

Connecting to Low Income Populations with Shared Mobility



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ITDP

Institute for Transportation
& Development Policy

Promoting sustainable and equitable transportation worldwide.

The Many Types of Shared Mobility



- Bike-share
- Car Share
- Ride Share
 - Microbuses
 - Vanpools
 - Carpooling



Ride Hailing, e.g. Uber, Lyft , is not considered shared mobility

Advantages of Shared Mobility

- For the user:
 - Reduced costs
 - No storage, maintenance or insurance
 - Increased choice
 - Increased flexibility
- For the city:
 - Reduced space needed for vehicle ownership
 - Reduced driving distances and emissions
 - Allows for more efficient and effective use of scarce public space (streets)
 - Systems can be piloted and tested at lower public costs

Why Shared Mobility Has Potential to Benefit Low Income Populations

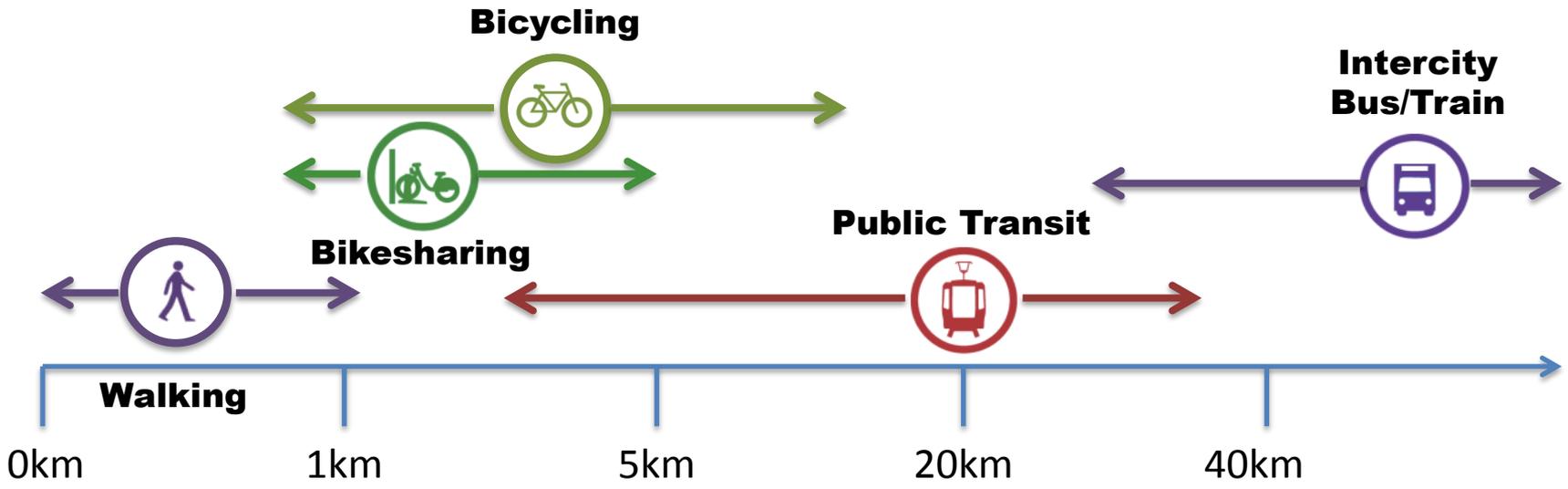
Responsibility	Consumer Benefit
Ownership	No need to spend on asset that depreciates quickly
Storage	Parking resolved; costs of parking reduced
Maintenance	Repairs and refueling managed
Liability	Insurance covered

Shared Mobility as a Complement to Public Transit

- What it CAN do:
 - Fill in gaps
 - Expand access to transit
 - Can address first/ last mile issues
 - Opens up new routes and connections
- What it can't do:
 - Not mass transit
(low volume passenger carriers)

TRANSPORTATION SPECTRUM

Different sustainable modes meet different transportation needs.
A few examples:



Travel Distances
(roughly)



