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The Ride

RTD
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FaTracks

Quality of Life
High Level Measures Report

2011



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Introduction

Purpose of the Study

In 2004, voters living in the Regional Transportation District (RTD) approved a 0.4 percent sales and use tax initiative to fund the FasTracks Program. FasTracks is a regional rapid transit expansion that consists of nine rail lines (new or extended); one bus rapid transit (BRT) line; redevelopment of Denver Union Station (DUS); a new Commuter Rail Maintenance Facility (CRMF); and an expanded light rail maintenance facility. At completion, FasTracks will add approximately 93 miles of commuter rail; approximately 28 miles of light rail; and 18 miles of BRT.

The FasTracks Plan, which was adopted by the RTD Board in April 2004, includes three core goals:

- Establish a proactive plan that balances transit needs with future regional growth.
- Increase transit mode share during peak travel times.
- Provide improved transportation choices and options to the citizens of the (Regional Transportation) District.

While much of the emphasis on the FasTracks Program is on design and construction of new rapid transit corridors, the RTD Board also recognized the need to track progress toward the core goals over time. This interest, along with the Federal Transit Administration (FTA) requirements for “Before and After” studies on corridors receiving federal New Starts funding, led to the creation of the Quality of Life (QoL) Study. The QoL Study was initiated to identify, track, and measure how the FasTracks Program is achieving the adopted goals over time. Additionally, the study is intended to objectively identify and quantify FasTracks’ effects on the region, rapid transit corridors, and station areas as new and expanded rapid transit service is planned, constructed, and opened for service.

This is the sixth annual report for the QoL Study and it is intended to provide a snapshot of the regional conditions directly affected by FasTracks in 2011.

Study Scope

The QoL Study is a multi-year program that began with the establishment of a “baseline” dataset in 2006 (pre-FasTracks implementation and pre-Southeast Rail Line opening) and will continue at least two years after FasTracks has been constructed and opened for service. RTD publishes a QoL Detailed Report presenting data collected for all of the QoL measures every three to five years. The *Quality of Life Study Baseline Report – 2006* was published in February 2008 and provides the results of the baseline data collection effort. The opening of the Southeast Rail Line provided an opportunity to examine the “before and after” effects of rapid transit. However, while significant progress has been made on the FasTracks Program, no lines are yet operational. Thus, last year’s *Quality of Life Detailed Report – 2010* was a “re-baselining” effort that provided key reference data prior to the opening of the West Rail Line in 2013 and future FasTracks rapid transit lines. The re-baselining effort also allowed refinement to some data collection methodologies based on new data sources.

To monitor the effects of the FasTracks Program across a range of local and regional interests, QoL data are collected at the following geographic scales:

- Region
- Rapid Transit Corridor (Existing and Future)
- Rapid Transit Station Area (Existing and Future)

Though data are collected at all three geographic levels, it is important to note not all areas are expected to be affected by the FasTracks investment. For example, data collected at a regional scale are needed to provide context and perspective for measuring change in the corridor and station areas, which will be more directly affected by FasTracks. The QoL Study focuses on the “quality of life” in the context of those areas most affected by transit improvements and those addressed in the FasTracks Plan: mobility, environment, economic activity, development, and land use.

Reporting frequency varies by measure, with the full set of measures reported in the detailed reports every three to five years. High level reports, such as this one, provide the results for a subset of twelve high level measures which are identified in bold type in the Quality of Life Measures Summary. Fuel Cost is a new measure added to the 2011 High

Level Measures Report due to the relationship it may have with transit ridership. The high level reports are provided annually between the detailed reports and serve to demonstrate the early effects of the Program in the years before and during construction. The annual high level reports are also used to develop trend lines for key measures that will allow FasTracks' effects to be more easily identified over time as elements of the Program are completed.

Study Measures

To better define and organize the data collection effort, objectives were established for each of the RTD Board-adopted FasTracks Plan goals. The objectives help define the relationship between the goals and the impact on the quality of life of residents within the District. Indicators and quantifiable measures were then defined for each of the objectives. These quantifiable measures drive the data collection and reporting effort for this study. An example of the data structure is provided below with the full set of measures and corresponding objectives defined in the Quality of Life Measures Summary.

Goal: Establish a proactive plan that balances transit needs with future regional growth

Objective: Meet future transportation needs

Indicator: Population Growth

Measure: Corridor Population Density & Regional Urban Residential Density

The QoL Study will also fulfill some of the requirements of an FTA "Before and After" Study for the federally funded corridors. However, many measures were selected not because of FTA requirements, but because they will help provide a complete picture of the "quality of life" benefits and impacts on the region. An example of a measure that goes beyond the FTA requirements and highlights the uniqueness of the QoL Study is provided below.

Direct and Indirect Job Creation- The number of jobs directly supported by the FasTracks projects as well as the number of jobs created due to new transit-related development are being tracked over the life of the FasTracks project. It has been shown throughout the country that development around transit is continuing to occur and support construction jobs even when development has slowed in the surrounding region. Therefore, the FasTracks Program is helping support the metro Denver economy both through direct and indirect jobs.

Quality of Life Measures Summary

High Level Measures **Bolded Below**

Goal: Establish A Proactive Plan
That Balances Transit Needs With Future Regional Growth

Goal: Increase Transit
Mode Share at Peak Times

1	Meet Future Transportation Needs	Population Growth	Population (R, C)		
		Job Growth & Employment	Urban Land Consumption (R)		
		Housing Growth	Urban Residential Density (R)		
2	Provide Opportunities for Development Near Transit	Economic Activity	Population Density (C)		
			Annual Change in Employment (R)		
		Property Value	Directly Supported Jobs (R)	PG 2	
			Indirect Job Creation (R)		
		Sustainable Design	Economic Activity	Unemployment Rate (R)	
				Employment (S)	
			Property Value	Housing Starts (R)	
				RTD Sales Tax Revenue (R)	PG 4
				Taxable Retail Sales (R)	
				Fuel Cost (R)	PG 6
Air Quality	New Development (S)	PG 8			
	Apartment Rent (R, S)				
	Housing Affordability Index (R, C, S)				
Energy Consumption	Transportation Cost (R, S)				
	Commercial Lease Rates (S)				
	Property Values (S)				
3	Environmental Sustainability	Sustainable Project Features & Actions (R)	Sustainable Project Features & Actions (R)	PG 10	
			Vehicular Emissions (R)		
		Number of Air Quality Exceedences (R)			
		Transportation Energy Consumption per Capita (R)			
		Excess Fuel Consumed Due to Congestion (R)			
		Fuel Saved Due to New Transit Trips (R)			
		Ridership	Mode Share (R, S)		
Transit Boardings (R, S)					
4	Transit Usage	Annual Transit Boardings per Capita (R)	PG 12		
		Passenger Demographics (R)			
		New Transit Riders (R)			
5	Travel Safety & Security	Safety Benefit (R)			
		Crime Rate on RTD Property (R)			
		Security Resource Inventory (R)			
		Passenger Perception	Safety Perception (R)	PG 14	

Goal:
 Improve Transportation
 Choices & Options

6 Customer Satisfaction	Passenger Satisfaction	Overall Service Rating (R)	PG 16
	Vehicle Miles Traveled	Transit VMT Impact (R) Vehicle Ownership (R,C,S)	
	Congestion	Extent of Congestion (R) Duration of Congestion (C)	
	User Cost Savings	Motorist Congestion Cost Savings (R) Transit Riders Cost Savings (R)	PG 18
	Travel Times	Corridor Travel Times (C)	PG 20
7 System Mobility	Traffic Volumes	Travel Time Variability (C) Peak Period Freeway Volumes (C) Peak Period Arterial Volumes on Parallel Streets (C)	
	Transit Service	Miles of Rapid Transit Facilities (R) Revenue Hours of ADA Service (R) Transit Revenue Hours (R)	
	Transit Access	Access Mode (R)	
	Auto Access	Park-n-Ride Capacity & Utilization (S) Park-n-Ride License Plate Survey (S)	PG 22
	Bike Access	Bicycle Parking Inventory (R) Bike-on-Bus Usage (R) Station Bicycle Access (S)	
	Pedestrian Access	Population within Walking Distance (S) Employment within Walking Distance (S) Station Pedestrian Access (S)	
	Household Access	Population Served by High-Frequency Transit (R)	
	Job Access	Employment Served by High-Frequency Transit (R)	
	Destination Access	Regional Destinations Served By High-Frequency Transit (R)	PG 24
	Land Use	Transit Supportive Zoning Changes (S)	

(R) Regional Measure (C) Corridor Measure (S) Station Area Measure

Given that the QoL Study is a multi-year, long-term data collection program that uses many different data sources, it is expected that more refined data or methods may become available over time. When this occurs, new data sources and/or methodologies are investigated and a decision is made to keep the original or use the updated information and/or methodology. The primary concern is consistency and the ability to compare individual measures over time. Hence, any new data source or methodology must be significantly improved compared with the original to warrant a change.

