An Update on Light Rail Performance, Including Some Lessons Learned from COVID-19

November 2020

Presentation Agenda

- **Who are we**

- **What we do**
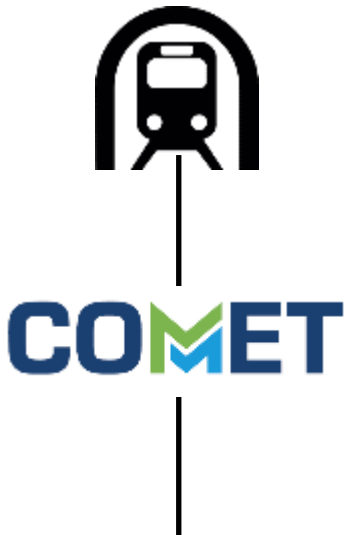
- **Updates on key topics in transit**

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Global Benchmarking – Covers Multiple Modes with Members on Every Continent Except for Antarctica

GOAL – 14 Light Rail Properties in the US and Canada

COMET

IBBG
ABBG

ISBERG
International Mainline Rail
Railway Infrastructure

GOAL

Airports

BENCHMARKING GROUP OF NORTH AMERICAN LIGHT RAIL SYSTEMS

Who are We – 20+ Planners, Engineers, Economists

Alex Barron
Light Rail and Metro
Director

Colin K. Foley
Light Rail Manager

Benchmarking is a Process Transit Agencies can use to Compare Performance and Improve Operations

Benchmarking Is:

A systematic process of *continuously* measuring, comparing and *understanding* performance and *changes* in performance

Of a diversity of key business processes

Against comparable peers

To help the participants improve their performance
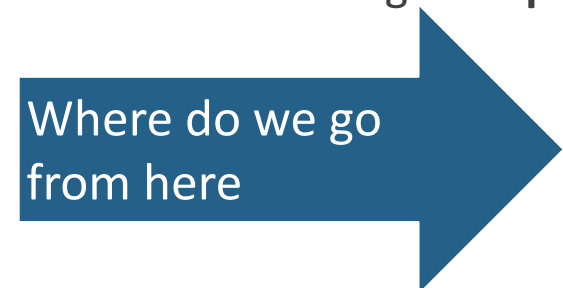
Benchmarking Provides:

- **Perspective through Data:**
  - How do we **compare** to our peers?

How are we doing

- **Best Practices through Discussion:**
  - What are others doing to **improve**?

Where do we go from here

Benchmarking Areas – Covers Multiple Aspects of Transit Operations

Growth and Learning
(Ridership, Training)

Internal Processes
(Vehicle Maintenance, Staff Efficiency)

Customer
(OTP, Minutes of Delay, Crowding)

Safety
(Collisions, SPADs, Accidents)

Finance
(Operating, Maintenance, Investment)

Environment
(CO2, Electricity Consumption)

