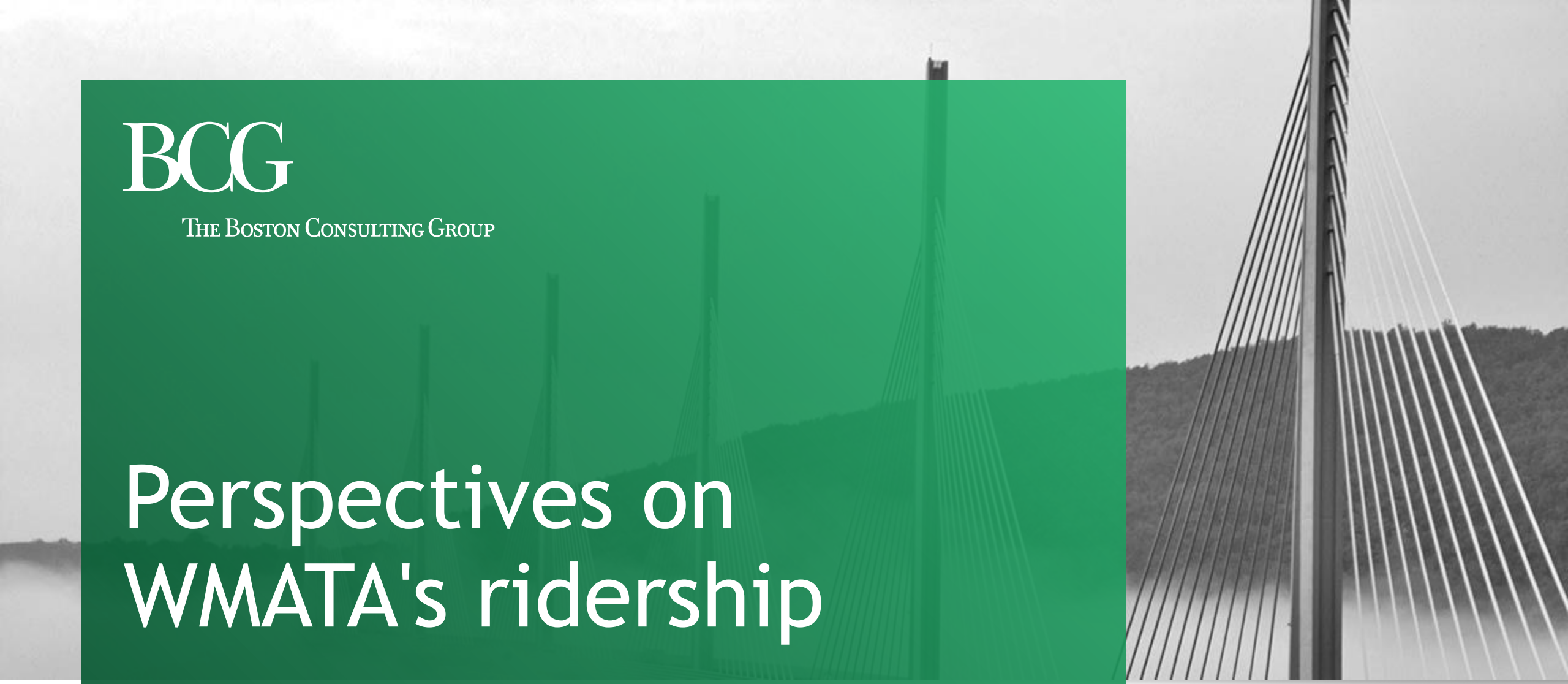


BCG

THE BOSTON CONSULTING GROUP

Perspectives on WMATA's ridership

BCG's Presentation to WMATA

OCTOBER 12, 2017

metro

Three focus areas for today's discussion



Trends in ridership



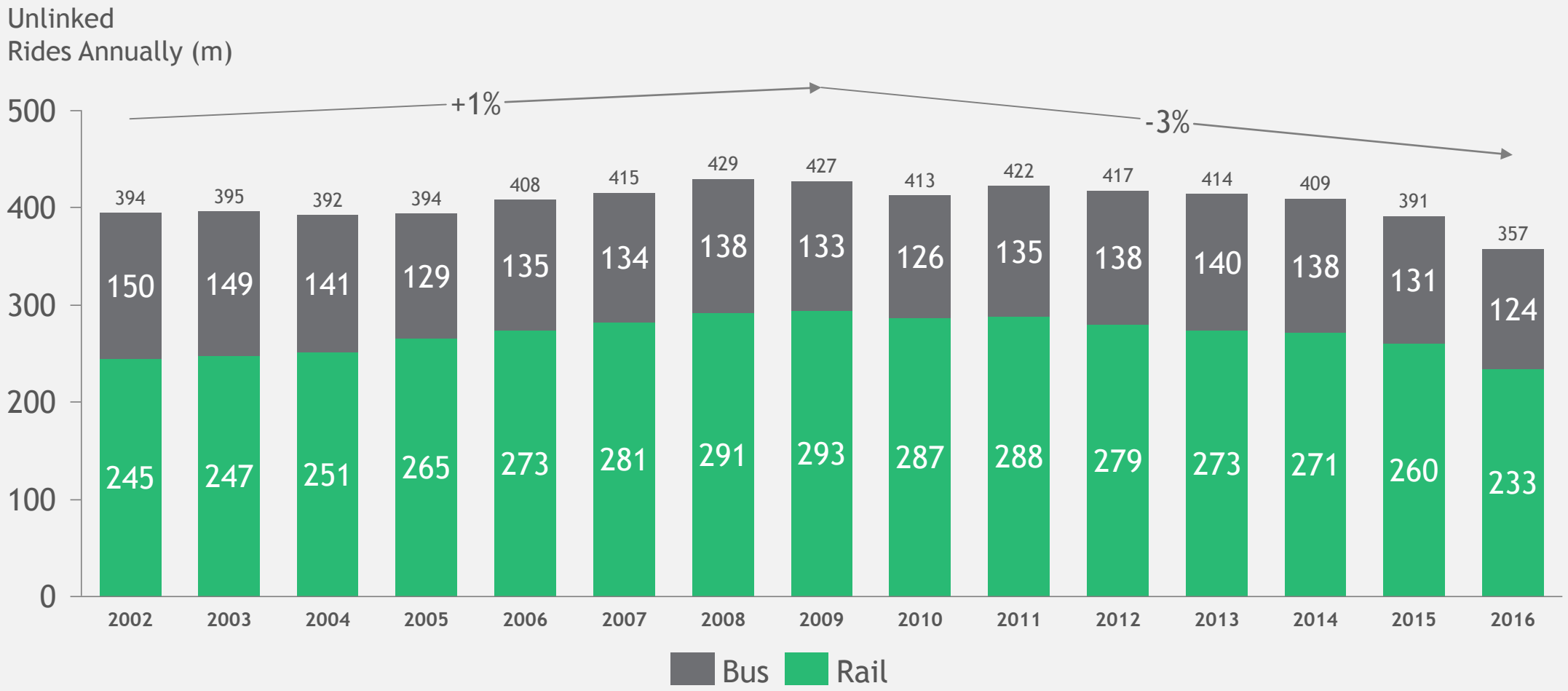
Macro-forces driving ridership



Peak over the horizon

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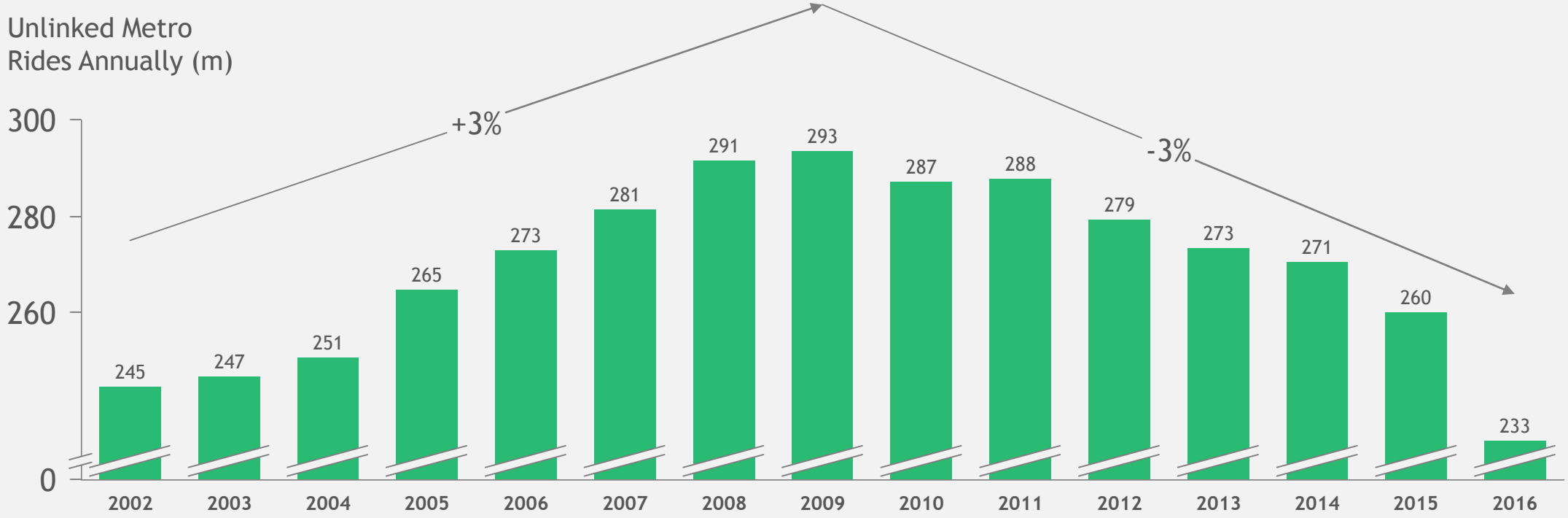
Our starting point: Ridership has slipped in bus & rail



Source: National Transit Database Monthly Module Raw Data Release

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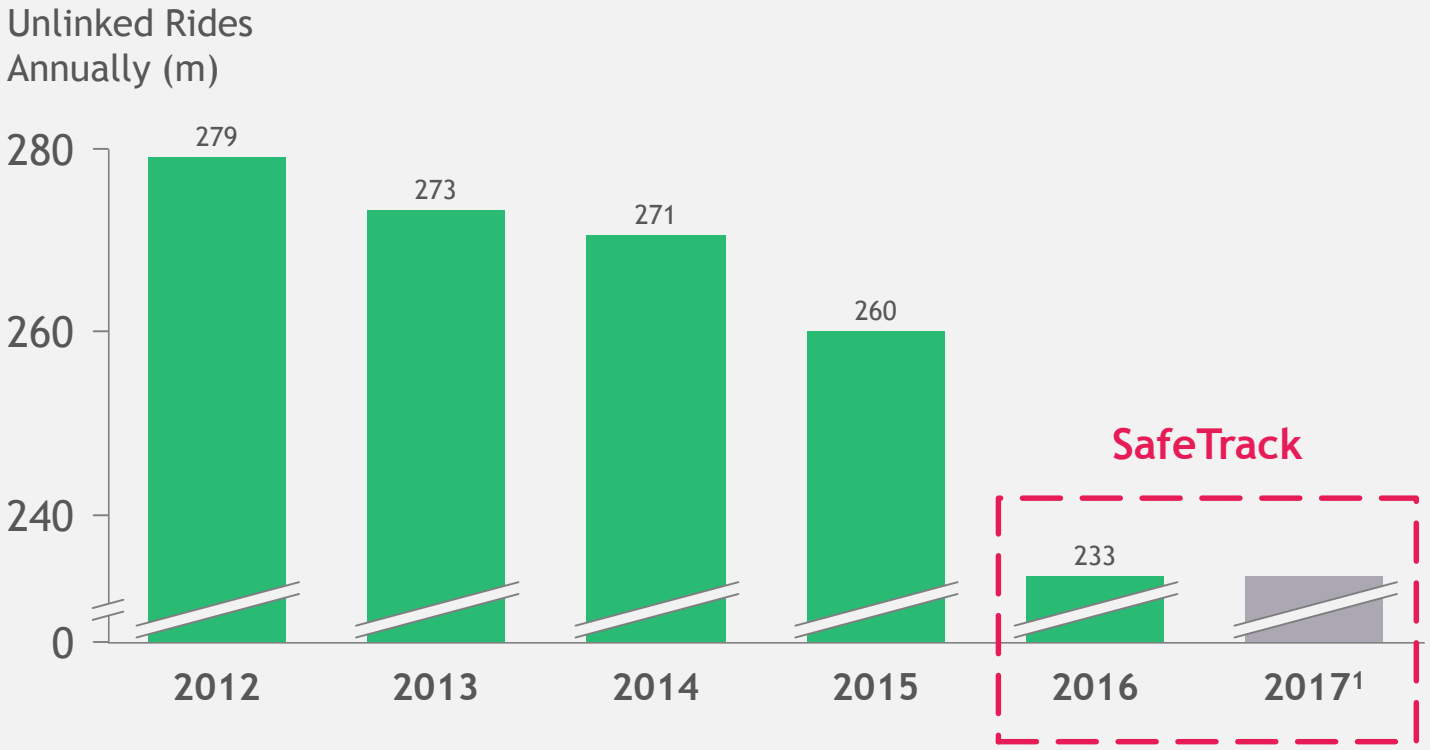
Rail ridership has dipped significantly since '09



Source: National Transit Database Monthly Module Raw Data Release

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The recent dip is magnified by the "SafeTrack" program



-5%

Annual ridership loss
since 2014

-38m

Trips lost
since 2014

?

Growth or decline
unknown for 2017

1. Estimated value – extrapolated based on Q1 and Q2 2017 data
Source: National Transit Database Monthly Module Raw Data Release

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WMATA's peer group faced mixed fortunes since 2012

BART

+ 2.32%
(135m trips/yr)[1]

MTA

+0.70%
(3.5b trips/yr)[2]

-0.33%
(289m trips/yr)[2]

SEPTA

-1.35%
(261m trips/yr)[2]

cta

-2.27%
(498m trips/yr)[2]

