

BUS TRANSFORMATION PROJECT

The Bus System Today





Bus plays a **key role** in regional mobility

Bus carries **600,000 people** every day in our region



Reducing
emissions



Reducing
congestion



Providing **affordable**
transportation



Delivering **access**
throughout the region



Using roadway
space **efficiently**



Reducing space
devoted to **parking**

Bus is the most efficient way of moving large numbers of people...now and in the future



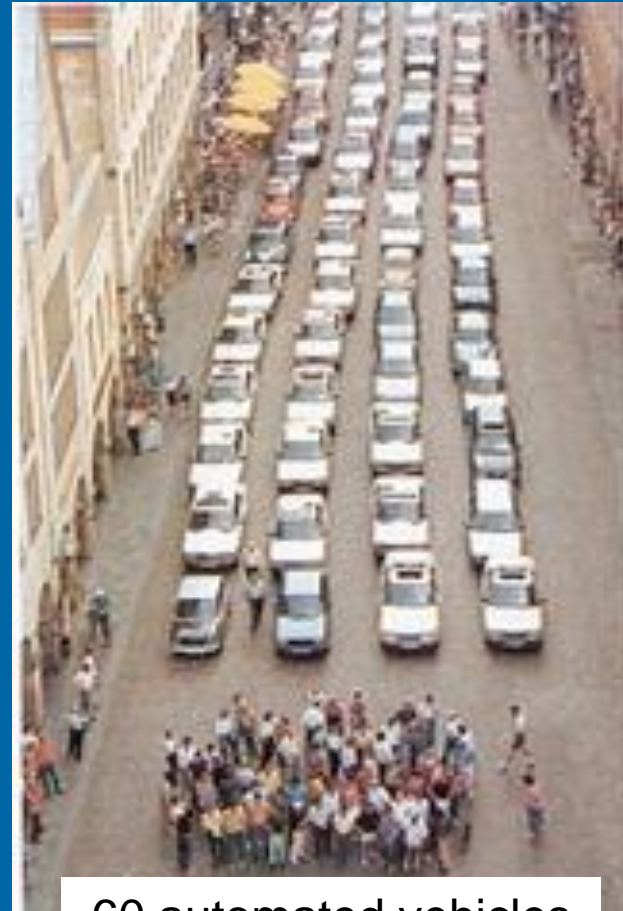
60 vehicles



1 bus



60 hailed-ride cars



60 automated vehicles



Our region and mobility options
continue to **evolve**

Regional Mobility Then...



*View of Near Southeast from Frederick
Douglass Memorial Bridge*

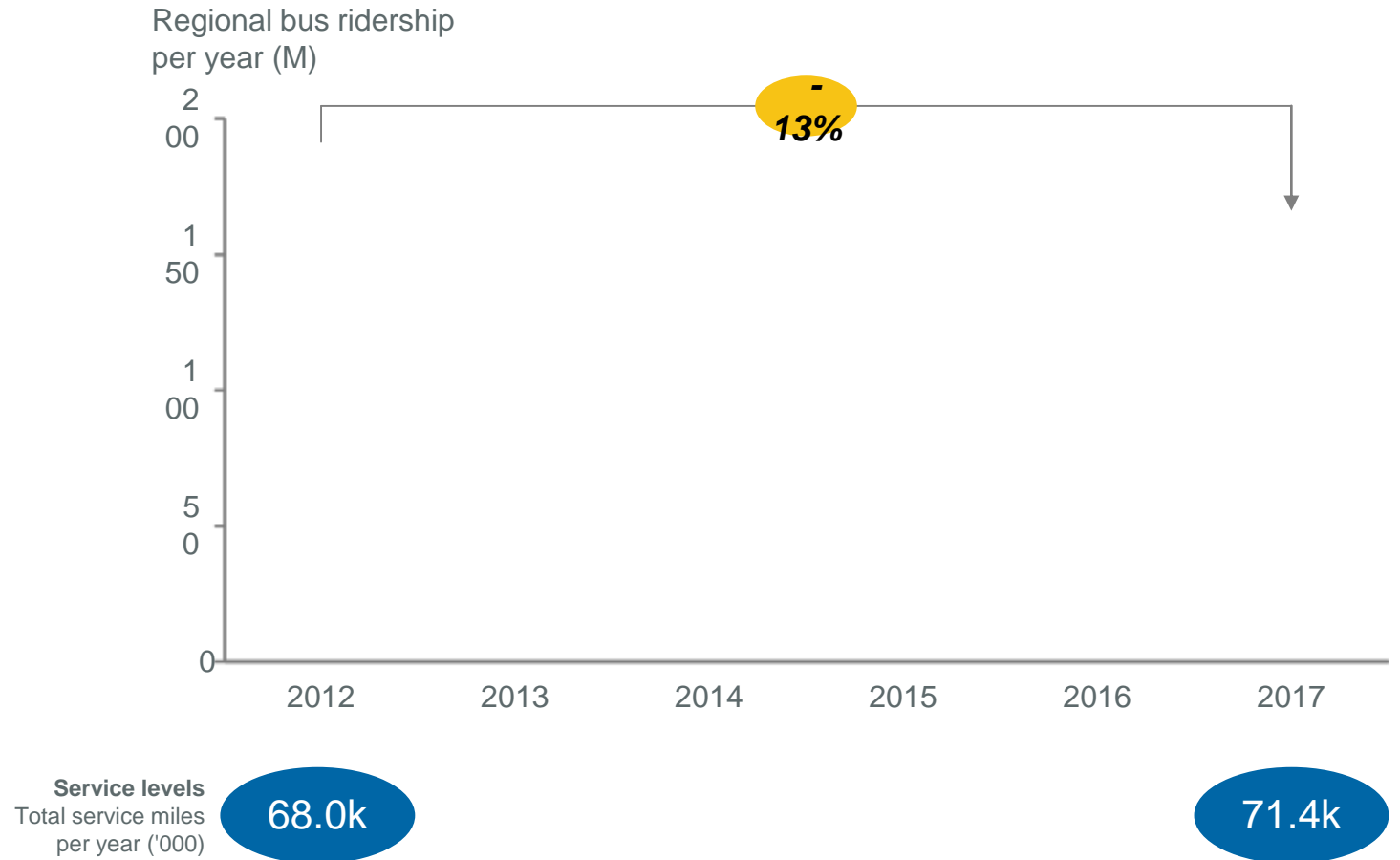
Regional Mobility Now...

*View of Near Southeast from Frederick
Douglass Memorial Bridge*



lyft

This new mobility landscape is resulting in a decline in bus ridership despite increased service



Note: Ridership and services miles figures for Metrobus, Ride On, Fairfax Connector, DC Circulator, TheBus, DASH, ART, CUE and LCT.
Source: National Transit Database



It is time to re-think the region's
approach to bus, and the role of
Metrobus

Bus faces **five core challenges** that will continue to grow unless changes are made



Meet changing
customer needs



Keep up with
changing technology



Coordinating
across region



Maintain
sustainable cost
structure



Deciding how
service is paid
for



**Bus service is meeting some, but not
all, customer needs and expectations**

Who's on the bus?

Almost half
of Metrobus customers are
Low-Income



55%

of Metrobus customers have
no vehicle at home



Metrobus customers live:

51% in DC

33% in MD

16% in VA



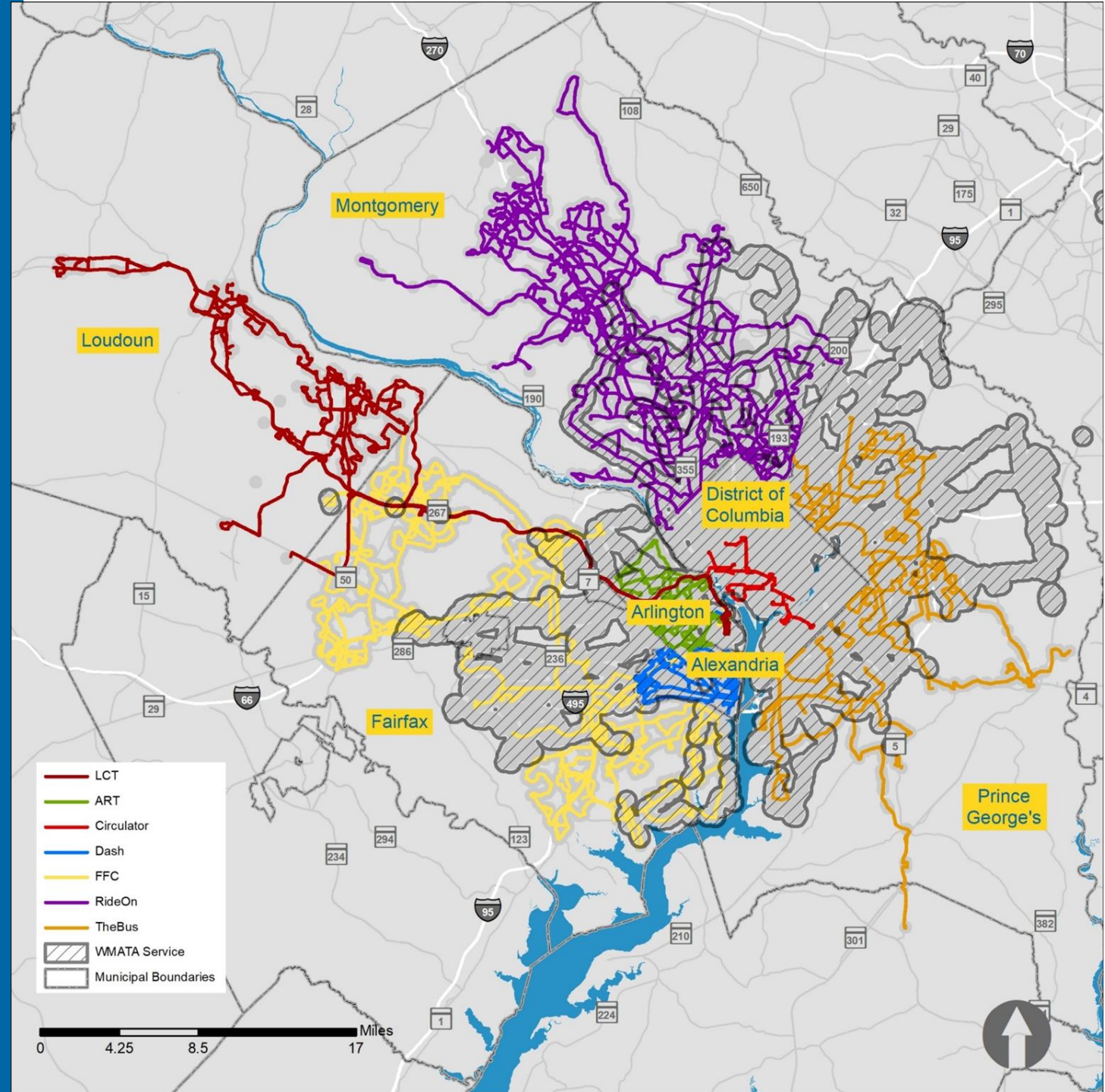
Source: WMATA 2014 Passenger Survey; US Census 2011-2016 5-Year Estimates

