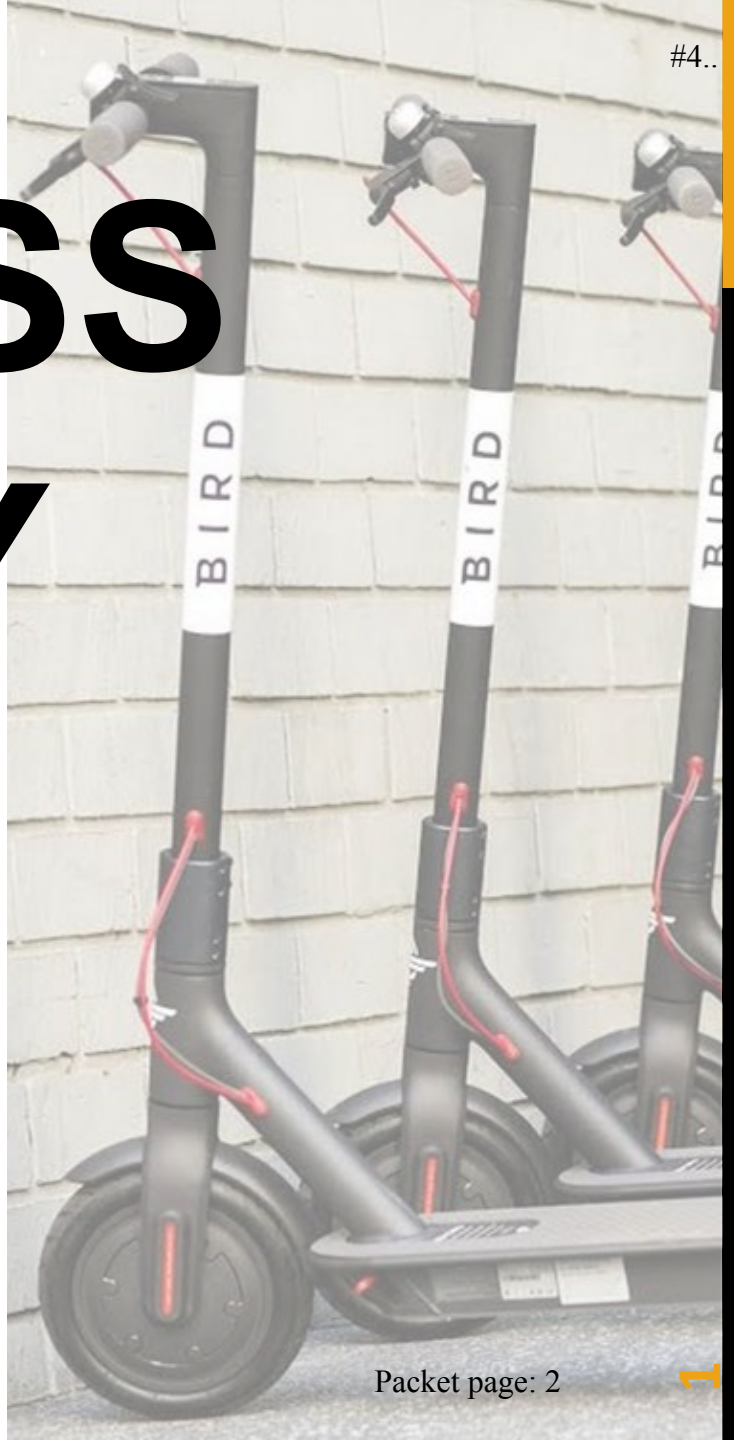
DOCKLESS MOBILITY

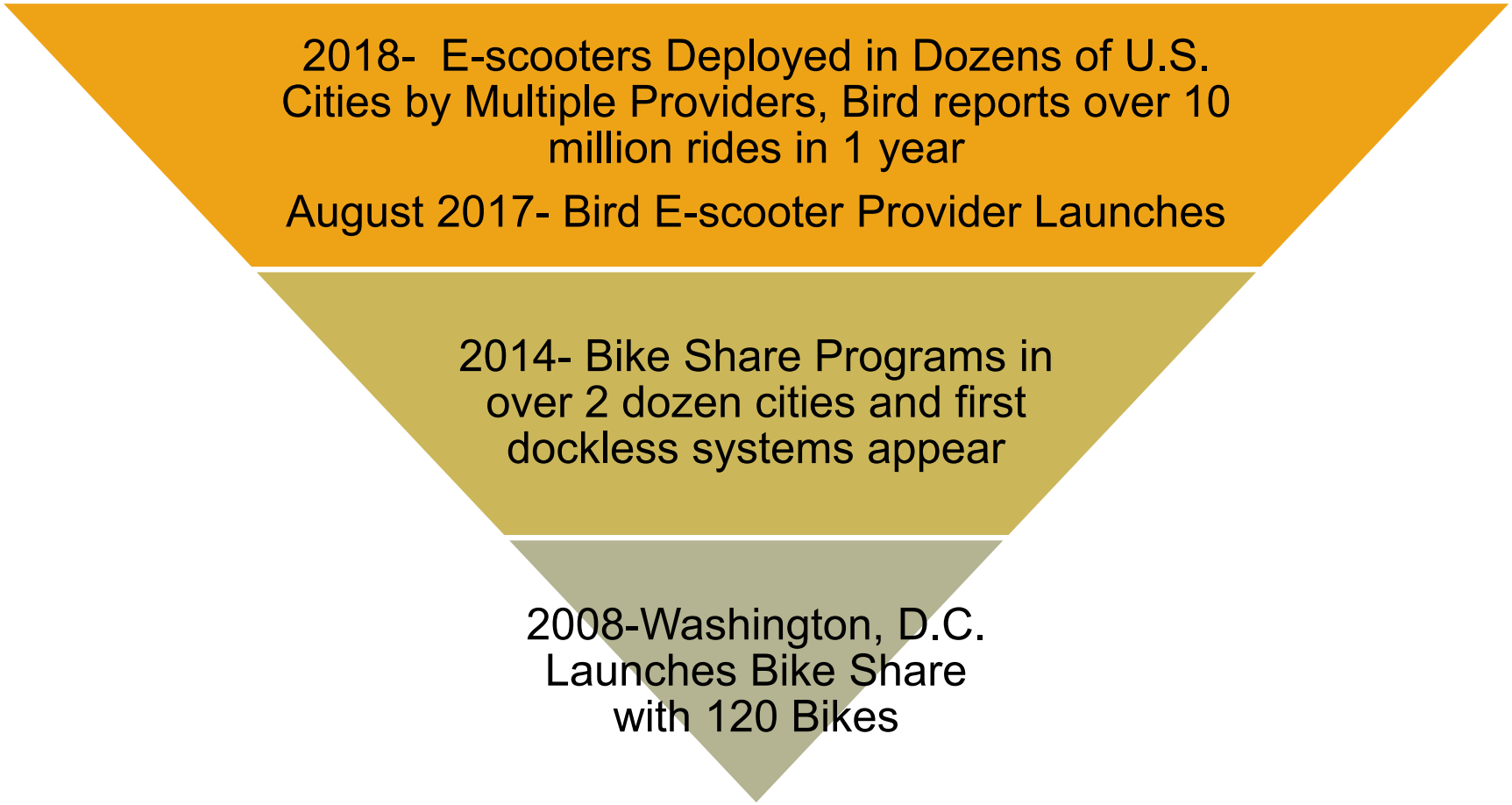


PERIMETER CONNECTS
options @ the center

PERIMETER COMMUNITY IMPROVEMENT DISTRICTS
WWW.PERIMETERCID.ORG

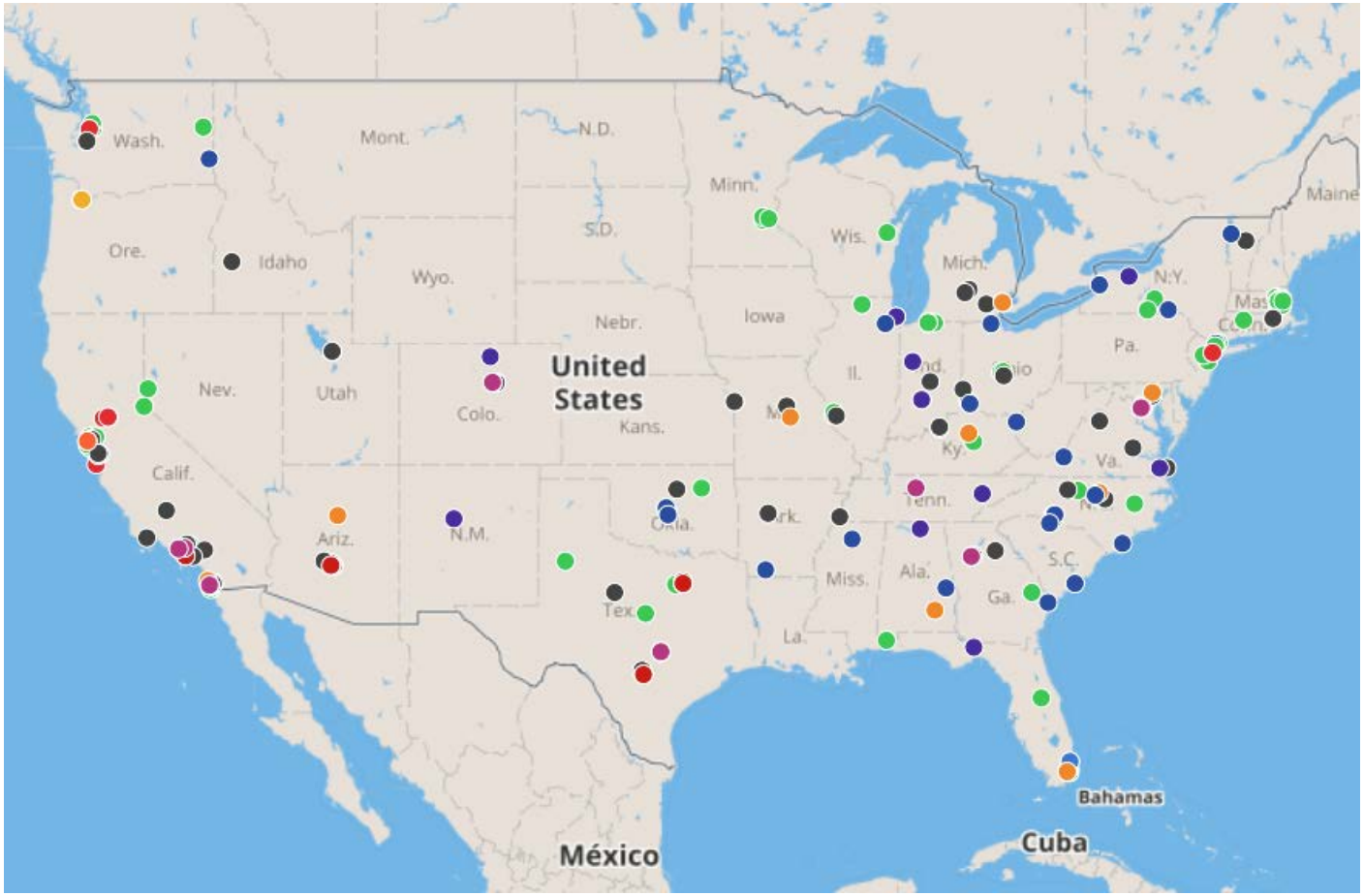
City of Dunwoody Georgia

BIKE AND SCOOTER SHARE HISTORY



Sources: CityLab and BizJournal

BIKE AND SCOOTER SHARE IN U.S. CITIES



Source: Smart Cities Dive

DOCKED VS DOCKLESS

VS

Source: Perimeter Connects Dockless Mobility / July 2018

DOCKED VS DOCKLESS

- **Traditional docked bike share programs typically subsidized 25 to 35%**
- **New York City's Citi bike program supported by $41 million pledge from Citibank for 5 years**
- **Seattle spent $1.4 million to buy out non-profit that was running their program at a loss**

