

A woman wearing a black helmet and sunglasses is riding a green Lime bicycle on a paved city street. The bicycle has a large green front basket. A drone is flying in the air to the left of the woman. The background shows modern buildings and lush green trees. The text is overlaid on the center of the image.

LESSONS FROM LIME DATA:

How Cities Can Use Shared Micromobility Data for Transportation Planning and Policy

Wednesday, September 25th @ 2PM ET
bikeleague.org/webinars



Housekeeping

- The webinar is being recorded and will be posted at:
 - [@BikeLeague](https://www.youtube.com/bikeleague)
 - bikeleague.org/webinars
 - bikeleague.org/lime
- Closed captions are available
 - You can hide or show closed captions from the Zoom menu on your screen: click **“Show Captions”** / **“Hide Captions”**
- Feel free to type your questions into the Q&A at any time!



Speakers:



Calvin Thigpen
Director of Policy
Research



Ted Randell
DDOT
Micromobility
Coordinator



Hank Duncan
Bicycle and
Pedestrian
Coordinator



Renée Moore
Special Assistant,
Vision Zero office



Andrea de la Rosa
Assistant Director
for Small Business
Development

Hosted and moderated by:



Amelia Neptune
Bicycle Friendly America Program Director
League of American Bicyclists





ABOUT THE LEAGUE



Since 1880... our mission is to lead the movement to create a Bicycle Friendly America for everyone.

THE LEAGUE » BICYCLE FRIENDLY AMERICA



BICYCLE FRIENDLY STATE



BICYCLE FRIENDLY COMMUNITY



BICYCLE FRIENDLY BUSINESS



BICYCLE FRIENDLY UNIVERSITY





BICYCLE FRIENDLY COMMUNITY



Baltimore, MD



Bicycle Friendly Communities BY STATE

See the full list at bikeleague.org/community

bikeleague.org/community

Bicycle Friendly Community: Recognition & Feedback



BICYCLE FRIENDLY COMMUNITY REPORT CARD

Fayetteville, AR

Award: Gold | Fall 2022
Award History:
Previously Silver 2016-2022, Bronze 2010-2016, Honorable Mention 2008

Fayetteville's BFA Program Stats
 # of Local Bicycle Friendly Businesses: 38
 # of Local Bicycle Friendly Universities: 1
 # of Local League Cycling Instructors: 3
 Arkansas's Bicycle Friendly State Ranking: **#39**

The 5 Es Category Scores	Fayetteville	Max Score this round
Engineering	59%	62%
Education	58%	60%
Encouragement	61%	61%
Evaluation & Planning	64%	64%
Equity & Accessibility	45%	57%

Percentages shown above are the points received out of points available in that category. See page 23 for Fayetteville's satisfactory points earned within each category.

Key Outcomes

Commuter Ridership: 1.2%
(Bicycle Mode Share among commuters, according to the Census Bureau's American Community Survey 5-Year Estimates)

Overall Bicycle Mode Share: 2%
(Reported by applicant)

Annual Average Bicycleist Crashes in last 5 years: 25
(Reported by applicant)

Annual Average Bicycleist Fatalities in last 5 years: 0
(Reported by applicant)

Community Profile
 Population: 95,230
 Area: 54.42 square miles
 Population Density: 1750 people/square mile
 Land Classification:
 Mixed Suburban/Urban/Rural
 Poverty Rate: 22.3%*
 Median Household Income: \$47,350*
 Percent of the Population that Speaks a Language Other Than English at Home: 8.4%*
 Percent with Disability: 8.9%*
 Percent of Households with No Vehicle Available: 3.3%*

*Source: <https://data.census.gov/cedsci/all?q=fayetteville%20city%20arkansas>

Fayetteville's Bike Links

Bike Network Map, if available:
<https://maps.fayetteville-ar.gov/viewer/index.html?web-map=6a540a6a832d4b72915574cc342d2d5d>

Bike Plan, if available:
https://drive.google.com/file/d/1tutyGrlIG7LNjAw-zT_8MP2fXp0o0z/view

Fall 2022 BFC Public Survey Response Summary for Fayetteville, AR

How satisfied are you with how this community is designed for making bike riding safe? (n = 110)

Very Satisfied (57.3%)	Somewhat Dissatisfied (7.3%)
Somewhat Satisfied (31.8%)	Very Dissatisfied (1.8%)
Neither Satisfied nor Dissatisfied (1.8%)	

Is it safe or dangerous to ride a bicycle in your neighborhood, or does it depend? (n = 109)

Safe (58.7%)	Dangerous (6.4%)
It Depends (34.9%)	

What is the number one change you would most like to see the local government make in this community for bicyclists? (n = 109)

- More bike paths (21.52%)
- Improve existing bike lanes to protected bike lanes (14.68%)
- Increase education for drivers (11.01%)

Page 1 of 5

BICYCLE FRIENDLY COMMUNITY REPORT CARD

Jersey City, NJ

Status: Honorable Mention | Fall 2022
BFC Application History: First-time applicant.

Jersey City's BFA Program Stats
 # of Local Bicycle Friendly Businesses: 0
 # of Local Bicycle Friendly Universities: 0
 # of Local League Cycling Instructors: 1
 New Jersey's Bicycle Friendly State Ranking: **#16**

Community Profile

Population: 252,409
 Area: 14.24 square miles
 Population Density: 19840.5 people/square mile
 Land Classification: Urban
 Poverty Rate: 15.7%*
 Median Household Income: \$76,444*
 Percent of the Population that Speaks a Language Other Than English at Home: 52.6%*
 Percent with Disability: 8.8%*
 Percent of Households with No Vehicle Available: 37.8%*

*Source: <https://data.census.gov/cedsci/all?q=jersey%20city%20new%20jersey>

The 5 Es Category Scores	Jersey City	Max Score this round
Engineering	40%	65%
Education	38%	60%
Encouragement	36%	61%
Evaluation & Planning	38%	64%
Equity & Accessibility	27%	57%

Percentages shown above are the points received out of points available in that category. See page 23 for Jersey City's satisfactory points earned within each category.

