

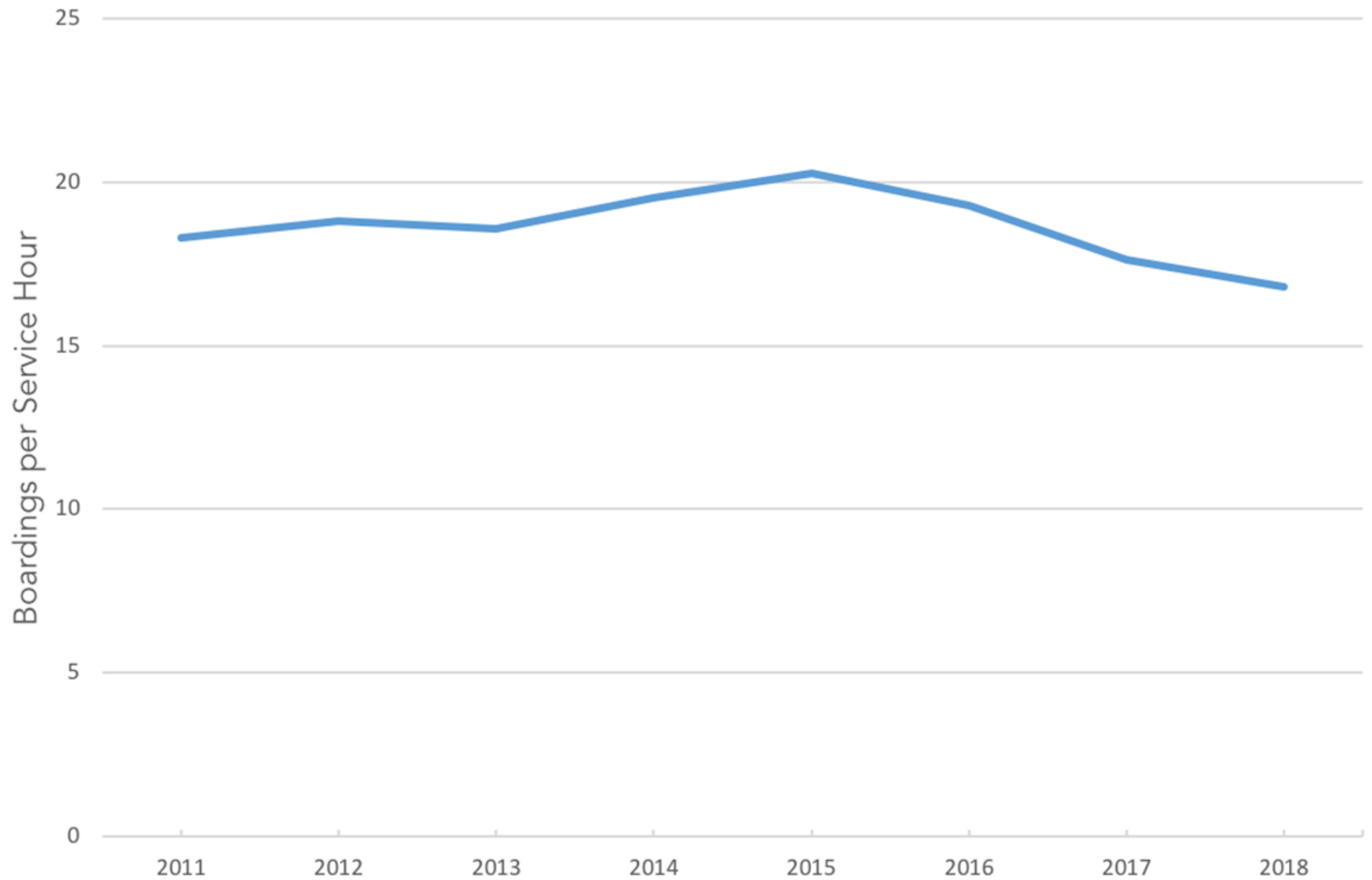


## Network Concepts

Michelle Poyourow, *Jarrett Walker + Associates*  
Patricia Harris-Morehead and Grant Sparks, *CAT*  
Denise Grabowski, *Symbioscity*

# Productivity (ridership relative to service)

— All CAT services



***If*** high ridership is what you want, then you should follow...

The “Ridership Recipe”

Frequent, long-span service ...

