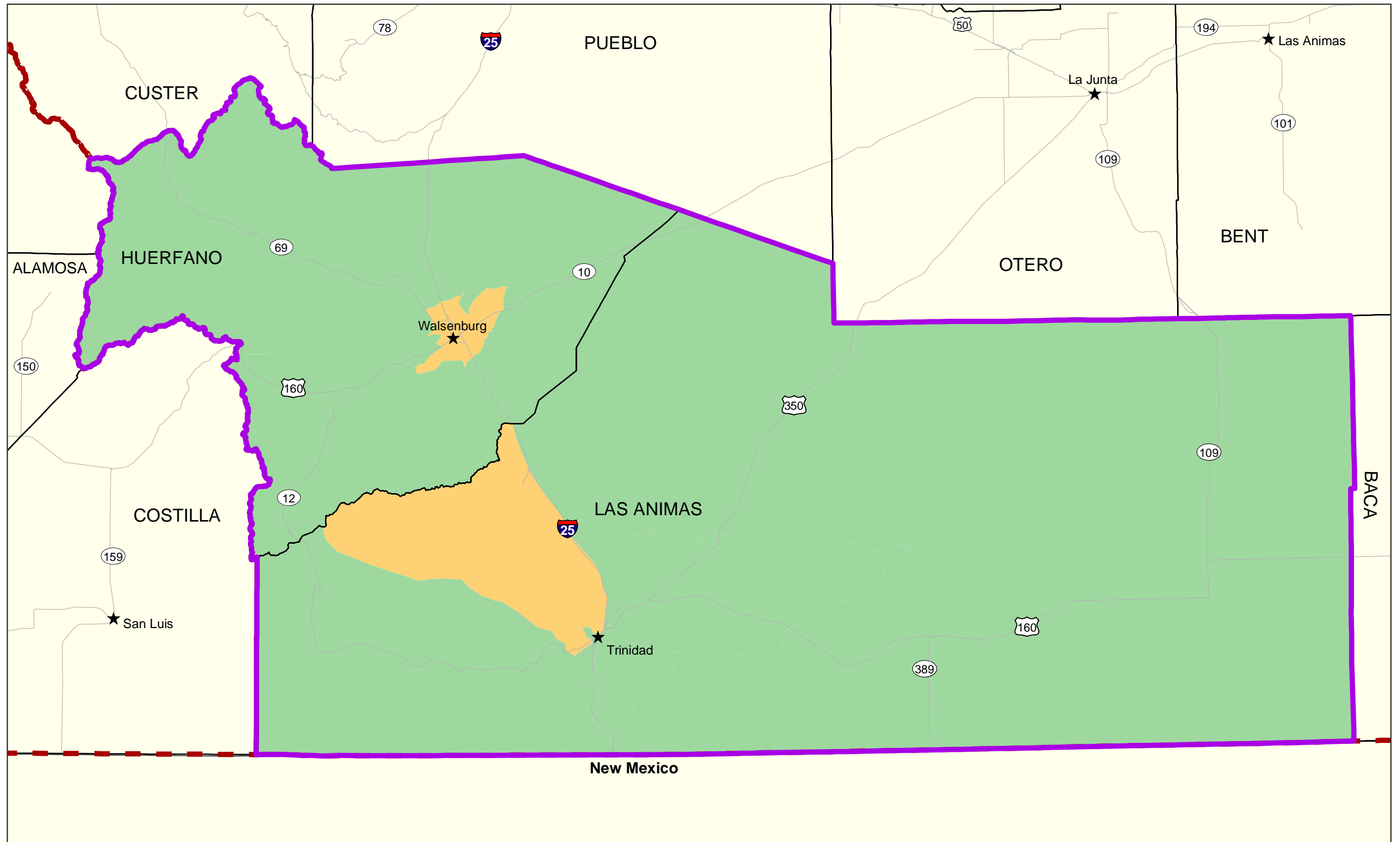
- Low Income Households (1)**
- 0% - 24.0% (2)
 - 24.1% - 37.5%
 - 37.6% - 50.0%
 - > 50%
- Transportation Planning Region
 - CDOT Region
 - County Boundaries
 - County Seat
 - Cities and Towns > 5000 Persons
 - Roads

1) Low income census tracts are defined as those tracts with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.
 2) The state wide percent for low income households is 24%.

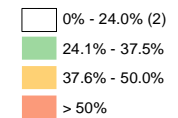
The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.



**Low Income Households
 Central Front Range and Pikes Peak Area
 Transportation Planning Regions**



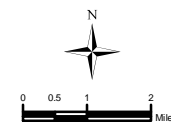
Low Income Households (1)



- Transportation Planning Region
- CDOT Region
- County Boundaries
- County Seat
- Roads

1) Low income census tracts are defined as those tracts with a percentage of low income households that are greater than the percentage of low income households for the State of Colorado.
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The income thresholds were based on Community Block Grant Development Program data from the Colorado Dept. of Local Affairs.



**Low Income Households
 South Central Transportation Planning Region**

APPENDIX D

Environmental Justice In Colorado's Statewide and Regional Planning Process Guidebook

**ENVIRONMENTAL JUSTICE IN COLORADO'S STATEWIDE
AND REGIONAL PLANNING PROCESS
GUIDEBOOK**

September 2003

**Colorado Department of Transportation
Division of Transportation Development**

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INTRODUCTION

The Colorado Department of Transportation has developed this “Environmental Justice Guidebook” to provide all units of the Department with a basic understanding of CDOT’s responsibilities regarding the consideration of low-income and minority communities in the planning process. CDOT should ensure that projects are planned and developed with good stewardship and that the interests of minority and low-income populations are considered in the decision-making process.

The Guidebook is a resource for those involved in the transportation decision-making process, and provides information on the regulatory history and background on environmental justice issues including possible public involvement techniques, and available planning techniques. This Guidebook is not intended to create a new or separate set of processes. It presents information and approaches that can aid planners, environmental staff and engineers in defining the level of effort appropriate for transportation decision-making processes.

Environmental Justice Basics

Transportation can be considered one of the most important factors that impact our daily lives in the 21st century. Our ability to travel to and from work and recreation; the ability for goods and services to move by way of the various freight systems to reach the marketplace; and the mobility options that allow residents and visitors to move within and through our communities and the state are all dependent on an efficient and effective transportation system. While the benefits of improving transportation facilities may reach the traveling public, the creation of this system of transportation facilities and services can also adversely affect the communities and neighborhoods that are adjacent to them. If not effectively planned and/or designed, all of these important transportation facilities have the potential to negatively impact the environment, economy and social structure of neighboring and nearby communities.

What is Environmental Justice?

