

TRAVEL DEMAND MANAGEMENT: REGIONAL PRIORITY

Potential for Telework to Address Congestion

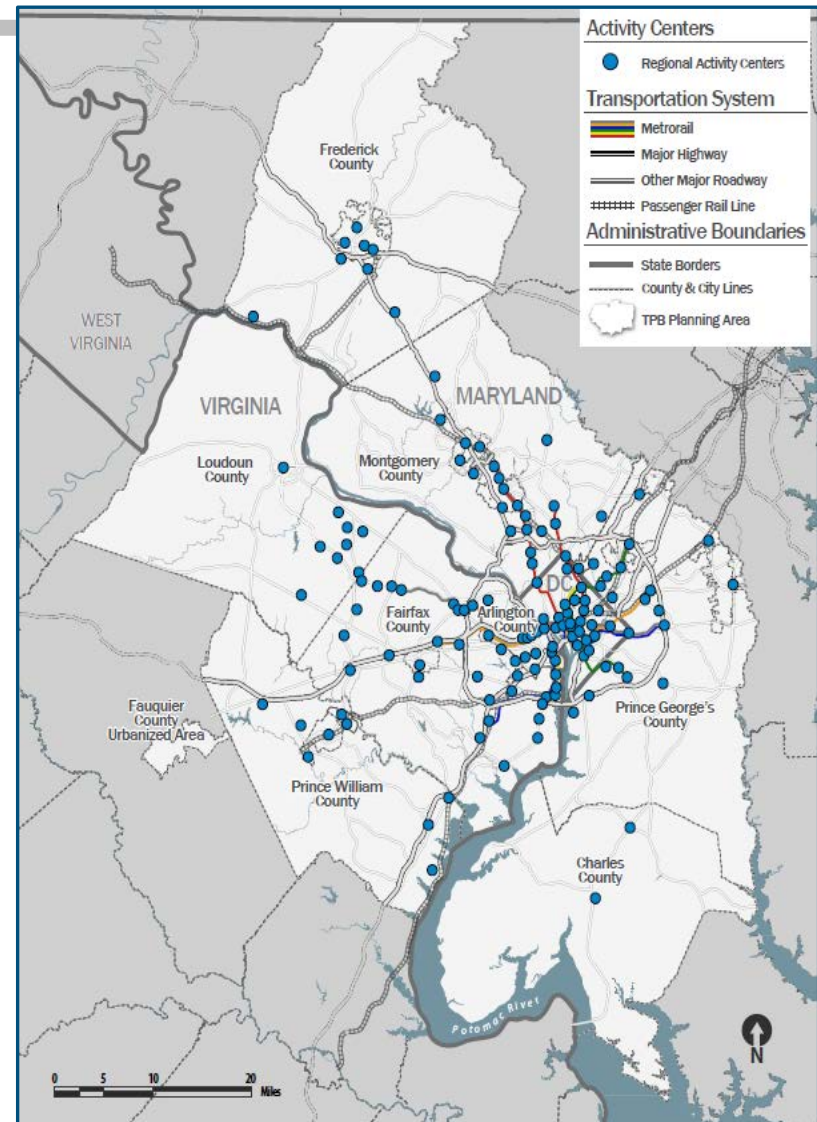
Hon. Kelly Russell
National Capital Region Transportation Planning Board Chair

Maryland House of Delegates, Transportation & The Environment Subcommittee
August 13, 2020



Transportation Planning Board (TPB)

- Diverse area - 3,500 Sq. miles.
- Numerous jurisdictions: 3 "states," and 23 counties & cities
- Multiple stakeholders: State and local departments of transportation and transit agencies, legislative representatives, National Park Service, Airports Authority.
- 5.7 million people
- 3.3 million jobs
- 141 Activity Centers