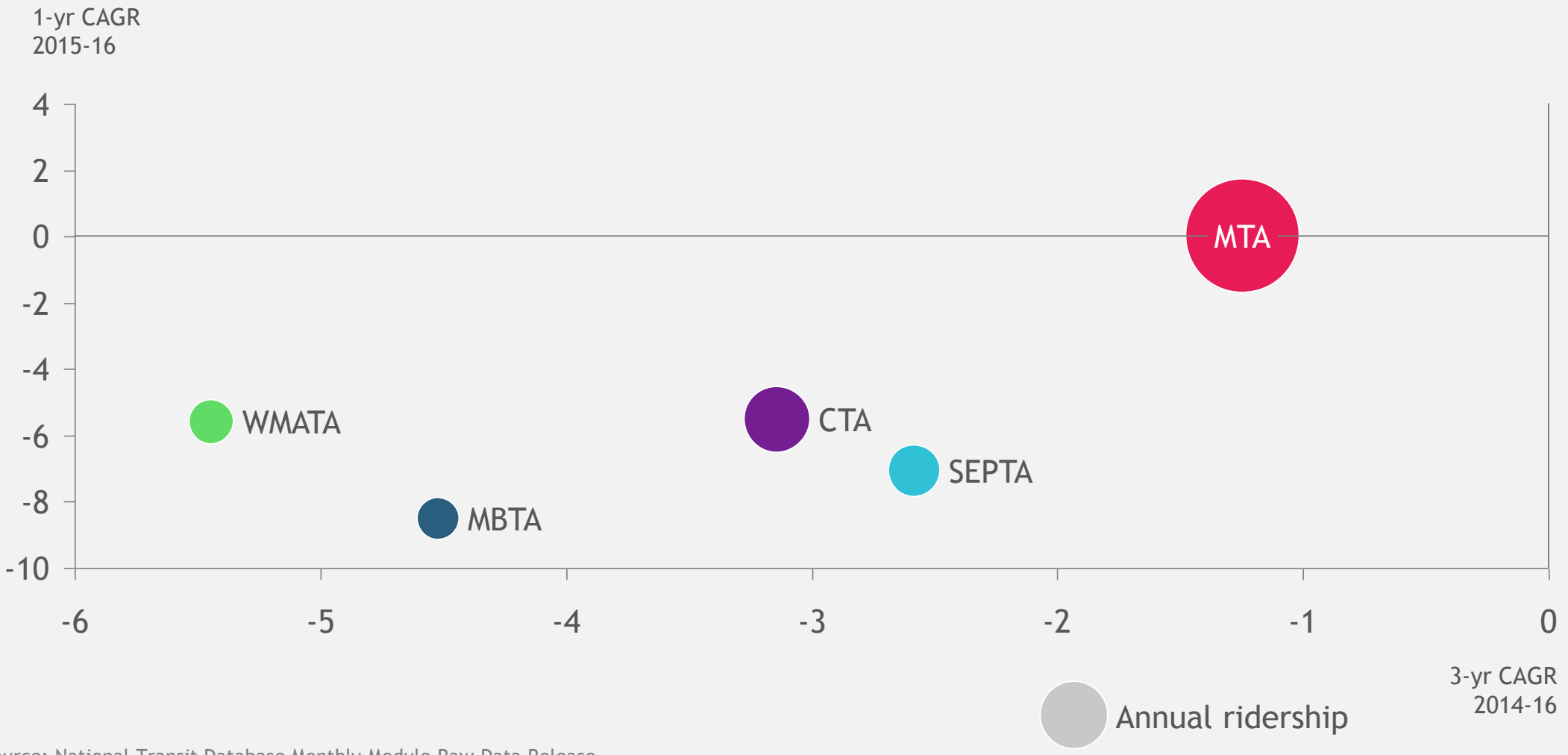
metro

-3.79%
(357m trips/yr)[2]

1. Heavy rail only 2. Heavy rail and bus
Source: National Transit Database Monthly Module Raw Data Release

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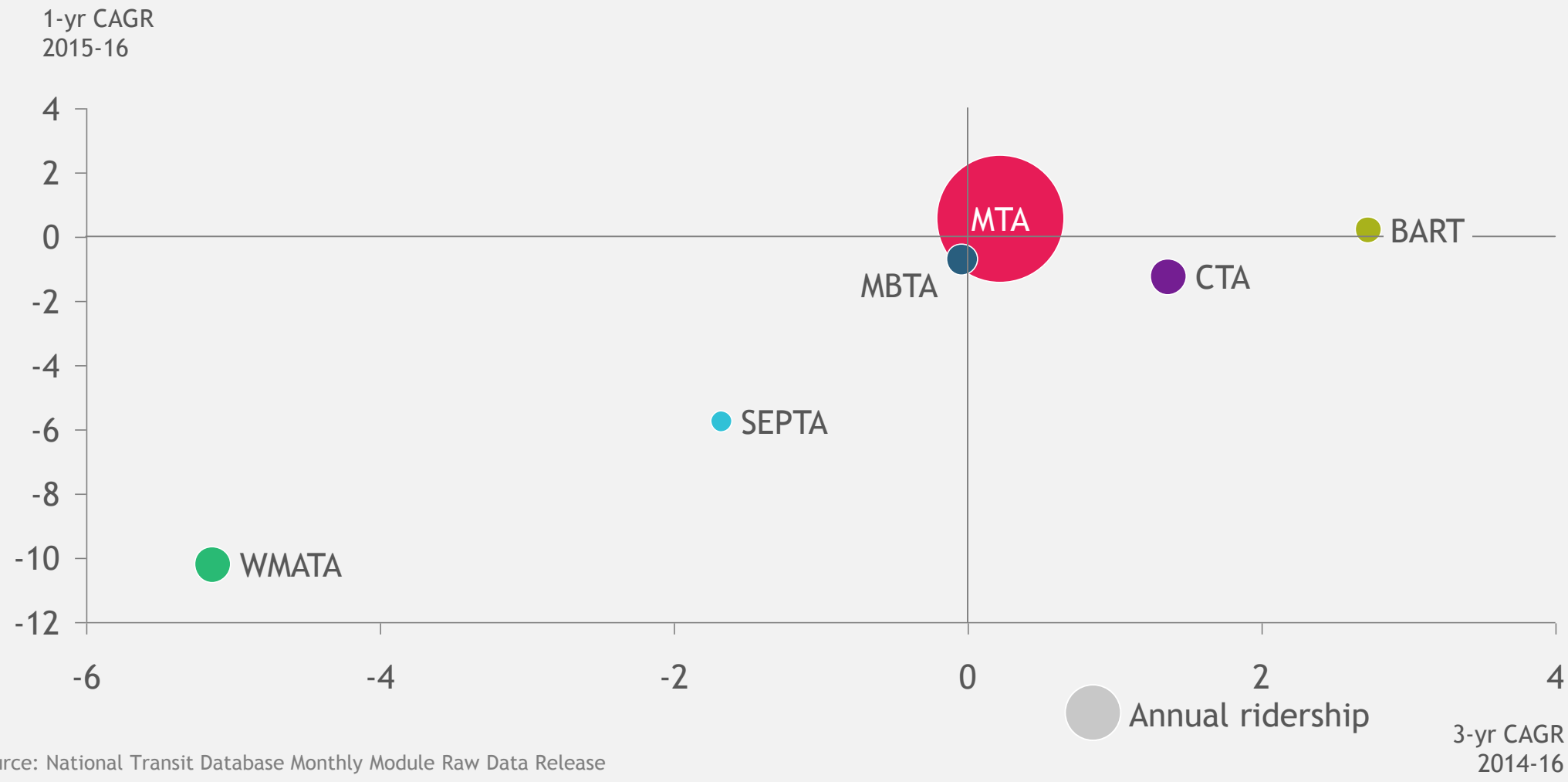
Bus ridership has shrunk across the sampled systems



Source: National Transit Database Monthly Module Raw Data Release

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"SafeTrack" impacted WMATAs 2015 performance



Source: National Transit Database Monthly Module Raw Data Release

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Can WMATA take flight?