Updates on Key Topics in Transit

North American
Light Rail

Global Transit
Operators

Key Performance
Indicator

COVID-Specific

Global Trends in Metro Ridership – A, B Common in North America; D, E Common in Asia/Pacific
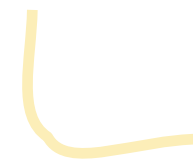
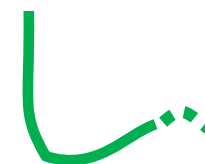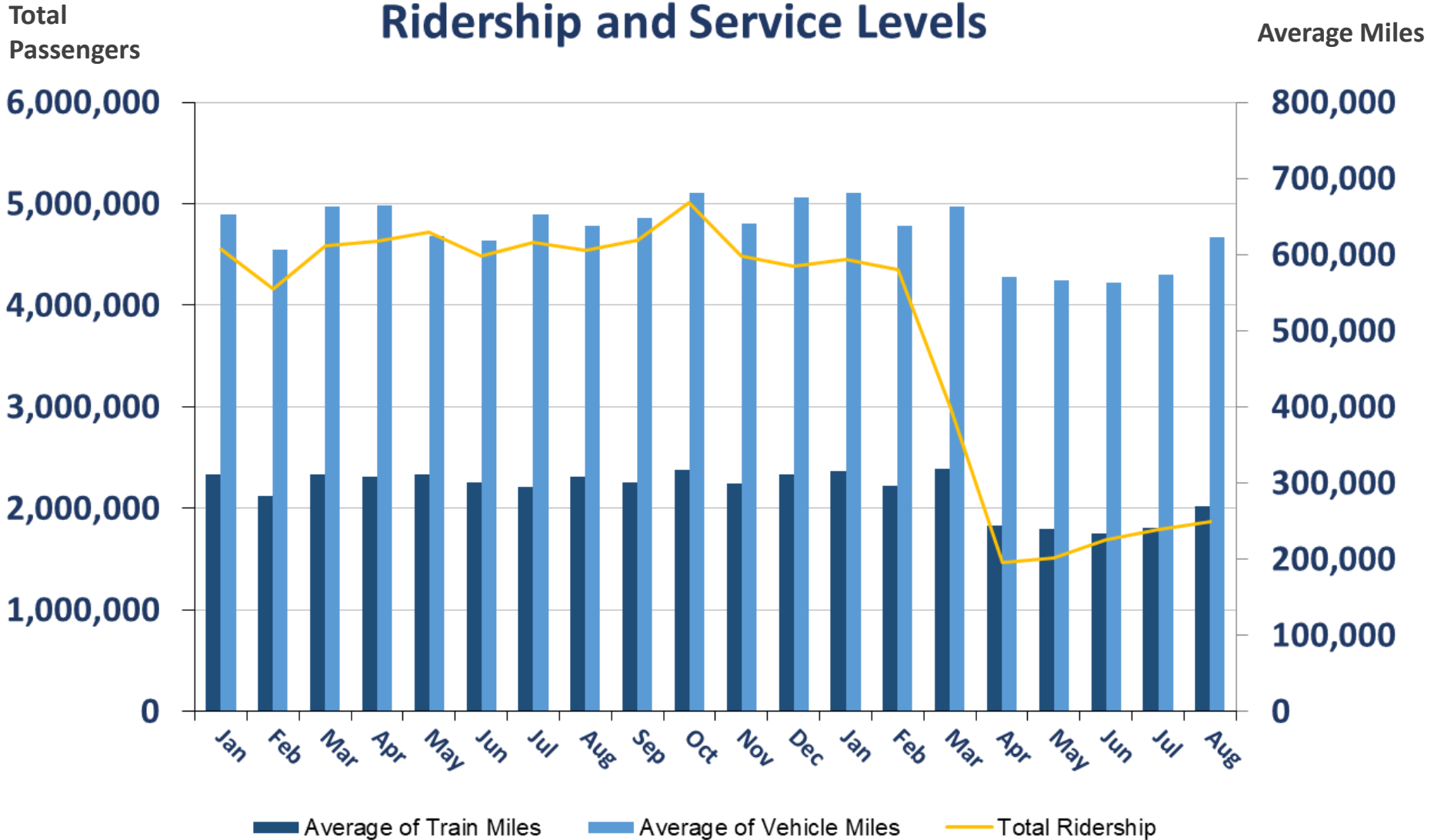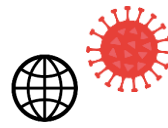|	Demand trend	Demand shape
A	Metros showing an immediate, steep decline in travel demand immediately following the announcement of the first COVID-19 case in the city, usually combined with a quick introduction of lockdown restrictions (within around 25 days of the first case), followed by sustained very low demand	
A2	Metros showing a delayed steep decline in demand after the first case, followed by a moderate recovery since	
B	Metros showing an immediate steep decline in travel demand after the first case of Coronavirus COVID-19, with demand generally beginning to grow rather than stabilise at a very low level. Many of these metros have experienced second waves	
C	Metros showing a slight decline in demand and stabilising at a relatively high level	
D	Metros with a delayed, relatively significant decline in travel demand, but where demand grows following the lowest demand	
E	Metros showing a steep decline in travel demand immediately after the first case of COVID-19, with strong demand growth since	