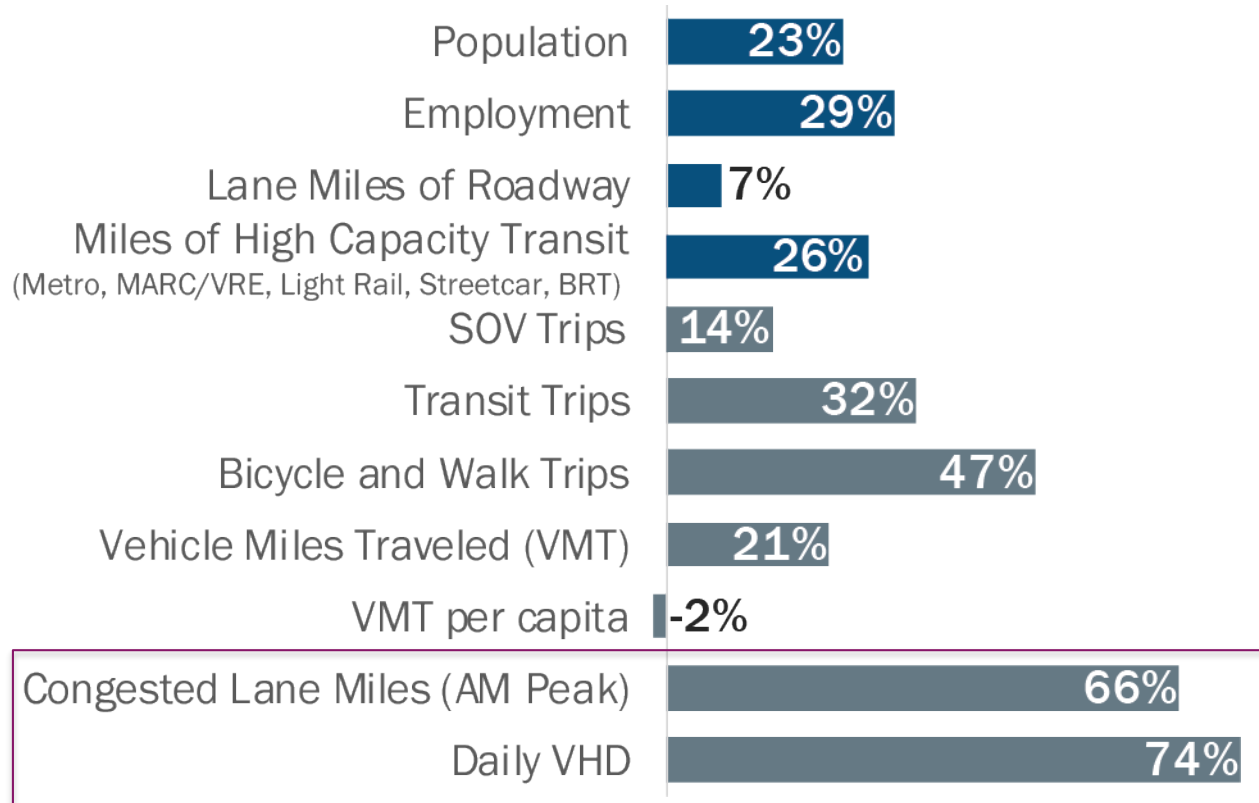


T&E Subcommittee: Travel Demand Management (TDM) Perspective

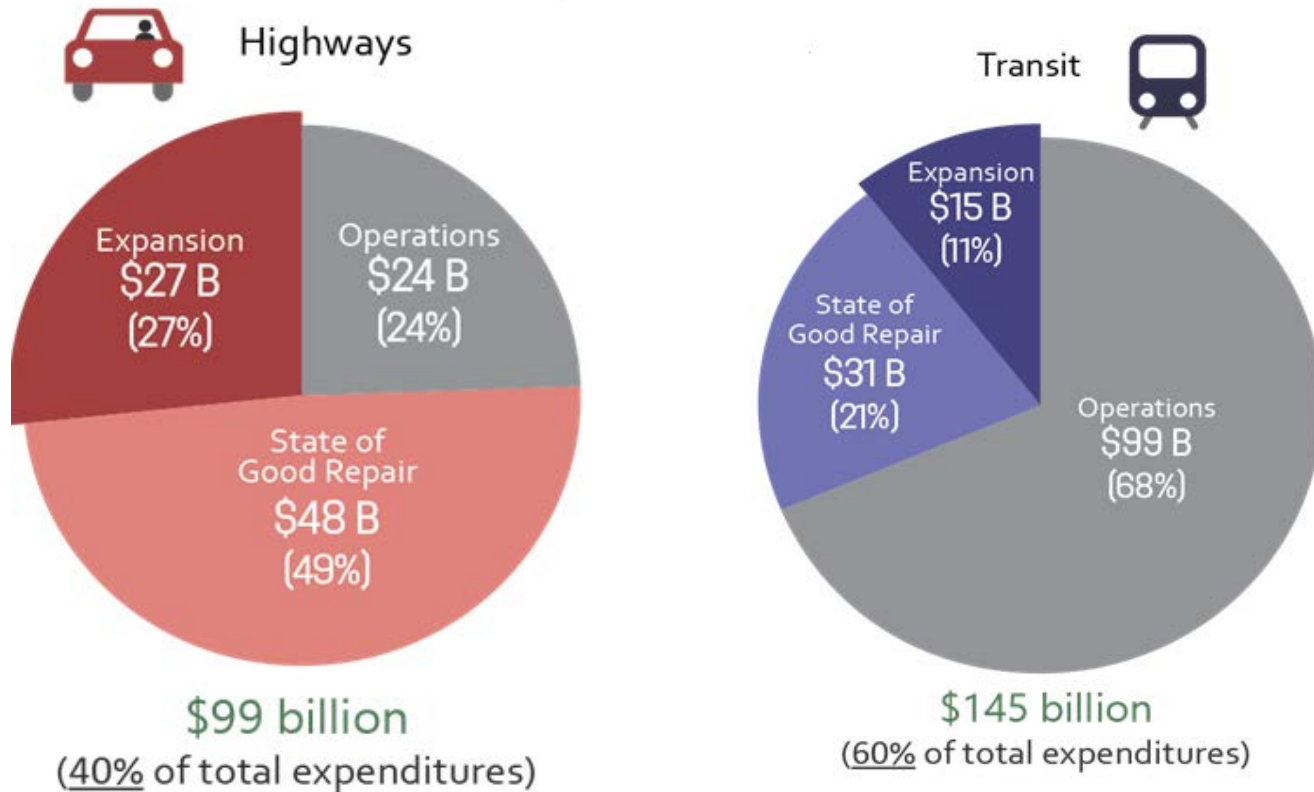
- There is evidence that a small percentage of traffic reduction by those employees who do not need to be on the roads at peak times can result in a free flow of traffic throughout the day.
- Although not all jobs can be done remotely, a statewide incentive to encourage telework can reduce peak period traffic which can have a greater impact on reducing peak congestion
- We have the opportunity to work with all levels of government, the MPOs, private sector business community, and Maryland commuters to explore ways to reduce traffic, particularly during peak times in innovative ways.