FasTracks Status

Significant progress has been made on the FasTracks Program since the passage of the ballot initiative in 2004. At the end of 2011, overall construction progress for the West Rail Line was at 84 percent, with all stations in varying stages of completion, including the newly relocated Auraria West Station, which opened to the public in October 2011. Additionally, all elements of the Eagle Project were under construction. At DUS, the light rail station portion of the facility was opened in August 2011, approximately 50 percent of the bus facility has been constructed, and excavation of the commuter rail platforms was underway.

A key accomplishment has been the successful Public-Private Partnership (P3) for the Eagle Project, which is a combination of the East Rail Line, Gold Line, and the Northwest Rail Electrified Segment (NWES). In 2010, RTD entered into a Concession Agreement with Denver Transit Partners (DTP) to design, build, finance, operate, and maintain the Eagle Project. Additionally, the Eagle Project received a Full Funding Grant Agreement (FFGA) for federal New Starts grant funding from FTA in August 2011.

While progress has been made since the passage of the 2004 ballot initiative, the FasTracks Program has been shadowed with a degree of uncertainty. Construction material cost escalation and falling revenues in particular have impacted the schedule and budget for the Program. In 2012, based on cost estimates and revenue projections, the schedule for Program completion moved from 2035 to 2044 without any additional sources of revenue. Several elements of the Program will be completed by 2016, but without additional revenues, the remainder of the Program will be implemented as funding becomes available.

2011 Findings

The economic situation of the region and country as a whole has continued to affect the findings of the QoL Study. The key findings from the 2011 analysis are summarized below:

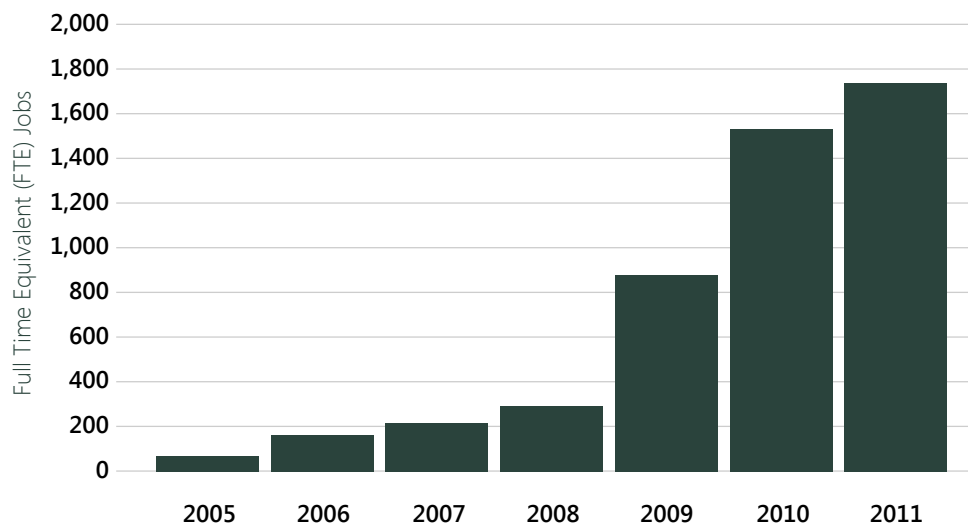
- While many jobs have been lost due to the economic recession, the FasTracks Program has continued to add jobs to the local economy. The number of FasTracks directly supported jobs has continually increased since 2005, with a 2011 increase of 11 percent over 2010.
- Taxable retail sales in the RTD District increased by 0.7 percent between 2010 and 2011. Although taxable retail sales are higher than 2009 and 2010 levels, they are still only slightly higher than in 2004.
- Development projects near existing and future rapid transit stations have continued to decline due to the economic cycle. The downward trend near stations is consistent with overall development decreases in the Denver region.
- Despite the economic downturn, RTD system wide transit ridership increased by 0.4 percent between 2010 and 2011.
- Overall customer satisfaction of RTD service has remained at high levels. An already high overall service rating of 4.1 (out of 5) in the 2005/2006 survey increased to 4.2 in the 2011 survey.
- As congestion grows on roadways, transit travel times to downtown Denver from existing light rail end-of-line stations are faster than auto travel times. For both the Southeast and Southwest corridors, peak period transit travel times are at least five minutes faster than auto peak period travel times.
- While RTD's parking management program (implemented in 2009) initially caused some fluctuations in usage, average Park-n-Ride utilization levels have remained generally stable.
- Even with economic challenges, RTD has continued to provide high-frequency transit service to 31 percent of regional destinations.

Meet Future Transportation Needs

JOB GROWTH & EMPLOYMENT

Directly Supported Jobs | While the Denver region overall has experienced job losses and increased unemployment rates since 2006, the FasTracks Program has created increasingly more jobs during the same time frame. Throughout the life of the FasTracks Program, many jobs have been and will continue to be generated in order to plan, design, construct, and operate the projects. These jobs include RTD internal staff and contracted employees working directly on the project, such as corridor studies, construction, public involvement, and quality oversight staff. Since many people working on the FasTracks Program do not work on the Program full-time, results are represented in numbers of Full Time Equivalents (FTEs).

FasTracks Directly Supported Jobs



As the FasTracks Program has progressed and more corridors have advanced into design and construction phases, the number of jobs directly supported by the program has grown. Since 2010, the number of jobs has increased by 11 percent. With construction fully underway on the West Rail Line and Eagle Project, jobs directly supported by that construction account for 34 percent and 28 percent of all FasTracks jobs, respectively. As FasTracks starts construction on additional lines, the number of jobs directly supported by the Program is expected to continually increase.



Directly Supported Jobs

The number of Full Time Equivalent (FTE) jobs created directly from the FasTracks Program. This includes RTD internal staff and contracted employees working directly on corridor studies, construction, public involvement, and quality oversight.

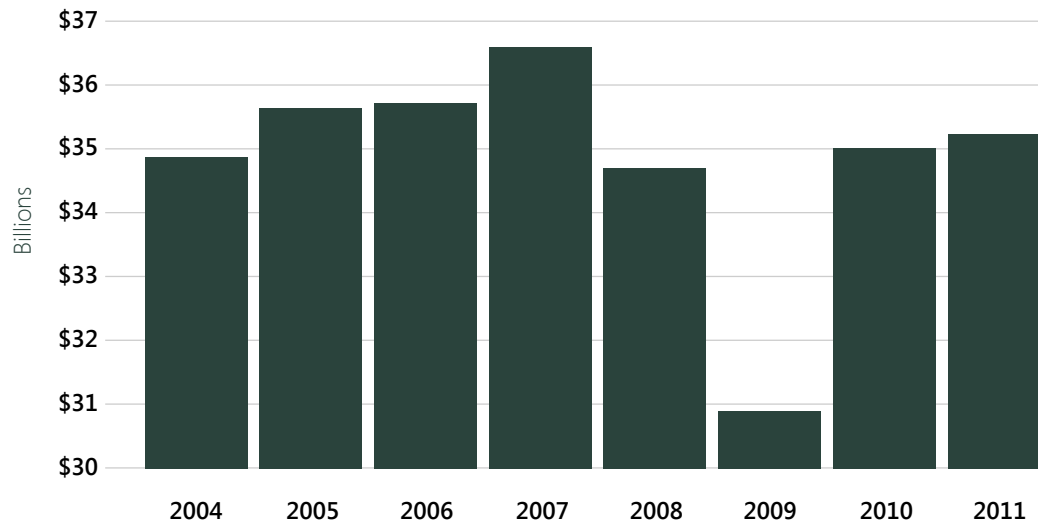
Source: RTD

2 Provide Opportunity for Development Near Transit

ECONOMIC ACTIVITY

Taxable Retail Sales | Taxable retail sales represent a critical measure of the economic strength of the Denver region and the level of business being generated within the RTD boundary. Additionally, sales tax revenue impacts RTD and the FasTracks Program as it is the primary source of funding for both RTD's regular operations as well as the planning, construction, design, and operation of FasTracks. The annual results for this measure are adjusted for inflation based on the Bureau of Labor Statistics' Consumer Price Index (CPI) to allow for meaningful comparisons and growth trends.