Environmental justice is intended to ensure that low-income and minority individuals are given opportunities to participate in the transportation planning process, that the issues and concerns of low-income and minority communities are given equal consideration in the selection of transportation investments, and that transportation investments do not disproportionately burden low-income and

minority populations with the adverse impacts of future transportation investments.

Environmental justice promotes fair treatment for all people and corrects any imbalance of disproportionate impacts that may be received by low-income and minority communities. This federal guidance directs that low-income and minority communities are to be included in transportation related decision-making processes and that transportation investment decisions do not result in disproportionate adverse impacts imposed upon low-income and minority communities. To implement environmental justice effectively, tools and techniques must be developed to recognize potentially affected communities and involve them in the transportation planning process.

Environmental Justice Definitions

To conduct effective public involvement and assess the distribution of benefits and burdens of potential projects and plans, it is important to identify low-income and minority populations. The goal is not to single out certain groups of people, but to collectively consider the potential for disparity among population groups and to shape outreach strategies that may better define transportation needs and concerns.

Federal Definitions

According to *US DOT Order 5610.2 on Environmental Justice in the Federal Register on April 15, 1997*, low-income is defined as a person whose median household income is at or below the Department of Health and Human Services or Census Bureau poverty guidelines. Census data has been proven to be the best source for determining minority populations. As defined in Executive Order 12898 (E.O. 12898), the term includes anyone who is:

1. American Indian and Alaskan Native – a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition,
2. Asian or Pacific Islander (including Native Hawaiian) – a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands,
3. Black/African American – a person having origins in any of the black racial groups of Africa, or
4. Hispanic/Latino – a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

TRANSPORTATION AND ITS EFFECTS ON COMMUNITIES

Environmental, economic, and social disturbances that most people consider to be detrimental to the quality of life, all have the potential to impact low-income and minority communities. The goal for CDOT's regional planning process is to generally consider where low-income and minority communities might be in relation to proposed transportation projects, and to consider if there might be environmental consequences that would need further evaluation if the particular project were to move forward for possible implementation.

Environmental Impacts

Proposed transportation projects can cause impacts to a number of environmental resources (wildlife, wetlands, cultural resources, etc.) However impacts on air quality and water quality as well as noise impacts can be those that most affect minority and low-income populations.

Air Quality – Because negative air quality effects are very often experienced in the immediate vicinity of transportation facilities and corridors, it is important to consider the effects transportation investments may have on people closest to proposed improvements.

The U.S. EPA established National Ambient Air Quality Standards (NAAQS) to protect public health from the adverse effects of poor air quality. Transportation facilities and projects are considered a major cause of three particular pollutants (carbon monoxide (CO), small particulates, and ozone) that reduce air quality in the metropolitan areas and throughout the state of Colorado. More recently, toxic air pollutants have become an emerging concern.

Water Quality – The impact of transportation facilities on water quality range from highway water runoff from rain and snow that may include particulates and heavy metals from vehicle exhaust fumes, gasoline, oil and other transportation-related fluids, to the use of de-icing compounds such as sand/salt and magnesium chloride. There are also many transportation related impacts to water resources such as heavy metal (copper from brake pads) and rubber (asphalt and tire wear) products that contaminate water resources. In addition, the potential for large spills of hazardous liquids into streams and lakes from highway and rail accidents can create a very localized but significant impact.

Noise – Noise is generated not only by the engines of vehicles; by airplanes, what noise would a highway make? or trains; but also by the tires of vehicles on pavement, steel wheels on rail or aircraft noise. The nearer to the transportation facility a resident or business is, the greater the noise is expected to be. Construction related to transportation improvements can also cause temporary increased noise and vibration to people close to the project.

Economic Impacts

Transportation has a tremendous impact on local and regional economies throughout the state the Colorado. Business owners can experience considerable impacts from transportation improvements that can determine the success or failure of local businesses.

Property Values – Investment in transportation facilities has both positive and negative impacts on property values. Commercial land values are impacted by changes in drive-by traffic, ability to easily pick-up and deliver freight, and access to travel systems such as highways, light rail and/or bus service. Residential values are impacted by changes in traffic noise, pedestrian safety and community character and aesthetics.

Employment and Income – Transportation has a major influence on job choice and accessibility to jobs for low-income persons. Many jobs located in the suburbs require employees to travel the reverse commute direction in both peak and non-peak hours. Often transit routes are limited to these times and directions that create a challenge for those who do not own or have access to a vehicle. The recent trend for new job creation in the suburbs presents opportunities and challenges for low-income and minority communities. Investment in a new highway or public transit route, such as new public transit services connecting the city to suburbs, can sometimes increase the employment and incomes of local residents by increasing access to outside business locations.¹

Not all impacts from transportation improvements are necessarily positive in providing access to jobs. When a new limited access freeway creates barriers within an existing community or further divide neighboring communities, residents can be restricted or less able to move freely from one part of the community to another for work. A similar situation occurs in and around rural resort communities throughout the state. Major employers and job opportunities are concentrated within the resorts, while extremely high housing costs prohibit many of the resort workers from living within or near the communities themselves. The schedules and convenience of transit services instituted by these communities may not fully meet the needs of these workers.

Indirect Economic Development – The total cost of a product or service bears a strong relationship to the transportation costs attributable to that product or service. Therefore, many transportation investments can improve the efficiency of freight movement that could lead to cheaper consumer prices. However, transportation professionals must strive to ensure that the new facilities are attractive and do not increase congestion or noise within a localized area or the impacts of that transportation project will not positively influence the community.

Social Impacts

The term “social impacts” is used to characterize such concerns as community aesthetics, safety, choice in transportation modes and sustaining community cohesion.²

Aesthetics – Design considerations can either add to or detract from a neighborhood’s ability to coexist with a particular transportation improvement. If properly designed, a transportation investment may add to the attractiveness of a neighborhood or even mitigate past transportation impacts.

Safety – A majority of transportation improvement projects have a safety component within them. However, often there are other unintended consequences of such improvements. For example, engineers can increase pedestrian safety by slowing traffic: installing crosswalks, designing narrower streets, providing on street parking, etc.

Choice of Transportation Mode – Investments in transportation projects that increase transportation choices may enhance the livability of the affected community. Non-automobile travel is an important issue in environmental justice, whether it is within an urban setting or the rural environment. Transportation choices can provide access to jobs, improve pedestrian safety, or provide necessary transportation services for those who do not have access to an automobile.

Sustaining Community Cohesion – A key impact of some transportation improvements is its effect on sustaining the cohesiveness of a neighborhood or community. Changes in transportation systems can create physical and psychological barriers within communities or conversely, bring a neighborhood closer together. Transportation improvements can also improve existing community cohesion by improving the connections between and within communities such as including investments in pedestrian facilities, preservation of open space, traffic calming or new transit service.