TPB: 2014 Plan Mobility Challenges



TPB: 2014 Plan Investments

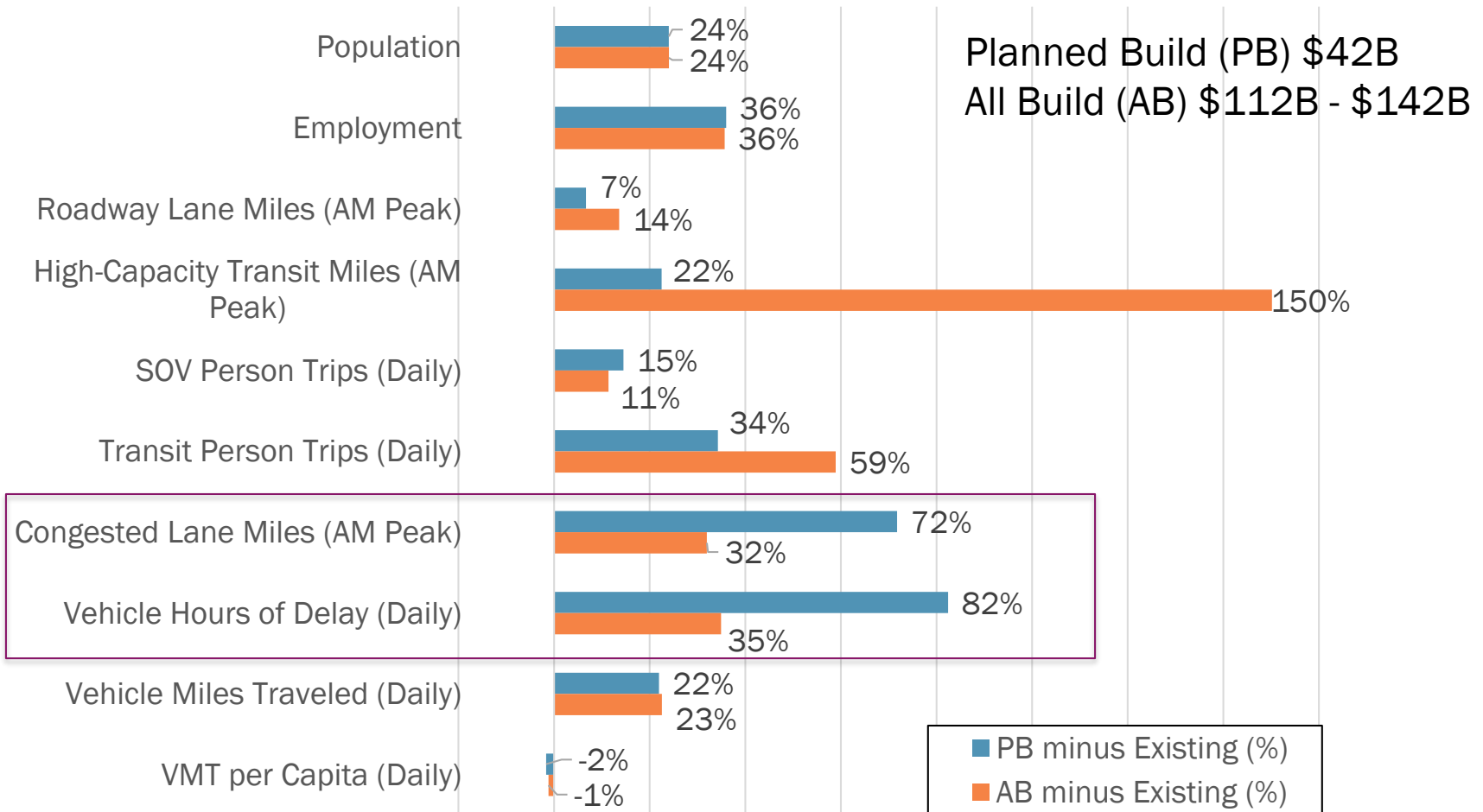


2014 LRP: Total \$244B



TPB: LRP Task Force Study

Performance Analysis: 2040 Futures versus Existing



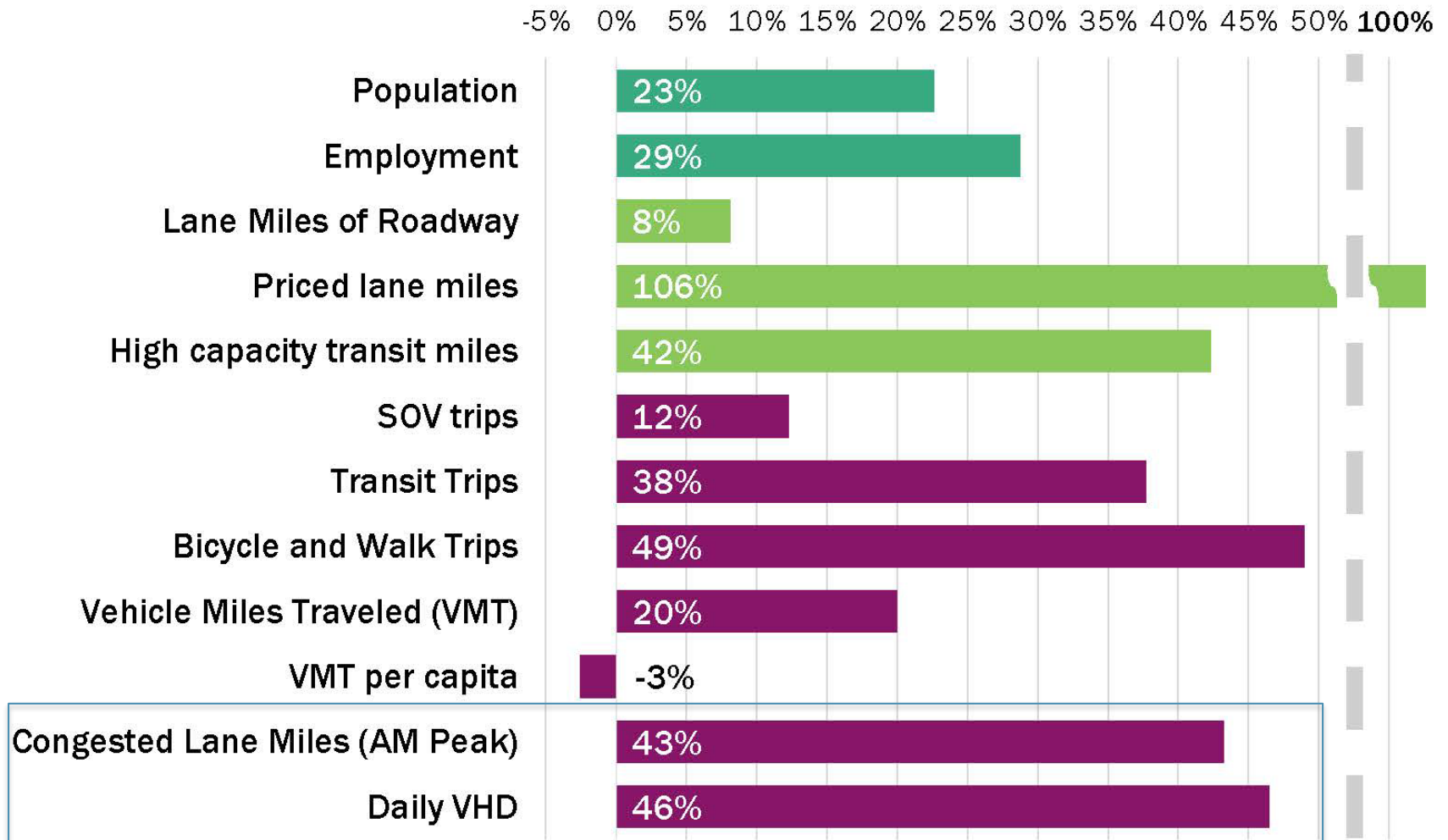
LRP Task Force Analysis: 10 Scenarios



	BASE	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10
	2040 CLRP	Express Travel Network	Operational Improvements & Hot Spot Relief	Add'l North Bridge	BRT and Transitways	Commuter Rail	Metrorail Core Capacity	Transit Rail Extensions	Regional Land-Use Balance	Transit Fare Policy Changes	Travel Demand Management
QUANTITATIVE MOES											
Travel Time (SOV)	50.7	-2%	-4%	0%	-1%	-1%	-2%	-1%	-5%	0%	-4%
Travel Time (HOV)	58.9	-5%	-4%	-1%	-1%	-1%	-1%	-1%	-6%	<1%	-6%
Travel Time (Transit)	53.9	-1%	-2%	<1%	-1%	<1%	-6%	<1%	-5%	1%	<1%
Daily Vehicle Hours of Delay	1.85 million	-11%	-8%	-3%	-2%	-2%	-9%	-3%	-19%	-3%	-24%