Key Outcomes

Commuter Ridership: 0.8%
(Bicycle Mode Share among commuters, according to the Census Bureau's American Community Survey 5-Year Estimates)

Overall Bicycle Mode Share: Unknown
(Reported by applicant)

Annual Average Bicycleist Crashes in last 5 years: 16
(Reported by applicant)

Annual Average Bicycleist Fatalities in last 5 years: 0/6
(Reported by applicant)

Jersey City's Bike Links

Bike Network Map, if available:
<https://maps.fayetteville-ar.gov/viewer/index.html?web-map=6a540a6a832d4b72915574cc342d2d5d>

Bike Plan, if available:
https://drive.google.com/file/d/1tutyGrlIG7LNjAw-zT_8MP2fXp0o0z/view

Fall 2022 BFC Public Survey Response Summary for Jersey City, NJ

How satisfied are you with how this community is designed for making bike riding safe? (n = 222)

Very Satisfied (7.6%)	Somewhat Dissatisfied (25.6%)
Somewhat Satisfied (23.6%)	Very Dissatisfied (33.2%)
Neither Satisfied nor Dissatisfied (6.7%)	

Is it safe or dangerous to ride a bicycle in your neighborhood, or does it depend? (n = 222)

Safe (39.7%)	Dangerous (44.5%)
It Depends (145.5%)	

What is the number one change you would most like to see the local government make in this community for bicyclists? (n = 222)

- Increase police enforcement of traffic laws for drivers (22.52%)
- More bike lanes (19.37%)
- Improve existing bike lanes to protected bike lanes (17.24%)

Page 1 of 5

The Importance of Data...



BENCHMARKING REPORT
THE LEAGUE
OF AMERICAN BICYCLISTS
since 1880

BIKELEAGUE.ORG

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BENCHMARKING REPORT

Bicycling and Walking in The United States

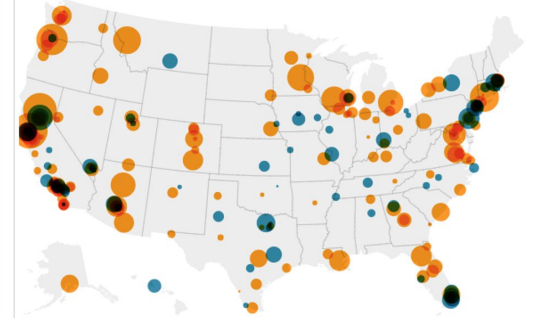
The League's Data Hub provides ongoing and updated data on bicycling and walking in the United States.

On this website, we invite you to explore data on bicycling and walking and use that data to support your efforts to improve bicycling and walking. Whether your interest is related to safety, commuting, public health, or policy we have data that can provide context and comparisons for your community.

Changes in Bike Commuting

This map shows the differences between rates of biking to work in census designated places that have a 2022 1-year estimate for bike commuting. For instance, Philadelphia's rate of biking to work went from 2.1% of commuters to 2.3% percent - for a difference of .2 percentage points.

■ Negative ■ No Change ■ Positive



This map compares rates of biking to work from the 2019 5-year estimate and 2022 1-year estimate from the American Community Survey, based on the B08006 table.

Map: The League of American Bicyclists • Source: Census Bureau • [Get the data](#) • [Download image](#) • Created with [Datawrapper](#)

data.bikeleague.org



Overarching Goals of the Mobility Insights Competition

“Lime and the League of American Bicyclists are partnering to host the 2024 Mobility Insights Competition, with the goal of assisting two cities to **leverage Lime's extensive data to address transportation challenges and enhance safety for all road users.**”

1. Address **micromobility-specific considerations** (e.g. parking)
2. Showcase how micromobility data can be leveraged for **broader questions** (e.g. fine-grained analysis of effect of bike lane investments)
3. Use insights in **planning and policy documents, grant applications**, etc.

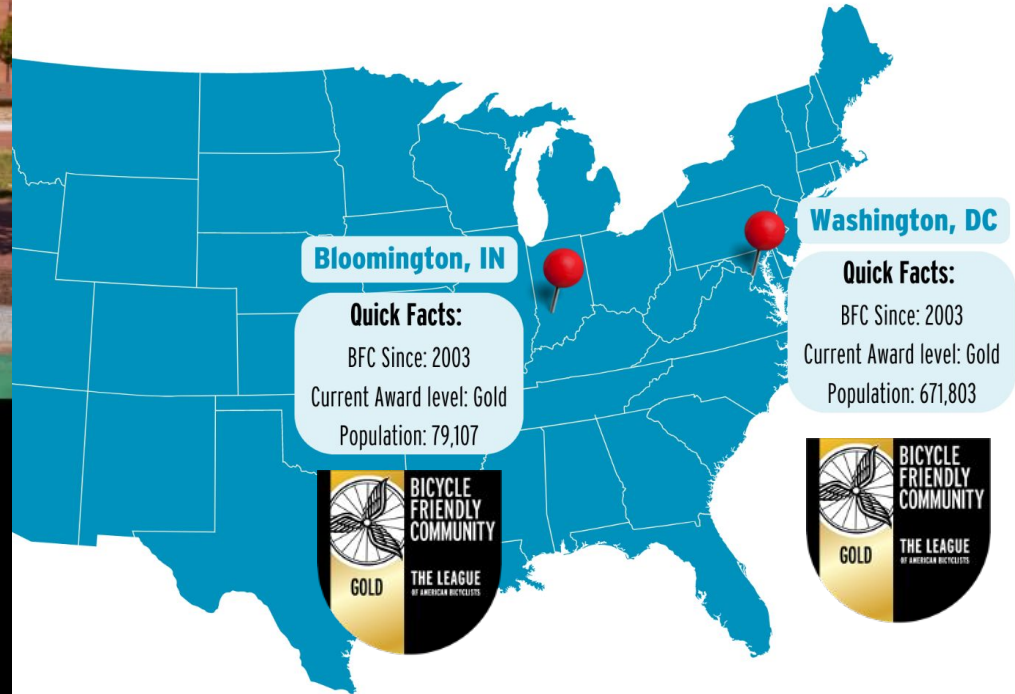


2024 Mobility Insights Competition



**CONGRATULATIONS TO THE
2024 LIME MOBILITY INSIGHTS
COMPETITION WINNERS!**

**WASHINGTON, D.C. AND
BLOOMINGTON, IN**



Bloomington, IN

Quick Facts:

BFC Since: 2003

Current Award level: Gold

Population: 79,107



Washington, DC

Quick Facts:

BFC Since: 2003

Current Award level: Gold

Population: 671,803



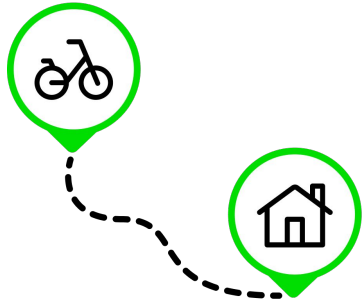


Lime

Since 2017, we've helped riders...



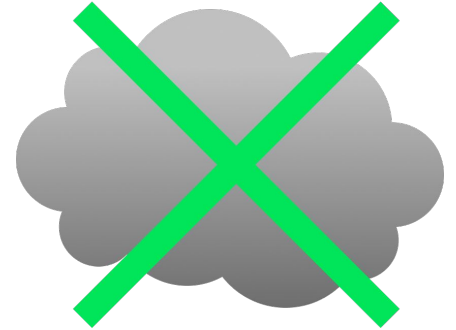
Take more than
700,000,000 rides



Travel more than
815,000,000 miles



Replace an estimated
165,000,000 car trips



Prevent more than
60,000,000 kilograms
of carbon emissions



Report Topics and Research Questions

Bike lanes:

- Do shared micromobility riders show a preference for bike facilities? Where are more bike facilities needed?