*Low income defined as living in a household with income less than \$30,000 a year

** Includes portions of Maryland and Virginia within the WMATA Compact. Other locations excluded.

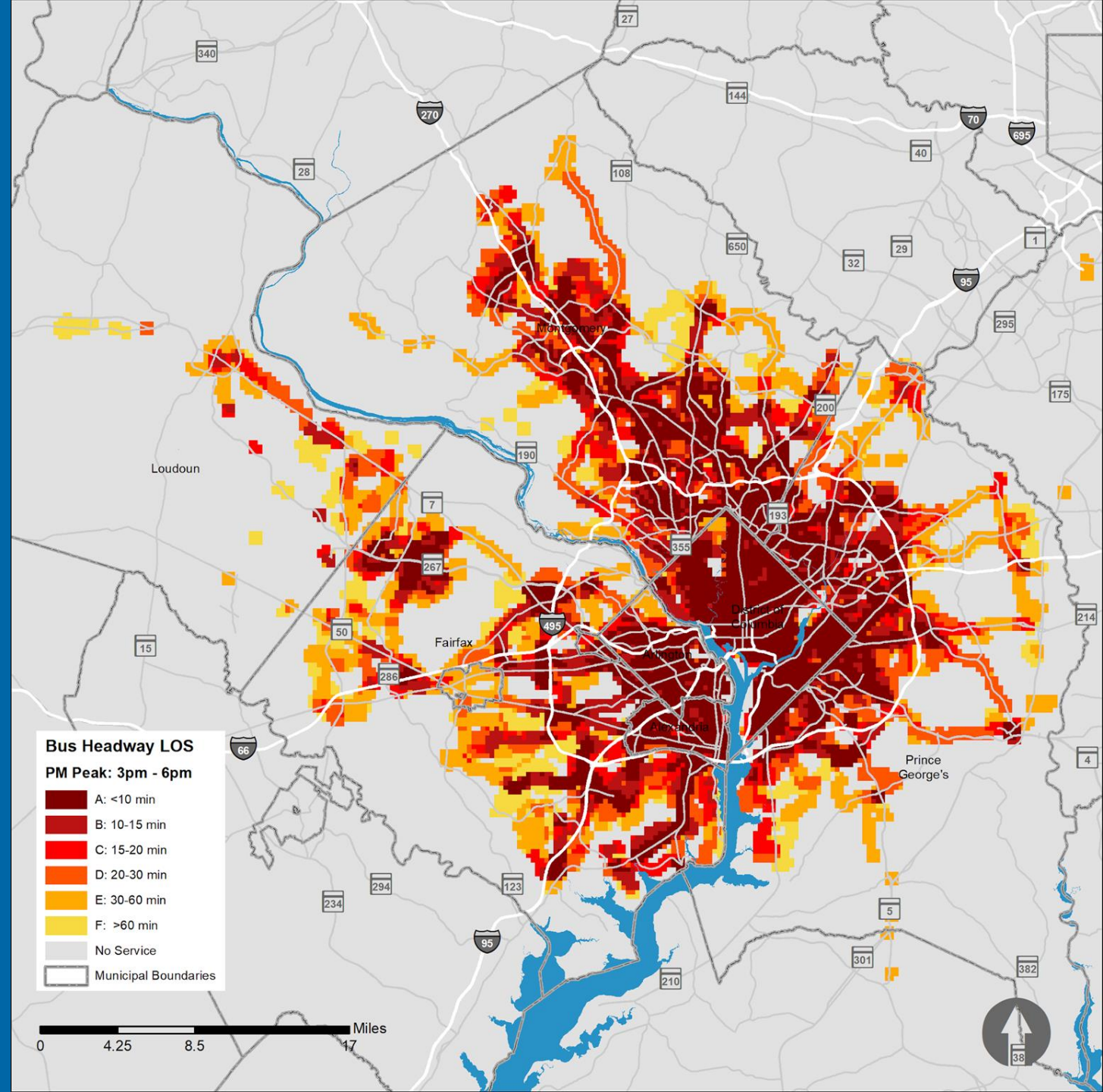
Transit is **accessible** to most people in the region

- **81%** of people within the region can access bus



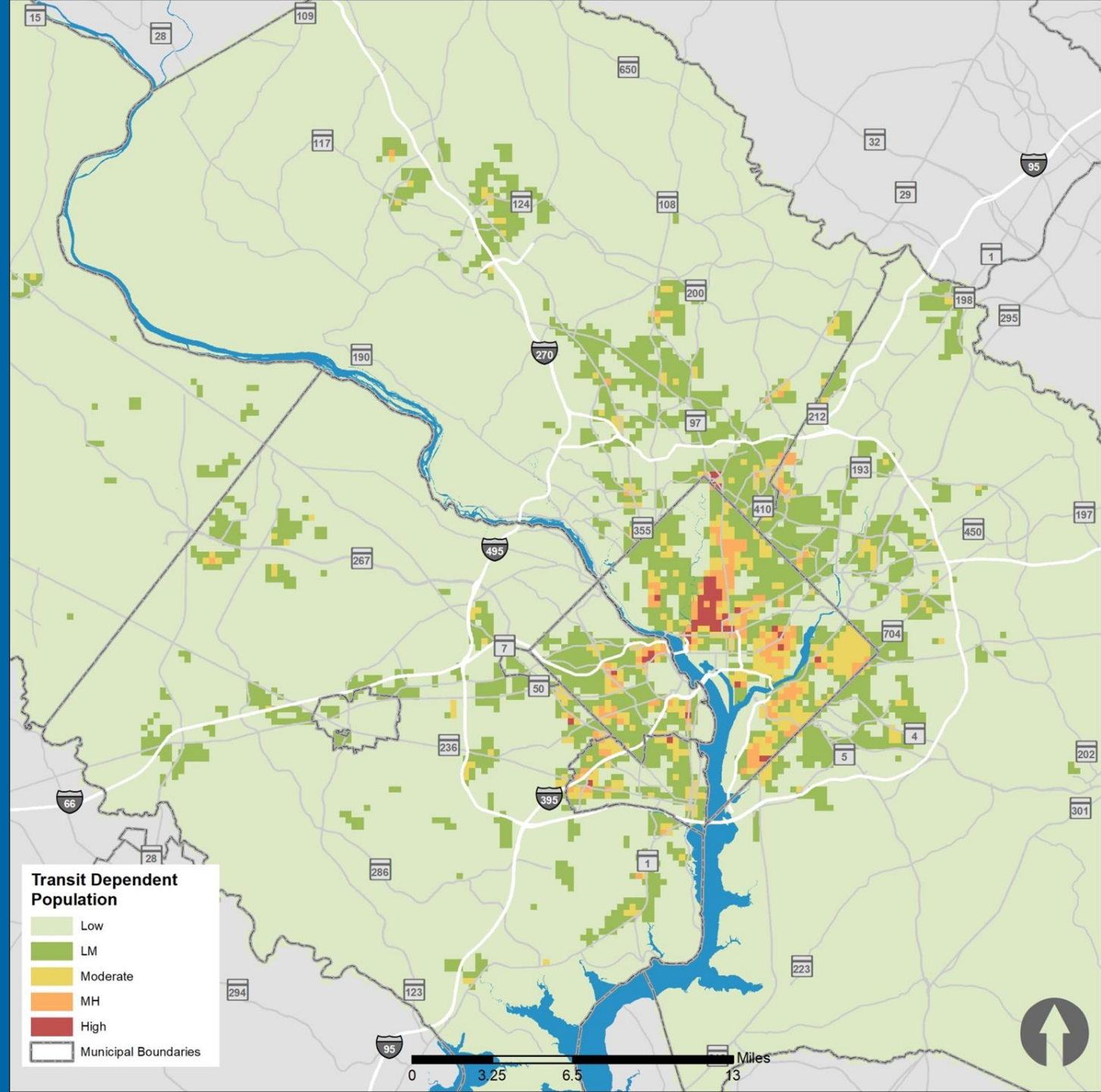
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- **81%** of people within the region can access bus
- **48%** of people within the region have access to high-frequency transit during the peak periods (15-mins or better)



Transit is **accessible** to most people in the region

- **81%** of people within the region can access bus
- **48%** of people within the region have access to high-frequency transit during the peak periods (15-mins or better)
- **77%** of the transit-dependent population has access to high-frequency bus service during the peak periods



Expectations for travel in the region are changing...



