Photo credit: Lyndsy Morse (photo contest entry).

2050 Metro Vision Regional Transportation Plan Coordinated Transit Plan

Introduction

Transit is an integral part of the Denver region's multimodal transportation system. It connects people to jobs, schools, shopping, medical care and recreation. These connections are vitally important for better health outcomes, especially for older adults, individuals with disabilities and low-income residents. It also promotes independence and economic development. To remain relevant for residents and visitors, the region's transit system must adapt to trends including an aging population, new technology and significant growth. Transit is available throughout the Denver region in rural, suburban and urban areas.

The COVID-19 pandemic has changed transit in the Denver region and around the world. Vulnerable populations have remained at home to reduce their risk. Many transportation providers pivoted to delivering food and medicine instead of providing trips to stores. Transit ridership has plunged during the health crisis. Yet, the Regional Transportation District's buses, trains and paratransit remain vital for many people, including essential workers.

Despite unprecedented investment in transit, there is insufficient funding for the preferred system through 2050. Thus it is advisable for transportation providers, local, regional, state, and federal funding partners, and other key stakeholders to coordinate services and funding to optimize existing funding, services and facilities. Through engagement for this plan, stakeholders and the public identified innovative funding alternatives, technology and other new approaches as effective strategies.

Plan purpose and federal requirements

The Denver Regional Council of Governments Coordinated Transit Plan is the:

- Transit component of DRCOG's Metro Vision Regional Transportation Plan.

- Federally required Coordinated Public Transit Human Services Transportation Plan for the Denver region.

The Coordinated Transit Plan inventories existing transit services and identifies fiscally constrained and envisioned transit service and system needs for the Denver region. It incorporates both general public transit and human service transportation, services which are not mutually exclusive. For example, while many older adults and individuals with disabilities will be served by transit modes specifically designed for their needs, many more will use general public transit. The Coordinated Transit Plan integrates transit modes intended for specific populations and for the population at large. The Federal Transit Administration requires that projects selected under the FTA 5310 grant program (Enhanced Mobility for Seniors and Individuals with Disabilities) be included in the Coordinated Transit Plan. DRCOG now administers the FTA 5310 program in its role as the designated recipient of funds for the Denver-Aurora Urbanized Area. The FTA 5310 program was previously administered by the Colorado Department of Transportation, which continues to administer it for areas in the Denver region beyond of the Denver-Aurora Urbanized Area, including small urbanized areas (Boulder, Louisville-Lafayette and Longmont) and areas outside of urbanized areas, mostly on the plains and in the foothills.

The purpose of the Coordinated Transit Plan is to be a blueprint to help improve mobility for older adults, individuals with disabilities, low-income individuals and others with mobility challenges. Through the plan, DRCOG identifies existing service providers, forecasts service gaps and identifies strategies to address mobility needs. As the federally required Coordinated Public Transit Human Services Transportation Plan , the Coordinated Transit Plan also addresses the following FTA requirements, including:

- An assessment of available services that identifies current transportation providers (public, private and nonprofit).

- An assessment of transportation needs for individuals with disabilities and older adults. (This assessment can be based on the experiences and perceptions of the planning partners, or on sophisticated data collection efforts and an analysis of gaps in service.)

- Strategies, activities, or projects to address the identified gaps between current services and needs, as well as opportunities to achieve efficiencies in service delivery.

- Priorities for implementation based on resources, time and feasibility for implementing specific strategies and activities identified.

As noted previously, FTA requires projects funded in the FTA 5310 program be included in the Coordinated Transit Plan. However, "FTA maintains flexibility in how projects appear in the Coordinated Plan. Programs

and projects may be identified as strategies, activities, or specific projects addressing an identified service gap or transportation coordination objective articulated and prioritized in this plan." For example, a proposed FTA 5310 project to expand transportation services for individuals with disabilities is consistent with the section of the Coordinated Transit Plan defining the needs for expanded services for that population.

Public and stakeholder outreach

Public and stakeholder participation was essential in preparing the Coordinated Transit Plan. Older adults; individuals with disabilities; representatives of public, private and nonprofit transportation and human service providers; and other members of the public actively participated in developing the plan.

DRCOG used a variety of techniques to provide information and solicit public comment, including public forums and meetings, surveys and community planning sessions. Since the planning process for the Coordinated Transit Plan was primarily conducted during the COVID-19 pandemic, outreach activities were performed virtually. Staff conducted public and stakeholder engagement in three ways: informal questionnaires, interactive polling at various stakeholder meetings and advisory group input.

The questionnaire was open from May 5, 2020, through June 22, 2020, and received 138 responses. The questionnaire was distributed through two email blasts sent to more than 500 people on May 6, 2020, and May 20, 2020. DRCOG staff shared the link to the questionnaire during several local coordinating council and other local transportation group meetings during the months of May and June. In addition, DRCOG staff also shared it with each County Council on Aging.

In several virtual meetings between May 2020 and June 2020, DRCOG staff administered an interactive poll with questions similar to the informal questionnaire described above. Staff received 120 responses. These meetings included the following:

- Denver Regional Mobility and Access Council Member Meeting (28 respondents)

- Arapahoe County Local Coordinating Council (12 respondents)

- RTD Citizens Advisory Committee (5 respondents)

- Denver Community Active Living Coalition (16 respondents)

- Denver Local Coordinating Council (10 respondents)

- DRCOG Advisory Committee on Aging (19 respondents)

- Boulder County Local Coordinating Council (30 respondents)

A local coordinating council is a formal, multipurpose, long-term alliance of community organizations, individuals and interest groups that work together to achieve common goals regarding human service transportation. Local coordinating councils promote efficient, accessible and easy-to-arrange transportation options in their communities.

DRCOG staff leveraged newly formed public outreach groups for the 2050 Metro Vision Regional Transportation Plan and gathered input from the Youth Advisory Panel and Civic Advisory Group. Both groups were formed with the primary purpose of engaging communities that are traditionally underrepresented in the transportation planning process. The Youth Advisory

Panel is mostly made up of high school students who are actively involved in their communities. The Civic Advisory Group comprises people who represent various disadvantaged communities such as older adults, individuals with disabilities, veterans and minorities.

In February 2020 and March 2020, DRCOG staff briefed the Youth Advisory Panel and Civic Advisory Group were about the Coordinated Transit Plan. Staff used a short interactive polling activity to solicit general input from the two groups about current barriers and needs for public transportation. Responses from the groups varied regarding the main barriers to using public transportation, although lack of direct transport and long travel time were identified as some of the most significant barriers by many group members. Participants in the Youth Advisory Panel identified the habit of driving as the most significant barrier, while the Civic Advisory Group thought that the need to make multiple connections was most significant. Both groups indicated that low-income individuals have the greatest need to be served by transit.

 The input received from the engagement activities is summarized below. More thorough data and analysis are provided in the "Coordinated transit plan engagement results" section.

- An informal questionnaire made available to the general public.

- Interactive polling at various stakeholder meetings.

- Input from DRCOG Youth Advisory Committee and Citizens Advisory Committee.

Questionnaire findings

Top five needs and gaps

- Improve access to health care for nonemergency visits.

- Affordable fares, especially for older adults, individuals with disabilities and/or low incomes.

- Expand all services to meet increased demand for transportation as the population increases and ages.

- More cross-jurisdictional trips, better trip coordination and more accessibility.

- Better regional coordination to build on improving local coordination.

Top five strategic priorities

- First- and last-mile connections (to get people from their origin and/or destination to and or from transit).

- Spend local, regional, state and federal funds more efficiently.

- Improve access to key services such as health care and employment through coordination.

- Affordable fares programs.

- Increase human service transportation coordination efforts.

Interactive polling findings

Top five needs and gaps

- Improve access to health care for nonemergency visits.

- Accessible and understandable transportation information and referral services.

- Affordable fares, especially for older adults, individuals with disabilities and/or low incomes.

- Meet increasing demand for transportation as the populations increases and ages.

- More cross-jurisdictional trips, better trip coordination and more accessibility.

Top five strategic priorities

- First- and last-mile connections.

- Improve access to key services such as health care and employment through coordination.

- Spend local, regional, state and federal funds more efficiently.

- Affordable fares programs.

- Increase human service transportation coordination efforts.

Input from DRCOG Youth Advisory Panel and Civic Advisory Group

Youth advisory panel

Top five barriers to Denver region residents using public transportation more:

- Habit of driving.

- Lack of direct transportation.

- Long travel time.

- Proximity to home.

- Proximity to work/school.

Which Denver region residents do you feel have the greatest need to be served by transit?

- Low-income individuals.

- All residents.

- Older adults.

- Individuals with disabilities.

Civic Advisory Group

Top five barriers to Denver region residents using public transportation more:

- Needing to make multiple connections.

- Lack of direct transportation.

- Frequency of service.

- Reliability of service.

- Long travel time.

Which Denver region residents do you feel have the greatest need to be served by transit?

- Low-income individuals.

- All residents.

- Individuals with disabilities.

- Older Adults.

Input from other venues and forums is also reflected in this plan from the following sources:

Denver Regional Accountable Health Community: Strategies and Recommendations for Transportation Service Improvements

DRCOG manages the Denver Regional Accountable Health Community and functions as the bridge organization for a network of health, community and public partners. The Denver Regional Accountable Health Community aligns and improves the care connection between clinical and community settings for Medicaid and Medicare beneficiaries in Adams, Arapahoe, Broomfield, Denver, Douglas and Jefferson counties. Based on an evaluation of existing and emergent solutions to address service gaps, both in the Denver region and other areas nationwide, the report presents key strategies and recommendations to improve transportation services for people who are most in need. For more information, please read "Denver Regional Accountable Health Communities Model: Strategies and Recommendations for Transportation Service Improvements."

CDOT Statewide Transit Survey of Older Adults and Adults with Disabilities

For its Statewide Transit Plan, CDOT conducted a statewide survey of older adults (65 and older) and disabled individuals (18 years or older) regarding their travel behavior, transportation priorities, needs and preferences. Of the 937 participants statewide, 461 were from the Denver region.

Local coordinating councils

Local coordinating councils represent most counties in the Denver region. The organizations are in various stages of assessing and prioritizing needs. The Denver Regional Mobility and Access Council serves as the regional coordinating council for the Denver region. In this role, the council facilitates local coordinating councils in each county, bringing together transportation providers, users and. The Denver Regional Mobility and Access Council participates in and advocates with a wide variety of the region's work groups, task forces and committees on human services and transportation needs. In preparing the Coordinated Transit Plan, DRCOG engaged with the Denver Regional Mobility and Access Council and many local coordinating councils to gather input on transportation needs in the Denver region, especially for vulnerable populations such as older adults, individuals with disabilities and people with low incomes. The input from these engagements is summarized above.

RTD 2019 Customer Satisfaction Survey

To assess the degree to which it is meeting its customers' needs, RTD regularly conducts a large-scale survey to assess satisfaction across various aspects of the services and amenities it provides. The 2019 survey included questions related to the following:

- Trip characteristics, including trip purpose, time of trip and information about transfers.

- Fare characteristics, including method of payment, fare level, the use of special fare discounts and the use of RTD's mobile ticketing application.

- RTD use, including RTD services used, number of RTD trips, frequency of RTD use and changes in RTD use,

- Satisfaction with RTD, including satisfaction with RTD performance, reliability, comfort, value, customer care and overall satisfaction.

- Demographic characteristics, including occupation, level of education, household income, marital status, race/ethnicity, age and gender.

A total of 12,539 surveys were distributed with a response rate of 30%.

DRCOG Board and committee meetings

All DRCOG meetings are open to the public. The meetings provide a forum for residents to provide input on various topics including transportation topics covered in the Coordinated Transportation Plan.

RTD Accountability Committee

The RTD board, in collaboration with the Colorado Governor's Office and the transportation chairs of the General Assembly, created the RTD Accountability Committee.

The Committee is fully independent from RTD and is housed at and staffed by DRCOG. The committee's mission is to provide feedback and a set of recommendations for improvement of RTD's operations and statutes, to the board and staff of the RTD, the governor, the General Assembly and the public. The committee held its first meeting in August 2020. The Committee is required to provide recommendations to the governor, the chairs of the transportation committees in the Colorado Senate and House of Representatives and the RTD Board of Directors no later than July 1, 2021. Visit https://drcog.org/planning-great-region/rtd-accountability-committee and https://www.rtd-denver.com/accountability-committee for more information.

RTD Board and committee meetings

RTD is governed by a 15-member publicly elected Board of Directors. Directors are elected to four-year terms and represent specific districts. Each RTD Board and committee meeting (several per month) includes time for public input.

RTD Citizens Advisory Committee

RTD's Citizens Advisory Committee meets quarterly to advise RTD. Committee members are appointed by the RTD Board of Directors to three-year terms. The meeting venue varies throughout the region to make it

easier for stakeholders to offer input. DRCOG staff met with the Citizens Advisory Committee to gather direct input for the Coordinated Transit Plan.

RTD local government meetings

RTD holds regular meetings with its local government planning partners including municipalities, counties other transit providers, community-based organizations and DRCOG.

Definitions

Several terms used throughout the Coordinated Plan are defined in Figure 1.

demand response: any non-fixed-route system of transporting individuals that requires advanced scheduling by the customer, including services provided by public entities, nonprofits and private providers

designated recipient: recipients have been designated by the state governor or their designee to receive or suballocate funds from the Federal Transit Administration

direct recipient: organizations that directly receive funding from the Federal Transit Administration

door-through-door services: personal, hands-on assistance for individuals who have difficulties getting in and out of vehicles and buildings

first and last mile: the beginning or end of an individual trip made primarily by public transportation. In many cases, people will walk to transit if it is close enough. However, on either end of a public transit trip, the origin or destination may be difficult or impossible to access by a short walk. This gap from public transit to destination is a last-mile connection.

fixed route: a system of providing designated public transportation in which a vehicle is operated along a prescribed route according to a fixed schedule

general public transportation: regular, continuing shared-ride surface transportation services open to the general public

human service transportation: shared-ride surface transportation services (often demand-response) open to segments of the general public defined by age, disability or low income

local coordinating council: an alliance of community organizations and individuals that work together to achieve common goals regarding human service transportation

paratransit: complementary transportation service required by the Americans with Disabilities Act for individuals with disabilities who are unable to use fixed-route transportation systems

public transportation: regular, continuing shared-ride surface transportation service (demand-response or fixed-route) that are open to the general public or segments of the general public defined by age, disability, or low income

regional coordinating council: an alliance of community organizations and individuals that work together to identify and fulfill the public and human service transportation needs of the region focusing on travel across local jurisdictional boundaries

transit: transportation by a conveyance that provides regular and continuing general or special transportation to the public

transit-dependent person: someone who must use public transportation for their travel

DRCOG's roles in human service transportation

DRCOG has assumed a greater role in human service transportation coordination and administration since adoption of the previous Coordinated Transit Plan. DRCOG continues to prepare the Coordinated Transit Plan. The DRCOG Board set aside $4 million in the 2020-2023 Transportation Improvement Program for human service transportation. DRCOG is now the Designated Recipient for FTA Section 5310 funds in the Denver-Aurora Urbanized Area. In these new roles, DRCOG selects and administers transportation projects.

Older Americans Act

Area agencies on aging were established under the Older Americans Act to respond to the needs of adults 60 and older. The DRCOG Area Agency on Aging covers the Denver region except for Boulder and southwest Weld counties, which each have county-run area agencies on aging. The Boulder County Area Agency on Aging is a division of the Boulder County Community Services Department. The Weld County Area Agency on Aging is the county's Department of Human Services. All three area agencies on aging administer Title III Federal Older Americans Act and Older Coloradans Act state funding.

History of human services transportation

In the summer of 2018, the DRCOG Board of Directors adopted a set-aside for $4 million over four years for human services transportation as part of the fiscal years 2020-2023 Transportation Improvement Program Policy. The new set-aside directly addresses the Board-adopted 2020-2023 TIP focus area of improving mobility infrastructure and services for vulnerable populations.

The Human Services Transportation Set-Aside provides a dedicated funding source to improve mobility for vulnerable populations, including older adults, low-income individuals, veterans and individuals with disabilities. Activities include addressing gaps such as underfunded and underserved trips and vehicle expansion. The set-aside complements FTA 5310 and Older Americans Act/Older Coloradans Act dollars by funding needs that are underfunded or underserved by those sources. DRCOG intends the set-aside to coordinate with complementary funding sources to reduce duplication, provide more needed trips and maximize the effectiveness of all three funding sources through an integrated and coordinated approach to funding human service transportation.

FTA 5310 in the Denver region

The FTA 5310 program funds projects to increase the mobility of older adults and individuals with disabilities. Eligible projects include both capital investment and operating assistance for service that goes beyond minimum Americans with Disabilities Act complementary paratransit service requirements. The Federal Transit Administration allocates just under $2 million for the Denver-Aurora Urbanized Area, and Colorado's governor recently designated DRCOG as recipient of the funds. As required by the designation, DRCOG staff developed an FTA 5310 Program Management Plan. In its new role, DRCOG began administering projects in January 2021. Projects outside of the Denver-Aurora Urbanized Area continue to be administered by CDOT.

Coordination

In 2013, the Denver Regional Mobility and Access Council completed the Transportation Coordination Systems study to improve coordination of human service transportation programs and service delivery in the Denver region. This study examined ways to coordinate trip requests, booking and scheduling to help people with mobility challenges better navigate their communities. The recommended system comprises three independent mutually supportive components. The first component focuses on the administrative and financial aspects of the coordination system. The second focuses on shared regional resources for coordinating transportation services. The third component focuses on information technology and interagency communication protocols related to scheduling and booking trips in a coordinated manner. DRCOG has focused on implementing the first and third components while the Denver Regional Mobility and Access Council has focused on implementing the second component.