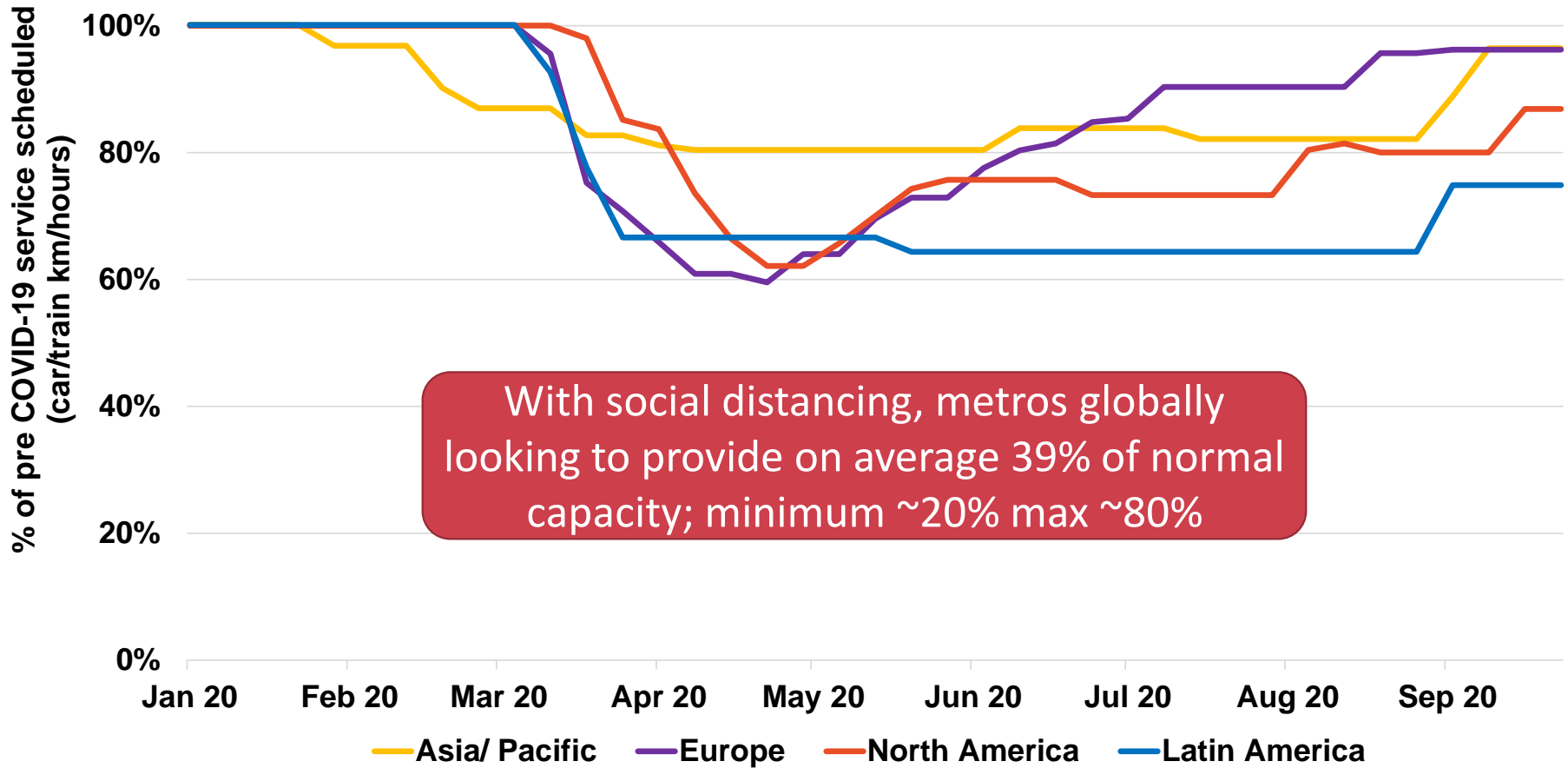# Light Rail Demand Remains at 50% of Pre-Pandemic Levels; Service Close to Normal (for Social Distancing)

Total Passengers

Average Miles

Ridership and Service Levels

Legend: Average of Train Miles | Average of Vehicle Miles | Total Ridership

Average Service Levels during COVID-19 by Region
% of pre COVID-19 service

With social distancing, metros globally looking to provide on average 39% of normal capacity; minimum ~20% max ~80%

Y-axis: % of pre COVID-19 service scheduled (car/train km/hours) — 0%, 20%, 40%, 60%, 80%, 100%