Low cost of
service



Shorter wait
times



Faster & more
direct trips



Better waiting
conditions



Greater reliability/
real-time data

...and bus is struggling to meet them all.

Technology Trends

- 1 Shared mobility platforms:** Allowing riders to connect with transport options when it is most convenient
- 2 Connectivity-enabled traffic management:** Leveraging big data and IoT to reduce congestion and improve travel time
- 3 User-centric design:** Increasing customers' expectations that systems will adapt to their individual needs and habits
- 4 Automated mobility:** Allowing vehicles to navigate roadways without human intervention
- 5 Electric propulsion:** Enabling vehicles to reduce CO2 emissions and ongoing operating cost of vehicles

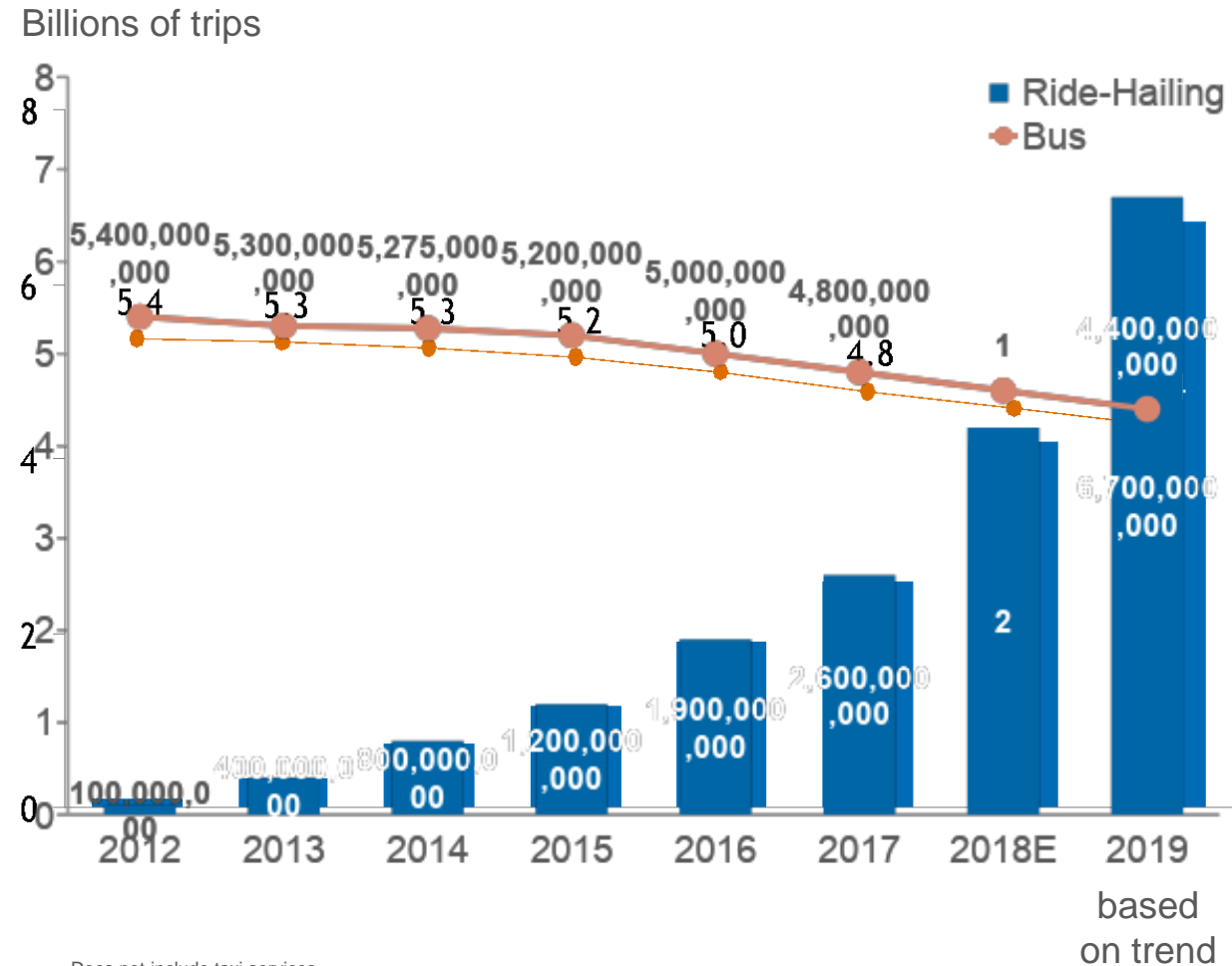


**Imperative for bus to keep up with
emerging technologies that are
changing mobility**

Shared Mobility

- Ride-hailing services have grown to over 4B trips per year over the past five years, while bus ridership has declined

Bus and Ride-Hailing ridership in the US



Does not include taxi services.

1. BCG Analysis; Back to the Future, 2015.

2. Schaller Consulting Estimate; The New Automobility: Lyft, Uber and the Future of American Cities, 2018

Connectivity-enabled traffic management: Already being tested by local governments and private sector



San Francisco Transit Signal Priority

Traffic light system optimized based on real-time and historical data, with signal priority for certain bus lines



Texas DOT Incident Response

Project by TXDOT to improve the use of data and analytics in incident response, management, and prevention



IBM Intelligent Transportation

Centralized management of traffic and transit operations by using data that is collected from disparate systems across geographic locations

User-Centric Design:

- Increasingly applied in various mobility contexts

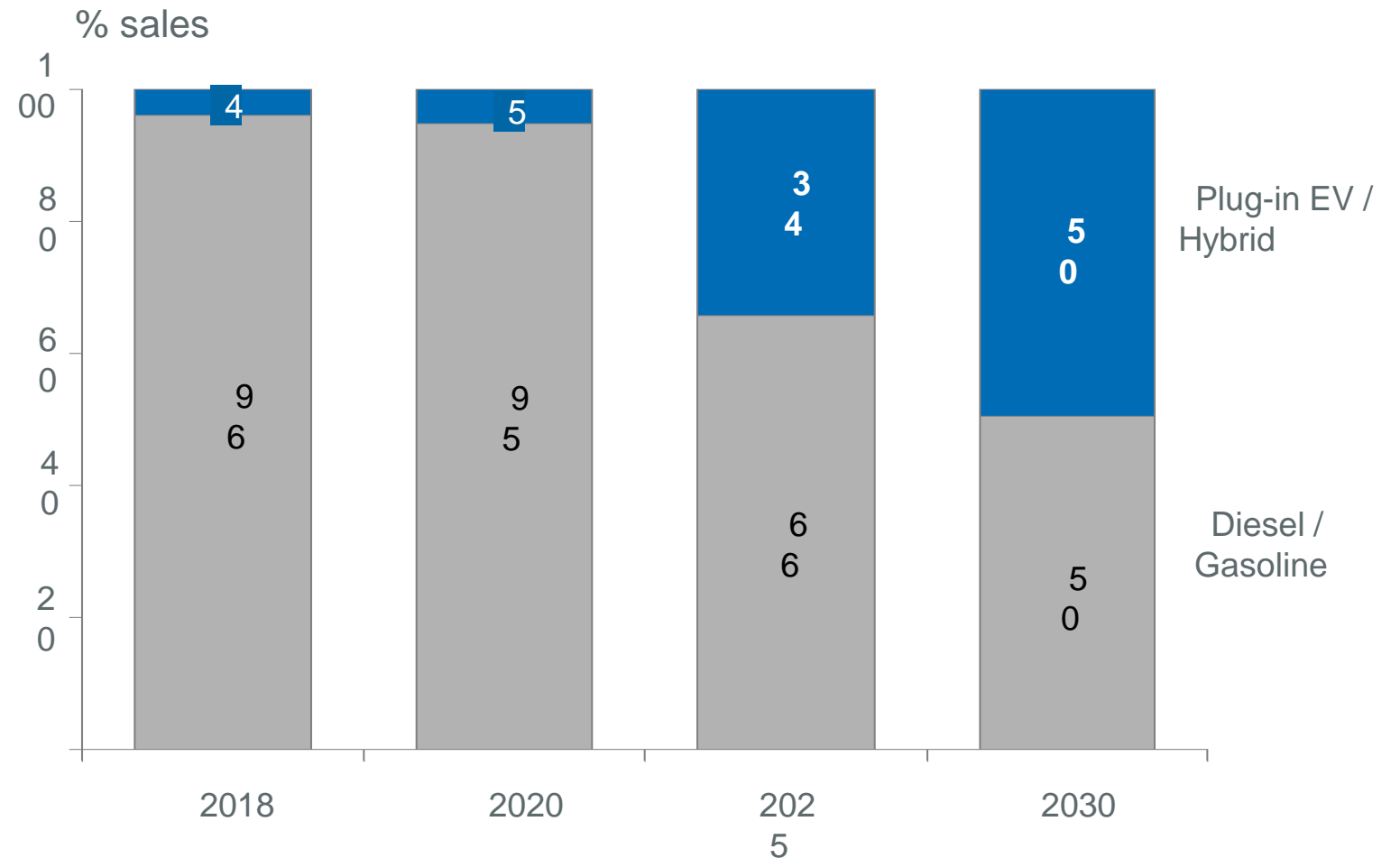
- **Improved data availability** on traffic conditions allows users to make informed travel decisions
- **Integration of gamification** in transportation-focused applications to drive user engagement
- **Demand management levers** to manage customer use of transport services
- **Seamless payment options** for transportation that enhance convenience for customers



Vehicle Electrification:

- EVs and hybrids forecast to make up 50% of new car sales by 2030
- Driven by advances in battery range and costs

Car sales by fuel type (US)



Automation is on the horizon for all modes and uses...