Parking:

- Do parking investments influence parking behavior? Where should additional parking be allocated?

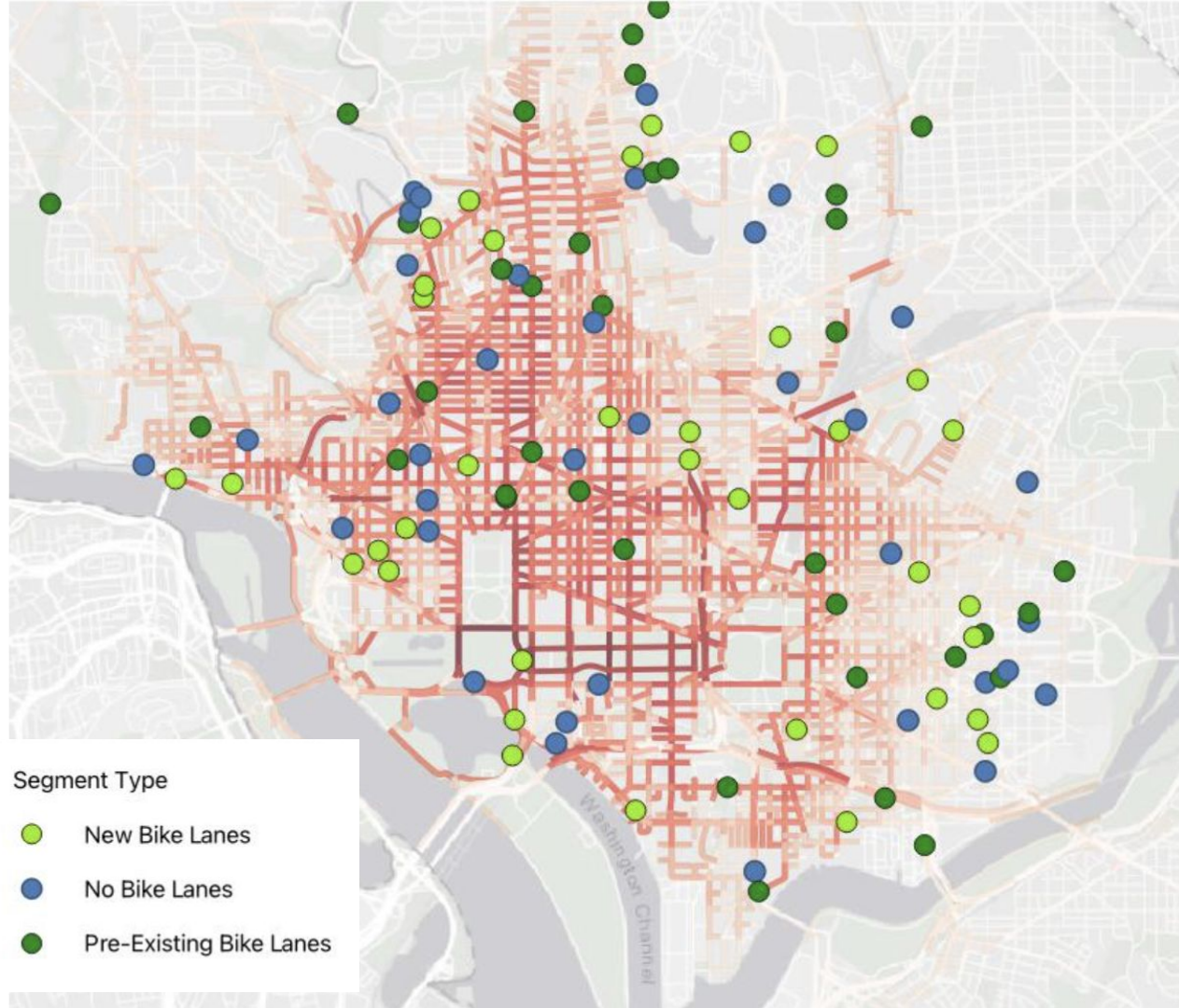
Safety:

- How are safety outcomes evolving over time? Are we seeing improvements related to bike facility investments?



Methods

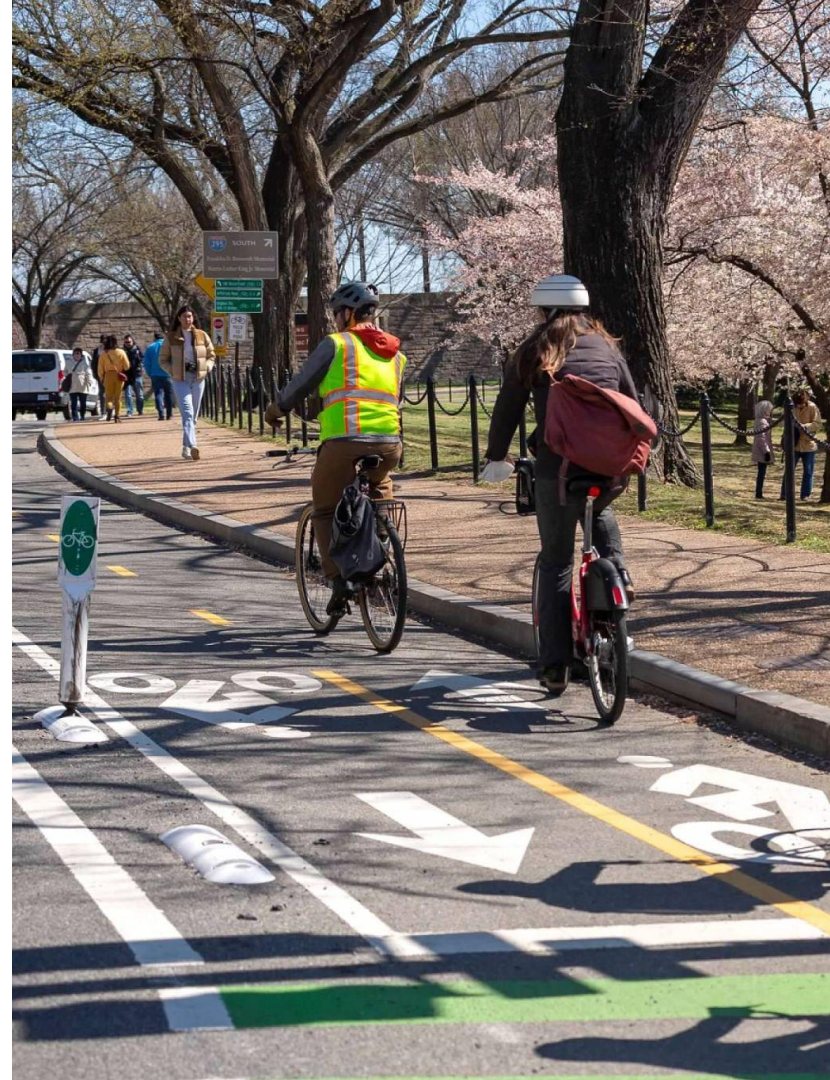
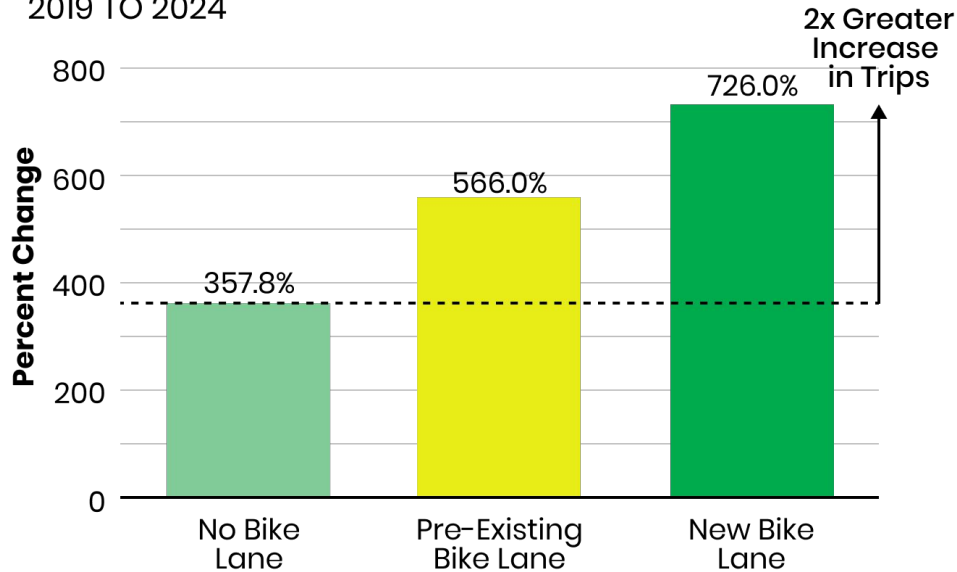
- Add up trips taken on every street
- Identify whether the street has a bike lane and when it was installed
- Analyze changes in trip volumes over time