Following patterns of ...

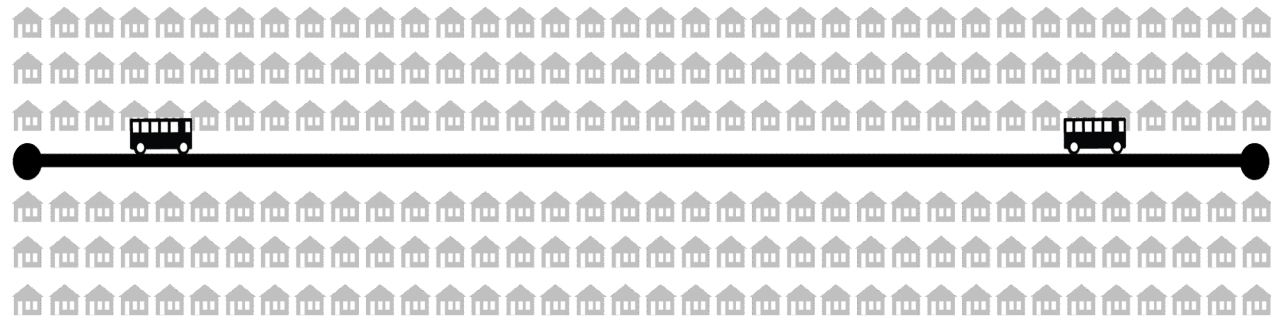
- Density
- Walkability
- Linearity
- Continuity

...and forming a connected network.

# Density

How many people are going to and from the area around each stop?

Higher  
Ridership



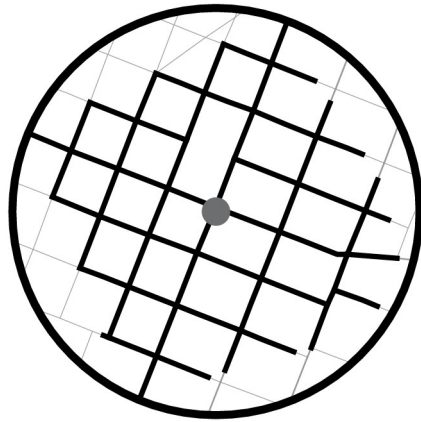
Lower  
Ridership



# Walkability

Can the people around the stop walk to the stop?

