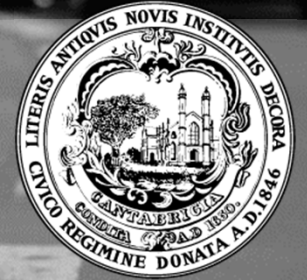


Advisory Group Meeting Number  
City of Cambridge  
New Mobility Blueprint



July 10, 2019

# Agenda

- |    |                                 |           |
|----|---------------------------------|-----------|
| 1. | Welcome and Introductions       | 5:30-5:45 |
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| 4. | Journeys                        | 6:20-6:30 |
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| 7. | Project Schedule and Next Steps | 7:45-7:50 |
| 8. | Public Comment                  | 7:50-8:00 |



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## New Mobility Headlines in the Past 30 Days...

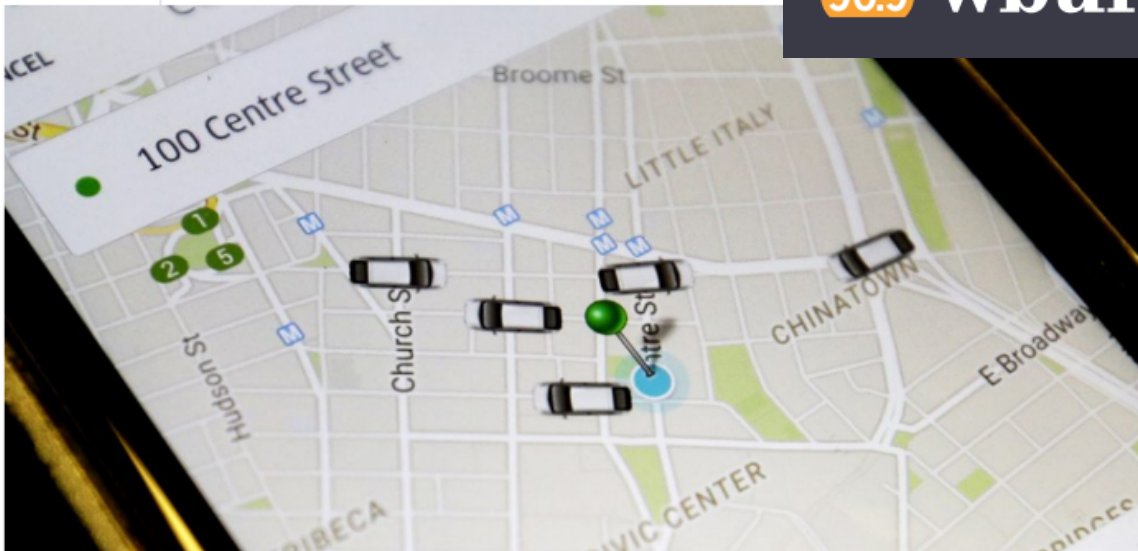
### Uber Rolls Out In-App Boston Transit Info

June 17, 2019

By Colin A. Young, State House News Service

90.9 wbur

Signals Uber's intent to become more like an all-inclusive "Mobility as a Service" platform



# New Mobility Headlines in the Past 30 Days...



Scooter companies are racing to build more robust equipment to become more profitable

EXCLUSIVE

## Scooter Breakdowns Weigh on Lime

By Cory Weinberg Jun 18, 2019 10:02 AM PDT · Comment by Michael Schmitz

At the CES trade show in Las Vegas in January, Lime showed off a new model of its electric scooter with thicker tires, color display screens between the handlebars and stronger aluminum to help the vehicles last longer. But months later, the custom-designed scooter, called Gen 3, is having problems of its own. The screens frequently crack or malfunction, and repairing brakes and other parts has proven complicated. Even the tougher metal has caused trouble—the additional weight makes it harder for workers to cart home scooters to charge overnight.

Scooter companies had pinned their hopes on sturdier hardware to help them slow their cash burn and demonstrate that the business can be profitable. But Lime's experience shows how challenging that can be. Lime ended up slowing the rollout of

Los Angeles Times

...and finding ways to enter and stay in big city markets

## Bird buys Scoot — and a back door into San Francisco's rental scooter market

By SAM DEAN and JOHANA BHUIYAN  
JUN 12, 2019 | 2:20 PM



A Bird customer rides a scooter near the beach in Venice. (Katie Falkenberg / Los Angeles Times)

# New Mobility Headlines in the Past 30 Days...

The New York Times

## How Uber Hopes to Profit From Public Transit

Ride-hailing companies see a 'massive market opportunity' in replacing bus and subway rides.



By E. Tammy Kim  
Contributing Opinion Writer

One of their strategies is to replace public transportation — an ambition that affects all of us and the environment, not just passengers and drivers.

Uber and Lyft have been clear about their intentions. At Uber's apex of candor, in documents [filed with the Securities and Exchange Commission](#), it identifies a "massive market opportunity" in the estimated 4.4 trillion miles traveled by people on public transit in 175 countries in 2017.

Uber sees "massive market opportunity" from public transit riders

## CITYLAB



New York Times photo of Minneapolis in 2017. How Uber sees a 'massive market opportunity' in replacing bus and subway rides. Courtesy: CityLab.

Cities and dockless bike companies struggle to reconcile business models with city priorities

## Can Minnesota Get Dockless Bikes to Play Nice?

Over the last year, dockless bikesharing has galloped into cities across the United States, swiftly doubling the number of shared bikes available on city streets. The GPS- and app-based technology these services use allows bikes to float around cities, into neighborhoods where bikeshare had never gone before, or where docked systems have failed to catch on. But the venture capital-backed bike invasions have also stoked anxiety over vandalism, [bike clutter](#), and [city regulations](#).

# New Mobility Headlines in the Past 30 Days...

BUSINESS INSIDER

Your Uber ride could get 80% cheaper



Robert Galbreath/Reuters

- The global market for ride-hailing and robo-taxis could be worth \$2 trillion by 2030, UBS has estimated.
- As autonomy makes the services even cheaper to provide, fares could shrink by 80% or more.
- That will put even more strain on public transportation systems, which are already losing passengers to ride-hailing.

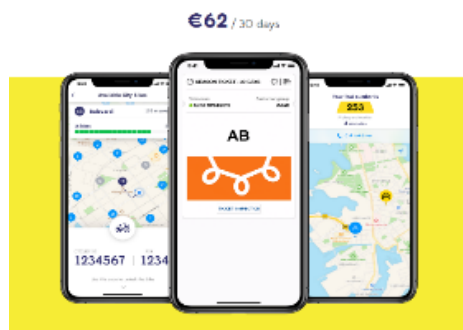
Forecasts showing the reduction of Uber fares (when they become AV fleets), if true, could place greater strain on transit



Transit systems all across the US are struggling to retain ridership

# New Mobility Headlines in the Past 30 Days...

## Whim Urban 30



Mature MaaS platforms are gaining ridership (and funding) in Europe

## Uber Elevate



Uber Elevate is advancing a vision of sub-400 foot air travel, piloting the concept in cities like Dallas and LA



Waymo and Tesla continue to build towards their vision of autonomous fleets for cities



# New Mobility Headlines in the Past 30 Days...

**Toyota Goes Electric Starting In 2020: Announces Massive EV Offensive**



Traditional car makers are rapidly switching to electric car models

**Waymo partners with Renault, Nissan to bring self-driving cars around the world**



...and partnering with technology companies to form partnerships and scale

**Walmart Filed Almost Twice as Many Drone Patents as Amazon in the Past Year**

*By Christopher Hill*



Companies are forecasting significant use of drones and robots to deliver goods and services

# City of Cambridge Goals

**Equity and Accessibility:** Ensure a diverse set of travel options that meet the access and mobility needs of people of all ages, abilities, and incomes.

**Reliability and Efficiency:** Ensure people and goods can reliably move within Cambridge and around the region, and encourage space-efficient transportation choices like walking, biking, transit, and carpooling.

**Safe and Active Transportation:** Eliminate traffic fatalities and serious injuries while encouraging active living and improving comfort for people of all ages and abilities.

**Connectedness and User-Friendliness:** Create an easy-to-understand, integrated, continuous, and comfortable transportation network for all people.

**Community Character and Vitality:** Ensure that the city's transportation system supports shared community spaces and enhances neighborhood streets.

**Climate Mitigation and Resilience:** Achieve a carbon-neutral transportation system and adapt to climate change.

**Climate Action:** Achieve carbon neutrality by 2050.

**Climate Change Preparedness:** Protect the lives and livelihoods of the Cambridge community from the impacts of climate change.

## New Mobility Blueprint Purpose

Our goal is to develop actionable recommendations for policy, programs, and regulations that will help the City implement new mobility options in a way that aligns with and advances existing values and policies.

## **New Mobility Blueprint (is not)**

- A visioning exercise
- The creation of new goals
- Making changes to existing transportation plans or current planning processes, except to preserve or strengthen an existing transportation mode in the face of pressure from new mobility
- A static document