Jobs Accessible by Transit	523,000	2%	2%	<1%	4%	1%	19%	10%	10%	0%	0%
Jobs Accessible by Auto	876,000	5%	8%	1%	1%	<1%	2%	1%	10%	<1%	10%
Mode Share: SOV	58.1%	<1%	3%	<1%	-1%	-1%	-4%	-1%	-2%	<1%	-8%*
Mode Share: HOV	11.6%	-1%	-7%	0%	-1%	-1%	-5%	-3%	-4%	-2%	24%*
Mode Share: Transit	24.6%	1%	-4%	<1%	4%	2%	11%	5%	<1%	2%	6%*
Mode Share: Non-Motorized	5.6%	0%	0%	0%	<1%	<1%	<1%	<1%	29%	0%	16%*
Travel on Reliable Modes	11.5%	42%	-5%	-2%	6%	2%	9%	6%	0%	3%	-3%
VMT daily	141.91 million	<1%	2%	1%	<1%	<1%	-1%	-1%	-3%	-1%	-6%
VMT daily per capita	21.17	<1%	2%	1%	<1%	<1%	-1%	-1%	-6%	-1%	-6%
Share of Households in Zones with High-Capacity Transit	39.9%	0%	0%	<1%	25%	<1%	<1%	17%	9%	0%	0%
Share of Jobs in Zones with High-Capacity Transit	57.7%	0%	0%	<1%	15%	<1%	0%	13%	2%	0%	0%
VOC Emissions	18.9	0%	-3%	1%	-1%	0%	-2%	-1%	-4%	-1%	-8%
NOx Emissions	18.8	0%	0%	1%	0%	0%	-2%	-1%	-4%	-1%	-7%
CO ₂ Emissions	47,082.3	0%	-1%	1%	-1%	0%	-2%	-1%	-4%	-1%	-7%



