

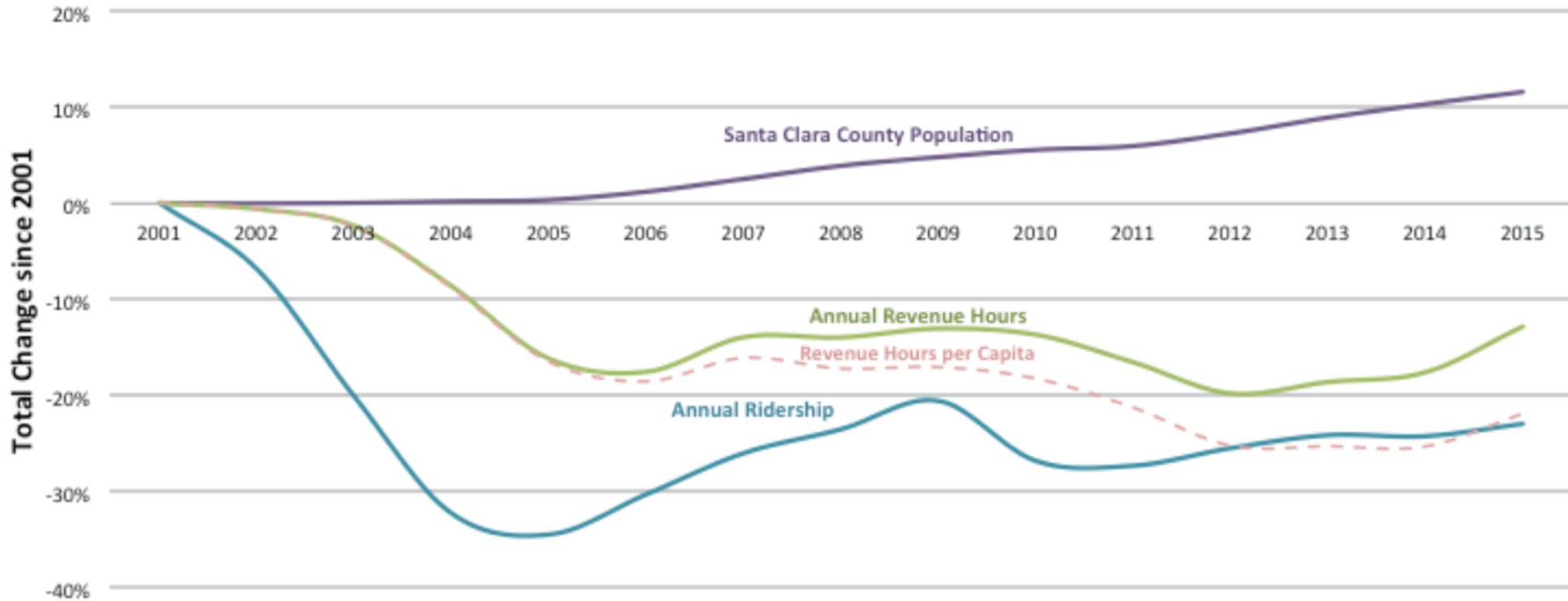
TRANSIT RIDERSHIP IMPROVEMENT PROGRAM

- CAPITAL PROJECTS
- OPERATING PLANS - NEXT NETWORK
- TRANSIT INFORMATION
- TECHNOLOGY

VTA'S NEXT NETWORK

- CONNECT TO BART STATIONS
- INCREASE RIDERSHIP
- IMPROVE FAREBOX RECOVERY RATE
- CHANGE IN PLANNING APPROACH