Since this study was finalized, DRCOG staff started strategizing regarding how DRCOG could implement the two components by leveraging and coordinating multiple funding sources to support human service transportation and providing technology that helps agencies with different operating software more easily communicate with each other for the purposes of sharing and exchanging trips. DRCOG was recently designated a recipient of FTA 5310 and the DRCOG Board of Directors set aside $4 million from the Transportation Improvement Program for human service transportation. Staff anticipate coordinating the timing of calls for projects so FTA 5310 funds and Older Americans Act funding can be awarded simultaneously.
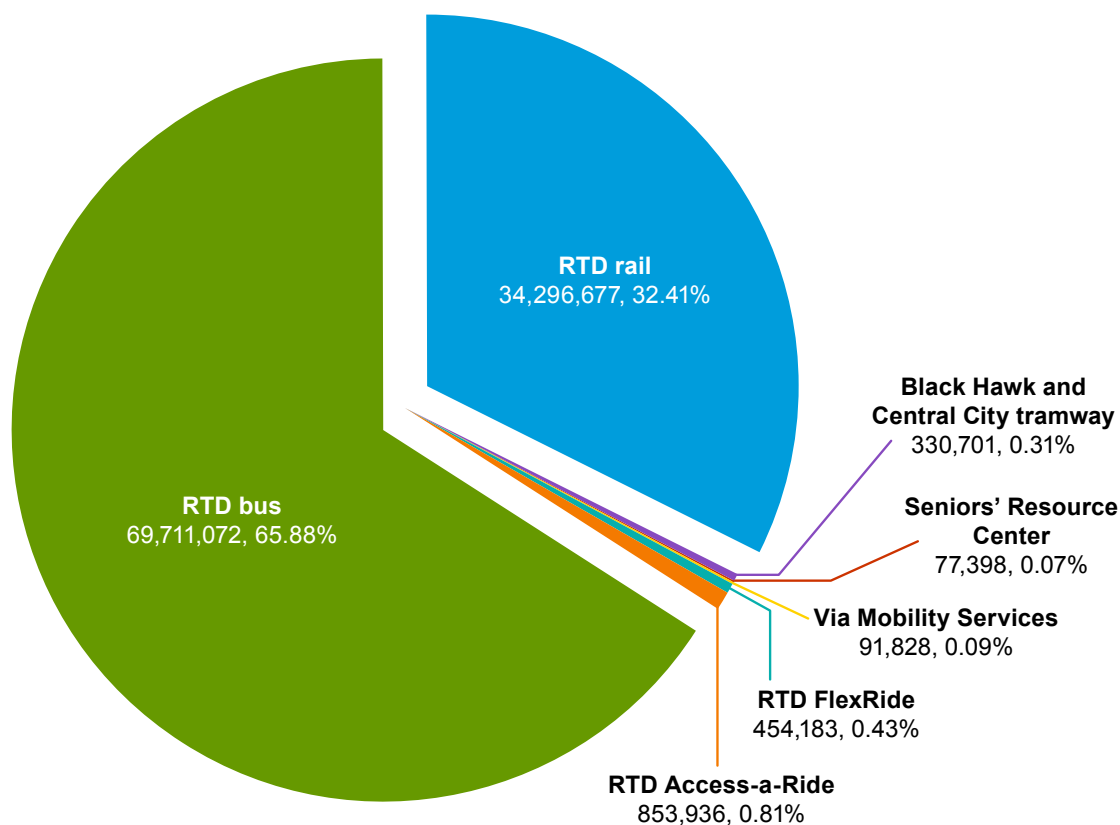
Through the Ride Alliance project, DRCOG has provided leadership by developing information technology and interagency communication protocols related to scheduling and booking trips in a coordinated manner. Ride Alliance created a trip exchange through which transportation providers can exchange rides. The exchange reduced the complexity of and time required for transportation coordination, despite transportation providers using various technology to schedule trips. The Ride Alliance trip exchange pilot began in late 2020.

Assessment of available transit services

This section profiles existing transit services and facilities in the Denver region and their ridership. The region's transit services include general public transportation, paratransit and human service transportation. The largest operator of general public transportation in the Denver region is RTD. RTD operates general public transportation and paratransit. Human service transportation is provided by several nonprofit, for-profit and volunteer organizations. Figure 3 shows the total annual boardings for RTD, Black Hawk and Central City Tramway, and the region's two largest human service transportation providers (Via Mobility Services and Seniors' Resource Center). In July 2020,

Seniors' Resource Center discontinued transportation services and Via Mobility expanded its footprint to include services previously provided by Seniors' Resource Center. In a typical year, RTD comprises more than 98% of the total boardings in the Denver region. RTD's systemwide ridership in 2019 was just over 105 million. Due to the COVID-19 pandemic, transit trips have significantly decreased in 2020 (about 60%). Many human service providers started delivering food and medicine to clients instead of providing rides for clients to grocery stores and pharmacies.

Figure 2: Annual ridership: RTD, Black Hawk and Central City Tramway, Via Mobility Services and Seniors' Resource Center

RTD rail
34,296,677, 32.41%

RTD bus
69,711,072, 65.88%

Black Hawk and Central City tramway
330,701, 0.31%

Seniors' Resource Center
77,398, 0.07%

Via Mobility Services
91,828, 0.09%

RTD FlexRide
454,183, 0.43%

RTD Access-a-Ride
853,936, 0.81%

RTD service boundaries

RTD's boundary spans a 2,340-square-mile area in eight counties. The large district covers rural, suburban and urban areas and includes diverse terrain such as mountains and plains, as well as many parcels of open space. RTD's governing body is a 15-member elected Board of Directors, with each director elected by district for a four-year term. Each director district currently contains approximately 180,000 residents based on the 2010 census. The districts are redrawn every 10 years based on updated census data.

Bus service

RTD fixed-route bus

RTD has over 140 local, airport and regional fixed bus routes serving approximately 10,000 bus stops and more than 80 Park-n-Rides with 30,000 parking spaces. In 2019, there were almost 70 million boardings on RTD's fixed-route bus system, including the Free MallRide and Free MetroRide.

RTD bus rapid transit

The term bus rapid transit refers to a variety of operational service and technology characteristics that improve bus service. RTD currently operates bus service in several corridors that include bus rapid transit features. Examples include the 16th Street Free MallRide in exclusive right of way bus routes in designated lanes on Broadway and Lincoln Street with signal priority and, as of January 2016, Flatiron Flyer bus rapid transit service between Boulder and Denver in managed lanes along U.S. 36 and I-25. In 2019, the Flatiron Flyer provided over 3 million trips, and is included in the fixed route bus total above.

Bus rapid transit on State Highway 119 between Boulder and Longmont and East Colfax Avenue from Lincoln Street to I-225 were added to the fiscally constrained component of the 2040 Metro Vision Regional Transportation Plan and are carried over to the 2050 Metro Vision Regional Transportation Plan. Both projects have expanded corridors in the 2050 RTP: State Highway 119 is extended to I-25 from downtown Boulder and an extension was added to East Colfax Avenue that goes from I-225 to E 470.

RTD recently conducted a study to develop a list of candidate corridors for future bus rapid transit service. The Regional Bus Rapid Transit Feasibility Study developed and followed a data-driven evaluation process that combined developing an integrated network of bus rapid transit routes for the region with the specific objective of identifying opportunities for pursuing federal funds. Many of the corridors identified in RTD's study are included in the 2050 fiscally constrained component of the 2050 Metro Vision Regional Transportation Plan:

- Colorado Boulevard from A Line to I-25.

- Alameda from Wadsworth Boulevard to R Line.

- Broadway/Lincoln Street from Colfax Avenue to Highlands Ranch Parkway.

- 38th/Park Avenue from Wadsworth Boulevard to Colfax Avenue.

- Speer Boulevard/Leetsdale Drive/Parker Road from Colfax Avenue to I-225.

- Federal Boulevard from 120th Avenue to Santa Fe Avenue/Dartmouth Drive.

- North I-25 from Union Station to State Highway 119.

The study also identified corridors that are more likely to recieve local, state and regional funding than federal based on current guidelines. Many corridors are also included in the fiscally constrained component of the 2050 Metro Vision Regional Transportation Plan in the "Corridor Transit Planning Projects and Programs" category.

RTD FlexRide

RTD's FlexRide, formerly Call-n-Ride, offers demand-response service available to the general public within a defined service area. FlexRide generally operates in more suburban settings. Customers call to reserve a trip within each FlexRide service boundary. FlexRide provided just under a half million boardings in 2019.

Other fixed route transit services

Black Hawk and Central City Tramway

Black Hawk and Central City Tramway connects major destinations in Black Hawk and Central City seven days a week. The free service is supported by Black Hawk casinos and Central City. The service offers approximately a third of a million boardings annually. Service was suspended between March 2020 and December 2020 due to the COVID-19 pandemic.

Boulder Community Transit Network

The Boulder Community Transit Network is a network of bus routes throughout Boulder and connecting to surrounding cities and RTD's regional routes. The network has 10 bus routes: HOP, SKIP, JUMP, LONG JUMP, BOUND, STAMPEDE, DASH, BOLT, CLIMB and H2C (Hop to Chautauqua, summer only). All routes are part of the RTD system and are operated by RTD except HOP and H2C, which are operated by Via Mobility Services.

Clear Creek Prospector

The Clear Creek Prospector is a deviated fixed-route service in Clear Creek County serving Georgetown and Idaho Springs with three distinct routes. Deviated fixed-route services deviate from their fixed routes to serve individuals with disabilities, when requested. Funded from FTA 5311 and local dollars, service is offered at no fare for users.

Englewood trolley

Englewood's free trolley transports riders to 19 stops connecting CityCenter Englewood, businesses in downtown Englewood and the medical facilities in and near Craig Hospital and Swedish Medical Center. Financial support for the shuttle is provided by RTD and the City of Englewood.

University of Colorado at Boulder (Buff Bus)

The Buff Bus is a convenient and easy-to-use on-campus shuttle for students, including to and from Williams Village when classes are in session.

Lone Tree Link

Since 2014, the Lone Tree Link provides free shuttle service connecting major employment centers along Park Meadows Drive with restaurants, retail and the RTD system. Lone Tree Link is funded through a public-private partnership of employers and local government.

Intercity and regional bus and rail

Regional and intercity transit services include Amtrak, Greyhound, CDOT's Bustang and other intercity bus service. Intercity and regional bus and rail link the Denver region to the rest of the state and beyond. Denver Union Station is a hub for Amtrak, Greyhound and Bustang.

FLEX Express

FLEX Express is a regional transit service connecting Fort Collins, Loveland, Longmont and Boulder. It is collaboratively funded by local governments including Boulder County, City of Boulder, City of Fort Collins, City of Longmont, City of Loveland, Town of Berthoud and two universities — Colorado State University and University of Colorado Boulder.

The Climb

A fixed route serving the mountain communities of western Boulder County, The Climb is a partnership between Boulder County and Via Mobility Services. It operates regularly scheduled bus service in select mountain communities and provides sustainable subsidized transportation services.

Ride Free Lafayette

Ride Free Lafayette is a free on-demand bus service for people in Lafayette and the Kestrel Community. It is funded using Boulder County Local Sales Tax and DRCOG Human Services FASTER Set-Aside funds.

RTD rail

Passengers made more than 34 million boardings on RTD's light and commuter rail system in 2019, a total that has increased considerably as new lines and extensions have opened in the past few years, including: the A Line to Denver International Airport, Southeast Extension to Ridgegate, R Line in Aurora and G Line to Arvada. The N Line to Thornton opened in September 2020.

Figure 4 shows RTD's existing (rail and bus) routes that are part of FasTracks along with the rest of the rapid transit system.

## Intermodal facilities

Denver Union Station

At the heart of RTD's bus and rail network is Denver Union Station. Denver Union Station is a major intermodal passenger terminal connecting commuter rail, light rail, Amtrak, RTD buses, intercity buses, cars, taxis, trucks, bicyclists and pedestrians.

Other major facilities

Several Park-n-Ride lots and transit stations exist for people to access transit via car, walking, or bicycling. Examples of stations serving as key transfer points include the following:

- Civic Center Station.

- Boulder Transit Center and Boulder Junction.

- Peoria Station.

- I-25 and Broadway.

- An additional 70-plus Park-n-Ride lots across the region.

Figure 4: FasTracks map
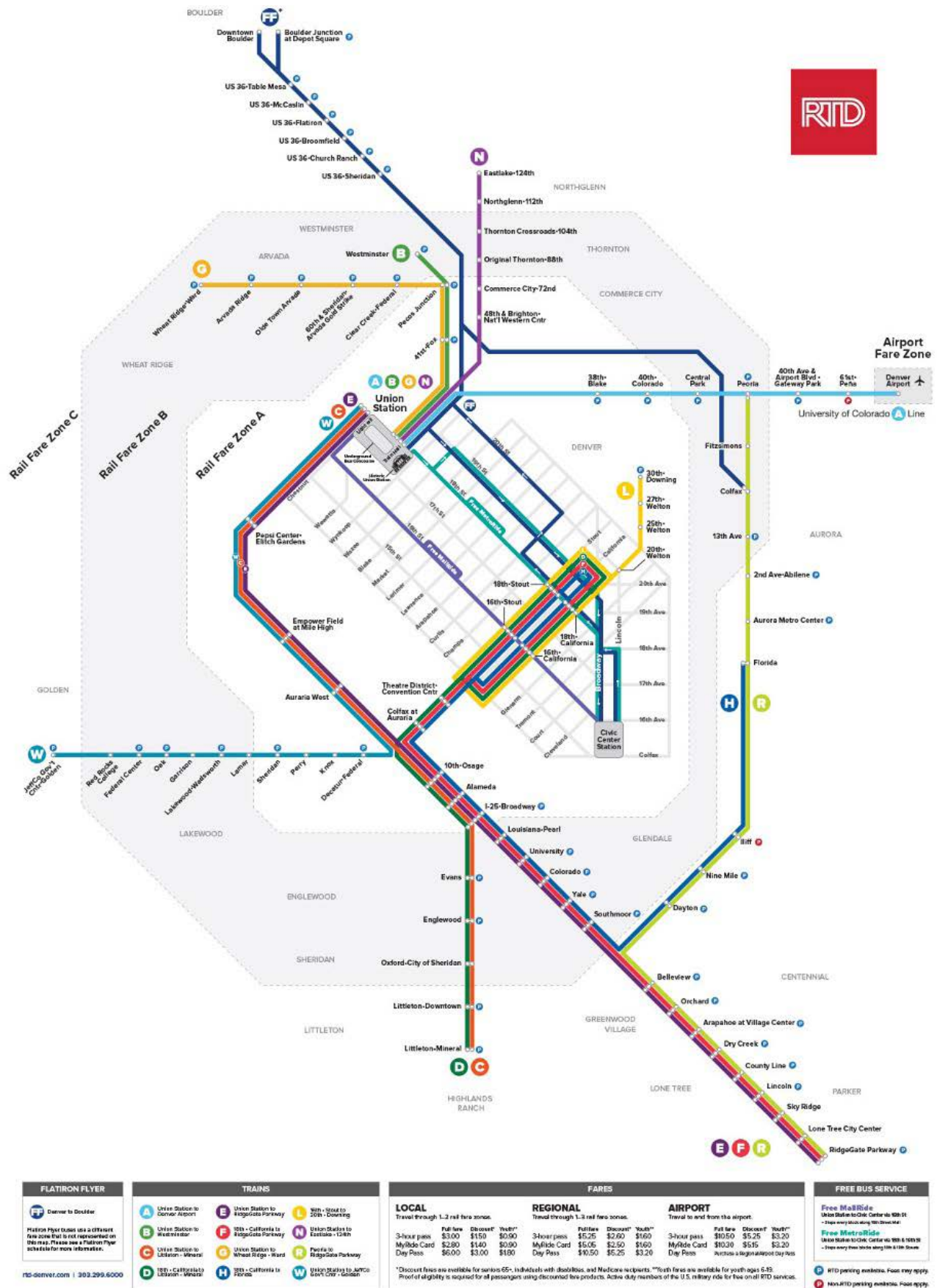
Paratransit, human service transportation and other services

RTD paratransit (Access-a-Ride)

Under the Americans with Disabilities Act, transit agencies must provide complementary transportation services for people with disabilities who are unable to use fixed-route bus or rail services. ADA complementary paratransit service must be provided within three quarters of a mile of a bus route or rail station, at the same hours and days, for not greater than twice the regular fixed-route fare. RTD's provides paratransit through Access-a-Ride. Easter Seals is contracted by RTD to evaluate potential riders for ADA eligibility. The evaluation is conducted at a central facility. There have been initial discussions to conduct the evaluation at a facility closer to Boulder to make it more convenient for people who live in the northwest part of the Denver region. Access-a-Ride provided almost 900,000 boardings in 2019.

Other human service transportation

Several agencies provide human service transportation throughout the region. Many offer services that go beyond the requirements of ADA, such as door-through-door services and in areas not covered by paratransit. Human service transportation includes specialized services for older adults and individuals with disabilities. It also includes services for individuals with low incomes in areas where fixed-route services are limited or nonexistent. Major providers of human service transportation in the region include Via Mobility Services and Douglas County (through contracts with multiple providers).

Via Mobility Services is a nonprofit agency that offers a variety of transportation services. Its portfolio includes demand-responsive and deviated fixed-route services.

Deviated fixed-route services deviate from their fixed routes to serve individuals with disabilities, when requested. Prior to July 2020, Via Mobility Services operated in 19 communities in five counties, including Boulder and Boulder County, Brighton, rural Adams and Arapahoe counties (Watkins, Strasburg, Bennett, Byers and Deer Trail) and other communities. In July 2020, when Seniors' Resource Center ceased providing transportation operations, Via Mobility Services took over the services previously provided by Seniors' Resource. The expansion added Adams, Arapahoe, Denver and Jefferson Counties to Via Mobility Services' service area. Via Mobility Services also conducts travel training, which teaches people to travel independently on general public transportation. Via Mobility Services also provides transportation services in Larimer County (Estes Park) and Weld County (Firestone).

Douglas County contracts with a wide range of providers in a brokerage model for transportation for older adults, individuals with disabilities and low-income individuals. Contracted providers include the following:

- Auburn Ridge.

- Castle Rock Senior Center.

- Continuum of Colorado.

- Lyft.

- Metro Taxi.

- Aging Resources of Douglas County.

- Parker Senior Center.

- To the Rescue.

Boulder County contracts with a wide range of providers for transportation for older adults, individuals with disabilities and low-income individuals. Contracted providers include the following:

- Colorado CarShare

- Community Cycles

- Cultivate

- Faith in Action

- Imagine! Colorado

- Lyft

- Uber

- Via Mobility Services

- zTrip

Other agencies that receive or recently received federal funding to provide human service transportation include but are not limited to

- City and County of Broomfield (Broomfield Easy Ride).

- Lakewood Rides.

- Developmental Pathways.

- Developmental Disabilities Center (Imagine!).

- Easter Seals Colorado.

The following agencies provide human service transportation and are members of the Denver Regional Mobility and Access Council:

- Amazing Wheels.

- Boulder County Cultivate.

- Colorado Cab Company.

- Clear Creek County Transit.

- A-Lift.

- Littleton Omnibus and Shopping Cart.

- Lakewood Rides.

- A Little Help.

- Metro Taxi.

The list of providers currently receiving or potentially eligible to receive federal funding to provide human service transportation is always changing because federal eligibility requirements change and providers evolve over time. The Colorado Association of Transit Agencies maintains a database of transit agencies in the Denver region and across the state. The Denver Regional Mobility and Access Council maintains Transit Options, a web-based interactive tool to help connect clients with service providers. The Denver Regional Mobility and Access Council also publishes the Getting There Guide which lists transportation providers and resources.

Volunteer drivers

A significant portion of trips for the population dependent on transit are provided by volunteer drivers. Volunteer drivers include friends, neighbors and relatives providing transportation in informal arrangements (such as taking a home-bound neighbor to a medical appointment). It also includes formalized volunteer driver programs. For example, Via Mobility Services and Douglas County coordinate volunteer driver programs with their other services. They often reimburse volunteer driver mileage with grant funding through programs like FTA 5310.

