

Member Webinar: MDS and Emerging Dockless Data Standardization

February 27, 2019

N A A B S A

THE FUTURE IS SHARED

Your Presenters



Marcel Porras

Chief Sustainability
Officer, Transportation
Technology, LADOT



Mitch Vars

Manager of Technology,
Motivate



Michael Schwartz,

Director of
Transportation Planning,
Ride Report



Kevin Webb

Co-director,
SharedStreets



Stefanie Brodie

Research Program
Specialist, DDOT



Mike McDonald

Applications Analyst,
PBOT

Your Facilitator



Sam Herr

Executive Director,
NABSA

Mobility Data Specification

Marcel Porras, Chief Sustainability Officer

How and why we got here and where we're going.



February 27, 2019



MOBILITY DATA SPECIFICATIONS

- <https://github.com/CityOfLosAngeles/mobility-data-specification>

A screenshot of the GitHub repository page for CityOfLosAngeles/mobility-data-specification. The page shows the repository name, 20 stars, 6 forks, and 6 issues. It lists 64 commits, 1 branch, 0 releases, and 7 contributors. The commit history table shows the following entries:

Commit	Message	Time
trantom	Update ladot-draft-dockless-rules.md	Latest commit 305c7a1 22 hours ago
	agency	adding tables of contents 18 days ago
	provider	Changes to wording. 6 days ago
	LICENSE	license 25 days ago
	README.md	add note about the LADOT rules 15 days ago
	ladot-draft-dockless-rules.md	Update ladot-draft-dockless-rules.md 22 hours ago
	ladot-draft-dockless-rules.pdf	Adding PDF rules 27 days ago
	ladot-draft-dockless-rules.txt	Add files via upload 3 days ago

The README.md content is visible below, starting with the title "Mobility Data Specification" and a description: "A data standard and API specification for mobility as a service providers, such as Dockless Bikeshare, E-Scooters, and Shared Ride providers who work within the public right of way." It also mentions inspiration from GTFS and GBFS and lists the goals of the MDS.

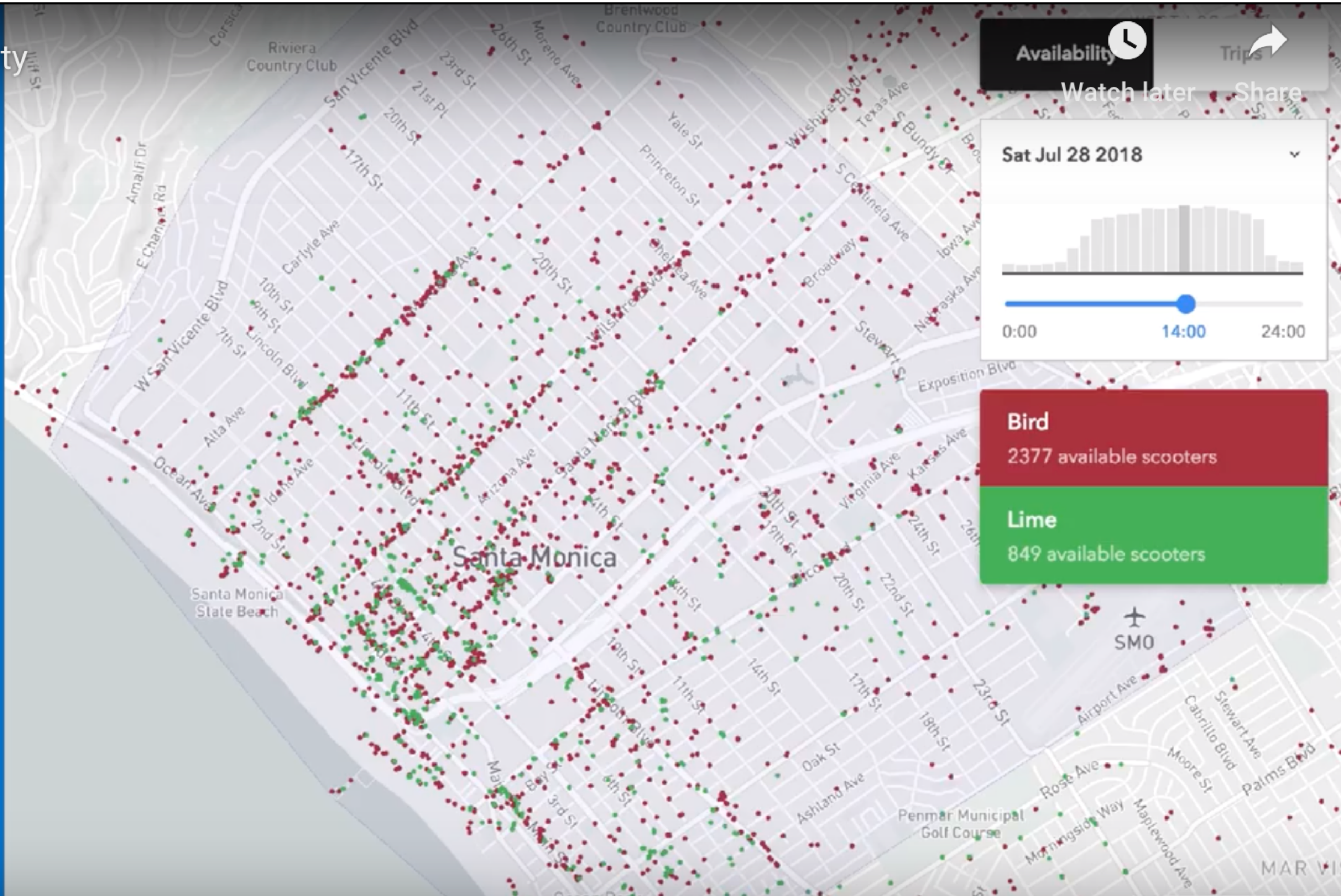


Remix for New Mobility

Zone 1

Draw your zone on the map

MORE VIDEOS



← 4 OF 5 ADD RESTRICTION ×

The Color Dash 5K

ZONE BOUNDARIES

START DATE & TIME

Sat, Oct 20, 2018 - 12:00 PM

END DATE & TIME

Sun, Oct 21, 2018 - 1:00 AM



Select your restricted streets on the map using the pen tool



Choose street and/or sidewalk restrictions

SAVE ZONE & BOUNDARIES

The map interface shows a street grid with a highlighted green area. A pen tool icon is in the top left. A legend in the center shows 'LANE' with a red dot and 'CURB' with a blue dot, each with '+' and '-' buttons. A blue polygon is drawn on the map, with a blue 'x' at one corner and blue '+' icons at other corners. A zoom control is in the bottom right.

Contributors



Governance



Hunter Owens



Kegan Maher

Governance Desired Outcomes

Competition: Foster a competitive market for solicited technology procured from an ecosystem

Harmony: Avoid a patchwork of regulation by enabling homogenous services that span municipality borders.