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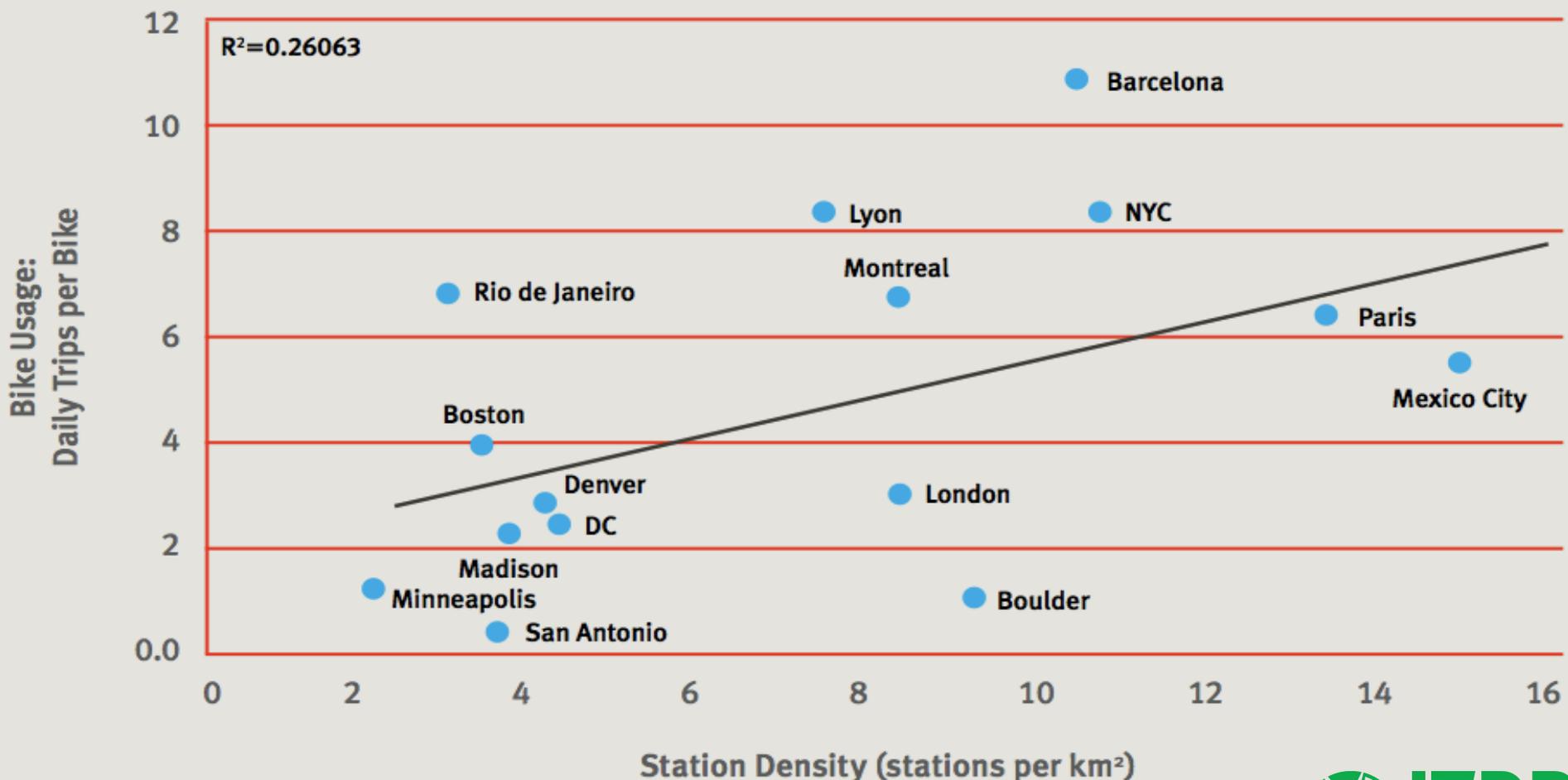
Different Trips by Mode