Higher  
Ridership



Lower  
Ridership



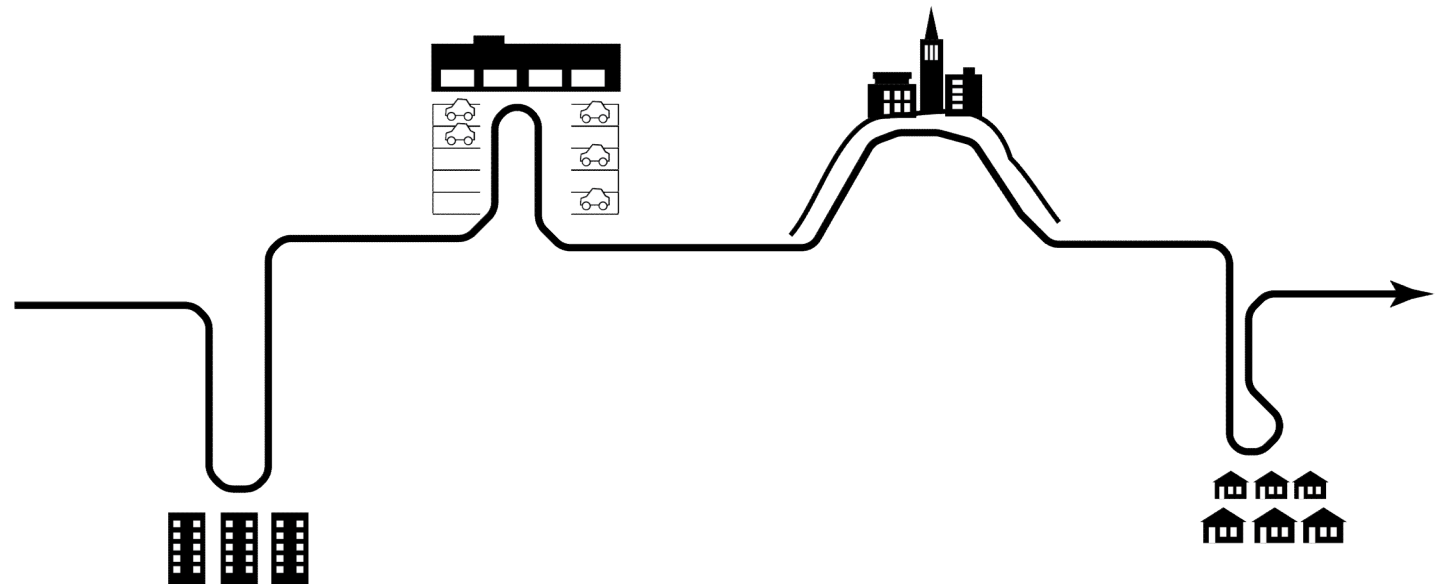
# Linearity

Can transit run in straight lines that attract through-riders?

Higher  
Ridership



Lower  
Ridership



# Proximity

*or, Continuity*

Does transit have to cross long low-ridership gaps?