Sustainability: Build product that opens up new business models to monetize transportation infrastructure.

Data and Privacy: Cities should earn their own data through the digital services they provide while also adhering to best practices for privacy standards

Open: Allow cities to guide a market for policy and technology using open-source values

Marcel.Porras@lacity.org



For more information on LADOT:

LADOT.io



February 27, 2019

GBFS is the Open Data standard
for ~~bikeshare~~ micro-mobility.

GBFS makes real-time data feeds in a uniform format
publicly available online, with an emphasis on findability.

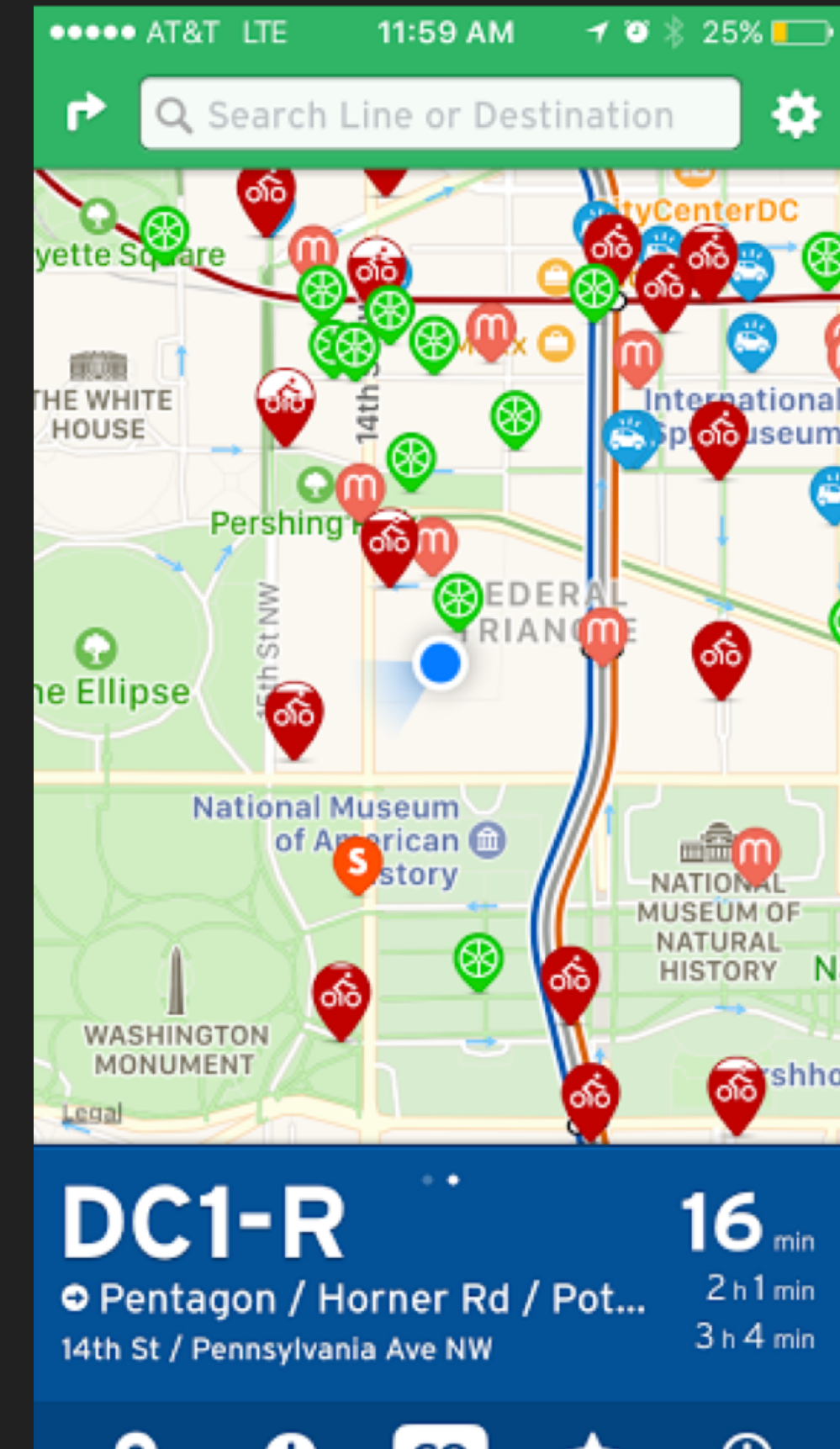
GBFS deals with operational data. It does not address historical usage
data or other personally identifiable information.

<https://github.com/NABSA/gbfs>

Open data is the idea that some data should be freely available to everyone to use and re-publish as they wish, without restrictions from copyright, patents or other mechanisms of control.^[1]



1. https://en.wikipedia.org/wiki/Open_data



All MDS compatible provider APIs must expose a public GBFS feed...^[2]

2. <https://github.com/CityOfLosAngeles/mobility-data-specification/tree/dev/provider#realtime-data>



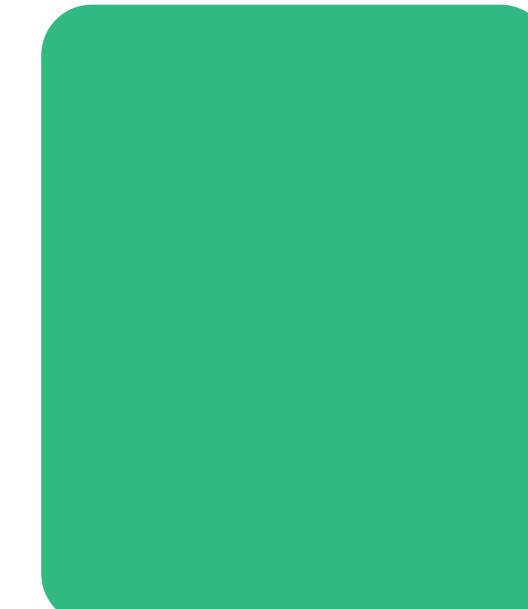
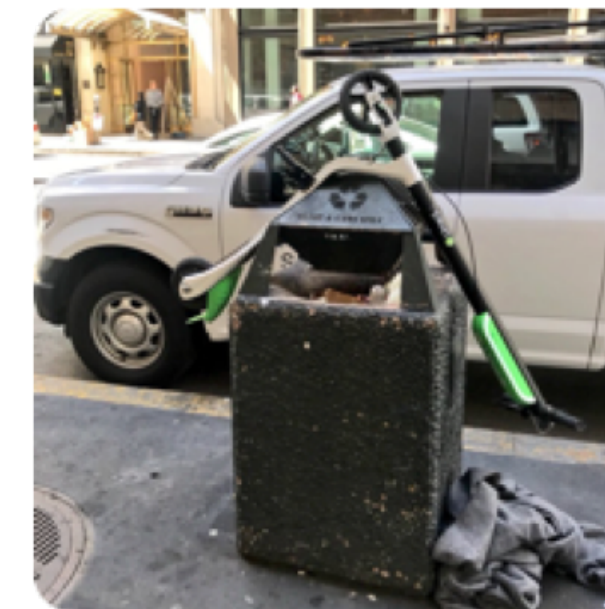
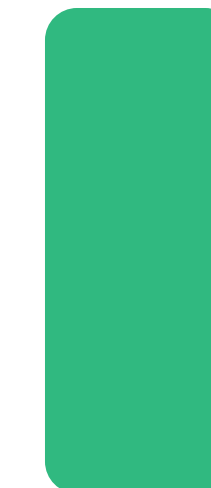
MDS and Emerging Dockless Data Standardization