	Bike-Share	Car Share	Ride Share
Trip type (Distance Guideline)	Local trips, trips to/from transit (1-5 miles)	Special trips, round trips (over 5 miles)	Reoccurring, medium to long distance trips (avg 5-20 miles)
Jobs	X		X
Education	X		X
Healthcare	X	X	X
Groceries		X	X
Childcare		X	X

Low Income Accessibility

	Barrier	Advance
Structural	Physical Access	Better siting
	Logistical Access	Provide alternatives
Financial	Costs	Subsidies, lower costs
	Unbanked	Provide avenues for access
Cultural	Comfort, familiarity, cultural values	Outreach and education

HIGH STATION DENSITY = HIGH SYSTEM EFFICIENCY



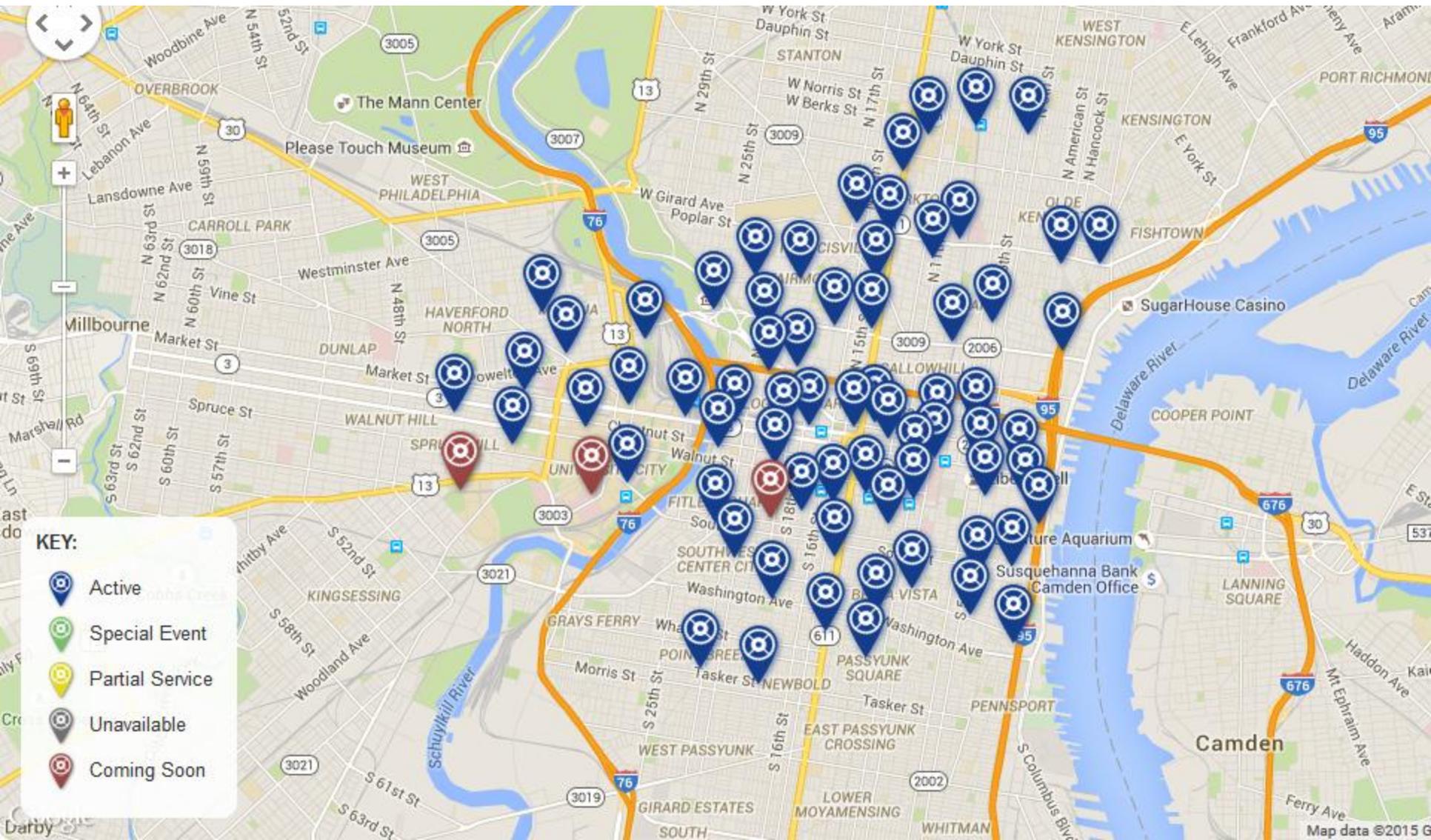
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STATION DENSITY