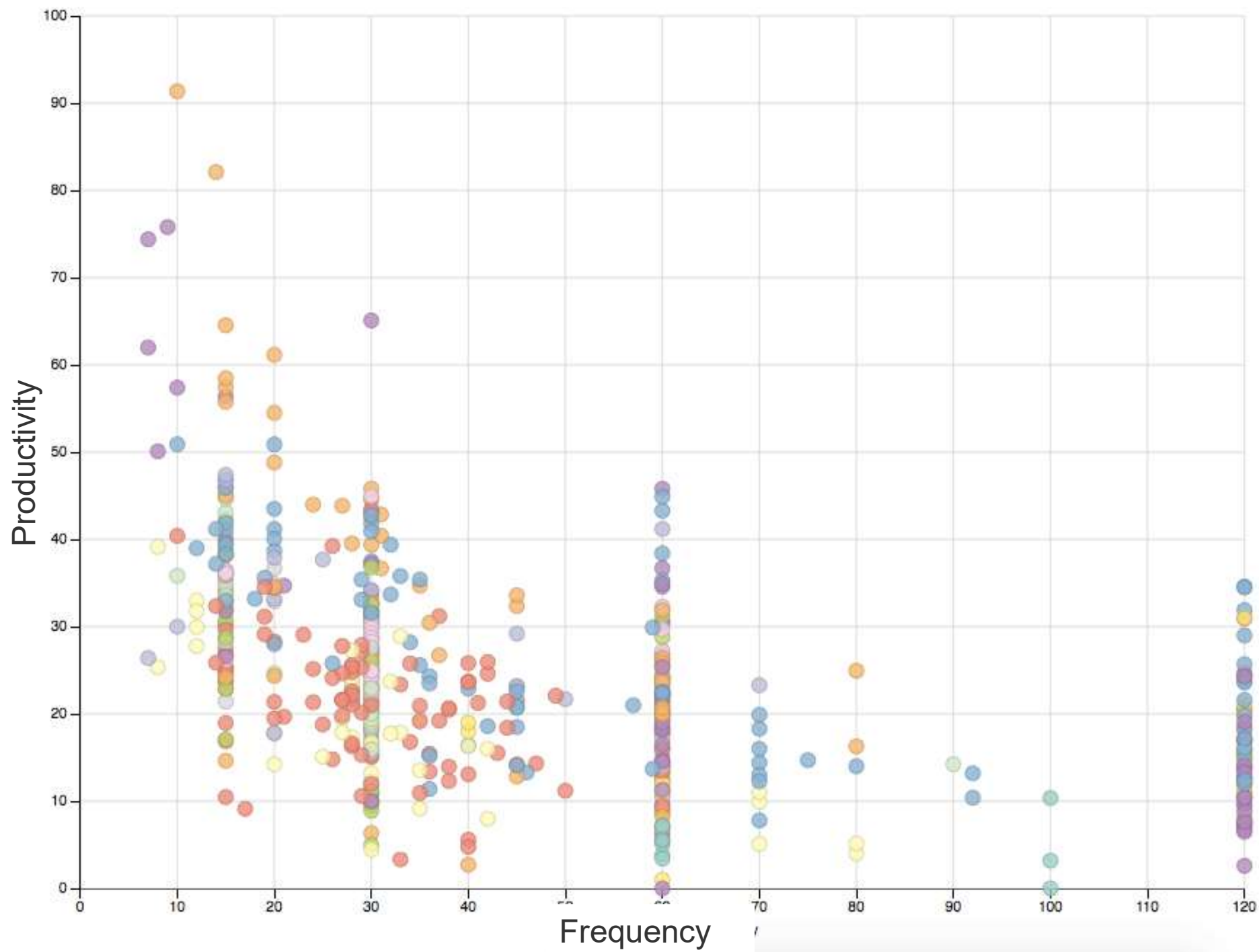
Lower cost



Higher cost







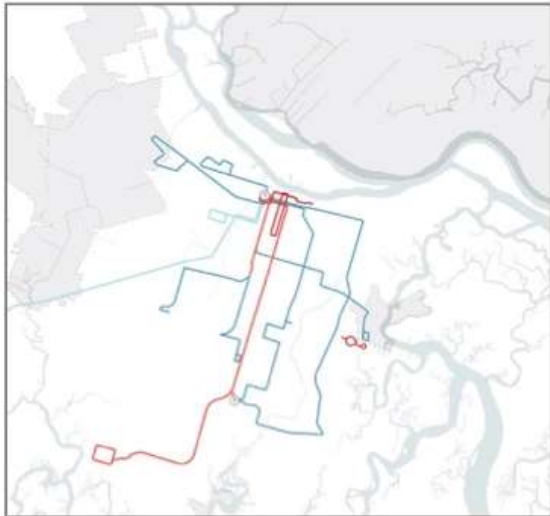
Low frequency is hard to imagine if you don't use transit much.

- Elevators?
- Traffic signals?

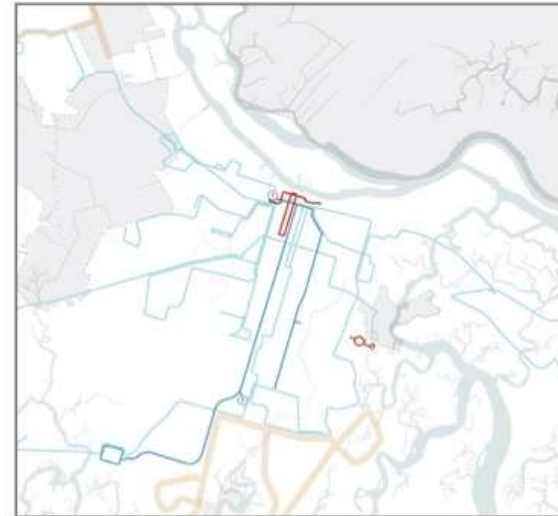


A gate at the end of your driveway that opens only once an hour???