Other transit services

Gilpin Connect

Gilpin Connect, funded by gaming revenues, is a demand-response service for health care and other destinations outside of Gilpin County. Service was suspended due to the COVID-19 pandemic.

Taxi cabs

Taxi services play a significant role in the provision of transit in the Denver region, including RTD's Access-a-Cab program and job access taxi voucher programs. Access-a-Cab is offered as an alternative to eligible Access-a-Ride customers. Access-a-Cab does not meet the requirements for complementary paratransit service under the ADA and does not replace the Access-a-Ride program. However, Access-a-Cab provides a more flexible schedule and is often less costly to RTD and the user. Douglas County and the Town of Castle Rock offer employment access trips using a taxi voucher program as a way for people who live or work where RTD service is limited or unavailable to get to and from work. In addition, Boulder County and the Town of Lyons offer trips using a taxi voucher program. zTrip taxi vouchers are available to Lyons residents for travel between Lyons and Boulder or Lyons and Longmont.

Transportation network companies

Transportation network companies like Uber and Lyft supply prearranged transportation services for a fee using an online-enabled application or platform to connect drivers using their personal vehicles with passengers. RTD actively pursues collaboration efforts that integrate ride-hailing mobility services with traditional public transportation. Since January 2019, some users in the Denver have been able to choose public transportation as an option through the Uber app.

Boulder County Mobility for All contracts with GoGoGrandparent, Uber and Lyft to provide transportation to older adults, individual with disabilities and low-income individuals in geographic areas with limited or no transit access. Starting in 2017, it has provided travel training instruction offered to those who need assistance to overcome technology barriers, increase their mobility, and travel independently using ride-hailing services like Uber and Lyft.

DRCOG Area Agency on Aging voucher program

DRCOG's Area Agency on Aging launched a transportation voucher program for older adults in May 2019 to expand consumer choice, reduce the lead time needed to schedule rides and expand access to personal rides. Using a voucher model, DRCOG schedules rides for older adults in the region through private ride-hailing companies. DRCOG brought on Uber as a partner under the program in the fall of 2020.

DRCOG's Aging and Disability Resource Center administers the program and its staff can schedule rides for consumers at least three days in advance. In addition, the Aging and Disability Resource Center provides free RTD tickets to older adults who can take public transit and Access-a-Ride tickets to eligible older adults. From May 2019 through October 2020, DRCOG has scheduled over 9,000 rides with HopSkipDrive and provided more than 11,000 free RTD tickets to older adults. With an emphasis on expanding personal trips that improve quality of life among older adults, such as attending religious services, visiting friends or getting haircuts, about 35% of the total trips scheduled through HopSkipDrive are personal trips, with the rest including medical, dialysis, meal sites and grocery trips. As DRCOG rolls out a new partnership with Uber, consumers will have even greater control over scheduling rides, because older adults will be able to schedule their own trips with using personal Uber accounts under the voucher program.

Other operators

Several private operators offer transportation for recreational travelers to the mountains. Many ski resorts have shuttle services for their employees. Additionally, many private transportation operators provide rides to ski areas. Multiple providers offer bus service from the metro area to casinos in Black Hawk and Central City, including scheduled daily trips to the gaming communities. Super Shuttle Express Ride Denver and other airport shuttles provide service to and from Denver International Airport and mountain resorts. Shuttles also provide transportation to trailheads. Boulder County began the Hessie Trailhead shuttle program in the summer of 2012 to ameliorate parking demand and congested traffic on the way to the trailhead.

In 2020, Boulder County launched a free shuttle from Boulder to Eldorado Canyon State Park with service every 20 minutes on Saturdays, Sundays and holidays during the summer.

Funding and coordination

Funding for transit is complex. The U.S. Department of Health and Human Services conducted two inventories to ascertain how many federal programs provide funding that can be used for public transportation, the most recent of which found 130 programs across 14 federal departments or independent agencies (2019). This section provides an overview of local, state and federal transit funding sources and how they are used in the Denver region.

Table 1 shows the major federal and state transit funding programs and the typical annual allocation from each program for the Denver region. Each funding program is described in more detail later in this chapter. The region receives about $93 million annually through federal allocations. Transit agencies and providers in the region are eligible to compete for a portion of another approximately $29 million annually in federal and state funds that are competitively awarded statewide. The largest single federal transit funding formula program is the FTA 5307 program, which funds capital and operating assistance in urbanized areas. RTD directly receives FTA 5307 funds as an annual formula allocation.

Broadly, transit funds can be categorized by:

- How the funds are distributed: Federal and state transit funding is provided either directly through a specific allocation, such as through formula funding programs (FTA 5307, FTA 5310, etc.), or awarded competitively through a merit-based program, such as CDOT's Funding Advancements for Surface Transportation and Economic Recovery (FASTER) Act of 2009 transit program. Formula funding programs can also be competitive. For example, the Denver region has a history of awarding FTA 5310 funds competitively. Conversely, competitive funds can be awarded by formula – for example, RTD directly receives $3 million annually from CDOT's FASTER transit program and is eligible to compete for additional FASTER transit funds.

- Where or how the funds can be spent: All transit funds have some restrictions on eligible activities and many come with geographic restrictions. For example, the Denver region's FTA 5310 large urban funds can be spent only on specific eligible activities in the Denver-Aurora urbanized area.

- Who controls the allocation of funds to specific projects or services: RTD directly receives FTA 5307 funds. It also controls FTA 5307 funds for the small urban areas in the Denver region. In contrast, DRCOG administers FTA 5310 large urban funds for the Denver-Aurora urbanized area, CDOT administers FTA 5310 funding outside of the Denver-Aurora Urbanized. And while RTD receives FTA 5307 funds directly, CDOT competitively awards FTA 5311 rural and FTA 5310 small urban and rural funds statewide.

Table 1 shows major transit funding sources and estimated amounts for the Denver region. It includes grants, farebox revenue and RTD's sales and use tax.

NOTES: [1] RTD and Bustang each receive a $3 million set aside from FASTER Statewide and Regional pool annually. These set asides have been subtracted from the total.

Table 1: Estimated Denver region annual transit funding amounts (rounded millions)

Annual Federal Transit Administration formula funding and Funding Advancements for Surface Transportation and Economic Recovery Act of 2019 set-asides for the Denver region (based on 2020 allocations)	
Program	**Estimated annual allocation (in millions)**
FTA 5307 for Denver-Aurora Urbanized Area	$59.0
FTA 5307 for Boulder Urbanized Area	$4.1
FTA 5307 for Lafayette-Louisville-Erie Urbanized Area	$1.2
FTA 5307 for Longmont Urbanized Area	$2.7
FTA 5310 for Denver-Aurora Urbanized Area	$1.9
FTA 5337 High-Intensity Fixed Guideway State of Good Repair for Denver-Aurora Urbanized Area	$14.6
FTA 5337 High-Intensity Motorbus State of Good Repair for Denver-Aurora Urbanized Area	$1.0
FTA 5339 for Denver- Aurora Urbanized Area	$5.4
FASTER set-aside for RTD	$3.0
Total	**$92.9**

Federal Transit Administration and Funding Advancements for Surface Transportation and Economic Recovery Act of 2019 funding controlled by CDOT (projects in Denver region may be eligible to compete)	
Program	**Estimated annual allocation (in millions)**
FTA 5310 for urbanized areas under 50,000 population	$0.7
FTA 5310 for urbanized areas 50,000 to 199,999 population	$1.2
FTA 5311 for the entire state	$13.3
FTA 5339 for urbanized areas under 50,000 population	$3.5
FTA 5339 for urbanized areas 50,000 to 199,999 population	$1.5
FASTER statewide and regional pool [1]	$4.0
FASTER local pool	$5.0
Total	**$29.2**

RTD revenue and finances

The COVID-19 pandemic and resulting economic downturn compounded an already challenging financial situation for RTD. RTD was affected by two factors that significantly limited revenue: a significant drop in farebox proceeds from a dramatic decline in ridership and reduced income from sales and use taxes. A clear picture of RTD's financial situation emerges when expenditures are considered in conjunction with current and anticipated future revenue. In addition, while there are financial challenges associated with both RTD's base system and FasTracks, the nature of the challenges is different and should be considered separately.

The base system is projected to run a deficit in three of the five years between 2020 and 2025. While caused primarily by the reduction in revenue stemming from the COVID-19 pandemic, debt payments also contributed to the deficit. To balance its budget, RTD plans to tap into the Board-Appropriated Fund, Capital Replacement Fund and reserves.

The FasTracks system is projected to run a deficit in three of six years between 2020 and 2025. While partly caused by the reduction in revenue stemming from the COVID-19 pandemic, mandatory debt service and lease payments are significant with an annual total increasing each year from $174.5 million in 2020 to $232.6 million in 2025. Operating costs are also significant, totaling around $200 million annually. To balance its budget, RTD plans to tap into reserves and the FasTracks Internal Savings Account. The following tables show RTD forecast future revenues and expenses.

Figure 5 illustrates RTD's revenue sources.

## Table 2: Forecast RTD base system revenues (rounded millions)

	2020	2021	2022	2023	2024	2025
Farebox	$65.7	$61.0	$135.4	$135.4	$136.4	$147.1
Sales and use tax	$300.6	$393.0	$447.0	$466.4	$485.5	$505.3
Grant	$297.0	$118.5	$101.6	$104.5	$110.2	$110.0
Other income (including operating revenue and investment income)	$8.6	$ 7.1	$ 7.8	$ 8.0	$ 8.2	$ 8.4
Total revenue	$671.9	$579.6	$690.8	$714.3	$740.3	$770.9
Operating expenses	$(543.9)	$(474.4)	$(565.7)	$(579.7)	$(596.3)	$(634.8)
Interest expenses	$(16.8)	$(14.3)	(11.3)	$(9.2)	$(6.5)	$(4.2)
Transfer to other accounts including FasTracks	$(81.5)	$ (125)	$ (4.2)	$ (6.0)	$ (9.0)	$ (9.0)
Capital and fleet expenditures including carryover	$(39.3)	$(17.1)	$(80.7)	$(69.3)	$(54.6)	$(84.8)
Financing proceeds	$0	$0	$33.4	$0	$0	$0
Debt principal payments	$(65.8)	$(63.9)	$(60.7)	$(49.5)	$(51.4)	$(43.8)
Fund balance	$(75.4)	$(115.1)	$1.7	$.6	$22.5	$(5.7)

RTD 2020-2025 Mid Term Financial Plan and Series of 2020 for the adoption of the 2021 Budget

Table 3: Forecast RTD FasTracks system revenues and expenditures (rounded millions)

	2020	2021	2022	2023	2024	2025
Farebox	$28.2	$27.5	$56.6	$59.1	$61.6	$68.5
Sales and use tax	$200.4	$262.2	$298.0	$310.9	$323.7	$336.9
Grant	$255.7	$66.8	$5.1	$5.2	$5.3	$20.8
Other income	$ 13.6	$ 9.6	$ 14.7	$ 14.7	$ 15.2	$ 14.3
Total revenue	$497.8	$365.9	$374.4	$389.8	$405.8	$440.4
Operating expenses	($189.2)	($154.9)	($172.1)	($178.9)	($199.5)	($228.1)
Capital expenditures	($59.2)	$0	($6.9)	($6.2)	($6.7)	($6.9)
Debt service and lease payments	($174.5)	($185.2)	($186.6)	($220.0)	($221.4)	($232.6)
Change in net assets/ income	$74.9	$25.8	$8.9	($15.3)	($21.8)	($27.1)

Figure 5: RTD revenue sources
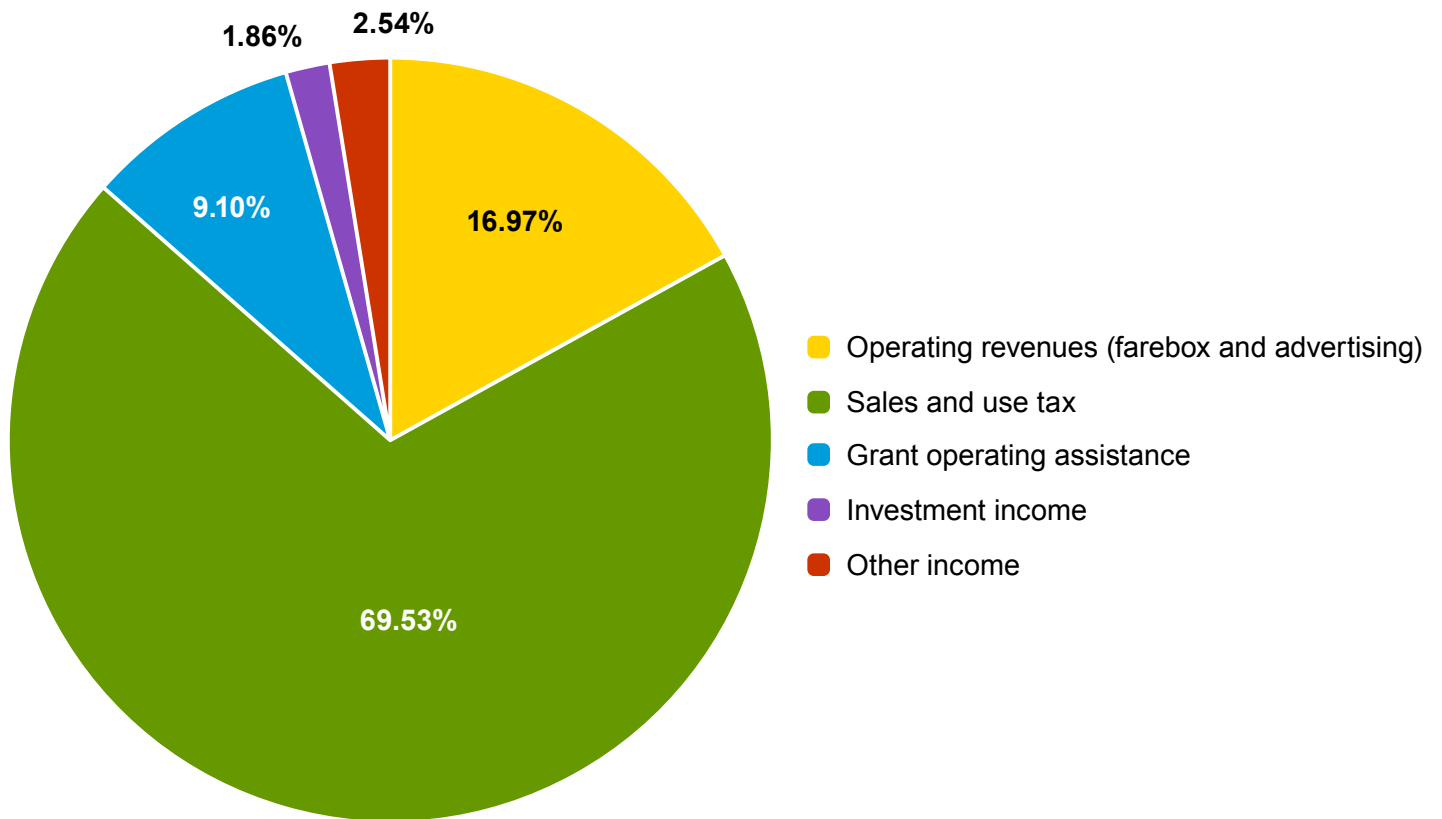
Source: National Transit Database – Denver Regional Transportation District
Comprehensive Annual Financial Report: Fiscal Year Ending Dec. 31, 2019 and 2018

Human service transportation

Human service transportation includes a broad range of service options designed to meet the needs of the transportation disadvantaged, including individuals with disabilities, low-income individuals and older adults. Individuals who use human service transportation have various needs and require a variety of transportation services to ensure their quality of life. Typically, human service transportation services are separate from those available to the general public and are often available only to qualified individuals based on age, disability and income. Key funding sources are described below.

Local entities

Municipalities, counties, nonprofits and other local entities typically contribute toward the cost of providing human service transportation. Many state and federal grants require a local match. Local project sponsors can provide matching funds or may choose to contribute resources above and beyond grant requirements. Some local services are provided solely via local funds, forgoing state and federal grants. Fares and donations also make up a significant part of local funding.

FTA Section 5310 (Enhanced Mobility for Seniors and Individuals with Disabilities)

The FTA 5310 program funds transportation for older adults and individuals with disabilities. For the Denver-Aurora Urbanized Area, DRCOG makes project funding decisions through a competitive funding process based on the guidelines set in the DRCOG Section 5310 Program Management Plan. FTA has the following specific project-type criteria for allocating 5310 funds:

At least 55% of program funds must be used on capital or projects that were traditionally funded under the 5310 program before the incorporation of the New Freedom program under the Moving Ahead for Progress in the 21st Century Act. Examples include:

- Buses and vans; wheelchair lifts, ramps and securement devices; transit-related information technology systems including scheduling, routing or one-call systems; and mobility management programs.

- Acquisition of transportation services under a contract, lease or other arrangement. Both capital and operating costs associated with contracted service are eligible capital expenses. User-side subsidies are considered one form of an eligible arrangement.

The remaining 45% is for projects formerly allowed under the 5317 New Freedom program. Eligible under this category are capital and operating expenses for new public transportation services and alternatives beyond those required by the ADA to assist individuals with disabilities and older adults. Examples include:

- Travel training; volunteer driver programs; building an accessible path to a bus stop including curb-cuts, sidewalks, accessible pedestrian signals or other accessible features; improving signage or way-finding technology; incremental cost of providing same day service or door-to-door service; purchasing vehicles to support a new accessible taxi, ride-sharing or vanpooling programs.

- Mobility management is an allowable expense in both categories.

Area agencies on aging (Older Americans Act funding)

Area agencies on aging were established under the Older Americans Act of 1965 to respond to the needs of adults 60 and older. The DRCOG Area Agency on Aging covers the Denver region except for Boulder and southwest Weld counties, which each have county-run area agencies on aging. The Boulder County Area Agency on Aging is a division of the Boulder County Community Services Department. The Weld County Area Agency on Aging is the county's Department of Human Services.

All three area agencies on aging administer Title III Federal Older Americans Act and Older Coloradans Act state funding. A significant portion is available for transportation for adults 60 and older. The DRCOG Area Agency on Aging contracts with counties and transportation agencies in the Denver region for transportation. The Boulder County and Weld County area agencies on aging manage Older Americans Act transportation funding for their counties.

Human Services Transportation Set-Aside

In the summer of 2018, the DRCOG Board of Directors adopted a set-aside for $4 million over four years for human services transportation as part of the fiscal years 2020-2023 Transportation Improvement Program Policy. The Human Services Transportation Set-Aside provides a dedicated funding source to improve mobility for vulnerable populations, including older adults, low-income individuals, veterans and individuals with disabilities. Activities include addressing identified gaps such as underfunded and underserved trips and vehicle expansion. The set-aside complements FTA 5310 and Older Americans Act/Older Coloradans Act dollars by funding identified needs that are underfunded or underserved by those sources. DRCOG intends the set-aside to coordinate with complementary funding sources to reduce duplication, provide more needed trips and maximize the effectiveness of all three funding sources through an integrated and coordinated approach to funding human service transportation.