Taxable Retail Sales within the District



The economic recession resulted in a 15.6 percent decrease in taxable retail sales between 2007 and 2009. In 2010 and 2011, taxable retail sales increased due to increased consumer and business spending activity. Taxable retail sales grew by 13.2 percent in 2010 and by 0.7 percent in 2011, but are still lower than pre-recession levels. Fluctuation in regional sales tax revenue will continue to impact RTD's services, but RTD will continue to explore options to overcome the funding shortfall.



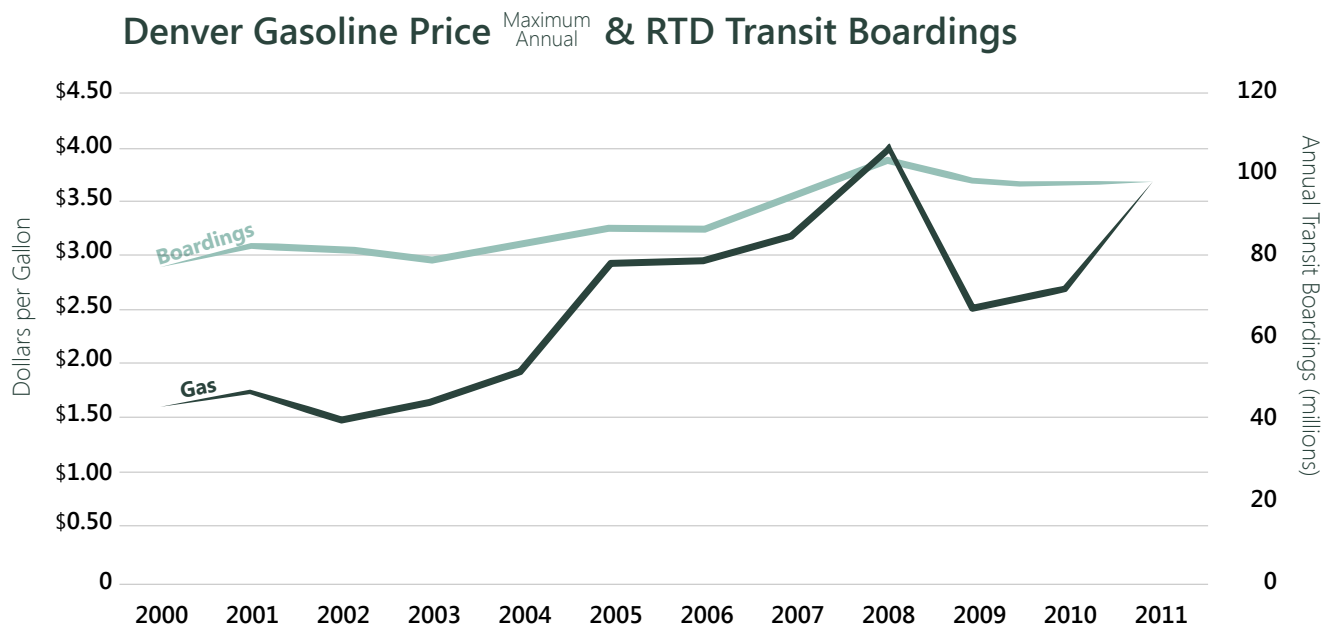


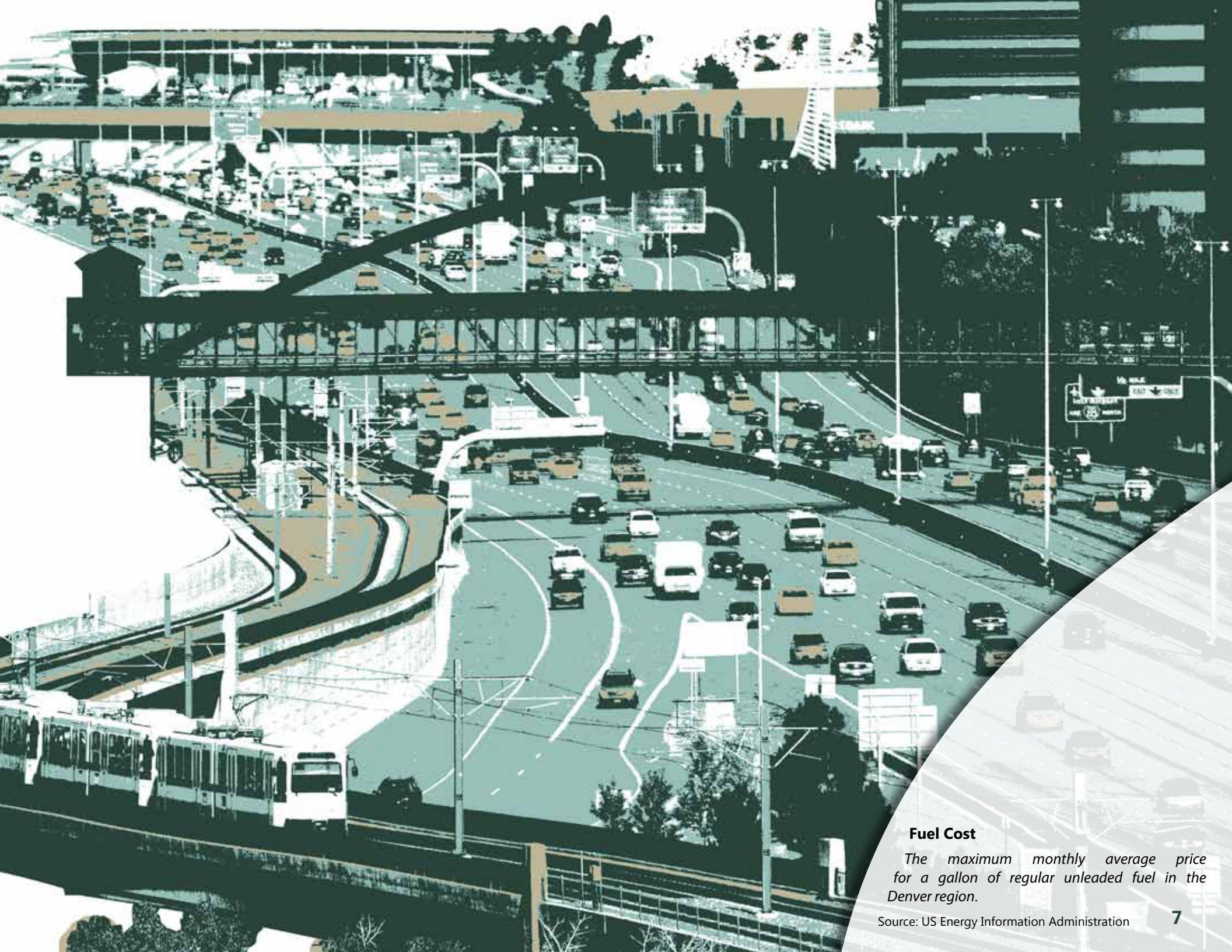
Taxable Retail Sales

The inflation-adjusted, annual taxable retail sales generated within the RTD boundary (in 2004 dollars).

Source: RTD, Bureau of Labor Statistics (BLS)

Fuel Cost | Fuel costs have a major impact on transportation choices. As shown by the 2008 spike in gas prices and the corresponding increase in transit ridership, the higher the gas prices, the more likely a person is to take transit. Prices for regular gasoline trended upwards in Denver until 2008, when prices reached an all-time high of \$4.01 per gallon. In the same year, RTD annual transit boardings peaked at 104 million. Ridership decreased slightly in 2009 and 2010, but not as significantly as gas prices. This may indicate that once fuel costs are high enough to compel people to develop new transit habits, some continue to take transit once fuel prices decrease. Fuel costs increased significantly between 2009 and 2011, although still not reaching the prices of 2008.





Fuel Cost

The maximum monthly average price for a gallon of regular unleaded fuel in the Denver region.