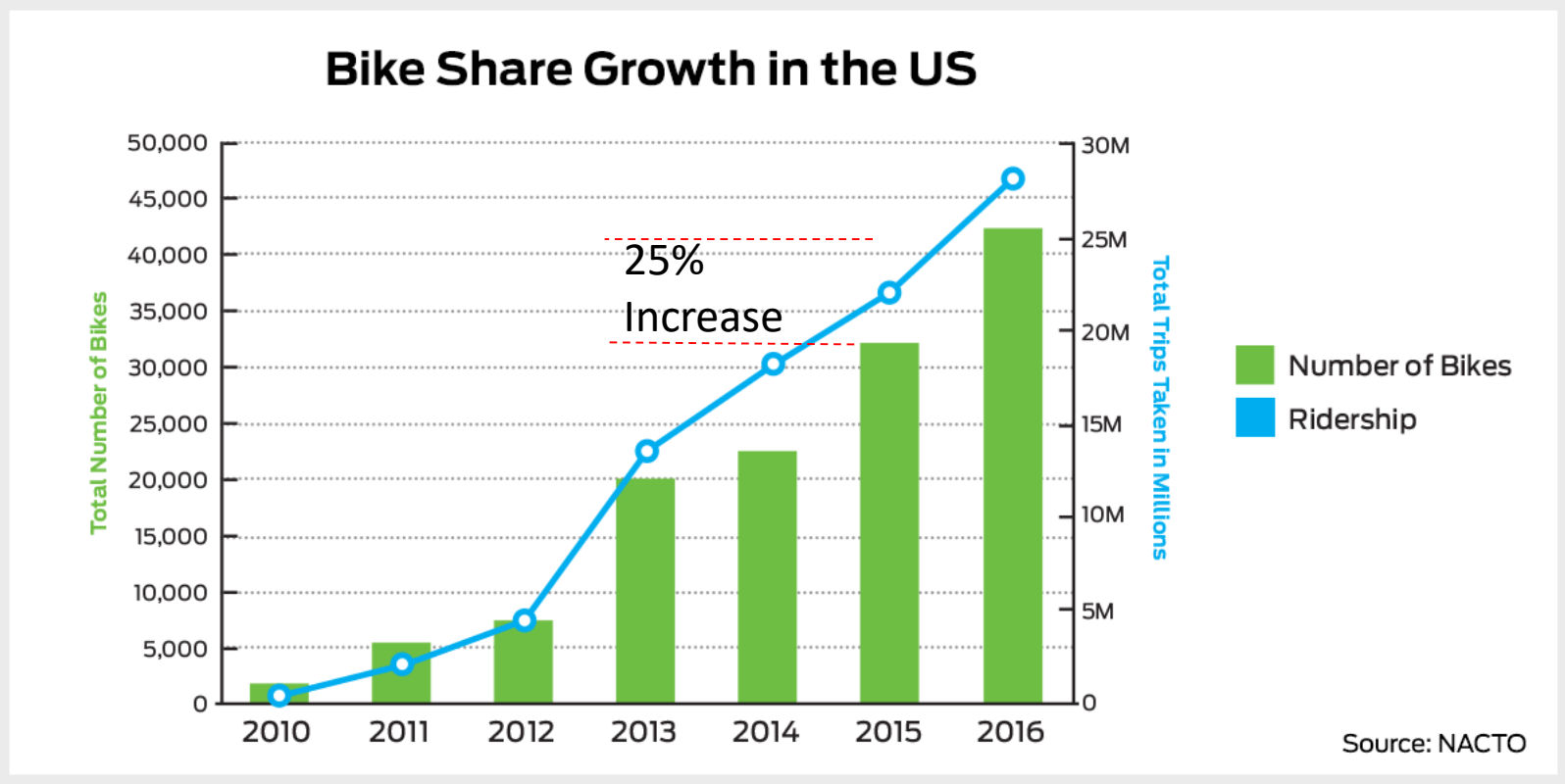
Source: Pew Foundation Report 2016

DOCKED VS DOCKLESS

- **D.C. and Chicago bike share publicly owned and funded but privately operated**
- **In D.C. Metro each bike costs about $1,200 and each docking station is about $40,000**
- **Denver- operated by non-profit**
- **Dockless programs tend to be privately owned and operated**
- **Dockless vehicles deployed at fraction of cost of docked**