Benefits of Building Bike Facilities in Washington, DC

PERCENT CHANGE IN AVERAGE SUMMER TRIPS IN WASHINGTON DC

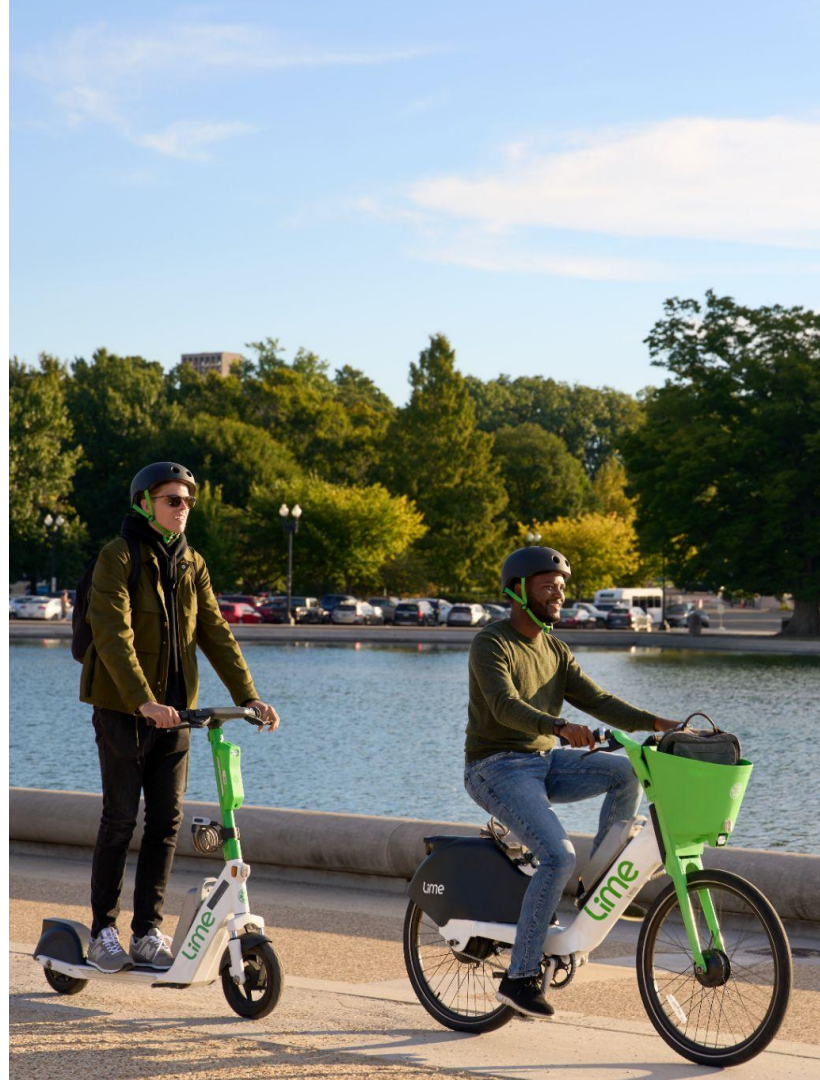
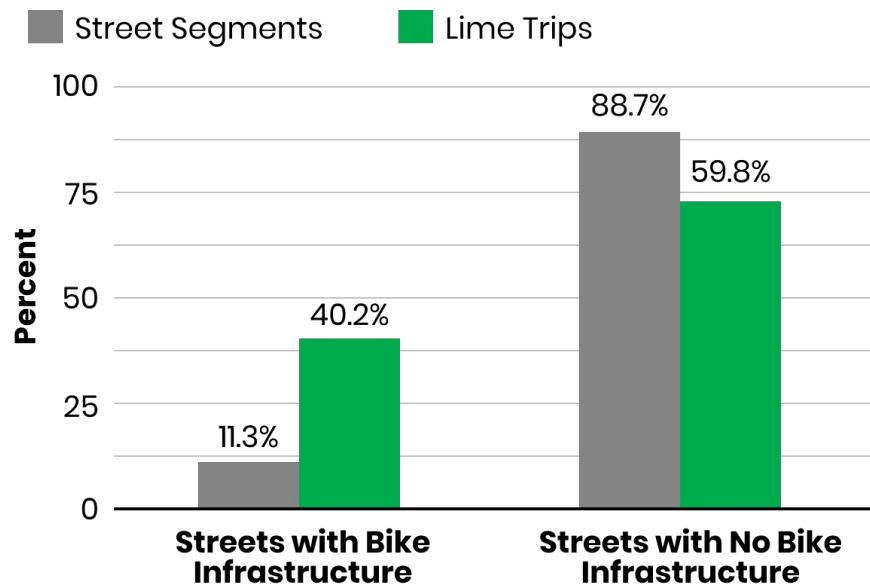
2019 TO 2024