Passenger cars



Transit vehicles



Parcel deliveries



Low-speed shuttles



Freight services

...but questions on future impacts still remain

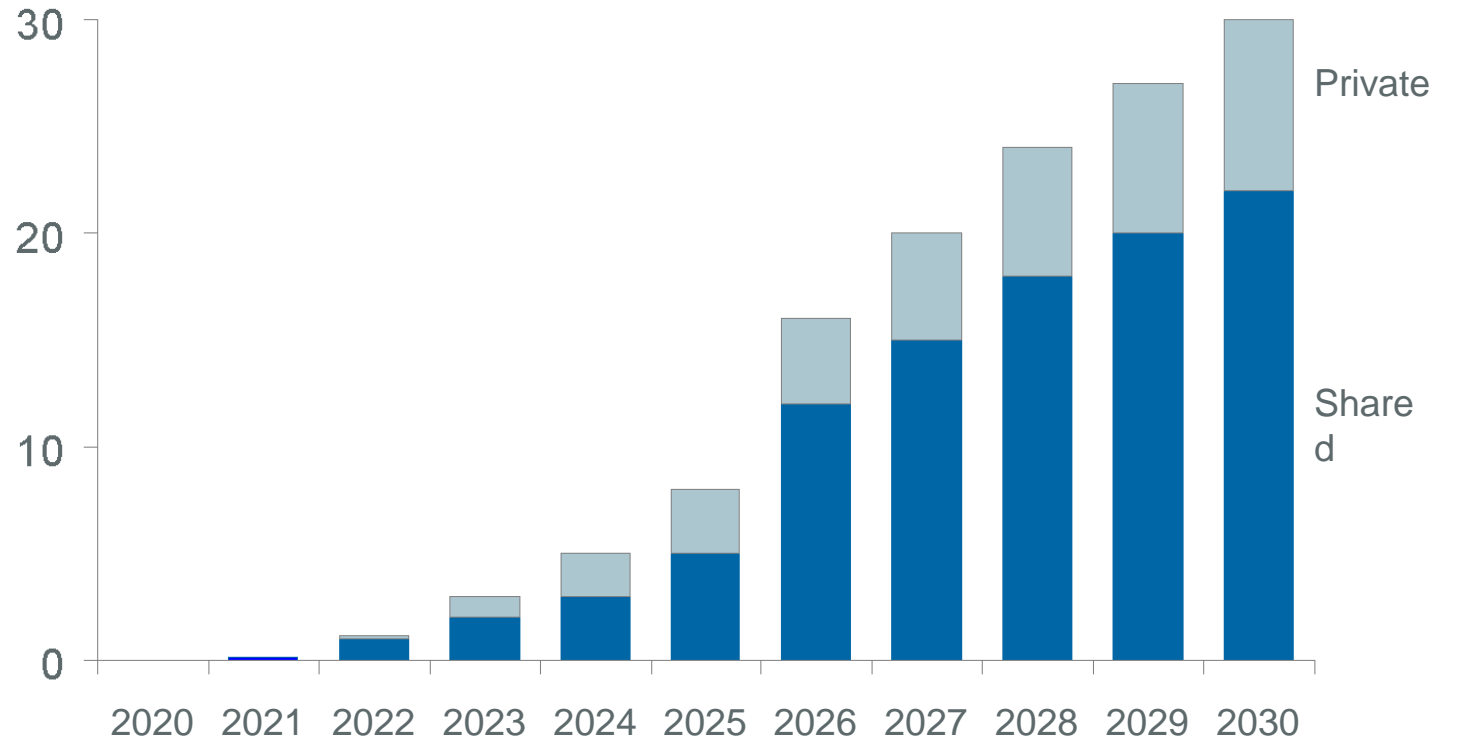
- In **what markets** will automated vehicles primarily be used?
- **How quickly** will automated vehicles penetrate those markets?
- In **what capacity** and for what functions will automated vehicles be used?

Technology trends expected to converge in vehicle fleets that are **Connected, Automated, Shared, and Electric...**

...changing how people interact with transportation

Forecast sales of automated electric vehicles

% of total vehicle sales in US

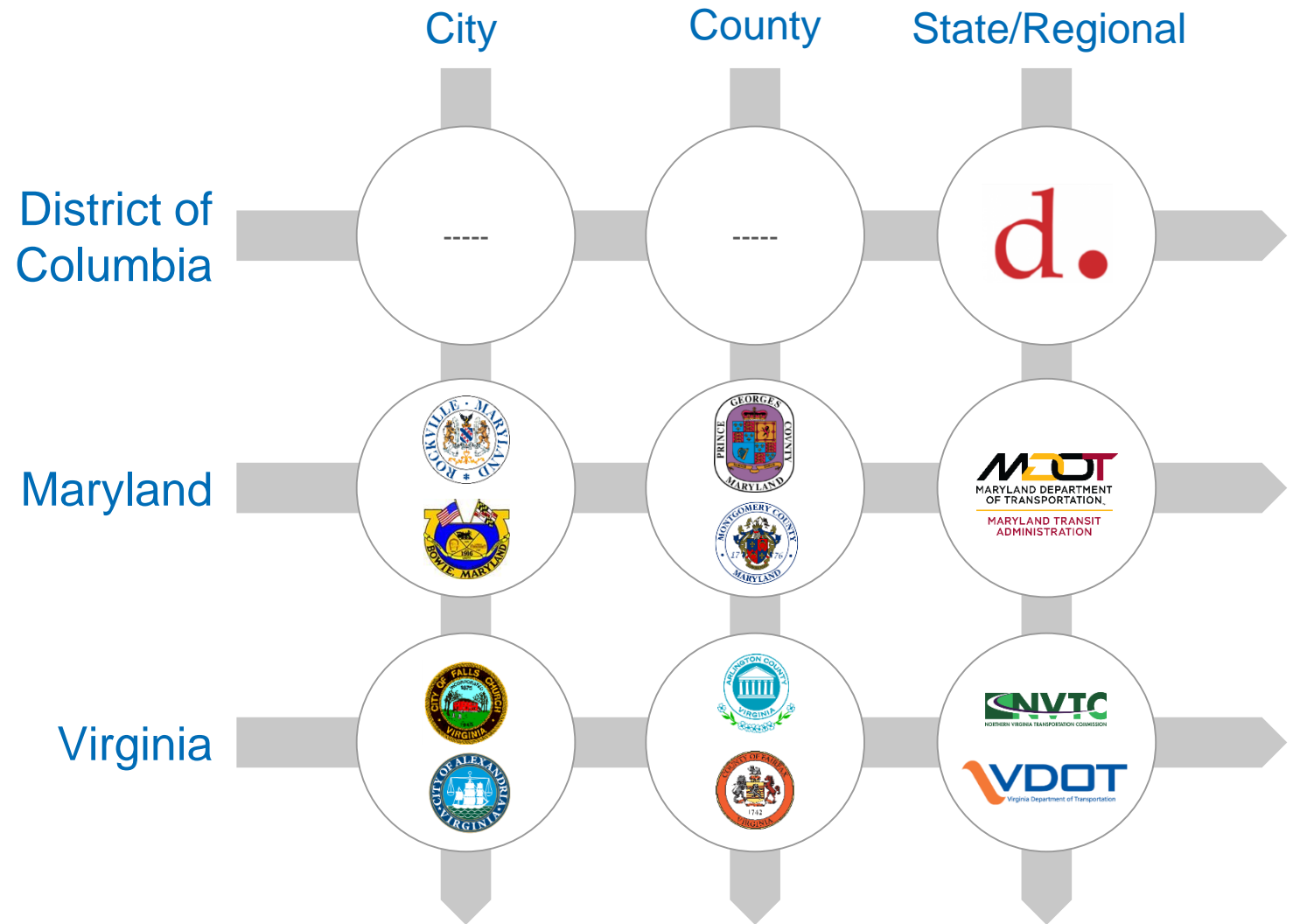


Source: BCG analysis (The Reimagined Car, 2017)