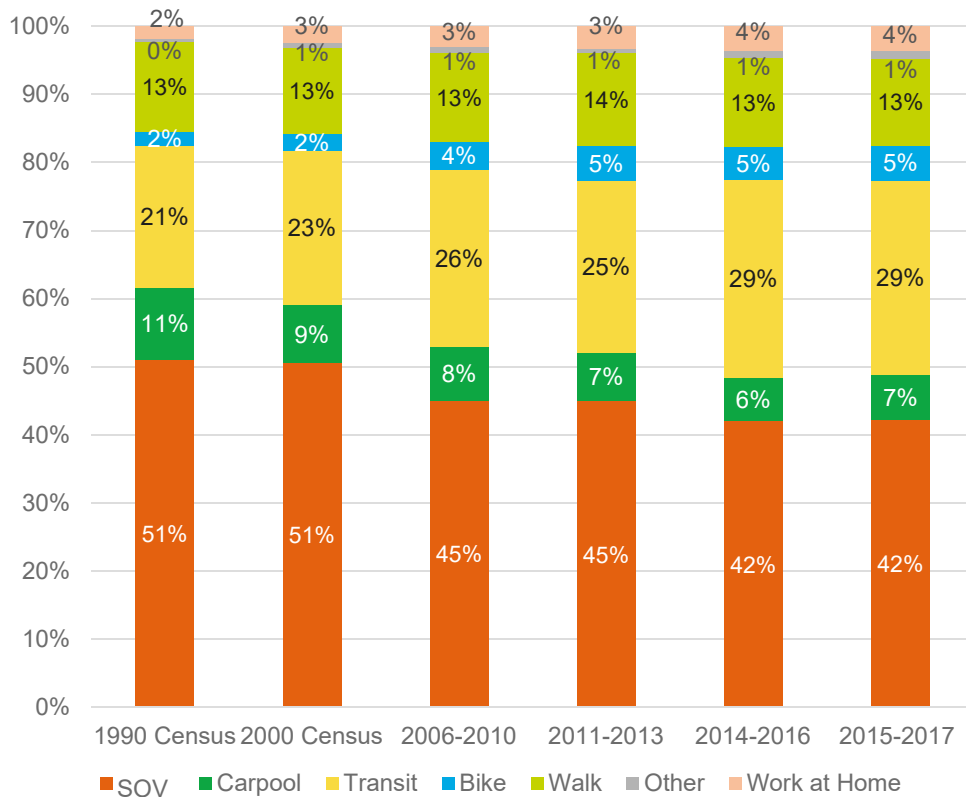
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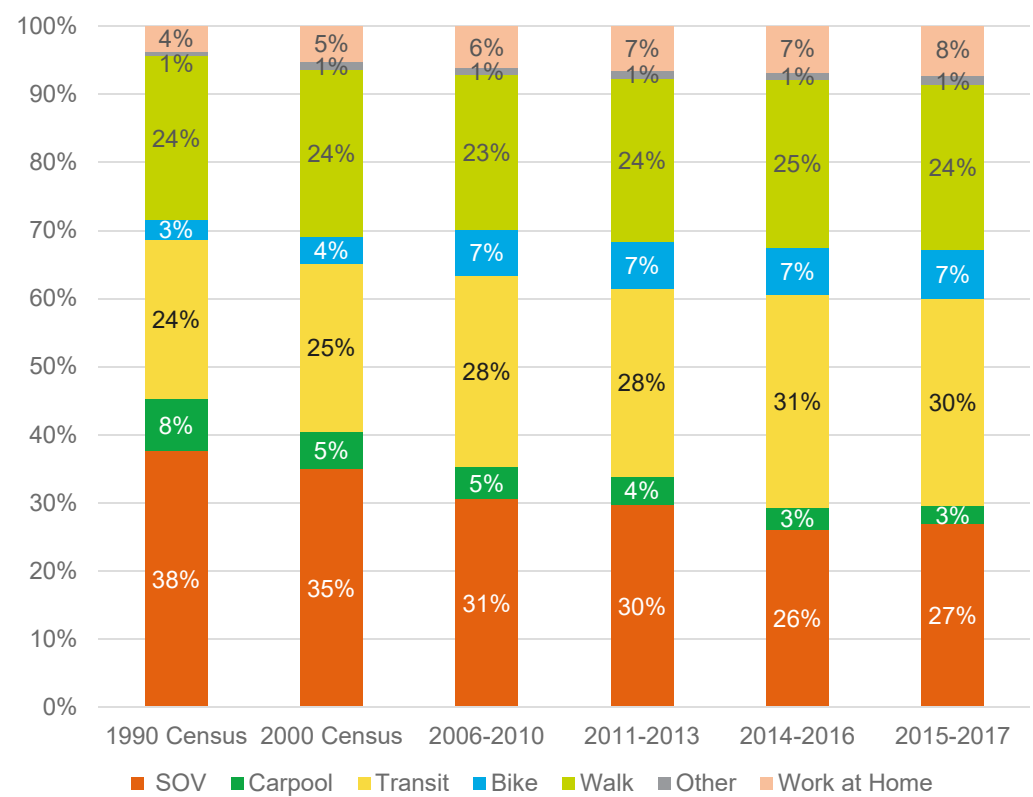