Legal And Regulatory Requirements

Federal Guidance

When Executive Order 12898 was signed in 1994, the federal agencies were required to ensure that the impacts of their federal actions were not received disproportionately by low-income and minority populations. This Executive Order supplements the existing requirements of *Title VI of the Civil Rights Act*.³ Title VI says that each Federal agency is required to ensure that no person on grounds of race, color, or national origin is excluded from participation in, denied the

benefits of, or in any other way subjected to discrimination under any program or activity receiving federal assistance.

The concept of environmental justice attempts to ensure that underserved, specifically low-income and minority communities, are considered in the transportation planning and decision-making processes at the local, state and national levels. Executive Order 12898 strengthens the language in the Civil Rights Act with regard to minority and low-income populations. Under this Executive Order, federal agencies were directed to identify and address disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority and low-income populations. Many of the U.S. laws, federal regulations, and policies since 1964 have been incorporating the intent of environmental justice. The U.S DOT issued an order on environmental justice (DOT Order 5610.2) in 1997, followed by the Federal Highway Administration (FHWA Order 6640.23) in 1998.

The three fundamental environmental justice principles as set forth by Executive Order 12898 are:

- Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects on minority populations and low-income populations.
- Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.

The major similarities and differences between Executive Order 12898 and Title VI are described below:

SIMILARITIES	DIFFERENCES
<ul style="list-style-type: none"> ▪ Both address non-discrimination ▪ Both capture minority populations ▪ Both are rooted in the constitutional guarantee (14th Amendment) that all citizens are created equal and are entitled to equal protection. ▪ Both address involvement of impacted citizens in the decision-making process through meaningful involvement and participation. 	<ul style="list-style-type: none"> ▪ Environmental Justice covers minority and low-income, while Title VI and supplemental legislation cover race, color, national origin, sex, age, disability and religion. ▪ Environmental Justice is an executive order (an order of the President of the United States), while Title VI is a law (an act of Congress). ▪ Environmental Justice mandates a process, while Title VI prohibits discrimination

Colorado DOT Guidance

CDOT is responsible for the allocation of resources from many federal programs; therefore, it is imperative that CDOT works to integrate environmental justice into

its program and planning activities when using federal funds. While this Guidebook covers the regulatory, procedural and technical issues regarding environmental justice, it is not prescriptive. Rather, the Guidebook is a resource for planners, environmental staff and engineers to use in the selection and identification of transportation investments. Other CDOT resource documents include:

- Colorado Department of Transportation, *Guidelines for Public Involvement in Statewide Transportation Planning and Programming*, March 2003.
- Colorado Department of Transportation, *Regional Transportation Planning Guidelines*, January 2003.
- Colorado Department of Transportation, Report Number 00HAA00046, *Environmental Justice Research Study*, June 2002.

Including Environmental Justice In Public Involvement

Low income and minority households must have a voice in determining the effects of transportation on their neighborhoods and communities, and their involvement should begin at the start of planning stage, long before a project or improvement is selected. Planners, environmental staff, and engineers must jointly create an environment that encourages the participation of diverse people. This environment must be sensitive to those who may not all work the same schedule, who do not speak the same language, who have different levels of technical understanding, and who may mistrust government processes.

CDOT's Outreach Commitment

Meaningful public involvement requires a sense of stewardship and should be focused on two concepts. The first is a **sincere** agency-wide commitment to involving low-income and minority communities in the decision-making process. The second is building the agency's capacity to earn **trust** and **build** lasting **relationships** with low-income and minority communities. Discussions with community leaders throughout Colorado have emphasized the importance of these two concepts.

Engaging Low-income and Minority Communities

The public involvement process must actively seek input on transportation decisions from diverse communities. Successful public involvement activities go beyond the standard public meeting process to identify and involve low-income and minority groups and stakeholders that need to be involved in the transportation planning and decision-making process.

The early involvement of community leaders and community-based organizations can be an important technique for CDOT planners, environmental staff and engineers to expand their public outreach. Ministers, school leaders, community organization leaders and/or local business owners can be important local resources. Maintaining these relationships with frequent dialog and feedback can create a constant communication link to local communities and their issues and concerns.

One Size Does Not Fit All

“Go Where People Go”

To engage low-income and minority communities, planners, environmental staff, and engineers need to identify the places where local people already gather. By going to established community gatherings, agency staff can engage the local citizens in a comfortable, less formal setting while reaching those who would not normally attend a public meeting. Some of the recommended venues include:

- Religious organizations
- State and county fairs
- School organization meetings
- Shopping malls
- Homeowner Association meetings
- Grocery Stores
- Senior centers
- Community festivals
- Fraternal orders
- Community based meetings
- Business associations

Public Involvement Media

Timely notification of meetings and other outreach efforts must be successful to accomplish important communications. Public agencies have historically used standard resources such as newspapers and electronic media for advertising opportunities for involvement in the planning process. Agency planners, environmental staff, and engineers should consult with local leaders and community based organizations to identify the most effective channels for reaching local low-income and minority communities.

Some of the methods for targeted environmental justice outreach⁴ are listed alphabetically below and include Colorado community leader recommendations:

- Advertisements
- Badges and buttons
- Billboards
- Brochures
- Church bulletins
- Community newsletter inserts
- Display boards
- Electronic media
- Ethnic Media
- Fact sheets
- Fast-food placemats
- Fliers
- Grocery bags
- Internet
- Magnets
- Newsletters
- Newspaper inserts
- Notices
- Posters
- Press releases
- Progress bulletins
- School flyers
- ♦ Television public announcements
- ♦ Identify low-income and minority populations
- ♦ Involve key community leaders, representatives, and citizens

Languages

During the planning process, attention needs to be devoted to population groups that have a limited proficiency in the English language. Transportation planners, engineers and environmental staff need to take the following steps to respond to persons having limited proficiency in English: translating information into one or more languages; involving communities in the review of translated materials to eliminate jargon and inappropriate word choices; and communicating transportation information through non-English local radio stations, television, newspaper, and other community-based publications. Agencies may need to utilize schools, community centers, recreation centers or faith-based organizations to help reach traditionally underserved populations.

It is important to consider the ethnic makeup of citizens and their communities within Colorado and build a public involvement approach that reaches these populations. According to the 2000 Census, 15 percent of Colorado residents speak a language other than English at home, including almost 4 of the 15 percent who do not speak English well or do not speak it at all.

Information shown in Table 1 indicates the languages that 15 percent of Colorado residents speak at home, other than English.