Medicaid: Non-Emergent (Emergency) Medical Transportation

Non-Emergent (Emergency) Medical Transportation is for Medicaid beneficiaries with no other means of transportation to and from Medicaid medical appointments. In addition to directly paying for transportation, the program may also reimburse the costs of gas, bus tokens and bus passes. The Colorado Department of Health Care Policy and Financing contracts with IntelliRide as the transportation broker for nonemergency medical and non-medical transportation services.

RTD LiVE program

Created on July 29, 2019, RTD's LiVE income-based fare discount program subsidizes fares to make transit more accessible for low-income riders. LiVe provides a 40% discount to qualifying riders whose household incomes are at or below 185% of the federal poverty level, who are between 20 and 64 years old and who live within the Regional Transportation District. Enrollment in the program requires an application. LiVE program income threshold amounts are updated each April, based on the most recent guidelines.
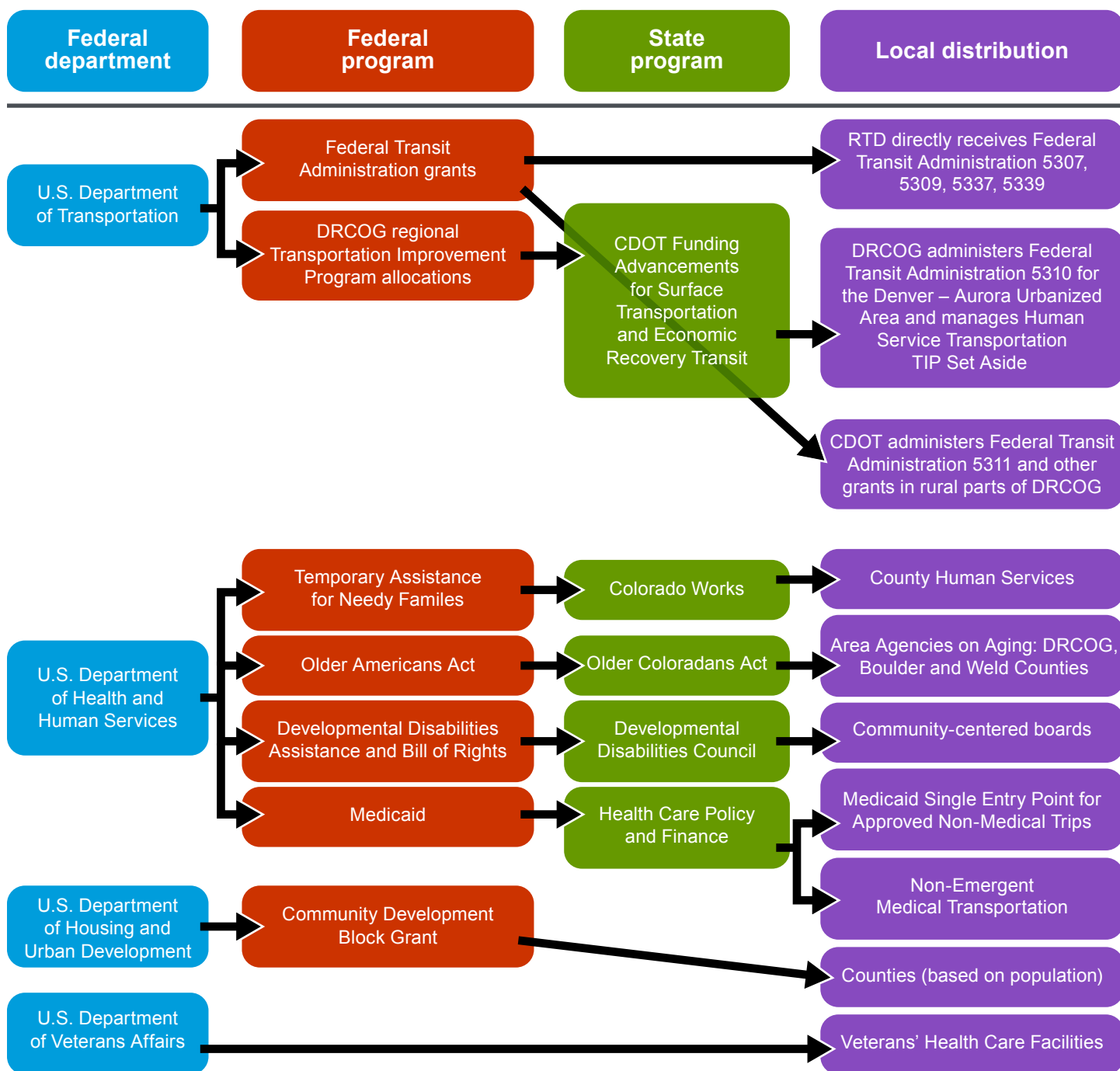
Braiding funding sources for human services transportation

Figure 6 paints a broad — but simplified — picture of funding sources for transit in the Denver region. It shows key federal funding sources, where they originate

and how they are distributed from the federal to the local level. However, it is not an exhaustive illustration.

For example, many local sources of funding are not included, such as RTD's sales and use tax revenue.

Figure 6: Schematic of federal funding sources, distributors and recipients

Federal department	Federal program	State program	Local distribution
U.S. Department of Transportation	Federal Transit Administration grants		RTD directly receives Federal Transit Administration 5307, 5309, 5337, 5339
	DRCOG regional Transportation Improvement Program allocations	CDOT Funding Advancements for Surface Transportation and Economic Recovery Transit	DRCOG administers Federal Transit Administration 5310 for the Denver – Aurora Urbanized Area and manages Human Service Transportation TIP Set Aside
			CDOT administers Federal Transit Administration 5311 and other grants in rural parts of DRCOG
U.S. Department of Health and Human Services	Temporary Assistance for Needy Familes	Colorado Works	County Human Services
	Older Americans Act	Older Coloradans Act	Area Agencies on Aging: DRCOG, Boulder and Weld Counties
	Developmental Disabilities Assistance and Bill of Rights	Developmental Disabilities Council	Community-centered boards
	Medicaid	Health Care Policy and Finance	Medicaid Single Entry Point for Approved Non-Medical Trips
			Non-Emergent Medical Transportation
U.S. Department of Housing and Urban Development	Community Development Block Grant		Counties (based on population)
U.S. Department of Veterans Affairs			Veterans' Health Care Facilities

In many circumstances, the FTA allows non-U.S. Department of Transportation federal funds to be used toward the required local match for FTA grants. Of significance to the Denver region is the ability to use Older Americans Act funds as local match for FTA funds. In the October 16, 2012, Federal Register in the 5310 Section under the subheading of "Local Match" it states the following:

> "Funds provided under other Federal programs (other than those of the Department of Transportation, with the exception of the Federal Lands Transportation Program and Tribal Transportation Program established by sections 202 and 203 of title 23 U.S.C.) may be used for local match for funds provided under section 5310 and revenue from service contracts may be used as local match."

Figure 7 is an annotated federal policy guidance on mixing federal and local transportation funds. Mixing of eligible funds is encouraged by the federal government and is a key strategy identified as a way to improve human service transportation. Mixing of funding could also help improve coordination and efficiency among agencies providing transportation and increase rider access to transportation for purposes outside specific funding sources such as medical trips.

Figure 7: Policy Statement Summary on Resource Sharing from the Coordinating Council on Access and Mobility

Coordinating Council on Access and Mobility Policy Statement

Coordinating Council on Access and Mobility agencies agree that federal grantees should coordinate their transportation resources where possible, including sharing costs for mutually beneficial transportation services, in order to maximize the availability and efficiency of transportation services. Cost-sharing arrangements include both vehicle- and ride-sharing as well as federal fund braiding for local match across federal programs, which are discussed in more detail below.

Vehicle and ride-sharing: Vehicle and ride sharing occur when a single shared vehicle transports beneficiaries of multiple federal programs. Vehicle sharing may occur with shared rides, when multiple federal programs' beneficiaries are on the same vehicle simultaneously, or with individual rides, when a vehicle transports a single beneficiary at a time. Participating partners pay for the equitable proportion of shared costs for transporting its beneficiaries.

Before local partners begin to share vehicles and rides, they should first establish a local transportation cost-allocation agreement that details how partner organizations will allocate shared costs. To establish this agreement, local partners may wish to consult the Federal Transit Administration's Cost Allocation Handbook, which provides high-level guidance on determining and allocating shared costs. Local partners should incorporate the general and program-specific principles below, as applicable. Local partners should also consult and adhere to any federal, state or local laws and regulations related to vehicle and ride sharing and cost allocation.

Federal fund braiding for local match: Federal fund braiding for local match, also referred to as federal fund braiding, is when federal funds from one grant program are used to fulfil the local match requirement of another federal grant. This provides federal grantees the opportunity to share costs of a transportation project across multiple federal programs. All statutory and regulatory requirements, such as eligibility and reporting, must be met for both programs.

Federal fund braiding arrangements can especially benefit communities that are otherwise unable to provide match funds for federal transportation projects. Federal fund braiding also encourages greater coordination at the local level due to the additional reporting requirements that grantees must meet when receiving funds from two federal sources.

Federal fund braiding is not available between all federal programs that may fund transportation. To determine if federal fund braiding is a possibility, potential grantees should consult the Coordinating Council on Access and Mobility's Federal Fund Braiding Guide. The Federal Fund Braiding Guide discusses whether federal fund braiding is allowable for 67 federal programs that may fund transportation and provides additional information on grantee eligibility requirements.

Potential grantees looking to find state or local partners to coordinate and braid funds with may also consult the Coordinating Council on Access and Mobility Program Inventory, which identifies 130 federal programs that may provide funding for human service transportation. Grantees of these federal programs may be potential future partners for transportation projects funded via federal fund braiding.

Please see the full policy statement for more detail: https://cms7.fta.dot.gov/sites/fta.dot.gov/files/docs/regulations-and-programs/ccam/about/148581/ccam-cost-sharing-policy-statement.pdf

General public transportation

General public transportation is not restrictive to the type of user. It can be fixed-route or demand-responsive. The ADA requires that public transportation be accessible for individuals with disabilities.

RTD

Sales and use tax: A one-penny sales tax within the RTD system boundaries helps pay for RTD services: $0.04 funds FasTracks and $0.06 funds RTD's base system (all services excluding FasTracks). This revenue accounts for almost 60% of RTD's base system operating budget.

Fares: Passenger farebox revenues (also called "farebox recovery") account for less than 25% of RTD's base system operating budget revenue. Farebox recovery is the second-largest source of revenue after the sales and use tax.

Local governments

The Longmont Ride Free Fare Program provides free rides on local Longmont bus service via routes 323, 324, 326 and 327. The Longmont Ride Free Fare Program is managed and paid for by the City of Longmont. The Longmont Ride Free Fare Program benefits income-limited residents and increases ridership on the local Longmont transit routes, while maintaining revenue neutrality for RTD. Local governments like the City of Boulder and Boulder County also use local and grant funding to buy up services on RTD routes.

State

Funding Advancements for Surface Transportation and Economic Recovery (FASTER) Act of 2009

Transit: FASTER provides $15 million annually to transit projects. Of this total, $5 million is competitively awarded to local projects and $10 million to state and regional projects. RTD and Bustang each receive a $3 million set-aside from the statewide and regional pool.

Although FASTER started primarily as a source of funding for capital projects, it has evolved. FASTER provides operating assistance for Bustang and a small allocation for interregional transit. RTD, CDOT and DRCOG have an agreement to swap FASTER funds with DRCOG-programmed federal funds for the Human Service Transportation Set-Aside in the TIP.

Human Service Transportation Set-Aside funds swapped for FASTER funds maintain the eligibility criteria for FASTER, such that funds may be used for transit projects defined as capital, operating and mobility management by FTA. The swap also allows project sponsors to apply Human Service Transportation funding toward federal local match requirements, reducing the amount they must contribute toward that requirement with local funds since the Human Service Transportation funds are state dollars. DRCOG expects the benefit to help project sponsors apply for more funding to better meet the growing demands in the Denver region since they can afford to apply for more funding. FTA 5310 funding for the Denver-Aurora Urbanized area has been historically undersubscribed while services have not met demand in large part because project sponsors are small nonprofits with limited resources to apply toward the local match requirement.

Federal

FTA Section 5307 (Urbanized Area Formula Program): Funds are for urbanized areas with more than 50,000

people. The funding formula takes population and population density into account. The program is generally used for transit capital expenditures, but under certain circumstances funds may also be used for operating assistance and transportation planning. Additionally, up to 10% of formula funds can be used for ADA service. Projects previously eligible under the Section 5316 Job Access Reverse Commute program are now eligible under Section 5307. RTD is the designated recipient for the Denver-Aurora Urbanized Area. RTD does not hold a call for projects for the types of projects that were previously eligible under Section 5316 Job Access Reverse Commute. RTD also receives funding for the small urbanized areas within RTD system boundaries: Boulder, Louisville-Lafayette and Longmont. In total, RTD is allocated about $50 million annually, which it typically uses for vehicle maintenance and procurements.

Pockets of the Denver region, mostly in southern Douglas County, were added to the Denver-Aurora Urbanized area based on the 2010 Census but remain outside RTD boundaries.

Section 5309 Capital Investment Grants: This FTA discretionary grant program funds transit capital investments, including heavy rail, commuter rail, light rail, streetcars and bus rapid transit. Federal transit law requires transit agencies seeking Capital Investment Grant funding to complete a series of steps over several years.

For New Starts and Core Capacity projects, the law requires completion of two phases in advance of receipt of a construction grant agreement – project development and engineering. For Small Starts projects, the law requires completion of one phase in advance

of receipt of a construction grant agreement – project development. The law also requires projects to be rated by FTA at various points in the process according to statutory criteria evaluating project justification and local financial commitment.

The Eagle P3 Project (East Rail Line, Gold Line and Northwest Rail Phase I), the West Rail Line and the Southeast Extension have received grants from this program, as follows:

- Approximately $1 billion for the Eagle P3 Project.

- Approximately $300 million for the West Rail Line.

- Approximately $92 million for the Southeast Rail Extension.

Section 5311 (Formula Grants for Rural Areas): This program provides capital, operating and administrative assistance for general public transit in areas with fewer than 50,000 people. Transit services in rural portions of the Denver region are eligible; applicants must apply through CDOT. Via Mobility Services has received funding for service in rural parts of the Denver region. As with the FTA 5307 program, projects previously eligible under the FTA 5316 Job Access Reverse Commute program are now eligible under FTA 5311. CDOT coordinates with DRCOG in selecting projects in the Denver region.

Section 5337 (State of Good Repair): The State of Good Repair Grants Program provides capital assistance for maintenance, replacement and rehabilitation projects of high-intensity fixed guideway and bus systems to help transit agencies maintain assets in a state of good repair. Additionally, State of Good Repair grants are

eligible for developing and implementing transit asset management plans.

Section 5339 (Bus and Bus Facilities Program): The Grants for Buses and Bus Facilities program (49 U.S.C. 5339) makes federal resources available to states and designated recipients to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities including technological changes or innovations to modify low- or no-emission vehicles or facilities. Funding is provided through formula allocations and competitive grants. A subprogram provides competitive grants for bus and bus facility projects that support low and zero-emission vehicles.

Public-Private Partnerships: RTD pioneered efforts to generate revenue for FasTracks through public-private partnerships. The Eagle P3 Project is a nationally renowned example of a public-private partnership. RTD contracted with a concessionaire selected through a competitive process to design, build, finance, operate and maintain the Eagle P3 Project, with RTD making an annual payment to the concessionaire. This allowed RTD to spread out large upfront costs over approximately 30 years. The Eagle project comprises RTD's East Rail Line (A Line), Gold Line (G Line), Commuter Rail Maintenance Facility and Northwest Rail Line Westminster segment (B Line). Other FasTracks projects that use public-private partnerships are North Metro, Southeast Rail Extension and U.S. Route 36.

At the local level, the Lone Tree Link, mentioned in Section II, is funded through a public-private partnership of businesses, nonprofits and local government.

Demographics and projected growth

DRCOG staff projected the growth for major population groups that may be more likely than the general public to need and use transit services in the future. The population groups identified are the following: individuals with disabilities, older adults, youth, zero-car households, low-income individuals, minorities and people with limited English proficiency. A separate analysis of each group follows, acknowledging that groups overlap (such as a disabled older adult without access to a car).

Individuals with disabilities

Individuals with disabilities often lack transportation options. Many rely on public transit, human service transportation or other means to fulfill activities of daily living. The ADA requires public transportation to be accessible and complementary paratransit to be available for individuals with disabilities when barriers prevent them from riding fixed-route transit.

The most recent five-year estimate from the American Community Survey (2017) shows the noninstitutionalized population for individuals with disabilities in the Denver region is almost 290,000, or roughly 9% of the region's total population. About one-third of all people in the Denver region older than 65 have a disability compared to about 7% for the population younger than 65. If the proportion of individuals with a disability in each age group remains the same, by 2050 the region could have almost 460,000 people with a disability. The data is shown in Figure 8.

Figure 8: Individuals with disabilities in the Denver region
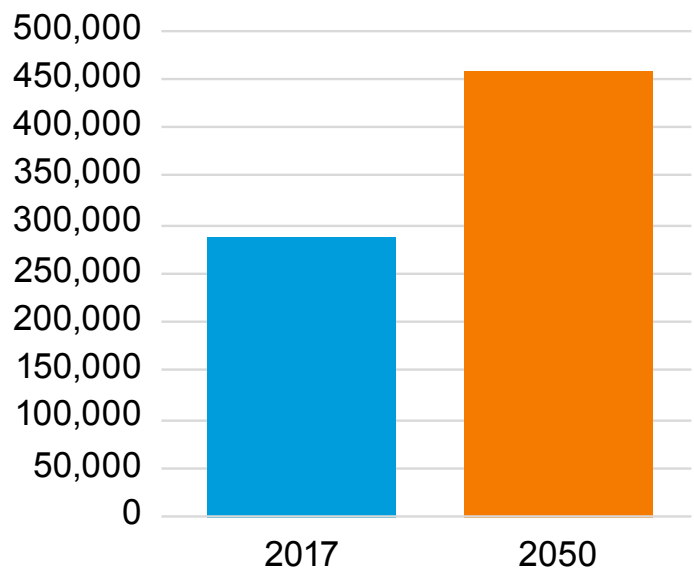
Sources: 2017 American Community Survey Estimates; 2050 – DRCOG forecast with proportional increase by age group.

Older adults

Many older adults are reluctant to stop driving for fear of losing their independence. Like individuals with disabilities, many older adults who do not drive rely on public transportation and other means to maintain their independence.