Growing Population, But Unstable Transit Ridership and Service Level

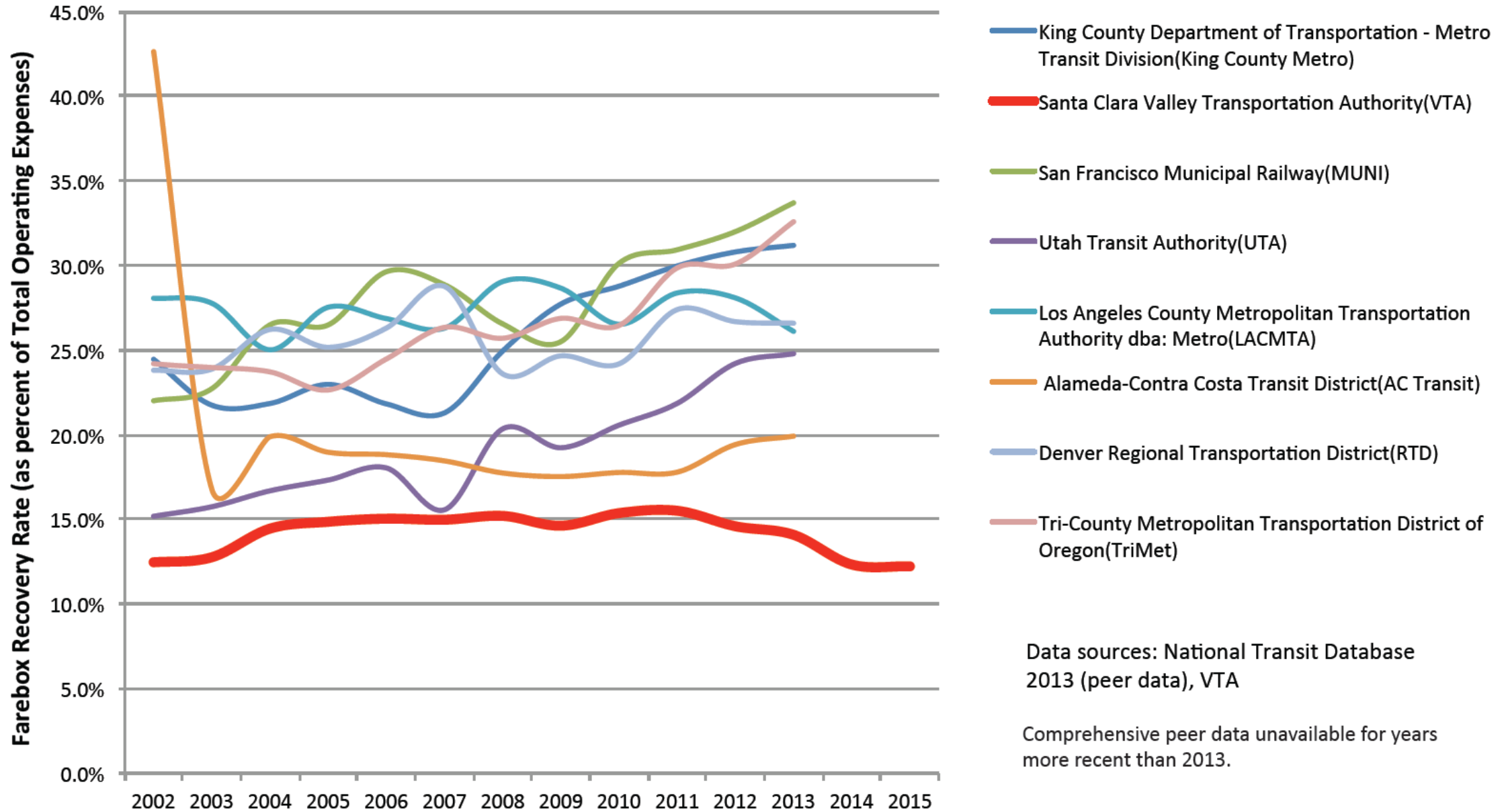


+12%
POPULATION

-13%
REVENUE HOURS

-23%
RIDERSHIP

VTA and Peer Agency Farebox Recovery Rates, 2002 - 2015



Data sources: National Transit Database 2013 (peer data), VTA

Comprehensive peer data unavailable for years more recent than 2013.