High Frequency,  
High Ridership  
Concept  
90%–10%



High Coverage  
Concept  
50%–50%

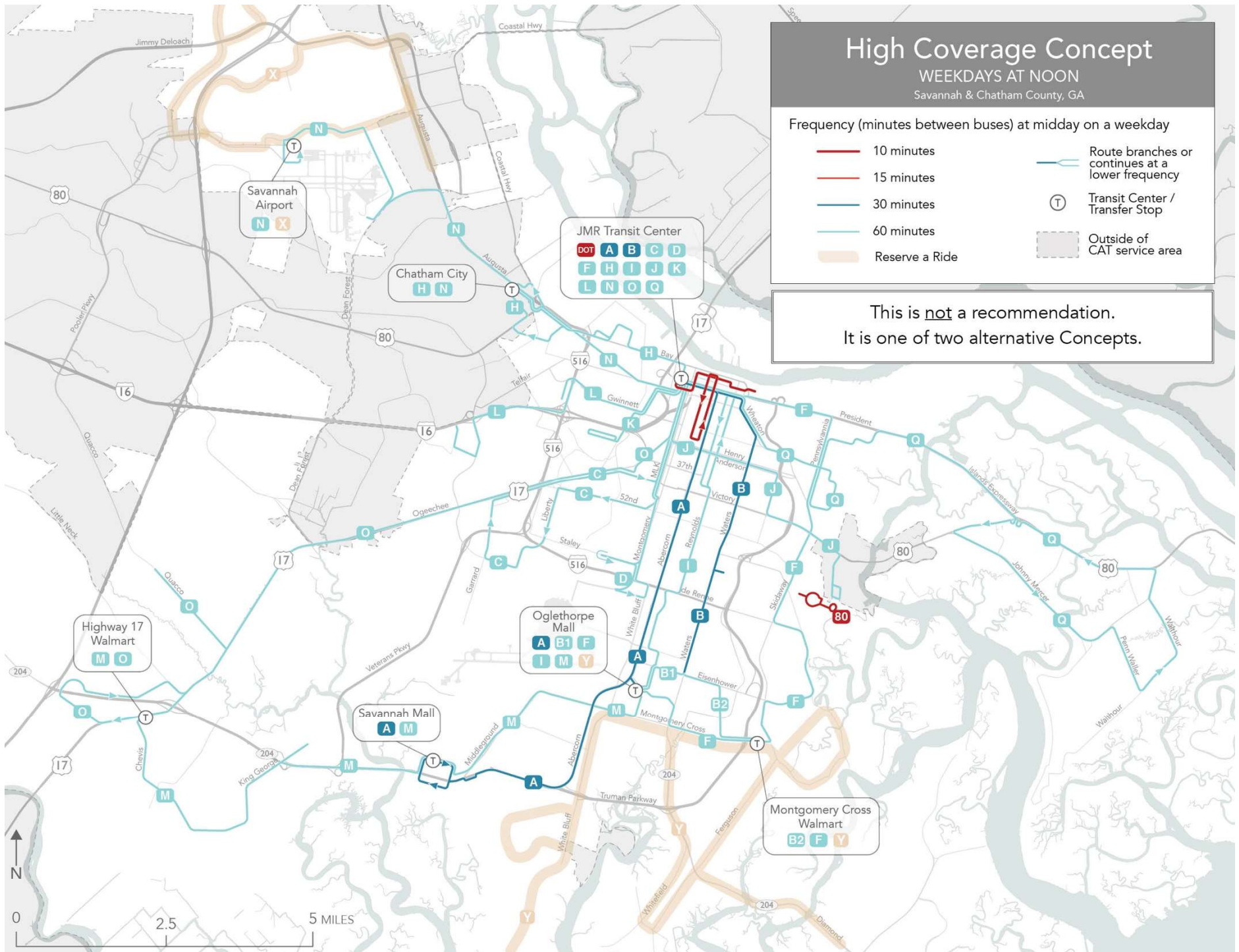


90% spent on high-ridership  
service, 10% on coverage

50% spent on high-ridership  
service, 50% on coverage

*Where should CAT be, on this spectrum?*







## Choices Webinar

(From Wednesday, January 23, 2019)

 **Let's Go! Choices Webinar - January 23**  [Watch later](#) [Share](#)



The webinar content displays two transit scenarios on a grid map. The left scenario, 'Minimize Walking', shows closely spaced routes (every 60 mins) with a 3-minute walk to a station and a 30-minute wait, totaling 33 minutes. The right scenario, 'Minimize Waiting', shows routes every 30 minutes with a 9-minute walk and a 15-minute wait, totaling 24 minutes. Both scenarios include a 'To Suburbs' and 'To Downtown' route.