# Mobility Modes

## How people commute to work in Cambridge

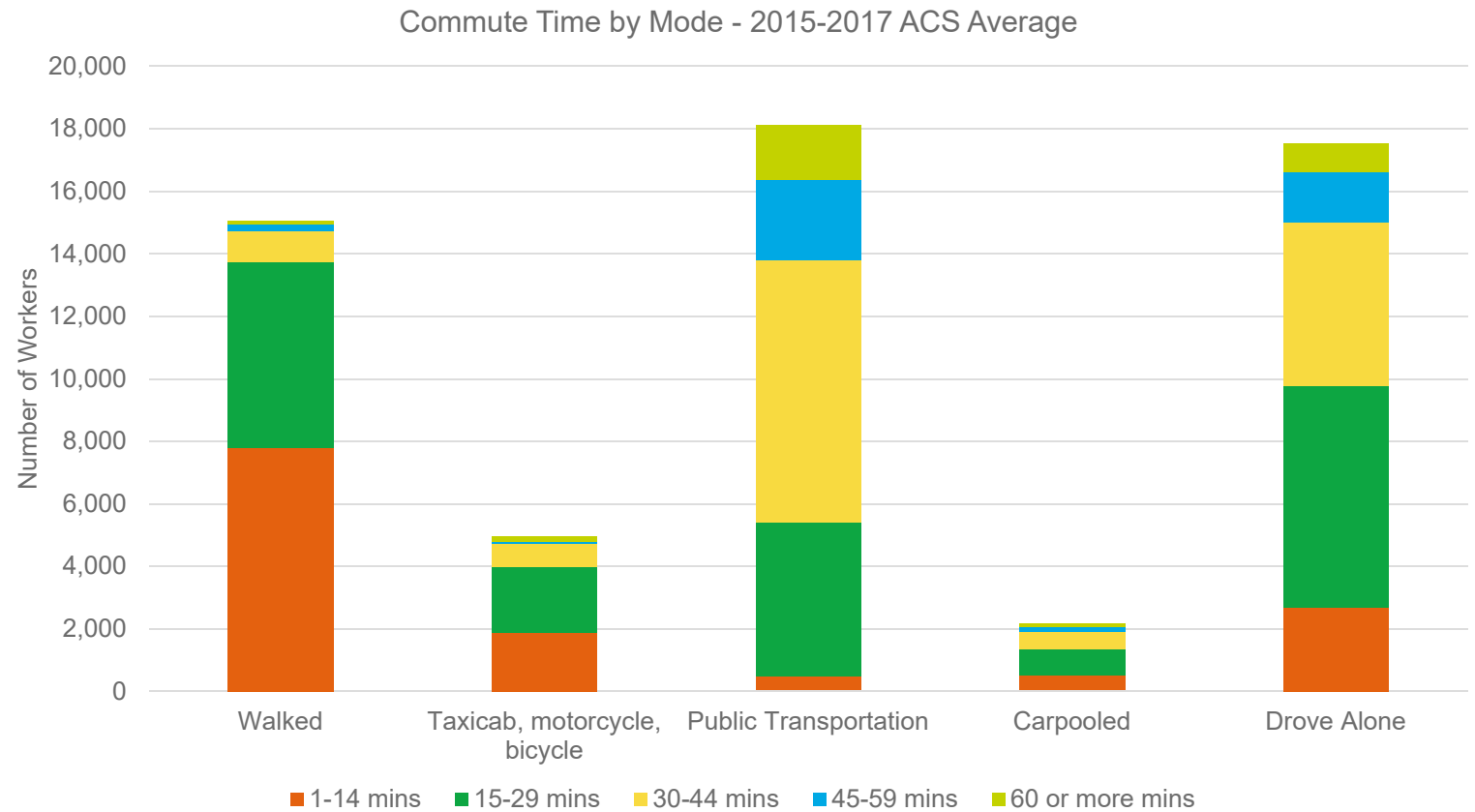


## How residents in Cambridge commute to work



Data Source: ACS Data  
Cambridge New Mobility Blueprint 14

# Mobility Modes



Data Sources: 2015,2016 and 2017 ACS Data

# Bicycling Trends

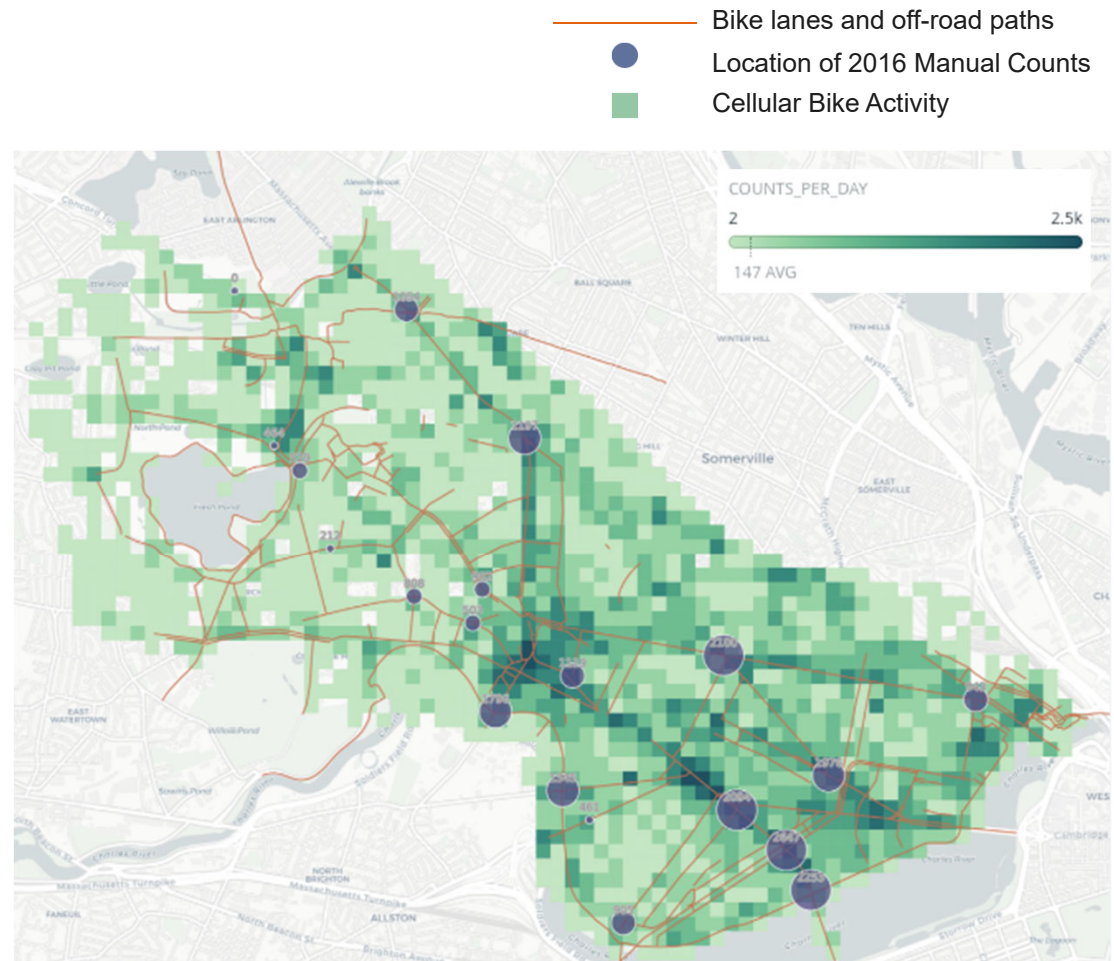




# Bicycling Activity

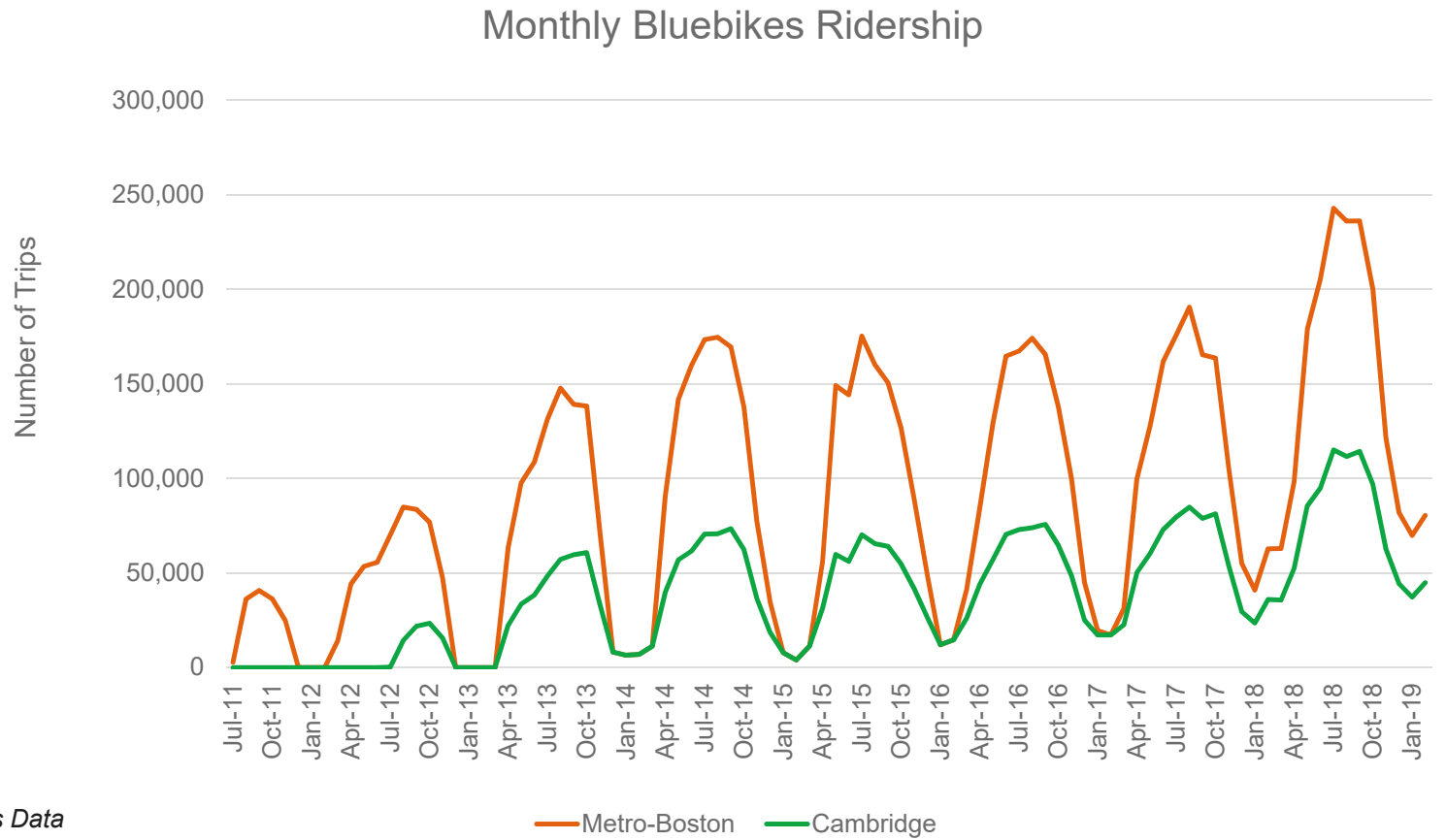
The color of each cell shows the daily average of bicycle trips distributed across the city.

The blue circles in the map show the bike counts collected manually in 2016.



Data Source: Anonymized Cellular Data, 2016 Cambridge Biennial Manual Bike Counts

