



RECONNECTING COMMUNITIES: A VISION FOR TRANSPORTATION EQUITY IN COLORADO

September 2022

Written by Emily Maruyama, George Washington University School of Public Health

Advised by Rachel Hultin, Bicycle Colorado Director of Sustainable Transportation

Produced and distributed through partnership with Bicycle Colorado

Special thanks to:

Cate Townley and Steph Leonard, CDPHE

Danielle Furuichi and Sabina Maniak, University of Colorado Boulder

Juan Madrid, GreenLatinos

Robin Schepper, Wayfinder Strategies

Beth Osborne, Transportation for America

Jayme Ciacio

INTRODUCTION

At its core, human mobility is a matter of health. The majority of our health is determined by non-clinical factors such as one's social and economic environment, physical environment, and health behaviors.¹ These social determinants of health make up the context in which we live, work, learn, and play. People's power to keep themselves safe, fed, and economically stable hinges on their ability to move around and access resources. Regardless of demographic, socioeconomic, or ability group, all people have the right to get to these places and services safely.

While mobility is a central component of human activity, it is in no way unique to the human experience.² Each year, millions of animals set out on epic migratory journeys across the globe in search of food, shelter, and mating opportunities.³ In the Spring, a subspecies of monarch butterfly embarks on a 1,900-mile journey north from central Mexico to backyards in the U.S. and Canada.⁴ Monarch migration is also a matter of health and survival. Unable to endure long, cold, Northern winters, these butterflies travel a monumental distance over multiple generations to access safe and hospitable overwintering grounds.⁵

Improving transportation equity involves meeting people's needs based on their unique circumstances and removing barriers so that all people can move and thrive.

Like monarch butterflies, humans in every community context must move around to find resources and services. Transportation is the necessary means by which this movement is accomplished. Access to safe, reliable, and affordable transportation is the thread that weaves communities and the social determinants of health together. Transportation equity is the equal opportunity of all people to reach their destinations without burden to their health, safety, or finances. Improving transportation equity involves meeting people's needs based on their unique circumstances and removing barriers so that all people can move and thrive.⁶

¹ Hariprasad, Hernandez, and Singh, *An Equity Action Guide*, 6; "Social Determinants of Health," Healthy People 2030; Booske et al., *County Health Rankings Working Paper*, 1.

² Meekan et al., "The Ecology of Human Mobility."

³ "Nature's Most Impressive Animal Migrations," National Geographic Society.

⁴ Handwerk, "Twelve Epic Migratory Journeys."

⁵ "Monarch Butterfly," National Museums Scotland.

⁶ Hariprasad, Hernandez, and Singh, *An Equity Action Guide*, 9.



It is the responsibility of transportation decision-makers, including elected officials and transportation planning staff, to implement equity-focused programs and policies. It is the obligation of the transportation sector to ensure that all people can travel safely and stay connected in the ways that they desire. As author Sara Dykman bicycled north along the migratory path of the monarch butterfly, she reflected on the importance of safe passageways—“You can’t protect just one aspect of a traveler’s journey; to protect the traveler, you must protect their every step, every wing beat.”⁷ Just as migrating monarchs need safe habitats from “here to there, in the summer, spring, winter, and fall,”⁸ it is the right of every resident of our cities, counties, and state to be connected to their community and be granted safe passage along each step of the way.

⁷ Dykman, *Bicycling with Butterflies*, 103.

⁸ Dykman, *Bicycling with Butterflies*, 103.



COLORADO COMMUNITY TRANSPORTATION NEEDS

Historical Transportation Planning Priorities

The ultimate purpose of transportation is to provide safe passage for people between spaces necessary for them to live, work, and play. Unfortunately, transportation policy and investment have not been made with this purpose in mind. Rather than serve the needs of people and communities, transportation investment over the last 100 years has been focused on defending the rights of cars. Metrics traditionally used to evaluate the success of a transportation system, such as Level of Service (LOS) or vehicle-miles traveled (VMT), prioritize the system's capacity for frequent and efficient car travel.⁹ This prioritization of cars has resulted in an endless positive feedback loop of highway expansion, increased number and speed of cars on the road, harmful emissions, and unsafe, unaffordable, inefficient conditions for any person who doesn't drive a car.¹⁰

Rather than serve the needs of people and communities, transportation investment over the last 100 years has been focused on defending the rights of cars.

The prioritization of cars in transportation investment is evident in the most recent national infrastructure policy. The Bipartisan Infrastructure Law, passed by the 117th United States Congress in November 2021, provides \$643 billion in funding for surface transportation improvements.¹¹ Of that \$643 billion, 67% (\$432 billion) is dedicated to highways.¹² Only 17% (\$109 billion) is dedicated to transit.¹³

In the Denver Metro area, transportation planning and land use design has always centered cars as the default mode of transportation.¹⁴ Transportation and land use investment that prioritizes cars is grossly inefficient. Neighborhoods in metro Denver and the southern Front Range are "far apart, low-density, and zoned for single- and multi-family homes."¹⁵ This means that regardless of mode, people need to travel great distances to access food, education, work, and healthcare.¹⁶ Where mixed-use development does exist that is walkable or transit-accessible, housing is unaffordable and thus limited to higher-income households.¹⁷

⁹ Hultin et al., *Recalibrating Transportation*, 2.

¹⁰ Hultin et al., *Recalibrating Transportation*, 2, 13.

¹¹ Osborne, "Keynote," 24:14.

¹² Osborne, "Keynote," 24:40.

¹³ Osborne, "Keynote," 24:45.

¹⁴ Furuichi and Maniak, *Transportation and Land Use Planning Equity in Colorado*, 16.

¹⁵ Furuichi and Maniak, *Transportation and Land Use Planning Equity in Colorado*, 16.

¹⁶ Furuichi and Maniak, *Transportation and Land Use Planning Equity in Colorado*, 16.

¹⁷ Furuichi and Maniak, *Transportation and Land Use Planning Equity in Colorado*, 16.