Benefits of Building Bike Facilities in Washington, DC

BIKE INFRASTRUCTURE AND LIME VEHICLE USAGE

Summer 2024



Benefits of Building Bike Facilities in Bloomington, IN

PERCENT CHANGE IN AVERAGE SUMMER TRIPS IN BLOOMINGTON, INDIANA
2020 TO 2024

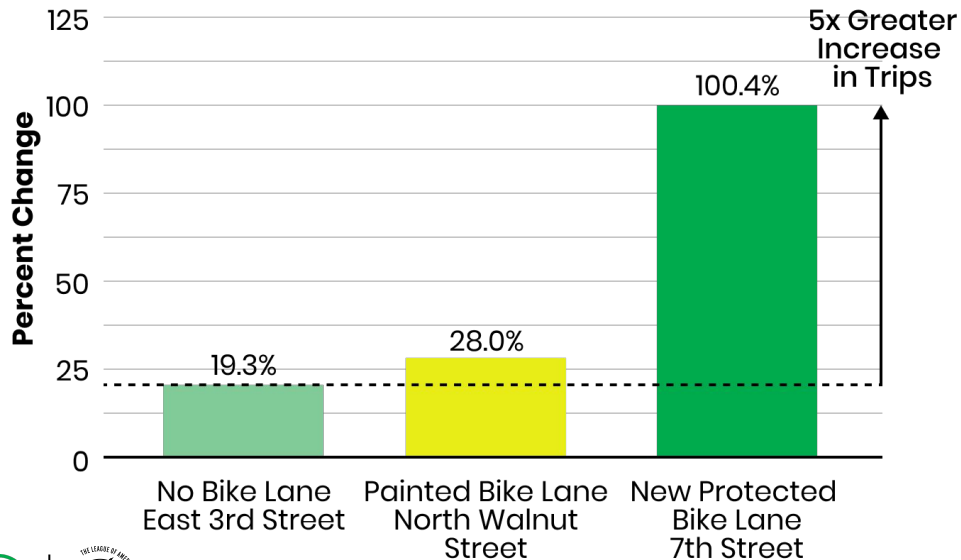


Photo credit:
Hank Duncan

Benefits of Building Bike Facilities in Bloomington, IN

BIKE INFRASTRUCTURE AND LIME VEHICLE USAGE Summer 2024

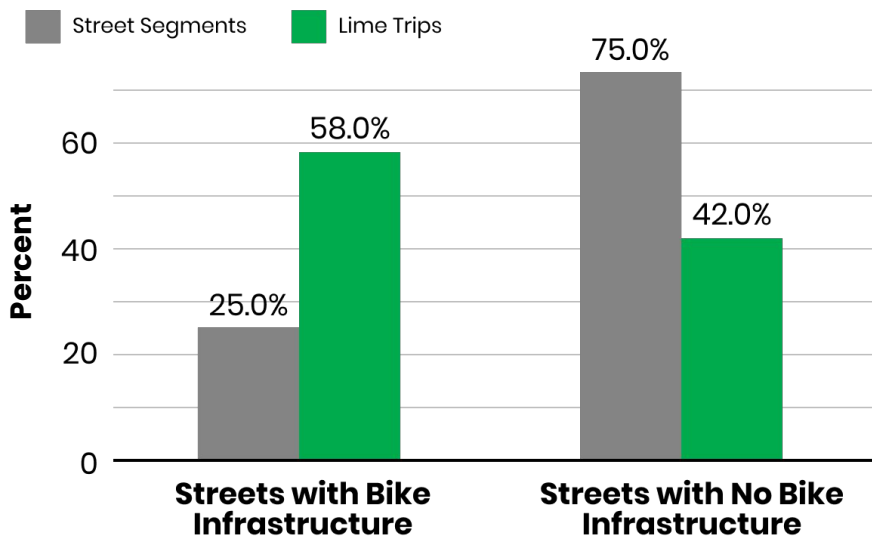


Photo credit:
Hank Duncan

Takeaways

Preferences for bike infrastructure are universal

Build it and they will come

Bike lanes...

- Increase rider safety ¹
- Help cities meet mode shift goals
 - **Washington, DC:** reduce GHGs by 50% below 2006 levels by 2032
 - **Bloomington, Indiana:** reduce community GHGs by 25% below 2018 levels by 2030 and achieve carbon neutrality by 2050
- Reduce sidewalk riding ²



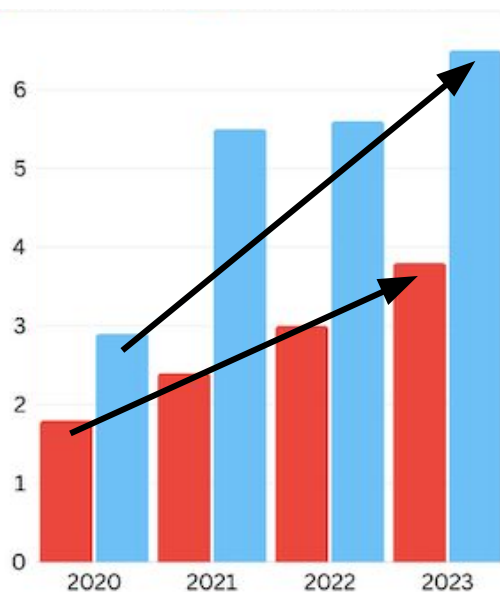
¹ [Marshall & Ferenchak, 2019. "Why cities with high bicycling rates are safer for all road users"](#)

² [Cicchino, Chaudhary, & Solomon, 2023. "How Are E-Scooter Speed-Limiter Settings Associated with User Behavior? Observed Speeds and Road, Sidewalk, and Bike Lane Use in Austin, TX, and Washington, D.C."](#)

It takes a village...