Table 1
Major Foreign Languages Spoken at Home

Foreign Language Spoken at Home	Population
Spanish or Spanish Creole	421,670
French	18,045
German	30,824
Russian	10,737
Chinese	11,333
Korean	12,045
Other Asian Languages	12,499
<hr/>	
Total Population 5 & over Speaking a Language Other than English at Home	604,019
Total Population 5 & over	4,006,285

Source: Colorado State Demographer's Office

During the planning process, attention needs to be devoted to population groups that have a limited proficiency in the English language. The U.S. DOT on January 22, 2001 issued policy guidance, pursuant to Title VI of the Civil Rights Act of 1964 to assist agencies in meeting their responsibilities to limited English proficient persons to avoid discrimination against persons on the grounds of national origin. This can be accomplished by providing translators.

Meeting Formats and Techniques

There are a variety of public involvement techniques that can be used to target different groups in different ways⁵. The techniques that could be used include:

- **Focus Groups** – Specific focus groups with the elderly, low-income, minority, etc. could be used to target certain phases of the statewide planning process, including needs assessment, alternatives analysis, and feedback on the draft plan.
- **Small Group Techniques** – Small group meetings normally have approximately 20 or fewer members to offer opportunities for creativity, exchange of ideas, and meaningful participation. Techniques that can be used include workshops, study circles, roundtables, dialogue facilitation, and dialogue processes.
- **Charrettes** - This type of public meeting is to resolve a problem or issue. Participants from a variety of different organizations work together to discuss issues, interrelationships and impacts in a workshop setting (e.g., one evening, afternoon, or day).

- **One on One Meetings** – Regular contact with community leaders and representatives can build relationships, generate creative ideas to target programs and projects and work through historical issues.

To minimize participation barriers, agencies and staff should carefully consider the meeting logistics for the public participation activity. The organizers should consider building accessibility, alternative transportation, the timing of the meeting as well as the lack of services (e.g., child care, refreshments) that might negatively impact participation.

Communicating Technical Information

Technical information is a particular concern when conducting transportation analyses. The transportation field has an array of acronyms and technical terms that are used on a daily basis. The acronyms need to be defined and other technical terms need to be limited in use where possible.

Environmental Justice And Colorado’s Long-Range Planning Efforts

Local agency staffs require demographic information (e.g., low-income, minority, persons with disabilities) in order to conduct effective public outreach and to assess the distribution of benefits and burdens of transportation plans, programs and projects. Although long-range planning often requires flexibility, it is important to use standardized data to determine if and how certain population groups may be affected by transportation projects and encourage those groups to participate in the transportation planning process. However, this does not prevent agencies from additional analyses that have been tailored to localized issues and concerns.

Data Sources

Understanding the availability of data is a key element in conducting environmental justice analyses. Agencies and their staff should consider the type of analyses they want to conduct before beginning the transportation planning process. This approach will give agencies a chance to research data sources and choose a data source that can best evaluate environmental justice issues and concerns.

U.S. Census

The U.S. Decennial Census of Population and Housing, updated only every ten years, is widely accepted as the best source for defining and identifying minority populations. Census data are available at numerous levels of geography:

Census Block - A block is the smallest geographic unit for which the Census Bureau tabulates data. In many instances, blocks represent city blocks.

Block Group - A Block Group (BG) consists of all tabulation blocks whose numbers begin with the same digit in a census tract. For example, for Census 2000, BG 3 within a census tract includes all blocks numbered from 3000 to 3999.

Census Tract - Census Tracts are designed to be relatively homogeneous units with respect to population characteristics, economic status, and living conditions. Tracts generally contain between 1,000 and 8,000 people, with an optimum size of 4,000 people. The boundaries are delineated with the intention of being stable over many decades, so they generally follow relatively permanent visible features.

Transportation Analysis Zone (TAZ) - An area defined by a metropolitan planning organization for tabulating transportation statistics from the census—especially journey-to-work and place-of-work statistics—from a decennial census. TAZ's vary in size and usually consist of one or more census blocks, block groups, or census tracts.

Other Federal Data Sources

The American Community Survey - The American Community Survey (ACS) is designed to provide more timely information collected on the Census long-form every month and will provide tabulations, of various geographic formats, of these data on a yearly basis beginning in 2004.

Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) - Provides environmental justice overviews, facts, case studies, effective practices, training and resources are all provided on the following joint website: www.fhwa.dot.gov/environment/ej2.htm

U.S. Department of Housing and Urban Development - The U.S. Department of Housing and Urban Development (HUD) is the Federal agency responsible for addressing America's housing needs and improving and developing the nation's communities. Website: www.hud.gov

State of Colorado Data Resources

State of Colorado Department of Local Affairs (DOLA) - DOLA focuses on improving communities' physical conditions, building partnerships, augmenting local leadership and governing capacities, and improving opportunities for all individuals residing in Colorado communities. This support is distributed directly to local governments, community organizations, and individuals. Also, the Colorado State Demographer's Office is housed within this agency, providing local population data and statistics. DOLA has the following website: www.dola.state.co.us

Colorado Department of Education - The Colorado Department of Education provides a large amount of data as it pertains to the student population. Website: www.cde.state.co.us

Local and Regional Data Resources

The use of data is often the best and perhaps the only source for learning about the composition of a community. No substitute exists, however, for accessing community knowledge. Community knowledge can fill-in information or tell a story about a specific area or place when there are data inconsistencies or irregularities. Examples of these resources are:

- Councils of Governments
- Local Governments
- Chambers of Commerce
- Health Agencies and Organizations
- Local Libraries

Statewide And Regional Planning

Another aspect of environmental justice to be considered is the fair distribution of funds and identifying projects where the benefits and burdens of these projects are shared by everyone. Not all impacts to minority and low-income populations are caused by direct impacts from transportation construction projects (increasing noise, dividing neighborhoods, relocating families, etc.). These populations can also be impacted because projects are only selected, funded, and/or built that provide better, more efficient transportation facilities in specific areas or locations. Transportation planning processes should review their processes and plans to consider the overall impacts. Most importantly, it is imperative that planning staffs include efforts to encourage the involvement of low-income and minority groups in the planning process so issues and concerns can be heard.

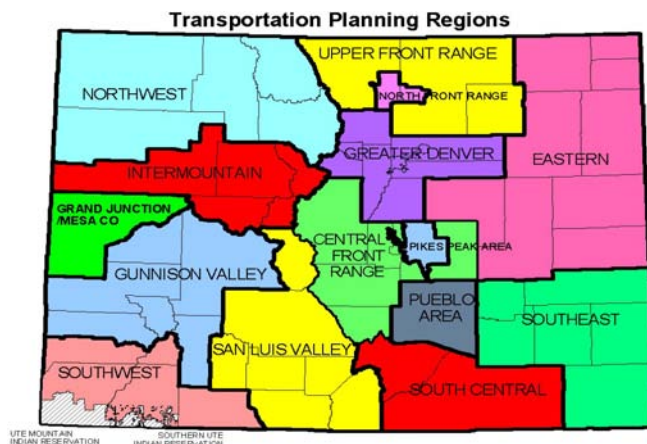
What is CDOT's Transportation Decision-Making Process?