The Denver region's older adult population is increasing much faster than the general population. While the 60-and-older population is expected to almost double, the population of individuals younger than 60 is expected to grow by roughly a third. As shown in Figure 9, more than a half-million residents in the Denver region are currently 60 or older. The 60-plus population in the region is anticipated to increase to about 1.2 million by 2050. By then, one in four people in the region

will be 60 or older. Further, the population of adults age 75 and older is projected to be about 501,000 by 2050, an increase of over 200% from 2018.

Figure 9: Forecast growth of age 60-plus population in the Denver region
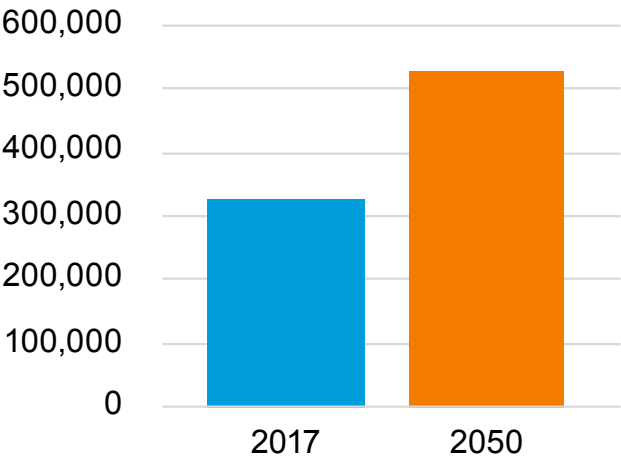
Sources: 2018 American Community Survey estimates; 2050 Colorado Demography Office forecast

Youth

Growth is also anticipated for the population of youth in the region. Between 2018 and 2050, the number of people age 10-19 is expected to increase by 10%, from approximately 418,264 to 463,722. High school students receive a discounted rate on RTD buses and often use them to get to and from school. For example, an estimated 3,600 Denver public high school and middle school students use RTD to go to and from school.

Zero-vehicle households

Households without a motor vehicle are by definition dependent on modes of transportation other than a privately owned automobile. These modes include transit, walking, bicycling, taxi, car-sharing and others.

Many zero-vehicle households have no vehicle by choice, other households cannot afford to purchase and maintain an automobile, and still others do not have a resident who is legally permitted to drive.

Based on a 2012-2016 American Community Survey estimate, just under 70,000 households in the Denver region have no vehicle. If this number of households without vehicles grows proportionately with the overall population, then there could be about 90,000 zero-vehicle households by 2050 (Figure 10).

Figure 10: Zero-vehicle households in the Denver region proportional increase to 2050
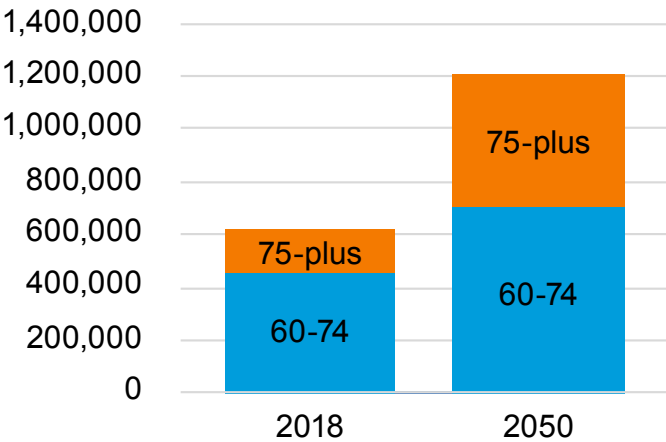
Source: U.S. Census Bureau, 2012-2016 American Community Survey Five-Year estimates (Table DP04)

## Low-income population

The most recent estimate for population below 100% of the poverty line is 327,469 (2017), or about 12% of the total population for the Denver region. 100% of the poverty line in 2017 was $12,060 for a one-person household; it was $24,600 for a household of four. If, in 2050, the population below 100% of the poverty line is the same proportion of the current total population,

there would be approximately 528,240 low-income individuals in the Denver region (Figure 11). As housing costs rise in more dense urban areas, people with low income may not be able to afford to live in places with good transit access.

RTD recently started a homelessness task force to bring together transit officials with those working full time on homelessness issues and services. A federal grant helps pay for RTD to hire a specialist to survey individuals experiencing homelessness and service agencies for needs, and to serve as the liaison for planning solutions.

Figure 11: Population in poverty in the Denver region
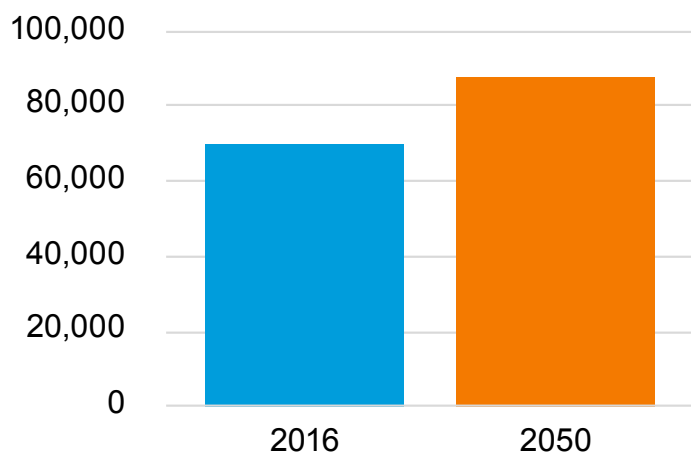
Source: U.S. Census Bureau; 2012-2016 American Community Survey Five-Year estimates; proportional increase to 2050

Individuals with Limited English Proficiency

Limited English Proficiency is used to describe a lack of fluency with the English language, often because it is not an individual's native language. In 2017, the American Community Survey estimated that in the Denver region people who speak English less than very well 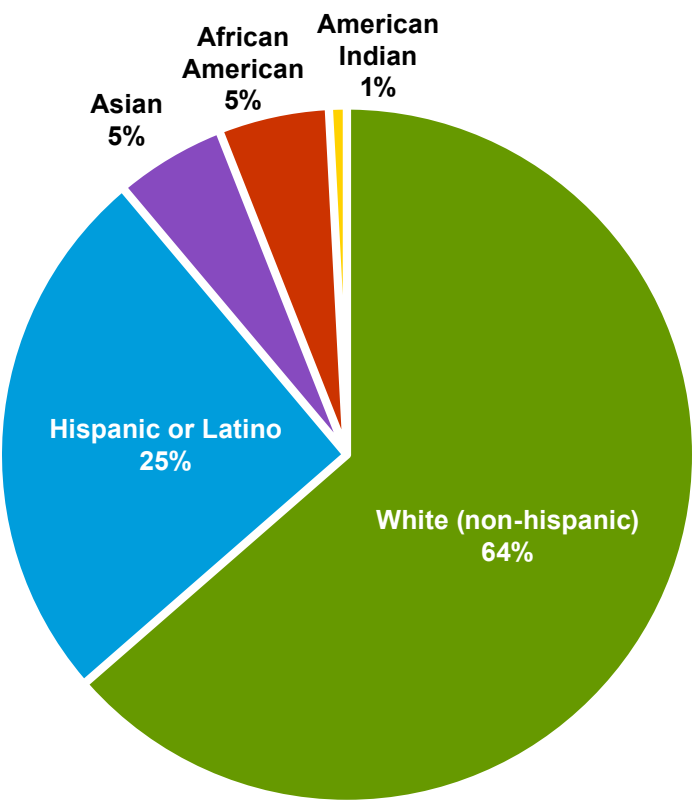is approximately 217,000, or about 7% of the total population. The most common language spoken at home other than English in the Denver region is Spanish or Spanish Creole (approximately 148,000 or about 5%).

The population of immigrants and refugees in the Denver region is growing. Colorado resettles nearly 2,000 refugees a year: of which approximately 90% settle in the Denver region. These newcomers are given legal and permanent status, work authorization, five years of English classes and access to public assistance to help them obtain financial self-sufficiency. DRCOG's Elder Refugee Program offers assistance and guidance, including transportation assistance, to older adult refugees. In partnership with the Colorado Refugee Services Program and the federal Office of Refugee Resettlement, DRCOG's Elder Refugee Program has created a gathering place for elder refugees to decrease social isolation, increase integration and interaction and develop community connections.

Minority populations

According to Colorado Demography Office projections, more than 2 million white (non-Hispanic) residents live in the Denver region, or just under two-thirds of the total population. About 850,000, or about a quarter of the population, is Hispanic or Latino. The Colorado Demography Office projects that by 2050 the non-Hispanic white population will have increased to about 2.2 million but will decrease as a share of the overall population from nearly two-thirds to about half, while the Hispanic or Latino population will grow to over 1.5 million and represent over a third of the population.

Figure 12: 2020 Denver region racial makeup

Asian 5%
African American 5%
American Indian 1%
Hispanic or Latino 25%
White (non-hispanic) 64%

Source: Colorado Demography Office

Figure 13: 2050 projected Denver region racial makeup

Asian 7.9%
African American 5.3%
American Indian .8%
Hispanic or Latino 36%
White (non-hispanic) 50.1%
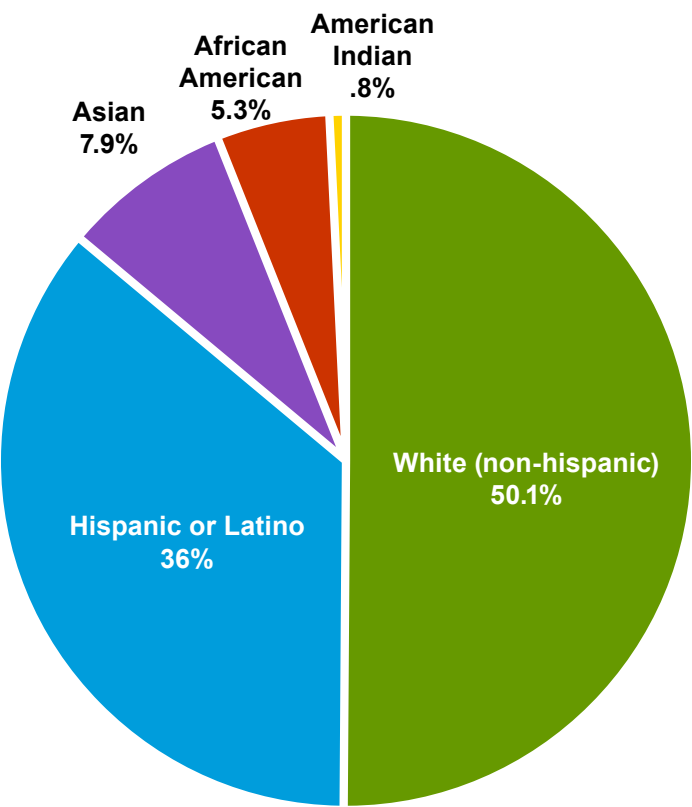
Source: Colorado Demography Office

Assessment of transportation needs

The previous section illustrated in broad terms the potential demand for all types of transit service, particularly human service transportation, by 2050. This section discusses and identifies transit capital, operating and related needs to respond to the potential demand. The COVID-19 pandemic has temporarily decreased revenue and ridership for transit, and the long-term effects of the pandemic remain to be seen.

Transit agency capital and operating needs

Based on grant-funded projects and interviews with transportation agencies in the region, overarching needs include vehicles (replacement and expansion), operating assistance (such as personnel, drivers, maintenance and fuel) mobility management and capital expenditures to keep fleet, facilities and other key assets in a state of good repair.

Transit asset management

The Fixing America's Surface Transportation Act requires state departments of transportation and metropolitan planning organizations to set targets and report on progress toward achieving them for several topics in support of a performance-based approach to transportation planning and programming. The topics include safety, infrastructure (pavement and bridge condition), system performance and transit asset management.

For the purposes of transit asset management, RTD is federally required to set its own targets. Seven smaller transit agencies in the Denver region elected to participate in a statewide group transit asset management plan sponsored by CDOT. The statewide plan establishes a single set of statewide targets for approximately 50 participating agencies based on the averages of their individual targets.

Public Transportation Agency Safety Plan

FTA published the Public Transportation Agency Safety Plan Final Rule on July 19, 2018. The safety plan requires certain operators of public transportation systems that receive federal FTA 5307 funds under Urbanized Area Formula Grants to develop safety plans that include the processes and procedures to implement safety management systems.

For additional information on both the Transit Asset Management Plan and Public Transportation Agency Safety Plan, please see the Transportation Management Plan section of Chapter 4 of the 2050 Metro Vision Regional Transportation Plan and its Appendix G: System Performance Report.

Access to employment

According to a Streetsblog article titled "These U.S. cities offer the best job access to transit riders" which cites an inventory compiled by the University of Minnesota, Denver has the 10th highest number of jobs accessible via transit among major American cities. In 2012, the Brookings Institution issued a report showing the share of jobs in the Denver-Aurora Metropolitan Statistical Area in neighborhoods with transit service is 87%, which ranks 12th among the 100 largest metro areas. The Brookings Institution study did not take into account time of day. Many low-income workers have jobs with nontraditional hours (for example, evenings and weekends). Transit coverage for nights and weekends has likely improved since new FasTracks

lines and stations opened in the last few years, however, there are still pockets of the region where transit-job access is needed or can be improved.

Human service transportation needs

Human service transportation needs are more complex and are identified from a variety of input sources, including surveys, studies and public meetings. Stakeholders and the general public contributed significantly to DRCOG's process of determining human service transportation needs for the Denver region for 2050. Key input sources and a high-level summary of major needs are listed below (full summary included in the "Coordinated transit plan engagement results" section):

Summary of assessment of needs

Transportation represents a compounding intersection of health-related social needs, prominently affecting the overall well-being of individuals and communities. Inaccessible transportation directly affects health if an individual is unable to travel to doctor's appointments or to pick up prescriptions. An individual experiencing food insecurity may not be able to visit a food pantry during operating hours without public transit options near their home. In the absence of transportation to a job or job interview, an individual cannot earn a sufficient wage to pay rent and their family may experience housing instability. Without affordable transportation, an individual cannot attend to their personal care, such haircuts, or attend spiritual and cultural events. Being unable to take care of one's personal and social needs not only affects individuals and families, but the community at large. When affordable, accessible and reliable transportation systems are available to individuals, it improves the use and efficacy of health

care, education, employment and cultural amenities, contributing to stronger communities.

Under a demonstration project through the Center for Medicare and Medicaid Innovation, the Denver Regional Area Agency on Aging has been implementing the Accountable Health Communities model in the Denver region. Its screening tool asks, "In the past 12 months has lack of reliable transportation kept you from medical appointments, meetings, work or from getting to things needed for daily living?" In over 30,000 (n=30,910) screenings completed between May 1, 2018 and Aug. 31, 2020, 11% of Medicare and Medicaid beneficiaries reported a transportation need, representing more than 3,000 people with unmet transportation needs across the region. It is often people who are the most at-risk, including older adults, people with disabilities and individuals with low incomes, who struggle to find affordable and accessible transportation options. These unmet needs represent a demand for the region to expand, innovate and improve transportation systems and services to ensure people across communities have access to transportation to live their full, daily lives.

Strategies and activities to address identified needs and service gaps

Future transit services

This section identifies strategies and activities to address service gaps between current services and identified needs. Strategies and activities addressed in this section include opportunities to more efficiently deliver service.

Metro Vision Regional Transportation Plan 2050 fiscally constrained rapid transit system and base rapid transit system

FasTracks: RTD's FasTracks is a multibillion-dollar comprehensive transit expansion plan. FasTracks includes 122 miles of new commuter rail and light rail, 18 miles of bus rapid transit and 21,000 new parking spaces at light rail stations and Park-n-Rides.

The West Rail line was the first FasTracks corridor to open in spring 2013. Several other corridors opened since. All FasTracks projects are funded in the FasTracks plan. However, RTD's current financial forecasts indicate not all projects will be constructed by 2050, including:

- Central Rail Extension (30th and Downing to 38th and Blake).

- North Metro Rail Line from 124th Avenue and Eastlake to 162nd Avenue and State Highway 7.

- Northwest Rail Line from Westminster Station to Longmont (full-service plan).

- Southwest Rail Extension from Littleton-Mineral to C-470/Lucent Boulevard.

To learn more about FasTracks, visit http://www.rtd-denver.com/Fastracks.shtml.

The map below shows the fiscally constrained rapid transit network anticipated by 2050. This network includes bus rapid transit and transit planning corridors. Because there are more potential project costs than available revenues, only those projects that can be implemented within the projected revenues are considered part of the fiscally constrained 2050 RTP.

Boulder Downtown

Denver Downtown

Existing   New

- Rapid Transit Station with Parking
- Rapid Transit Station without Parking

— Rapid Transit Rail
— Transit Planning Corridors
····· Bus Rapid Transit or Busway
— Major Roads

Golden/Mines Autonomous Circulator
County Boundaries
DRCOG Boundary

SOURCE DATA: DRCOG, Esri Basemap; SR 6428 (see full source information and disclaimer in appendix)

N   0   5
Miles

The map below depicts both vision and fiscally constrained projects. There is a need for the vision projects but no reasonably expected revenue has been identified to pay for them in the planning horizon.

Legend:
- Front Range Rail Alternative Alignments
- Potential Bus Rapid Transit and Busway
- Conceptual Preservation Corridors
- Remaining FasTracks Components
- Potential I-70 Passenger Rail
- High Speed Transit
- Fiscally Constrained Base Rapid Transit System
- Major Roads
- County Boundaries
- DRCOG Boundary

SOURCE DATA: DRCOG, Esri Basemap, SR 6428 (see full source information and disclaimer in appendix)

N   0   5
          Miles

RTD general public bus and rail system

RTD fixed-route services are the backbone of the region's transit system, serving tens of thousands of people each day, even in the midst of a global disruptions, such as the COVID-19 pandemic in 2020 and 2021. The location of fixed-route services also determines where required complementary paratransit service (Access-a-Ride) will be provided to customers who have barriers to riding fixed-route.

Two efforts are currently evaluating the types of improvements that can or should be made to improve RTD's fixed-route transit system: the RTD Accountability Committee and Reimagine RTD. As previously mentioned, the RTD Accountability Committee's mission is to provide feedback and a set of recommendations to improve the operations of, and statutes related to, RTD to the board and staff of RTD, the governor, the General Assembly and the public. Reimagine RTD is an ongoing effort to evaluate and forecast the changing transportation needs of the region. When complete, Reimagine RTD will identify comprehensive, forward-thinking strategies to better connect people to the places they want and need to go.

Other services

Removing barriers to riding fixed-route service

Removing barriers to riding fixed-route service can help reduce costs and provide independence. Based on information DRCOG gathered from public outreach, there is significant interest in reducing obstacles to riding fixed-route service. In addition, the Denver Regional Mobility and Access Council facilitates a Transit and Accessibility Task Force that focuses on removing barriers to riding fixed-route service. Projects that can improve access to fixed-route service and decrease reliance by individuals

with disabilities on complementary paratransit include, but are not limited to, travel training and construction projects that improve accessibility to transit stops.