X-axis: Jan 20, Feb 20, Mar 20, Apr 20, May 20, Jun 20, Jul 20, Aug 20, Sep 20

Legend: Asia/ Pacific, Europe, North America, Latin America

Absenteeism and Overtime Changes

While absenteeism has levelled off, overtime remains below last year

Minutes Worked by Vehicle Cleaning Staff per Vehicle Mile Operated

Cleaning in Aug/Sep remains at ~50% more frequent than pre-pandemic

Use furloughed city employees to clean every train after every trip

Outsourced
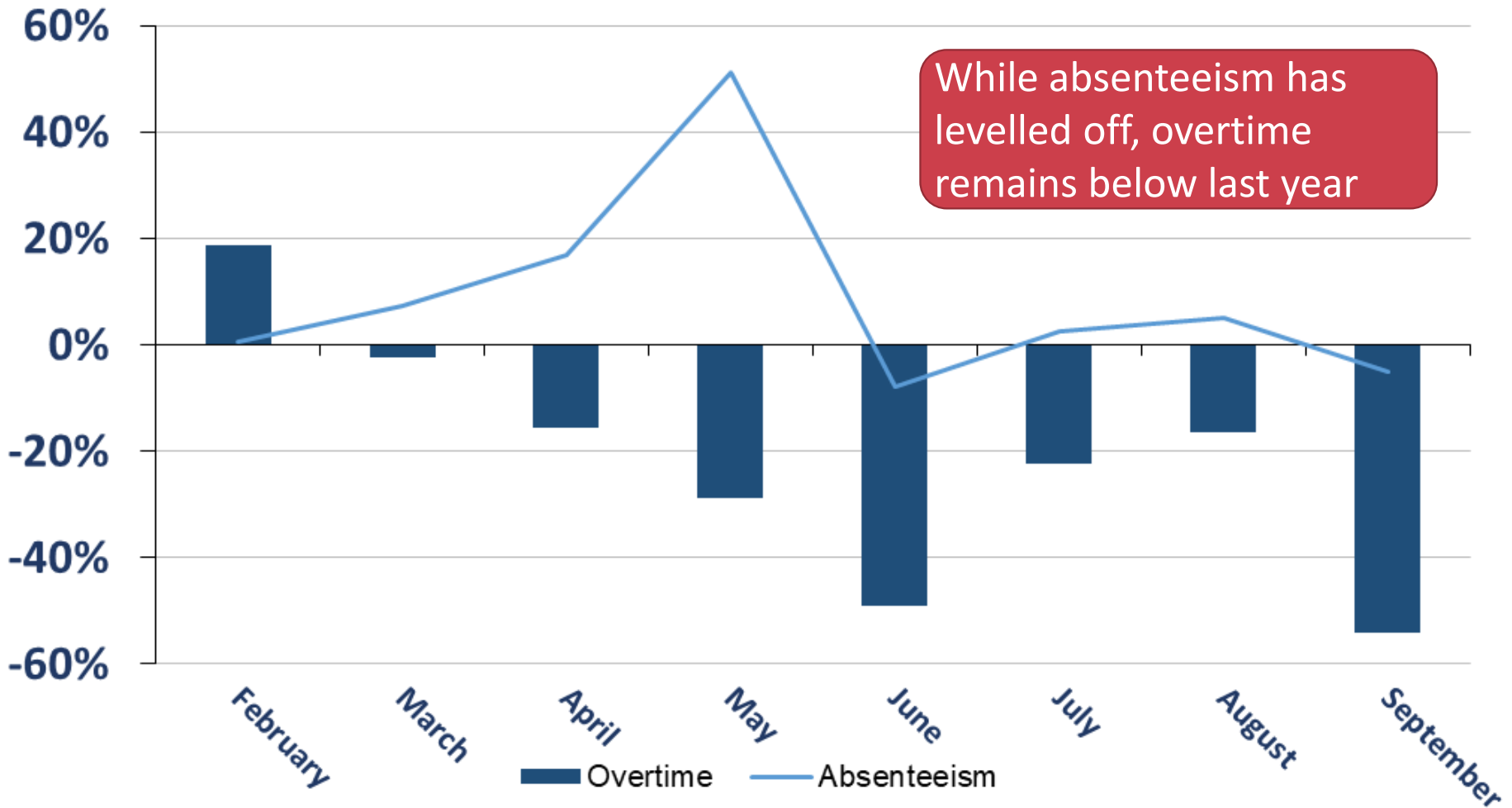