The statewide transportation planning process is a four-step process. These four steps include 1) Development of Vision, Goals and Objectives at the State and regional levels; 2) Needs Assessment and Alternative Analysis; 3) Preparation of the Regional and State Transportation Plans; and 4) Development of Six-year Transportation Improvement Program. Details relating to each of these four steps and associated environmental justice strategies for each of the steps are shown in the flow chart on Table 2 on the following page.

Regional Transportation Plan

Guided by the CDOT statewide vision, the Regional Transportation Plan establishes a vision for their respective transportation planning regions, which in turn guides the selection and prioritization of transportation projects and programs. As shown below in Figure 1, Colorado has fifteen transportation planning regions that are authorized in State Statute.⁶ defined in Transportation Commission rules and regulations. Each region has an established Regional Planning Commission that use goals, objectives and existing inventory data to determine, in partnership with CDOT, which transportation improvements will satisfy current and future transportation needs. The result is the "Preferred Plan" identifying all transportation needs believed necessary over the plan's time frame. The second phase is development of the "Financially Constrained Plan" identifying only those projects that can reasonably be expected to receive funding from anticipated revenues. The Regional Transportation Plan is updated at least every six years and may be amended as necessary.

Figure 1
Transportation Planning Regions



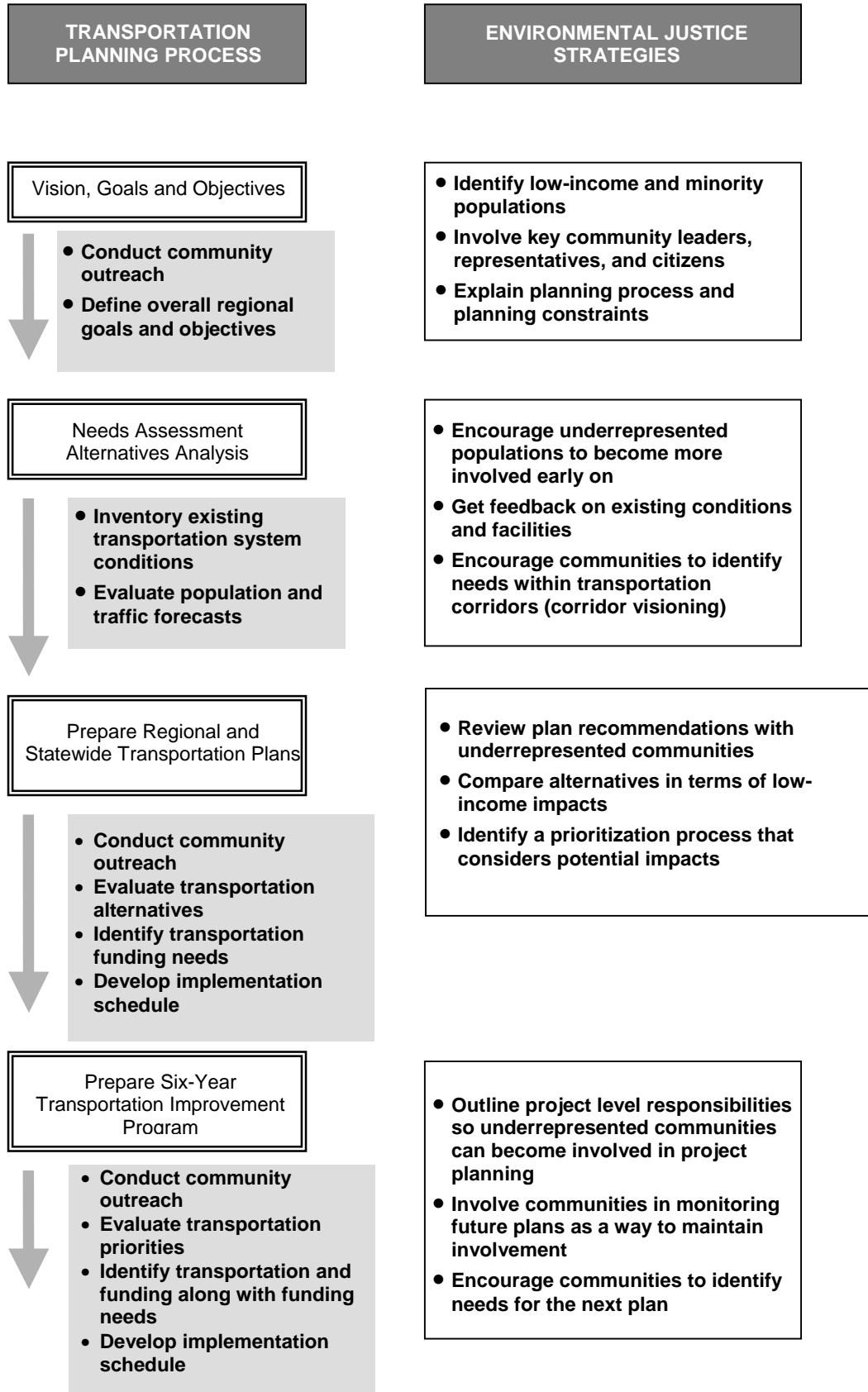
Statewide Transportation Plan

The statewide transportation plan is a long-range planning document that reflects the Transportation Commission's adopted vision/policy/investment framework program priorities, and multimodal transportation needs (both funded and unfunded) contained in the 15 Regional Transportation Plans. Those transportation needs are identified through a corridor vision approach and are eligible for funding over at least a 20 year planning horizon. The statewide transportation plan is updated every six years and may be amended as needed following the Guidelines for Transportation Plan Amendments in the Regional and Statewide Transportation Planning Process.

Statewide Transportation Improvement Program

The Statewide Transportation Improvement Program (STIP) is the financial programming document, which contains priorities from the statewide transportation plan that are scheduled for implementation in the next six years. The STIP is updated every two years and can be amended as needed following the Transportation Improvement Plan/ Statewide Transportation Improvement Program Amendment Guidelines.

**Table 2
Including Environmental Justice In Transportation Planning**



Colorado's Low-Income And Minority Census Mapping

The geographic locations of significant numbers of low-income, minority, and traditionally underserved households are most easily represented through maps. Because of this, Geographic Information Systems (GIS) is well suited for presenting demographic information and assessing the distribution of impacts. GIS is designed to combine and analyze layers of information about a place or location. Since transportation planning processes can sometimes be viewed as confusing, GIS maps can be used to graphically engage the public in dialogue and solution building exercises. Maps can be used to show the distribution of projects, investment, travel patterns and impacts.

