

DMV Moves: Background and Considerations

Macro Transit Trends in the National Capital Region

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Executive Summary: Charting the Future of Effective Transit in the DMV

Defining World-Class Transit

- For transit to succeed, it must be focused on prioritizing accessibility and mobility, reliability, cost efficiency, and safety.

Regional Transit Service, Cost, and Ridership Trends

- While the DMV region has had a solid post-pandemic ridership recovery relative to other metro areas, ridership in 2019 had decreased significantly over the preceding decade despite significant increases in transit service and funding.
- The region therefore cannot solely rely on more across-the-board funding and service increases to improve transit's performance and appeal—it must devise a thoughtful, comprehensive strategy.

Key Issues for Transit in the DMV

A comprehensive, regional transit strategy must confront the following underlying challenges:

- **Financial Sustainability:** The DMV already spends more per transit trip and has more transit assets to maintain than other metros. Transit spending is growing unsustainably compared to the regional economy.
- **Density:** The region has a lower concentration of people and jobs compared to other transit-oriented urban areas, challenging transit's ability to provide access competitive with other modes.
- **Remote work:** An outside share of workers in the DMV work from home, further eroding the traditional commuting base.

The region can solve these challenges to build a better transportation network. But they must be addressed through careful study and consideration as the task force devises its vision.



Agenda: Charting the Future of Effective Transit in the DMV

Thoughts on Defining World Class Transit

Service, Cost, and Ridership Trends

Key Issues for Transit in the DMV



What Makes World-Class Transit?

Transit must excel at four simple objectives to be successful:



Accessibility and Mobility

Provide access to jobs and amenity destinations (accessibility) without a prohibitive time premium compared to the mode providing the lowest travel time (mobility).



Reliability

Door-to-door trips are predictable (minimal travel time variance).



Cost Efficiency

Costs are affordable (commensurate to benefits), sustainable, and transparent for users and taxpayers.



Safety

Low prevalence of transportation and criminal incidents that pose risks to rider welfare.

See: Alain Bertaud, *Order without Design*; Jarrett Walker, *Human Transit*; et al.



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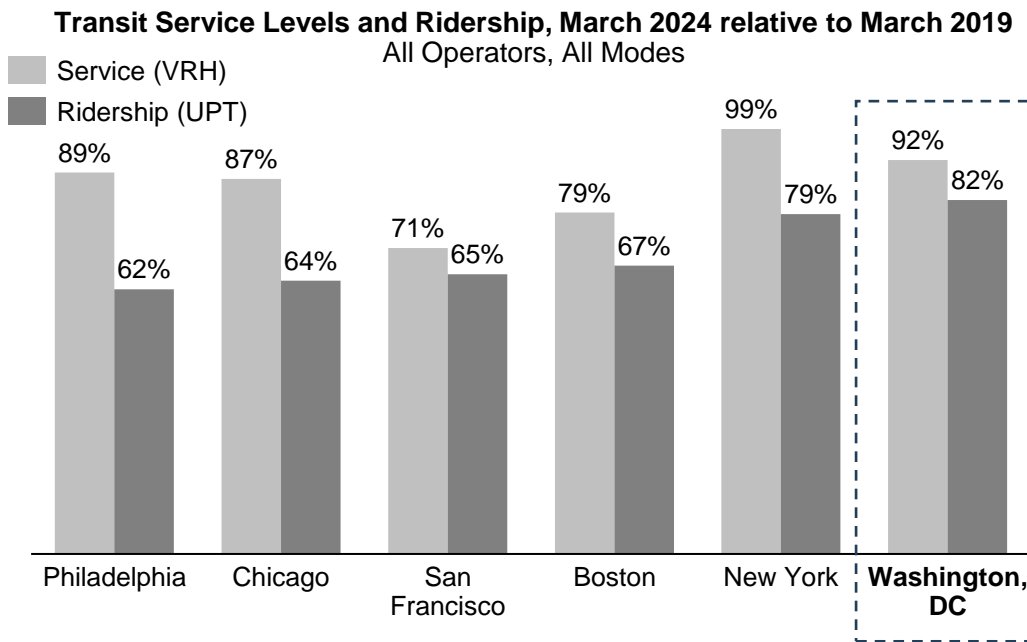
Key Issues for Transit in the DMV