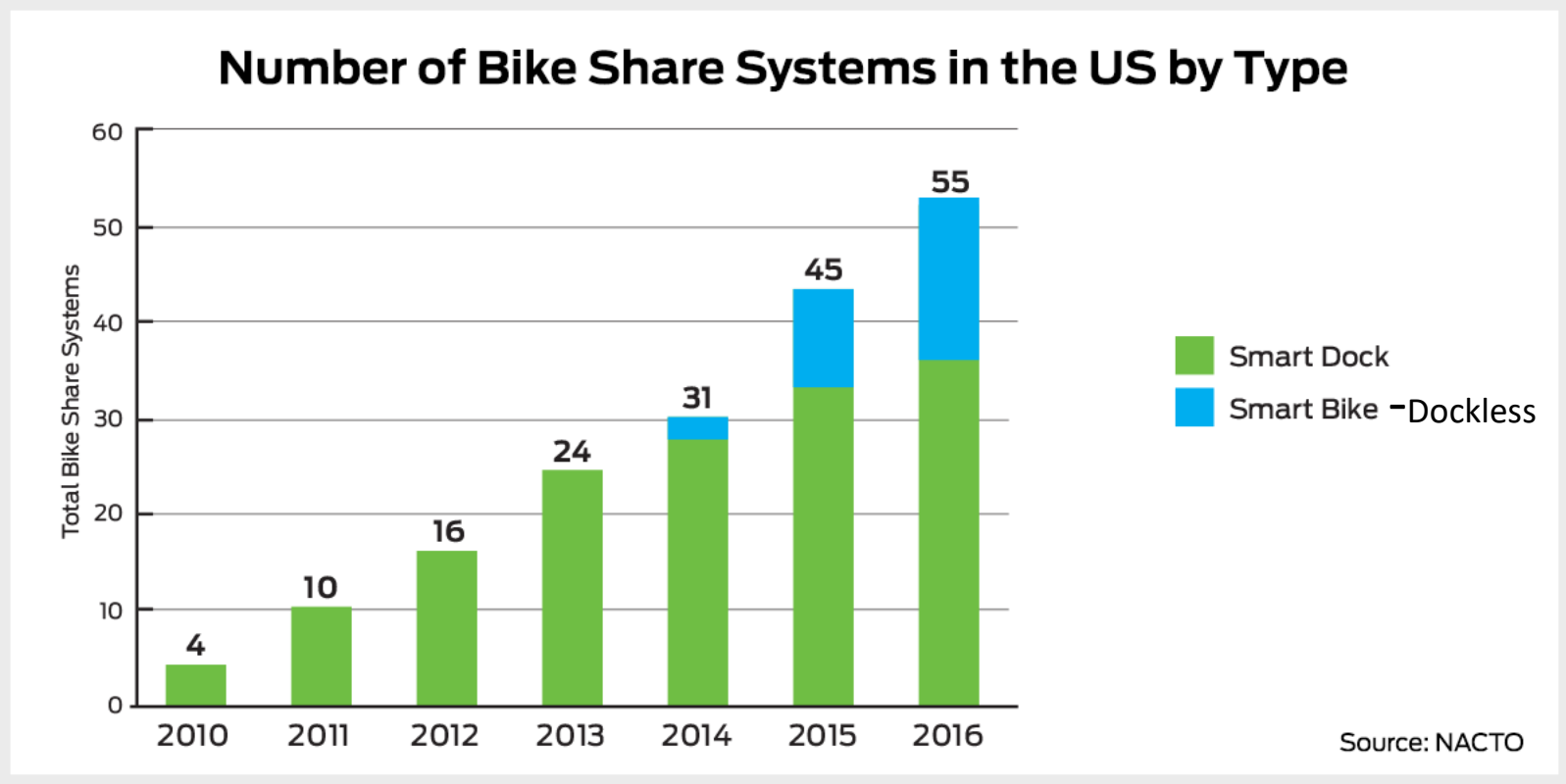
Source: CityLab and Washington Post

SHARED BICYCLE AND SCOOTER TRENDS



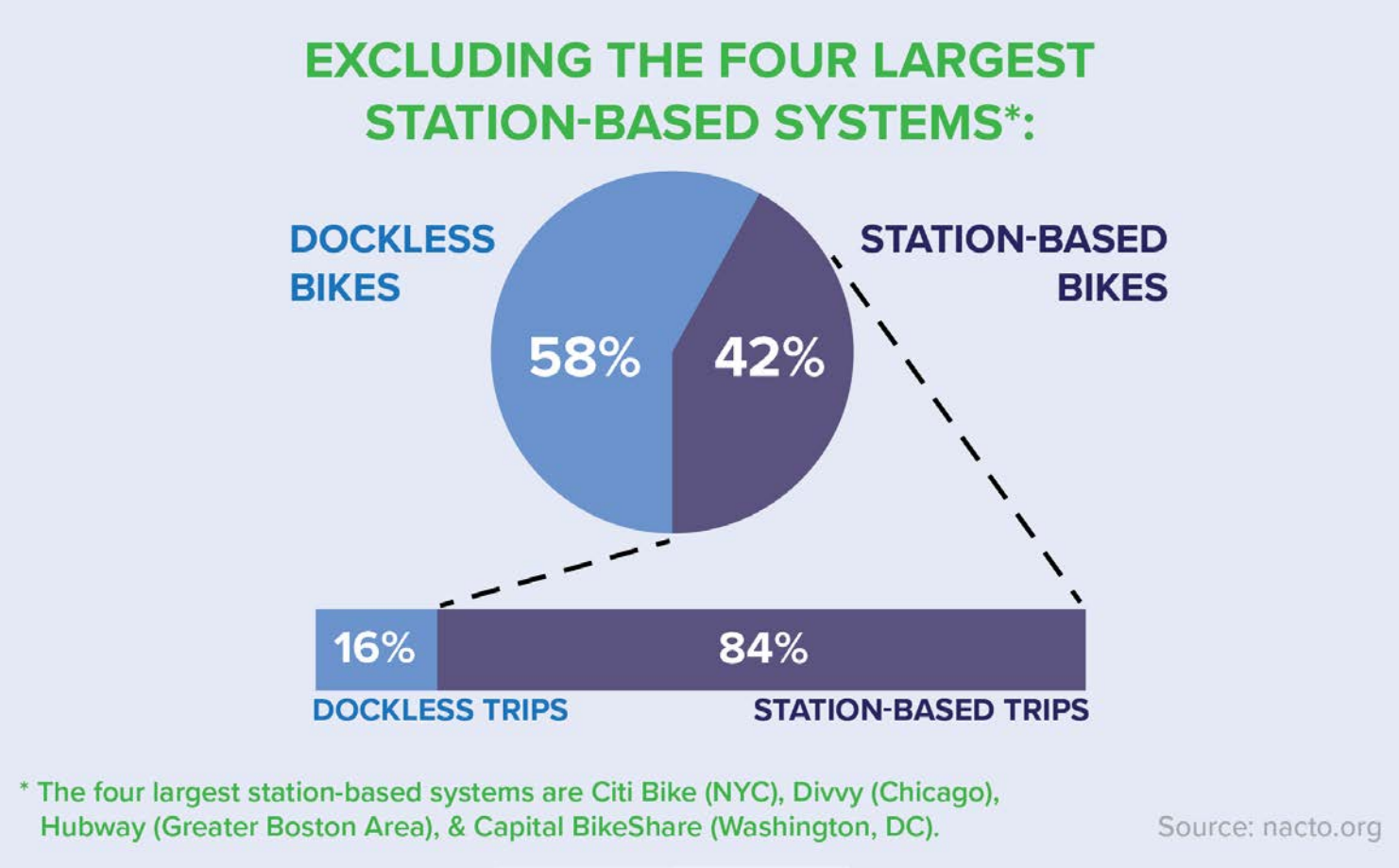
In 2017 number of bikes more than doubled to 100,000 bikes with most of new bikes being dockless

SHARED BICYCLE AND SCOOTER TRENDS



Majority of new systems started in 2016 were dockless. In 2017 number of major dockless companies grew from 3 to 8.

SHARED BICYCLE AND SCOOTER TRENDS



DIVERSITY OF PROVIDERS

Electric Scooters:

- Lime*
- Spin
- Bird*
- Jump*
- Lyft Scooters*

Bike share:

- LimeBike
- Ofo
- Spin
- Jump*

*Deployed in Atlanta

SCOOTER PROVIDERS

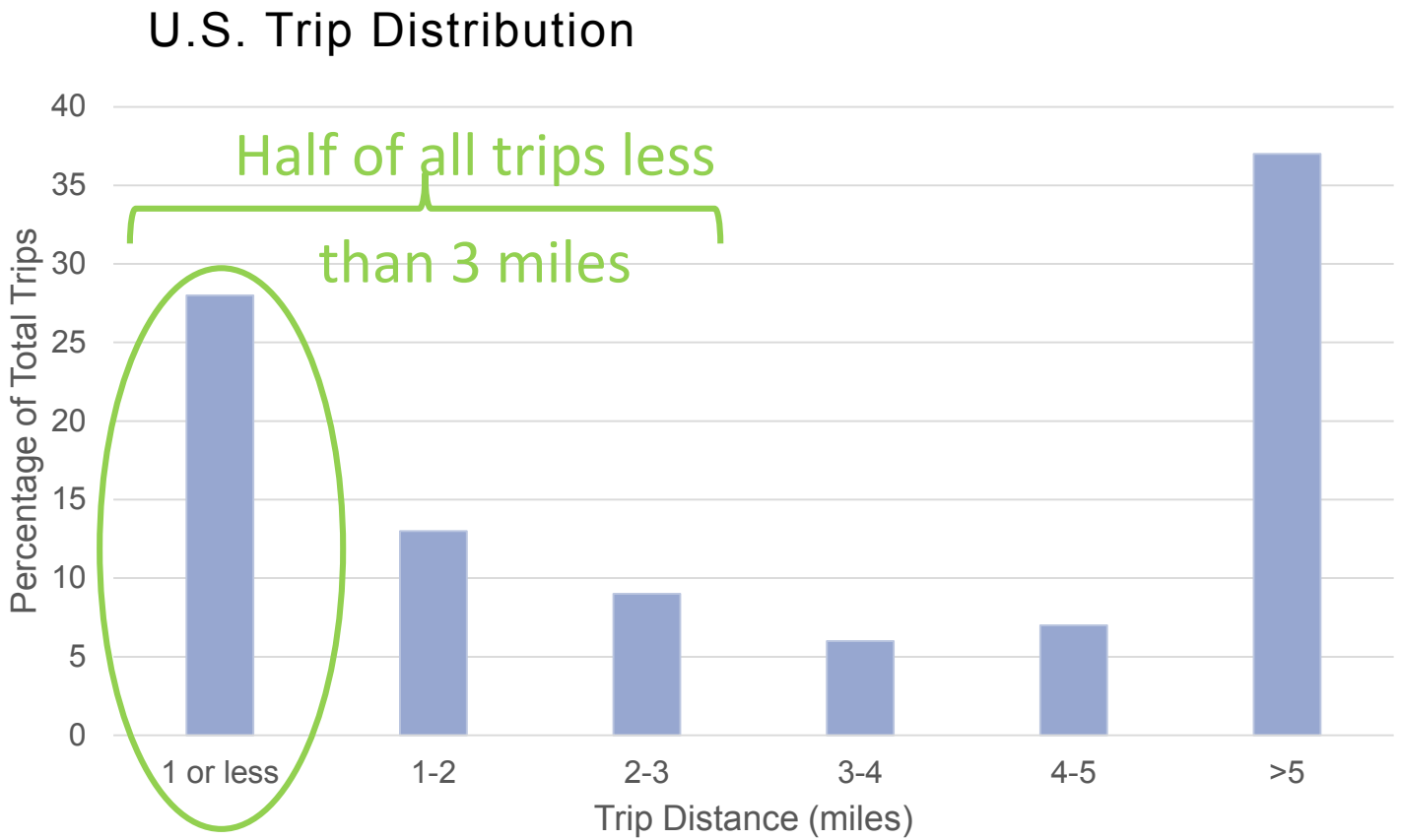
Create a new market and displace established market-leading firms, products, and alliances.

- Bird - $2 billion valuation
  - Launched 9/2017
- Lime - $1 billion valuation, partly owned by Uber
- Jump- Uber owned
- Spin - $43 million+ valuation, being purchased by Ford