Michael Schwartz

Director of Transportation Planning
2.27.2019

MDS brings order to dockless data (and other) chaos

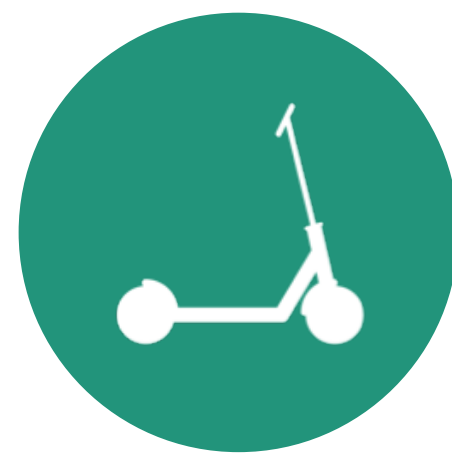
- Leadership and intent from cities
- Data sharing is happening: staff can do their jobs
- Standardizes method for data transmission



Harnessing the Power of MDS is Challenging



Lack of agreement on how to calculate even most basic metrics



How many vehicles were there today?



How many trips were made on my streets?



Where were vehicles deployed?

Next Step: Interoperable Metrics

Open source



Best practices

Transparent

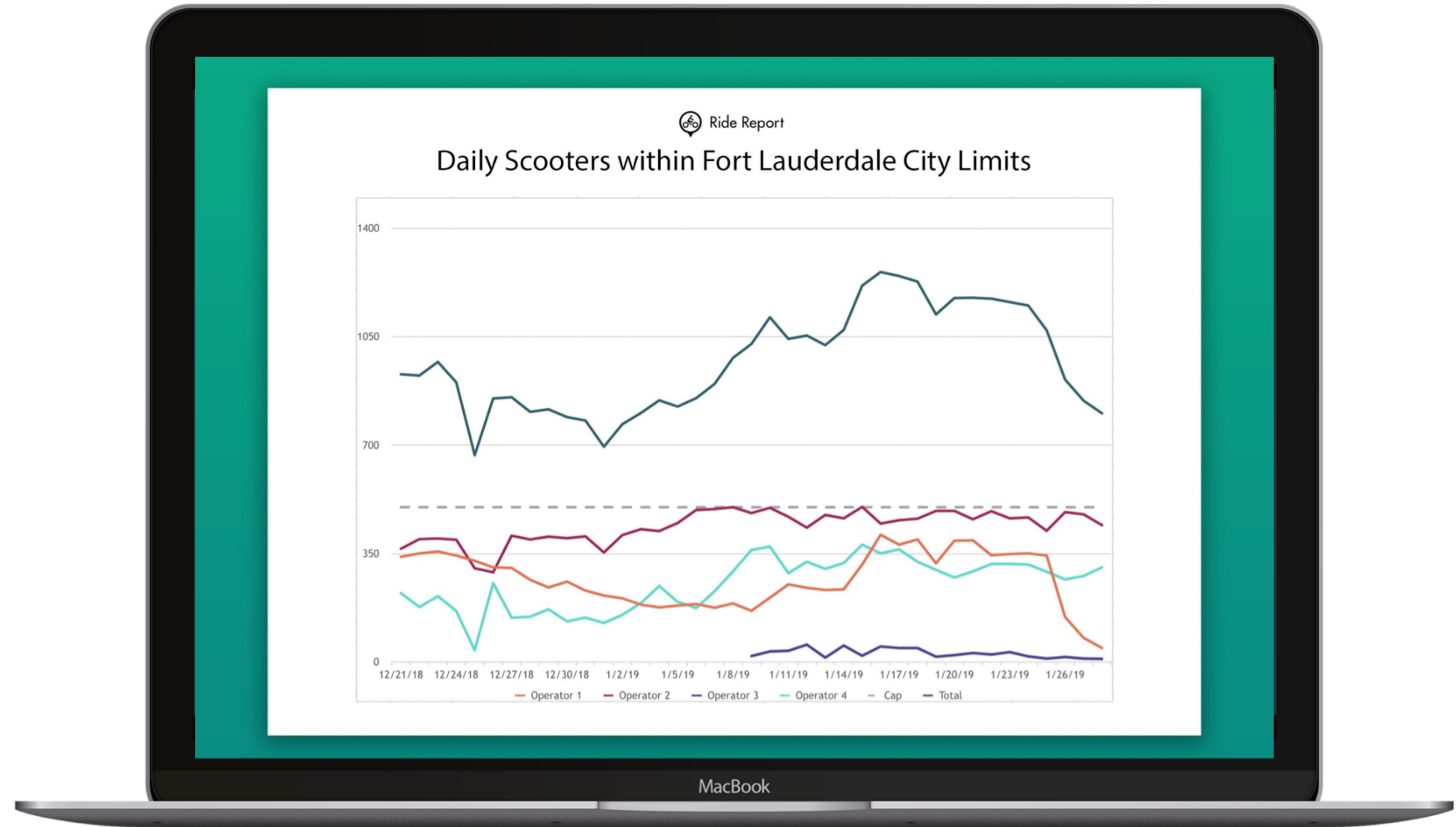


Fairness

Modular



No lock-in





Cities can start using MDS today

Thanks!