HOW TO INCREASE RIDERSHIP

VTA TOOLBOX

- MORE PASSENGERS PER BUS
- MORE TRIPS PER RIDER
- MORE USEFUL TRANSIT
- FREQUENT CORE NETWORK



HOW TO INCREASE RIDERSHIP

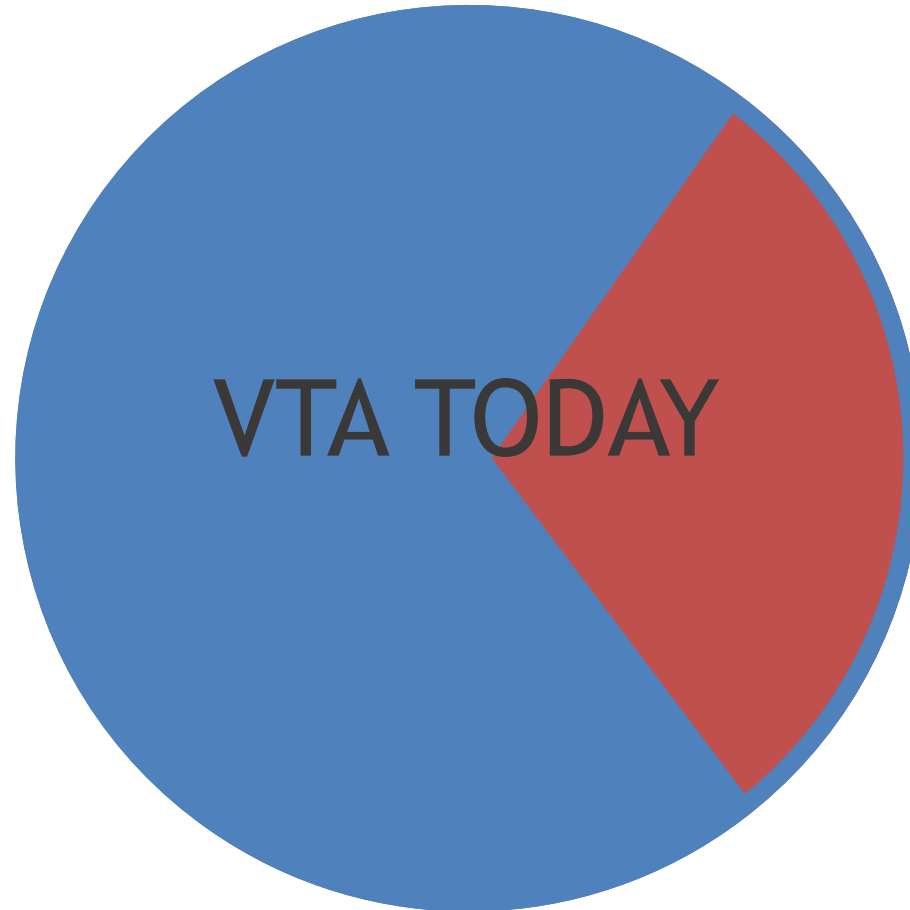
CITY TOOLBOX

- DESIGN CITIES FOR TRANSIT
- LAND USE
- STREET DESIGN



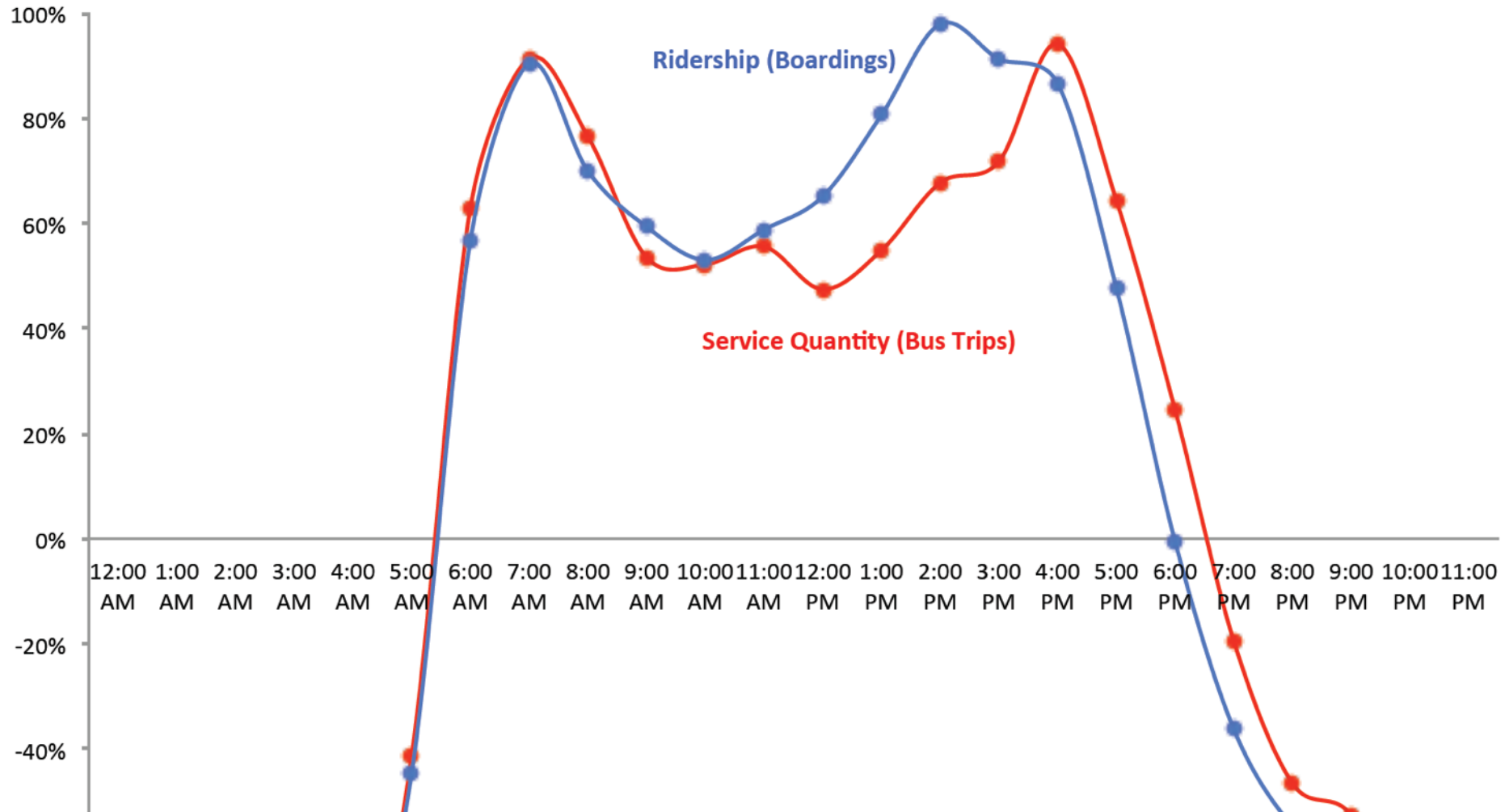
RIDERSHIP OR COVERAGE?