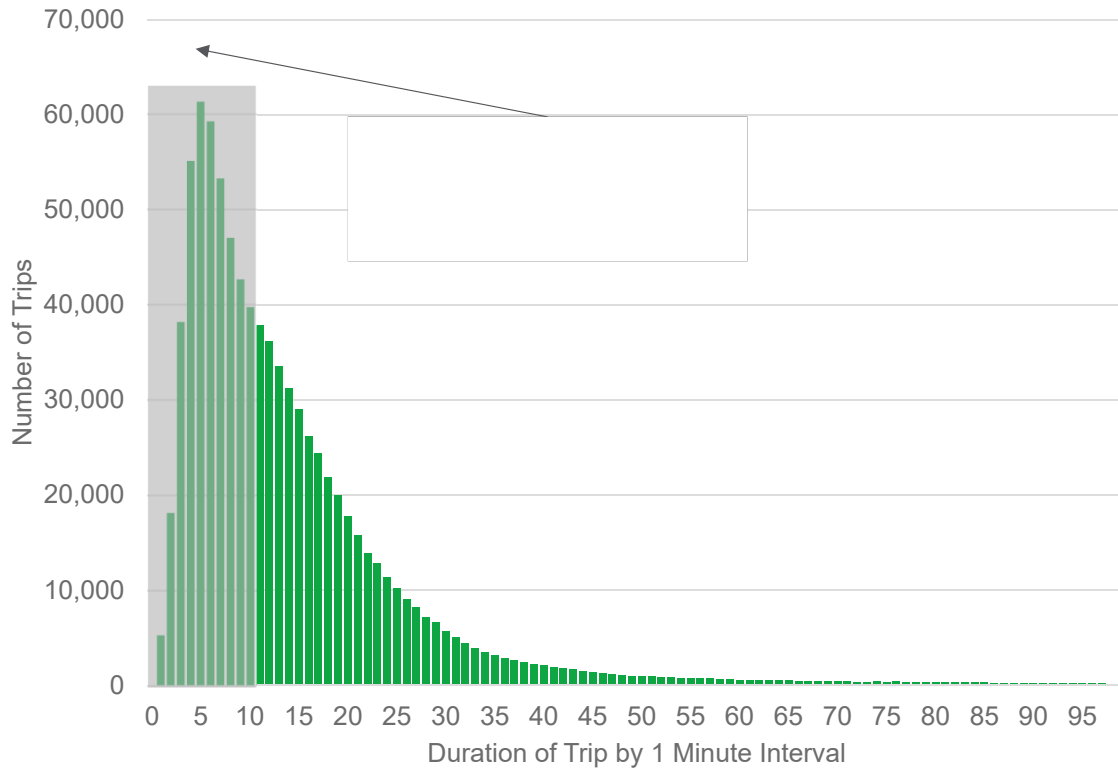
# Bluebikes Trips



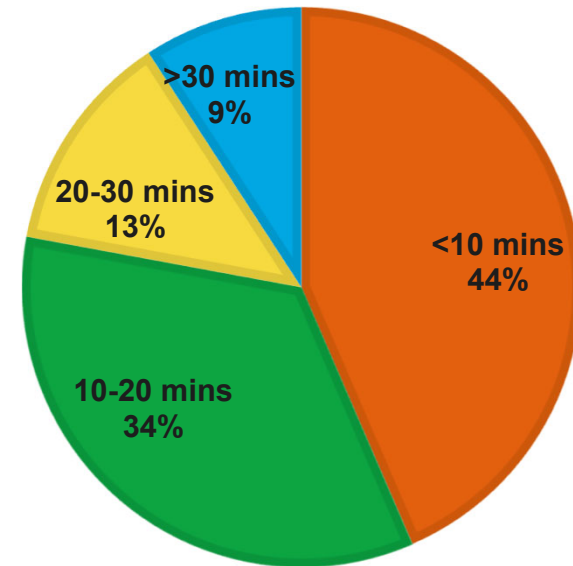
Data Source: Bluebikes Data

# Bluebikes Trips

Bluebikes Trip Duration in Cambridge in 2018



Percentage of Bluebikes Trips in Cambridge



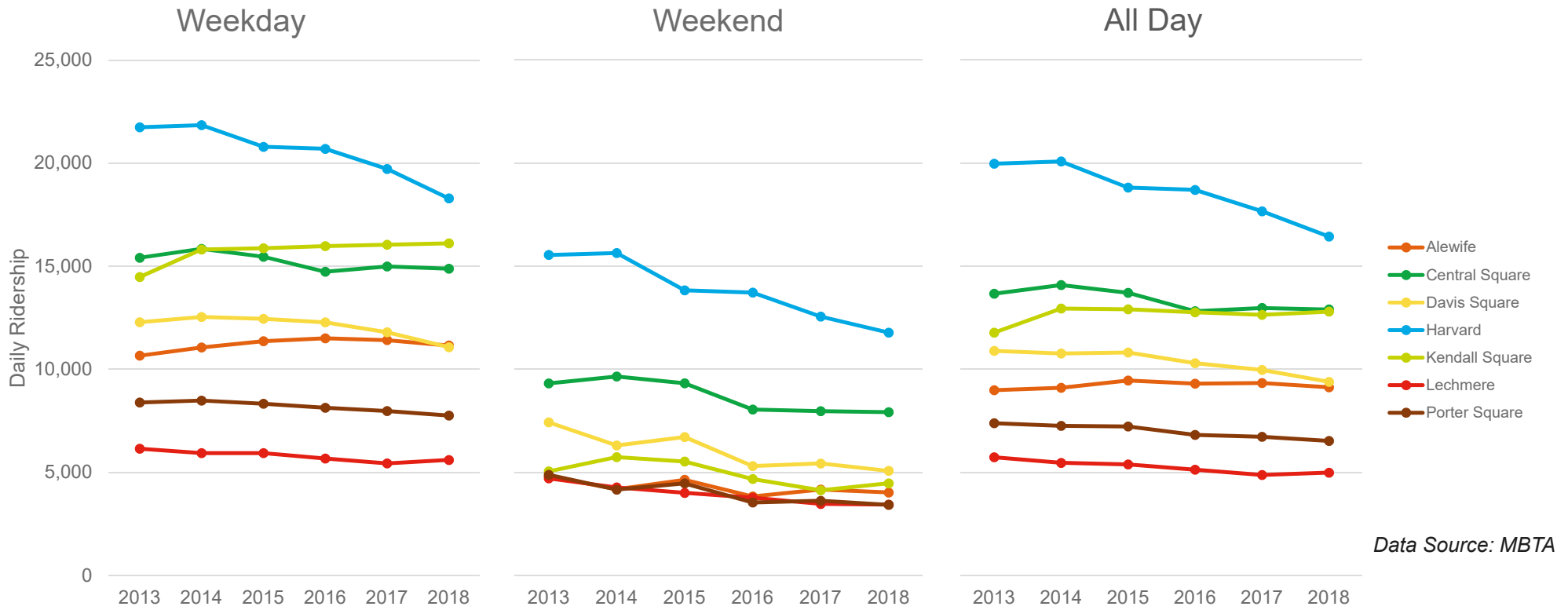
Data Source: Bluebikes Data

Subway Trends