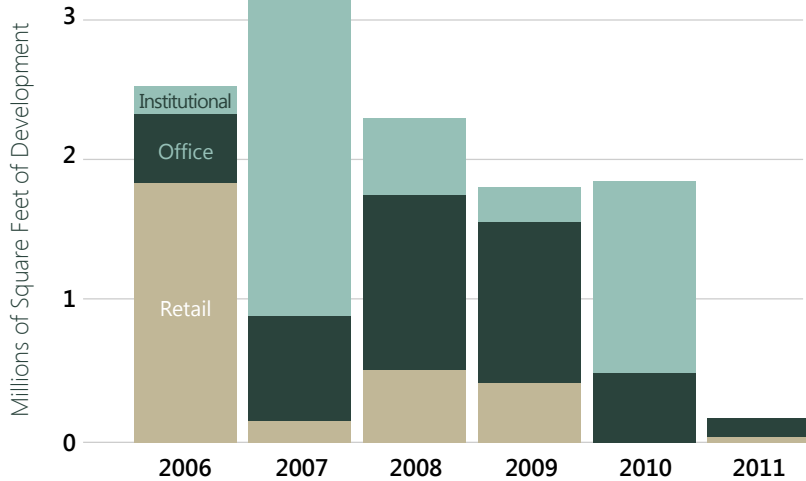
Source: US Energy Information Administration

New Development | Transit Oriented Development (TOD) is a major development trend throughout the nation's metropolitan areas. TOD is characterized by higher density development with a mix of uses in close proximity to transit service. When adjacent land uses take advantage of transit facilities, communities benefit from opportunities to attract investment and plan for new growth. RTD tracks all new development within one-half mile of existing and future rapid transit stations in a TOD database. The database includes approved, pending, and completed projects by year of completion. For all existing and future rapid transit stations, the following quantities of residential, commercial, and institutional development were completed between 2006 and 2011:

- 11,264 residential units
- 2,040 hotel rooms
- 3.0 million square feet of retail
- 4.3 million square feet of office space
- 4.9 million square feet of institutional space (government, medical, cultural, or convention/sports)

Completed development is a lagging indicator of development in the region as many projects are financed and planned for several years before they are finished. The economic recession has had a tremendous impact on the real estate industry and TOD in the Denver region. The amount of completed development was lower in 2011 than in previous years, demonstrating how the economic recession influenced investment decisions in years prior. Financing issues stalled or prevented many planned projects from moving forward to completion. Few new projects were proposed in 2011, and several of them represent a repackaging of earlier development proposals. The downturn in the real estate market presents both opportunities and challenges for RTD and its partners as they move forward with TOD implementation. However, with the implementation of FasTracks, the presence of fixed guideway, high-frequency rapid transit will provide desirable opportunities for development or redevelopment over time. The locations of the completed development projects in 2011 are shown on the map. The majority of the development was completed near the Southwest Rail Line and the Anschutz medical campus.

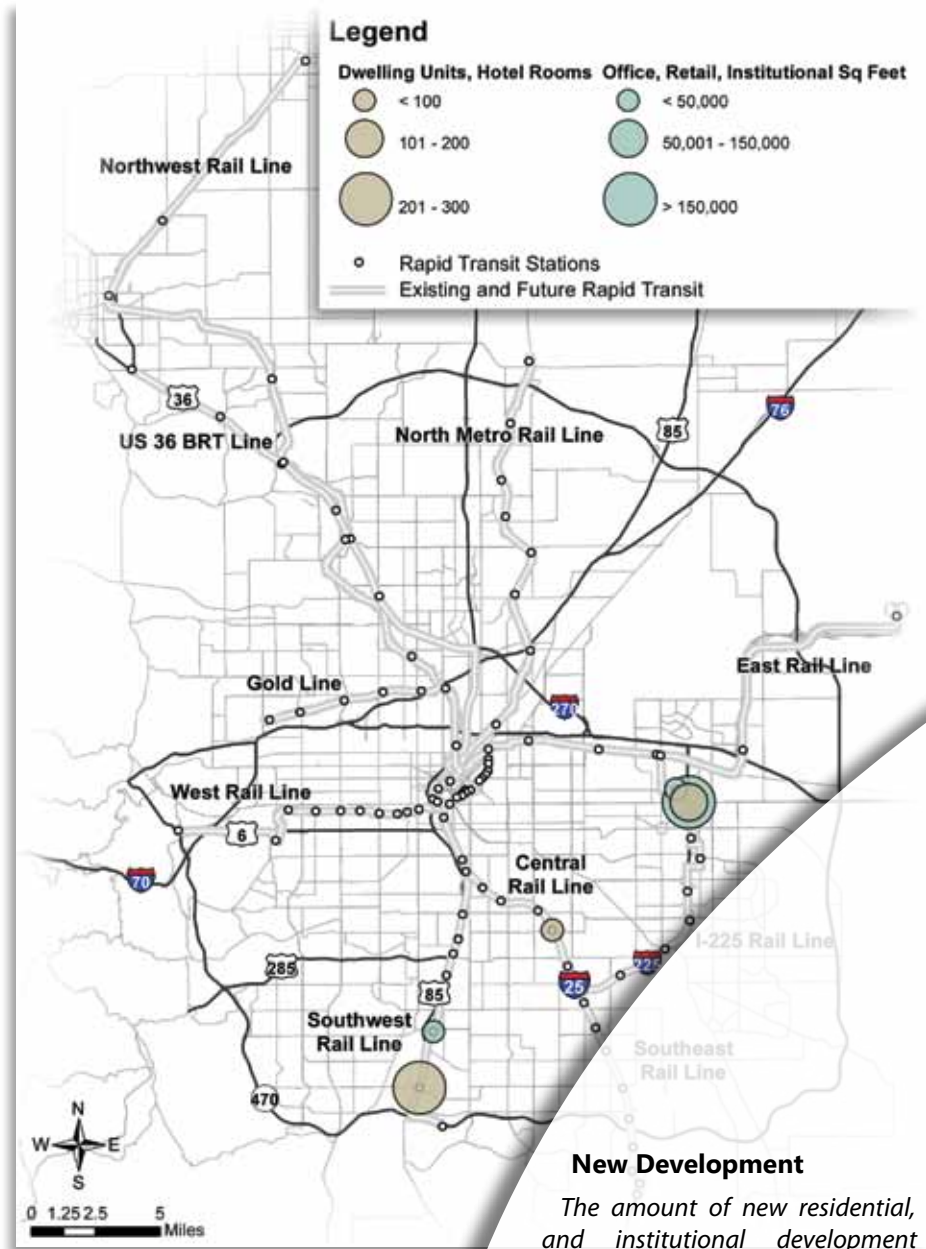
Completed Institutional, Office, & Retail Development Near Stations, 2006-2011



New Housing & Hotel Rooms Near Stations, 2006-2011



Completed Development Near Stations, 2011



New Development

The amount of new residential, retail, office, and institutional development within a half mile of existing and planned rapid transit stations.

Source: RTD TOD Database

3 Environmental Sustainability

SUSTAINABLE DESIGN

Sustainable Project Features & Actions | As a transit agency, RTD has contributed to regional sustainability efforts in the Denver metropolitan area for many years. With the FasTracks Program, RTD is taking the opportunity to incorporate environmentally sustainable design features and actions at every phase of program development, from planning to construction to implementation. RTD's Sustainability Committee works with each FasTracks line to evaluate each project for opportunities to incorporate a wide range of sustainability practices and designs. As FasTracks lines move into construction, sustainable features and actions become more definable, which is now happening with the Eagle Project, West Rail Line, and Denver Union Station.

Denver Union Station Redevelopment: The project is on track to be LEED Certified, currently with enough points to achieve LEED Silver status. The project has implemented several energy efficiency measures including an improved thermal envelope, high-efficiency glazing, reduced interior lighting power density, and high-efficiency HVAC equipment.

Eagle Project: More than 21,500 square yards of contaminated soils have been remediated. The project is using concrete ties and rails that are manufactured in the region. The CRMF is on track to recycle or reuse 75 percent of all construction and demolition waste including concrete, asphalt, and rail scrap. Approximately 260 tons of surplus rail from the West Rail Line were salvaged for reuse in this project.

