

APPENDIX



2050 transportation system mobility performance measures

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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.

Changes in regionwide travel measures between 2020 and 2050

Modeled system measures - weekday for DRCOG region	2020 Baseline	2050 Forecast	Change
Population	3,376,724	4,428,066	31.1%
Households	1,358,195	1,870,843	37.7%
Employment	2,160,367	2,964,681	37.2%
Person trips			
Within region (internal-internal) single-occupancy vehicle drivers	5,579,605	7,526,160	34.9%
Internal-external single-occupancy vehicle drivers	267,551	460,780	72.2%
External-external single-occupancy vehicle drivers	12,759	21,486	68.4%
Commercial vehicle trips	1,687,985	2,345,842	39.0%
Total single occupant vehicle driver trips	7,547,900	10,354,268	37.2%
Shared ride driver	2,362,264	2,978,979	26.1%
Shared ride passenger	3,185,878	3,940,038	23.7%
School bus trips	247,873	269,465	8.7%
Total transit trips (bus and rail)	229,149	374,156	63.3%
Drive trips to and from transit	58,578	88,031	50.3%
Pedestrian/bicycle trips to and from transit	399,721	660,281	65.2%
Bicycling trips	192,153	253,234	31.8%
Pedestrian trips	1,113,588	1,599,675	43.7%
Total person trips:	15,337,104	20,518,126	33.8%

Modeled system measures - weekday for DRCOG region	2020 Baseline	2050 Forecast	Change
Vehicle and congestion performance measures			
Vehicle miles traveled	85,958,558	121,183,045	41.0%
Total vehicle trips	9,910,164	13,333,247	34.5%
Vehicle miles traveled per capita	25.5	27.4	7.5%
Vehicle hours traveled	2,329,323	3,505,333	50.5%
Vehicle hours of delay	359,253	742,904	106.8%
Person miles traveled - vehicle	116,903,638	164,808,941	41.0%
Person hours traveled - vehicle	3,167,879	4,767,253	50.5%
Person hours of delay - vehicle	488,584	1,010,350	106.8%
Average vehicle speed - peak hours (miles per hour)	36.9	34.6	-6.3%
Average person delay per trip (minutes)	2.2	3.5	56.8%
Vehicle miles traveled / person miles traveled	0.7	0.7	0.0%
Severely congested lane miles (roadways with 3 or more hours of severe congestion) (volume to capacity ratio ≥ 0.95)	893	2,143	140.1%
Percent of vehicle miles traveled in severe congestion	12.0%	20.8%	73.3%

Modeled system measures - weekday for DRCOG region	2020 Baseline	2050 Forecast	Change
Fixed route transit performance measures			
Rail transit boardings	127,362	165,643	30.1%
Bus transit boardings	212,855	412,789	93.9%
Total transit boardings:	340,217	578,432	70.0%
Total transit trips	229,149	374,156	63.3%
Person miles traveled on transit	1,790,088	3,154,394	76.2%
Transit share of daily work trips	4.0%	4.7%	19.1%
Transit share of total daily trips	1.7%	2.2%	24.4%
Percent of households making a transit trip	8.4%	9.5%	14.3%
Accessibility performance measures			
Share of total population with good transit-job accessibility (100,000+ jobs within a 45-minute transit trip)	55.2%	59.6%	
Share of population in low-income or minority areas with good transit-job accessibility (Environmental Justice Transportation Analysis Zone)	73.7%	77.7%	

Source: DRCOG travel models: base year = 2020; model year = 2050