Michael Schwartz
Michael@ridereport.com

**Making sense of
Micromobility
with SharedStreets**



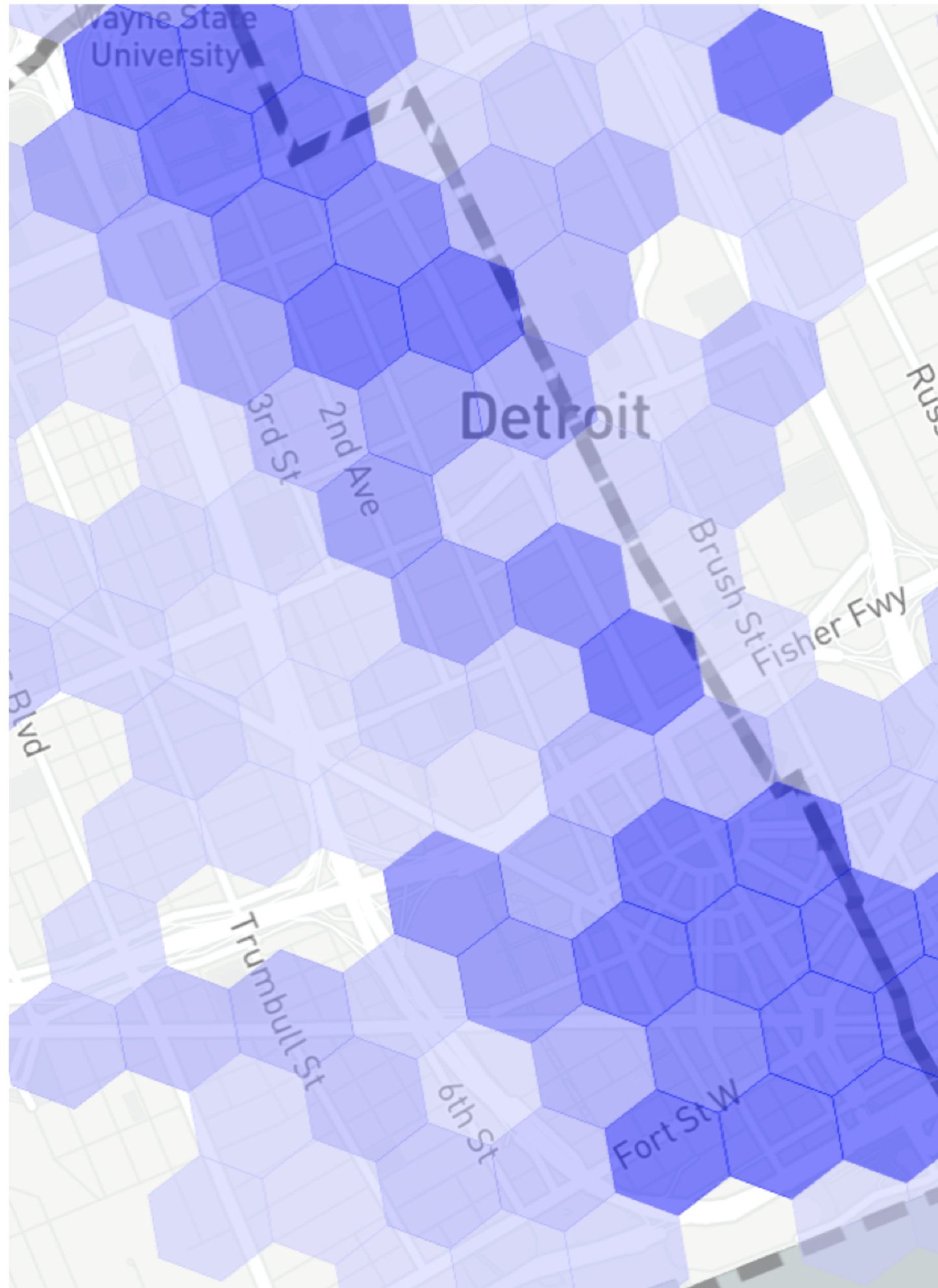
SharedStreets is creating city-led tools for transport data that **protect citizen privacy** and ensure transparent, reusable, **non-proprietary methods for analysis.**

For micromobility this includes:

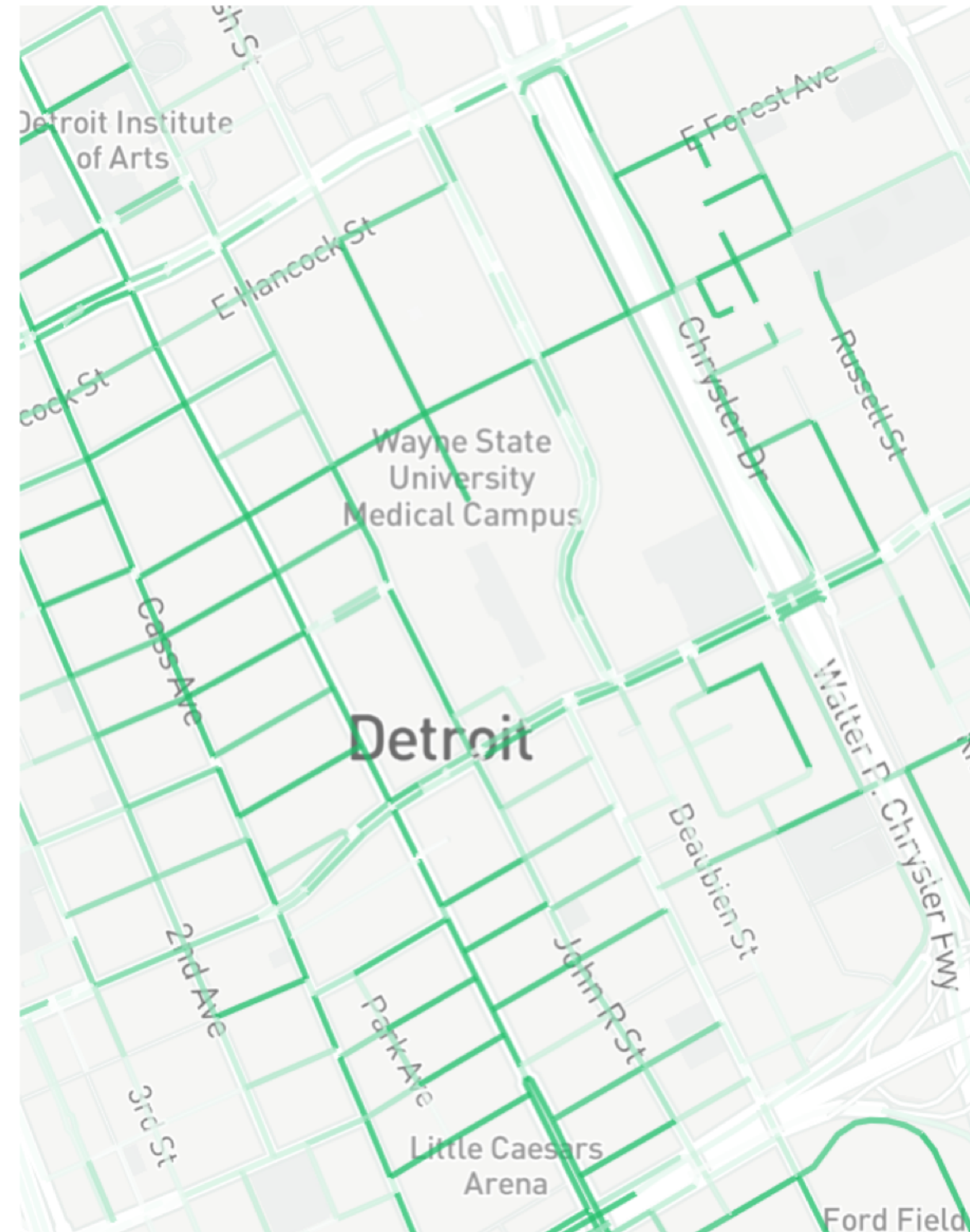
- Building on **MDS /provider** data standards.
- Working with cities, service operators, and analytics firms to collaborate on open source micromobility metrics
- Developing auditable transportation data streams while avoiding privacy-risks and surveillance in **MDS /agency**