SYSTEM-WIDE ANNUAL TRIPS (MILLIONS)

Capital Bikeshare Shared Fleet Devices



Since 2019:

- 41 miles of new bike lanes
- 3,000+ new bike racks installed
- 400% increase in shared scooter and bicycle fleet

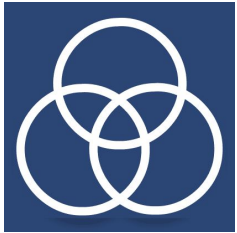


Lime Data & Expertise for Planning and Policymaking

Data

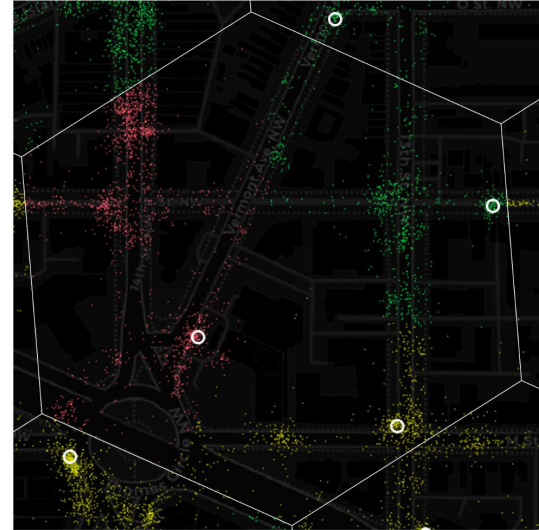


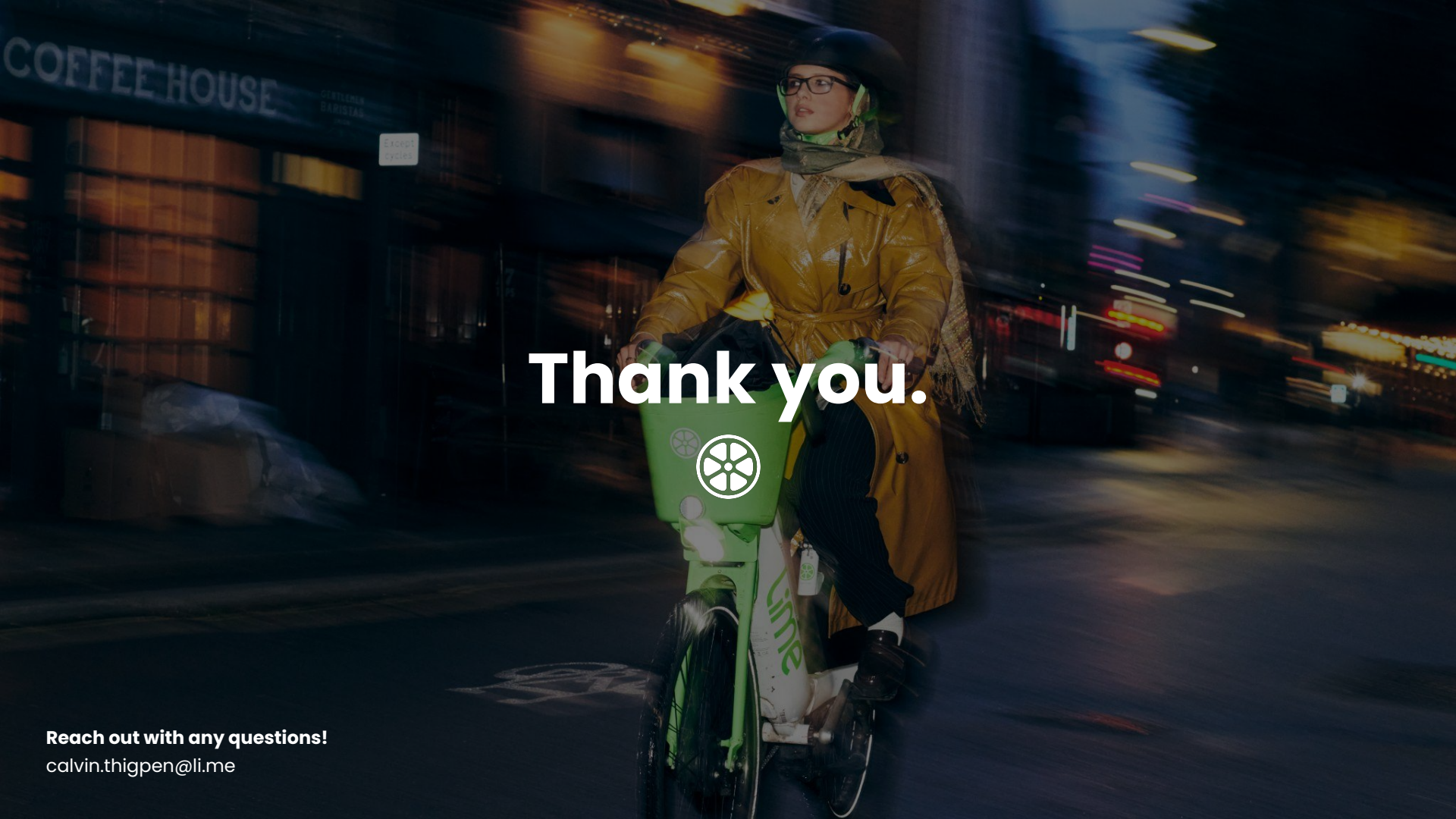
MOBILITY
DATA
SPECIFICATION



General Bikeshare
Feed Specification

Analytics





Thank you.

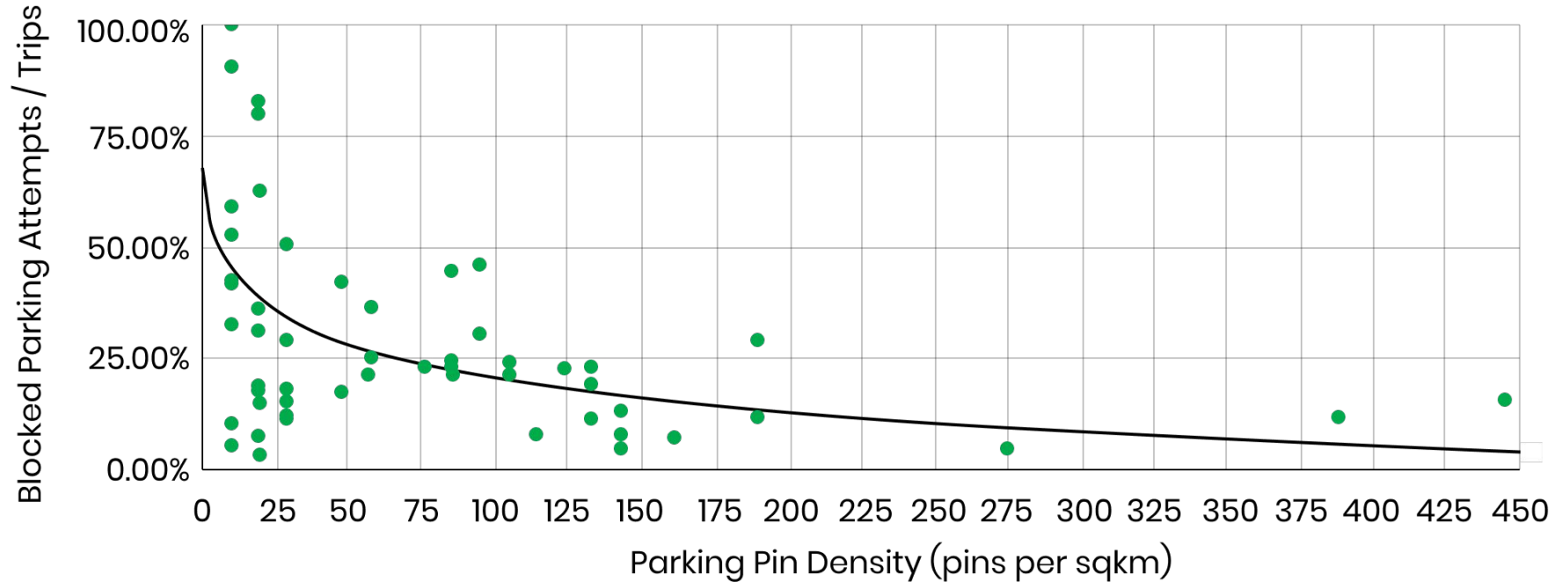
Reach out with any questions!
calvin.thigpen@li.me