# Subway Trends

## Subway Daily Average Ridership by Year

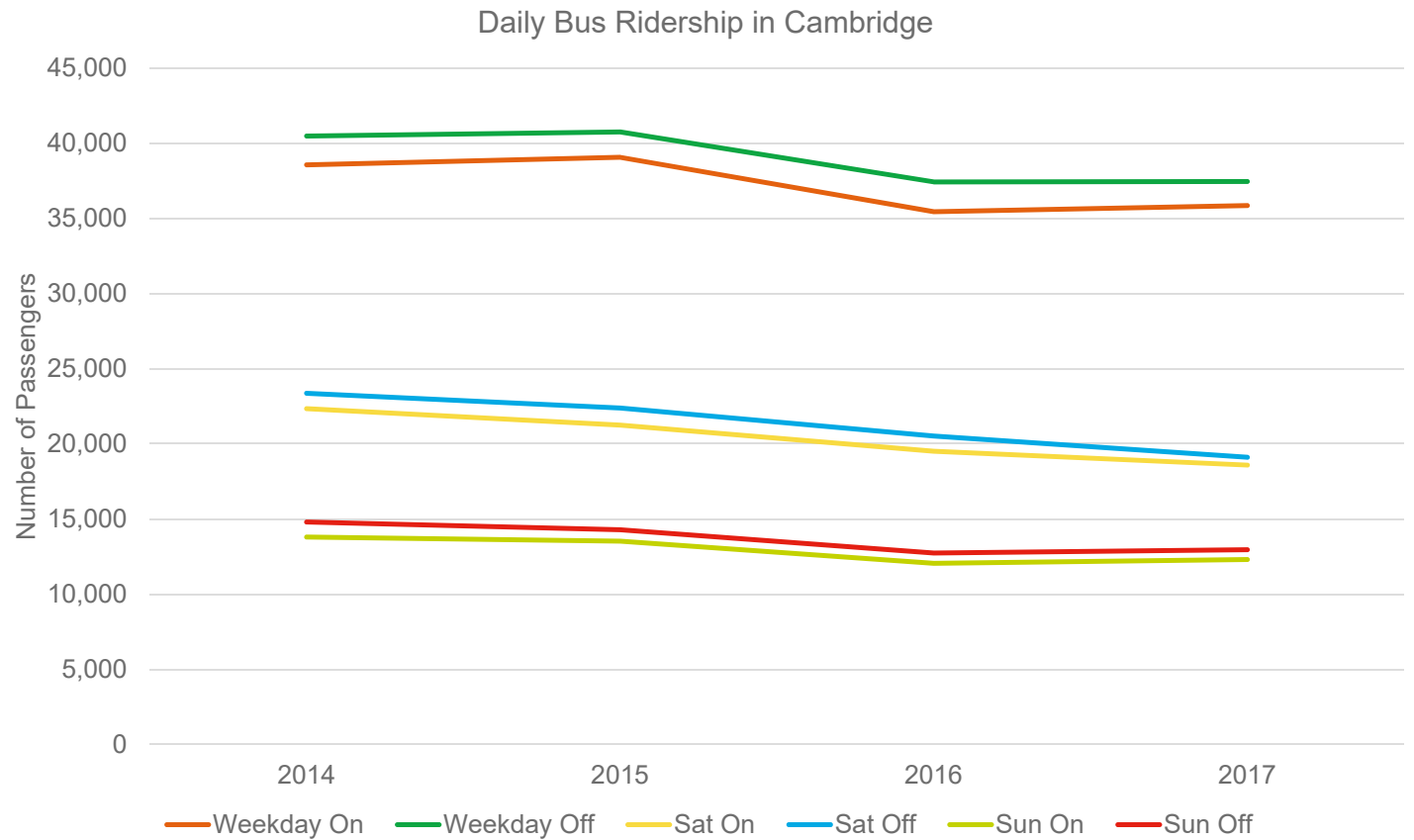


Data Source: MBTA



**Bus** Trends

# Bus Trends



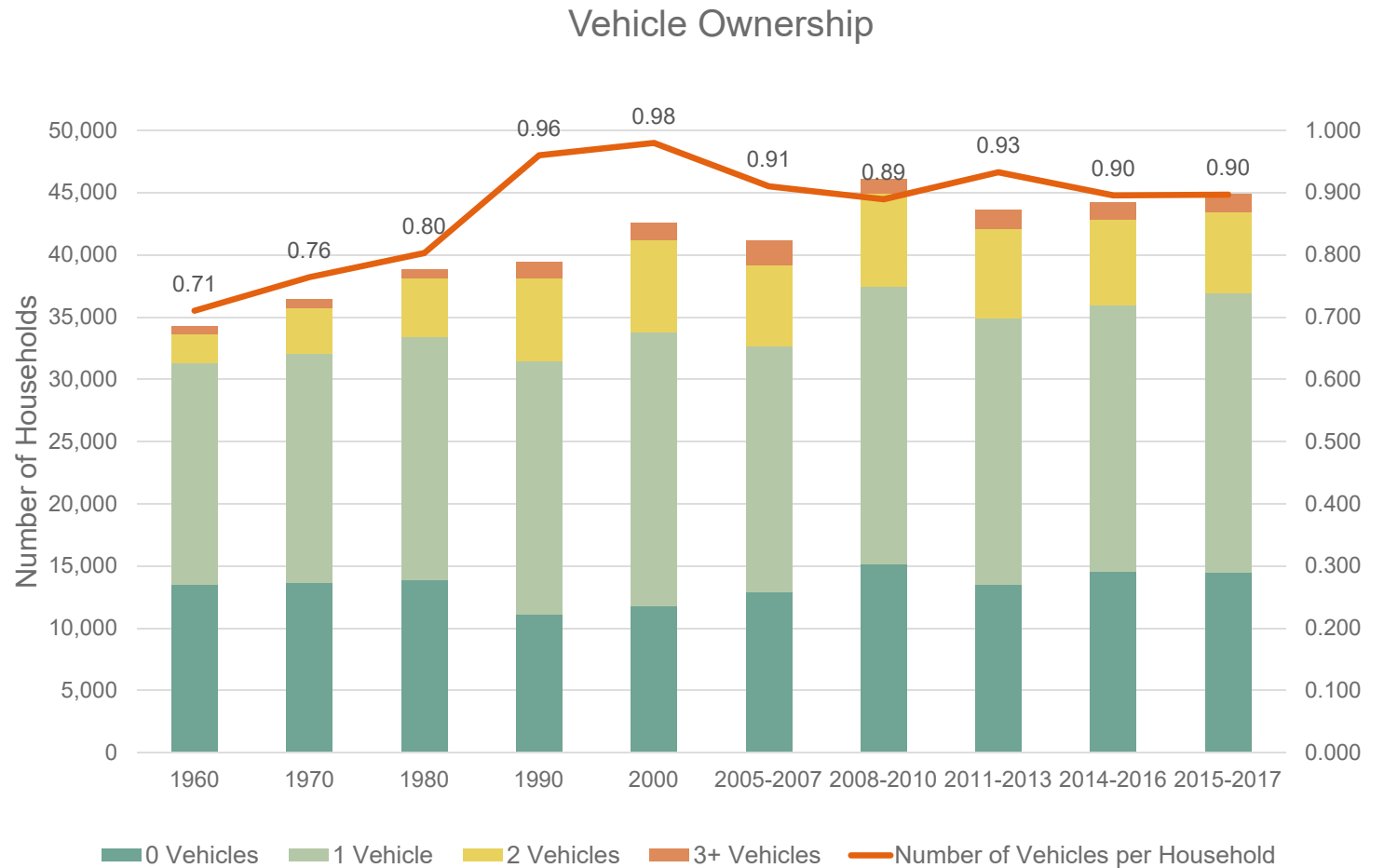
Data Source: MBTA



Car Trends



# Car Trends



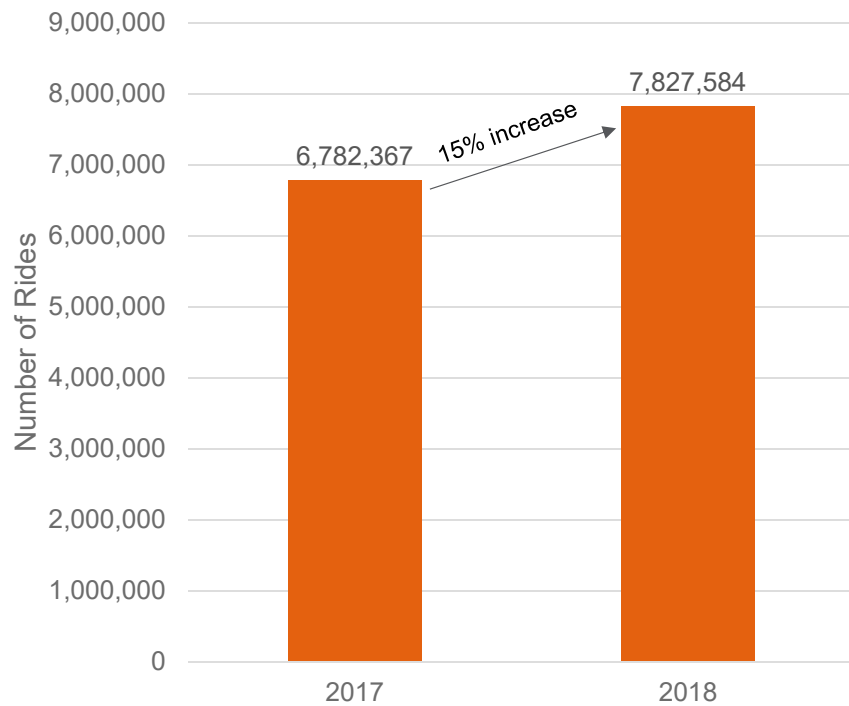
Data Source: ACS



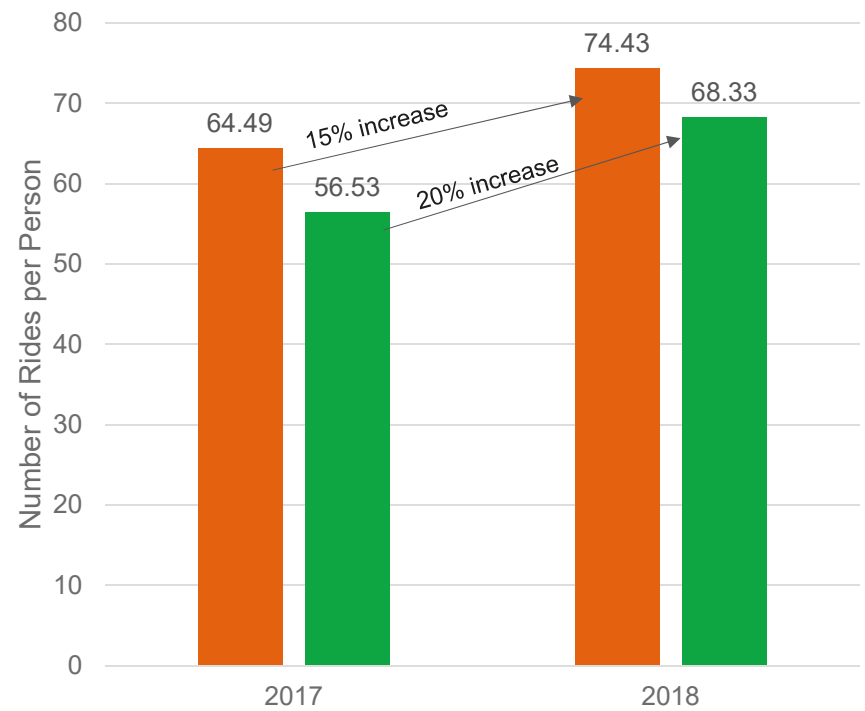