While transit ridership in the DMV has not yet recovered to 2019 levels, the DMV has had a relatively strong recovery

The region's ridership has recovered to >80% of 2019 levels, leading peer metro areas. While this recovery is often attributed to service increases, the relationship does not appear to be explanatory given the experience across peer metro regions.

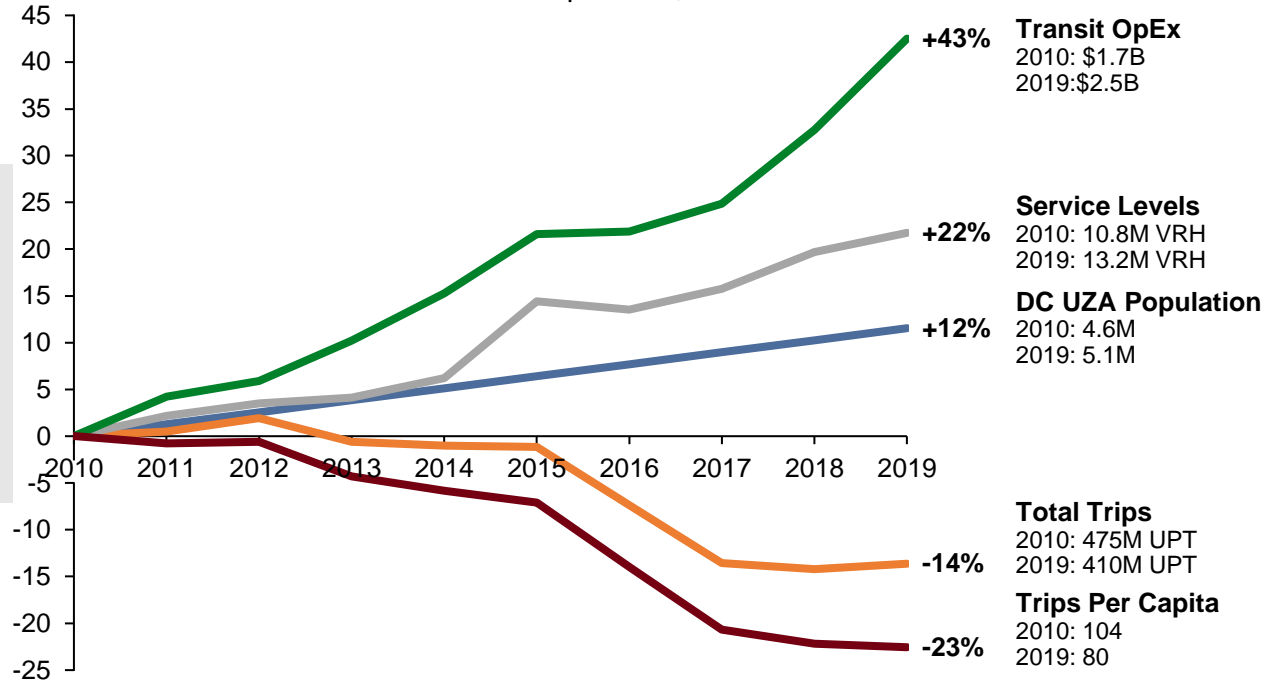
Key Question/Opportunity: Ridership has bounced back faster in the DMV than in other metros—why?