Dispersion of **responsibilities** makes it difficult to coordinate change

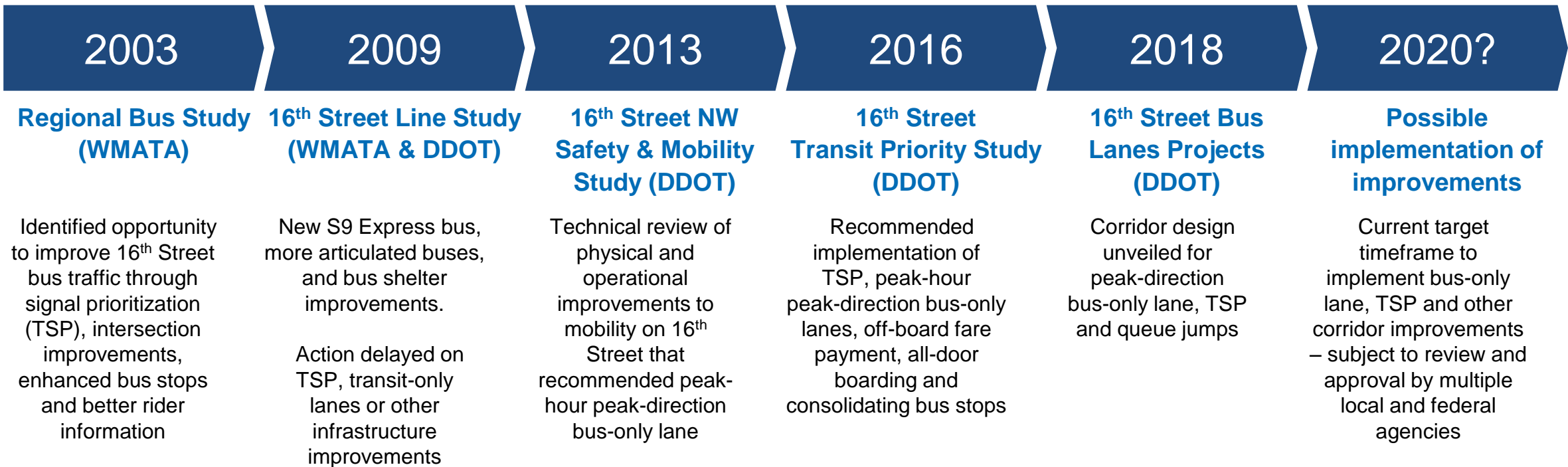
Complex set of stakeholders driving decisions about bus...



...which can slow the implementation process

Example: 16TH Street Bus Lane will take ~17 years to implement

Agencies with oversight or involvement: WMATA, National Capital Planning Commission, National Park Service, DDOT, DC Office of Planning, DC Historic Preservation Office, Maryland DOT, Maryland State Highway Agency, DC Advisory Neighborhood Commissions, citizens advisory groups and other





**WMATA cannot achieve the 3% cap on
operating subsidy growth with the
current bus operating model**

What is the subsidy?

The subsidy is the **financial contributions** from state and local governments to **supplement operating revenues** from fares, parking, advertising, and other sources

What is the subsidy cap?



Limits annual **subsidy growth to 3%** as part of long-term financial sustainability plan



Applies to subsidy for **Metrorail and Metrobus** operations

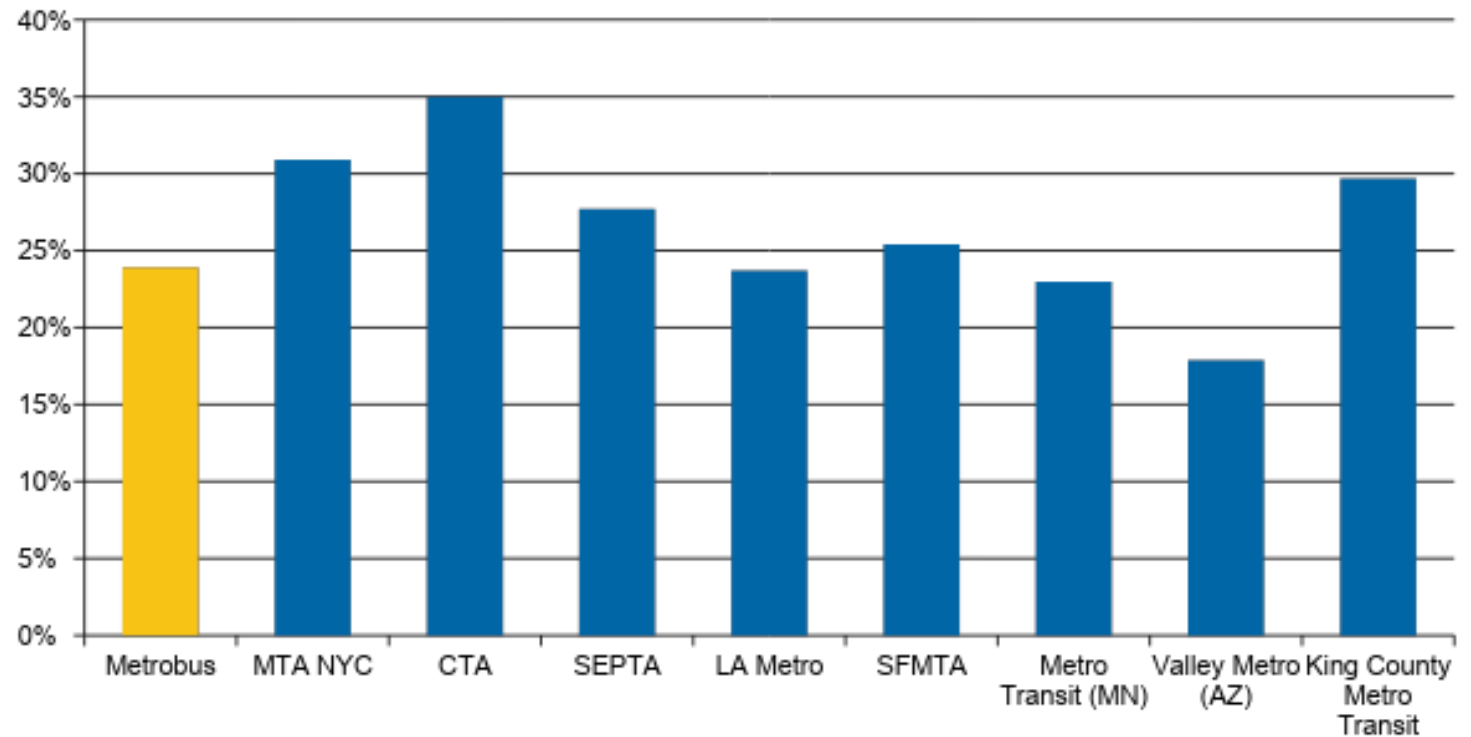


Mandated by Maryland and Virginia state legislatures as part of the agreement for dedicated capital funding

Metrobus covers almost 24% of operating costs directly from fares...

...in line with other large transit agencies

Operating Costs covered by Fare Revenue

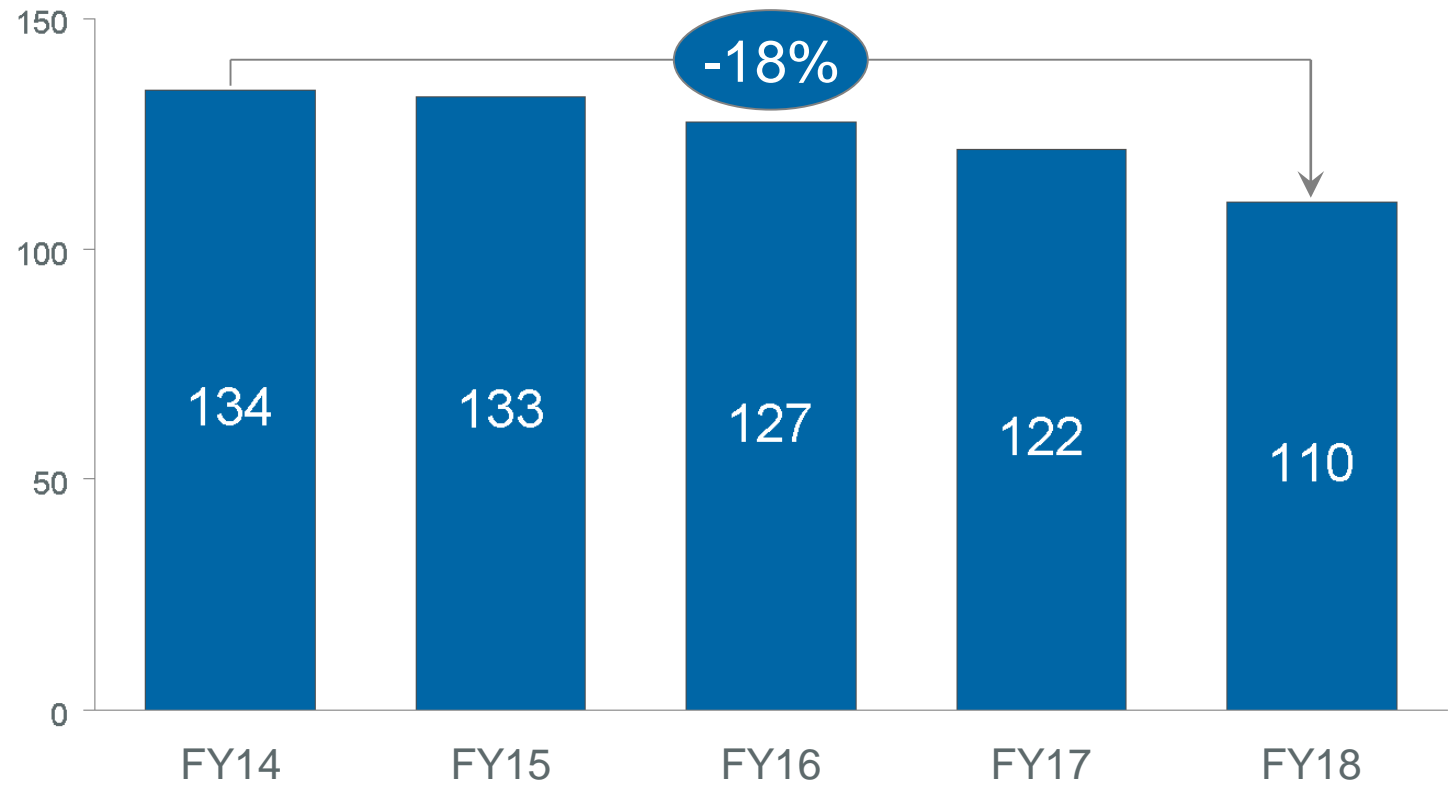


Source: National Transit Database, 2016. These numbers do not include revenues from advertising, parking and other non-fare revenue sources.