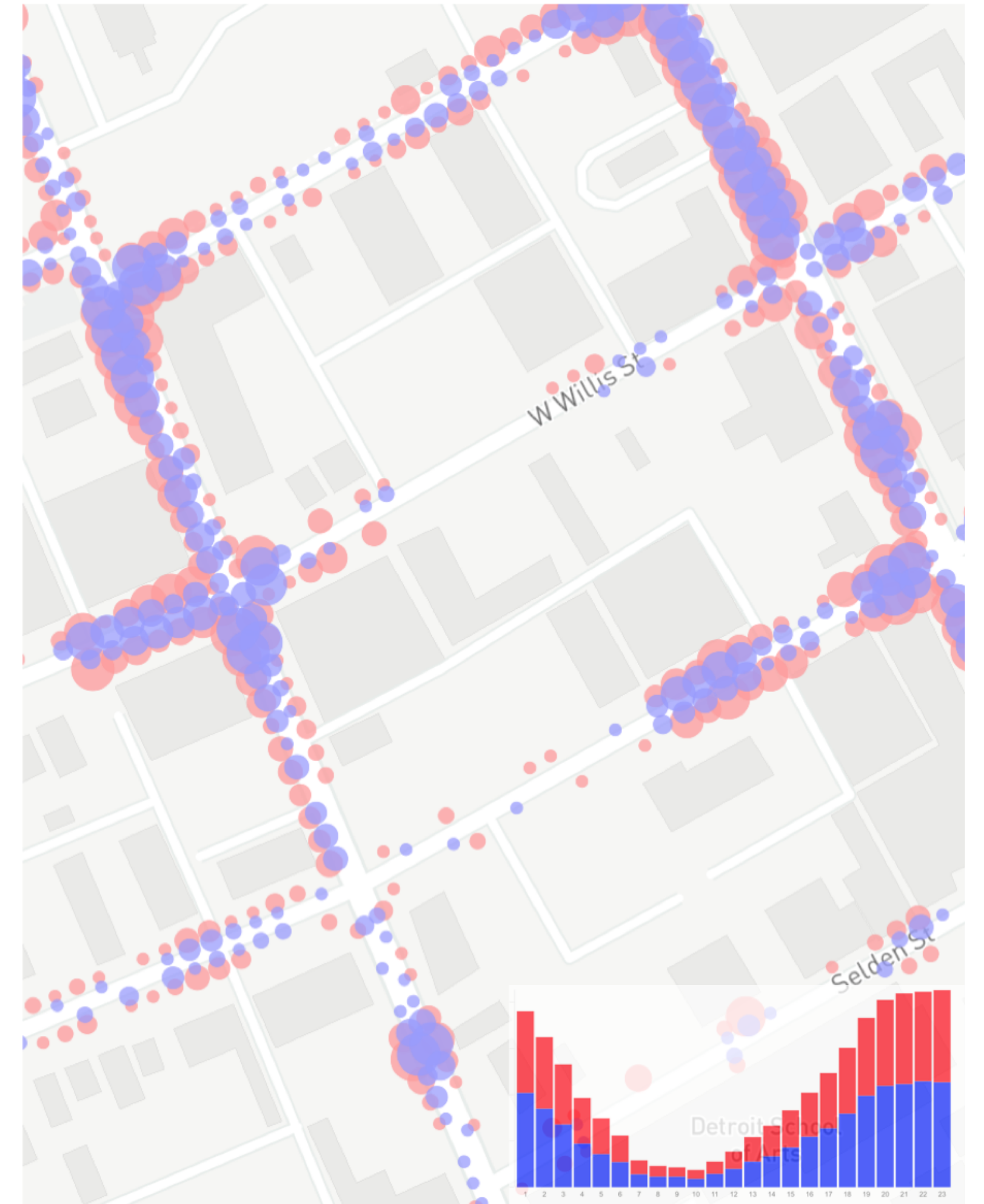
Same data, different analysis



Availability



Segment Volume/Flows



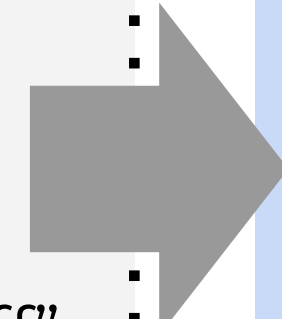
Trip
Origins/Destinations



SharedStreets + MDS Workflow

MDS /provider/status_changes

event stream

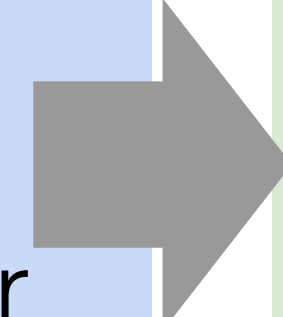


SharedStreets Processing Tools

- open source **analysis + aggregation** methods

- **encrypted storage** for *temporarily held* raw data

- plug-in architecture for metrics generation



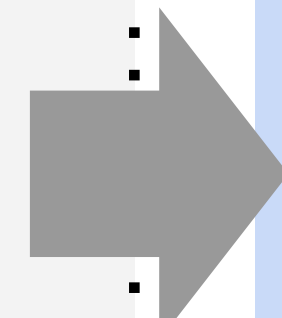
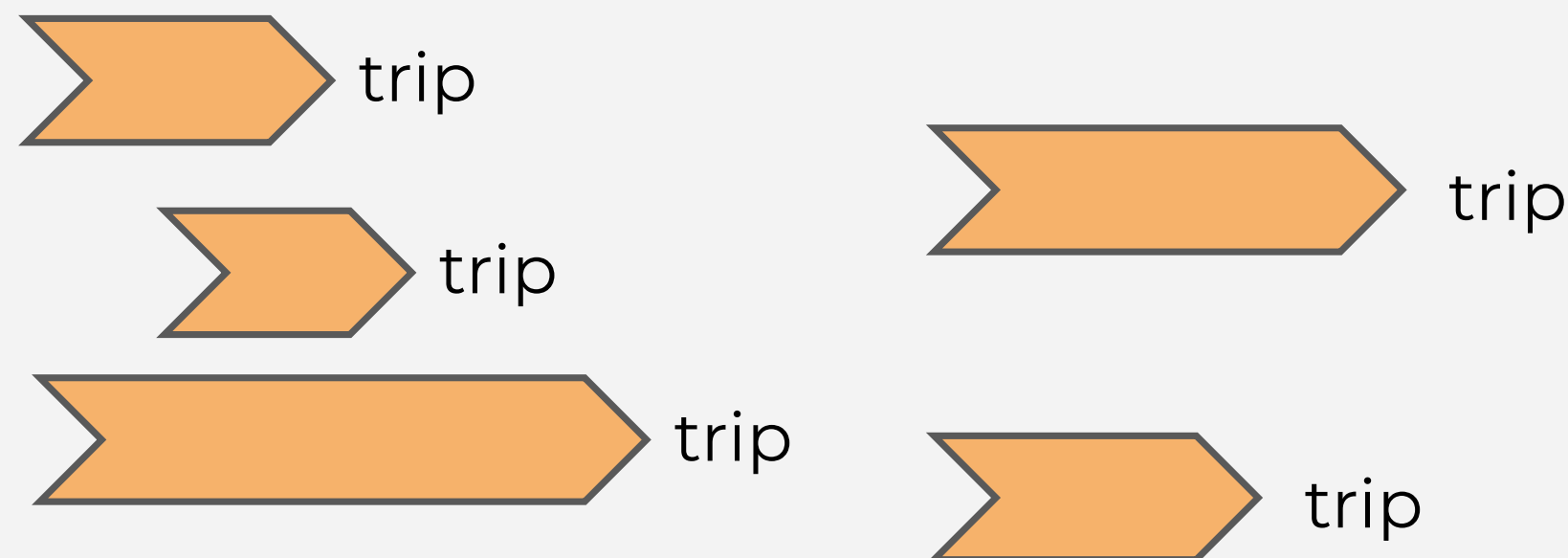
Metrics