Colorado Communities Excluded

Many people in Colorado communities do not have access to a car. While car ownership may appear as a given, 5% of Colorado households have no vehicles available and 29.4% of households have only one vehicle available.¹⁸ There are approximately 2.1 million households in Colorado each with an average of 2.6 persons.¹⁹ That means over 270,000 Coloradans do not have access to any vehicle. Furthermore, many older adults in Colorado are not comfortable driving or are not licensed to do so. Nationally, 10.5% of adults ages 75–79 years, 18.2% of adults ages 80–84 years, and 41% of adults ages 85 years or older are not licensed to drive.²⁰ In Colorado, that is approximately 67,000 individuals who are not licensed to drive and have no choice but to rely on other forms of transportation.²¹

On average, “low-income households spend 37% of their annual income on transportation, almost twice the percentage of middle-income households.”

Car ownership is also financially unattainable for many Coloradans. The average annual cost of vehicle operation and ownership for a person that drives a small sedan the average 15,000 miles each year is \$7,230.²² The cost of owning and maintaining any type of vehicle larger than a small sedan is even higher. On average, “low-income households spend 37% of their annual income on transportation, almost twice the percentage of middle-income households.”²³ Thus, travel by car creates a significant transportation cost burden and is not a viable option for many Coloradans.

Many disproportionately impacted communities (DICs) in Colorado do not benefit from a transportation system that prioritizes the needs of cars. Approximately 40% of Coloradans live in DICs.²⁴ A DIC is generally defined as a community “where the proportion of households that are low-income, that identify as minority, or that are housing cost-burdened is greater than 40%.”²⁵ Unfortunately, 9% of Coloradans live in poverty.²⁶ In 2020, approximately 427,000 Colorado households (20%) had made less than \$35,000 of income in the previous 12 months.²⁷ Additionally, minority populations in Colorado are growing—including Hispanic (of any race), Black/African American, Asian/Pacific Islander, and American Indian/Alaska Native populations.²⁸

¹⁸ “Vehicles Available,” United States Census Bureau.

¹⁹ “QuickFacts Colorado,” United States Census Bureau.

²⁰ “Table DL-20,” U.S. Department of Transportation.

²¹ “S0101: Age and Sex,” United States Census Bureau.

²² “Your Driving Costs,” AAA.

²³ Furuichi and Maniak, *Transportation and Land Use Planning Equity in Colorado*, 17.

²⁴ Furuichi and Maniak, *Transportation and Land Use Planning Equity in Colorado*, 23.

²⁵ “HB21-1266 Environmental Justice Disproportionately Impacted Community,” Colorado General Assembly.

²⁶ “QuickFacts Colorado,” United States Census Bureau.

²⁷ “QuickFacts Colorado,” United States Census Bureau; “S1901: Income in the Past 12 Months,” United States Census Bureau.

²⁸ “Demographic Summary January 2022,” Colorado Department of Local Affairs.



Minority and low-income communities generally have higher rates of public transportation usage than their white, higher-income counterparts. About 5% of United States commuters typically use public transportation.²⁹ That rate is generally higher for minority groups.³⁰ Additionally, there is a compelling relationship between low-income household status and transit ridership.³¹ In Denver, more than 30% of commuters that make less than \$25,000 in annual income use public transportation to get to work.³²

Unfortunately, public transportation and infrastructure spending don't mirror these ridership patterns. Many transit planning and operations strategies were built around the idea that there are two distinct types of transit riders—dependent (assumed to be Black) and choice (assumed to be white).³³ Since “dependent” riders have no option but to use transit, the primary emphasis for these investments is providing service—not necessarily good service. On the other hand, lines and routes that serve “choice” riders are designed to be fast, reliable, safe, and comfortable to entice riders to get out of their cars.³⁴ Denver's regional transit investment has prioritized building expensive light rail that serves suburban, low-ridership routes.³⁵ Meanwhile, “the busiest transit route in the city—where the higher capacity of rail would have the most benefit—is a bus in mixed traffic.”³⁶

Colorado Communities Harmed

Not only does transportation planning prioritize cars over people, it systematically harms certain groups. Nationwide, transportation and urban planning are steeped in racism. After the Federal-Aid Highway Act of 1956, interstate highway planners “routed some highways directly, and sometimes purposefully, through Black and brown communities.”³⁷ Transportation spending has systematically harmed minority

Transportation spending has systematically harmed minority communities, subjecting them to unsafe spaces, polluted air, and isolation from necessary destinations like healthcare facilities, recreational facilities, and schools.

²⁹ Burrows, Burd, and McKenzie, *Commuting by Public Transportation in the United States: 2019*.

³⁰ Tan et al., “Amid the pandemic, public transit is highlighting inequalities in cities.”

³¹ RTD, *Residential Parking in Station Areas: A Study of Metro Denver*, 5.

³² Tan et al., “Amid the pandemic, public transit is highlighting inequalities in cities.”

³³ Spieler, “Racism has shaped public transit.”

³⁴ Spieler, “Racism has shaped public transit.”

³⁵ Spieler, “Racism has shaped public transit.”

³⁶ Spieler, “Racism has shaped public transit.”

³⁷ King, “A Brief History of How Racism Shaped Interstate Highways.”



communities, subjecting them to unsafe spaces, polluted air, and isolation from necessary destinations like healthcare facilities, recreational facilities, and schools.

Today, transportation planning in Colorado continues to disproportionately harm minority and low-income communities resulting in limited mobility and elevated health risks. For instance, the Colorado Department of Transportation (CDOT) initiated the Central 70 project in 2019 despite intense community opposition.³⁸ Rather than fund a project that would create green space and options for public transit, CDOT chose to expand the highway. This decision degraded air quality, displaced 5% of the neighborhood, and increased the number of people living in unhealthy proximity to the highway.³⁹ Disparity in infrastructure placement breeds disparity in health outcomes.⁴⁰ Living near a highway or roadway increases exposure to traffic-related air pollution which is linked to respiratory conditions like wheezing, decreased lung function, childhood asthma, and cardiovascular disease.⁴¹ The neighborhood of Elyria-Swansea, in close proximity to both Interstate 70 and Interstate 270 in north Denver, is considered the most polluted in the country.⁴² Children living by the highway have asthma hospitalization rates “40% higher than Denver as a whole.”⁴³ Overall, residents of Globeville and Elyria-Swansea suffer from some of the highest rates of cardiovascular disease, diabetes, obesity, and asthma in the City of Denver.⁴⁴

Fatality rates per 100 million miles traveled are “systematically higher for Black and Hispanic Americans for all modes and notably higher for vulnerable modes,” namely pedestrians and cyclists.