TPB: Current LRP Improved Mobility



Travel Demand Management Initiative

Quantitative MOEs	2040 CLRP	Initiative	Change from CLRP
Travel Time: average travel time per commute trip			
Single occupant vehicle (SOV)	50.7	48.5	-4%
High-occupancy vehicle (HOV)	58.9	55.2	-6%
Transit	53.9	54.8	<1%
Vehicle Hours of Delay			
Daily vehicle hours of delay	1.85 million	1.39million	-24%
Jobs Accessibility			
Transit: # of jobs accessible within 45-min transit commute	523,000	523,000	0%
Auto: # of jobs accessible within 45-min auto commute	876,000	922,000	10%
Commute Mode Share			
Single occupancy vehicle (SOV)	58.1	53.2*	-8%*
High-occupancy vehicle (HOV)	11.6	14.3*	24%*
Transit	24.6	26.0*	6%*
Bicycle/Pedestrian	5.6	6.5*	16%*
Reliable Trips			
Share of passenger miles on reliable modes	11.5%	11.2%	-3%
Vehicle Miles Traveled (VMT)			
Daily VMT	141.91 million	133.61 million	-6%
Daily VMT per capita	21.2	19.9	-6%
Transit Options			
Share of households in zones with high-capacity transit	39.9%	39.9%	0%
Share of jobs in zones with high-capacity transit	57.7%	57.7%	0%



Commuter Connections – Regional TDM

- Average Annual Program Cost - \$6,220,000
- Total Monetary value of Daily Benefits - \$1,124,184

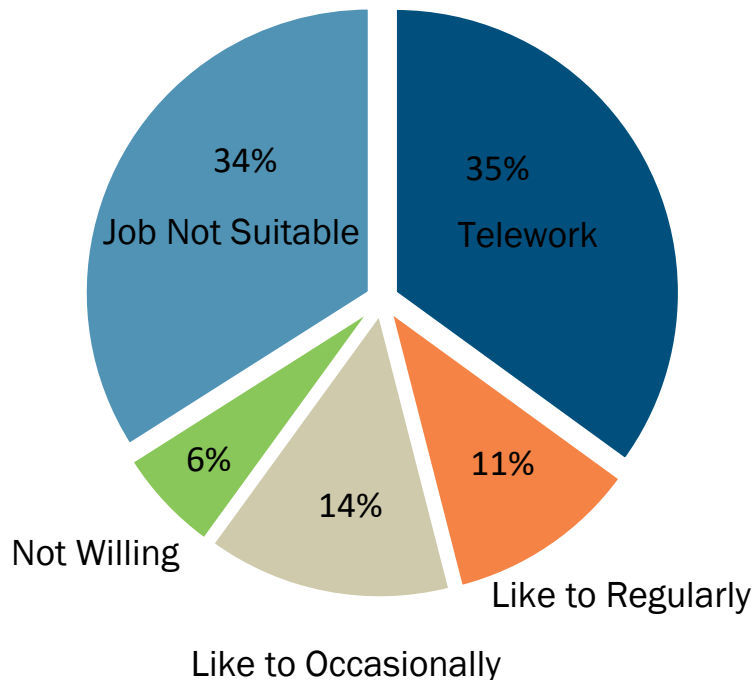
Average Daily (Weekday) Program Benefits			
Impact Element	Quantity	Program Cost-effectiveness	Estimated Program Monetary Benefits
Travel:			
Vehicle Trips Reduced	156,000	\$0.159	-
Vehicle Miles of Travel Reduced	3,009,000	\$0.002	-
Persons hours of delay (Congestion)	24,464	\$1.017	\$611,600
Emissions:			
Nitrogen Oxides (Tons/Day)	0.770	\$32,312	\$1,241
Volatile Organic Compounds (Tons/Day)	0.548	\$45,401	\$73
Greenhouse gases (CO2 equivalent; Tons/Day)	1,244	\$20	\$44,784
Safety:			
Accidents avoided	3.043	\$8,176	\$48,536
Energy:			
Gallons of fuel saved	167,180	\$0.149	\$417,950