City of Bloomington, Indiana

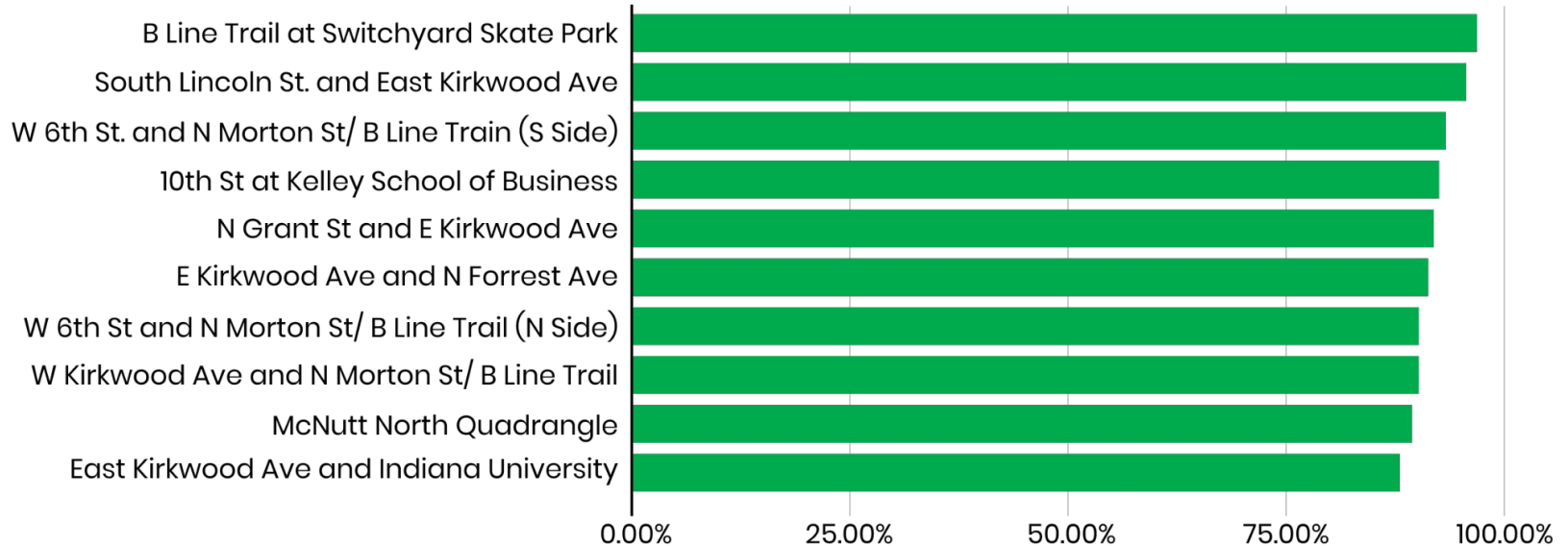
Hank Duncan, Department of Planning & Transportation
Andrea De La Rosa, Department of Economic and Sustainable Development



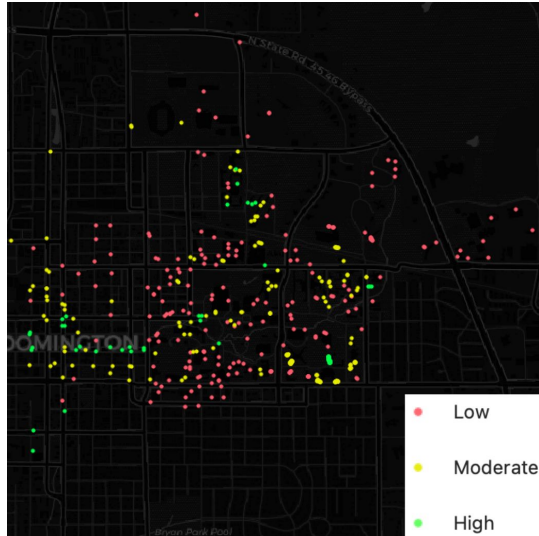
Bloomington Blocked Parking Events vs Parking Corral Density



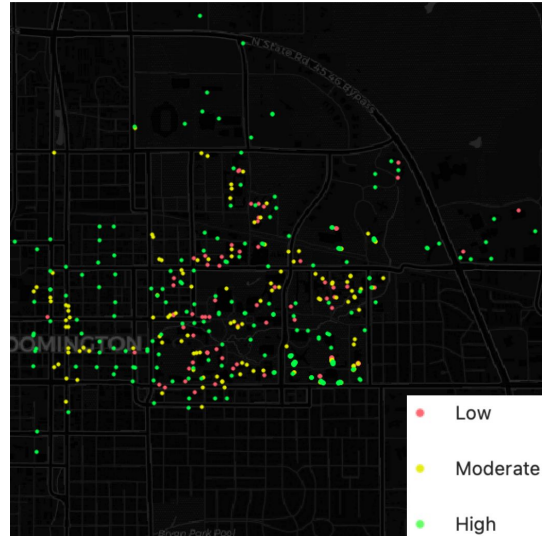
Parking Corrals with the Highest Rate of Parking within the Corral in Bloomington, Indiana