Reusable tools for creating and querying city-defined, privacy-protecting metrics, and templates for common themes:

- Availability
- Utilization
- Route volumes
- Route deviation
- O/D flows

MDS /provider/trips

event stream





MDS & Emerging Dockless Data Standardization



Stefanie Brodie, PhD
District Department of Transportation
Research Program Specialist
February 27, 2019

Why are we asking for data?



- Evaluation
- Planning
- Enforcement
- Active management

What data are we asking for?

- Public API in GBFS
- Private API
- Anonymized trip data
- Parking incidents
- Safety incidents
- Maintenance and repairs

How should we be asking for it?

```
<a href="home-events.html">Home Events</a>  
<li class="multi-col-menu.html">Multiple Column Menu  
<li class="has-children"> <a href="#" class="current">Home  
<ul>  
<li><a href="tall-button-header.html">Tall Button Header</li>  
<li><a href="image-logo.html">Image Logo</li>  
<li class="active"><a href="tall-logo.html">Tall Logo</li>  
</ul>  
</li>  
<li class="has-children"> <a href="#">Carousels</a>  
<ul>  
<li><a href="variable-width-slider.html">Variable Width Slider</li>  
<li><a href="testimonial-slider.html">Testimonial Slider</li>  
<li><a href="featured-work-slider.html">Featured Work Slider</li>  
<li><a href="equal-column-slider.html">Equal Column Slider</li>  
<li><a href="video-slider.html">Video Slider</li>  
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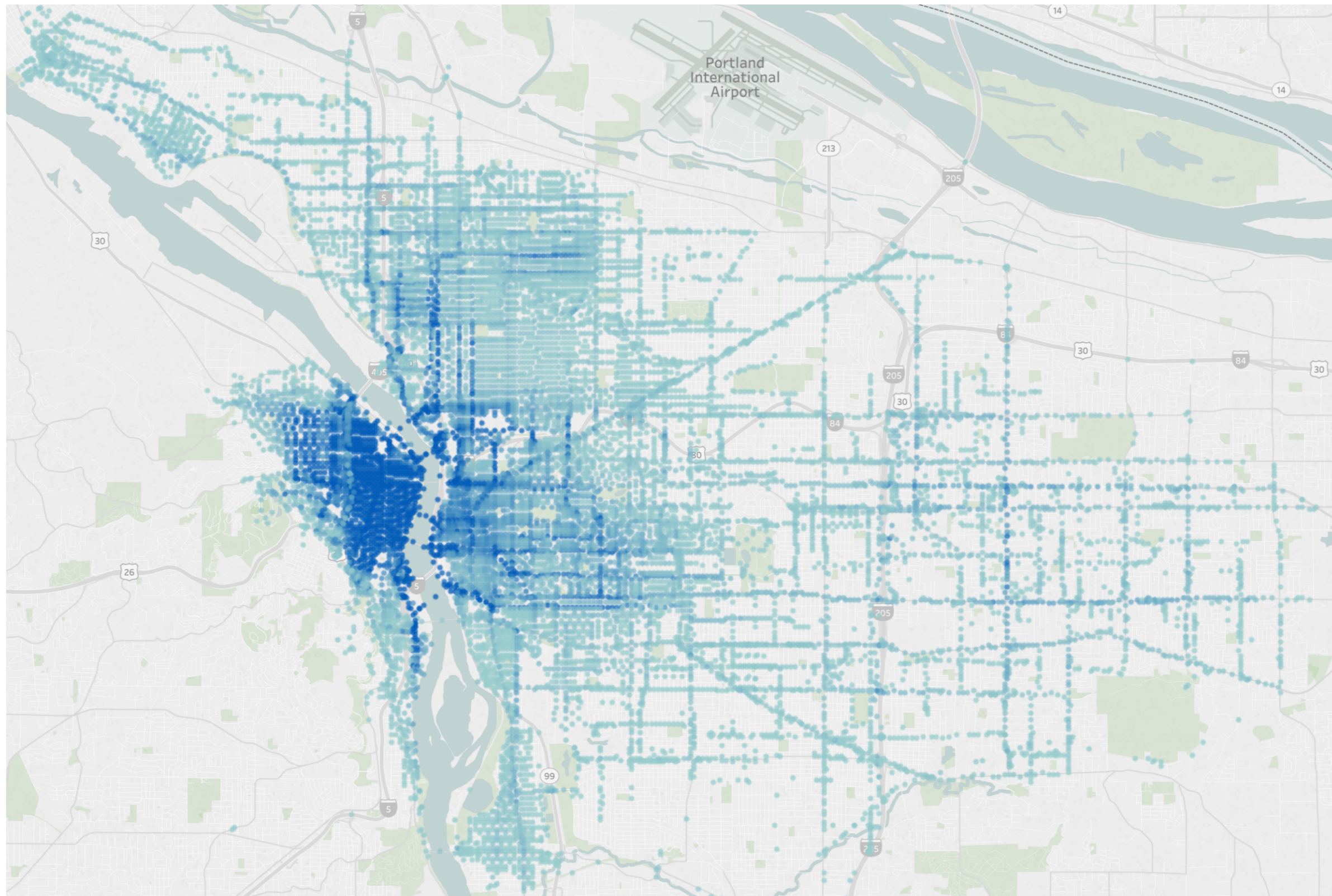

d.

District Department of Transportation