The safety of low-income and minority communities in Colorado is also threatened by the current transportation system. The number of traffic-related fatalities in Colorado increased by 2.3% from 2019–2020 and by 13.7% from 2020–2021;⁴⁵ however, not all groups face equal danger. Fatality rates per 100 million miles traveled are “systematically higher for Black and Hispanic Americans for all modes and notably higher for vulnerable modes,” namely pedestrians and cyclists.⁴⁶ During one study period, Black Americans died at more than 4 times the rate of white Americans while cycling and more than 2 times the rate while walking.⁴⁷ Disparities are also seen by income. People walking in lower-income communities are more likely to be struck and killed by drivers than those walking in middle- or high-income communities.⁴⁸

³⁸ Schluntz and Hiatt, *Comments on Notice of Proposed Rulemaking*, 11.

³⁹ Schluntz and Hiatt, *Comments on Notice of Proposed Rulemaking*, 11.

⁴⁰ Schluntz and Hiatt, *Comments on Notice of Proposed Rulemaking*, 12.

⁴¹ “Transportation and Health,” American Public Health Association.

⁴² Turkewitz, “Colorado Aims to Expand a Main Artery, but Beleaguered Neighbors Balk.”

⁴³ Turkewitz, “Colorado Aims to Expand a Main Artery, but Beleaguered Neighbors Balk.”

⁴⁴ Armijo et al., *How Neighborhood Planning Affects Health in Globeville and Elyria-Swansea*, 5.

⁴⁵ “Colorado Fatalities by Person-Type (2002-2022),” Colorado Department of Transportation.

⁴⁶ Raifman and Choma, “Disparities in Activity and Traffic Fatalities by Race/Ethnicity,” 160.

⁴⁷ Raifman and Choma, “Disparities in Activity and Traffic Fatalities by Race/Ethnicity,” 160.

⁴⁸ Doyle, “Safety over speed week.”



A long history of racist infrastructure investment and continued transportation planning policies that prioritize cars over communities have left many Coloradans unhealthy, unsafe, and disconnected. Providing and maintaining equitable transportation options for Colorado communities does more than get people from point A to point B. Transportation equity is essential for addressing systemic disparities in health outcomes and access to housing, education, employment, criminal justice, and recreation.⁴⁹ All people deserve access to reliable, affordable, and safe transportation options.

Providing and maintaining equitable transportation options for Colorado communities does more than get people from point A to point B. Transportation equity is essential for addressing systemic disparities in health outcomes and access to housing, education, employment, criminal justice, and recreation.

⁴⁹ Denver Streets Partnership, *Denver Streets Partnership Strategic Framework*, 2.



A VISION FOR TRANSPORTATION EQUITY

Current transportation investment and infrastructure serves cars. It excludes large swaths of Colorado community members and puts them directly in harm's way. Luckily, leaders across Colorado are currently presented with a unique opportunity to turn the tide on transportation. By the end of 2022, CDOT and Front Range metropolitan transportation organizations will prioritize more than \$4 billion in transportation funding.⁵⁰ The Federal Department of Transportation has centered equity as a Department-wide strategic goal.⁵¹ With an influx of new federal and state funding, Colorado transportation is at a unique crossroads.

Now is the time for transportation stakeholders across the state to reset project priorities based on community needs and realign investments toward projects that reduce car dependency, provide safe passage for people, and prioritize equity.⁵² Safe passage will provide all Coloradans with the opportunity to live healthy lives in connection with their community. By realigning transportation funding priorities and infrastructure with the needs of communities, Colorado can move away from a system that serves cars and build a system that serves people.⁵³

Transportation is about so much more than cars, bikes, or roads. Reliable and affordable transportation "is the bridge to daily activities that keep us healthy, including a variety of food choices, safe environments, services, jobs, and schools."⁵⁴ When transportation is built and maintained with equity in mind, the benefits ripple far and wide by increasing jobs, stimulating the economy, and keeping communities connected.⁵⁵ A system built equitably works better for everyone.⁵⁶

The following two case studies demonstrate how the injustices highlighted above are impacting Colorado communities today. These studies illustrate the transportation needs of local communities through the lens of hypothetical mothers, brothers, and seniors. They shed light on different investment and infrastructure opportunities available to remedy existing injustices and offer a vision for a transportation system that truly serves all Coloradans.

Now is the time for transportation stakeholders across the state to reset project priorities based on community needs and realign investments toward projects that reduce car dependency, provide safe passage for people, and prioritize equity.

⁵⁰ Hultin et al., *Recalibrating Transportation*, 1.

⁵¹ "Equity," U.S. Department of Transportation.

⁵² Hultin et al., *Recalibrating Transportation*, 2.

⁵³ Schluntz and Hiatt, *Comments on Notice of Proposed Rulemaking*, 12.

⁵⁴ Hariprasad, Hernandez, and Singh, *An Equity Action Guide*, 26.

⁵⁵ Hariprasad, Hernandez, and Singh, *An Equity Action Guide*, 28.

⁵⁶ Hariprasad, Hernandez, and Singh, *An Equity Action Guide*, 8.



CASE STUDY 1: REGIONAL TRAILS IN ROUTT COUNTY

Routt County is home to a magnificent landscape of mountains and river valleys in Northwest Colorado on land first inhabited by the Ute tribe.⁵⁷ Since the Yampa Utes began hunting and fishing in the Yampa Valley over 1,500 years ago, humans have continued to travel through and interact with the land in diverse ways.⁵⁸ Routt County has always been a place of change and growth. Beaver trappers, prospectors, farmers, coal miners, and ranchers have traveled to the area.⁵⁹ Railways and county roads were built to accommodate the transportation needs of these diverse populations.⁶⁰ Recreation and tourism are pillars of Routt County's economy today, and people are moving around differently than they used to. To truly serve the people of Routt County, changes in community needs must be matched by transformed transportation corridors.

