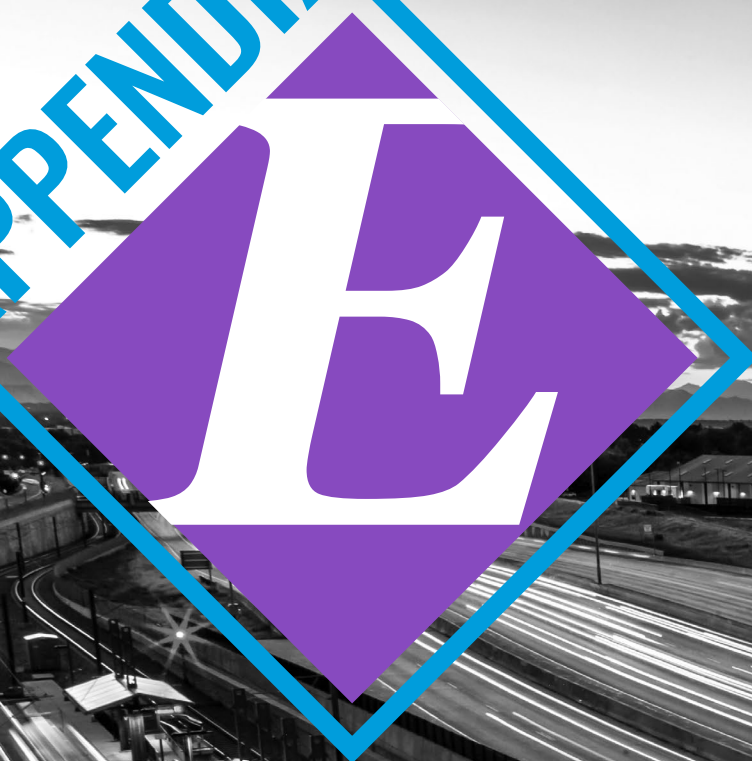


APPENDIX



2050 transportation system mobility performance measures

2050 transportation system mobility performance measures

Appendix E shows changes in regionwide travel measures between 2020 and 2050 using forecasts from DRCOG's Focus transportation model. The Focus model uses the growth in population and employment from DRCOG's small area forecasts (Appendix F), along with other input variables, to forecast transportation trends and performance. The region's population and employment growth, the distribution of that growth, and the provision of transportation facilities and services will affect future travel patterns.

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Changes in regionwide travel measures between 2020 and 2050

Modeled system measures - weekday for DRCOG region	2020 Baseline	2050 Forecast
Population	3,376,724	4,428,066
Households	1,358,195	1,870,843
Employment	2,160,367	2,964,681
Person trips		
Within region (internal-internal) single-occupant vehicle drivers (activity based model - excluding Denver International Airport)	5,525,608	7,377,095
Denver International Airport single-occupant vehicle drivers (special generator model)	144,340	230,198
Internal-external single-occupant vehicle drivers	267,551	460,780
External-external single-occupant vehicle drivers	12,759	21,486
Commercial vehicle drivers	1,659,119	2,298,175
Total single-occupant vehicle driver trips	7,609,377	10,387,734
Transit-drive access (bus and rail)	70,799	103,045
Transit-walk access (bus and rail)	193,810	313,878
Total transit trips (bus and rail)	264,609	416,923
Shared ride driver (activity based model, excluding Denver International Airport)	2,267,873	2,857,793
Shared ride passenger (activity based model, excluding Denver International Airport)	3,074,476	3,787,575
Shared ride driver (special generator model)	16,892	27,318
Shared ride passenger (special generator model)	30,798	33,588
Total shared ride trips	5,380,039	6,706,274

Modeled system measures - weekday for DRCOG region	2020 Baseline	2050 Forecast
School bus trips	234,234	260,273
Bicycling trips	211,510	271,532
Walking trips	1,343,477	1,880,744
Total person trips	15,043,246	19,923,480
Total person miles traveled	119,218,728	168,040,114
Vehicle and congestion performance measures		
Automobiles/commercial vehicles person trips	12,989,416	17,094,008
Vehicle trips	9,894,142	13,272,845
Vehicle miles traveled	85,059,754	119,838,348
Vehicle miles traveled per capita	25.2	27.1
Vehicle hours traveled	2,318,404	3,472,251
Vehicle hours of delay	359,180	736,858
Person miles traveled in-vehicle	114,830,667	161,781,769
Person hours traveled in-vehicle	3,129,845	4,687,539
Person hours of delay in-vehicle	484,893	994,758
Average vehicle speed, all day (miles per hour)	36.7	34.5

Modeled system measures - weekday for DRCOG region	2020 Baseline	2050 Forecast
Average vehicle speed, peak hours (miles per hour)	31.7	28.7
Average person delay per trip (minutes)	2.2	3.5
Severely congested lane miles (roadways with 3 or more hours of severe congestion) (volume to capacity ratio greater than or equal to 0.95)	959.6	2,286.2
Percent of vehicle miles traveled in severe congestion	11.3%	20.4%
Fixed route transit performance measures		
Rail transit boardings	129,071	195,361
Bus transit boardings	261,575	440,259
Total transit boardings	390,646	635,620
Transit-drive access (systemwide)	70,799	103,045
Transit-walk access (systemwide)	193,810	313,878
Total transit trips (systemwide)	264,609	416,923
Person miles traveled on Transit	2,079,683	3,522,134
Transit share of daily work trips	8.3%	9.7%
Transit share of daily trips	2.1%	2.5%
Percent of households making transit trips	8.4%	9.4%

Modeled system measures - weekday for DRCOG region	2020 Baseline	2050 Forecast
Transit-job accessibility performance measures		
Total population with good transit-job accessibility (100,000-plus jobs within a 45-minute transit trip)	2,107,109	2,768,524
Total population (Denver Region)	3,376,724	4,428,066
Share of total population with good transit-job accessibility (100,000-plus jobs within a 45-minute transit trip)	62.4%	62.5%
Total population in environmental justice zones with good transit-job accessibility (100,000-plus jobs within a 45-minute transit trip)	1,348,581	1,670,137
Total population in environmental justice zones	1,735,991	2,142,579
Share of population in environmental justice zones with good transit-job accessibility (100,000-plus jobs within a 45-minute transit trip)	77.7%	77.9%

Source: DRCOG Travel Models (Activity Based Model, CV, External, and Denver International Airport): Base Year: 2020; Forecast Year: 2050.