Infrastructure improvements: Improving the accessibility of transit stops, especially bus stops and the surrounding pedestrian infrastructure is a key strategy for enabling older adults and individuals with disabilities to use fixed-route transit. Infrastructure improvements include adding amenities such as benches and shelters. Bus stops have been a focal point for many accessibility improvements since the ADA was enacted. The need for accessibility, however, extends beyond the actual stop to the pathways that connect to the stop. Cracked sidewalks, sidewalks covered with snow and ice and missing sidewalk networks often pose a barrier to riding fixed-route not only for older adults and individuals with disabilities but the general public as well.

Projects funded through the DRCOG Transportation Improvement Program have helped improve infrastructure. A key example of this is the Downtown Boulder Station Improvements project, which redesigns 14th Street between State Highway 119/Canyon Boulevard to north of Arapahoe Avenue to provide five additional bus gates for existing and future transit services stopping and laying over at the station.

Connections to and from bus stops are not always provided for riders, and transit agencies do not always have the authority or ability to make such improvements. Sometimes improvements are not made due to lack of funding. Incomplete or poorly maintained sidewalks, difficult street crossings, lack of curb cuts and obstacles in the pathway such as utility poles create barriers for people with disabilities, limiting or preventing access to fixed-route transit service

Transit-supportive land use: Land use and transit are inherently linked. Transit service is most effective when coupled with specific types of local land uses. Preferred uses have a high population ratio compared to the size of the spaces they occupy and create consistent foot traffic and high levels of activity. Further, built environments that maximize motor vehicle traffic convenience may reduce active transport (walking and cycling) accessibility and transit accessibility since most transit trips include walking and cycling links. This is especially true for older adults and individuals with disabilities who may have a more difficult time walking longer distances and traversing built environments designed to accommodate automobiles.

First- and last-mile connections: Another key strategy to remove barriers to riding fixed-route transit is providing first- and last-mile connections. First- and last-mile connections are improvements that can help better connect people from bus stops and transit stations to final destinations (and vice versa). Such improvements may include infrastructure such as sidewalks, shuttle buses and bike-sharing services.

RTD recently completed a First and Last Mile Strategic Plan. The plan defines strategies and policies to improve multimodal transportation and connectivity to RTD services and facilities with the goal of making RTD more accessible to more people. The plan aims to improve transit accessibility by empowering local jurisdictions, transportation management associations and other partners to understand the range of available first- and last-mile solutions and apply them to specific station areas.

Travel training: Travel training is instruction offered to those who need assistance to increase their mobility and travel on public transportation independently. It includes a variety of plans, methods and strategies used by professional trainers to increase the independent travel skills of the people they serve. Via Mobility Services offers travel training to older adults, people with disabilities and others living with mobility limitations who reside within the RTD system boundaries. In addition to one-on-one training, Via Mobility Services offers an abbreviated travel training program for groups, Seniors on the Move and Train the Trainer programs.In addition, DRMAC offers the Getting There Travel Training program to low-income individuals and nonprofits serving low-income clients.

Improvements that remove physical and nonphysical barriers to using transit, making it more accessible for older adults, individuals with disabilities and the general public, are a key strategy emphasized in this Coordinated Transit Plan.

Affordable fare programs: A common theme among public and stakeholder input was a need for affordable transportation for people with low incomes. This is an important but difficult issue to address given limited financial resources for low-income riders and for RTD without an influx of additional funding to replace the farebox revenues that would be lost by offering discounted fares. The Free Ride Longmont program and the LiVE program are examples cited earlier that make fares affordable for some riders. Stakeholders are looking into ways to improve intake for this program so that processing is easier for clients with the goal of enrolling more qualified applicants.

Improve access to employment: According to a Streetsblog article titled "These U.S. cities offer the best job access to transit riders" which cites an inventory

compiled by the University of Minnesota, Denver has the 10th highest number of jobs accessible via transit among major American cities. In 2012, the Brookings Institution issued a report showing the share of jobs in the Denver-Aurora Metropolitan Statistical Area in neighborhoods with transit service is 87%, which ranks 12th among the 100 largest metro areas. The Brookings Institution study did not take into account time of day. Many low-income workers have jobs with nontraditional hours (for example, evenings and weekends). Transit coverage for nights and weekends has likely improved since new FasTracks lines and stations opened in the last few years, however, there are still pockets of the region where transit-job access is needed or can be improved.

Pilot new technology and practices to improve mobility: As previously mentioned, DRCOG and regional stakeholders recently piloted the Ride Alliance trip exchange project to implement technology that makes it easier to share trips. This especially helps riders whose trips cross jurisdictions or service boundaries. Many of those trips would otherwise be denied due to an inability to provide them.

Future human service transportation coordination efforts and strategies

Coordination efforts

Eight local coordinating Councils are active at various levels in the Denver region including the Weld County Mobility Council supported by the North Front Range Metropolitan Planning Organization. Over the years the level of activity has ebbed and flowed in many local coordinating councils. Denver Regional Mobility and Access Council serves as the regional coordinating council for most of the Denver region. As the regional

coordinating council, the Denver Regional Mobility and Access Council facilitates coordination between local coordinating councils. Some counties employ Mobility Managers to help coordinate human service transportation and staff the local coordinating councils. Having a dedicated person helps the local coordinating councils stay active and represents an eligible expense under FTA 5310.

Strategies: The following strategies are suggested to address human service transit coordination. These strategies are based on public meetings, other plans, surveys and other input sources.

Fund transit projects that address identified needs and FTA program guidelines: The project selection process for FTA Section 5310 should focus on service needs relative to these and other program goals:

- Enhance mobility for seniors and individuals with disabilities.

- Serve the special needs of transit-dependent populations beyond traditional public transportation services and ADA complementary paratransit services.

- Coordinate human service transportation and transit.

Spend local, regional, state and federal funds more efficiently: Regional stakeholders consulted during plan development emphasized the importance of finding ways to do more with existing resources. A key strategy is blending multiple funding sources. To blend funding sources, transportation providers and local governments work with state and regional

partners to combine funds like FTA 5310 with Older Americans Act, Medicaid and others to fill more seats on each vehicle to reduce inefficiencies. Via Mobility Services and Douglas County do this. In addition, there is the opportunity to blend federal funds to reduce or eliminate the need for transportation grantees to contribute toward the local match.

Better coordination of human service transportation funding with Non Emergent Medical Transportation funding is viable next step. Non Emergent Medical Transportation funding comes from the Medicaid program and is administered by the Colorado Department of Health Care Policy and Financing. Non Emergent Medical Transportation is provided through IntelliRide, a contracted transportation broker. Regional partners may have the opportunity to leverage it as a funding source with other federal, state, and local funds to achieve greater efficiency.

Increase human service transportation coordination efforts: Greater coordination is a critical strategy to fund more trips with existing revenues. The Denver Regional Mobility and Access Council coordinates with many organizations and agencies to better meet the needs of the region by increasing efficiencies. Stakeholders and transportation providers identified the need to continue to work with the Denver Regional Mobility and Access Council and other groups on efforts to improve coordination of human service transportation. Increasing efficiencies could mean more transportation options for a greater variety of trip purposes including shopping trips and social visits. This could help more people age in place and live independently longer, deferring the costly move to assisted living facilities and nursing homes.

Integrating veterans and veteran programs into the coordinated transportation system could help them better access transportation. Stakeholders in the region indicated the importance of reaching out to veterans and veterans groups so that their needs are accounted for. DRCOG considers the Transportation Coordination Systems project key to ensuring veterans can better access transportation.

Address crossjurisdictional, cross-service boundary and interregional trips: One of the key needs and strategies identified in this Coordinated Transit Plan is to improve service and coordination across jurisdictional boundaries. Mobility needs do not stop at city, county or even regional boundaries; residents across the Denver region often travel across jurisdictions to get to their destinations. For example, the Rocky Mountain Regional Veterans Affairs Medical Center in Aurora serves veterans from throughout the region and beyond.

Implement trip exchange initiatives from transportation studies: Trough the Ride Alliance project, DRCOG has provided leadership by developing information technology and interagency communication protocols related to scheduling and booking trips in a coordinated manner. Ride Alliance created a trip exchange through which transportation providers can exchange rides. The exchange reduced the complexity of, and time required for, transportation coordination, despite transportation providers using various technology to schedule trips. The Ride Alliance trip exchange pilot began in late 2020.

Improve access to key services such as health care and employment through coordination: The pervasiveness of chronic disease has a disparate effect on low-income populations. A key factor is lack of transportation for treatment and screening. An

effective transportation system can help individuals preserve and improve their independence and decrease the likelihood of institutionalization. The FTA's Rides to Wellness Initiative increases partnerships between health and transportation providers and demonstrates the financial benefit of such partnerships. In Denver region, continued efforts to coordinate nonemergency transportation with the Colorado Department of Health Care Policy and Financing can improve efficiency and effectiveness and improve access to health care, especially for low-income individuals. COVID-19 has had a disproportional impact on people of color and low-income populations. Therefore, equity considerations should be made regarding access to heath care for those and other vulnerable populations.

Conclusion

In addition to providing a broad view of the region's transit system and serving as the transit component of the 2050 Metro Vision Regional Transportation Plan, this document also serves as the Coordinated Public Transit and Human Services Transportation Plan for the Denver region (Coordinated Transit Plan). A Coordinated Transit Plan is federally required, particularly in selecting projects for funding in the FTA 5310 grant program. This integrated plan addresses transit geared for specific populations and transit available for the general public because both are important to increasing mobility. For example, while many older adults and individuals with disabilities will be served by transit modes specifically designed for their needs, many more will use general public transportation.

The COVID-19 pandemic and resulting economic downturn has, at least temporarily, changed transit in the Denver region and around the world. While there has been a large drop in ridership during this crisis, RTD's buses, trains and paratransit services remain a vital lifeline for essential commuters, health care workers, public safety employees, government employees, grocery store workers and others across the metro region. In addition, many human service transportation providers are delivering food and medicine to clients instead of providing rides to grocery stores and pharmacies.

Though the region is making unprecedented investments in transit service and facilities through FasTracks and other efforts, the envisioned transit system far exceeds anticipated revenues through 2050. Thus, coordination is increasingly important to optimize existing funding, services and facilities.

Coordinated transit plan engagement results

Online questionnaire input

The SurveyMonkey questionnaire was open from May 5, 2020, through June 22, 2020, and received 138 responses. The questionnaire was distributed through two email blasts sent to over 500 people on both May 6, 2020, and May 20, 2020. The link to the questionnaire was also shared during several local coordinating council and other local transportation group meetings during the months of May and June. In addition, the link was shared through the Denver Regional Accountable Health Community program contacts and to each county council on aging.

Optional demographic questions were asked in the questionnaire to ensure that it reached a wide and representative range of perspectives. Responses were received from every county in the Denver region except Gilpin and response distribution was similar to county population distribution. Respondents ranged in ages, with the most (36%) between 45 and 64, and 18% of respondents age 65 or older. The majority (81%) of respondents identify as white, which is similar to the regional share of the population. About 7% of respondents make less than $45,000 annually. Finally, 10% of respondents answered that they have a limitation or disability that impacts their mobility.

Needs and gaps

The questionnaire asked respondents to rate the current significance of the needs identified in the Coordinated Transit Plan developed in 2016. The three most significant needs identified by all respondents were:

access to health care for non-emergent (emergency) visits, affordable fares and expanding services to meet increased demand.

All respondents	Low significance	Medium significance	High significance	Rank
Improve access to health care for non-emergent (emergency) visits.	0	0.27	0.73	1
Affordable fares, especially for older adults, individuals with disabilities and/or people with low incomes.	0.04	0.26	0.7	2
Expand all services to meet increased demand for transportation as the population increases and ages.	0.05	0.26	0.69	3
More cross-jurisdictional trips, better trip coordination, and more accessibility.	0.07	0.28	0.65	4
Better regional coordination to build on improving local coordination.	0.04	0.3	0.65	5
Increase service areas, frequency, service hours (nights and weekends) where gaps exist.	0.1	0.26	0.64	6
Remove barriers to ride fixed route, including improving access to bus stops and rail stations and providing travel training.	0.07	0.33	0.61	7
Accessible and understandable transportation information and referral services.	0.12	0.3	0.58	8
Increase transportation options for quality-of-life trips such as hair appointments and social visits.	0.28	0.32	0.4	9
Make sure that veterans have access to transportation.	0.14	0.48	0.38	10
Expand volunteer driver programs.	0.31	0.36	0.34	11

The following tables compare residents to other respondents in terms of the level of significance they place on each of the issues.

For residents, the five most significant issues were related to coordination, service expansion and improving access to health care. The three least significant were expanding volunteer driver programs, making sure that veterans have access to transportation, and increasing transportation options for quality-of-life trips.

Other respondents were composed of representatives from private transit providers, transportation management associations, RTD, councils on aging, community-based organizations, local governments, state agencies, and regional or local coordination councils. In contrast to residents, their most significant issue was affordable fares, especially for older adults, individuals with disabilities and/or people with low incomes. Better regional coordination to build on improving local coordination was not in their top five in terms of significance. Otherwise, both residents and other respondents gave high priority to more cross-jurisdictional trips, expanding services, expanding service areas, and improving access to health care for non-emergent (emergency) visits.

Resident responses	Low significance	Medium significance	High significance	Rank
Better regional coordination to build on improving local coordination.	0.06	0.25	0.7	1
More cross-jurisdictional trips, better trip coordination, and more accessibility.	0.09	0.25	0.66	2
Expand all services to meet increased demand for transportation as the population increases and ages.	0.11	0.23	0.66	3
Increase service areas, frequency, service hours (nights and weekends) where gaps exist.	0.19	0.19	0.62	4
Improve access to health care for non-emergent (emergency) visits.	0.1	0.33	0.58	5
Remove barriers to ride fixed route, including improving access to bus stops and rail stations and providing travel training.	0.13	0.32	0.55	6
Affordable fares, especially for older adults, individuals with disabilities and/or low incomes.	0.09	0.4	0.51	7
Accessible and understandable transportation information and referral services.	0.17	0.32	0.51	8
Increase transportation options for quality-of-life trips such as hair appointments and social visits.	0.28	0.32	0.4	9
Make sure that veterans have access to transportation.	0.17	0.49	0.34	10
Expand volunteer driver programs.	0.6	0.21	0.19	11

Other respondents	Low significance	Medium significance	High significance	Rank
Affordable fares, especially for older adults, individuals with disabilities and/or low incomes.	0.01	0.17	0.82	1
Improve access to health care for non-emergent (emergency) visits.	0	0.27	0.73	2
Expand all services to meet increased demand for transportation as the population increases and ages.	0.01	0.27	0.71	3
Increase service areas, frequency, service hours (nights and weekends) where gaps exist.	0.05	0.3	0.65	4
More cross-jurisdictional trips, better trip coordination, and more accessibility.	0.05	0.3	0.65	5
Remove barriers to ride fixed route, including improving access to bus stops and rail stations and providing travel training.	0.02	0.33	0.64	6
Better regional coordination to build on improving local coordination.	0.04	0.34	0.63	7
Accessible and understandable transportation information and referral services.	0.1	0.29	0.62	8
Increase transportation options for quality-of-life trips such as hair appointments and social visits.	0.07	0.43	0.5	9
Expand volunteer driver programs.	0.11	0.46	0.43	10
Make sure that veterans have access to transportation.	0.12	0.48	0.4	11

The questionnaire also asked people to identify any current needs or gaps that were not included in the Coordinated Transit Plan developed in 2016. In this table, the responses are shown and categorized by general topic. Accessible vehicles, affordability, dependability, infrastructure, rural, service time and trip types were often cited.

Category
Accessible vehicles
Affordability
Behavioral
Biking
Connectivity
Density

Additional transportation needs that older adults, individuals with disabilities, or people with low incomes have that are not being met:

Increase amount accessible on-demand (cabs, TNC) vehicles like side-entry mini-vans.

Yes, lots of smaller companies don't have handicap accessible transportation, and requests for on-demand short-trips has increased.

Level-boarding light rail vehicles, where the current vehicles have steep steps that compromise the ability of passengers to quickly and safely board and alight. Many passengers do not want to use the handicap ramps that require the operator to lower and raise the boarding platform.

Affordable transportation. We need better ways for people with limited income to be able to afford transit. The RTD LiVe card has too many barriers to access.

ELIMINATE FARES for as many riders as possible.

As far as I know, RTD is still required to collect fares for at least 20% of its revenues. If we can change that law so (e.g.) RTD can get more money from advertising and other sources, we can make transit more accessible to people who need it the most ... ?

Helping change mindset to driving our own car and learning a new way to get around through other modes of transportation.

Expanded accommodation for bicycles on trains and buses.

develop transit in outlying areas to connect with parking hubs. ie. idaho springs to the golden train station.

Connectivity to and from bus to light rail and to major jurisdictions to the low income communities for work or education. Ex. Denver to Boulder from a low income community for job or educational opportunities.

Affordable housing has moved to the suburbs, which are low density. Under current models, service is geared to high density areas with high ridership. Today, these are sometimes the urban core and CENTRAL BUSINESS DISTRICT, which are not affordable for most. We have to determine how we provide service to everyone, in particular to those who are transit dependent. Lack of mobility means lack of access to basic needs and to opportunity.

Questionnaire responses continued.

Category
Dependability
Education and awareness
First/last mile
Funding; Education
Information; biking; electric
Infrastructure
Infrastructure; Affordability

Additional transportation needs that older adults, individuals with disabilities, or people with low incomes have that are not being met:

Service availability limited by recent cutbacks (in the past 18 months).

infrequent trips for service workers, who work off-peak hours. If they miss one bus, another may not come for an hour. Weather delays are also problematic.

In light of COVID-19, I believe it will become ever more essential to ensure these transportation services are reliable and safe for their users.

Adequate communications of transportation availability especially for older adults.

Getting things in their neighborhoods or mobility to get to the bus stop.

Is first- and last-mile still coming up?

Mix funding sources. Convince the public (!!!) that more funding needs to come local sources (i.e., not federal).

Access to food delivery assistance and TNC access/info. Better access to human-powered mobility devices - trikes and e-bikes.

Sidewalks for short trips where you don't have to walk by the traffic.

Making bus stops more accessible in areas where stops have been "grandfathered-in" and are not accessible or stops are in a ditch. Offering more transportation options to those with wheelchairs or that need more accessible options.

Quality of sidewalks and bus stop access. Removal of micro-mobility options that block access for the mobility challenged rider.

Substandard sidewalks to transit stops, consistency in how drivers and security deal with people who don't ability to pay a fare.

Questionnaire responses continued.

Category
Rural
Service access; Service frequency
Service expansion
Service frequency
Service time
Service time; Accessible vehicles

Additional transportation needs that older adults, individuals with disabilities, or people with low incomes have that are not being met:

Clear Creek Colorado needs better transportation options getting into and out of the county, for all types of individuals.