A series of forces may reshape ridership trends in the future

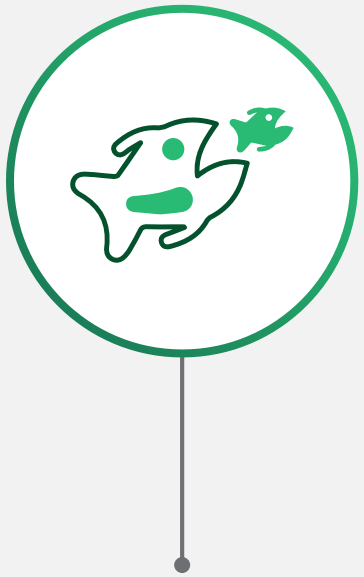


Three forces likely to influence future ridership



Urban Dynamics

America's metro centers are changing



Mobility Evolution

Mobility/Transit options are increasing

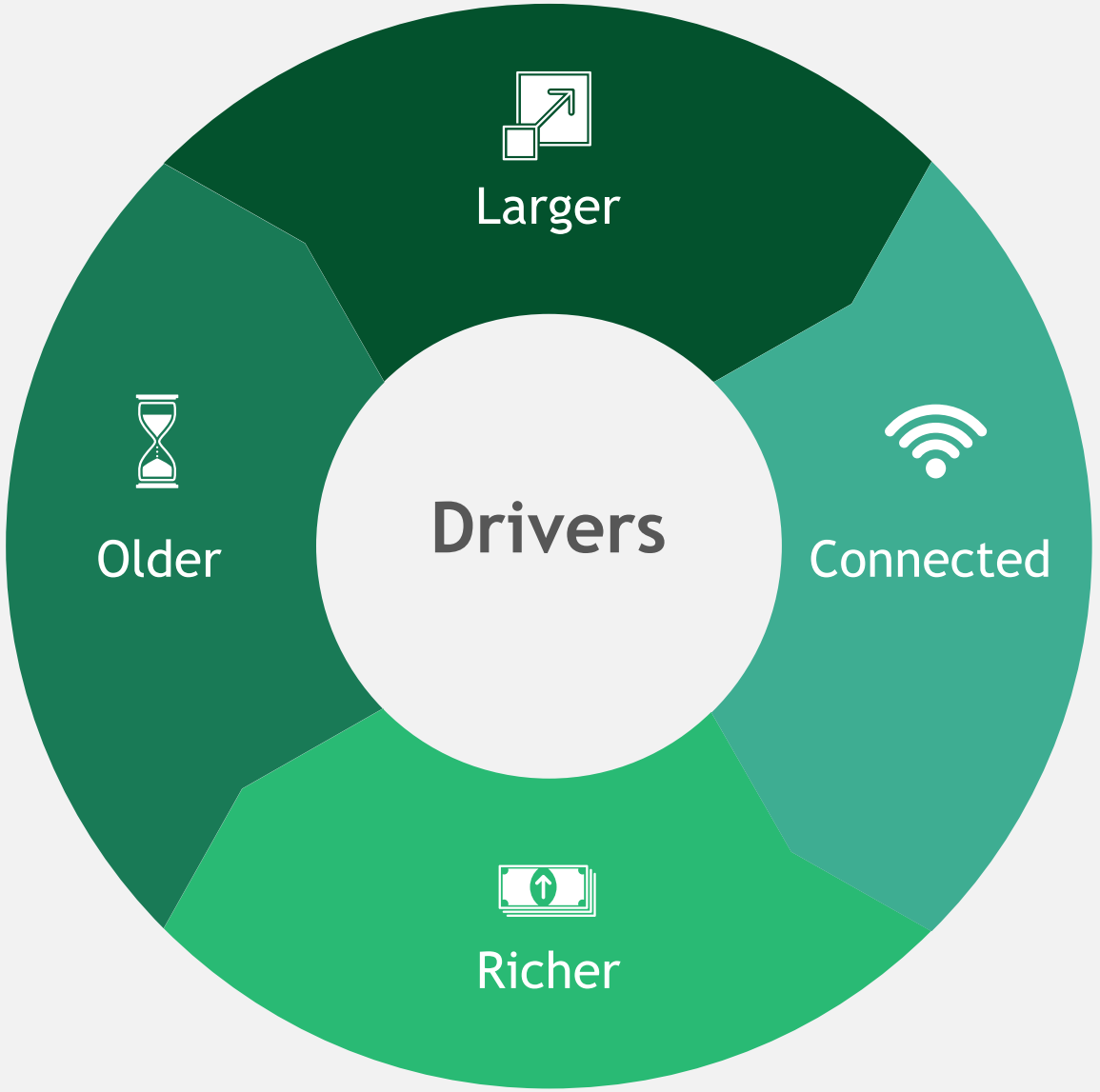


Customer Preferences

Riders expect "customer first" treatment

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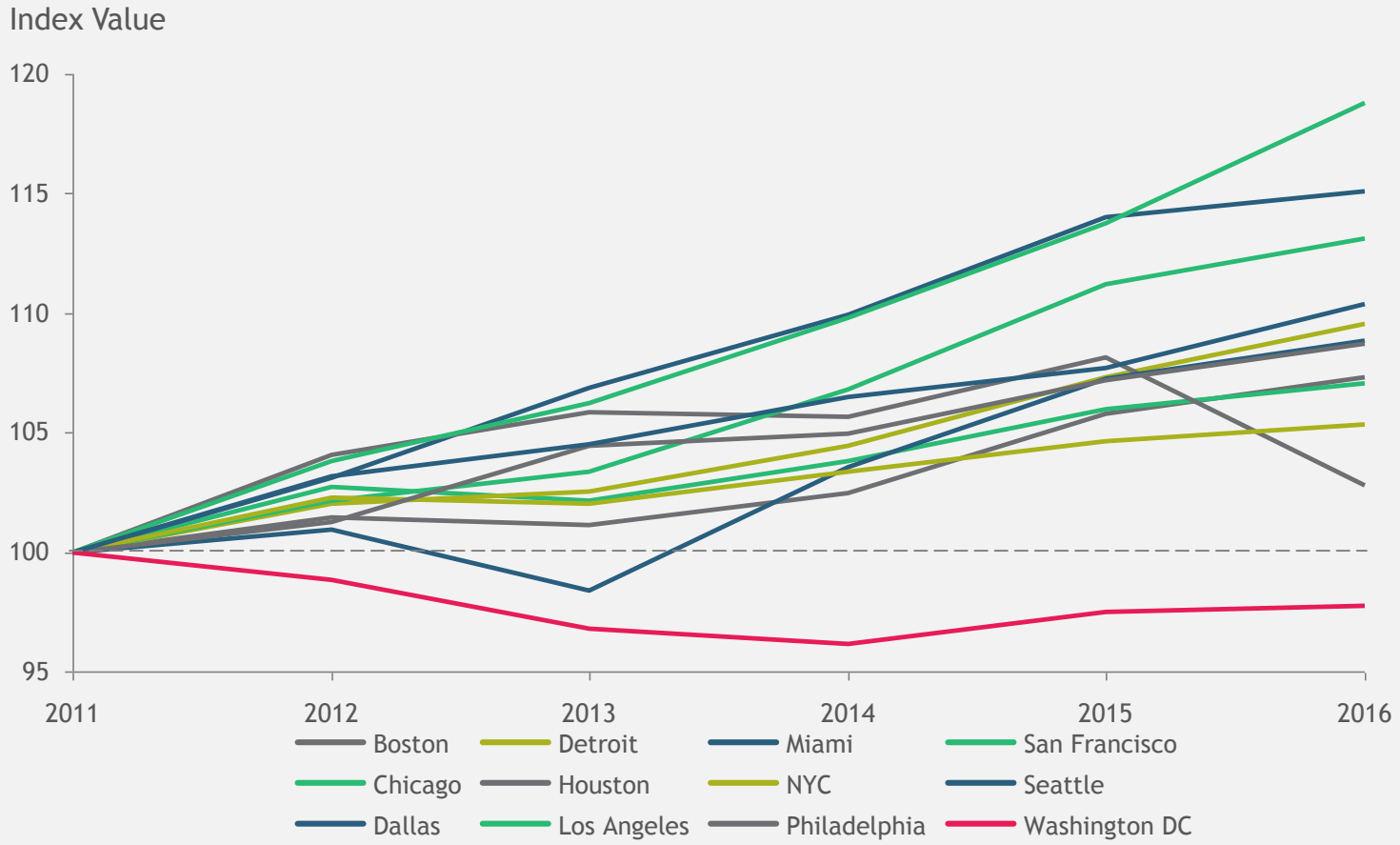
4 change drivers in America's metros