**Note: Figures are for urbanized areas (UZA) listed by principal city unless otherwise noted. Monthly operating cost data not yet available for 2024.*

2019 ridership had fallen significantly since 2010; more spending and transit service did not equate to more ridership over the last decade

Greater Washington Mass Transit Performance, Change from 2010 – 2019
All Operators, All Modes



In the decade preceding the pandemic, increased operating spending and transit service levels did not lead to higher ridership across the DMV region as transit trips declined from the 2012 peak.

OpEx = Operating Expenditures
VRH = Vehicle Revenue Hours
UZA = Urbanized Area
UPT = Unlinked Passenger Trips



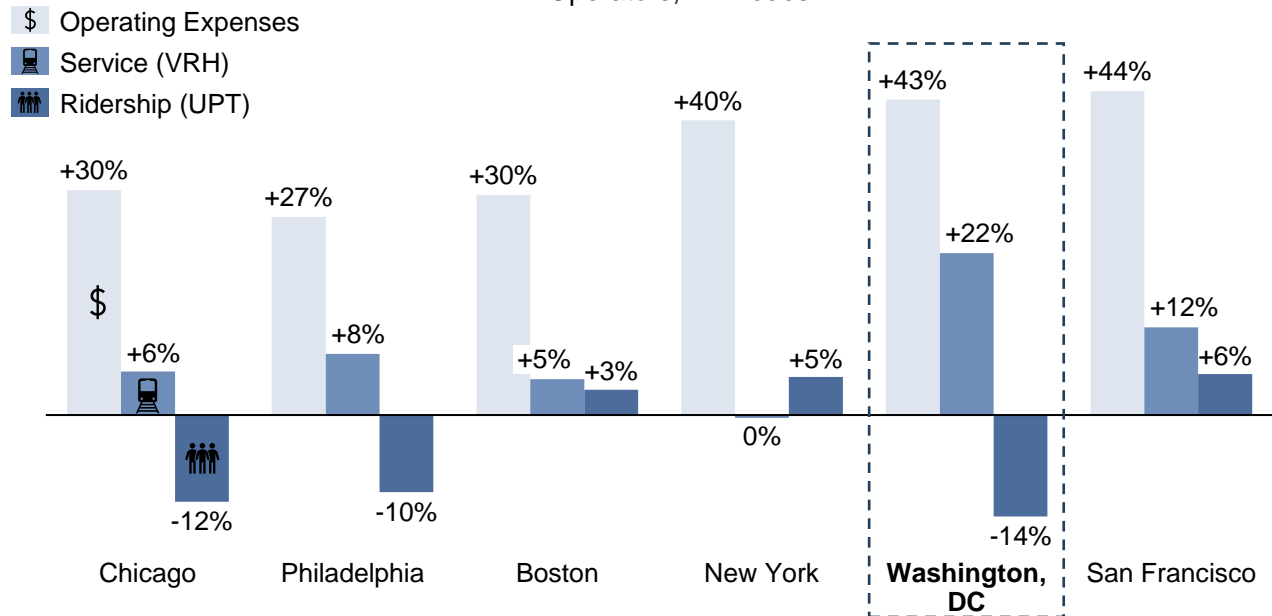
Pre-pandemic, the DMV saw outsized ridership decline; no clear relationship between spending, service levels, and ridership

Compared to peer metro areas, the DMV outpaced all but one in operating spending and service increases yet lost the largest share of riders across all modes of transit.

Most other peer metros similarly did not experience a proportional increase in ridership relative to service.

Key question: Why did transit ridership fall more markedly in the DMV over the previous decade relative to that in other regions?

Percent Change in Transit OpEx, Service, and Ridership, 2010 – 2019
All Operators, All Modes



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In analyzing the region's transit performance and crafting a strategy for the future, the task force must confront the underlying challenges detailed in this section:

- **Financial Sustainability:** The DMV currently spends more per transit trip and has more transit assets to maintain than other metros. Transit spending growth is already unsustainable compared to the DMV's economic growth.
- **Density:** The region has a lower concentration of people and jobs compared to other transit-oriented urban areas, challenging transit's ability to provide access competitive with other modes.
- **Remote work:** An outsize share of workers in the DMV work from home, further eroding transit's traditional commuting base.