Teleworking in TPB Planning Area

1,073,000 current teleworkers

771,000 “could and would” telework

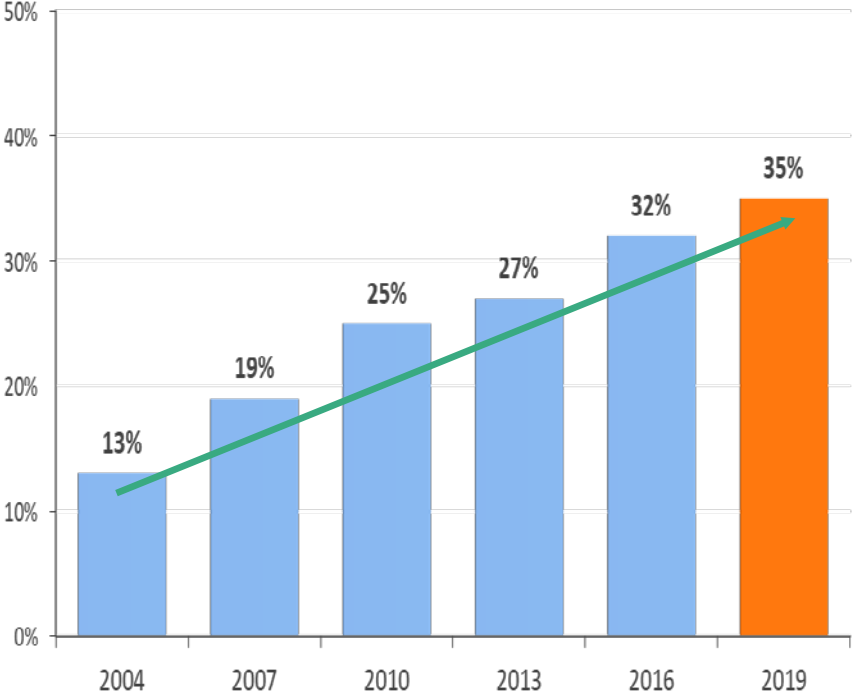


- 60% all commuters report having telework suitable jobs.
- 35% of all commuters teleworked at least on occasion in 2019.
 - 59% telework 1 or more day(s)/week
 - 41% telework less than 1 day/week
- Commute trips are reduced by about 10% on a typical workday!
- While 48% are federal employees telework, only 14% state and local government employees do.

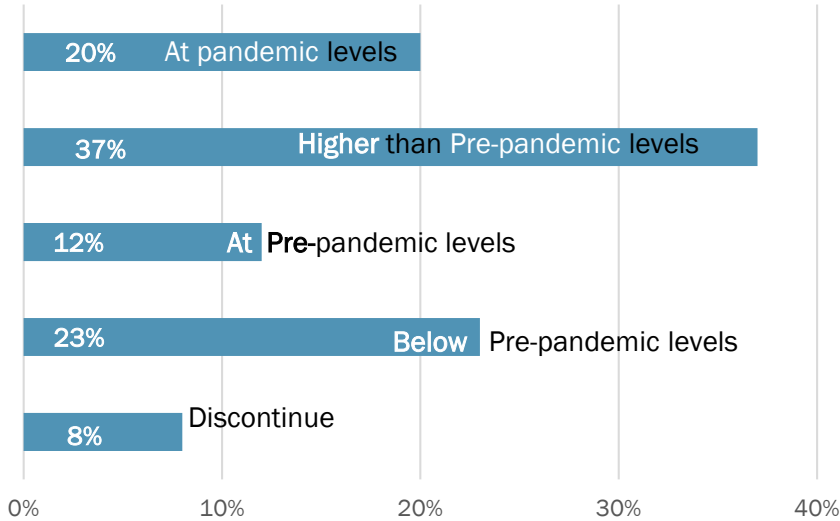


NCR Telework: Trend And Prospects

Growing over past 15 years, at a (slow) rate: 1.5%/year



More than half of select employers anticipate Teleworking at higher than pre-pandemic levels*



* Commuter Connections July 2020 Survey of its Employers (180 completed surveys)



Selected Commute tools/resource offerings

Commute with Confidence: During and post pandemic related commute – including Telework resources for employers and employees .

<https://www.commuterconnections.org/covid19-commuting/>

Mobile Apps: <https://www.commuterconnections.org/mobile-apps/>



Commuter Connections: Matches commuter with other commuters living and working in the same area/closest park and ride lot.



CarpoolNow: Allows formation of carpools on-demand for work or non-work purposes. Displays pick up/drop-off locations and estimated pick-up time. Cash reward to participating drivers for providing rides.



incentTrip: Multimodal trip planning; provides travel options (routes and modes; including walking); awards points depending on the mode used (SOV gets least points) for the commute trips; reports travel time, energy and emissions saved. Points can be redeemed for cash (\$600 max/year).



Hon. Kelly Russell

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National Capital Region
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