**Ride-hail Trends**

# Ride-Hail Trends

## Annual Rides Started in Cambridge



## Rides Started per Capita



Data Source: Mass Dept of Public Utilities

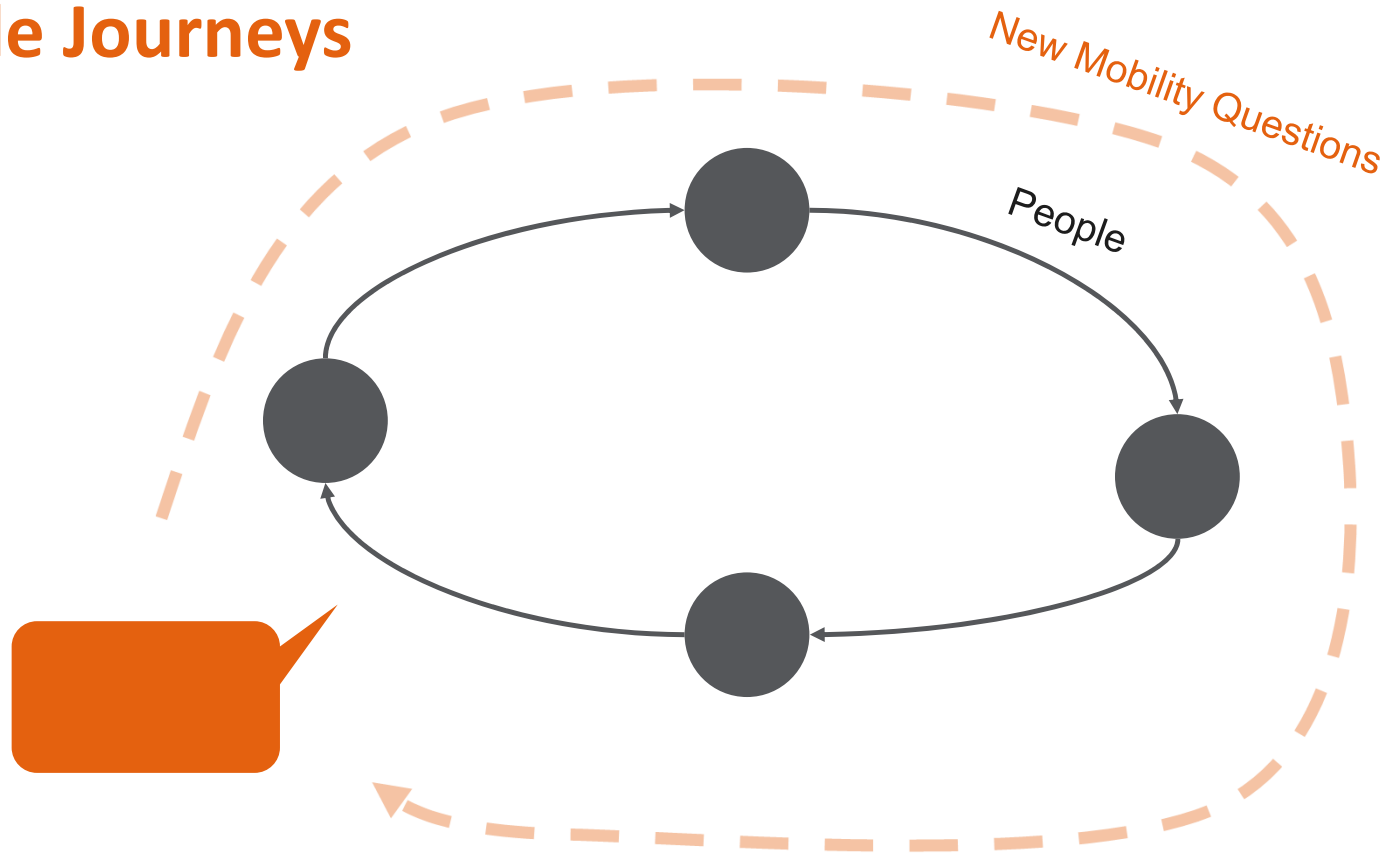
Cambridge Boston

# Agenda

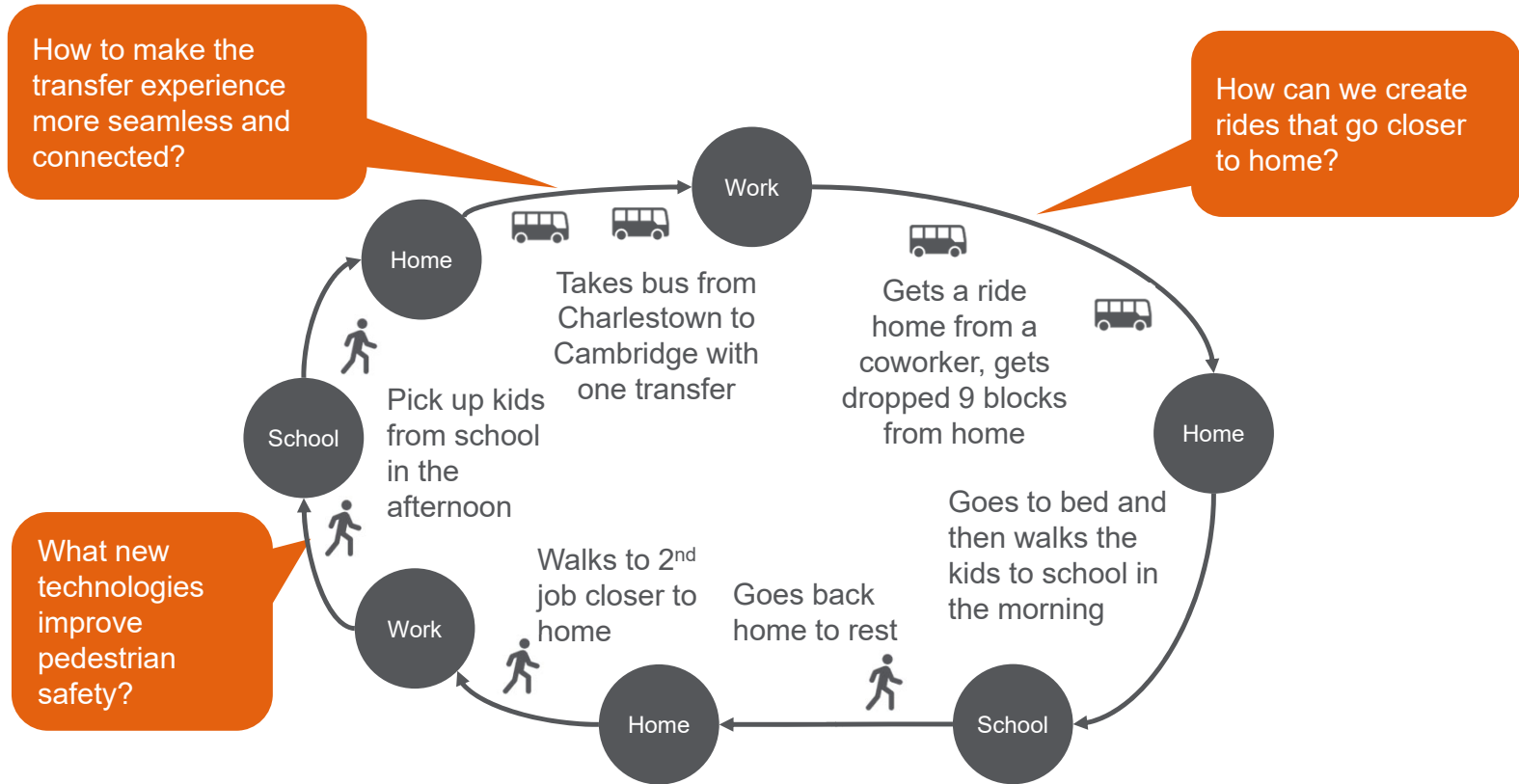
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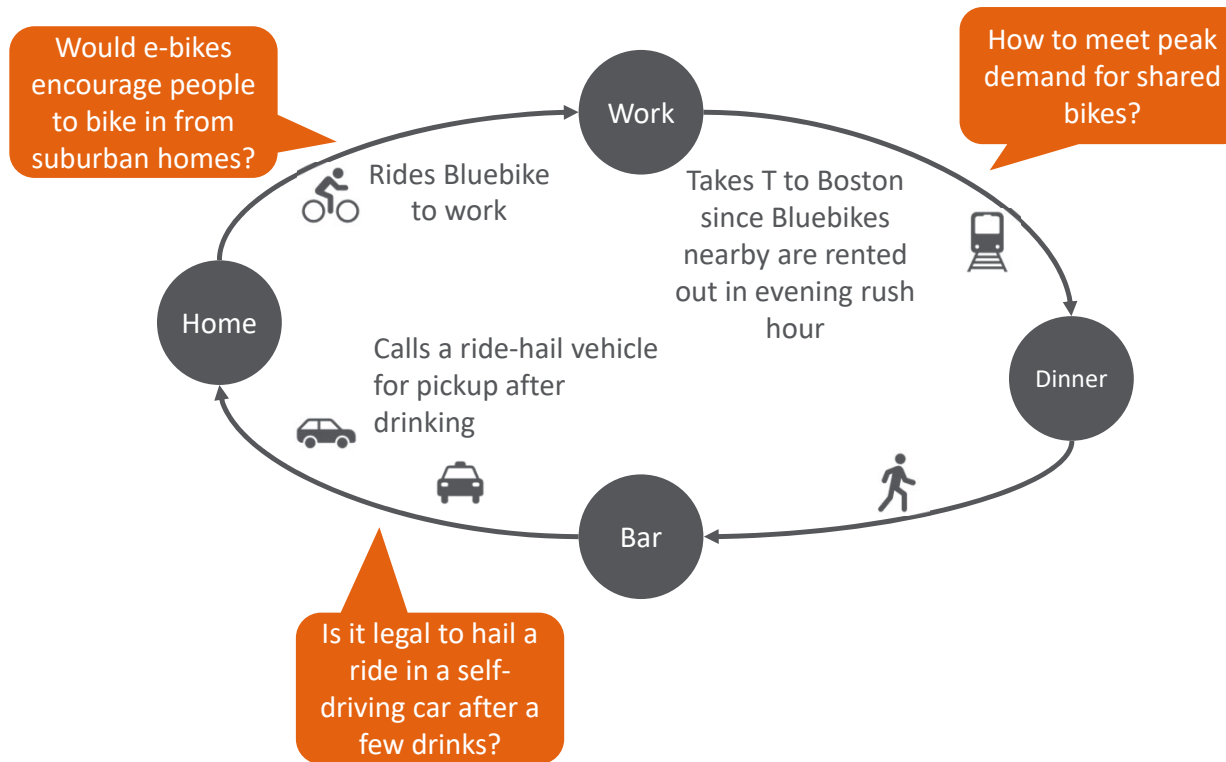
# People Journeys