70%
RIDERSHIP
P

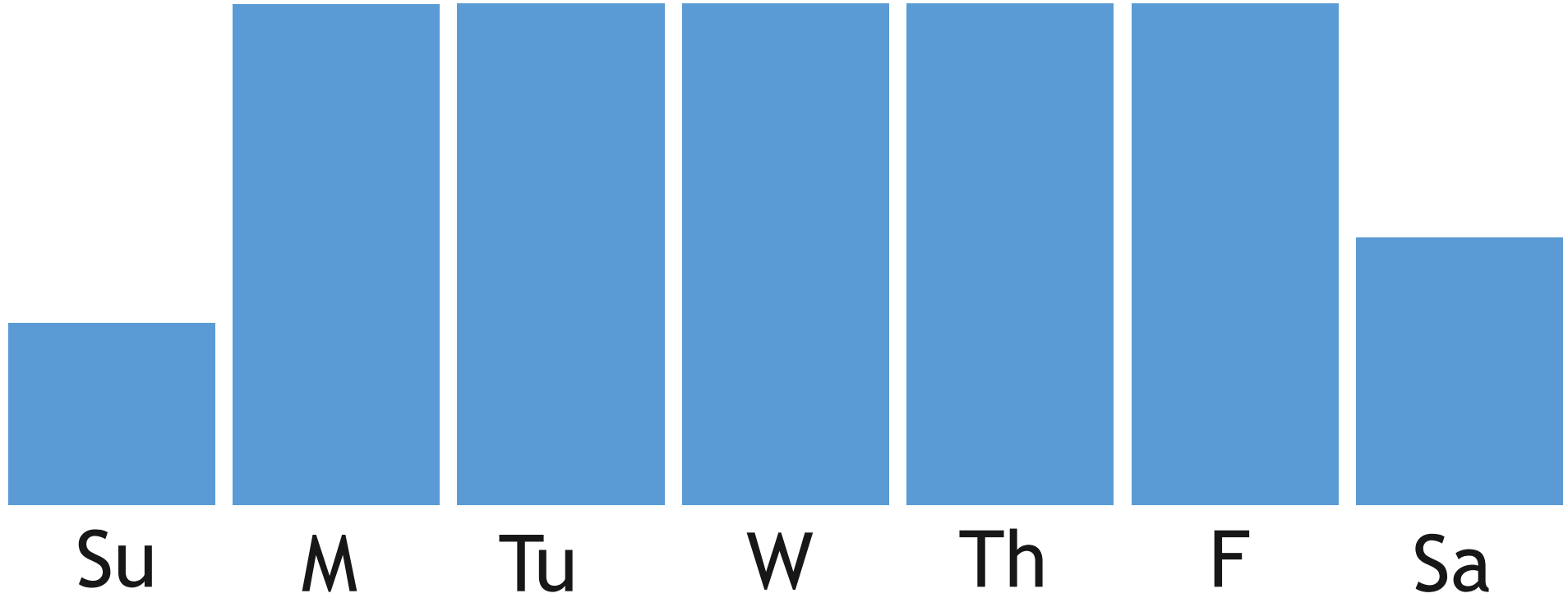


30%
COVERAGE

PEAK PERIOD OR ALL DAY?



FOCUS ON WEEKDAYS OR ALL DAYS?



FREQUENCY OR LONGER HOURS OF OPERATION?

MORE STOPS OR FASTER SPEEDS?

LOW FARES OR LOW PUBLIC SUBSIDIES?