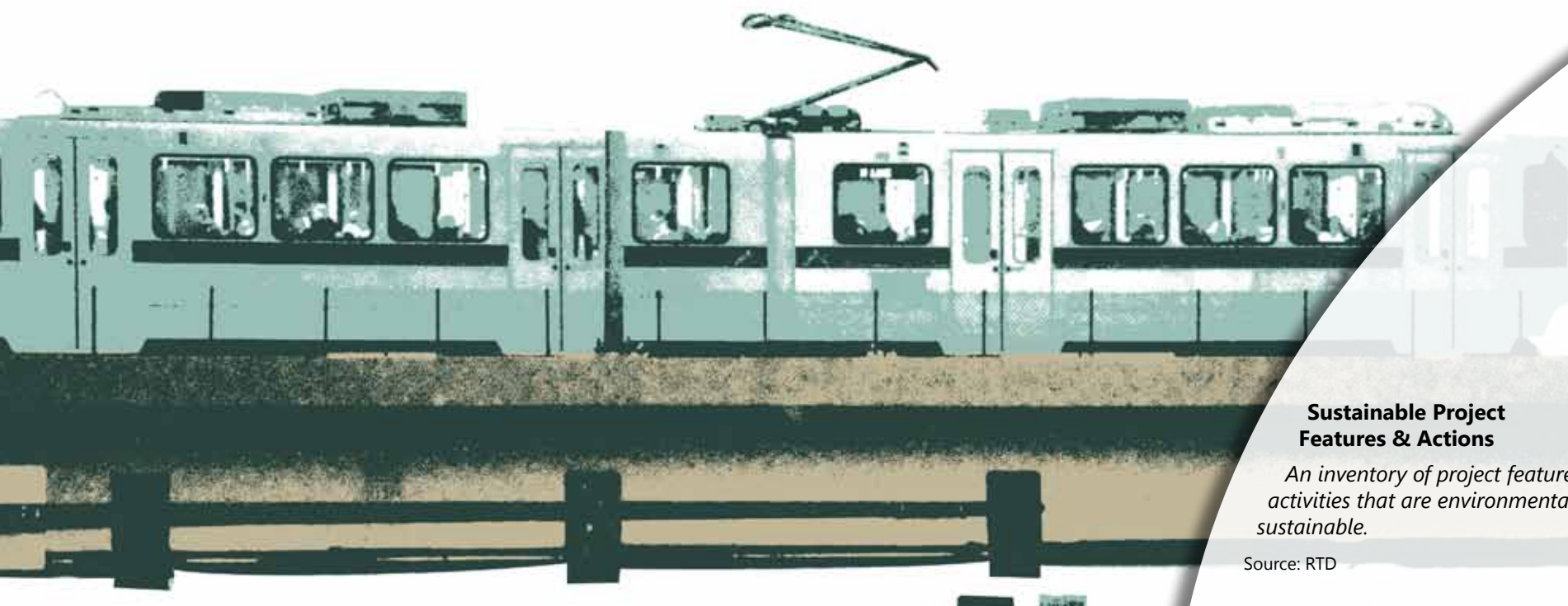
I-225 Rail Line: As the project gets started, a sustainability plan is being developed that will be incorporated into design and construction activities.



Southeast Rail Extension: Lighting criteria are being developed that will optimize illumination levels and reduce energy consumption.

West Rail Line: Major construction on the West Rail Line began in 2009. Since then, the following sustainable features and actions have been incorporated:

- Recycled 39,000 tons of concrete
- Used 260,000 tons of ballast from local suppliers
- Used 32 biodiesel and 21 high-efficiency vehicles in the project construction fleet that meet or exceed Colorado Air Quality Emission Standards
- Used recycled shredded tires as a vibration mitigation measure
- Re-vegetated 200 acres of off-track land with drought-tolerant, non-irrigated native seed
- Reused 54 percent of recycled materials on-site



**Sustainable Project
Features & Actions**

An inventory of project features and activities that are environmentally sustainable.

4 Transit Usage

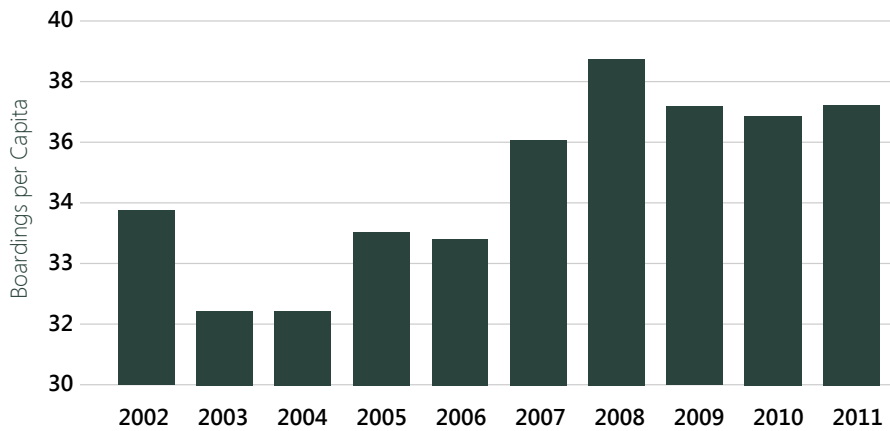
RIDERSHIP

Annual Transit Boardings per Capita | Over the last 10 years, transit ridership in the Denver region has increased by 21 percent to an annual total of 97.8 million boardings in 2011. The historical boardings per capita data show a large increase in transit boardings between 2006 and 2007 when the Southeast Rail Line opened. This increase in boardings continued through 2008, a year that saw major jumps in gas prices. However, between 2009 and 2011, boardings have remained relatively stable. In the last decade, the amount of regional vehicle miles traveled has varied slightly from year to year, but, similar to transit boardings, has decreased since 2008.

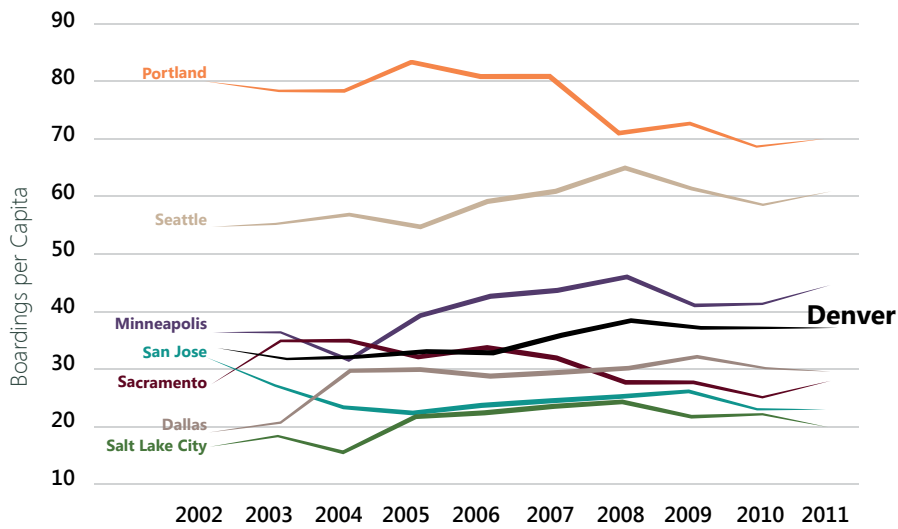
The decrease in boardings is likely the result of several factors. The economic downturn continues to negatively impact sales tax revenue, which has a harmful effect on RTD's operating budget. In an attempt to bridge the budget gap, RTD increased fares, which grew revenues by 14 percent in 2009. Additionally, RTD made service adjustments and slight transit service reductions region wide.

Transit agencies across the nation have been forced to take similar measures to make up for revenue shortfalls. As a result, most transit patronage in peer cities has been similar to RTD's experience - decreases and little growth in boardings since 2008. Only Seattle, Portland, Minneapolis, and Dallas showed small increases in transit boardings per capita. Salt Lake City, San Jose, and Sacramento, however, experienced slight decreases in ridership.

Annual Boardings per Capita



Peer Cities' Annual Boardings per Capita



Annual Transit Boardings per Capita

The number of annual transit boardings divided by the regional population.

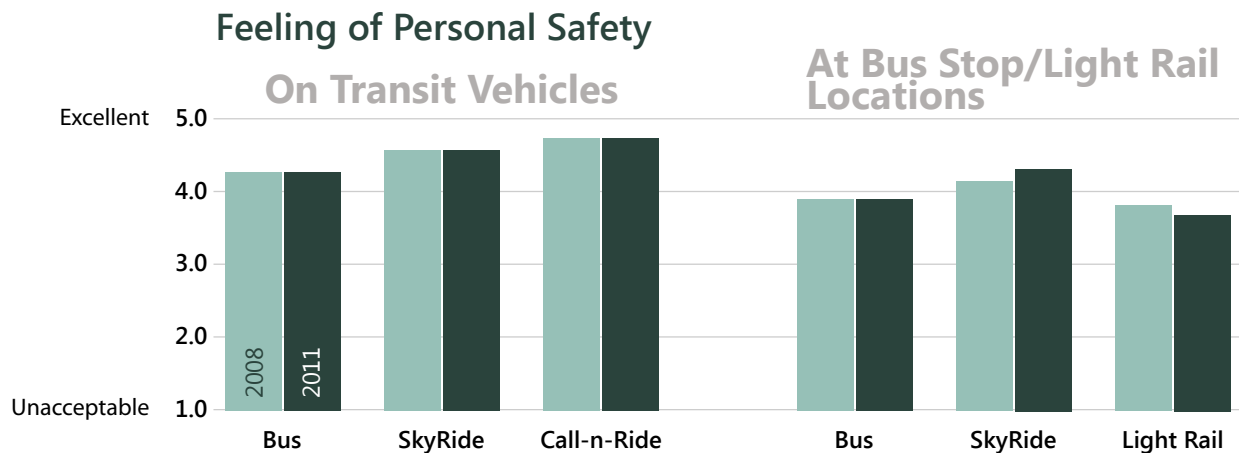
Source: Federal Transit Administration's (FTA) National Transit Database (NTD)

Travel Safety & Security

PASSENGER PERCEPTION

Safety Perception | In order to increase mode share, transit needs to be as safe a transportation option as possible. A safe system allows for use by all people at all times and may encourage use at evening or off-peak hours that otherwise may not occur. Although there is no way to completely deter crime, RTD can reduce the probability of crime on its property by building a transit system with effective security elements. RTD employs various techniques and technologies to ensure the safety of its users, including RTD's Security Command Center, the Transit Watch program and hotline encouraging riders to report security-related issues.