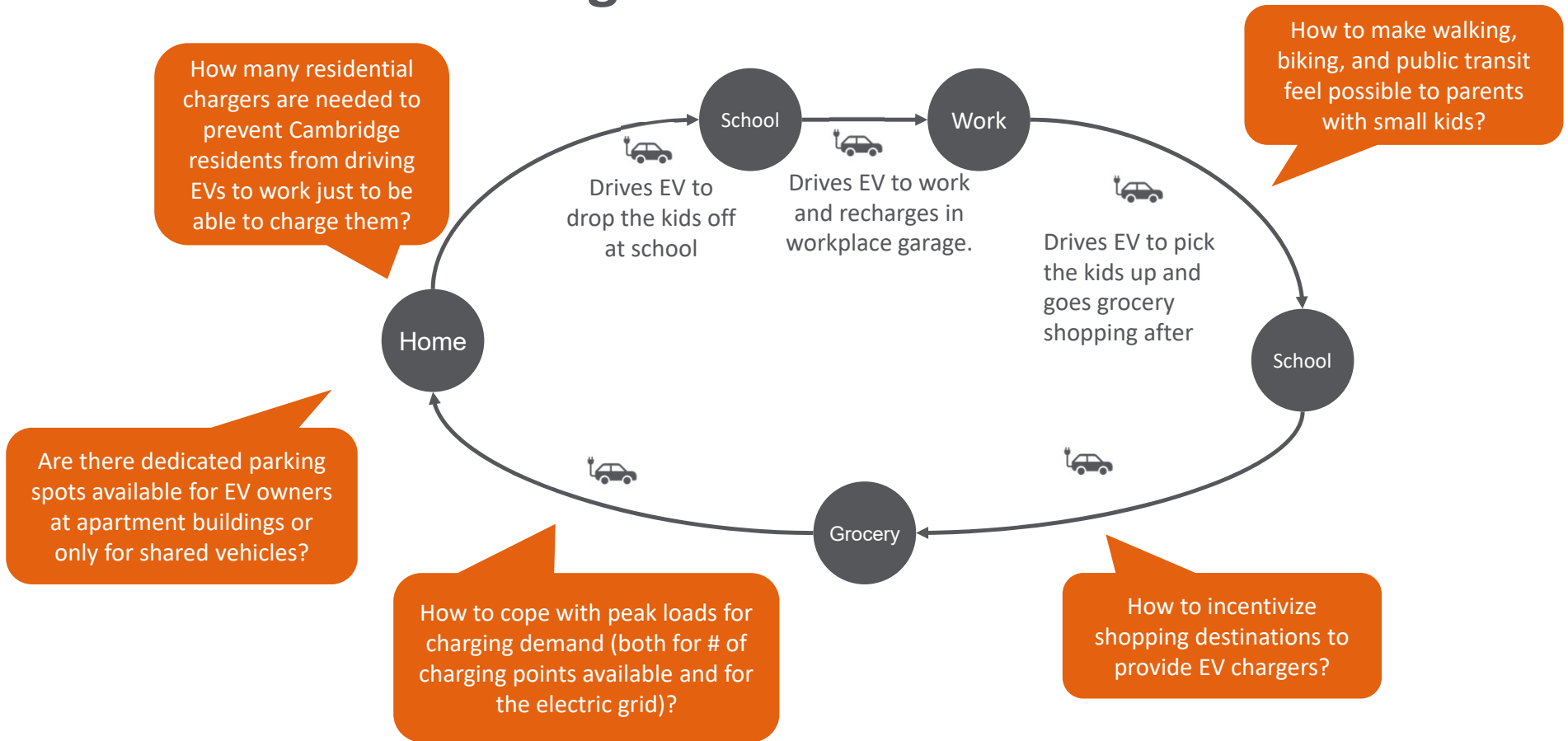
# Scenario 1 – Restaurant Worker



## Scenario 2 – Young Professional

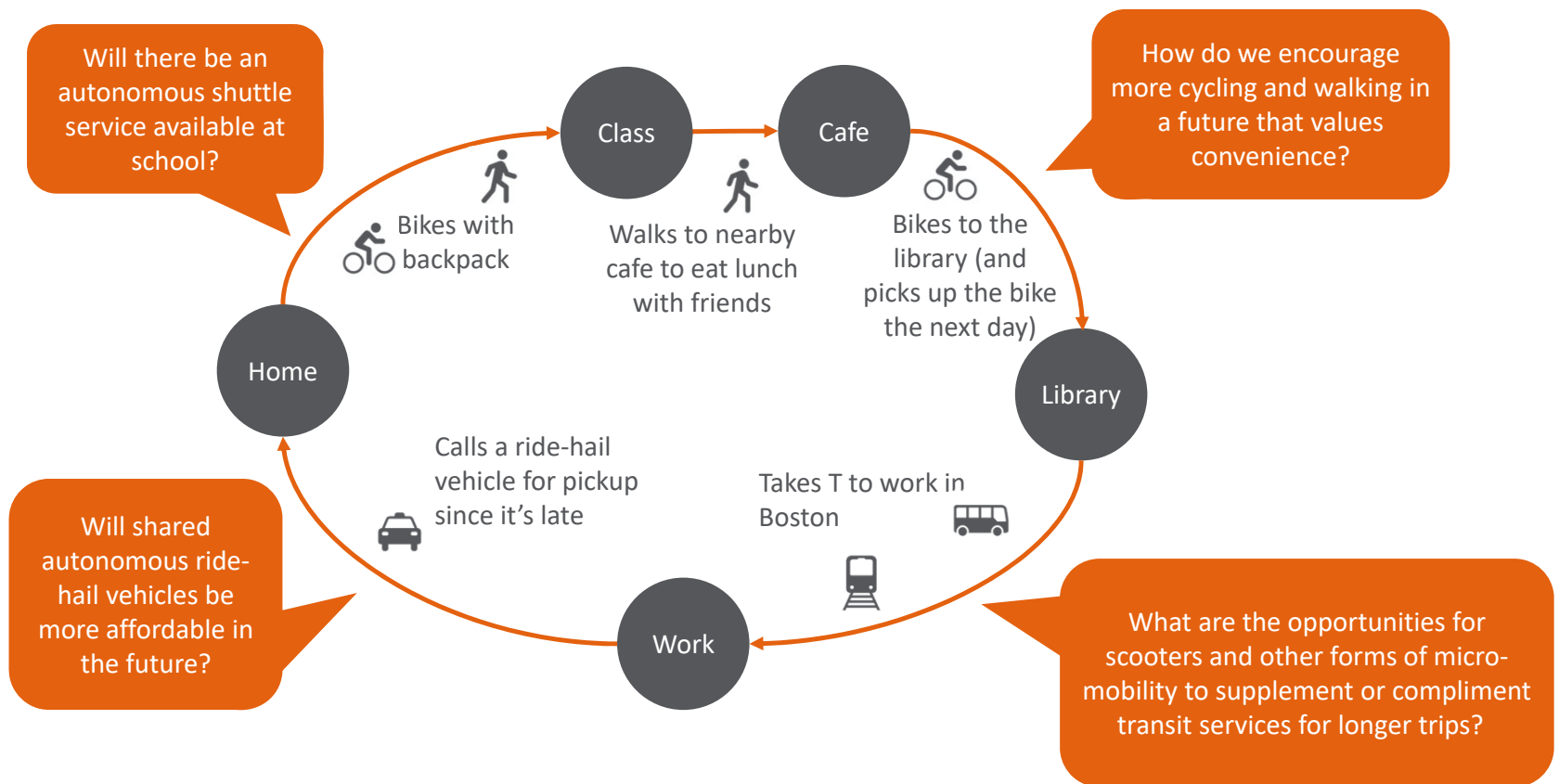


## Scenario 3 – Working Parent with Kids

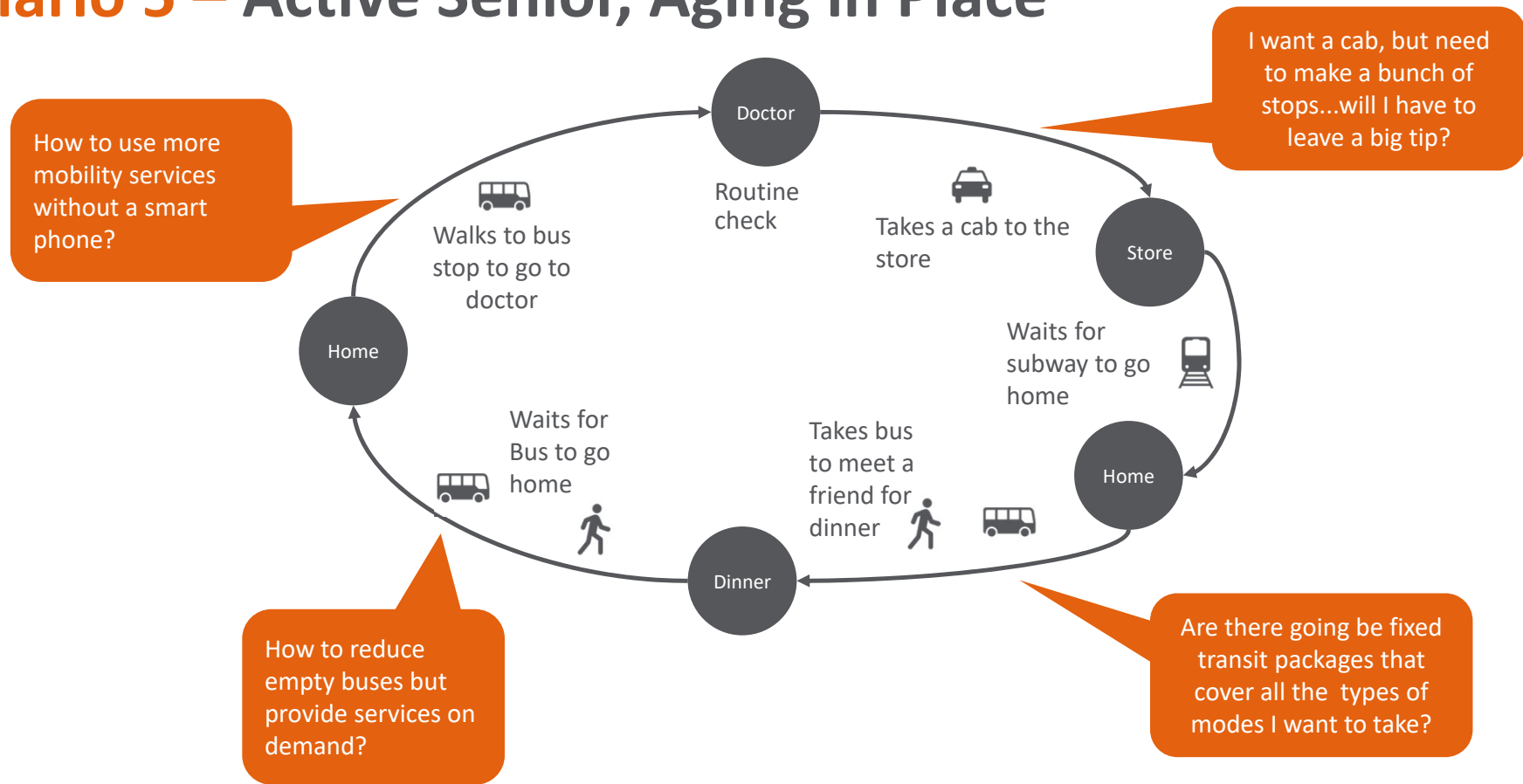




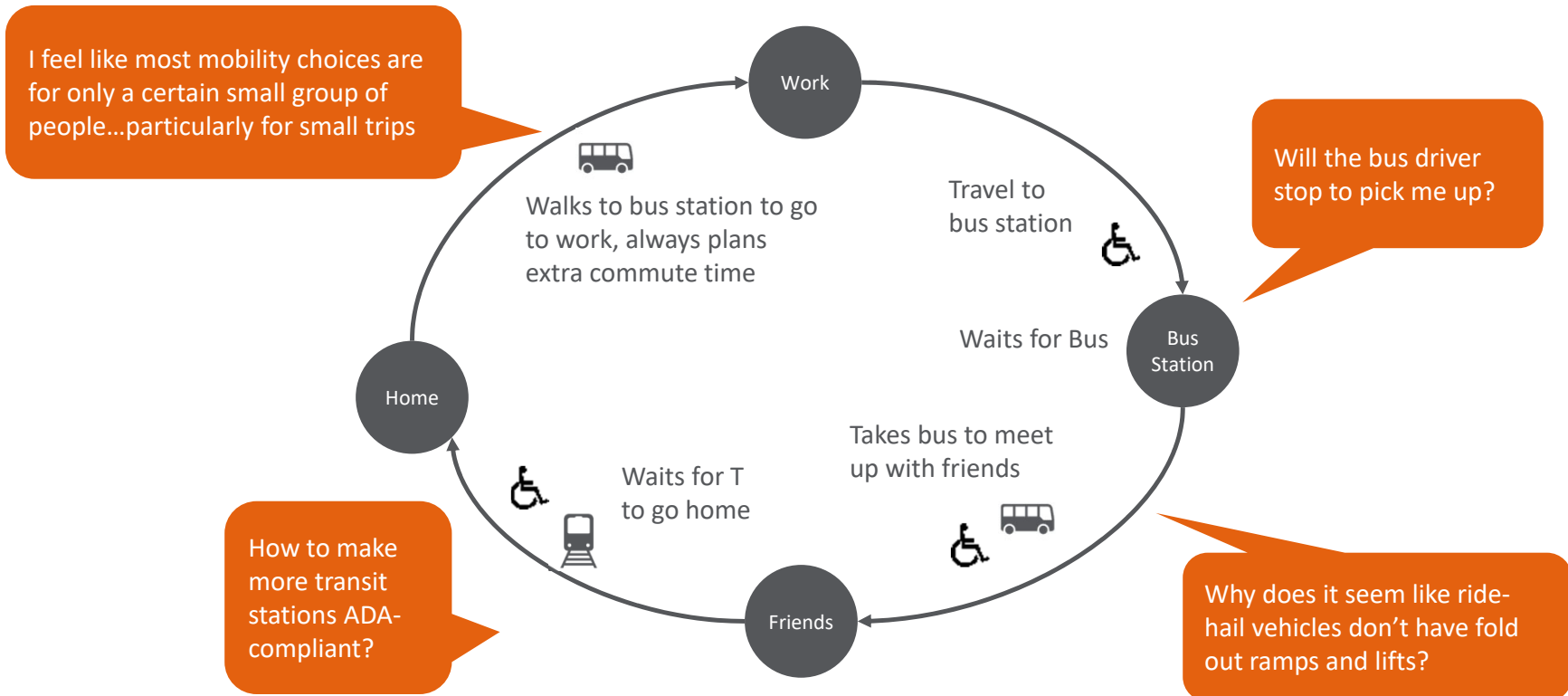
# Scenario 4 – High School Student



# Scenario 5 – Active Senior, Aging in Place



# Scenario 6 – Person with Mobility Impairment



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## **New Mobility** Roleplay

The purpose of the roleplay is to better understand the viewpoints and challenges faced by the various people who use, provide, and regulate new mobility options.

By stepping into each other's shoes, we hope to encourage each player to explore the complexity of perspectives and think broadly about how the City can develop policy that meets a variety of needs.