We need to include transportation services to areas that are rural or are not being served by RTD and therefore not Access a Ride. For example, there are sections of Arvada that are not served by any fixed route or Access a Ride. Individuals who live in these areas are home bound.

Access can be a challenge. Less so for people residing in Nederland, and more so for those who reside in the smaller mountain communities that surround Nederland. Regional EcoPasses should be made available for those who may have to travel 12-20 miles to get to Nederland in order to access RTD services. This puts those folks at a huge disadvantage and does NOTHING to assist the populations above in the smaller communities. There is funding available and yet nothing is being done. Tell me why.

Rural transit to significant job hubs.

Access and frequency are problematic. I realize it's the chicken and the egg, but unless there is adequate service, people can't ride. Time is money for retirees, just as much as it is for working people.

More accessible services such as Access-A-Ride for the disabled.

Longer rides. Transportation more often.

Additional weekend service is needed to support faith based activities. Great span of service would support more robust family and community engagement.

The time it takes to use public transportation, families with multiple children find it extra hard to use public transport, a lot of areas on the edge of the region that are not served.

Evening and weekend.

Transportation on demand at hours that are not available for scheduling on a more immediate basis because phone scheduling is closed. Example I need a ride home and it's after 5 so can no longer schedule even an access a cab. If I know before 5 I'm good but if something comes up after?

More frequent service times and more accessible vehicles available, such as vehicles with a wheelchair lift.

Questionnaire responses continued.

Category
Service type
Technology
Training; Electric
Trip types

Additional transportation needs that older adults, individuals with disabilities, or people with low incomes have that are not being met:

"Thru the door" help with walkers, wheelchairs, groceries, etc.

Technology education.

Customized instruction on how to use transportation services. Free electric bike share systems.

Social trip options.

A circulator route is mentioned often, as a need for older, active adults wanting to get to rec centers, library, grocery, etc.

Transportation to the grocery store or others social activities.

It is very difficult for those who is uninsured, has no legal status and old people to get medical care due to transportation.

Currently available systems do not allow the average senior to access transportation without a 7 day call ahead. That is not practical when a Dr. wants you to have lab work tomorrow or come in for a visit due to an emerging health visit. The same systems are not sufficiently funded or built out to allow the number of quality-of-life trips that seniors need.

Health care accessibility.

Patients often refuse to call 911 because they don't want to pay for an ambulance — so it might benefit people if there could be a medical ride service for urgent rides to the Emergency Room that do not rise to the level of ambulance-level care.

Trips to food banks or grocery stores.

Need more focus on food/grocery trips, either through fixed route or micromobility providers.

Shopping trips.

Questionnaire responses continued.

Category
Under 60
Miscellaneous

Additional transportation needs that older adults, individuals with disabilities, or people with low incomes have that are not being met:

Very minimal transportation resources for those under 60.

I would label everything high priority but, I was trying to be reasonable.

Eco Passes should be available to all the above.

Ambassadors, escorts or attendants to support older adults using transportation to account for memory issues, mobility and safety concerns.

All bus routes in Parker have been ceased temporarily due to COVID.

There is a gap in transportation services for those who have Medicare (usually due to a disability) that are under the age of 60. They cannot use senior transportation services and public transportation may be difficult for them to use.

I find that the way to setup transportation services is difficult for seniors.

Any time a person is traveling with more items than that individual can carry is a barrier. Ex: Traveling home from the supermarket or after visiting a food pantry. Traveling with small children and using a stroller is also a barrier — many bus operators require the children to be out of a stroller and the adult to pack up the stroller while riding RTD .

RTD passes, more assistance with more individualized trips and Access-a-Ride.

Allow family member/friend to accompany individual receiving assistance.

Meidcaid-covered rides to WIC.

Getting to the airport.

Make sure we have transportation. A rail station 20 minutes from U.S. 36 on the Denver city line does not help most people. You can no longer take a bus straight to DIA. The Rockies Ride has been canceled and the buses are full by the time they reach Westminster. The Broncos Bus will be canceled later this month.

Strategic priorities

The questionnaire next asked respondents to identify the level of priority that each of the strategies identified in the previous plan should have to meet today's needs. The top four priorities were: first- and last-mile connections, spending funding efficiently, improving access through coordination and affordable fares programs.

All respondents	Low significance	Medium significance	High significance	Rank
First- and last-mile connections.	0.07	0.14	0.8	1
Spend local, regional, state and federal funds more efficiently.	0.04	0.26	0.7	2
Improve access to key services such as health care and employment through coordination.	0.04	0.26	0.69	3
Affordable fares programs.	0.05	0.26	0.69	4
Increase human service transportation coordination efforts.	0.08	0.36	0.56	5
Transit-supportive land use.	0.15	0.3	0.54	6
Address cross-jurisdictional, cross-service boundary and interregional trips.	0.12	0.34	0.53	7
Pilot new technology and practices to improve mobility.	0.12	0.42	0.46	8
Infrastructure improvements such as curb cuts.	0.15	0.45	0.4	9
Travel training.	0.23	0.49	0.28	10

The following tables analyze the differences in responses between residents and other respondents. Residents gave the highest priority to first- and last-mile connections. Other respondents also gave first- and last-mile connections a relatively high priority rating, but they gave their highest priority rating to affordable fares programs. Residents gave affordable fares programs a much lower priority rating.

Residents and other respondents were mostly aligned on giving high priority to improving access to key services such as health care and employment through coordination, and spending local, regional, state and federal funds more efficiently.

Resident responses	Low significance	Medium significance	High significance	Rank
First- and last-mile connections.	0.08	0.11	0.81	1
Spend local, regional, state and federal funds more efficiently.	0.06	0.17	0.77	2
Improve access to key services such as health care and employment through coordination.	0.09	0.34	0.57	3
Transit-supportive land use.	0.15	0.29	0.56	4
Address cross-jurisdictional, cross-service boundary, and interregional trips.	0.15	0.3	0.55	5
Increase human service transportation coordination efforts.	0.13	0.34	0.53	6
Affordable fares programs.	0.11	0.38	0.51	7
Infrastructure improvements such as curb cuts.	0.15	0.36	0.49	8
Pilot new technology and practices to improve mobility.	0.15	0.4	0.45	9
Travel training.	0.36	0.49	0.15	10

Other respondents	Low significance	Medium significance	High significance	Rank
Affordable fares programs.	0.01	0.18	0.81	1
First- and last-mile connections.	0.06	0.15	0.79	2
Improve access to key services such as health care and employment through coordination.	0.01	0.21	0.77	3
Spend local, regional, state and federal funds more efficiently.	0.02	0.32	0.65	4
Increase human service transportation coordination efforts.	0.05	0.38	0.57	5
Transit-supportive land use.	0.15	0.31	0.54	6
Address cross-jurisdictional, cross-service boundary and interregional trips.	0.11	0.37	0.52	7
Pilot new technology and practices to improve mobility.	0.1	0.43	0.47	8
Travel training.	0.15	0.49	0.37	9
Infrastructure improvements such as curb cuts.	0.14	0.51	0.35	10

The questionnaire also asked people to list other strategies to improve mobility for older adults, individuals with disabilities, or people with low incomes. The responses are categorized by general topic in this table. Infrastructure, service expansion and technology were common topics.

Category
Accessible vehicles
Affordability
Affordability; Accessible vehicles
Bus rapid transit; First/last mile
Coordination
Density
Density; First/last mile
Education and awareness

Strategies to improve mobility for older adults, individuals with disabilities or people with low income:

Older adults must have easy-boarding vehicles that provide both physical safety and a perception that service is easy to access. To me, this means level-boarding vehicles, well-spaced seats, comfortable waiting areas with lighting and shelters, and access to parking or bus transfers for light rail.

The Denver region is so expensive, many minimum wage earners cannot live here. Neither can they afford the cost and time required to get to potential jobs in Denver. It is important to facilitate opportunities and ways to get into town from outlying areas.

Affordable options outside of RTD - TNCs with accessibility.

Better overall transit (all-day high frequency BRT, rail) to serve interregional trips. Variety of services for first and final mile. Requirements for assisted living services to include MaaS packages and TMA coordination.

The existing Access-A-Ride service has a reputation for being unreliable service, difficult to schedule, and a "last option" that doesn't meet the expectations of our community. Meanwhile, existing bus routes operate better but have limited service areas/routes. A strategy would be to 1) update policies that link Access-A-Ride to bus service areas 2) improve the frequency of buses as a better option for most needs 3) create a coordinate plan between fixed routes, flex ride, and access services.

Funding for coordinated projects, support local coordinated planning efforts that prioritize local needs.

A coordinated transit plan should include coordination with land use. They are not mutually exclusive. Locating services on high-frequency fixed routes would mitigate the need to specially serve far-flung services.

Land use.

Allow dense, walkable, mixed use neighborhoods where the places people need to get every day are within walking or rolling distance, which will allow transit to much more easily connect these places, and solve the "last mile" problem by reducing that last mile to a walkable distance.

Upzone, mixed use, real urban neighborhoods. Not car dependent sprawl. Neighborhoods built for human beings.

Greater awareness and acknowledgment of mobility-limited client needs.

Education.

(1) More outreach and education about transit and transportation to individuals and institutions. (2) Public education campaign to help people understand the insecurity of reliance on federal funding.

Questionnaire responses continued.

Category
Electric; Infrastructure
First/last mile
Funding; Infrastructure
Infrastructure
Microtransit/ micromobility
Multimodal
Public/private partnerships; Coordination

Strategies to improve mobility for older adults, individuals with disabilities or people with low income:

Electric bicycles, e-bike demos for seniors, discounts and local, regional, state subsidies for electric bicycles. Protected bike lanes.

Protect bikes and pedestrians from vehicles to create a safe "last mile" alternative than cars.

Big scale: Sufficient funding for public transportation options and funding allocations based on equity (benefit to those with the greatest need). Small scale: Effective wayfinding.

Prioritize shuttle and bus travelways in all ROWs.

Make bus stops and paths to bus stops that aren't currently accessible more accessible for individuals with mobility issues.

Improvements in the winter to clearing bus stop areas from snow. We have worked with people who cannot access the bus stop because of piles of snow at the stop and the person has to actually go out into the street to get on or off the bus.

Buffered bike lanes and better connectivity rotting around town and region.

Huge improvements to bus shelters and other infrastructure where you access transit services. Especially improvements for the weather: sun, rain, wind, snow, cold and hot temperatures.   Physical access to transit ramps low floors etc. improved pedestrian interface, much improved transit frequencies and access at non-standard hours. Coordination between transpiration providers remains a huge issue.

Make sure there are places to sit at all transit stops.

More micro-transit, demand responsive services.

Promotion of active transportation and how a combination of transportation modes might be the most effective way to go from point A to Point B.

Public/private partnerships - especially in hard to serve areas.

 An agency coordinated look at where gaps in public transportation exist (i.e. RTD has first/last mile, Access-a-ride inefficiencies, Senior ride dollars can't cross jurisdictions, local rides are just that - very local) How can these work together to help all the problems?

Questionnaire responses continued.

Category
Ridesharing
Rural
Service expansion
Service expansion; first/last mile
Service frequency
Technology

Strategies to improve mobility for older adults, individuals with disabilities or people with low income:

Make a senior ride share for call in bus service.

Expansion of services, routes to less urban areas.

Creativity needs to be applied to the mountain community transportation issues that are not associated with Nederland, which serves as the hub town. Funding for passenger vans could go a long way to assisting these groups with access to critical services. Esp. as the Federal Govt desires to cut funding for Post Offices. These things impact rural communities more than anywhere else.

Expansion of services.

Expand service boundaries.

I worked with the senior population and it seems that expansion of service needs to be a priority. I depended on the Senior Resource Center frequently and many times they were unable to fill a request. Thank you.

provide service during times its needed through expanded service and on-demand.

Experiment with increasing fixed route service where it is efficient (i.e. dense, walkable routes) and provide first/last mile connections to that service for folks who are older, disabled, or low income. This should be easy, not burdensome.

Smaller less expensive buses to operate that come more frequently and have more routes, maybe.

Support driverless cars.

I think we need what we were working on a few years ago which is a one stop shop, one number to call regional brokering system that can match people with the right service for a particular need. This system would utilize all local providers(including maybe finally getting Access-a-Ride to coordinate), and would enable people to have access to everything ranging from volunteer drivers to Uber/Lyft to lift accessible busses depending on their need, destination, etc.

The sooner we can coordinate scheduling, interconnection, fare collection, etc. between as many systems as possible (e.g., RTD, Bustang, Taxis, Uber/Lyft, Scooters, etc.), the better.

The Whim system is a shining example of this -> WhimApp.com .

Questionnaire responses continued.

Category
Technology; Accessible vehicles
Technology; Miscellaneous
Trip types
Volunteer driving programs
Miscellaneous

Strategies to improve mobility for older adults, individuals with disabilities or people with low income:

Brokering services through private mobility services such as Uber and Lyft. and taxi companies. Creating programs which are able to identify vehicles with can accommodate wheelchairs and scooters.

Expansions to service.

Easier access to live time bus routes/times (many people experiencing houselessness do not know service times or frequency).

Grants to help people fix their cars/tag them.

Convenience store deliveries like from King Soopers to apartments.

A weekly or bi-weekly free transportation that transport seniors as well as people with disability to grocery store, food banks and other social activities. Also, work to coordinate transportation across regions.

Support volunteer driving programs, including helping recruit drivers to offer more trips.

Provide opportunities for individuals with disabilities to be part of the planning process.

Reasonable cost car service (Uber, Lyft) to RTD contact points.

needs to have different transportation options for both population who gets medical transportation and does not qualify for medical transportation.

I think the Flex Ride Service is beneficial, but I'm not sure how familiar people are with how to connect with and use that service. Kind of like Access-a-Ride, better coordination may help to fill more seats in each vehicle to make the services more cost effective.

Pay close attention to employment hubs, ex spaceport, Amazon.

Linkage of transit to areas where population needing transit live.

Better information on bus and trains so you know where you are and when to get off. Example: the route signs inside the bus are so small you can't see them.

Also, get rid of bus and transit advertising wraps that cover the windows. It makes it hard to see out and know where you are; but they're also a safety issue (at night if I want to board a bus or train, I don't feel safe if I can't see who's in the bus already).

None that immediately come to mind that aren't included in the previous Coordinated Transit Plan.

Make busses have a fee so homeless don't get on. Autonomous busses/drivers is needed. I would like to see a maglev going from Colorado Springs to Fort Collins.

Interactive polling input

In several virtual meetings between May 2020 and June 2020, DRCOG staff administered an interactive poll through Mentimeter with questions similar to the SurveyMonkey questionnaire described above. In total, DRCOG received 120 responses. These meetings included:

- Denver Regional Mobility and Access Council member meeting (28 respondents)

- Arapahoe County Local Coordinating Council (12 respondents)

- RTD Citizens Advisory Committee (5 respondents)

- Denver Community Active Living Coalition (16 respondents)

- Denver Local Coordinating Council (10 respondents)

- DRCOG Advisory Committee on Aging (19 respondents)

- Boulder Local Coordinating Council (30 respondents)

Needs and gaps

Interactive poll respondents were asked to rank the significance of each of the needs identified in the Coordinated Transit Plan developed in 2016 on a scale of 1 (lowest significance) to 5 (highest significance). The most significant needs identified were improving access to health care for non-emergent (emergency) visits, transportation information and referral services, affordable fares and meeting increasing demand. While many of these overlap with the results from the questionnaire, polling respondents placed higher significance on information referral services than the questionnaire respondents. The full results, showing the average ratings among all respondents, are displayed below:

Need	Rating
Expand volunteer driver programs	~3.45
Remove barriers to ride fixed route, including improving access to bus stops and rail stations and providing travel…	~3.9
Increase service areas, frequency, service hours (nights and weekends) where gaps exist	~4.05
Make sure that veterans have access to transportation	~4.1
Increase transportation options for quality of life trips such as hair appointments and social visits	~4.1
Better regional coordination to build on improving local coordination	~4.15
More cross-jurisdictional trips, better trip coordination, and more accessibility	~4.2
Meet increasing demand for transportation as the population increases and ages	~4.45
Affordable fares, especially for older adults, individuals with disabilities and/or low incomes	~4.5
Accessible and understandable transportation information and referral services	~4.5
Improve access to healthcare for non-emergent visits	~4.55

An open-ended polling question also asked people to identify any needs or gaps that were not included. The responses are categorized by general topic in this table. Comments related to technology, safety, infrastructure, funding and first-/last-mile were common.

Category
Behavioral
Bike
Climate
Congestion
Coordination
Coordination
Density
Density; service expansion
Density; technology
Dependability
Electric

Other needs that have not been mentioned

Helping people see that they can use other options beside driving themselves.

Making life without a car easier for metro residents.

Free days, close the roads for bikes like it's happening now due to COVID.

Tying to climate goals.

Congestion on trains at peak times.

DRCOG as coordinator for all rubber tire rides to avoid wasted empty miles. In other words, increased loaded miles through better coordination.

Creative coordination ideas/new models/more innovation.

Working with local governments more.

Land use around transit.

Need to increase service in highest density areas to create the possibility of living in Denver without a car.

The lack of progress toward increasing density across the region, and the living-in-place, continues to put pressure on transit solutions. Also, where is the future of autonomous vehicles!

Schedule consistency. People need dependability. Also poor/no communication when lots are full. Also people still don't know how to ride the bus.

Faster response time.

Quick turn-around trips.

Electric bicycles.

Free e-bike through city bikeshare program.

Solar powered bike share stations so no need for expensive electric power construction.

Polling responses continued.

Category
First-/last-mile
First-/last-mile; electric
Funding

Other needs that have not been mentioned

First-/last-mile transit.

First- and last-mile connections to transit.

Gaps in first-/last-mile.

More of a solution than a need: first- and final-mile(s) access.

First- and last-mile connections to transit.

First-/last-mile.

First-/last-mile.

First- and last-mile.

Electric bikes

Funding.

Funding.

Funding.

Flexible funding.

Funding. Inter county transit.

Absolutely funding.

Seniors using transit.

Better cost and funding coordination to maximize services for the various populations. Get the best services for the least costs....

Training, additional funding.

Innovative funding/free public transportation.

Did we mention funding?

Polling responses continued.

Category
Infrastructure
Microtransit/ micromobility
Multimodal connections
Options
Parking
Public/private partnerships
Trip types
Ridesharing
Ridesharing; Technology

Other needs that have not been mentioned

Poor quality sidewalks.

Sidewalk maintenance.

Better, safer access for pedestrians.

Well-lit, accessible, dry and safe transit stops.

Covered shelter at each stop.

More attractive and clean bus stops.

Accessible transit stops.

Bus stop improvements.

Micro transit options.

Micromobility.

Micromobility and shared mobility.

Connect bikes/peds to public transit.

Connecting bike corridors.

Adams County's complete lack of transportation.

Parking.

Public/Private Partnerships.