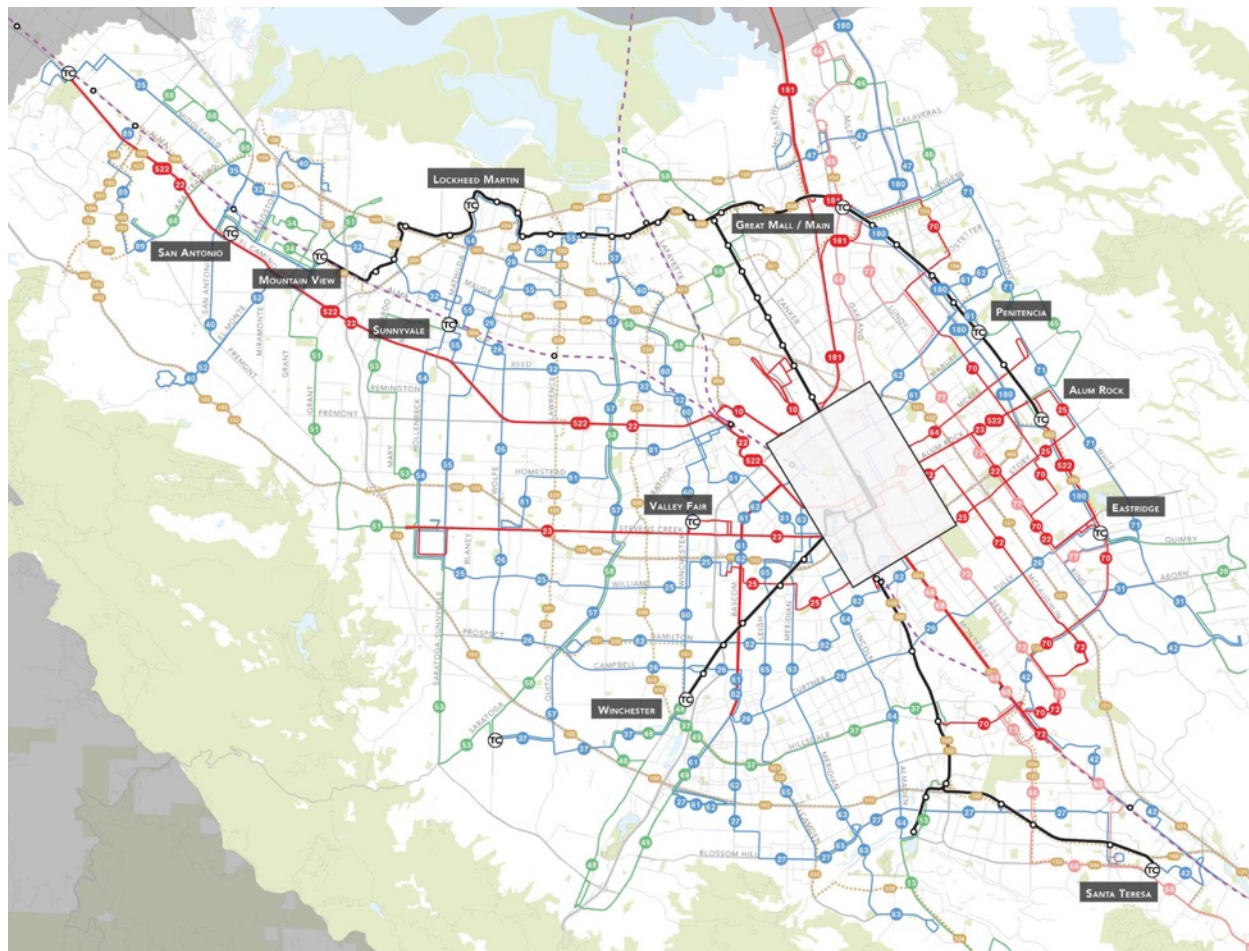
COMMUNITY ENGAGEMENT

APR - AUG COMMUNITY MEETINGS

MAY - JUL COMMUNITY LEADER WORKSHOPS

ONLINE [WWW.VTA.ORG/NEXTNETWORK](http://www.vta.org/nextnetwork)

ANYTIME BOOK-A-PLANNER



VTA *Next Network*: Your Transit Choices

Outline

- What High Ridership Transit Looks Like
- Choice: How to balance ridership and coverage?
- Choice: How to balance peak service with all-day, all-week service?

Timeline

March 2016	Choices Report Released
April 7, 2016	Alternative Network Concepts Released
April 14, 2016	Report on Alternative Concepts
May-Aug 2016	Outreach on Alternative Concepts
Aug-Oct 2016	Board Direction on Alternative Concepts
Dec. 2016	Draft Final '17 Network Released
Jan-Feb 2017	Outreach on Draft Plan
March 2017	Final Recommended Plan Prepared
April 2017	Board Adopts Final Plan
July 2017	BART Opens. Next Network Service Begins.