GIS mapping is one tool that can be given to Colorado's regional transportation planners to indicate areas where mailing lists should be more comprehensive and areas where broader community outreach should occur to include community leaders and representatives and more localized community meetings. As indicated above, maps should include areas where there are significant numbers of low-income, minority, and traditionally underserved households. These households can be identified using information from the resources discussed earlier in this guidebook.

To begin local environmental justice discussions, CDOT has developed a set of regional planning maps based on Colorado's Transportation Planning Region boundaries (TPR) and census tract geography. The purpose of these maps is to identify where low-income and minority households might reside in order to: 1) enhance our public participation outreach efforts, and 2) look at the distribution of projects and investment as it relates to low-income and minority maps.

Minority Mapping

Census data is a good source for mapping minority populations, however other sources may also be used. The race information as federally defined is contained in seven mutually exclusive categories, including White, Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, or some other race. Additionally, it should be noted that Hispanic is not listed as a race category since the Federal government considers race and Hispanic origin to be two separate and distinct concepts.

The information was then mapped for each of the fifteen planning regions by census tract. Figure 2 shows a sample of the mapping provided in the CDOT's regional planning process.

Low-Income Mapping

The poverty guidelines established by the Department of Health and Human Services (HHS) and the U.S. Census Bureau were felt to be inappropriate for the Colorado environment. Low-income/poverty thresholds more representative of particular sub-areas of the state were desired. For example in some areas of the state, such as in the resort towns, the cost of living is, on average, much higher than in other areas of the State. Comparisons with the federal definitions do not reflect these differences.

Therefore, income thresholds used in determining the allocation of Colorado Community Development Block Grant (CBDG) funds were selected for environmental justice mapping. These income thresholds, set annually by the US Department of Housing and Urban Development (HUD), take into account the variations of cost of living within Colorado Counties. The low-income thresholds that represent 50% of the county's median income were used. A sample map showing low-income data has been provided in Figure 3. The methodology applied to map the location of low-income populations is provided in Appendix B.

Figure 2
Colorado Minority Sample Map

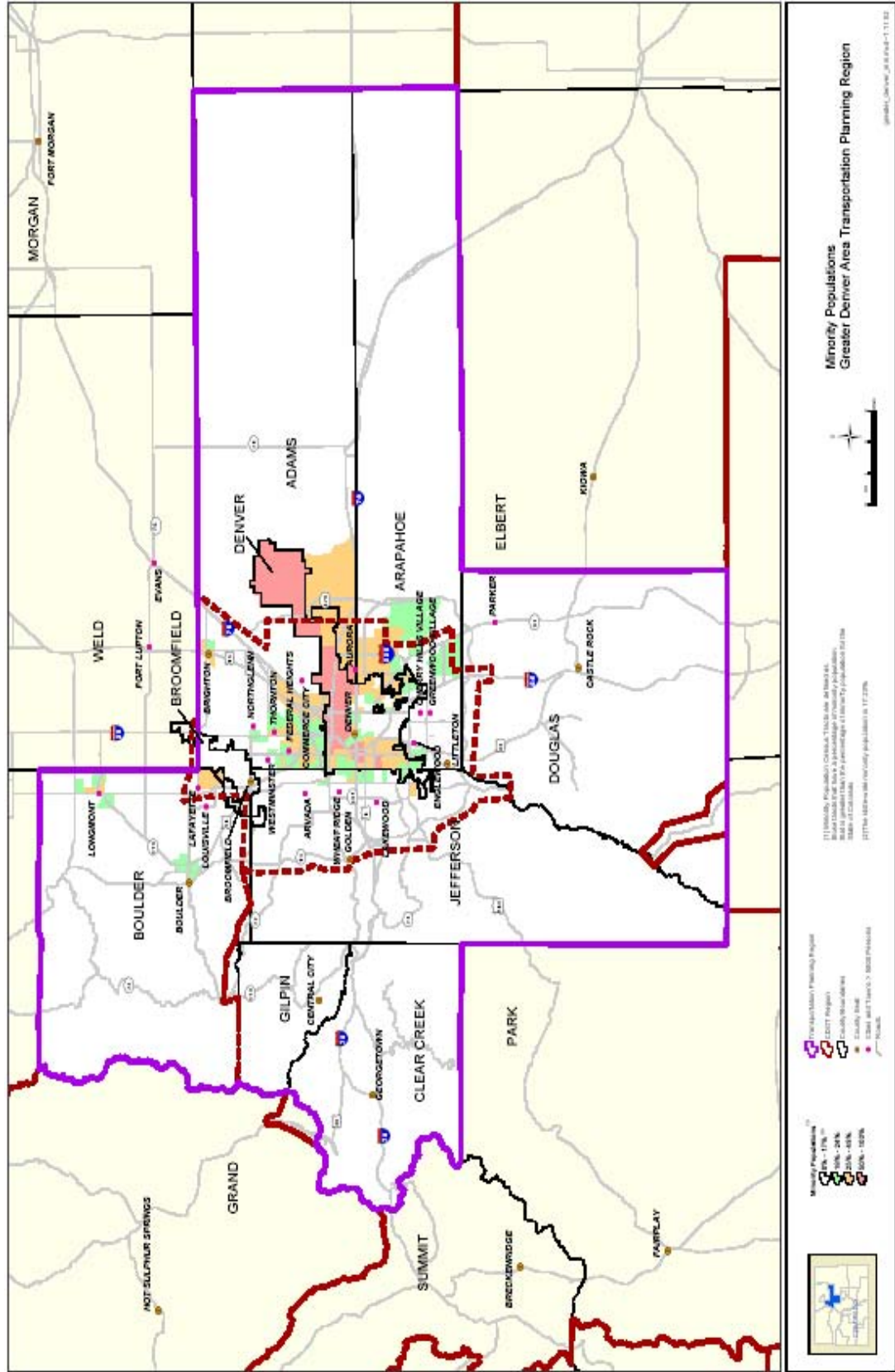
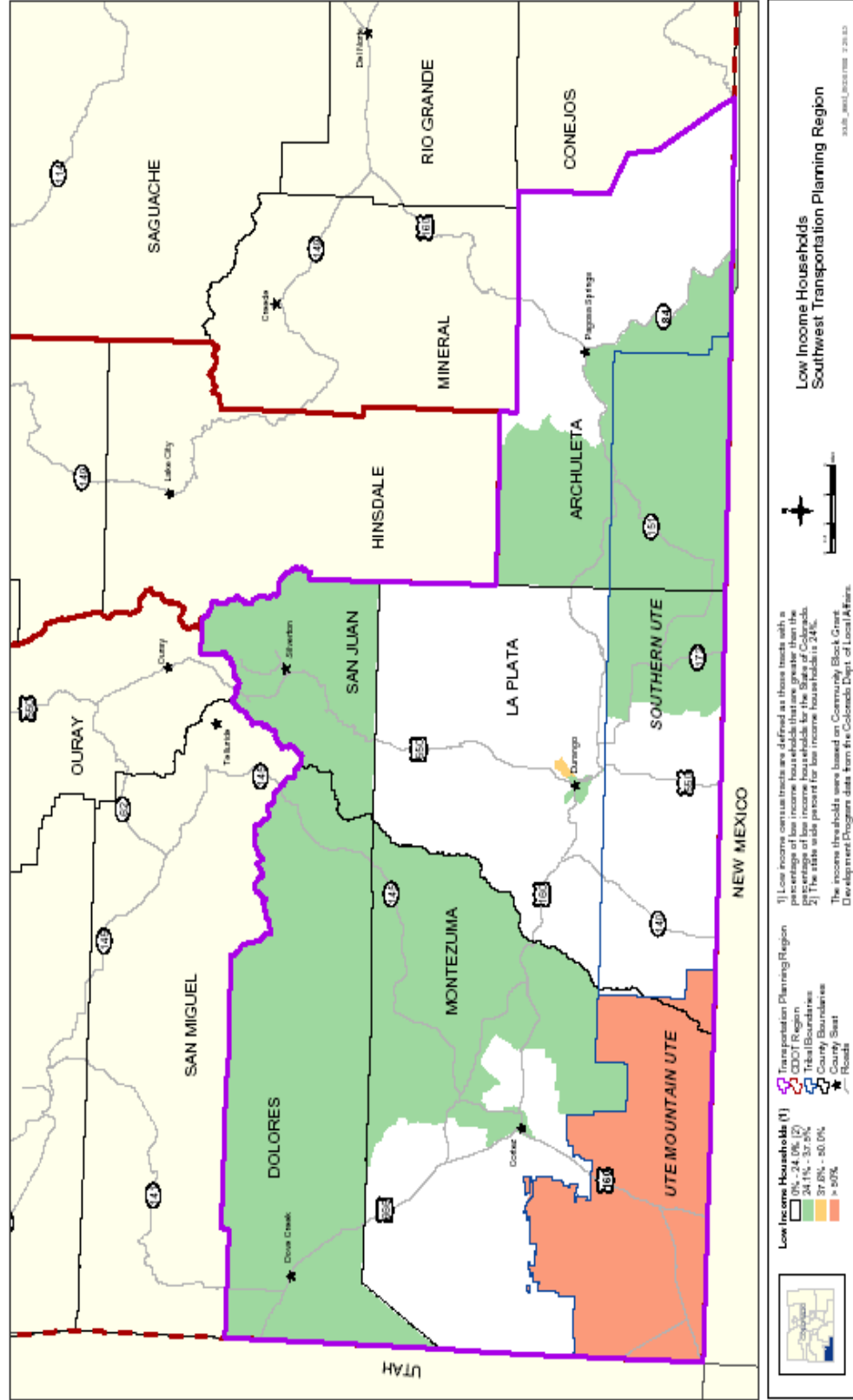