Housing, demographic and land use factors in Routt County are changing rapidly. There are an increasing number of residents in Routt County today that are very affluent and don't rely on the local economy for their livelihood.⁶¹ Additionally, 51% of the homes in the City of Steamboat Springs and 43% of all homes in Routt County are owned by people that don't even live in the area.⁶² Home prices in many areas of the county have appreciated by 10–15% each year since 2015.⁶³ Increasing real estate prices in and around Steamboat have resulted in workers needing to live in communities outside the city and commute to work.⁶⁴ Home prices have even doubled in historically more affordable areas such as Oak Creek, Stagecoach, and Hayden.⁶⁵ These changes have necessitated the consideration of Future Growth Areas, physical areas that have or are planned for new growth and development in Routt County.⁶⁶ One such area is West Steamboat—home to the Steamboat II, Heritage Park, and Silver Spur Estates neighborhoods.⁶⁷ Combined, these neighborhoods house a population of about 1,200 and almost 200 homes have been added since 1998.⁶⁸

Current transportation conditions in Steamboat and Routt County have been molded to serve the tourism and recreational needs of the area and haven't transitioned to serve new regional growth and development. The existing transportation infrastructure in and around Steamboat is mostly locally focused. Steamboat Springs Transit logs more than 620,000 annual miles and moves more than one million riders each year.⁶⁹ While the transit service is generally financially accessible with high ridership, the geographic layout of the bus routes does not serve many that live and work in the area. Even

⁵⁷ "City to recognize Indigenous people of Yampa Valley," Steamboat Pilot & Today.

⁵⁸ CushingTerrell, *Routt County Master Plan*, 10.

⁵⁹ CushingTerrell, *Routt County Master Plan*, 10-11.

⁶⁰ CushingTerrell, *Routt County Master Plan*, 10-11.

⁶¹ CushingTerrell, *Routt County Master Plan*, 35.

⁶² Hohl, "Just over half the homes in city of Steamboat Springs owned by out-of-towners."

⁶³ CushingTerrell, *Routt County Master Plan*, 35.

⁶⁴ CushingTerrell, *Routt County Master Plan*, 42.

⁶⁵ CushingTerrell, *Routt County Master Plan*, 35.

⁶⁶ CushingTerrell, *Routt County Master Plan*, 27.

⁶⁷ "About Us," Steamboat II Metropolitan District.

⁶⁸ "About Us," Steamboat II Metropolitan District.

⁶⁹ "Steamboat Springs Transit," City of Steamboat Springs.



in the summer, more than one-third of the stops on the local bus route directly service the ski resort or hotels and condominiums associated with the mountain area.⁷⁰ The westernmost stop on the route is at the Steamboat Campground,⁷¹ which is still two miles east of the West Steamboat neighborhoods. Similarly, the Yampa River Core Trail, a paved multi-use path that runs through Steamboat Springs and along the Yampa River, terminates within the City of Steamboat Springs and does not connect to West Steamboat.⁷² Transportation infrastructure that exists largely within the boundaries of the city leaves residents of West Steamboat and other surrounding areas without access to connected trail networks or convenient transit connections.

Regional expansion of infrastructure such as the Core Trail would provide vital access for populations that are currently disconnected. For instance, consider the transportation needs of a hypothetical high school graduate named Erin who has recently moved to Routt County to work as a server at a local restaurant in downtown Steamboat Springs. Erin rents a room in Oak Creek, where relatively affordable housing provides an attractive alternative to the expensive housing available in Steamboat.⁷³ While the majority of Oak Creek commuters travel to Steamboat for work, there is no existing bus service between the two towns.⁷⁴ With no transit available and no trail network to provide active transportation options, Erin has no choice but to drive 21 miles to and from work each day. Rising with gas and maintenance prices, the cost of commuting is significant for Oak Creek workers.⁷⁵

Results of a community survey done in 2015 indicated a strong public preference for developing a trail along Oak Creek and additional trails in the area.⁷⁶ Regional trails to surrounding areas like Phippsburg, Stagecoach, and even Steamboat Springs would provide residents and visitors with key connections to services and the means to hike or bike into neighboring towns.⁷⁷ Routt County is benefiting from the growing popularity and accessibility of electric bicycles (E-bikes).⁷⁸ E-bikes are an economical transportation option—purchasing and operating an E-bike for 3 years costs less than operating a car for only 1 year.⁷⁹ The extension of the Core Trail from Steamboat Springs to Oak Creek would provide Erin and others in her community with cheaper, safe and healthy alternatives to car travel.

Consider now the transportation needs of Julian, a hypothetical 5th-grade student who lives with his family in West Steamboat and attends the Sleeping Giant School just outside the City of Steamboat Springs. Julian comes from a working-class immigrant family that, like many families in Routt County, has limited access to a vehicle.⁸⁰ Julian's father takes their one vehicle to work on a construction site out of town each morning. This leaves Julian, his mother, and his younger sister with no access to a vehicle throughout the day. Even if Julian is able to ride the school bus to and from school each morning and afternoon, he has no flexibility to travel outside of the school bus schedule. If Julian needs to leave

⁷⁰ "Steamboat Springs Transit," City of Steamboat Springs.

⁷¹ "Steamboat Springs Transit," City of Steamboat Springs.

⁷² "Yampa River Core Trail," Colorado Trail Explorer.

⁷³ Corser and Page-Allen, *Oak Creek Comprehensive Plan*, 22.

⁷⁴ Corser and Page-Allen, *Oak Creek Comprehensive Plan*, 39.

⁷⁵ Corser and Page-Allen, *Oak Creek Comprehensive Plan*, 39.

⁷⁶ Corser and Page-Allen, *Oak Creek Comprehensive Plan*, 45.

⁷⁷ Corser and Page-Allen, *Oak Creek Comprehensive Plan*, 46-47.

⁷⁸ CushingTerrell, *Routt County Master Plan*, 44.

⁷⁹ "Ebikes in Colorado," Bicycle Colorado.

⁸⁰ CushingTerrell, *Routt County Master Plan*, 44.



school early or arrive late for any reason, he must walk or ride his bike for almost a mile along the narrow shoulder of Highway 40 to get between school and his neighborhood in West Steamboat. Julian is also not able to participate in soccer because there is no safe way for him to travel from Sleeping Giant School to Emerald Park⁸¹ across town for soccer practice.