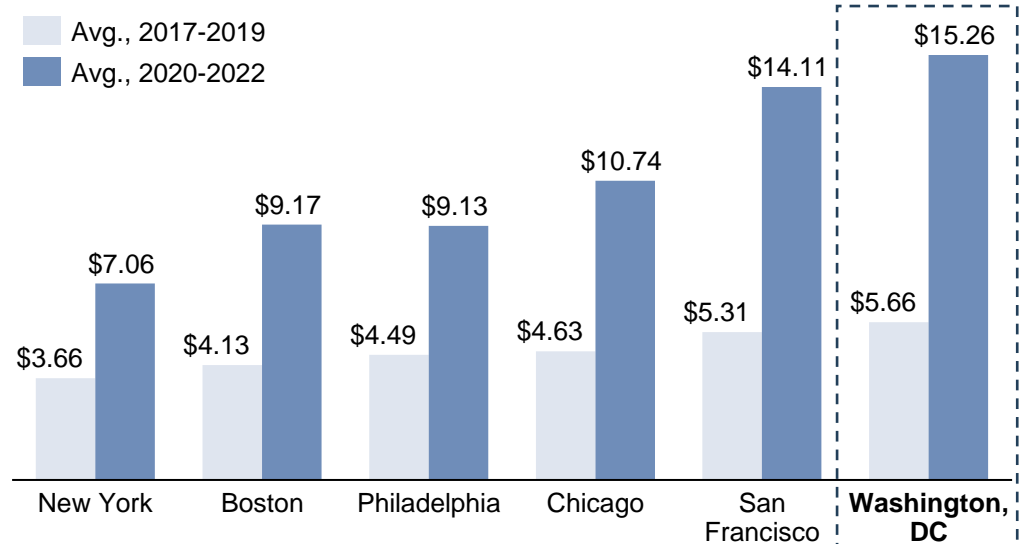


Financial Sustainability: The DMV already spends more than its peers per transit trip

While much of the regional discussion has been focused on the need to increase funding for transit, the region already leads its peers in spending on transit operations on a per-trip basis, both before and after 2020.

Key Questions: Why does it cost the region more to provide transit, both pre- and post-pandemic? Are there best practices to adopt from other cities?

Operating Cost Per Transit Trip in Major Metro Areas
All Operators, All Modes



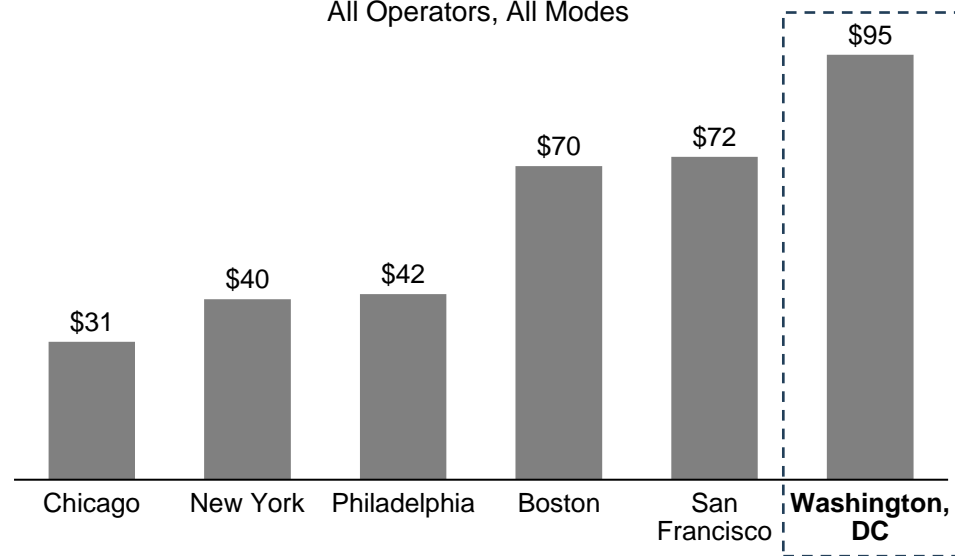
Financial Sustainability: The DMV has more transit infrastructure, vehicles, and other assets relative to its ridership than its peer metros

Relative to its annual ridership, the DMV has developed more capital assets—infrastructure, stations, vehicles, buildings, etc.—dedicated to transit than its peer metros.