Safety perception of transit riders is gauged through the RTD Customer Satisfaction Survey, which is administered every three years. The survey asks riders about their perceived safety at bus stop/light rail station locations as well as on transit vehicles. The following charts show the survey results from 2008 and 2011. The surveys do not ask light rail users about their perceived onboard safety. As such, results for light rail perceived safety are only shown for stations. Perceived safety at bus stop/light rail locations remained relatively consistent between 2008 and 2011. Light rail saw a slight decrease in perceived safety while SkyRide experienced a slight increase in perceived safety. On-vehicle perceived safety remained consistent across the board with bus, SkyRide, and Call-n-Ride receiving very similar rider ratings for both 2008 and 2011.





Safety Perception

The average rating of safety and security by RTD customers.

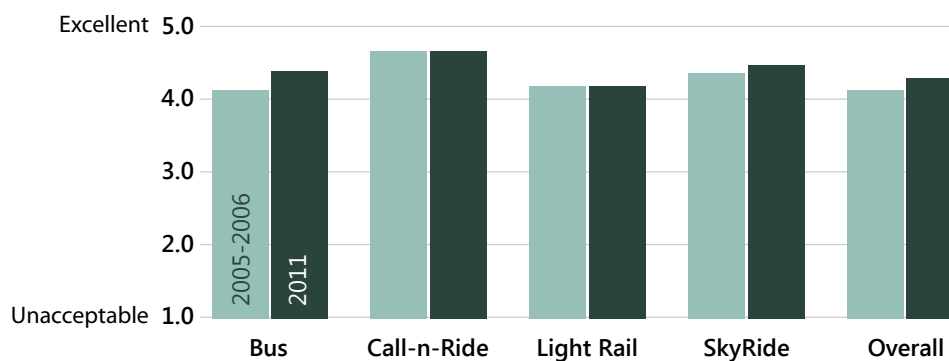
Source: RTD

Customer Satisfaction

PASSENGER SATISFACTION

Overall Service Rating | Overall customer service satisfaction is vital to the use of public transportation. If customer satisfaction is low, ridership may be negatively impacted. RTD conducts on-board customer satisfaction surveys, which ask transit users about their satisfaction with public transportation in terms of convenience, travel time, security, comfort, and other factors. As of 2005 (bus) and 2006 (light rail), overall customer satisfaction with all RTD transit services was high with a rating of 4.1 (on a scale of 1-5, with 5 being excellent and 1 being unacceptable). Similar customer satisfaction surveys conducted in 2011 indicate an increase in customer satisfaction with an overall rating of 4.2.

RTD Overall Customer Satisfaction





Overall Service Rating

The average overall rating of RTD service by its customers.

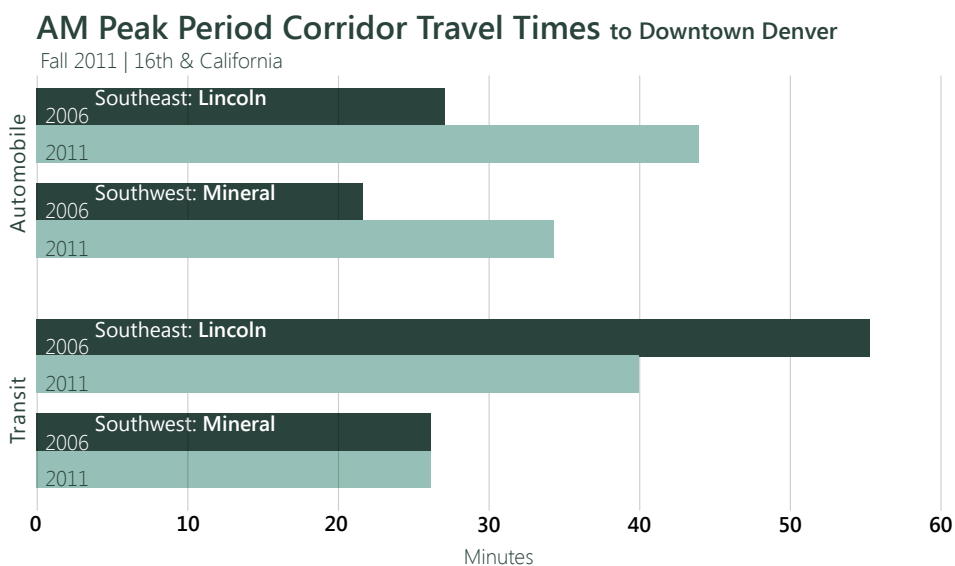
Source: RTD On-Board Surveys

System Mobility

TRAVEL TIMES

Corridor Travel Times | For transit to be considered a viable transportation option, it must provide competitive travel time as compared to driving. The degree to which both transit and auto travel times will change in the future is affected by a host of regional trends. For example, population, employment, and housing may grow slower or faster than expected. The availability of Colorado Department of Transportation (CDOT) and local jurisdiction funding to maintain and expand highways is uncertain. All of these factors can impact and add to roadway congestion.

The chart below shows the comparison of auto and transit travel times to downtown Denver along the existing Southeast and Southwest corridors. The 2011 travel times for an automobile traveling from the Lincoln Station to downtown increased 17 minutes, or 63 percent, from 2006. During the same period, transit travel time decreased 15 minutes, or 27 percent, due to the opening of the Southeast Rail Line. The travel time for an automobile between the Mineral Station and downtown Denver increased by 13 minutes, or 57 percent, from 2006, while the transit travel time on light rail remained consistent.



Over time, congestion in the Denver region is projected to worsen, which will increase automobile travel times and decrease the travel time reliability for auto commuters. With the implementation of fixed guideway rapid transit, RTD will provide transit that will be much more competitive with the auto on the region's increasingly congested roadways. This trend is already noticeable as auto travel times have increased significantly since 2006, while transit travel times have decreased or remained consistent in the Southeast and Southwest corridors.



RTD





Corridor Travel Times

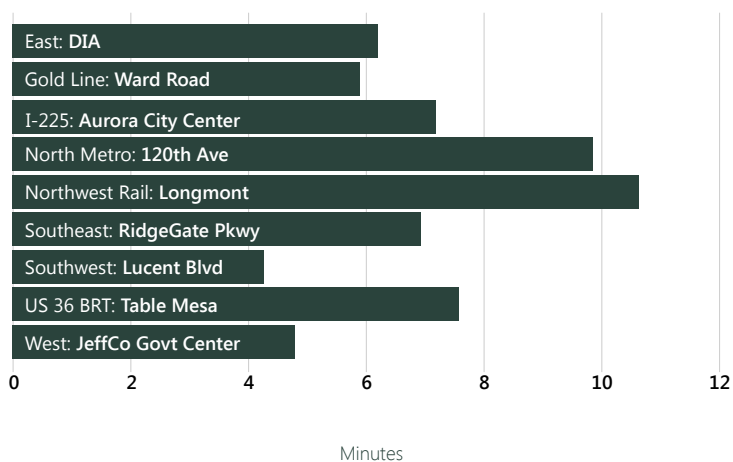
The average amount of time it takes to reach downtown Denver (16th Street & California) during the AM peak period from the existing rail end-of-line stations.