■ Minutes of Cleaning per Vehicle Mile Operated - '19
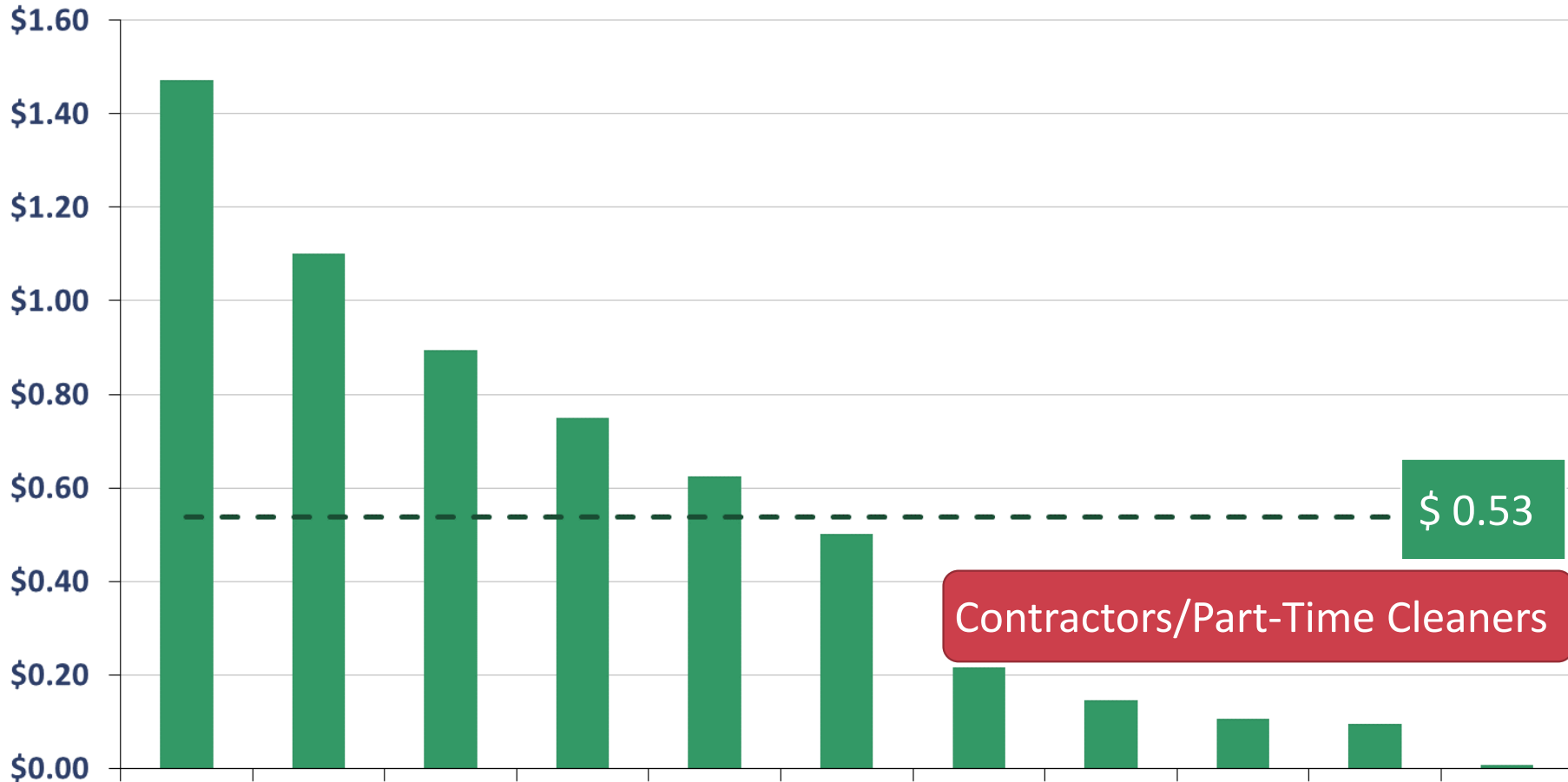■ Minutes Cleaning per Vehicle Mile Operated - '20
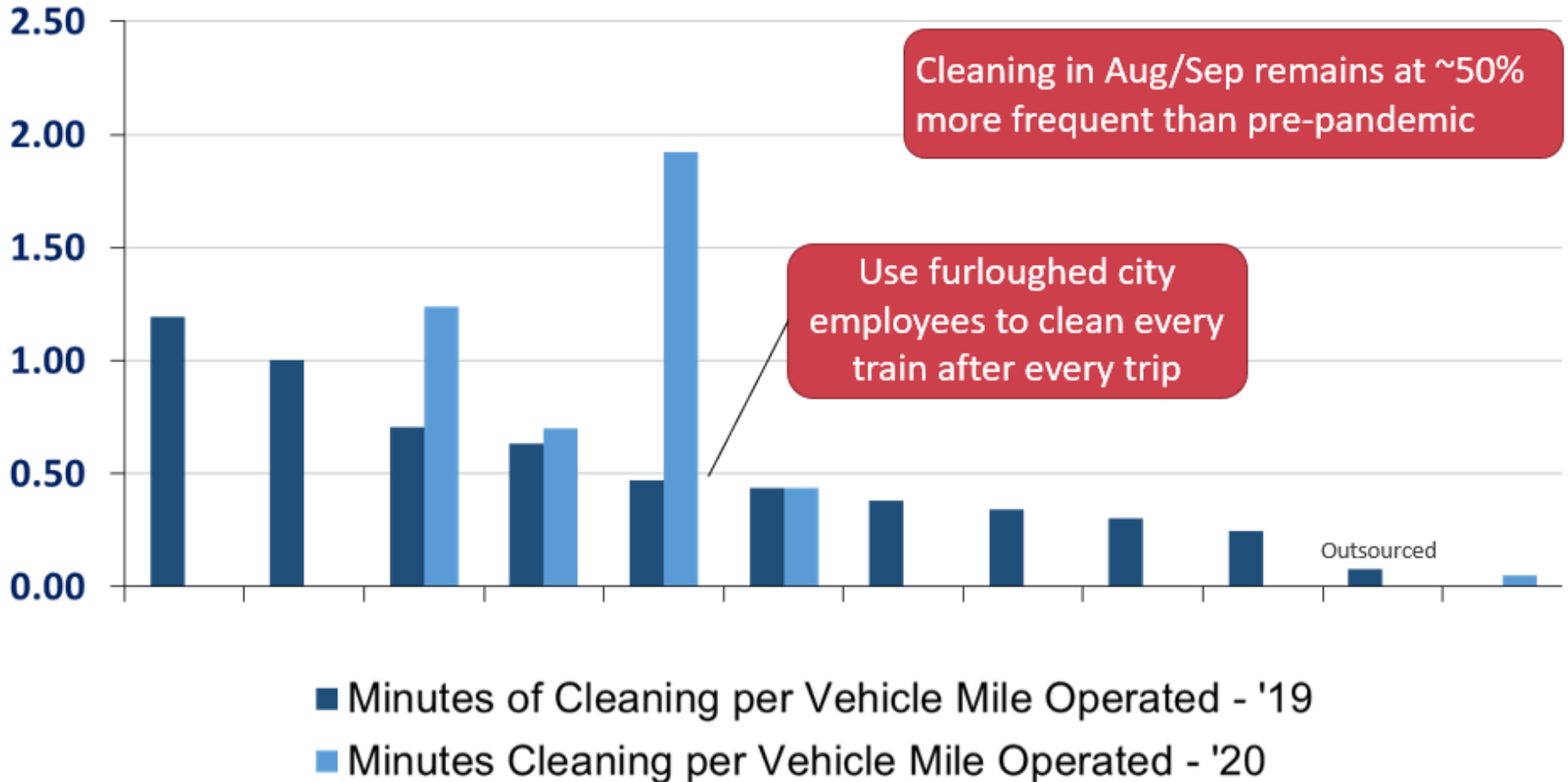
2019 Cleaning Costs per Total Vehicle Mile – Will Increase Significantly with COVID