**Metrobus
ridership has
fallen by 9% in
the last year
alone...**

Metrobus Annual Ridership

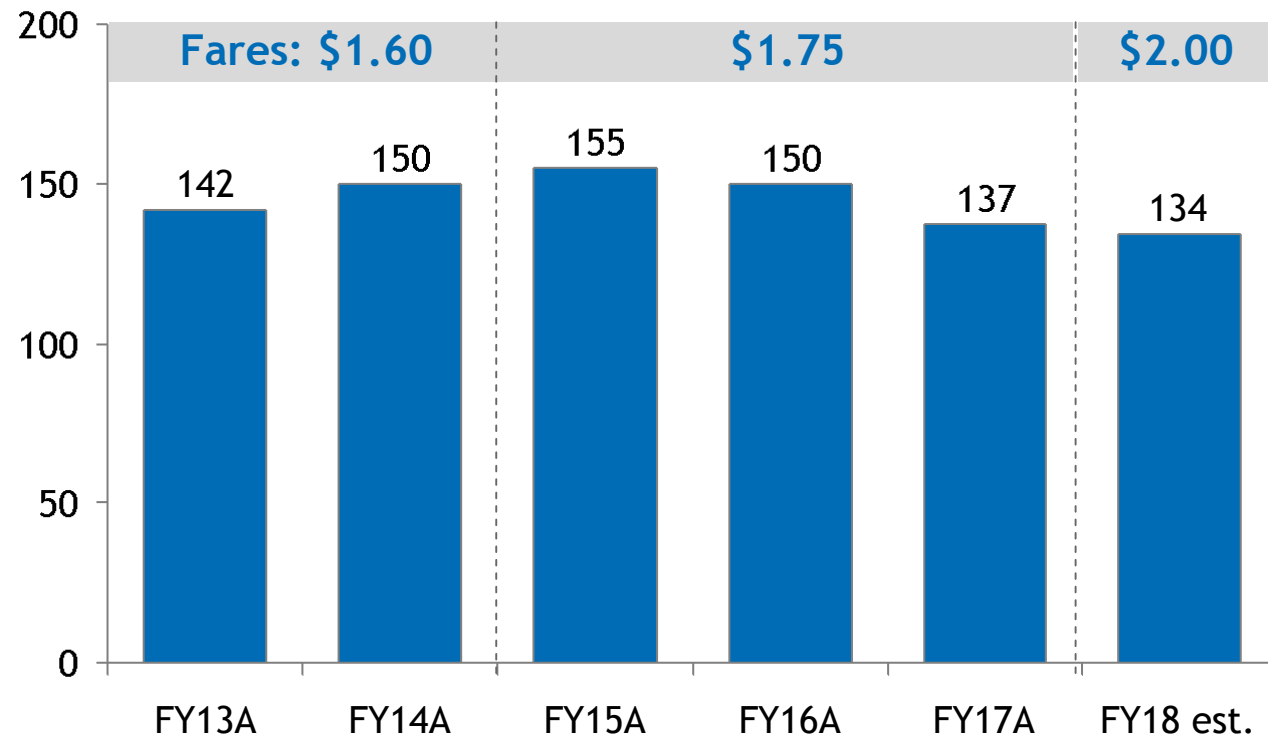
Millions of passenger trips



Source: WMATA data

...while fare increases have only partially offset revenue decline

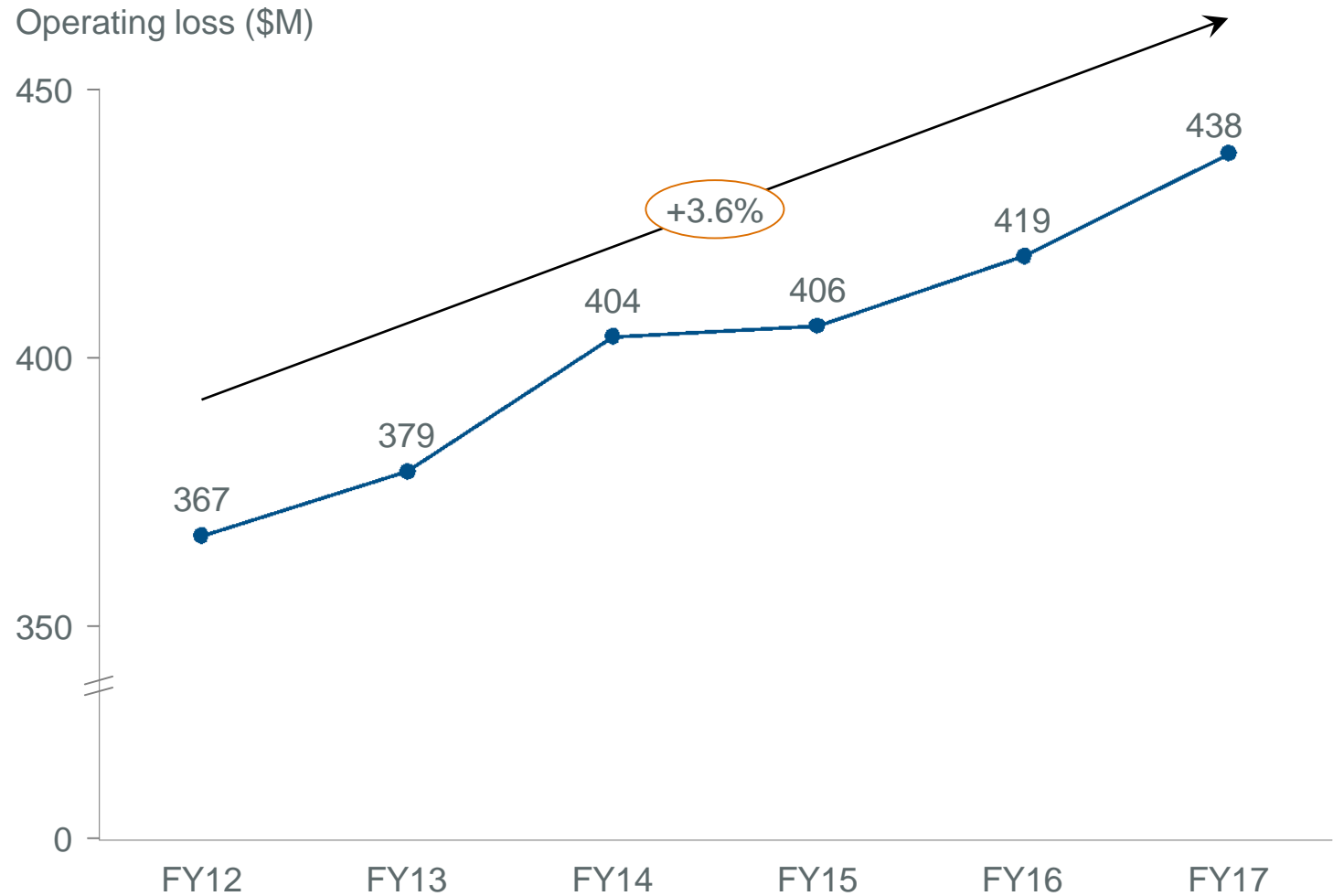
Passenger Revenue¹ (\$M)