**Minimize Walking**  
with closely spaced routes coming every 60 mins.  
Full: 60 mins. Average: 30 mins.  
3 MINUTES WALKING + 30 MINUTES WAITING = 33 MINUTES TOTAL

**Minimize Waiting**  
with routes coming every 30 mins., more widely spaced  
Full: 30 mins. Average: 15 mins.  
9 MINUTES WALKING + 15 MINUTES WAITING = 24 MINUTES TOTAL

**SUMMARY OF PUBLIC INPUT ON CHOICES**

**NETWORK CONCEPTS REPORT – SMALLER FILE**

**NETWORK CONCEPTS REPORT – PRINT QUALITY**



# High Coverage Concept

## Change in Access to Jobs

### Change in average transit access to jobs within 45 minutes

For Chatham County residents,  
compared to the existing network.

All residents	+2%
Low-income residents	+1%
Minority residents	+2%

# High Ridership (High Frequency) Concept

## Change in Access to Jobs

### **Change in average transit access to jobs within 45 minutes**

For Chatham County residents,  
compared to the existing network.

All residents	+47%
Low-income residents	+46%
Minority residents	+52%



Questions and comments?

# What's next?

- Web surveying through May 15
- Paper surveying at the JMR Transit Center
- Materials posted at County libraries
- Outreach events at community centers and libraries
- Public unveiling of the Concepts this evening
- ...
- CAT Board will wrestle with this difficult trade-off in June.

**Thank You!**

**MORE SLIDES!**

# Residents Near Transit

at midday on weekday (within 1/4 mile)



Frequent Service



Any Service



Over 1/4 mile

Existing  
Network



TOTAL: 244,000

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

High  
Coverage  
Concept



TOTAL: 244,000

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

High  
Ridership  
Concept



TOTAL: 244,000

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Data Source: GTFS October 2018; ACS 2016 (5-Year Estimates)

# Jobs Near Transit

at midday on weekday (within 1/4 mile)



Frequent Service

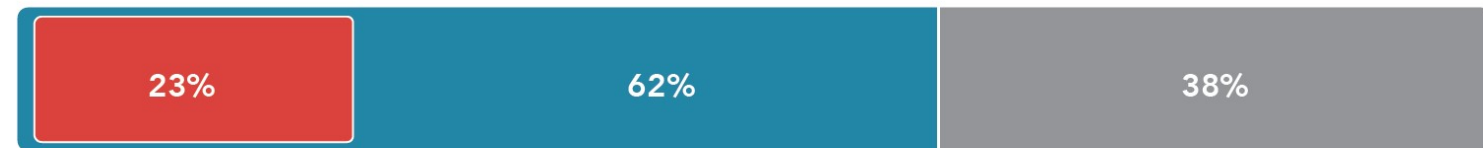


Any Service



Over 1/4 mile

Existing  
Network



TOTAL: 244,000

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

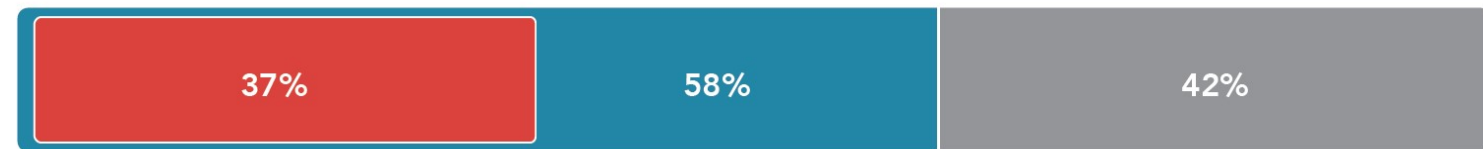
High  
Coverage  
Concept



TOTAL: 244,000

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

High  
Ridership  
Concept



TOTAL: 244,000

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Data Source: GTFS October 2018; LEHD 2015

# Minority Residents Near Transit

at midday on weekday (within 1/4 mile)