More private-public partnerships.

Rides beyond medical needs.

Ridesharing.

Ride share program coordination/technology.

Polling responses continued.

Category
Rural
Safety
Safety; language; transfers
Service expansion
Service type

Other needs that have not been mentioned

Eastern Plains! After hours transportation.

More Eastern Plains help.

Rural transportation.

Rural.

Personal Protective Equipment (PPE) for drivers/riders.

Ditto safety.

Rider safety.

Vehicles that are easy to disinfect.

Language access, length of transfers, driver safety, rider safety.

Increased routes.

Transportation for younger senior population, including people over 50.

Student of all ages transportation.

Extending routes. (Rte14) To longer hours as it only runs through a certain time.

Connecting the gaps overall.

Thru the door help.

Thru the door help.

Continued revision of services for disabled.

Smaller local circulators.

Polling responses continued.

Category
Technology
Miscellaneous

Other needs that have not been mentioned

Technology; innovation of transportation.

Technology barriers.

Self driving cars due to driver shortages.

Using apps/ Google maps, etc.

Use of new transportation technology.

Apps/technology training.

Simple pass or fare-card system that can be used with all forms of transportation.

On demand.

Flexible options.

The gaps from county to county.

Continued delivery options - past COVID.

Cooler buses.

Make larger closer roads on Larimer and other "fun" streets.

Rapid transit.

Getting diverse perspectives and voices in the planning process.

C470 E/W transit.

Staffing/drivers.

Walking districts.

Instituting mandatory work from home for all office jobs so traffic is permanently reduced.

Training for transportation providers to work with folks living with disabilities.

Strategic priorities

Next in the interactive poll, attendees were asked to rate the level of priority that each of the strategies identified in the previous plan would have to meet today's needs. These again were on a scale of 1 (lowest priority) and 5 (highest priority). The top four priorities were first- and last-mile connections, improving access through coordination, spending funding efficiently and affordable fares programs. These are the same top four priorities that were identified by respondents in the SurveyMonkey questionnaire.
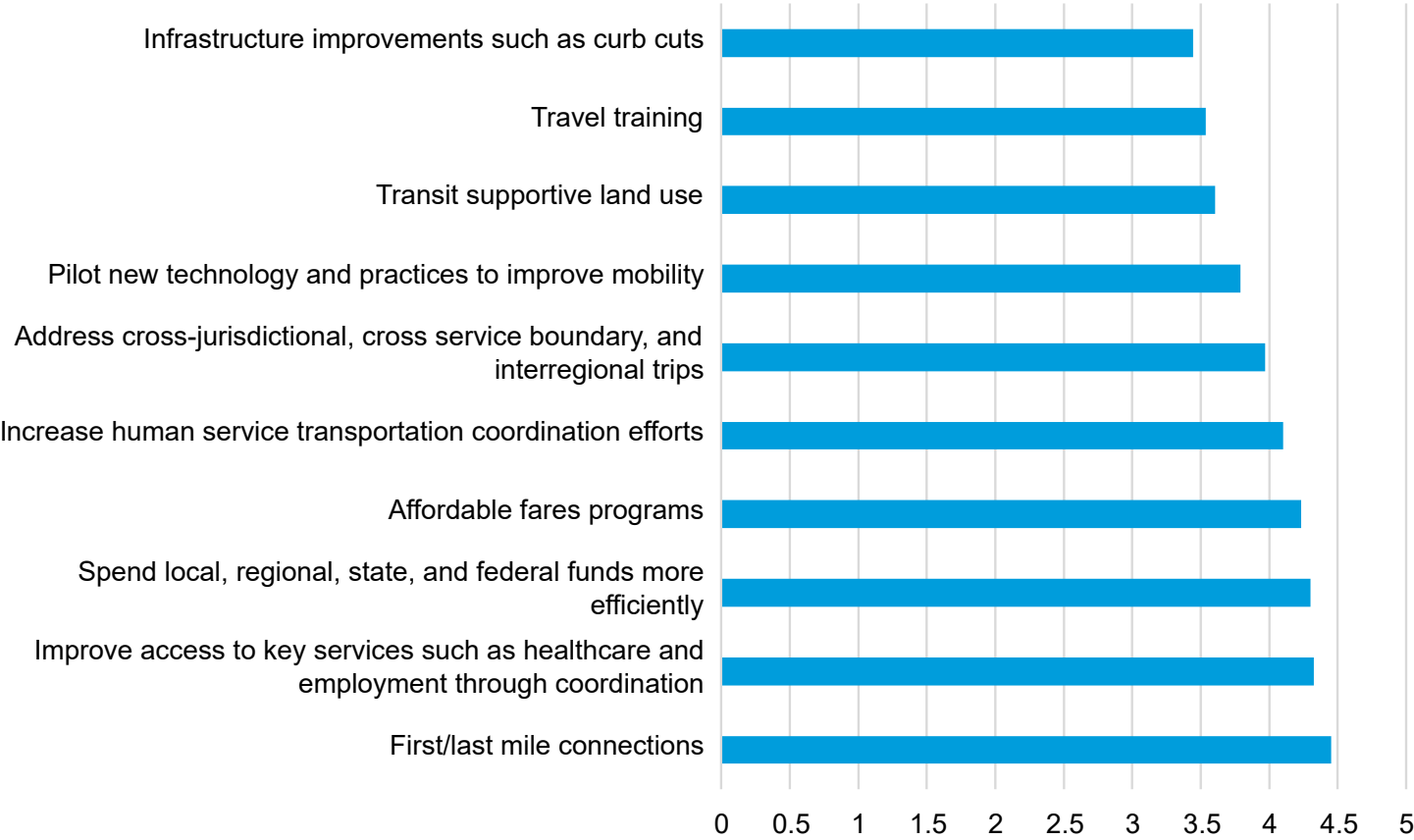
The interactive poll also asked people in an open-ended question to identify potential other strategies to address the needs and gaps. The full responses are listed and categorized by general topic below. Education and awareness, coordination, funding, and technology were common topics.

Category
Behavioral
Biking
Bus rapid transit
Climate
Coordination
Density

Other strategies to address the needs and gaps:

Develop a culture of public transit use.

Incentives to get drivers out of their cars.

Change habits of commuters.

More bike lanes everywhere.

Regional bikeways.

Low stress bike networks.

Expand Bus Rapid Transit corridors as a cheaper alternative to fixed rail.

Engage with Climate Taskforce.

Green stimulus.

Get Medicaid transportation providers to the coordination efforts.

working closer with other counties and strategic plans

Providers such as Medicaid, Access-a-Ride, etc. need to be more willing to work together.

Jurisdictions working together, especially munis.

More coordination between providers. Also, rather than introducing new service look at wats to significantly improve current services and collaboration.

More coordination in general between local governments, nonprofits, providers.

Work with medical providers.

Support stronger LCC Strategic Planning Efforts.

Cross sector projects - public, nonprofit, for profit.

Work closer with local governments.

More rigorous link between density, particularly higher density affordable housing, and transit investment.

Polling responses continued.

Category
Education and awareness
Funding
Increase transit use
Infrastructure

Other strategies to address the needs and gaps:

Education.

Educate public on tele med options and Dispatach health (they accept all insurance- Medicaid?).

Better public communication about everything: funding, ease of use, how we can help, etc.

More awareness is needed. We have so many resources but not everyone knows about them or how to access them.

Voter education.

Awareness of the various programs that are offered. Also more collaboration between all stakeholders to better partner in our efforts.

More education and understanding on transportation and older adult needs.

Voter education on transportation funding and its scope.

State funding for low-income/disabled/elderly/students.

RTD needs to work with our district members to maximize efficiency and costs using others funding and resources.

Charge fees to TNCs that can be used for this.

Coordinate human services transportation funding at the state level.

Flexibility in funding.

Higher gas taxes.

More funding for vulnerable populations.

Less cars!!!

Getting people to use transit.

Makes shared streets permanent.

Open more streets permanently.

Transit-friendly urban design.

Road design that fully accommodated bikes, peddling and transit.

Re-think urban design in terms of cars.

Polling responses continued.

Category
Parking
Public/private partnerships
Rural
Rural; Education
Safety
Service expansion
Staffing
Staffing; Biking; Training
Technology

Other strategies to address the needs and gaps:

Increased parking fees.

Eliminate free parking regionwide.

Public/private partnerships.

Problems with transportation at the rural ends of our counties.

Outreach to rural communities.

Reducing speed limits.

Increase number of service providers.

Driver incentives to create a happier, healthier workforce.

Driver shortage solutions.

Campaign to build a stronger driver workforce.

Hiring effective workers.

By offering good compensation.

Teaching people biking etiquette.

Offering free rides every so often so people can try out RTD.

I think that the Ride Alliance will help, as it gets establish. The current Ride experience with RTD or local agencies being able to expand to include tech training.

Real time transit (and free phone app).

How to best use technology (especially from the private sector) to leverage coordination.

Internet access.

Single payment option for all providers.

Internet access.

Much better management of, and integration with, newer forms of transportation like TNCs, electric bikes/scooters, and whatever may be coming whether we like it or not.

Ditto technology.

Av tech.

WiFi on transit.

Polling responses continued.

Category
Telework
Volunteer driving programs
Miscellaneous

Other strategies to address the needs and gaps:

Making work from home mandatory for all office jobs.

Telework and telecom-medicine help!

Expanding volunteer driving programs to cover adults with disabilities (or even temporary injuries) who are not 60-plus and do not qualify for senior services.

More volunteer drivers.

Review governance of various organizations

Therapists or social services offered on the ride.

Ride sharing and transit have taken a hit with COVID!

Throw out the barriers to efficiency and efficacy and then put the ones back in that are really important.

Community mobility centers located in workplaces and neighborhoods. Free transit passes, free WiFi.

More WAVs.

Congestion zone for cars in Denver Central Business District and Denver Tech Center area.

Address police role in enforcement.

Mileage-based motor vehicle insurance.
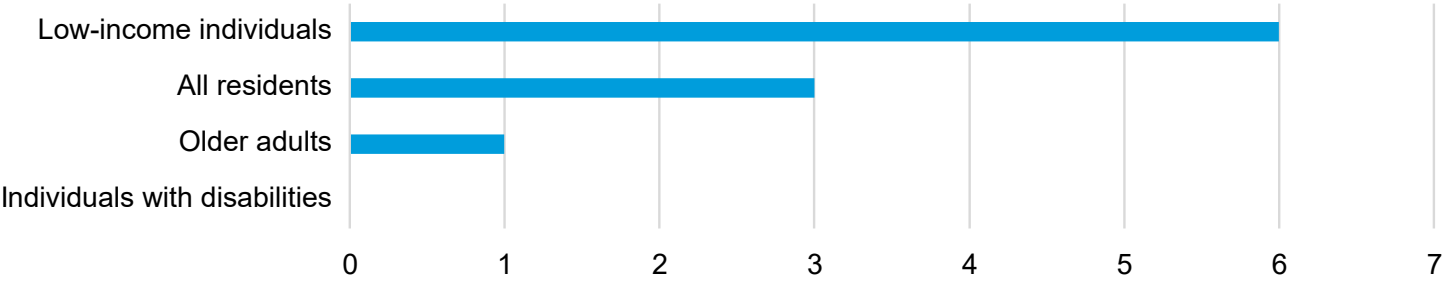
Advisory group input

In February 2020 and March 2020, the Youth Advisory Panel and Civic Advisory Group were briefed about the Coordinated Transit Plan. A short interactive polling activity solicited general input from the groups about current barriers and needs for public transportation. Responses from the groups varied regarding the main barriers to using public transportation, although lack of direct transport and long travel time were both identified as some of the most significant barriers by many group members. The Youth Advisory Panel identified the habit of driving as the most significant barrier, while the Civic Advisory Group considered the need to make multiple connections to be most significant. Both groups indicated that low-income individuals have the greatest need to be served by transit. The full results are displayed on the following pages.

Youth Advisory Panel

What do you think are the main barriers to Denver region residents using public transportation more?
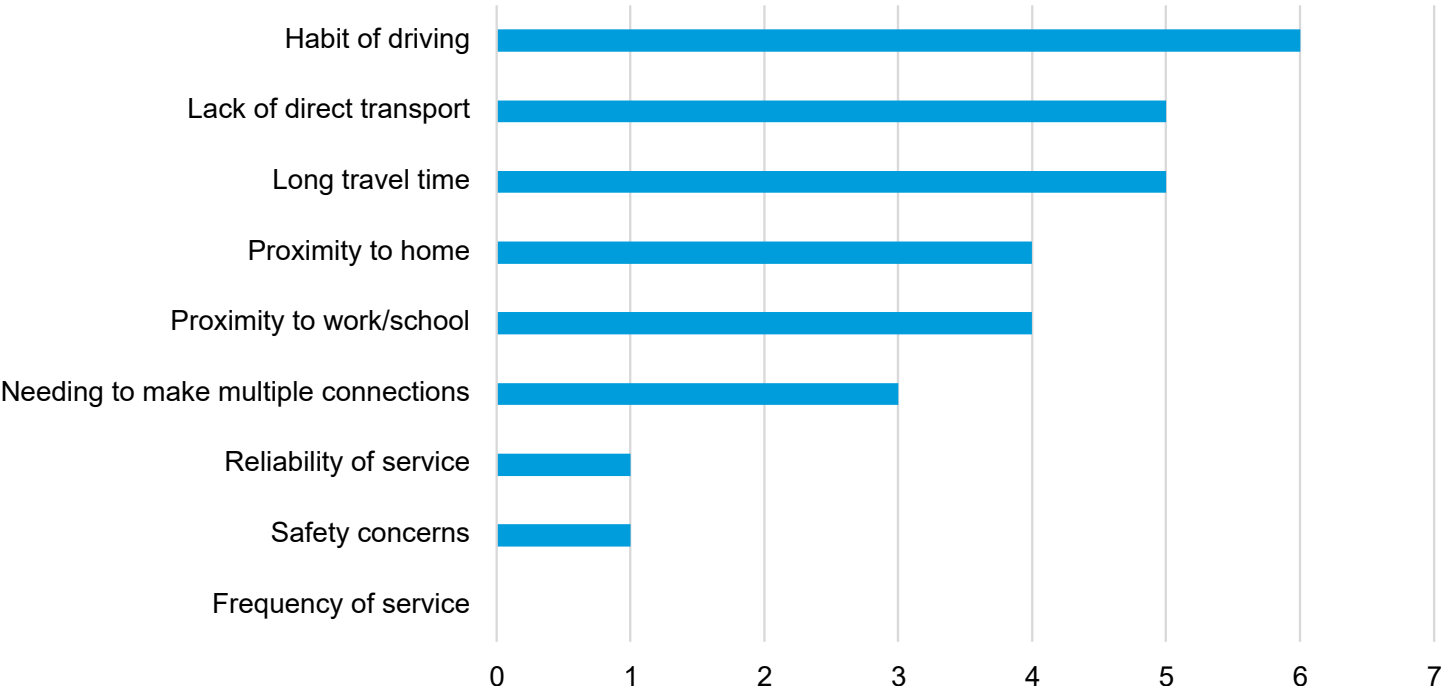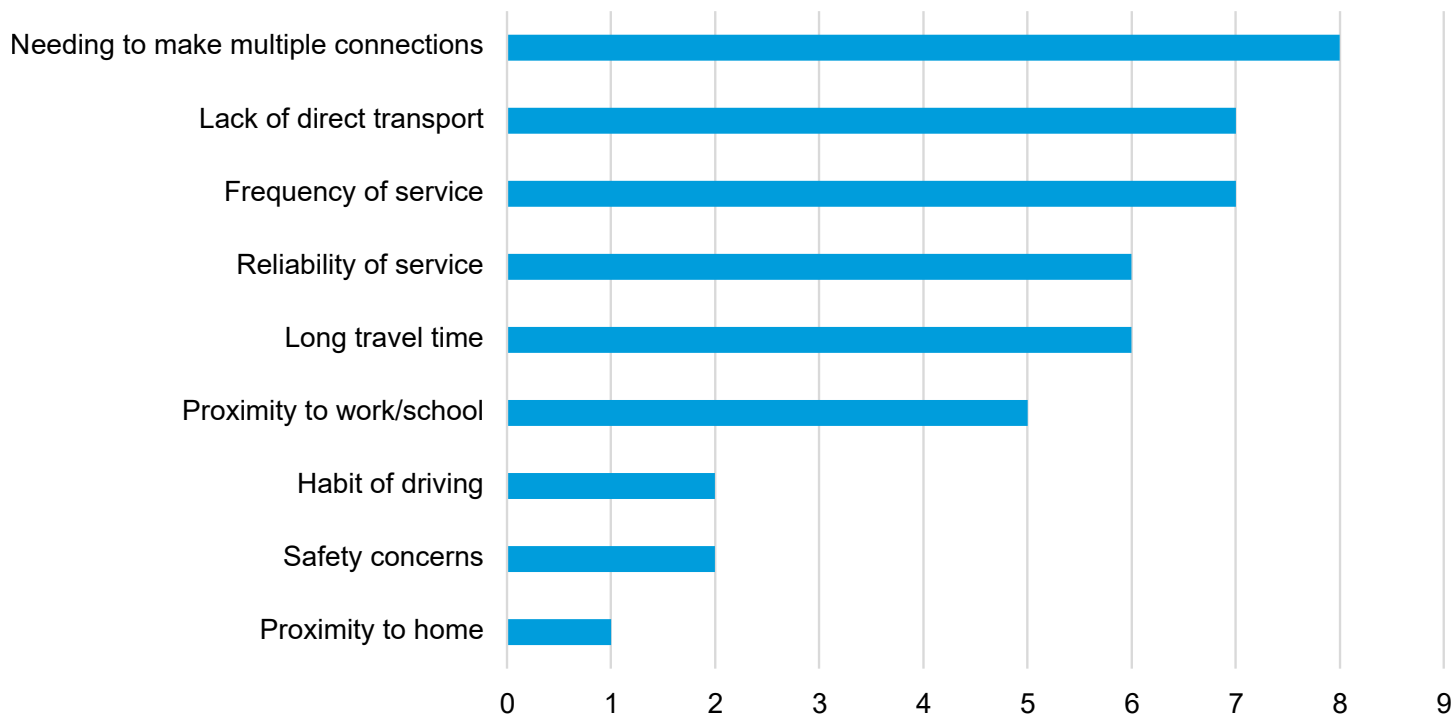

Which Denver region residents do you feel have the greatest need to be served by transit?

Civic Advisory Group

What do you think are the main barriers to Denver region residents using public transportation more?

Barrier	Value
Needing to make multiple connections	7
Lack of direct transport	7
Frequency of service	7
Reliability of service	6
Long travel time	6
Proximity to work/school	5
Habit of driving	2
Safety concerns	2
Proximity to home	1

Which Denver region residents do you feel have the greatest need to be served by transit?

Residents	Value
Low-income individuals	7
All residents	4
Individuals with disabilities	3
Older adults	2