Source:
Auto: Field Travel Runs & Bluetooth tracking devices;
Transit: RTD runboard data

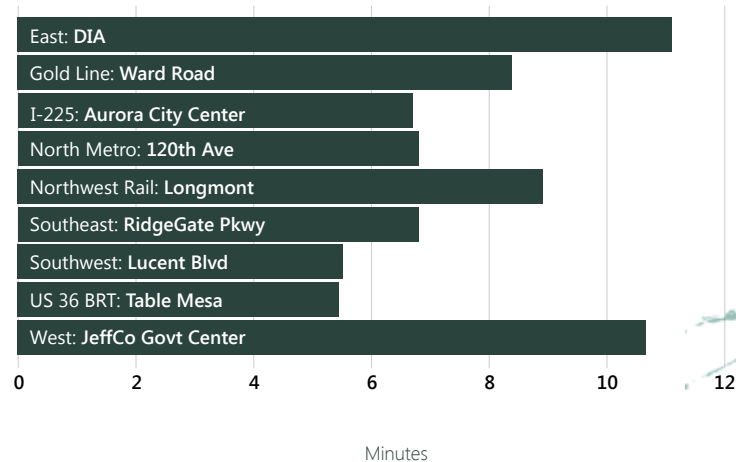
Travel Time Variability | While travel time reflects the average amount of time it takes to travel between destinations, travel time variability reflects the additional time a trip could potentially take. The QoL Study examines travel time variability to understand the reliability of a trip, or whether traveling from “A” to “B” can be done consistently in the same amount of time over a series of different days. Reliability is an important concern for travelers and roadway congestion is the primary reason that travel times vary from day to day. FasTracks rapid transit lines will typically operate in dedicated right-of-way, thus future transit lines will not be affected by automobile congestion. Travel time variability for automobile and transit trips from future FasTracks end-of-line stations to downtown Denver (16th St & California) are shown below. Because existing transit service does not extend to SH 7/162nd, North Metro travel times are shown from 120th.

In 2011, auto trips typically had four to eleven minutes of variability. In other words, depending on the corridor, automobile travelers needed to plan an extra four to eleven minutes for their trips on top of the average trip time to be reasonably certain of arriving at their destination on time. In 2011, transit travelers needed to plan an extra five to eleven minutes for their trips. It is expected that fixed guideway rapid transit will allow RTD to provide more reliable travel times as FasTracks rapid transit lines are implemented. Thus, travel time variability is likely to increase for automobiles in traffic, but is likely to decrease for transit.

AM Peak Automobile Travel Time Variability to Downtown Denver
Fall 2011



AM Peak Transit Travel Time Variability to Downtown Denver
Fall 2011





Travel Time Variability

The additional time a traveler in a given FasTracks corridor would need to budget to be certain of arriving in downtown Denver (16th Street & California Street) on time during the weekday AM peak period by single occupancy automobile or transit.

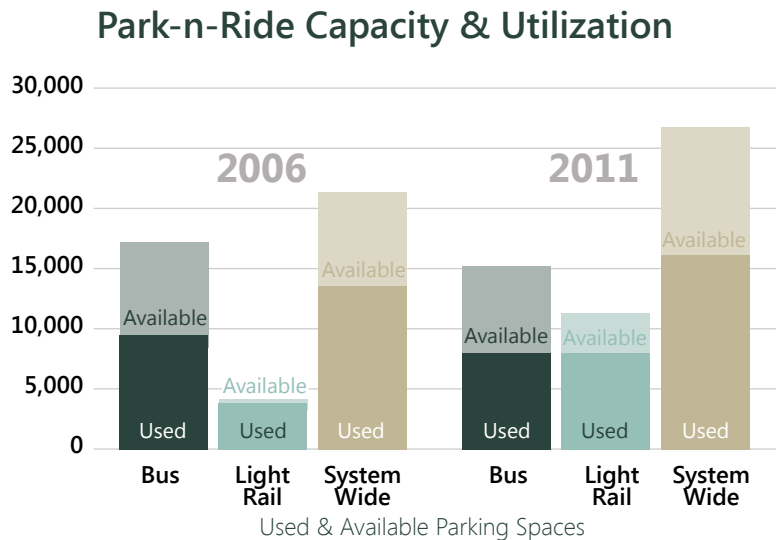
Source:
Auto: Colorado DOT segment speed data;
Transit: RTD runboard data

8 Travel Choices & Accessibility

AUTO ACCESS

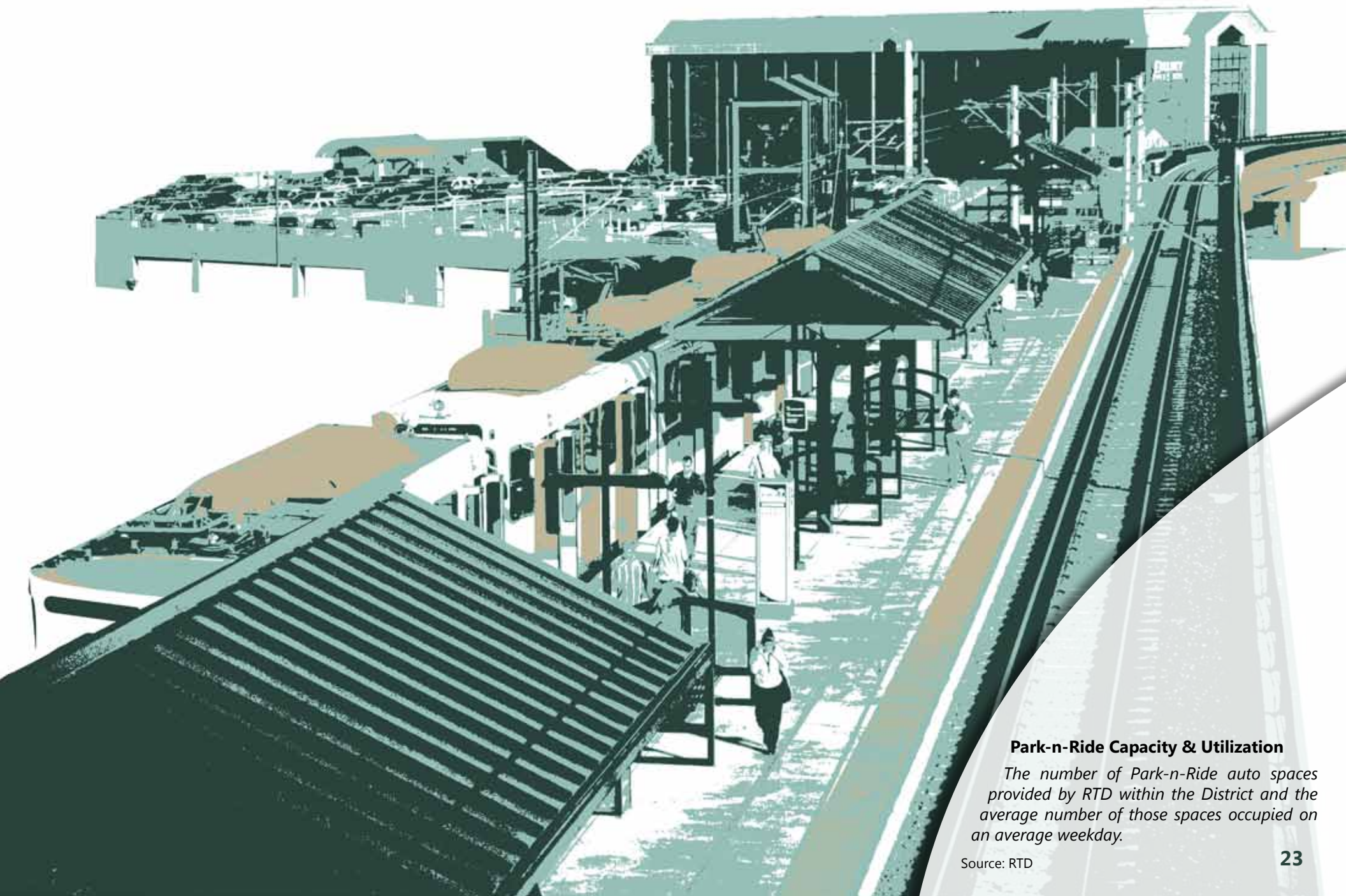
Park-n-Ride Capacity & Utilization | RTD's network of Park-n-Ride lots provide a useful system for many users who do not live within walking or bicycling distance of a transit facility, do not have a convenient transit connection from their household, and/or prefer to drive to transit.

RTD tracks the number of vehicles using its Park-n-Ride lots throughout the region. As of October 2006 (prior to the opening of the Southeast Rail Line), RTD provided 66 Park-n-Ride lots throughout the District with a total auto capacity of about 21,300 parking spaces. With the opening of the Southeast Rail Line and US 36 Park-n-Ride improvements, total parking capacity increased to approximately 26,400 spaces between 2006 and 2011. Including parking increases as a result of the US 36 corridor Park-n-Ride improvements, the FasTracks Program is expected to add 21,000 parking spaces by the time of completion.