Extension of the Core Trail would provide safe passage for community members like Erin and Julian. Connection to Oak Creek would give Erin the option to ride an E-bike to and from work each day, significantly reducing her transportation cost burden. Extension of the trail from the city border out to West Steamboat and past Sleeping Giant School would transform access for Julian and his family. Julian could safely bike to school when needed and take his sister to the school on the weekend to play on the playground. Julian would also be able to bike to soccer practice after school—all while staying off the street to avoid vehicle traffic and dangerous crossings.

The transportation needs of Steamboat Springs have outgrown the official city limits. Extension of the Core Trail and other regional trails would provide community members with crucial and safe transportation corridors. Respondents in a public outreach survey done in March 2022 identified extending the Core Trail and providing inter-connectivity between growth centers as two key mobility themes.⁸² A recent Yampa Valley Community Health Needs Assessment also recognized transportation as one of four “drivers” of health.⁸³ Routt County has recognized the need to “think regionally and move forward with big and unprecedented transportation projects” while giving equal consideration to those community members who rely on walking, biking, and transit.⁸⁴ Further development of the Core Trail and other regional trails is an equitable, innovative, and health-promoting solution that will benefit all Routt County community members who need to stay connected to school, jobs, and recreational opportunities.

⁸¹ “Athletic Fields and Parks,” City of Steamboat Springs Parks and Recreation.

⁸² CushingTerrell, *Routt County Master Plan*, 22.

⁸³ Health Management Associates, *Yampa Valley Community Health Needs Assessment*, 3.

⁸⁴ CushingTerrell, *Routt County Master Plan*, 42.



CASE STUDY 2: TRANSIT IN THE SAN LUIS VALLEY

The town of Antonito, Colorado sits at the southern end of the San Luis Valley, approximately 6 miles north of the Colorado-New Mexico border. Antonito is located in Conejos County on the ancestral, traditional, and contemporary lands of the Apache, Kiowa, Pueblo, Navajo, and Ute tribal peoples.⁸⁵

Antonito is a small statutory town with a total population of around 650 people⁸⁶ and a rich tradition of non-vehicular transportation. The Cumbres & Toltec Railroad was constructed in 1880 to serve the silver mining district of the San Juan mountains on the eastern edge of the valley.⁸⁷ It travels between Chama, New Mexico and Antonito, covering land that no automobile can.⁸⁸ Conejos County is also home to the second largest Amish community in Colorado,⁸⁹ who use horses and buggies to travel.⁹⁰ These communities don't allow ownership of motorized vehicles but ride along and use public transportation.⁹¹ Despite this identity of non-vehicular travel, there are many members of Antonito and greater Conejos County that cannot access necessary resources and places due to lack of affordable and efficient transportation options.

The San Luis Valley is the largest alpine valley in North America.⁹² It harbors a great diversity of natural and cultural settings, with dramatic landscape changes and deep art and cultural traditions.⁹³ It is also the home to many historically underserved and overburdened populations.⁹⁴ Conejos County is considered a county of persistent poverty with 20% of residents earning incomes below the federal poverty level.⁹⁵ From 2016–2020, the median annual household income was only \$33,611.⁹⁶ A startling 30% of households earn under \$20,000.⁹⁷ Conejos County also has a higher proportion of older adults over the age of 65 years (19%),⁹⁸ communities of color (55%),⁹⁹ and people with disabilities (20%)¹⁰⁰ than the average Colorado community.

The unique geographic, socioeconomic, and demographic positioning of Antonito presents a great need for affordable and efficient regional transit options. A majority of Conejos County residents commute

⁸⁵ "San Luis Valley: The Cradle of Colorado," Colorado's Museum Trail.

⁸⁶ "County and Municipal Population Timeseries," Colorado Department of Local Affairs.

⁸⁷ "Cumbres and Toltec History," Cumbres and Toltec.

⁸⁸ "About Us," Cumbres and Toltec.

⁸⁹ "Colorado Amish," Amish America.

⁹⁰ Schrader, "Amish settle in Colorado's San Luis Valley."

⁹¹ Schrader, "Amish settle in Colorado's San Luis Valley."

⁹² San Luis Valley Community Action Agency, *Community Needs Assessment*, 2.

⁹³ San Luis Valley Community Action Agency, *Community Needs Assessment*, 2.

⁹⁴ Felsburg, Holt and Ullevig, *San Luis Valley Transit Plan*, 4.

⁹⁵ Felsburg, Holt and Ullevig, *San Luis Valley Transit Plan*, 36.

⁹⁶ "QuickFacts Conejos County," United States Census Bureau.

⁹⁷ San Luis Valley Community Action Agency, *Community Needs Assessment*, 46.

⁹⁸ Felsburg, Holt and Ullevig, *San Luis Valley Transit Plan*, 7.

⁹⁹ Felsburg, Holt and Ullevig, *San Luis Valley Transit Plan*, 7.

¹⁰⁰ Felsburg, Holt and Ullevig, *San Luis Valley Transit Plan*, 8.



north for work—22% to the city of Alamosa which has 43% of jobs in the San Luis Valley region.¹⁰¹ While it is more cost-effective to live in Antonito or other nearby communities than in Alamosa, transportation costs represent a significant financial burden. Conejos County residents spend approximately 40% of their income on transportation.¹⁰² For many, travel by car is simply not an option—5% of homeowners and 16% of renters in Conejos County do not have access to a vehicle.¹⁰³ For those that do not have access to a vehicle or do not drive, very few transportation options exist to get people to and from Antonito. A 2019 survey found that the most common barriers related to public transportation in the San Luis Valley transportation planning region are a lack of coverage of existing services, insufficient frequency of service, and insufficient span of service.¹⁰⁴ There are zero local, regional, or interregional transit providers that connect Antonito to surrounding towns or counties.¹⁰⁵

Despite great need, innovative transportation solutions have not been prioritized for funding in the San Luis Valley. Transportation resources are the third most commonly identified community health need in the region.¹⁰⁶ Additionally, public transportation infrastructure is understood to be a reasonable and effective resource for improving access to healthcare and eliminating poverty.¹⁰⁷ Despite the proven importance of public transportation infrastructure, transportation investment in the region maintains an auto-centric system rather than providing safe options for people without a car. CDOT near-term project funding in the Southwest planning region overwhelmingly favors highway improvements and resurfacing over transit. Throughout years 1–4 of a 10-year project pipeline, a total of \$173.7 million is allocated for highway and rural paving combined and a mere \$1.15 million for transit.¹⁰⁸ Over the full 10-year timeframe, transit dollars account for only 2.7% of the total proposed spending.¹⁰⁹