While this larger value may reflect higher quality infrastructure, it also must be viewed as a long-term liability due to the higher costs to maintain and replace these assets. These costs must be borne by riders or taxpayers.

The resources needed to keep the existing capital stock in a state of good repair therefore must be considered—and prioritized—when contemplating the desire to expand the region's transit system.

Value of Transit Capital Assets Per Average Annual Rider (2010-2022)*
All Operators, All Modes



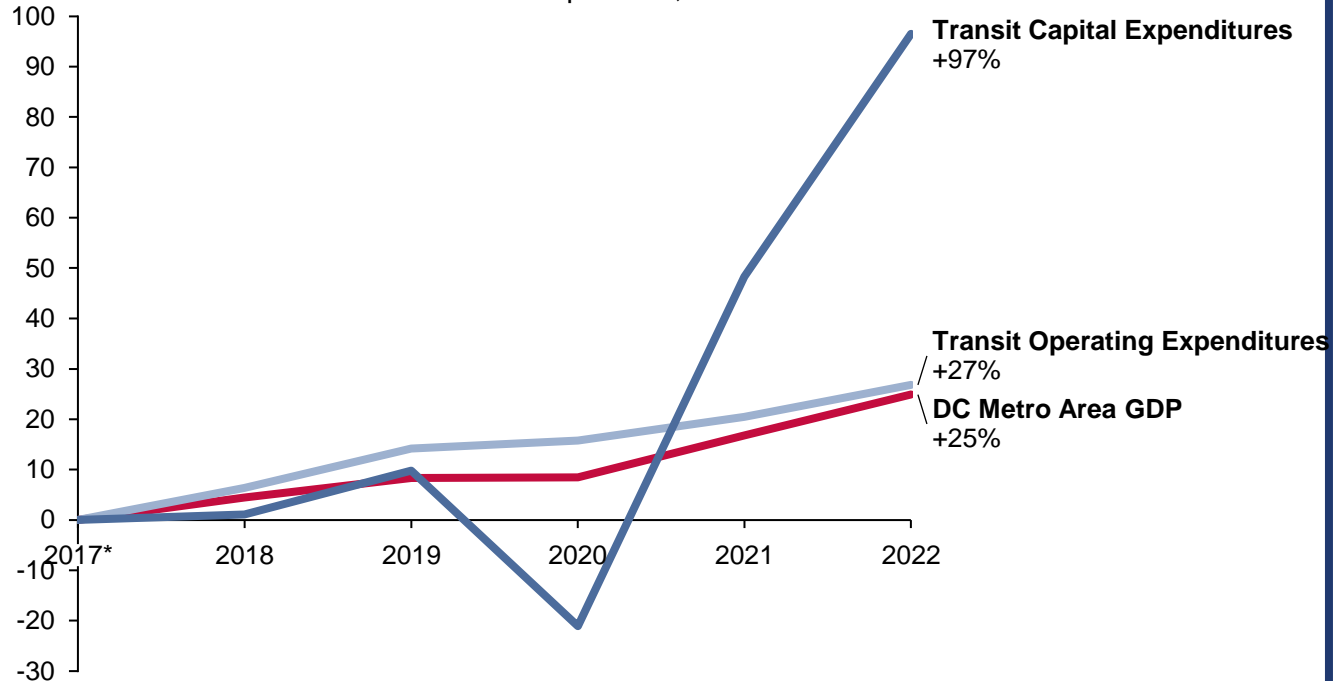
*Note: For independent transit operators, this analysis includes the gross value (excluding depreciation) of total capital assets plus ongoing construction from the most recent annual comprehensive financial report, divided by the average number of annual trips (NTD) from 2010-2022. Such entities account for the following share of transit service provided in the metro area: Boston – 99%, Chicago – 87%, New York – 88%, Philadelphia – 95%, San Francisco – 95%, Washington – 73%. For the remaining operators, separable financial information for transit capital assets is not available in financial reports for broader governmental units (e.g., Arlington County). The analysis therefore used total capital spending since 1991 (as reported in the NTD) for these agencies as a proxy for capital asset value. Note these operators account for less than 15% of service in all regions except Washington; this analysis therefore likely understates the capital asset value for the Washington region.