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US metros are getting larger and richer

Change in GDP Per Capita, 2011-2016 (2011=100)



USA 3m people added to these 12 metro areas

SF Highest GDP per capita growth at 3.5% (CAGR)

DC -0.5% due to population growth > GDP growth

Source: Oxford Analytics; BCG Analysis

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The DC Story



Population Growing

Metro Area added 300k people since 2011, with DC adding ~81k



Economic Concentration

Household Income up to $75k from $59k for DC, while outer areas experience less uplift



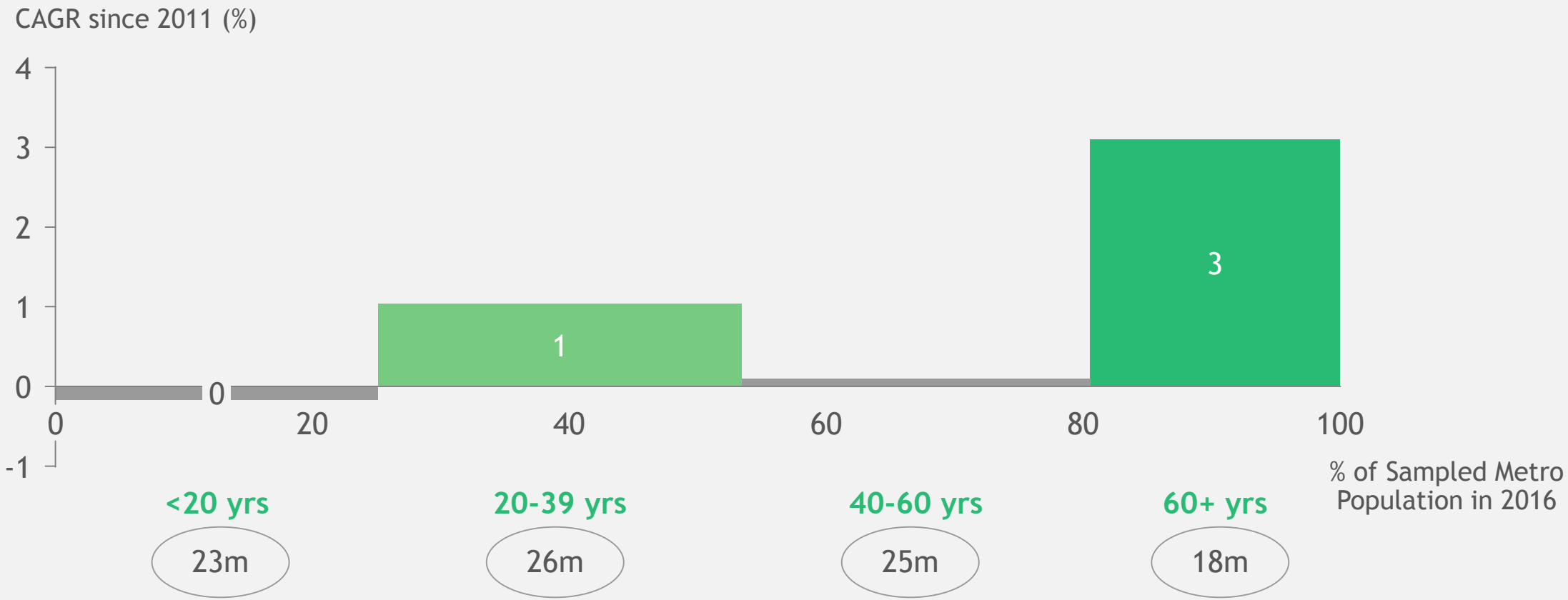
Income Inequalities

African American incomes lagged DC average by ~$40k and white incomes by $88k

Source: Oxford Analytics; National Census; BCG Analysis

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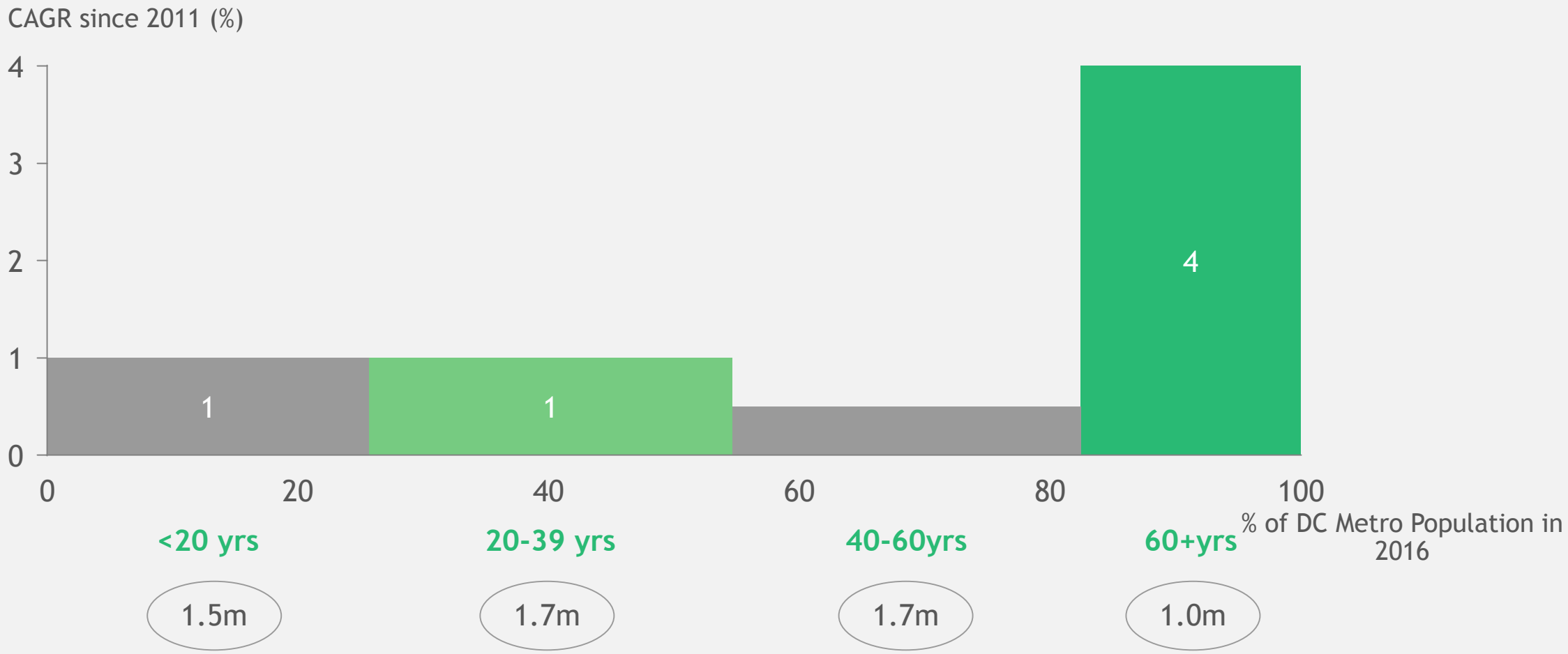
US metro's are aging, fast



Source: Oxford Analytics; BCG Analysis

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DC Metro Area is getting older, but has plenty of youth

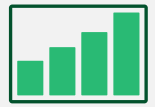


Source: Oxford Analytics; BCG Analysis

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Remote working is increasingly popular across the USA