Innovative transportation solutions in the San Luis Valley can transform connections for hardworking community members whose needs are not served by the current system. Consider the cost of transportation for a hypothetical single mother of two named Ana that lives in Antonito but works in Alamosa. Since there are no fixed-route transit services available between Antonito and Alamosa, Ana has no choice but to drive a car 28.4 miles to and from Alamosa each workday. Over approximately 260 days she drives 14,768 miles just to get to work each year. With gas prices in Conejos County averaging \$4.08 per gallon (as of September 7, 2022)¹¹⁰ and an average fuel efficiency of 22.9 miles per gallon,¹¹¹ commuting to work will cost Ana over \$2,600 annually for fuel alone. This doesn't account for the substantial costs associated with vehicle purchase, vehicle maintenance, insurance, or parking. In Conejos County, 90% of households with female householders are in poverty.¹¹² If Ana makes \$21,831

¹⁰¹ Felsburg, Holt and Ullevig, *San Luis Valley Transit Plan*, 36.

¹⁰² Felsburg, Holt and Ullevig, *San Luis Valley Transit Plan*, 10.

¹⁰³ Felsburg, Holt and Ullevig, *San Luis Valley Transit Plan*, 36.

¹⁰⁴ Colorado Department of Transportation, *San Luis Valley Coordinated Public Transit & Human Services Transportation Plan*, 8.

¹⁰⁵ Felsburg, Holt and Ullevig, *San Luis Valley Transit Plan*, 12-14, 37.

¹⁰⁶ San Luis Valley Health, *Community Health Needs Assessment Report*, 3.

¹⁰⁷ San Luis Valley Health, *Community Health Needs Assessment Report*, 6, 8.

¹⁰⁸ Colorado Department of Transportation, *Vision for Colorado's Transportation System*, 19.

¹⁰⁹ Colorado Department of Transportation, *Vision for Colorado's Transportation System*, 19, 24.

¹¹⁰ "Gas Prices," AAA.

¹¹¹ "Average Fuel Efficiency of U.S. Light Duty Vehicles," Bureau of Transportation Statistics.

¹¹² San Luis Valley Community Action Agency, *Community Needs Assessment*, 31.



annually¹¹³ and must spend 40% of that on transportation,¹¹⁴ she will have only \$13,098 left for the year to spend on all other necessary expenses for herself and her two children.

Additionally, consider the mobility needs of a hypothetical 75-year-old senior named Eddie who doesn't drive but needs to travel north every two weeks to attend a diabetes education class at the San Luis Valley Health Clinic in La Jara. La Jara is about 14 miles north of Antonito and is the closest location for advanced hospital or emergency medical care. There is no public regional transit with regular service from Antonito to La Jara.¹¹⁵ Of older adults and adults with disabilities surveyed in 2019, more than 75% said they have trouble finding transportation for medical appointments.¹¹⁶ Human services providers such as Northerners Seniors Inc. and Conejos County Department of Social Services offer transportation services in the area but don't offer fixed routes—they only operate based on available resources and client needs.¹¹⁷ If the human services providers don't have drivers, vehicles, or other resources available at the time that Eddie needs to travel to the clinic, he will miss his necessary medical appointment unless he has friends or family available to drive him.

Affordable and reliable regional transit options would transform the lives of both Ana and Eddie. Transit would eliminate or drastically reduce Ana's reliance on a car and save her thousands of dollars each year that could be used on food, housing, healthcare, or other resources necessary to keep her family happy and healthy. Transit would provide Eddie with connectivity and reliable access to vital healthcare services. It would reduce his dependence on family, friends, or neighbors, and provide reliability that existing human services options aren't able to provide due to resource limitations.

Low-income and other DICs in the San Luis Valley deserve to be served by a transportation system that is affordable and reliable. Colorado has an amazing opportunity to provide these communities with the services and connections they need. It is time that residents of Antonito and other areas of the San Luis Valley be able to lean into their rich tradition of non-vehicular travel and benefit from a system built to serve them. Maintaining the status quo by not acting now to transform transportation will continue to cost San Luis Valley communities greatly. Creative solutions must be implemented so that communities historically left behind are prioritized and served.

¹¹³ "Poverty Thresholds for 2021," United States Census Bureau.

¹¹⁴ Felsburg, Holt and Ullevig, *San Luis Valley Transit Plan*, 10.

¹¹⁵ Felsburg, Holt and Ullevig, *San Luis Valley Transit Plan*, 13.

¹¹⁶ Colorado Department of Transportation, *San Luis Valley Coordinated Public Transit & Human Services Transportation Plan*, 9.

¹¹⁷ Felsburg, Holt and Ullevig, *San Luis Valley Transit Plan*, 13.