Service Operation - Cleaning Costs per Actual Total Vehicle Miles [4a + 4b]

2018 USD RPP
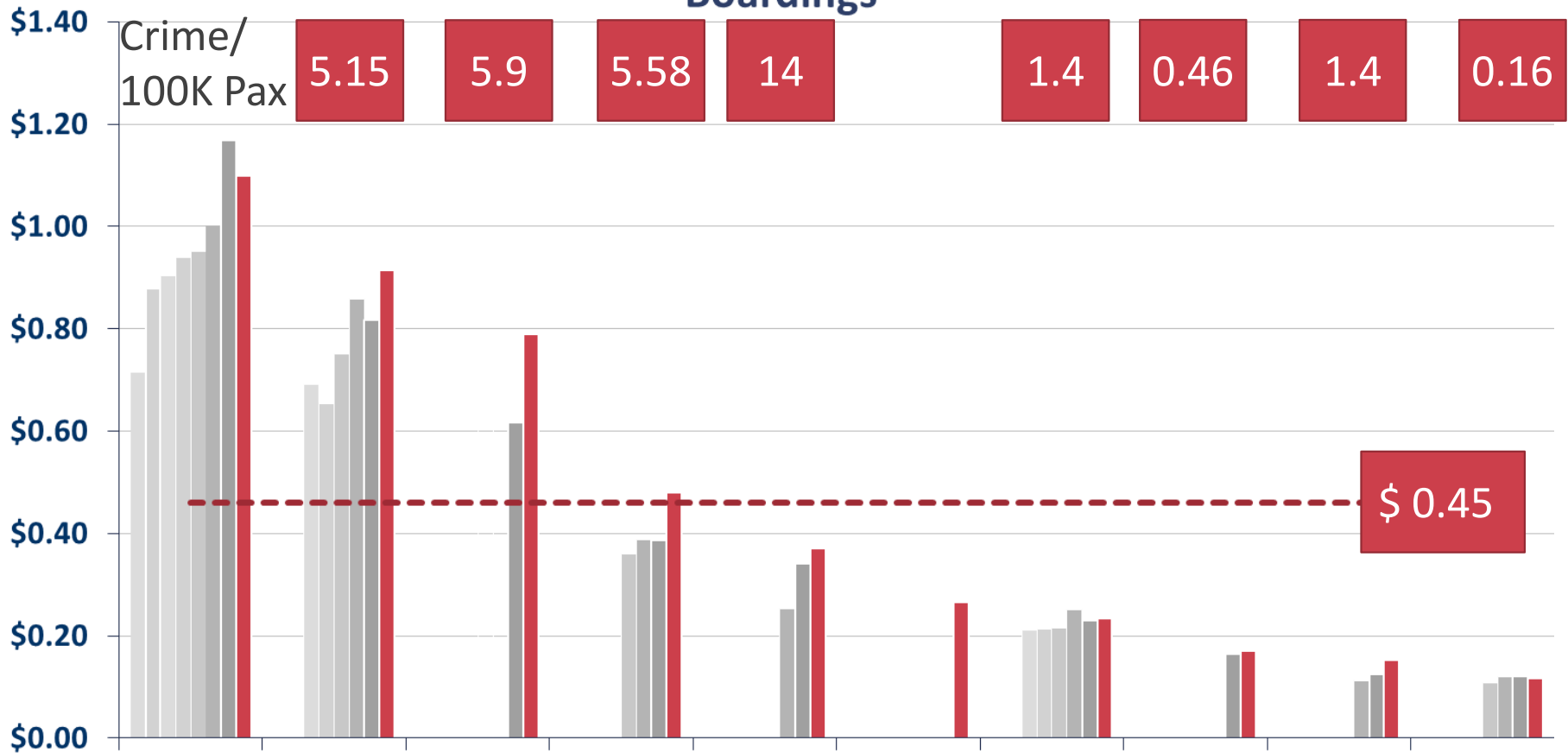
$ 0.53

Contractors/Part-Time Cleaners

Police Cost per Passenger, Generally Fits with Crime Rates – Chicken and Egg Effect?

Service Operations M&S - Security/Police per Total Passenger Boardings

2018 USD RPP

Crime/ 100K Pax

| 5.15 | 5.9 | 5.58 | 14 | | 1.4 | 0.46 | 1.4 | 0.16 |

$ 0.45

Legend: 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | ---Avg'19

Changes to Transit with COVID-19: Flexible Service Planning, Real Time Crowding, Cleaning, Cash Only

Any Questions

For more information, please contact:

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