Six takeaways from 2006-2016



# of remote workers increased by 115%



Most common in North East & Mid-Atlantic



3.9m people work from home >3 days per week



Median age of a telecommuter is 45



Fed. Govt has largest % of telecommuters (3.1%)



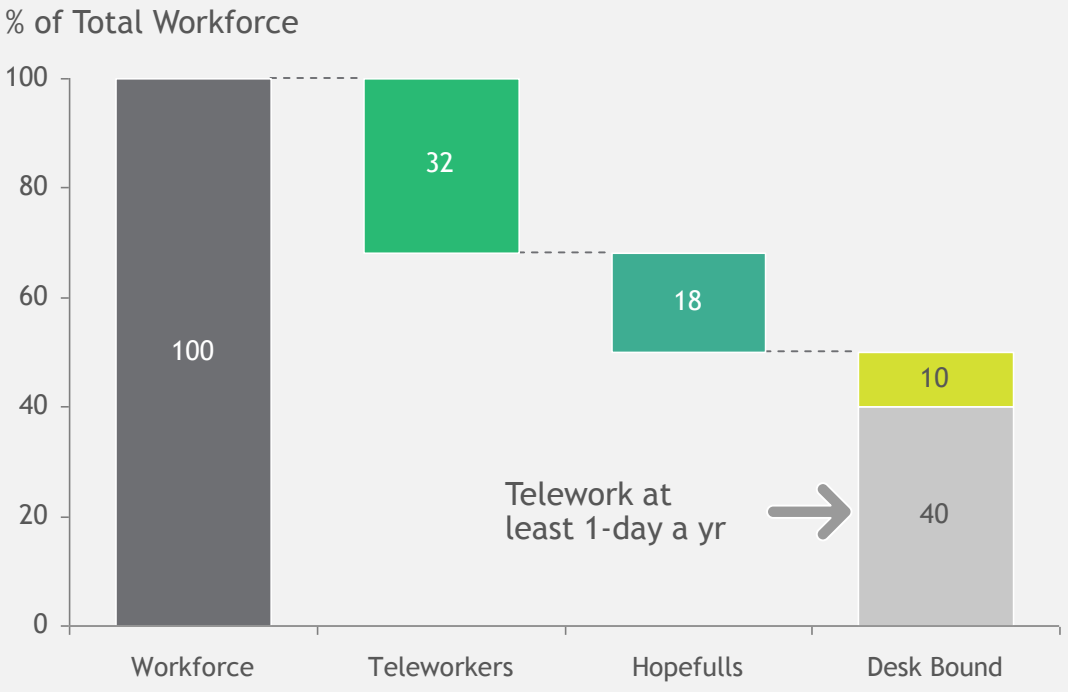
Approx. gender balance

Source: 2017 State of Telecommuting in the US Employee Workforce Report

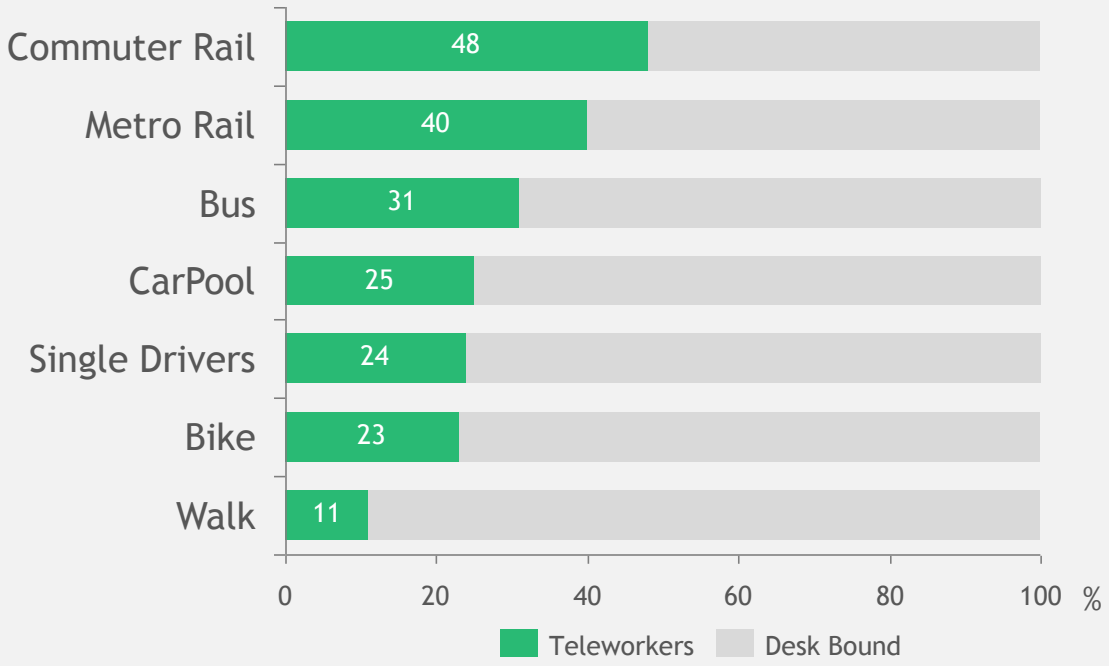
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Telework popular in DC Metro with public transit riders

Teleworking adoption as a share of DC Metro Areas' workforce (2016)



Commuters use teleworking by transit mode (2016)



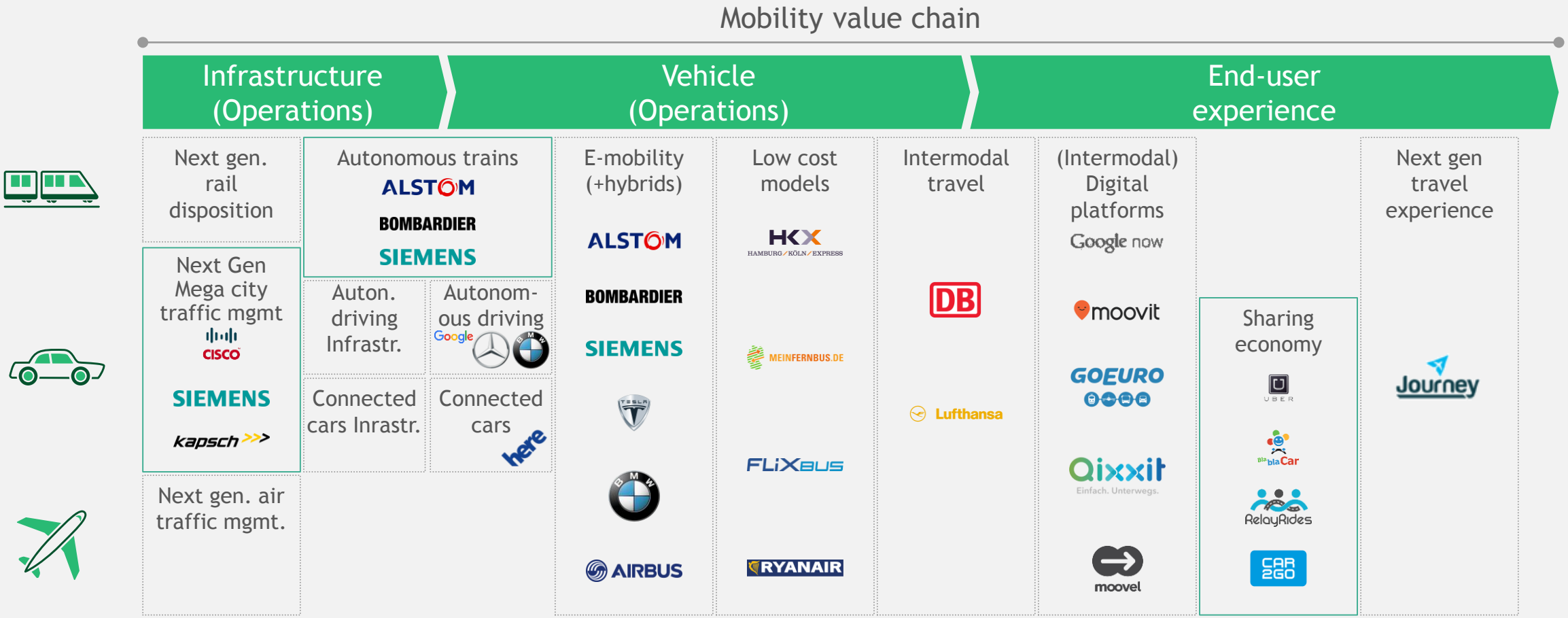
Source: National Capital Region Transportation Planning Board; BCG Analysis

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“Twentieth-century urban America didn't belong to the skyscraper; it belonged to the car."