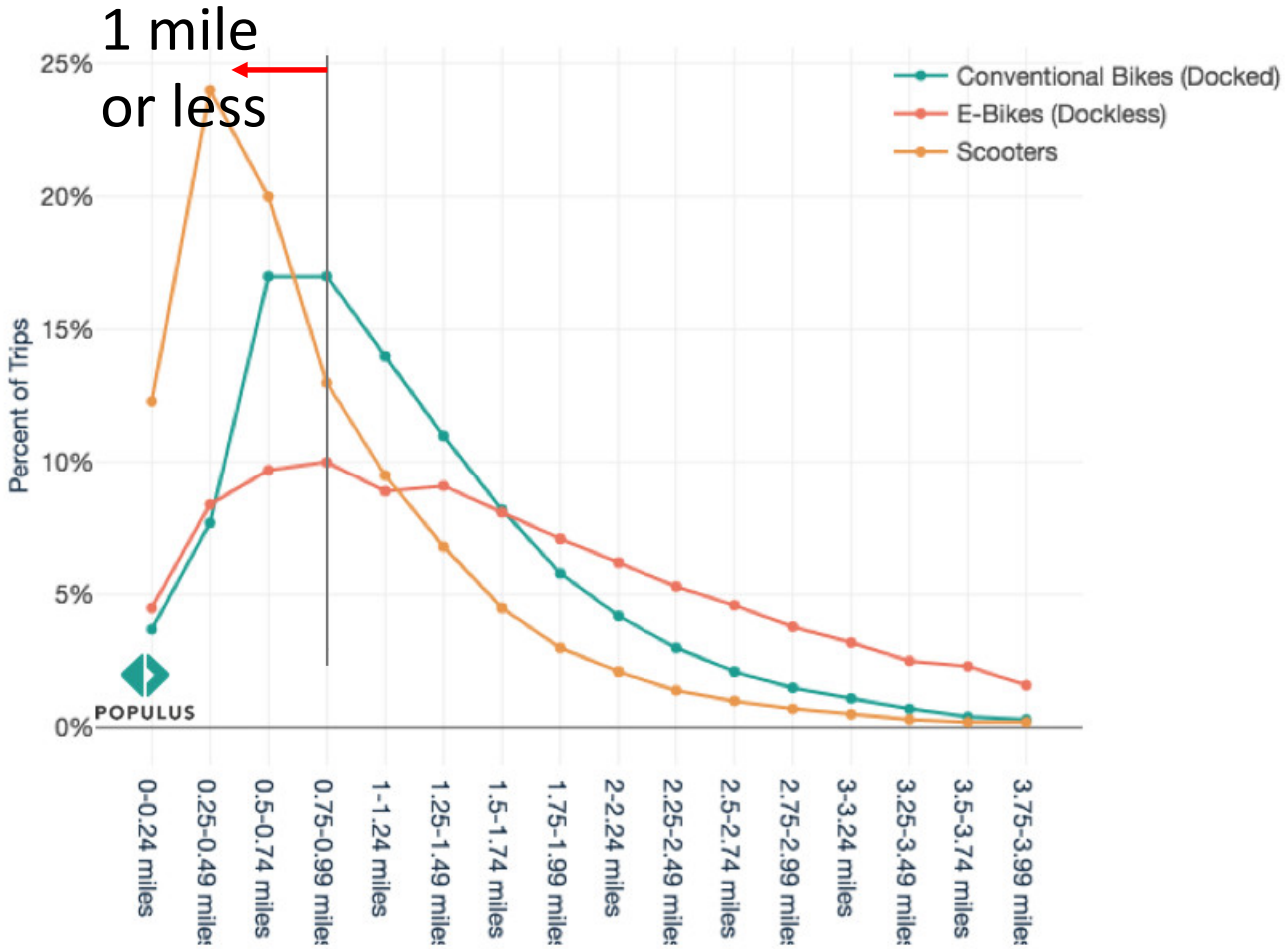
SCOOTER SPECIFICS

- Dockless scooter share via app
- $1 flat fee plus $.15/minute (Bird and Lime), $.10/min. Jump
- 15 mph top speed
- 7am-8pm (charged overnight)
- 20+ mile range on single charge

TARGET MARKET



TRIP DISTANCE BY TECHNOLOGY



Source: Populus analysis of Washington, D.C. bike, e-bike, and scooter data

TRIP COMPARISON

1 Mile Trip

	Walking	E-Scooter
Speed	3 mph	6 mph
Travel Time	20 min.	10 min.
Cost	$0	$2.50

One Way PM Commute from Dunwoody to Decatur

	Auto	Transit/Walk	Transit/E-Scooter
Distance	16 miles	2.3 mi. (walk)	2.3 mi. (scooter)
Travel Time	~60 min.	97 min.	75 min.
Cost	$8	$2.5	$7

LAST-MILE SOLUTION

Benefits

- **On-demand, flexible mobility option for short within-district trips**
  - First-mile / last-mile asset
- **Low cost for users; no operation cost for public entities**

LAST-MILE SOLUTION

Challenges

- **Rider Safety**
- **Where to Ride**
- **Placement of Parked Vehicles**
- **Activity of independent contractors**

SAFETY:
WHERE SHOULD THEY BE RIDDEN?

State Law: Currently fall within the class of "Mopeds", due to their dual wheels and motor. Mopeds require both a driver's license and a helmet, and are not allowed to operate on sidewalks.

SAFETY:

Crash Data: Austin, Texas (May 7-Sep. 28, 2018)