(A) Trip Volume



(B) Parking Clustering



(C) Parking Corral at W Kirkwood Ave and B-Line





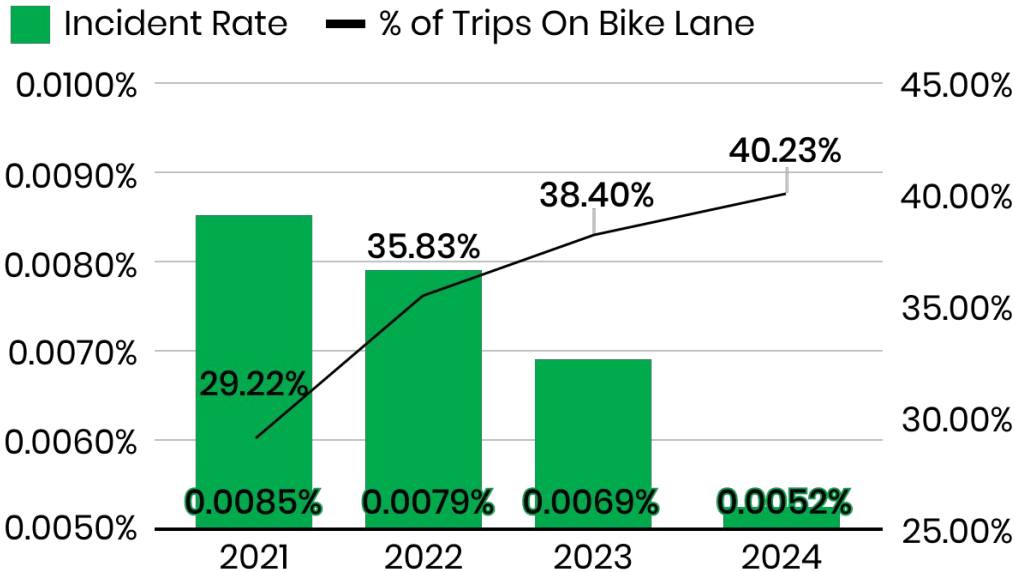
District of Columbia

Ted Randell, Renée Moore
District Department of Transportation, Vision Zero Office



Safety Outcomes In Washington DC

LIME RIDER-REPORTED INCIDENT RATE VS GROWTH IN BIKE LANE USE



- Rider-reported safety incidents have fallen every year in Washington DC, and over the course of the program 99.99% of trips are incident free.
- The rate of rider-reported safety incidents per trip fell by 39% between 2021 and 2024, while Lime trips on bike lanes increased by 38% during this same time period.

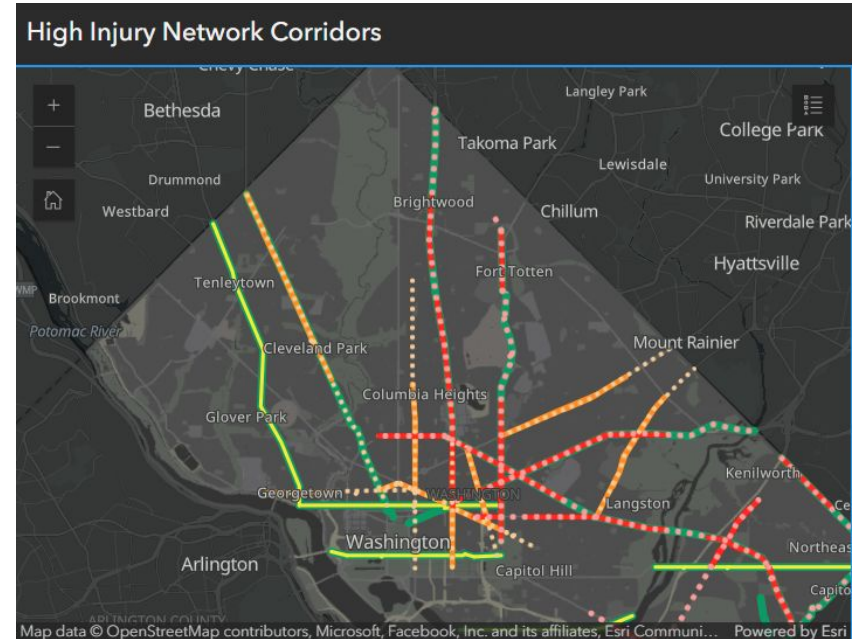


District Micromobility Safety Policy and Infrastructure

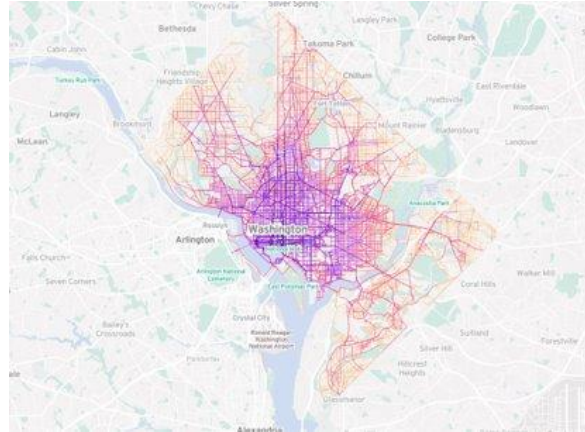


Existing Safety Toolbox

- Trip data (devices, counts, operators, etc.)
- Monthly operator data
- Photo audits
- Education plans, campaigns, social media
- External data (police, hospitals)
- Safety technology on-board devices
- Future regulations
- 311
- Authority and discretion over permit renewal
- Micromobility infrastructure expansion



Data Applications



- Compliment, expand existing crash datasets
- Analyze rider trends, impacts of specific bike infrastructure.
- Inform future reporting requirements, third party data projects.

New Modes, New Codes!

Categorizing injuries related to emerging micromobility transportation.



e-Scooters
Keywords for Chief Complaint:
e-scooter + Brand
(Blind, Control, Jump, Upride, Spin, Razor, etc.)



Other Devices
Keywords for Chief Complaint:
e-skateboard, e-hoverboard,
Segway®, e-unicycle

ICD-10-CM Codes

V50.09 Inclusion or that appear in codes with other codes that encompass
V00.181, V00.182, V00.186 Excludes all other riding gear product for motorcycle
V01-V06 (00, 10, 50) Excludes all other motorcycle apparel to a motorist or rider

NOT considered e-scooters
These devices are not considered e-scooters because they are not on a list of ICD-10-CM codes.



QUESTIONS? Contact: Safety@FHIC.gov | www.fhwa.gov





MEKEN
MVP CLUB

ZONE
CLUB SHOP

F13-F14
S20-S24

123-138 →



**Expand Nighttime
Safety Measures**



Install more scooter corrals



**Create Dedicated
Scooter and E-Bike
Parking Zones**



**Expand
bike
lanes**



More Education and Outreach



A woman with braided hair, wearing a blue long-sleeved dress, stands on a white pedestrian bridge. She is smiling and looking towards the camera. She is holding a white bicycle with a brown seat. The bicycle has a front basket with a red and white polka-dot pattern and orange flowers. The brand name 'PEDEGO' is visible on the frame. A rear basket with orange flowers is also attached to the bicycle. The background shows the white railing of the bridge and some greenery.

Renée Moore
Special Assistant
Vision Zero Office/ DC
Government

renee.moore@dc.gov

Thank you!

- Find the full report at:
 - bikeleague.org/mobility-insights-report
- Learn more about the Mobility Insights competition, including the report and a recording of today's webinar at:
 - bikeleague.org/lime