Frequent Service



Any Service



Over 1/4 mile

Existing  
Network



TOTAL: 130,000

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

High  
Coverage  
Concept



TOTAL: 130,000

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

High  
Ridership  
Concept



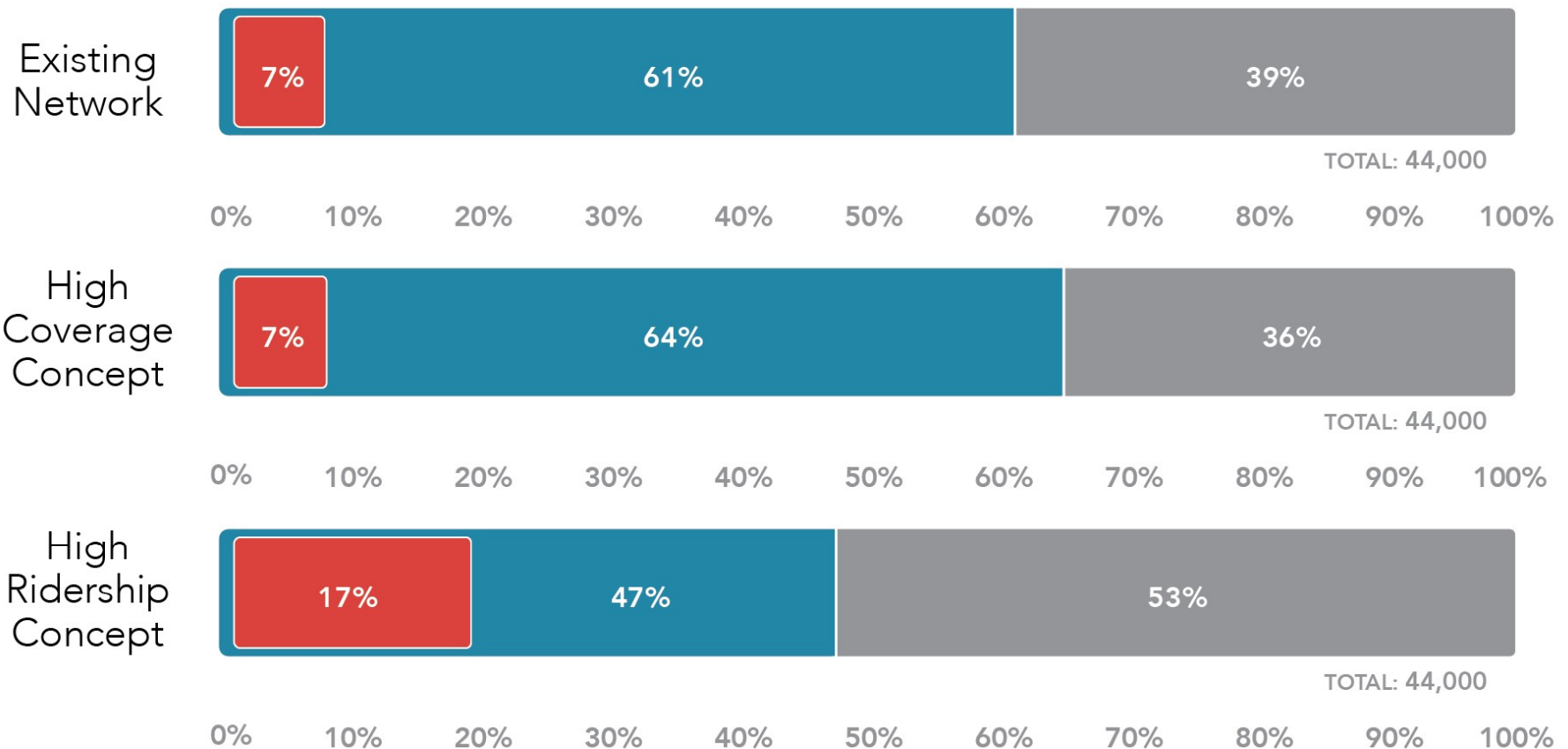
TOTAL: 130,000

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Data Source: GTFS October 2018; ACS 2016 (5-Year Estimates)

# Low Income Residents Near Transit

at midday on weekday (within 1/4 mile)



Data Source: GTFS October 2018; ACS 2016 (5-Year Estimates)