Stefanie Brodie, PhD
Research Program Specialist
stefanie.brodie@dc.gov

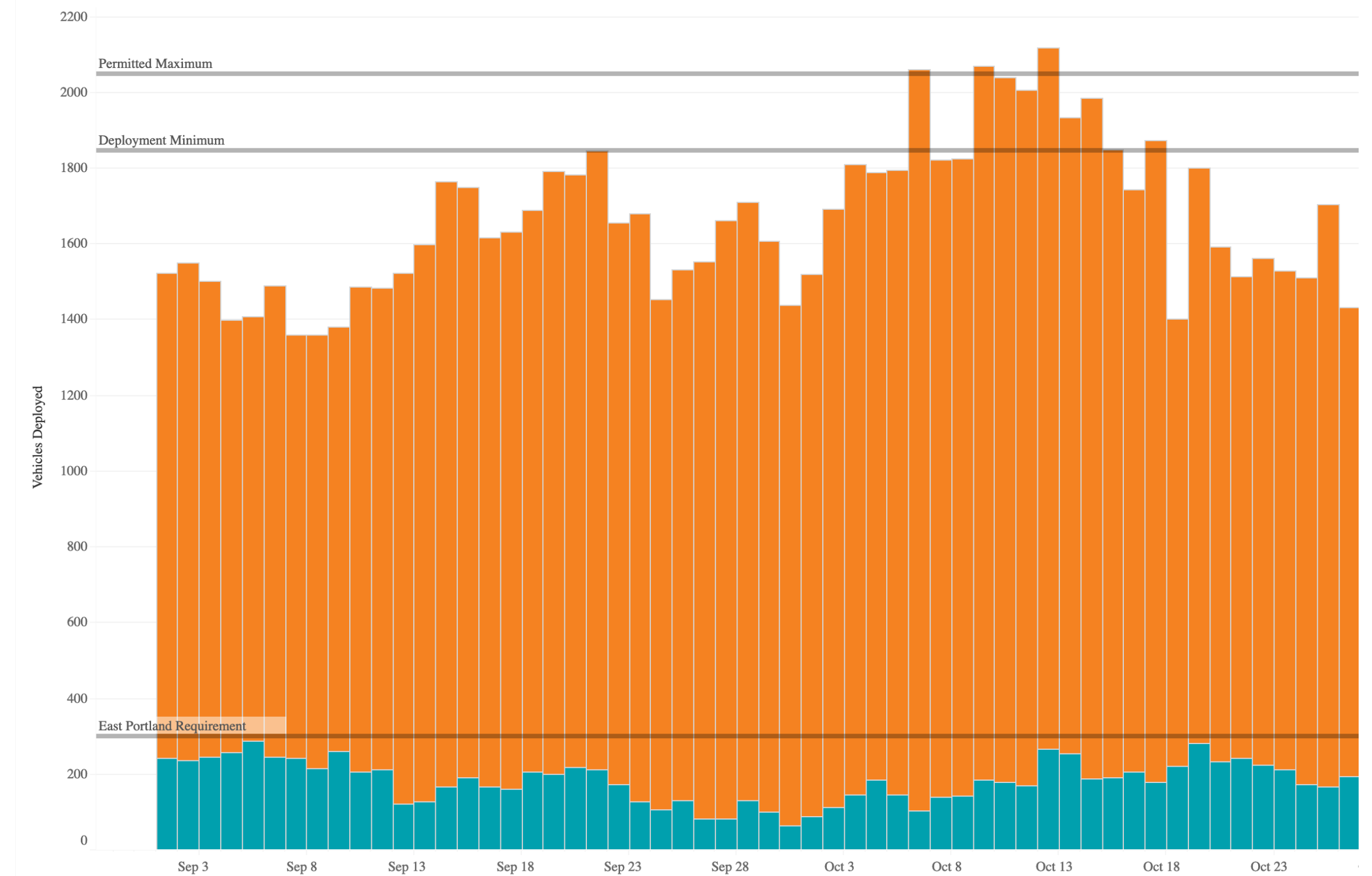
What we've done

Used old version of MDS to gather information from three operators over a period from July to November



700,000+ trips helped us document how we use our streets

Total Scooters Deployed Per Day



Easy access to data helped us routinely enforce compliance based on metrics

What we've learned

- Moving to historical data reporting presented challenges to everyone
 - Operators presented GBFS feeds as MDS APIs, and that caused problems
 - Most of my time was spent managing the repercussions of this disconnect
- Processing, storing, and analyzing historical datasets comes at a price
 - Need data visualization tools and capable staff with time to produce
 - Defining metrics is hard work
 - Most of my colleague Aubrey's time was spent iterating in this area
- How very capable we already are

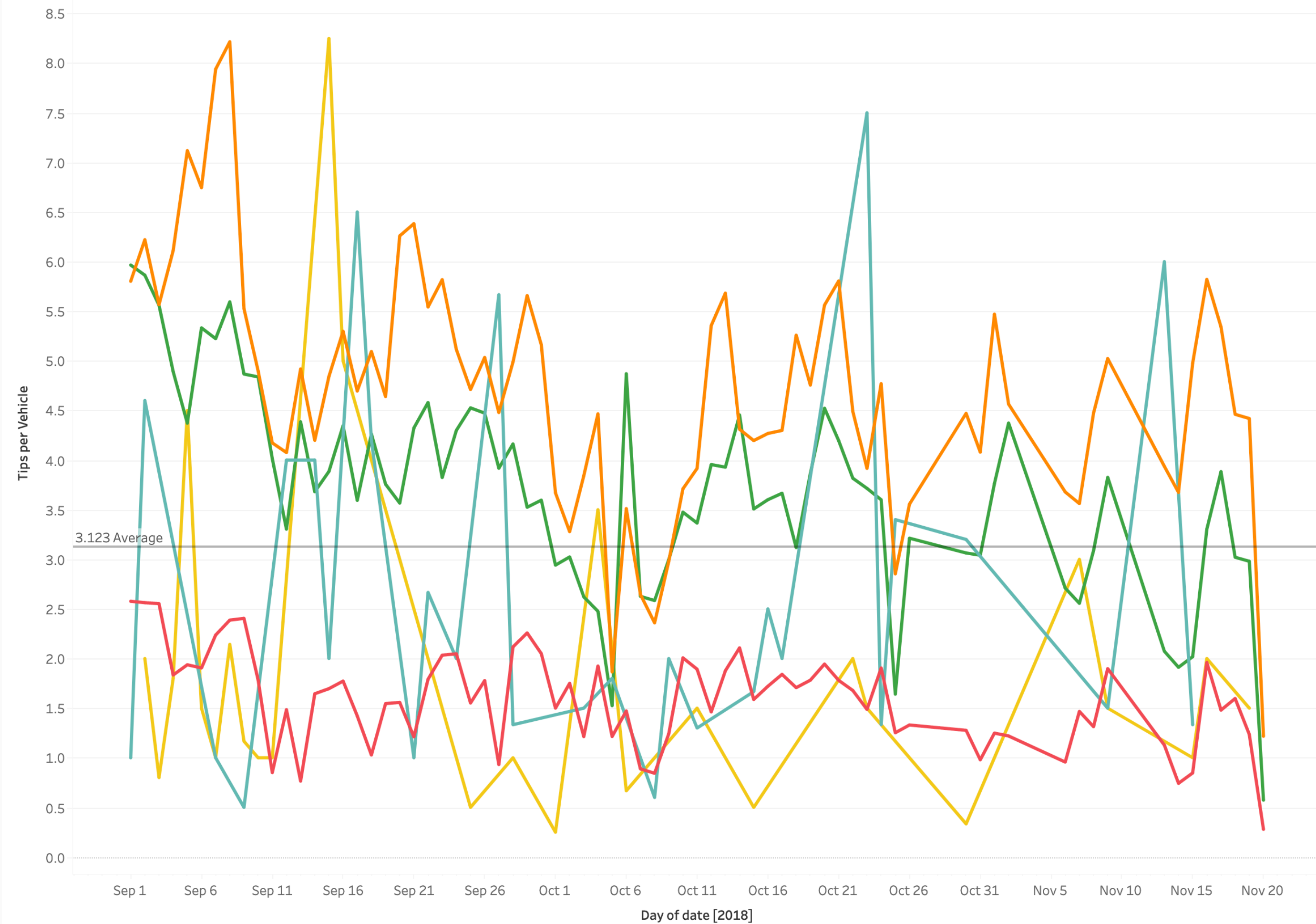
Trip Deployment Relationship



Where we're going

- Becoming more dynamic and data-driven
 - We can require compliance with requirements that are dynamic
 - We can accurately use metrics to create dynamic permits
- Upgrading our capacity for managing, exploring, and analyzing datasets at a large scale
 - From on-premise to the cloud
 - Creating toolsets for sharing knowledge throughout our city
- Contributing to the MDS ecosystem

AVG Trips per Vehicle by Day & Area



Save the Date: NABSA Conference, September 30–October 2

INDY