Financial Sustainability: Transit expenditures are growing faster than the region's economy

Overall, the region's expenditures on transit operations and capital improvements are currently growing faster than its economy (acknowledging capital expenditures can fluctuate widely depending on project delivery).

Expenditures that consistently outpace GDP are not sustainable, requiring either a future reduction to align them to GDP growth or the transfer of public resources away from other areas.

Transit Expenditures and Regional GDP, Percent Change 2017* – 2022
All Operators, All Modes



*Earliest year available for Washington MSA Gross Domestic Product from the Bureau of Economic Analysis

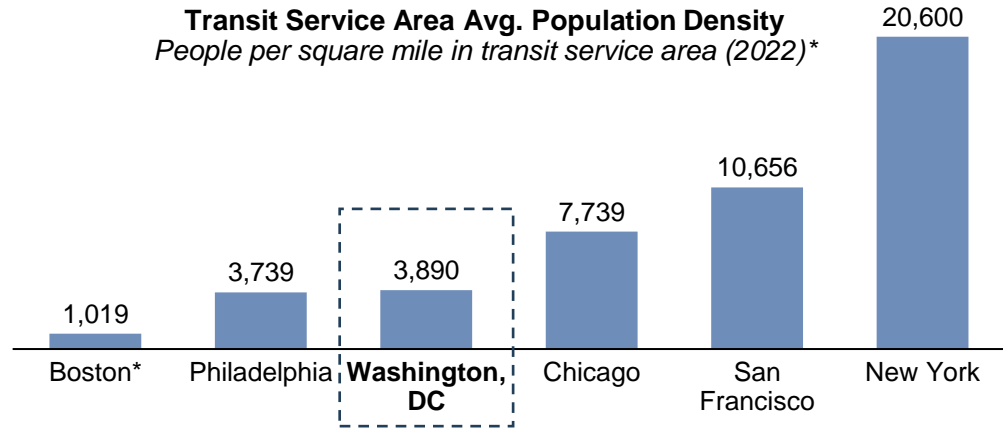
Density: The DMV has lower population and job density than other transit-rich metros

The DMV's average population density within its transit service area is roughly half that of Chicago, 1/3 that of San Francisco, and 1/5 that of New York, all of which have a higher transit mode share.

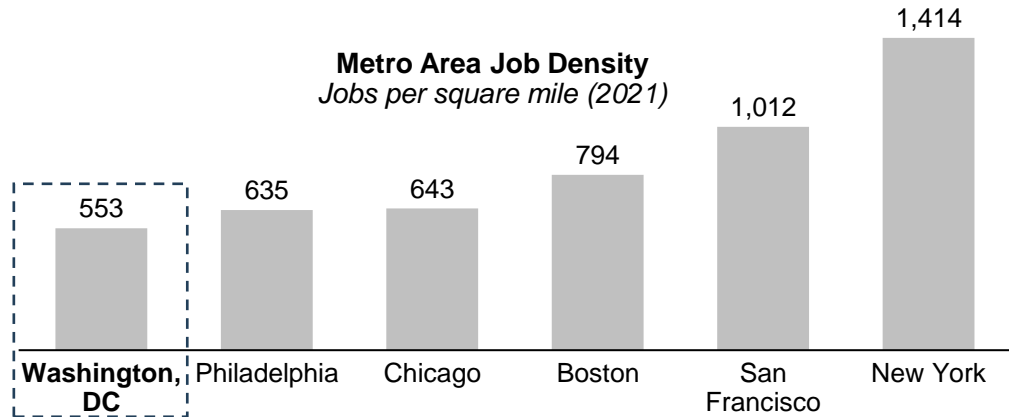
This means the DMV's transit network currently has a lower base of riders and taxpayers with convenient access to transit.