1. Excludes non-passenger revenue, e.g., advertising.
Source: WMATA FY12-19 budget books

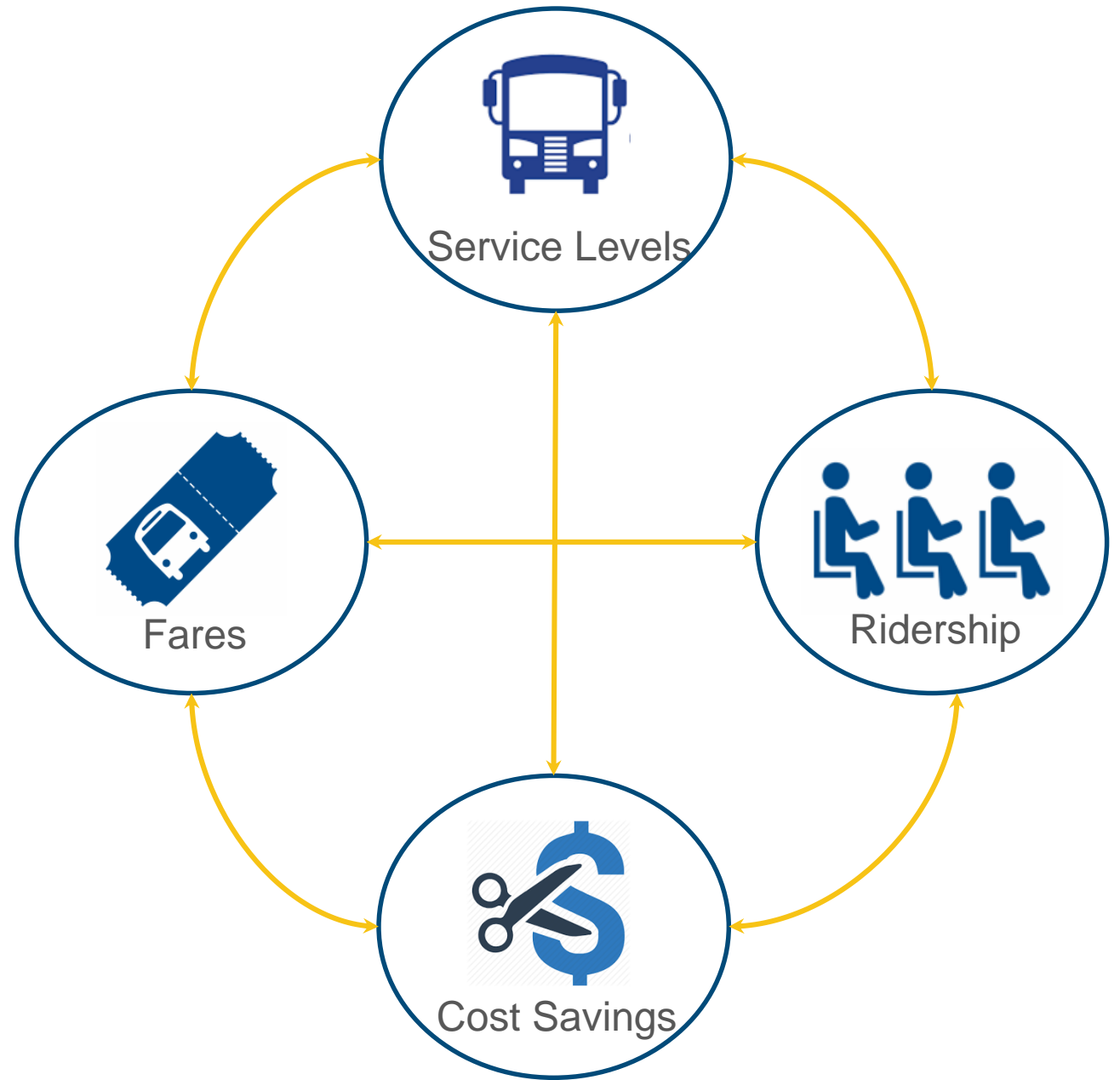
Operating losses continue to increase, driven by rising costs and declining revenues...

...resulting in increased subsidies.



Source: WMATA FY12-19 budget books

Meeting the 3% subsidy cap will require some combination of ridership increases, cost reductions, changes to service levels, and/or fare increases





**Existing structures and formulas
determine how **services are paid for****

Metrobus service is divided into Regional and Non-Regional services

Definitions of “Regional” and “Non-Regional” routes are widely shared, including through the annual budget documents

Regional Routes		Non-Regional Routes
Interjurisdictional Connection (at least ½ mile in each jurisdiction)	O R	<ul style="list-style-type: none">• Serves at least 1 COG Regional Activity Center• Travels significant distance/regional artery• Achieves cost efficiency
		Any routes that do not meet the criteria of a regional route

Funding allocation process allows for **negotiation** of Regional and Non-Regional route designation



Different funding formulas for Regional and Non-Regional service directly affect the subsidy bottom line

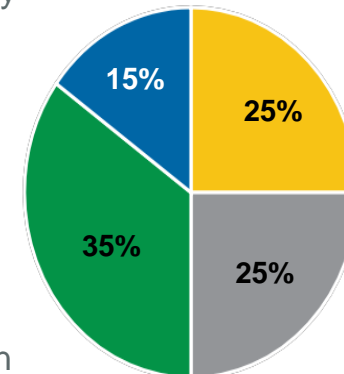
Non-Regional

$$\begin{array}{c} \text{Direct Hourly Operating} \\ \text{Costs} \\ \times \\ \text{Non-Regional Platform} \\ \text{Hours} \end{array}$$

Jurisdictions **pay less than fully allocated** cost for non-regional services

Regional

Avg. Weekday
Ridership by
Jurisdiction



Jurisdiction
Population

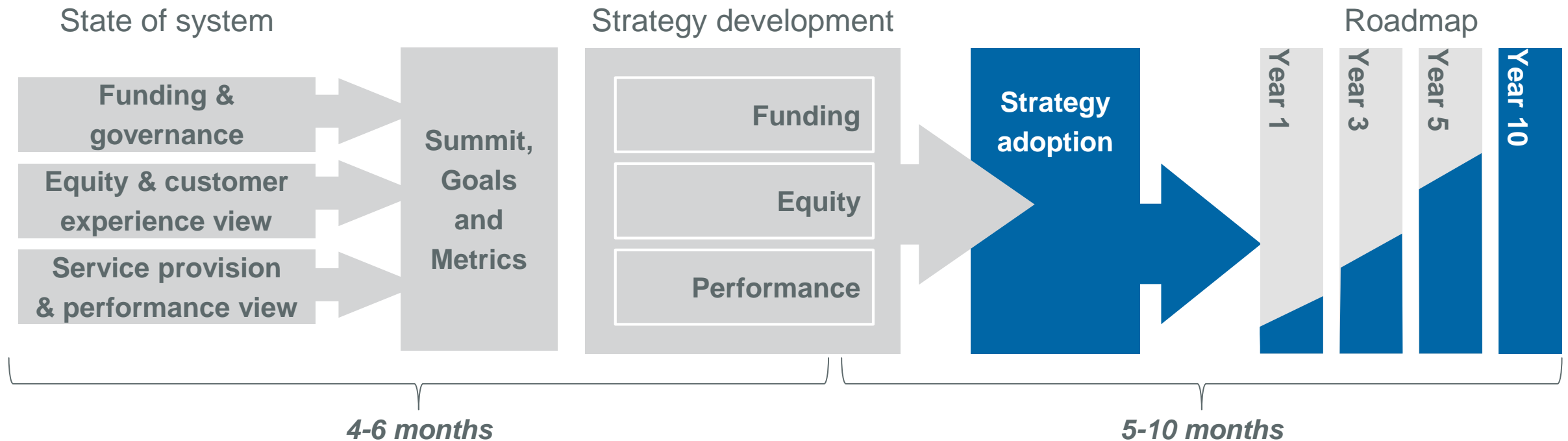
Regional
Service Miles
by Jurisdiction

Regional
Service
Hours by
Jurisdiction



**Bus Transformation Project will
support a regionally-developed
mobility strategy**

Regional stakeholders will **work together** to define the roles of bus and create a roadmap to get there



**Together we
will identify the
role of bus and
Metrobus in our
region's future**



BUS TRANSFORMATION PROJECT

Breakout Session





What is the **future role of bus?**

Regional mobility goals

Based on transportation plans developed by states, counties and cities in the region



Role of bus in the region



Role of Metrobus

Further defined through Transform Bus project as a component of the region's overall bus strategy

Regional mobility plans highlight three main goals



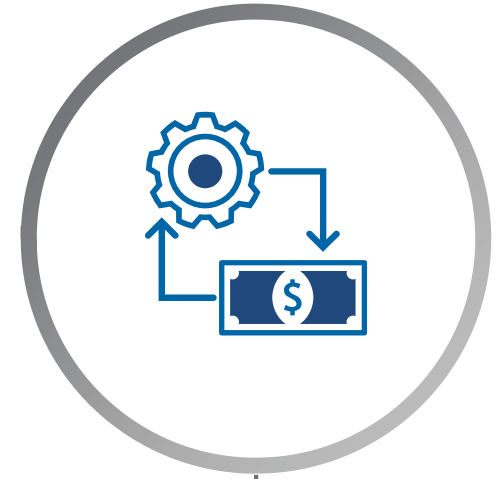
Improve access

Improve access for all citizens to safe, reliable transportation



Strengthen communities

Strengthen communities by promoting economic development, and reducing congestion and pollution



Manage resources

Manage resources effectively to ensure long-run sustainability of mobility options

King County Seattle Reconnect (2017)

Future of bus:

Expand role of bus by
increasing investment
in fleet, service and
infrastructure



Houston Metro Transit System Reimagining (2015)

Future of bus:
Redesign role of bus
to better meet needs of
customers, maintaining
existing assets and
investment levels



New York MTA Staten Island Express Bus (2018)

Future of bus:

Refocus role of bus
by reducing bus routes
and stops to speed
up buses and avoid
congestion



Los Angeles Metro Vision 2028 (2018 – Ongoing)

Future of bus:

Increase bus speeds by 30%, double usage of modes other than driving alone



What's
**your
vision**
for the
future of
bus in the
region?



Find your room number on your name tag

Coffee being served in the breakout rooms now.



BUS TRANSFORMATION PROJECT

Next Steps



The **Bus Transformation Project** can
change the future of bus in the region.

The effort requires all our help.
We are Metrobus.