The opening of the Southeast Rail Line increased the amount of light rail parking spaces both by adding new parking at stations as well as converting bus Park-n-Ride spaces to light rail Park-n-Ride spaces. With the increased capacity, the number of overall Park-n-Ride spaces used increased by approximately 18 percent from 2006 to 2011.

Park-n-Ride utilization system wide fell slightly, less than one percent, from 2010 to 2011. Decreased use of parking facilities and RTD services in general may be a reflection of continued economic recession in 2011, as unemployment remains high.



Park-n-Ride Capacity & Utilization

The number of Park-n-Ride auto spaces provided by RTD within the District and the average number of those spaces occupied on an average weekday.

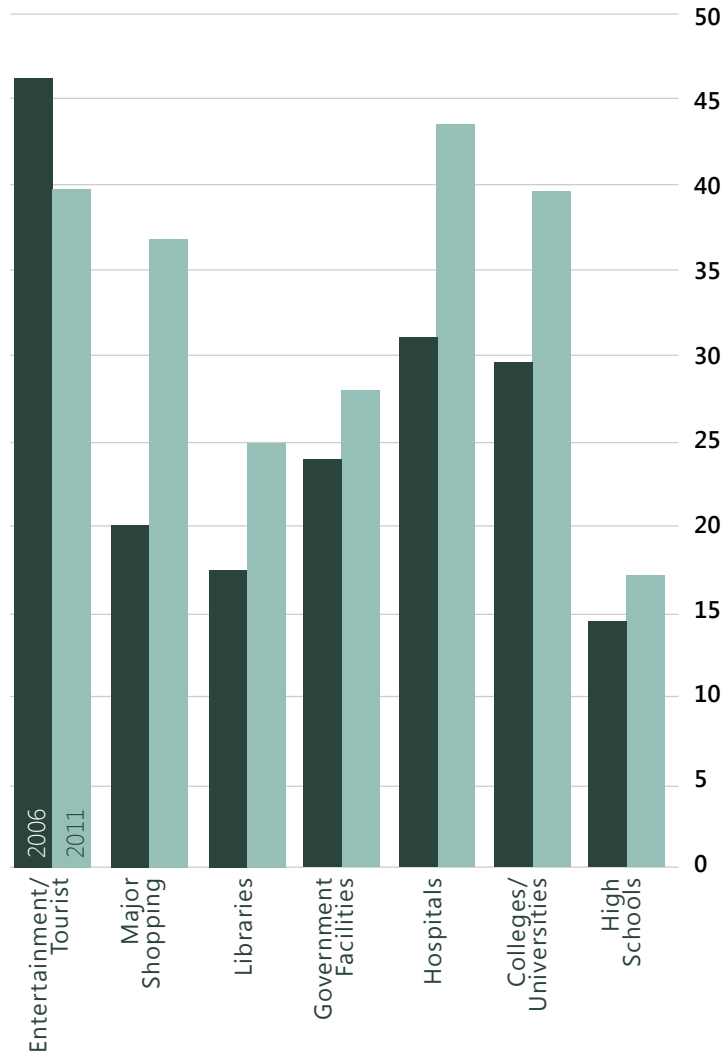
Source: RTD

DESTINATION ACCESS

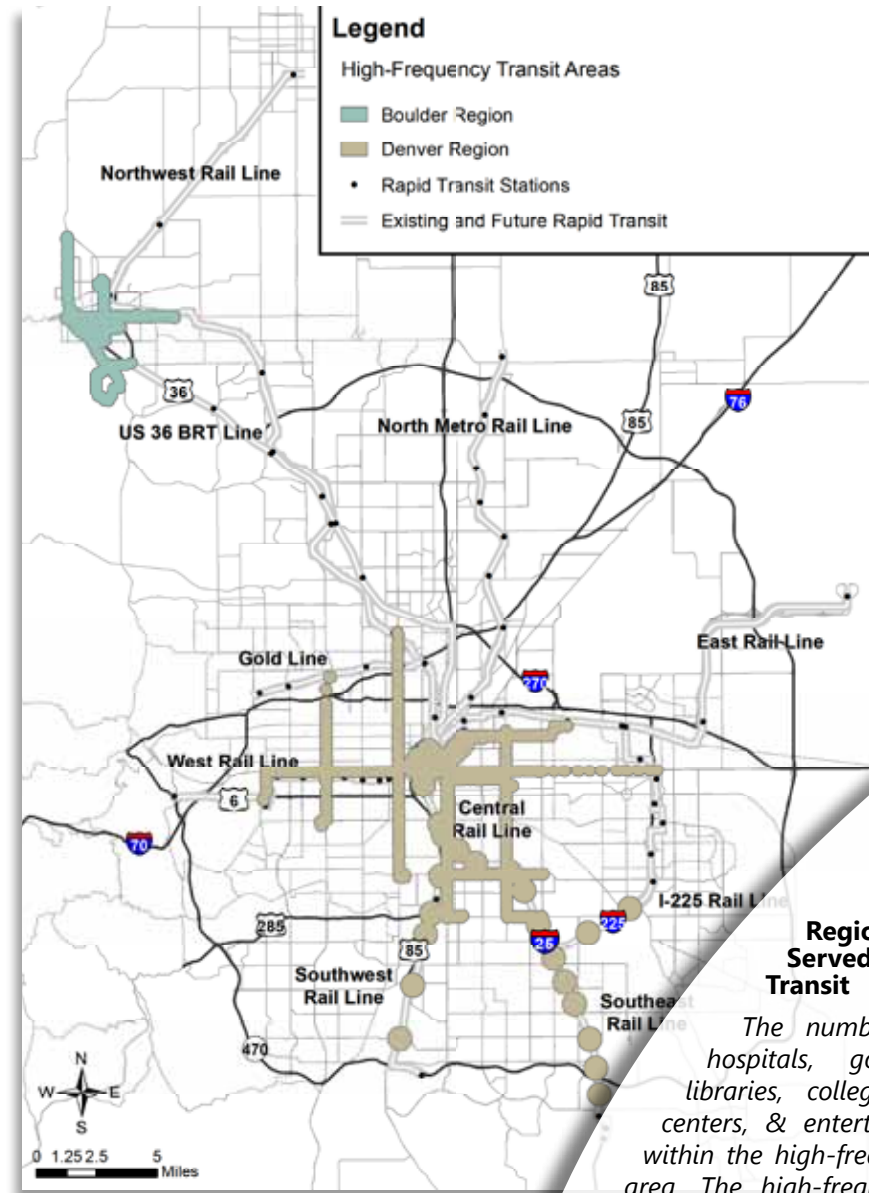
Regional Destinations Served By High-Frequency Transit | Destination access for the Denver region is measured by tracking the percentage of regional destinations served by high-frequency transit. This study defines high-frequency transit service as rail or bus service with 15-minute all-day headways. High-frequency transit is service that is so frequent and predictable that patrons do not have to consult schedules. This convenience increases the likelihood of someone using public transportation. The area served by high-frequency transit service contains areas within one-half mile of rail stations or one-quarter mile of high-frequency bus stops. Regional destinations represent major activity centers or significant land uses that attract a high number of employees and/or visitors.

Between 2006 and 2007, the high-frequency transit service area expanded significantly due to the opening of the Southeast Rail Line. This expansion of the high-frequency transit area increased the percentage of regional destinations served, most notably to shopping, hospitals, and colleges/universities. Since 2007, the high-frequency service area has changed slightly from year to year due to bus service adjustments. Even though the service area has decreased slightly in recent years, more regional destinations have been developed within the service area increasing the percentage of regional destinations served by high-frequency transit since 2007. The Entertainment/Tourist category is the only exception as additional destinations have developed outside the service area. Only minor changes in both regional destinations and service area occurred in 2011, keeping the percent of destinations served consistent with 2010. In 2011, 31 percent of regional destinations were served by high-frequency transit. Hospitals were the most transit-accessible destinations, followed by Entertainment/Tourist destinations and Colleges/Universities. A majority of the planned FasTracks Program will provide high-frequency transit service; thus, the service area is expected to expand as FasTracks is opened for service. Rapid transit will increasingly serve regional destinations and provide travel choices to the growing regional population.

Percent of Regional Destinations Served by High-Frequency Transit



Areas Served by High-Frequency Transit



Regional Destinations Served by High-Frequency Transit

The number of high schools, hospitals, government facilities, libraries, colleges, major shopping centers, & entertainment destinations within the high-frequency transit service area. The high-frequency transit service area is the area contained within 1/2 mile of a light rail station or 1/4 mile of a high-frequency (15 minute all day service) bus stop.



RTD Fastracks

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