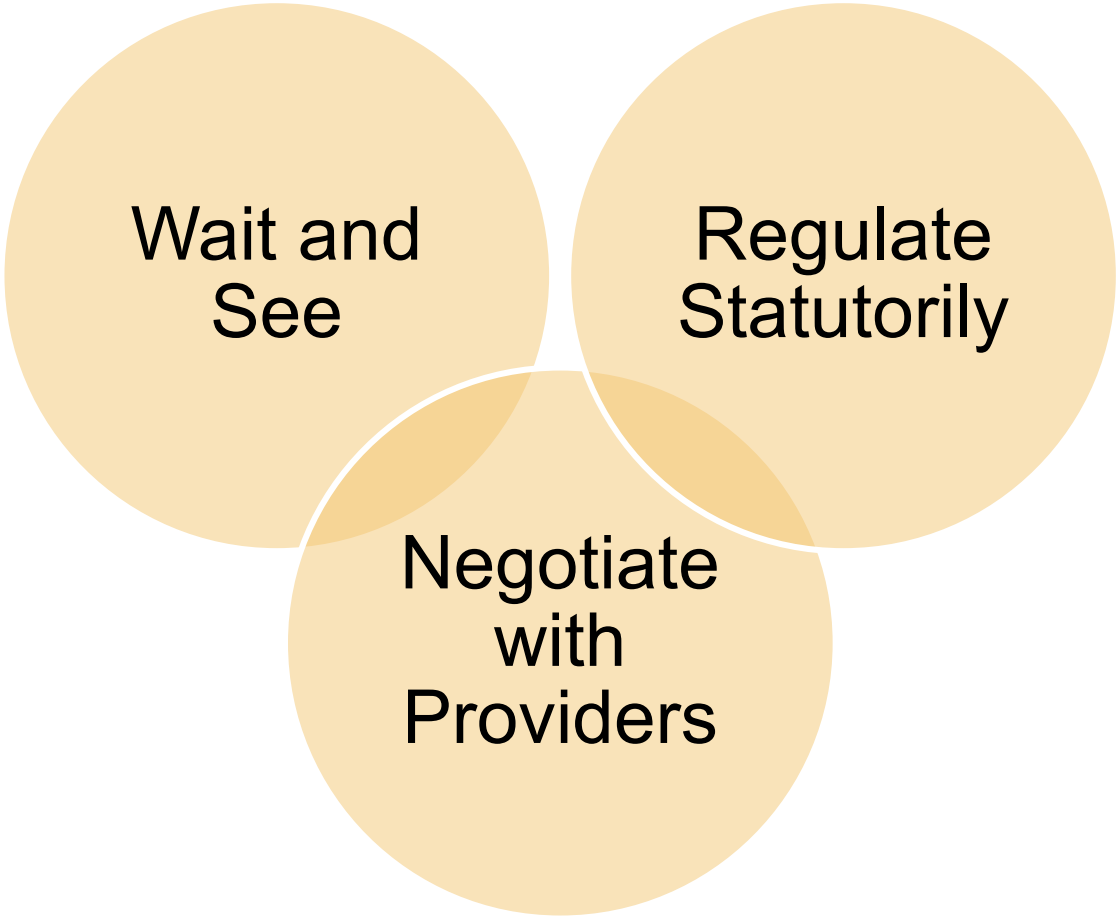
	Fatal	Injury	Property Damage Only	Total Crashes
Motor Vehicle	10	2,336	2,907	5,253
Motorcycle	5	128	10	143
Pedestrian	14	112	7	133
Bicycle	0	81	8	89
Scooter	0	37	NA	37[1]

1. Based on Austin EMS reports

Source: Dockless Mobility Program Update, Mobility Committee of Council; October 11, 2018

6 month period- 85,000 bike share miles ridden vs. 1,190,000 scooter miles

RESPONSE STRATEGIES



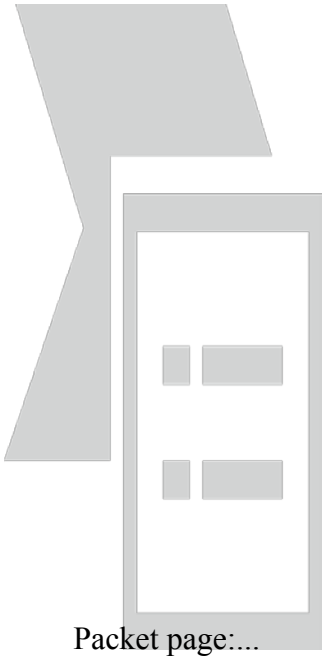
RESPONSE STRATEGIES:

Statutory:

- Cap deployment
  - Performance-based Permitting (utilization rate)
- Vehicle ordinances
- Enforcement procedures for violations for parking and operation
- Formalize business license requirements/permitting[1]

Negotiated:

- Blacklist/Redlist agreements with providers
- In-app user interventions/incentives
- Data sharing agreements and reporting
- Outreach/education staff
- Trial agreements



RESPONSE STRATEGIES:

Property-specific:

- Enforce current sidewalk debris/maintenance for public sidewalks
- Allow private property owners to self-police; can give them tools to push back appropriately

Built environment:

- Dedicated “dockless” approved spaces (visible to users)
    - Establish standard signage/markings
- Dedicated infrastructure (bike lanes)

LESSONS LEARNED SO FAR

- **Get corporate agreements in writing**
- **Require data access as part of agreements**
- **Indemnity clauses**
- **Use blacklisting**
- **Clear process for managing violations**
- **Focus on performance**
- **Revenue sharing or cost reclamation**

CITY OF ATLANTA DRAFT LEGISLATION

- **Vehicle Classification**
  - Creates new definitions for “Dockless mobility device” and “electric dockless mobility device”
- **Permitting**
  - Operators must obtain annual permit from city and pay fees
- **Safety**
  - Max speed of 15 mph
  - Vehicles must adhere to minimum safety standards
  - Operators will educate users and encourage use of helmets
- **Parking**
  - Prohibits blocking sidewalks and provides for impoundment of improperly parked vehicles
- **Operations**
  - Allows use in city parks and shared use paths and prohibits use on sidewalks
  - Allows for minimum and maximum fleet sizes
  - Operator must provide sufficient local staff to address issues and remove improperly parked vehicles