## Run of Show

Members break into 5 groups

Each group will have 20 minutes to discuss the prompts

Each group will give a brief 5 minute discussion summary

Each group will have 5 minutes for Q&A from others

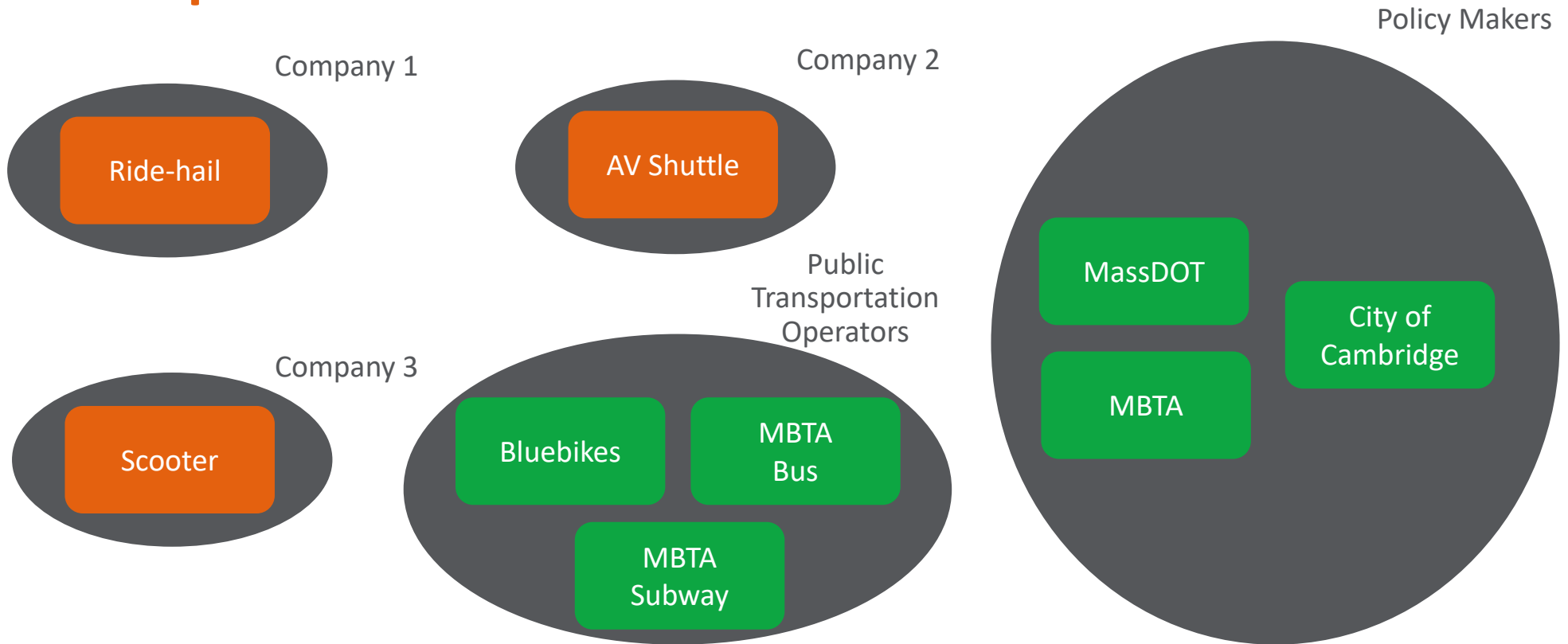
Switch and Repeat!

## And remember...

The goal is to experience a new role

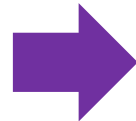
There are no “right” or “wrong” answers...we’re exploring together

# Groups

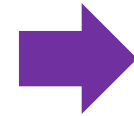


## Mobility Trends

Walking



Transit



Biking



SOV



Micromobility



Ride-hail





# Group Assignments

Name	Round 1	Round 2
Ride Hail (Ben Alpert)	Bruce Kaplan Kathryn Carlson	Jane Gould Steven Miller
Scooter (Trevor Johnson and Yuan Shi)	James Cater Steven Miller Chris Tassone	Bruce Kaplan Ruth Allen Megan Aki
AV Shuttle (Peter Glus)	Megan Aki Zef Vataj	David Keith Kathryn Carlson Melissa Chan
Public Transit (Pete Costas)	Melissa Chan Jane Gould Ilya Sinelnikov	Will Dickson James Cater
Policy Makers (Joe Iacobucci)	Will Dickson Ruth Allen David Keith	Zef Vataj Ilya Sinelnikov Chris Tassone

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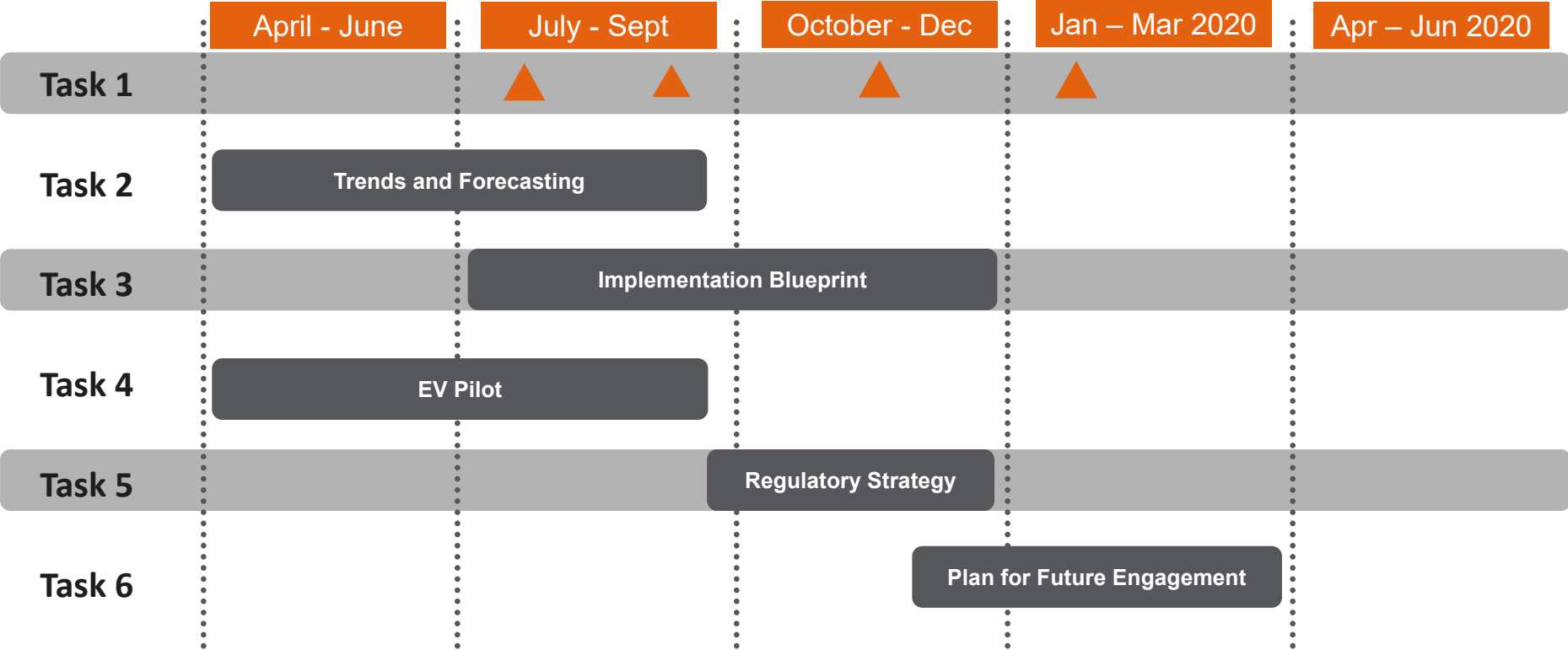


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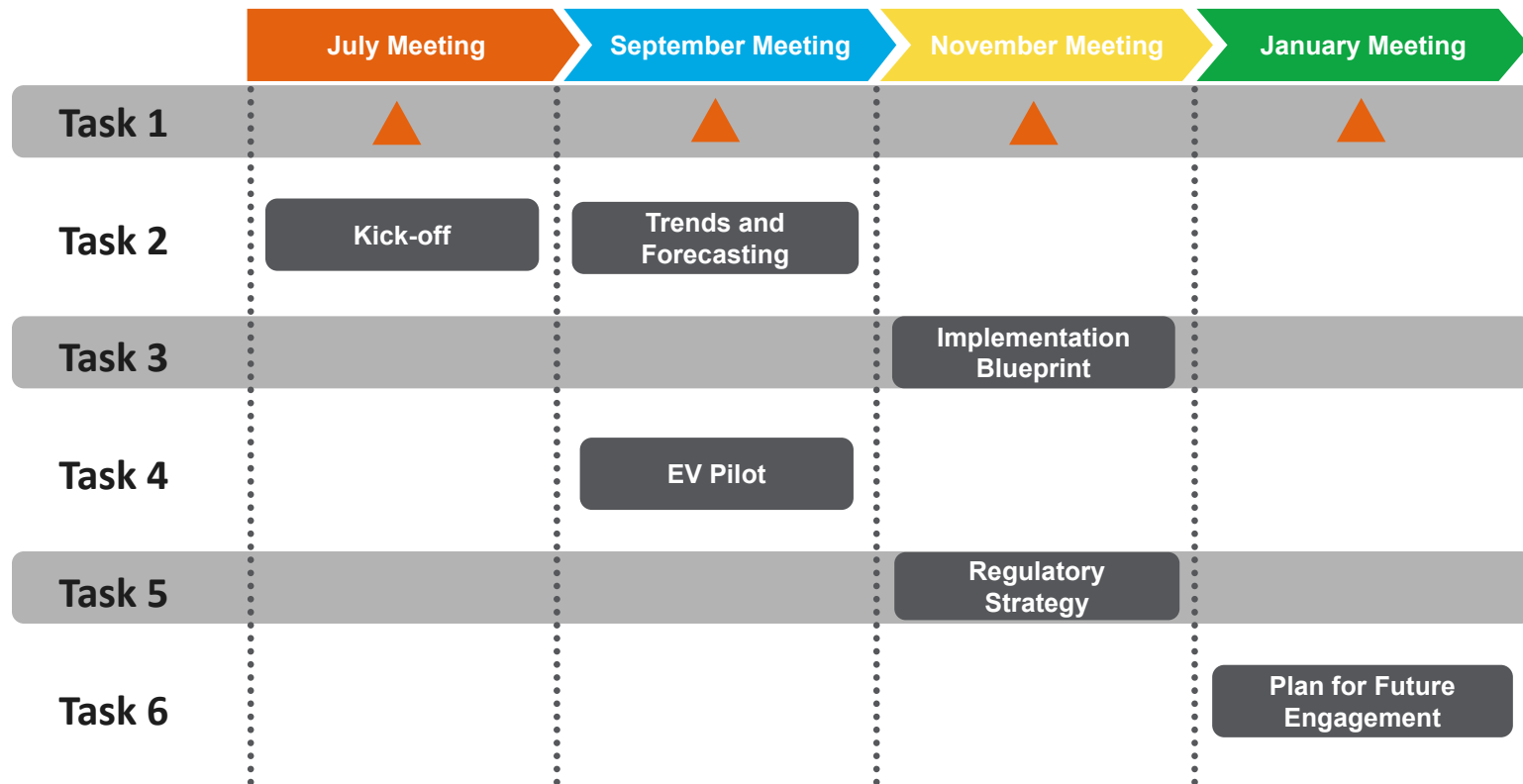
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# Project Schedule



# Advisory Group Schedule



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