Committee Roles

WMATA Leadership Team

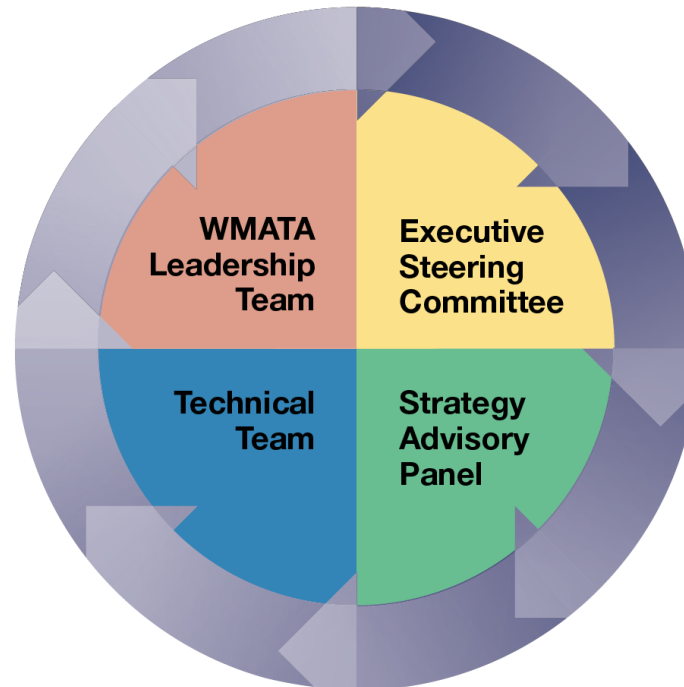
Decision makers within Metro manage evaluation that affects organization and operations.

- PM, Office of Planning
- Bus Planning
- Performance
- Communications
- Chief Operation Officers

Technical Team

Recognized discipline leaders within Metro and senior jurisdiction transit staff review technical and financial analysis.

- Specialized staff from planning, bus, and performance
- Senior transit staff from each jurisdiction



Executive Steering Committee

Recognized leaders closely involved with strategy development manage political risk and benefit to the region.

- Transportation thought leaders
- Business leaders
- Regional advocates
- Labor representatives

Strategy Advisory Panel

Senior staff and appointed members review major work products and advise consultant team.

- Transportation and transit managers
- Citizen appointees
- Operator representatives
- Labor representatives
- Transit advocates

Public Engagement – Fall 2018

- Seeking **public input** on:
 - How people travel today
 - How people make travel decisions
 - Barriers to riding the bus
- **Online mobility survey** – Coming Sept 19
- **Pop-up events** across the region





- 1 **Vision and Goals** (we are here)
- 2 Develop Alternative Strategy Options (late 2018)
- 3 Draft Strategy (early 2019)
- 4 Recommend Strategy and Lay Out Roadmap (spring-summer 2019)

How Can you Help?

- **Bring your best ideas!**

Collaborate with colleagues to advance the Strategy

- As the project progresses, help us find opportunities to engage with **your decision-makers**
- Help publicize the **public survey** – starting next week
- Support **pop-up meetings** in your jurisdiction

Upcoming Meetings

Executive Steering Committee	Early October
Technical Team	September 28
Strategy Advisory Panel	Early November

Bus Transformation Project Summit

September 12, 2018

Attendance Sheet

Checked In	Last Name	First Name	Affiliation
X	Achebe	Chioma	Boston Consulting Group
X	Aesch	Mark	Boston Consulting Group
X	Alfred	Ray	WMATA – Bus Technology and Business Operations
X	Alpert	David	DC Sustainable Transportation
X	Alvarez	Jessica	Foursquare ITP
X	Anosike	Dennis	WMATA – Chief Financial Officer
X	Anspacher	David	Maryland-National Capital Park and Planning Commission – Montgomery
X	Archev	Deanna	Montgomery County – RideOn
X	Backmon	Monica	Northern Virginia Transportation Authority
X	Bailey	Linda	National Association of City Transportation Officials
X	Baker	Scott	AECOM
X	Barna	Martin	City of Alexandria – DASH
X	Bean	Chuck	Metropolitan Washington Council of Governments
X	Bell	Jewel	WMATA – Bus Transportation
X	Blackwell	Michael	Northern Virginia Community College
X	Bowersox	Lynn	WMATA – Customer Service, Communications, and Marketing
X	Bryant	Isiah	Teamsters Local 922
X	Buchanan	Bob	President, 2030 Group
X	Byala	Lora	Foursquare ITP
X	Carney	Yvonne	WMATA – Performance
X	Chissell	Zachary	Maryland Transit Administration
X	Choudhury	Raka	District Department of Transportation
X	Conklin	Christopher	Montgomery County Department of Transportation
X	Cornejo	Tatiana	NeoNiche Strategies
X	Cunningham	Candace	Restaurant Opportunities Center
X	Dabney	Unwanna	AECOM
X	Davey	Rich	Boston Consulting Group

Checked In	Last Name	First Name	Affiliation
X	Davis	Allison	WMATA – Planning
X	DeBruhl	Jennifer	Virginia Department of Rail and Public Transportation
X	Dyke	Jim	Senior Advisor, Virginia State Government Relations, McGuireWoods Consulting LLC
X	Edwards	Clinton	Virginia Department of Rail and Public Transportation
X	Erenrich	Gary	Montgomery County Department of Transportation
X	Filardo	Katie	Foursquare ITP
X	Fisher	Jody	NeoNiche Strategies
X	Fisher	Sophia	Fairfax County Department of Planning & Zoning
X	Flores	Daniel	Greater Washington Board of Trade
X	Gandhi	Nat	Former CFO, DC Government
X	Goldfarb	Dan	Northern Virginia Transportation Commission
X	Gough	Patrick	AECOM
X	Gross	Scott	Loudoun County
X	Hammig	Laurel	National Park Service – National Capital Region
X	Hardison	Matt	WMATA – Strategic Programs
X	Hershorn	Julie	WMATA – Bus Planning
X	Hibbert	Dan	Montgomery County Department of Transportation – RideOn
X	Himes	Al	WMATA – Bus Planning
X	Holt	Kasmin	Office of the City Administrator (DC)
X	Hughes	Jim	WMATA – Intermodal Strategic Planning
X	Jackson	Raymond	ATU Local 689
X	Joyce	Peter	AECOM
X	Kaffen	Steve	WMATA Accessibility Advisory Committee (DC)
X	Kannan	Shyam	WMATA – Planning
X	Kiker	Elizabeth	House of Ruth
X	Lambert	Yon	City of Alexandria
X	Lazzara	Ian	AECOM
X	Leach	Dennis	Arlington County
X	Leader	Joe	WMATA – Chief Operating Officer
X	Leven	Dalia	AECOM
X	List	Katie	Foursquare ITP
X	Ly	Sherri	WMATA

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X	Masliansky	Nechama	So Others Might Eat
X	Mattice	Kate	Northern Virginia Transportation Commission
X	McAndrew	Joe	Greater Washington Partnership
X	McDougle	Jack	CEO, Greater Washington Board of Trade
X	McKeeman	Alanna	Foursquare ITP
X	Michels	Dave	WMATA – Bus Maintenance and Engineering
X	Miller	David	Foursquare ITP
X	Modell	Sandy	Former General Manager and CEO, DASH – City of Alexandria
X	Moneme	Emeka	Federal City Council
X	Mumford	Jason	AECOM
X	Murphy	Heather	Maryland Department of Transportation
X	O’Keeffe	James	OS Strategies
X	Pedersen	Neil	Executive Director, Transportation Research Board
X	Pedowitz	Scott	Arlington Chamber of Commerce
X	Pelfrey	Dwayne	Fairfax County Department of Transportation – Connector
X	Phillips	Mark	WMATA – Planning
X	Posner	Phil	WMATA Accessibility Advisory Committee (VA)
X	Potter	Jack	Metropolitan Washington Airports Authority
X	Potts	Robert	WMATA – Bus Services
X	Pscherer	Pat	Maryland Department of Transportation – Washington Area Transit Office
X	Puentes	Rob	Eno Center for Transportation
X	Randall	Eric	Metropolitan Washington Council of Governments
X	Requa	Jack	AECOM
X	Richardson	David	Southwest Airlines
X	Richardson	Barbara	WMATA – Chief External Relations
X	Ritter	Chloe	City of Fairfax – CUE
X	Rivers	Lynn	Arlington Transit – ART
X	Roseboom	Tim	Arlington County
X	Salzberg	Deborah Ratner	Forest City Washington
X	Shahmoradi	Heideh	OS Strategies
X	Schwartz	Stewart	Coalition for Smarter Growth
X	Scott	Charlie	WMATA – Government Relations

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X	Shaw	Eric	DC Office of Planning
X	Short	Al	WMATA – Department of Information Technology
X	Smith	Jade	Boston Consulting Group
X	Smith	Jennifer	Arlington Dept of Community Planning, Housing, and Development
X	Srikanth	Kanti	Metropolitan Washington Council of Governments Transportation Planning Board
X	Stepney	Sam	WMATA – Bus Planning
X	Stoddard	Paul	City of Falls Church – Planning
X	Stubbs	Anne	Customer Advocate
X	Stubbs	Kathleen	MEDIA – Montgomery County Sentinel
X	Sullivan	Regina	WMATA – Government Relations
X	Swaim-Staley	Beverly	Union Station Redevelopment Corporation
X	Tomao	Peter	Coalition for Smarter Growth
X	Tompkins	Erica	WMATA – Management and Budget
X	Vanderwaart	Catherine	WMATA – Planning
X	Wake	Deb	League of Women Voters of the National Capital Area
X	Webster	Tom	WMATA – Chief Capital Planning and Program Management
X	Wells	Christine	Washington Suburban Transit Commission
X	Whitehead	David	GreaterGreaterWashington
X	Wiedefeld	Paul	WMATA
X	Wigglesworth	Todd	Fairfax County Department of Transportation
X	Ziemann	Christopher	City of Alexandria
X	Zimbabwe	Sam	District Department of Transportation
X	Zovko	Jackie	NeoNiche Strategies