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THE FUTURE IS SHARED

NABSA Member Employee Benefits

As an employee of a NABSA member organization, you receive benefits and resources!

Get access by doing the following:

- 1) **Sign up for a Knowledge Share database account** at <https://nabsa.net/sign-in-sign-up/> for unlimited access to hundreds of resources and members-only webinars.
- 2) **Sign up for the NABSA newsletter** and important announcements by subscribing on the homepage at nabsa.net.
- 3) **Participate in the NABSA members-only email listserv.** If you are not yet on the list, email executivedirector@nabsa.net to be added.

Interested in getting more involved in NABSA?

- 1) **Submit resources to be added to the Knowledge Share database.**
- 2) **Consider running for a seat on the NABSA board in an upcoming election.** More information about the NABSA board positions and elections is disseminated through the members-only listserv.

Questions? Contact executivedirector@nabsa.net

NABSA.NET



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SHARE THE LOVE

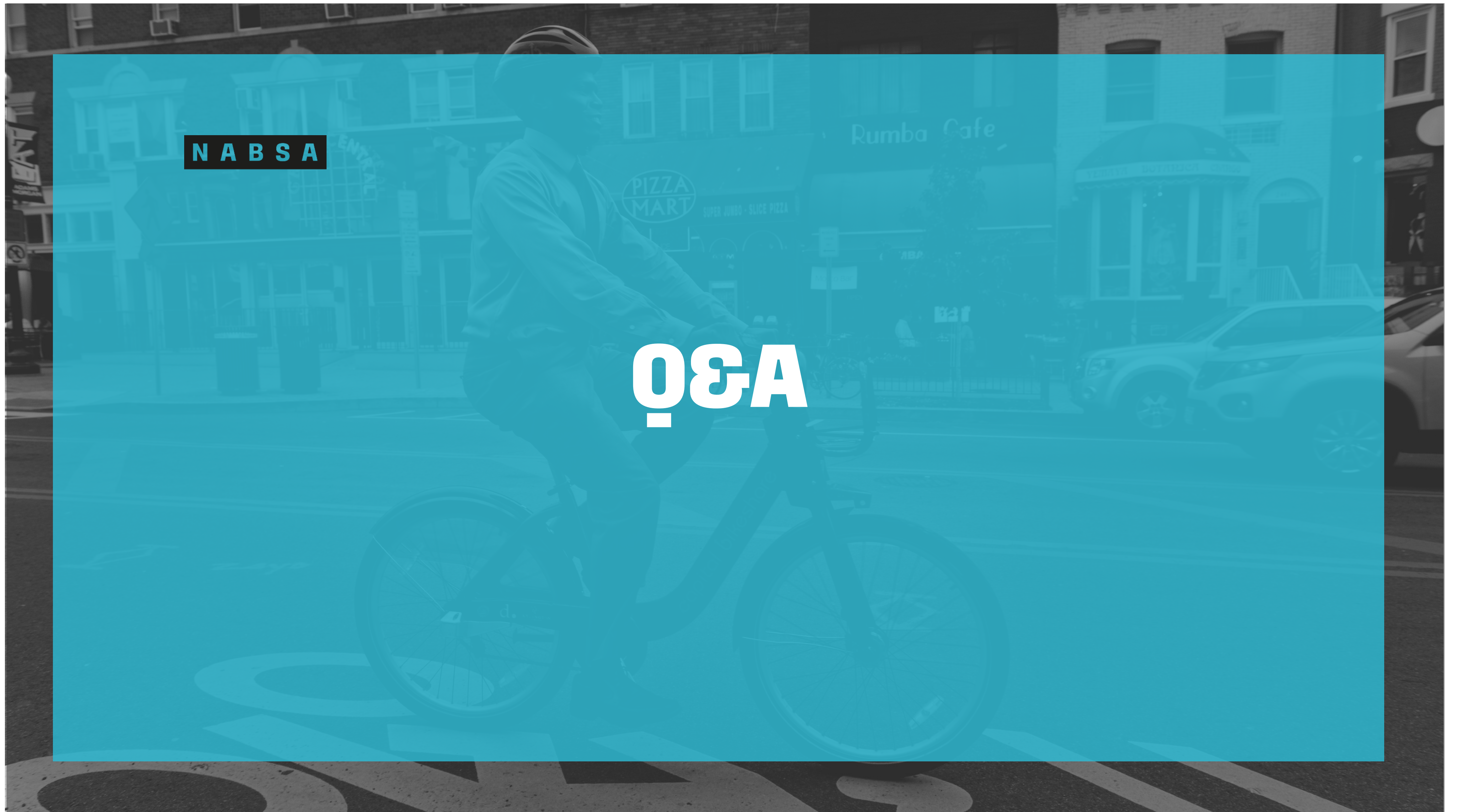
Please share with others about the work that we do and encourage your partners and stakeholders to become NABSA members.

Find out more @ <http://nabsa.net/membership/>

Register for membership @ <http://nabsa.net/membership/join/>

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Q&A



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CONNECT WITH NABSA

nabsa.net

executivedirector@nabsa.net

@go_nabsa