Ed Glaeser, Triumph of the City: How our Greatest Invention Makes us Richer, Smarter Greener, Healthier and Happier

The entire mobility value chain is evolving rewriting the playbook for everyone…even the car

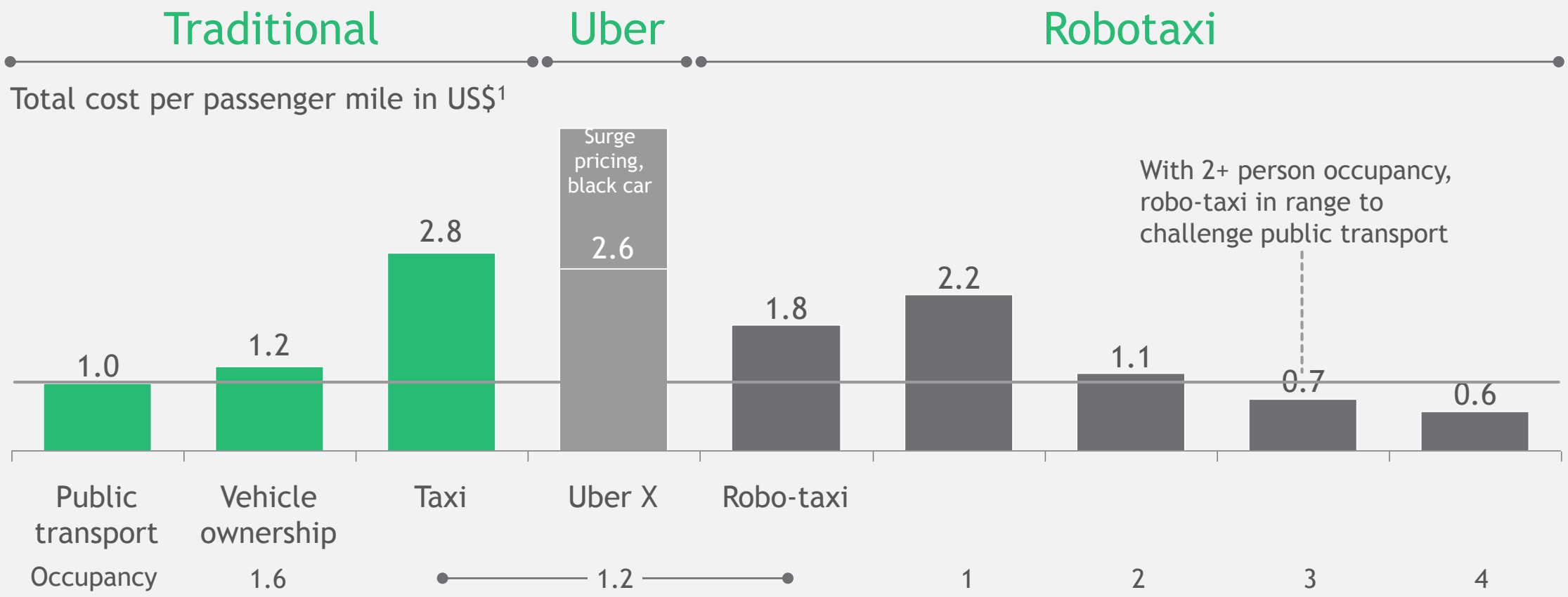


Note: Turnkey and Logistics not depicted as not in scope of project; locomotives and components within Mainline and Urban transport
Source: BCG

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Shared and auto. options may challenge public transit

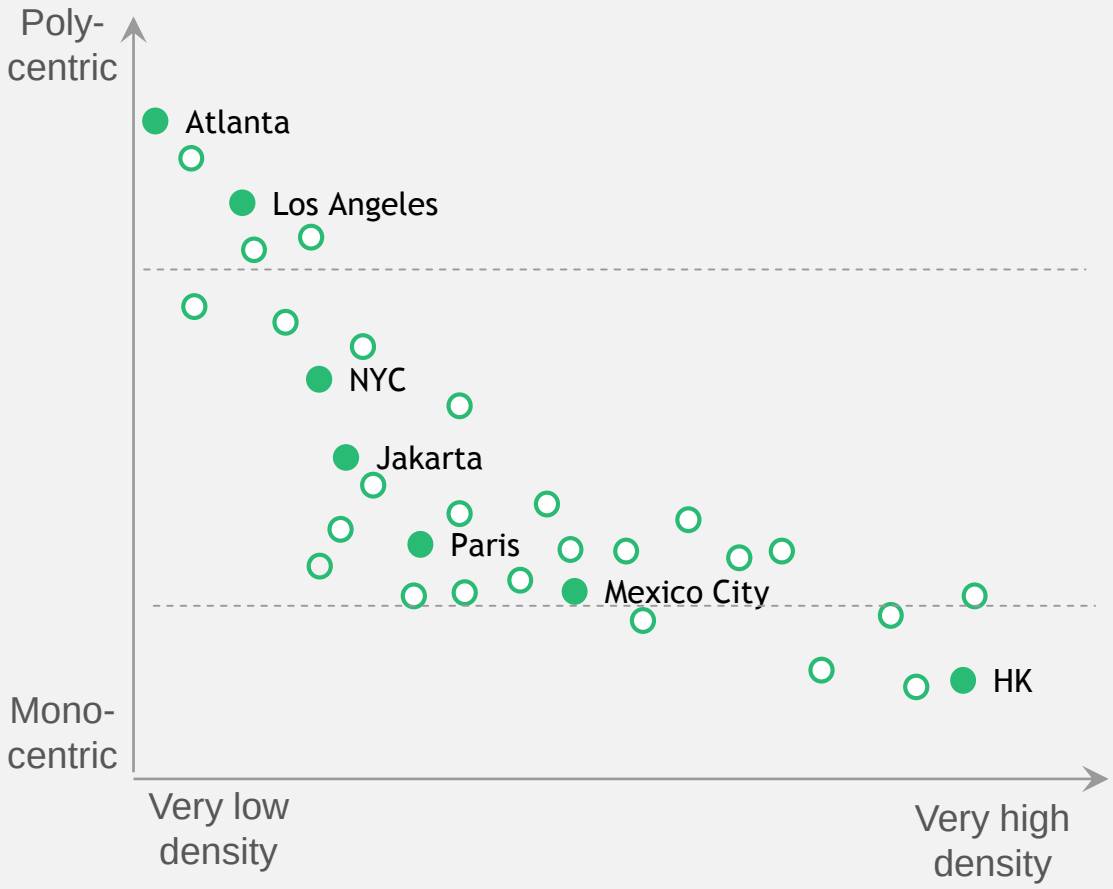
NYC Example



1. Assuming avr. distance of three miles, impact of shorter wait/commute times and convenience not built in
Source: US DOT, NYC MTA, NYC Taxi and Limo commission, KBB, BCG analysis

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The level of threat depends on the type of city



- Car dominates today
- Highest shared & auto benefits due to many P2P trips & last mile needs

- Combination of PT and car today
- High benefits due to better last-mile option & P2P in unserved area

- PT effective today
- Lowest shared & auto benefit, but could complement PT in inner-city

Source: BCG Analysis

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Competition is heating up in DC

Should I take Metro or Uber to work-a trip from Potomac Avenue to Bethesda?