Figure 3
Colorado Low-Income Sample Map



Transportation Investment/Census Mapping Comparisons

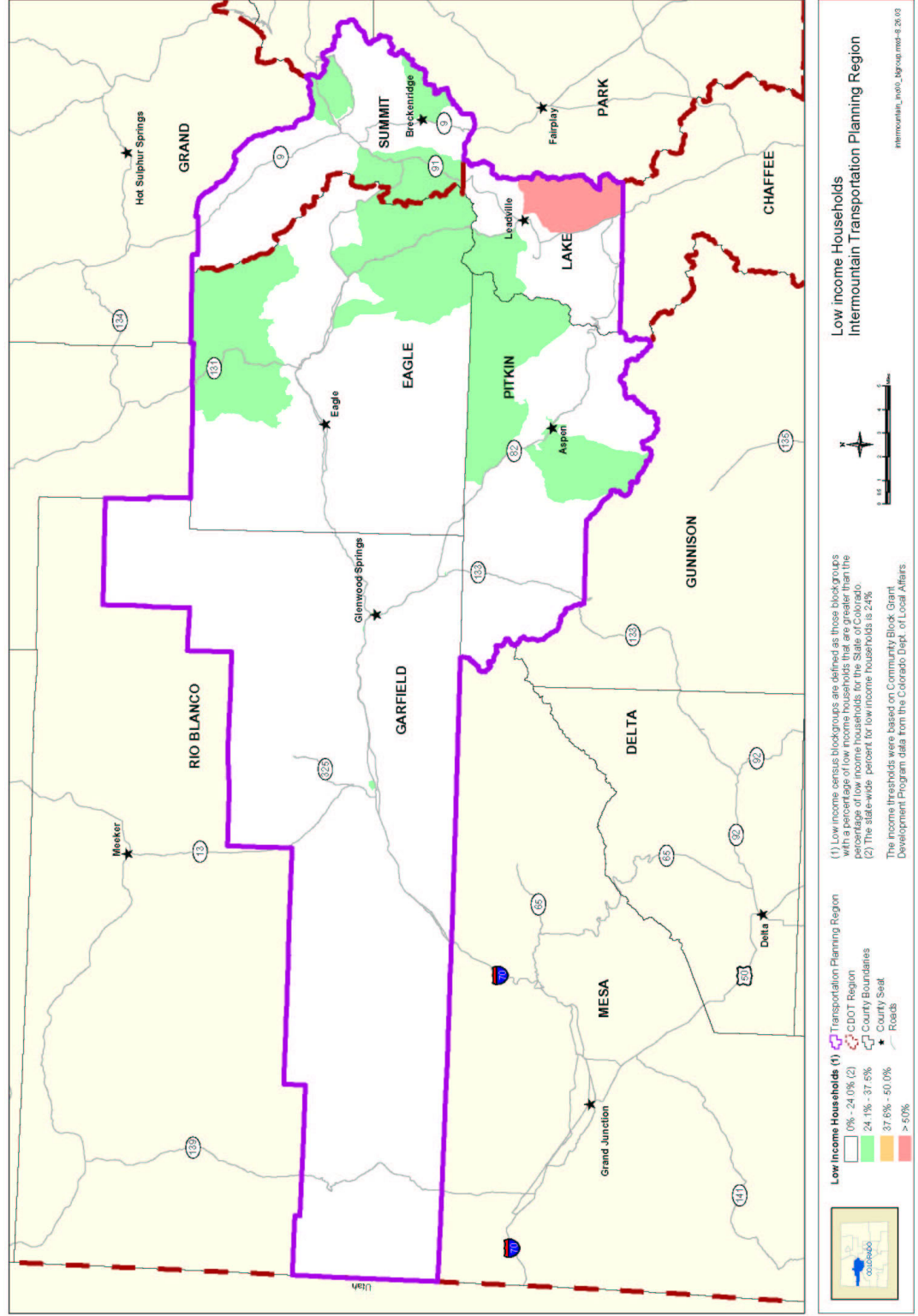
Colorado's GIS mapping can be used for a visual comparison between proposed transportation projects, programs and services and low-income and minority mapping. These maps can be used to:

- Show areas where low-income and minority households may overlap;
- Identify locations where one demographic profile exists without the other; and,
- Acquaint planners, environmental staff, and engineers with areas where low-income and minority households exist for enhanced public participation.