Additionally, jobs are more dispersed (lower density) across the DMV, making them more difficult to serve efficiently by transit.

Transit Service Area Avg. Population Density
*People per square mile in transit service area (2022)**



Metro Area Job Density
Jobs per square mile (2021)



*Note: Calculated as a weighted average of the population density for the service area of each operator in the metro region, weighted by each operator's share of the metro area's total service (vehicle revenue hours) provided. Boston's low population density is due to a NTD reporting issue that attributes heavy rail/bus service (generally serving denser areas) to the commuter rail service area (lower density).



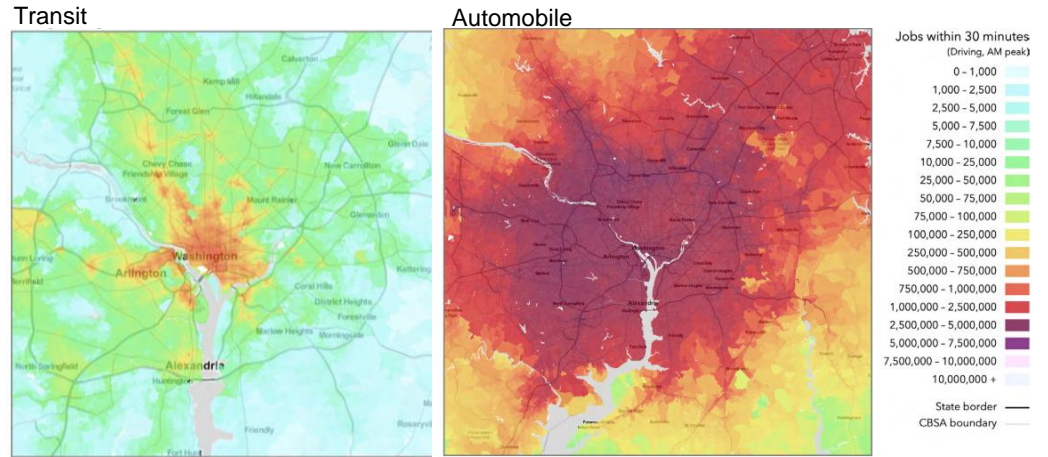
Density: Subsequently, the DMV's transit network provides comparatively less access to jobs

As discussed, transit can be most successful when it provides convenient access to jobs and amenities in a relatively comparable time to the most convenient mode (generally driving).

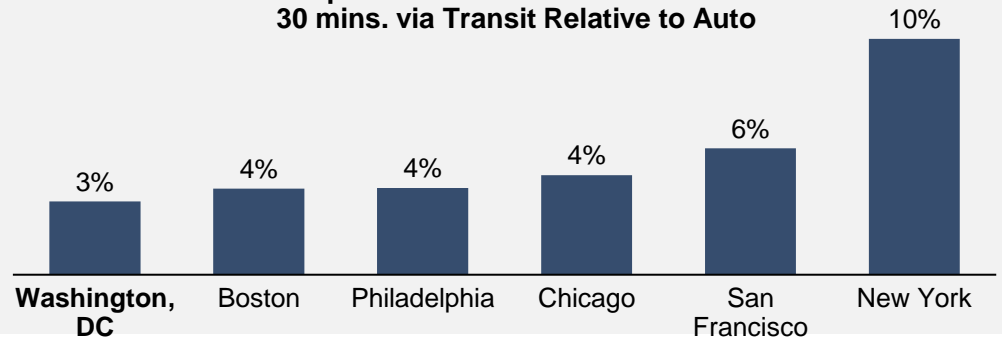
Due to relatively low population and job density in the region, a 30-minute transit commute provides access to just 3% of the jobs compared to driving—the lowest such ratio among the DMV's peer regions.