BIBLIOGRAPHY

- "About Us." Cumbres and Toltec. Accessed August 4, 2022. <https://cumbrestoltec.com/about-us-2/>.
- "About Us." Steamboat II Metropolitan District. Accessed September 16, 2022. <https://steamboat2metro.com/about-us>.
- Armijo, Gretchen, Gene C. Hook, Dave Erickson, Jon Novick, Lisa Farrell, Paul Riedesel, Brenda Johnson, Stacey McConlogue, Gregg Thomas, and Jessica Scott. *How Neighborhood Planning Affects Health in Globeville and Elyria-Swansea*. Denver Environmental Health, September 2014. https://www.denvergov.org/content/dam/denvergov/Portals/746/documents/HIA/HIA%20Composite%20Report_9-18-14.pdf.
- "Athletic Fields and Parks." City of Steamboat Springs Parks and Recreation. Accessed September 17, 2022. <https://steamboatsprings.net/213/Athletic-Fields-Parks>.
- "Average Fuel Efficiency of U.S. Light Duty Vehicles." Bureau of Transportation Statistics. Accessed September 7, 2022. <https://www.bts.gov/content/average-fuel-efficiency-us-light-duty-vehicles>.
- Booske, Bridget C., Jessica K. Athens, David A. Kindig, Hyojun Park, and Patrick L. Remington. *County Health Rankings Working Paper: Different Perspectives for Assigning Weights to Determinants of Health*. University of Wisconsin Population Health Institute, February 2010. <https://www.countyhealthrankings.org/sites/default/files/differentPerspectivesForAssigningWeightsToDeterminantsOfHealth.pdf>.
- Burrows, Michael, Charlynn Burd, and Brian McKenzie. *Commuting by Public Transportation in the United States: 2019*. United States Census Bureau American Community Survey Reports, April 2021. <https://www.census.gov/content/dam/Census/library/publications/2021/acs/acs-48.pdf>.
- "City to recognize Indigenous people of Yampa Valley." Steamboat Pilot & Today staff report. November 16, 2020. <https://www.steamboatpilot.com/news/city-to-recognize-indigenous-peoples-of-yampa-valley/>.
- "Colorado Amish." Amish America. January 2022. <https://amishamerica.com/colorado-amish/>.
- Colorado Department of Transportation. *San Luis Valley Coordinated Public Transit & Human Services Transportation Plan*. November 2020. <https://www.slvdr.org/wp-content/uploads/2021/10/2020-SLV-Transit-Plan.pdf>.
- Colorado Department of Transportation. *Vision for Colorado's Transportation System: 10-Year Strategic Project Pipeline*. Spring 2020. https://www.codot.gov/programs/your-transportation-priorities/your-transportation-plan/assets/original-adopted-cdot_ytp_10yearvision_200529_v2_digital-1.pdf.



- "Colorado Fatalities by Person-Type (2002-2022)." Colorado Department of Transportation Office of the Chief Engineer. July 8, 2022. <https://www.codot.gov/safety/traffic-safety/assets/fatal-crash-data-city-county/fatalities-by-person-type>.
- Corser, Susan Ernst, and Mary Alice Page-Allen. *Town of Oak Creek Comprehensive Plan- 2015*. https://co.routt.co.us/DocumentCenter/View/942/Oak-Creek-Comp-Plan-Update_2015.
- "County and Municipal Population Timeseries." Colorado Department of Local Affairs State Demography Office. 2022. <https://coloradodemography.github.io/population/data/county-muni-timeseries/>.
- "Cumbres and Toltec History." Cumbres and Toltec. Accessed August 4, 2022. <https://cumbrestoltec.com/about-us-2/cumbres-toltec-history/>.
- CushingTerrell. *Routt County Master Plan*. August 30, 2022. <https://acrobat.adobe.com/link/track?uri=urn:aaid:scds:US:e3ce26c2-cecd-3ba9-8d18-c5f59f146481>.
- "Demographic Summary January 2022." Colorado Department of Local Affairs State Demography Office. January 2022, <https://demography.dola.colorado.gov/>.
- Denver Streets Partnership. *Denver Streets Partnership Strategic Framework*. February 7, 2020.
- Doyle, Sean. "Safety over speed week: Our transportation system values some lives more than others." *Transportation for America (blog)*, (November 6, 2019). <https://t4america.org/2019/11/06/our-transportation-system-values-some-lives-more-than-others/>.
- Dykman, Sara. *Bicycling with Butterflies: My 10,201- Mile Journey Following the Monarch Migration*. Portland, Oregon: Timber Press, Inc., 2021.
- "EBikes in Colorado." Bicycle Colorado. Accessed September 18, 2022. <https://www.bicyclecolorado.org/ebikes/>.
- "Equity." U.S. Department of Transportation. Accessed September 7, 2022. <https://www.transportation.gov/priorities/equity>.
- Felsburg, Holt and Ullevig. *San Luis Valley Transit Plan: Helping Obtain Prosperity for Everyone*. July 2022. Public Review Draft. https://s3-us-west-2.amazonaws.com/mysocialpinpoint/uploads/redactor_assets/documents/bfd48380c72e57875458593b33d8c16e394984e310fb9361640170e7a968a432/62904/Public_Review_Draft_San_Luis_Valley_Transit_Plan.pdf.
- Furuichi, Danielle and Sabina Maniak. *Transportation and Land Use Planning Equity in Colorado*. Southwest Energy Efficiency Project, Spring 2022.
- "Gas Prices." AAA. Accessed September 7, 2022. <https://gasprices.aaa.com/?state=CO>.
- Handwerk, Brian. "Twelve Epic Migratory Journeys Animals Take Every Spring: As temperatures rise and foliage blooms in the north, creatures from insects to whales set out for long treks across the planet." *Smithsonian Magazine*. April 19, 2019. <https://www.smithsonianmag.com/science-nature/twelve-epic-migratory-journeys-animals-take-every-spring-180972001/>.