A quality system needs **10–16 stations for every square kilometer**, providing an average spacing of approximately 300 meters between stations and a **convenient walking distance** from each station to any point in between.



Philly Bike Share





Thomas Circle at 14th St NW



cap

share

ride return



capital bikeshare

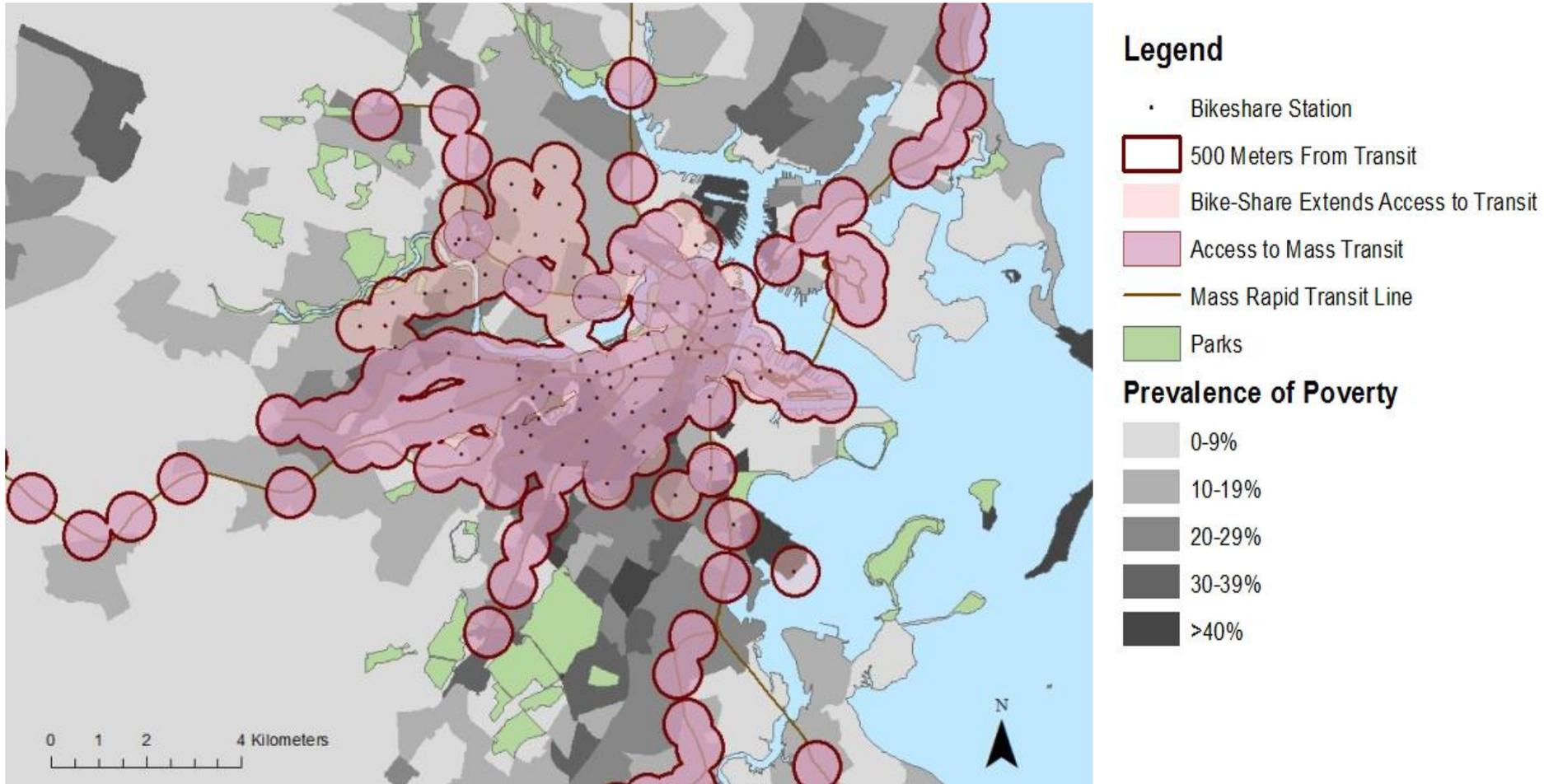
capital bikeshare

capital bikeshare

capital bikeshare

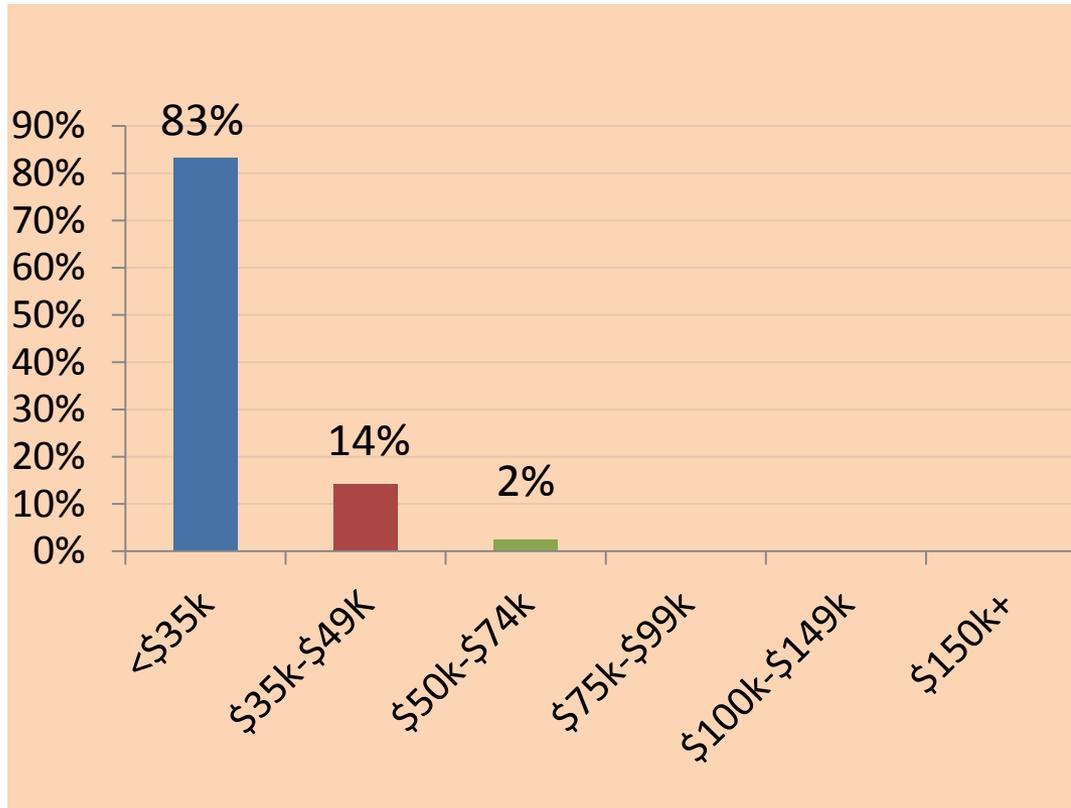
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Boston Hubway Equity Mapping