Key Question: What would a similar analysis show for amenities (e.g., parks, restaurants, theaters, museums, etc.) that are driving off-peak trips in the region?

DC Metro Area Jobs Accessible Within 30-Minute Travel Time, 2021



Proportion of Jobs Available Within 30 mins. via Transit Relative to Auto

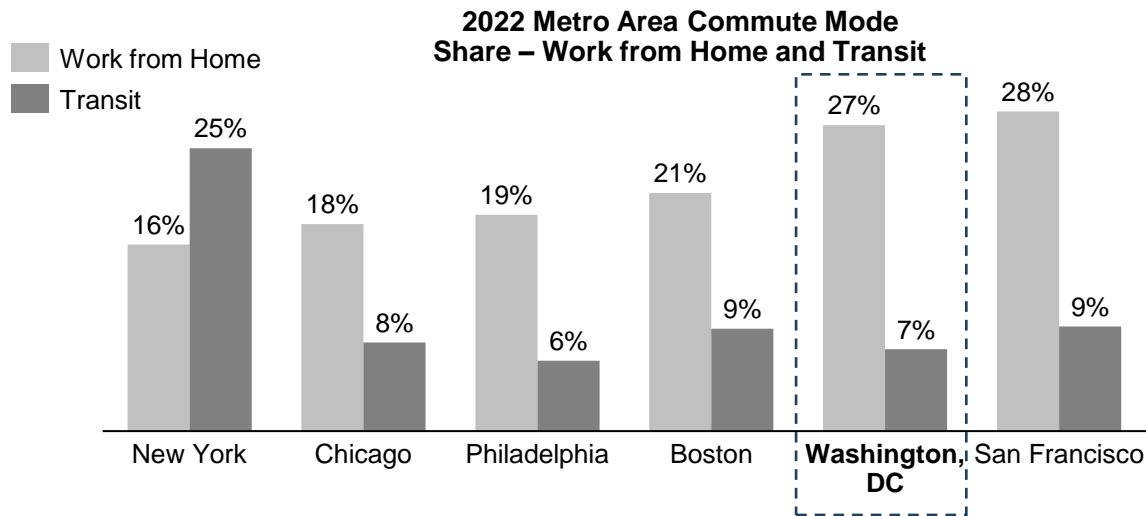


Remote work is especially prominent in the DMV, reducing transit's commute share

The region has experienced among the largest shifts to remote work (behind only the San Francisco Bay area), posing a fundamental challenge to its traditional model of serving commuters into the urban core.

This phenomenon is likely to persist as the region's major employer, the federal government, continues to lag the private sector in returning workers to the office.

While such a shift has upended the traditional peak-commute focus of the region's transit network, it also provides an opportunity to rationalize fleets for lower peaks and shift service to more off-peak, discretionary trips.



Conclusion

- Efforts to build a world-class transit network should focus on the core objectives of improving access/mobility, reliability, cost efficiency and transparency, and safety.
 - Proposals should have a measurable, quantifiable impact on these objectives.
- Increasing funding and service levels cannot be viewed as a fix-all for the region's transit system.
 - The region must instead face transit's underlying challenges head-on.
- History shows that American cities and the DMV region are resilient and can tackle difficult transportation challenges.
 - No single jurisdiction or operator will have the solution; the region must agree on shared goals and craft a strategy that strives to deliver the highest return-on-investment for the public.