The Colorado State Demographer's Office has recommended a possible enhancement for these mapping comparisons. Because some rural TPR census tracts cover the majority of a county, census block group data would show more detail for better map comparisons. Figure 4 shows a sample map of future census block group mapping. This recommendation would only apply in rural areas since census tract data provides appropriate detail in urban areas. CDOT will be developing maps at this level in the future.

These mapping comparisons should be conducted only for planning purposes. The lack of specific project definition at the planning level makes it difficult if not impossible to identify specific impacts. Also, this technique is not to be used to decisively determine whether a census tract is a "minority or low-income population" tract or not. The intent is to serve as a guide for transportation professionals in reaching and involving traditionally underserved populations in the planning and decision-making process.

Figure 4
Colorado Census Block Group Sample Map



Measuring Benefits/Burdens

A key component of long-range planning is the ability to measure the distribution of benefits from transportation plans. Measuring the benefits of transportation investments provides a tool for assessing progress toward established goals. CDOT has an established performance management program that focuses on four performance categories:

- Safety - Services, programs and projects that reduce fatalities, injuries and property damage for all users of the system
- System Quality – Activities, programs and projects that maintain the function and aesthetics of the existing transportation system
- Mobility - Programs, services and projects that provide for the movement of people, goods, and information.
- Program Delivery – Support functions that enable the delivery of CDOT's programs and services

Performance measures used for environmental justice may include accessibility to jobs, travel times to selected centers, provision and quality of transit, community cohesion, economic impacts, safety impacts, environmental impacts, and the distribution of transportation funding. Comparisons are generally among population groups (i.e., minority versus non-minority) and an analysis of transportation conditions prior to and after implementation for a given population group.⁷ CDOT's staff will continue efforts to develop more detailed quantitative performance measures for assessing benefits from transportation investments. Once such measures are determined and a baseline is established, potential impacts at the statewide and regional level may then be evaluated.

CDOT has selected program delivery measures that can qualitatively measure how CDOT is providing public involvement opportunities. The following is a list of the public involvement measures:

- How accessible were meeting locations including meeting times, modal accessibility, convenience (good, fair, poor)?
 - Was the meeting held at a location accessible to all?
 - Was the meeting held at a location near public transit?
 - Was the meeting held during hours that all felt safe to attend?
 - Was there more than one means of providing feedback available?

APPENDIX A

Low-Income Methodology

Data Assumptions:

Low-income thresholds are to be determined by Housing and Urban Development (HUD) developed for the counties in the State of Colorado for use by the Department of Local Affairs (DOLA) in the allocation of the Community Development Block Grants.

The average household size by census tract is to be determined through the use of the 2000 Census.

Total household income by census tract is to be determined through the use of the 2000 Census.

Example:

Tract 1, County X

Low-income thresholds for County X

Persons per Household	1 Person	2 Person	3 Person	4 Person	5 Person	6 Person	7 Person	8 Person
Low Income	\$24,450	\$27,950	\$31,450	\$34,950	\$37,750	\$40,550	\$43,350	\$46,150

Average household size= 3.25 persons per household.

Total Household Income ranges:

Household Income	Total households
Less than \$10,000	50
\$10,000 to \$14,999	60
\$15,000 to \$19,999	70
\$20,000 to \$24,999	80
\$25,000 to \$29,999	90
\$30,000 to \$34,999	100
\$35,000 to \$39,999	100
\$40,000 to \$44,999	200
\$45,000 to \$49,999	100
\$50,000 to \$59,999	100
\$60,000 to \$74,999	100
\$75,000 to \$99,999	100
\$100,000 to \$124,999	100

\$125,000 to \$149,999	100
\$150,000 to \$199,999	100
\$200,000 or more	100

Given the data, the number of household that are considered to be low-income in Tract 1 is calculated as follows:

Low-Income Threshold

$$\$34,950 \text{ (4-person household income)} - \$31,450 \text{ (3-person household income)} = \$3,500$$

$$\$3,500 (.25) = \$875$$

$$\text{Low-income threshold for Tract 1: } \$31,450 + \$875 = \$32,325$$

(If the household size were 3.5, the threshold would be $\$3,500(.5) = \$1,750$: $\$31,450 + \$1,750 = \$33,200$)

Referring back to the total household income, the total number of household with incomes at or below \$32,325 would be

HOUSEHOLD INCOME

Universe: Households:	Total households
Less than \$10,000	50
\$10,000 to \$14,999	60
\$15,000 to \$19,999	70
\$20,000 to \$24,999	80
\$25,000 to \$29,999	90
\$30,000 to \$34,999	<u>100</u>
TOTAL	450

Notes:

It is necessary to count those households that fall in the same income range even though the income is higher than the calculate threshold.

This analysis is being developed for planning purposes only. Therefore, the actual number may represent an under estimate or an over estimate of actual number of households living in poverty.

End Notes

¹ Forkenbrock, David J. and Glen E. Weisbrod, NCHRP Report 456, Guidebook for Assessing the Social and Economic Effects of Transportation Projects, Transportation Research Board, National Academy Press, 2001.

² Forkenbrock, David J. and Glen E. Weisbrod, NCHRP Report 456, Guidebook for Assessing the Social and Economic Effects of Transportation Projects, Transportation Research Board, National Academy Press, 2001.

³ 42 U.S.C. § 2000d (1994).

⁴ U.S.DOT, Federal Highway Administration Order 6640.23, *FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, available at http://www.fhwa.dot.gov/legsregs/directives/orders/6640_23.htm

⁵ Adapted from *Public Involvement Techniques for Transportation Decision-Making*, prepared by Howard/Stein-Hudson Associates, Inc. and Parsons Brinckerhoff Quade and Douglas for Federal Highway Administration and Federal Transit Administration, September 1996.

⁶ Colorado Revised Statute 43-1-1103, 1991.

⁷ *Technical Methods to Support Analysis of Environmental Justice Issues*, Prepared by Cambridge Systematics, Inc. with Akin Gumpe Strauss, Hauer, and Field, L.L.P, Prepared for National Cooperative Highway Research Program, Project 8-36 (11), April 2002.