Map Source: Gabriel Lewenstein, ITDP

Household Incomes of Subsidized Hubway Members



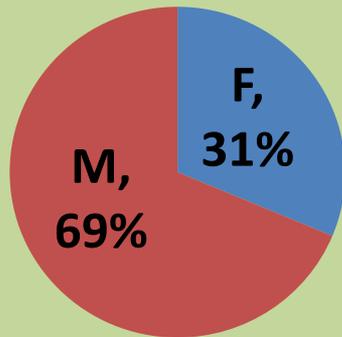
48% are on
Public
Assistance

Demographics of Subsidized Members

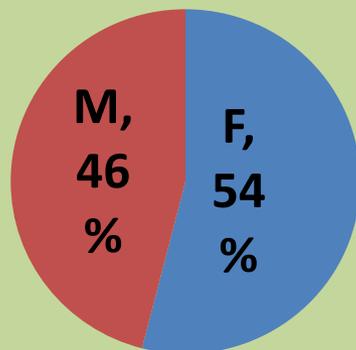
11% of Boston Members Subsidized

Gender Breakdown

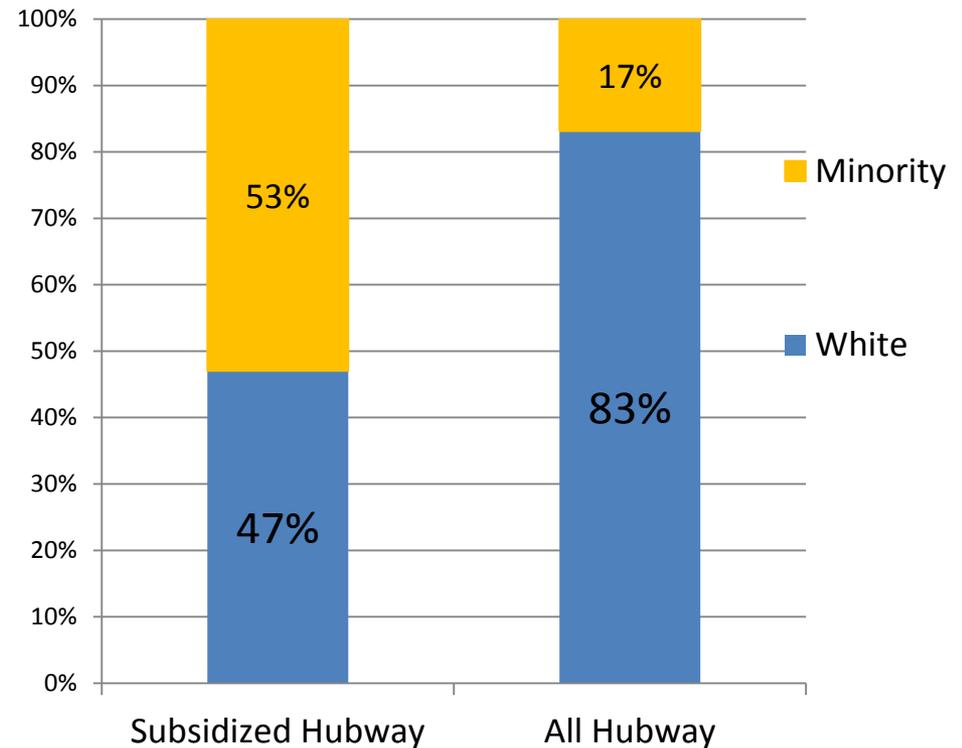
Boston Cyclists



Subsidized Members



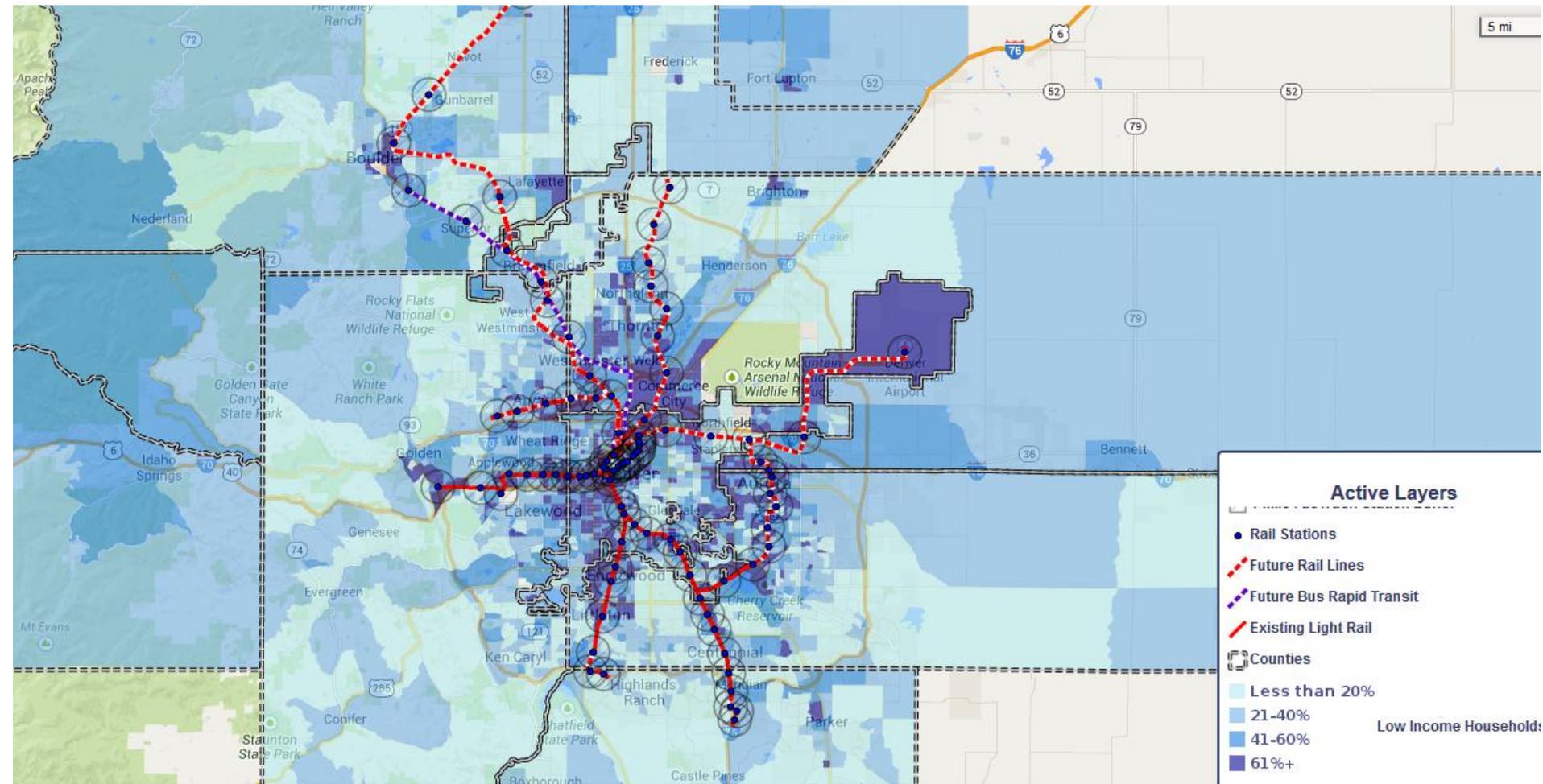
Hubway Members by Ethnicity



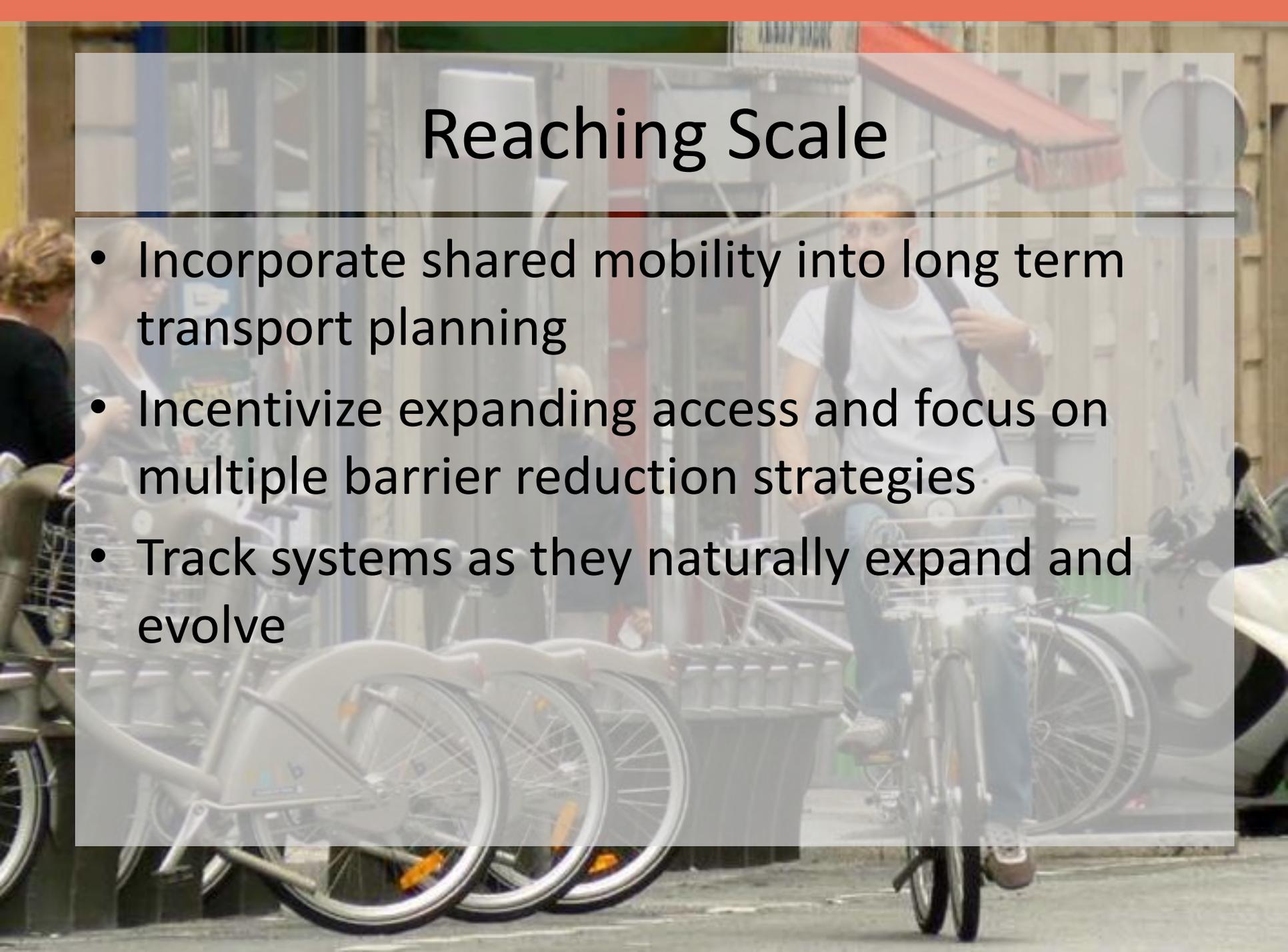
Role of Different Actors

- **Operators**
 - **Non-profit: has the flexibility to take on risk**
 - **For profit: good at innovation and scaling**
- **Government**
 - **Can compel, incentivize, and act**
- **Intermediaries**
 - **Connect users to existing opportunities**

Denver Long Range Planning



Reaching Scale

A photograph of a city street scene. In the foreground, several white bicycles are parked in a row. A man in a white t-shirt and blue jeans is riding a bicycle towards the camera. The background shows a city street with buildings, a red awning, and other people. The image is overlaid with a semi-transparent white box containing text.

- Incorporate shared mobility into long term transport planning
- Incentivize expanding access and focus on multiple barrier reduction strategies
- Track systems as they naturally expand and evolve

Download:
www.itdp.org/bikeshare

CONTENTS:

STUDY OF EXISTING SYSTEMS

PERFORMANCE ANALYSIS & METRICS

FEASIBILITY STUDIES

FINANCIAL MODELS

DETAILED PLANNING & DESIGN

BUSINESS STRUCTURE

IMPLEMENTATION





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