- HariPrasad, Vaishnavi, Sarah Hernandez, and Namrita Singh. *An Equity Action Guide: Creating Thriving Communities in Colorado*. Colorado Office of Health Equity. 2018. https://drive.google.com/file/d/1QyN_T-PjQoYjUSBJO7ktQYhUnwOhaJO2/view.
- "HB21-1266 Environmental Justice Disproportionately Impacted Community." Colorado General Assembly. 2021 Regular Session, <https://leg.colorado.gov/bills/hb21-1266#:~:text=Section%203%20of%20the%20act,greater%20than%2040%25%3B%20or>.
- Health Management Associates. *Yampa Valley Community Health Needs Assessment*. 2022. <https://thehealthpartnership.org/wp-content/uploads/2022/08/Yampa-Valley-CHNA-2022-compressed96.pdf>.
- Hohl, Frances. "Just over half the homes in city of Steamboat Springs owned by out-of-towners." *Steamboat Pilot & Today*. January 26, 2019. <https://www.steamboatpilot.com/news/just-over-half-the-homes-in-city-of-steamboat-springs-owned-by-out-of-towners/>.
- Hultin, Rachel, Matt Frommer, Danny Katz, Molly McKinley, Martha Roskowski, and Piep van Heuven. *Recalibrating Transportation*. Bicycle Colorado, April 2022. <https://www.bicyclecolorado.org/wp-content/uploads/2022/05/Recalibrating-Transportation.pdf>.
- King, Noel. "A Brief History of How Racism Shaped Interstate Highways." *NPR*, (April 7, 2021). <https://www.npr.org/2021/04/07/984784455/a-brief-history-of-how-racism-shaped-interstate-highways>.
- Meekan, Mark G., Carlos M. Duarte, Juan Fernández-Gracia, Michele Thums, Ana M.M. Sequeira, Rob Harcourt, and Víctor M. Eguíluz. "The Ecology of Human Mobility." *Trends in Ecology & Evolution* 32, no. 3 (2017): 198-210. <https://doi.org/10.1016/j.tree.2016.12.006>.
- "Monarch butterfly." National Museums Scotland. Accessed September 7, 2022. <https://www.nms.ac.uk/explore-our-collections/stories/natural-sciences/monarch-butterfly>.
- "Nature's Most Impressive Animal Migrations." National Geographic Society National Geographic Resource Library. May 20, 2022. <https://education.nationalgeographic.org/resource/natures-most-impressive-animal-migrations>.
- Osborne, Beth. "Keynote," Moving People Forward 2022. February 8, 2022. Video, 24:14. <https://vimeo.com/674988941>.
- "Poverty Thresholds for 2021 by Size of Family and Number of Related Children Under 18 Years." United States Census Bureau. Accessed September 7, 2022. <https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html>.
- "QuickFacts Colorado; United States." United States Census Bureau. August 2022, <https://www.census.gov/quickfacts/fact/table/CO,US/RHI825221>.
- "QuickFacts Conejos County, Colorado." United States Census Bureau. Accessed September 7, 2022. <https://www.census.gov/quickfacts/fact/table/conejoscountycolorado/PST045221>.



- Raifman, Matthew A. and Ernani F. Choma. "Disparities in Activity and Traffic Fatalities by Race/Ethnicity." *American Journal of Preventive Medicine*, vol. 63 issue 2 (2022): 160-167. <https://doi.org/10.1016/j.amepre.2022.03.012>.
- RTD. *Residential Parking in Station Areas: A Study of Metro Denver*. December 2020. https://www.rtd-denver.com/sites/default/files/files/2021-01/RTD-Residential-TOD-Parking-Study_Final-R_0.pdf.
- "S0101: Age and Sex." From 2020 ACS 5-Year Estimates Subject Tables. United States Census Bureau American Community Survey. Accessed September 6, 2022. <https://data.census.gov/cedsci/table?q=Colorado%20Populations%20and%20People&tid=ACSST5Y2020.S0101>.
- "S1901: Income in the Past 12 Months (In 2020 Inflation-Adjusted Dollars)." From 2020 ACS 5-Year Estimates Subject Tables. United States Census Bureau American Community Survey. Accessed September 6, 2022. <https://data.census.gov/cedsci/table?q=Colorado%20income&tid=ACSST5Y2020.S1901>.
- San Luis Valley Community Action Agency. *San Luis Valley Community Needs Assessment 2021-2023*. September 23, 2020. <https://www.slvdrg.org/wp-content/uploads/2020/11/SLVCAA-Needs-Assessment-2020-08.12.20-PDF.pdf>.
- San Luis Valley Health. *Community Health Needs Assessment Report*. May 2019. <https://www.sanluisvalleyhealth.org/documents/about%20us/2019-CHNA-report-final.pdf>.
- "San Luis Valley: The Cradle of Colorado." Colorado's Museum Trail. Accessed September 6, 2022. <https://www.museumtrail.org/heritage>.
- Schluntz, Alexandra and Michael Hiatt. *Comments on Notice of Proposed Rulemaking: Rules Governing Statewide Transportation Planning Process and Transportation Planning Regions: 2 CCR 601-22*. EarthJustice, October 16, 2021. <https://drive.google.com/file/d/1lowYaBF0lrNkcdUU4wsLHlxJJJaUvqm0w/view>.
- Schrader, Ann. "Amish settle in Colorado's San Luis Valley, diversifying to support families." *The Denver Post*. August 14, 2010, <https://www.denverpost.com/2010/08/14/amish-settle-in-colorados-san-luis-valley-diversifying-to-support-families/>.
- "Social Determinants of Health." Healthy People 2030. Accessed August 20, 2022. <https://health.gov/healthypeople/priority-areas/social-determinants-health>.
- Spieler, Christof. "Racism has shaped public transit, and it's riddled with inequities." *Rice Kinder Institute for Urban Research*, (August 24, 2020). <https://kinder.rice.edu/urbanedge/2020/08/24/transportation-racism-has-shaped-public-transit-america-inequalities>.
- "Steamboat Springs Transit." City of Steamboat Springs. Accessed September 12, 2022. <https://steamboatsprings.net/166/Transit>.
- "Table DL-20: Distribution of Licensed Drivers By Sex and Percentage in each Age Group and Relation to Population- 2020." U.S. Department of Transportation Federal Highway Administration Office of Highway Policy Information. January 2022. <https://www.fhwa.dot.gov/policyinformation/statistics/2020/dl20.cfm>.



Tan, Shelly, Alyssa Fowers, Dan Keating, and Lauren Tierney. "Amid the pandemic, public transit is highlighting inequalities in cities." *The Washington Post*, (May 15, 2020). <https://www.washingtonpost.com/nation/2020/05/15/amid-pandemic-public-transit-is-highlighting-inequalities-cities/>.

"Transportation and Health." American Public Health Association. 2021. <https://www.apha.org/topics-and-issues/transportation>.

Turkewitz, Julie. "Colorado Aims to Expand a Main Artery, but Beleaguered Neighbors Balk." *The New York Times*, (February 19, 2017). <https://www.nytimes.com/2017/02/19/us/denver-interstate-70-expansion.html>.

"Vehicles Available." United States Census Bureau American Community Survey. August 2022. <https://www.census.gov/acs/www/about/why-we-ask-each-question/vehicles/>.

"Yampa River Core Trail." Colorado Trail Explorer. Accessed September 17, 2022. <https://trails.colorado.gov/trails/yampa-river-core-12656>.

"Your Driving Costs." AAA. 2021, <https://newsroom.aaa.com/wp-content/uploads/2021/08/2021-YDC-Brochure-Live.pdf>.