Metro	Uber
$4.20	$4.40[1] - $110

1. The fare drops to $3.90 if 2 people take the Uber Pool

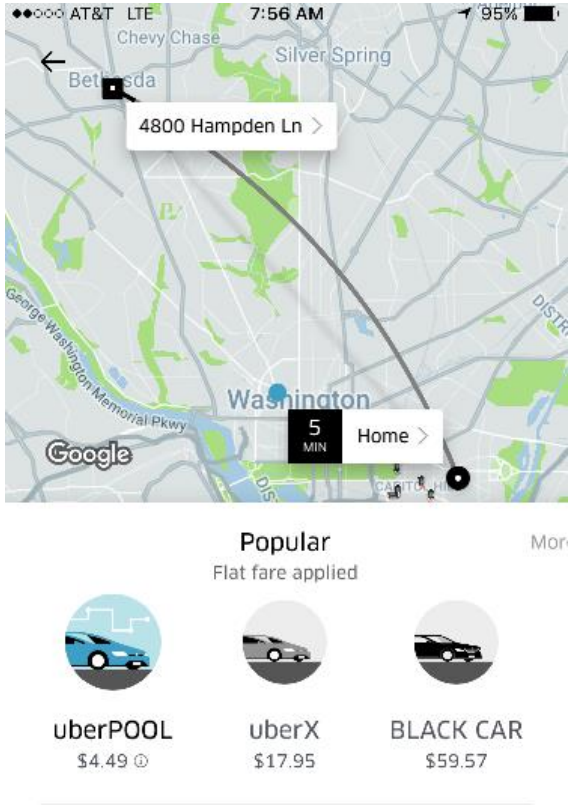
Note: Requires purchase of an "Uber Pass" to qualify for discount rates. Black Car costs $110.

Source: Uber; WMATA

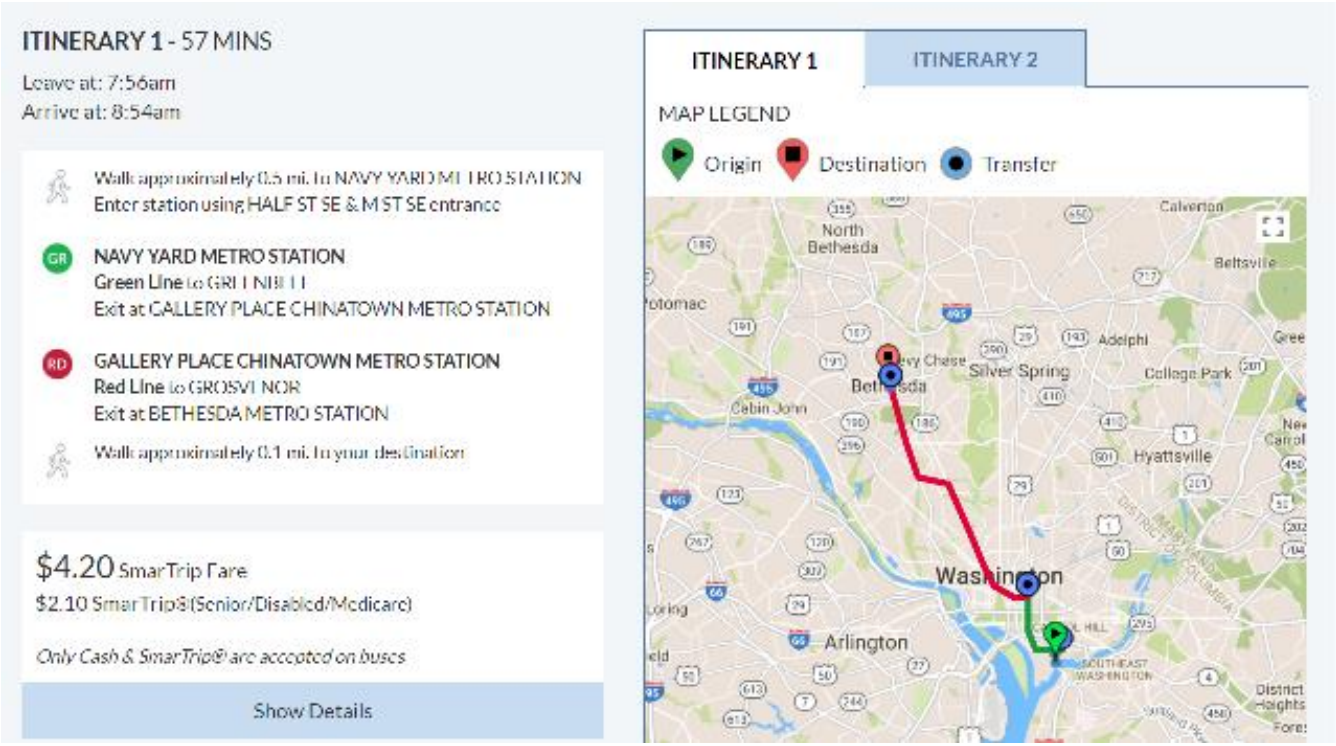
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Actual consumer choice on October 11, 2017: Do I take Metro or Uber to work?

Uber shows a flat fare of $4.49



Metro's Trip Planner shows a fare of $4.20



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The arbitrator of the "future"



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Consumer interest in shared + autonomous vehicles

Survey by BCG & WEF

Source: World Economic Forum; BCG analysis; Consumer survey August 2015, 6,000 consumers surveyed in 10 countries. 3 focus groups in 3 countries

Did you know that consumers are:



Willing to experiment: 58% of consumers are open to trying & 53% would consider buying an autonomous car (AC)



Willing to pay more: 31–51% are willing to pay >$5K extra for an AC



Skeptical of new entrants: 46% want a traditional OEM to produce the AC



Concerned about sustainability/OPEX: 66% of consumers want an electric or hybrid AC



Keen for privacy: 37% are willing to share an auto. taxi if a high discount is offered

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Policy Makers are reacting

Survey by BCG & WEF

Source: World Economic Forum; BCG analysis; Consumer survey August 2015, 6,000 consumers surveyed in 10 countries. 3 focus groups in 3 countries

What we heard from policy makers:



Skeptical yet positive: Attitude towards ACs is positive, yet uncertain about public and tech. readiness



Dipping a toe in the water: Many have thought about ACs—some are even involved in trials



Building complementary strategies: ACs primarily seen as last mile solution complementing public transport



The future is here (almost): Cities expect autonomous vehicles to become a reality in the next 10 years



Encouraging mobility options: They prefer having many private players offering autonomous taxis

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What does this all mean for WMATA's ridership?

1. **A customer first, a rider second:** Customer preferences are already shaping transit markets
2. **Larger, richer, older, connected cities need transit:** US cities need accessible, reliable and affordable urban transit, but choices are coming
3. **Segmented city scape:** DC is a segmented city growing at differential rates
4. **Direct fare competition:** Indications that mobility providers are increasingly competitive
5. **Customers are using their own (or others) cars:** Benchmarks indicate ridership is flat or down

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