The Ridership Recipe

Ridership

- By “ridership” we always mean “productivity”
 - i.e. riders per unit of service.
 - i.e. riders relative to cost.
 - This tracks with farebox recovery.
- Transit outcomes arise from “three-legged stool”:
 - Transit service
 - Land Use
 - Street Design and Management
- VTA controls only one leg!

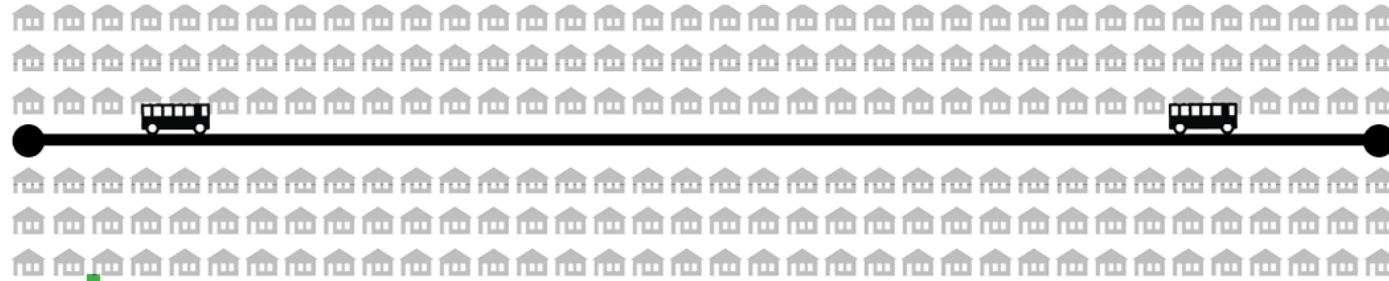
The Ridership Recipe

- High All-Day Frequency
- Following patterns of ...
 - Density
 - Walkability
 - Linearity
 - Proximity

Why? Because this brings the most useful destinations within reasonable travel time of the most people.

The Ridership Recipe

DENSITY *How many people, jobs, and activities are near each potential transit stop?*



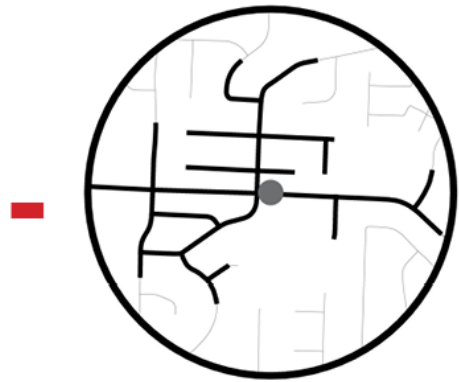
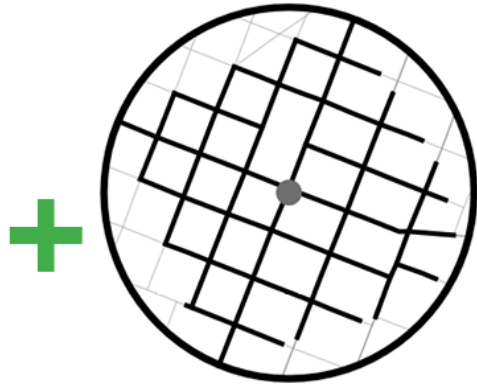
+ Many people and jobs are within walking distance of transit.



- Fewer people and jobs are within walking distance of transit.

The Ridership Recipe

WALKABILITY *Is it possible to walk between the stop and the activities around it?*



+ It must also be safe to cross the street at a stop. You usually need the stops on both sides for two-way travel!

The Ridership Recipe

LINEARITY *Can transit run in reasonably straight lines?*



+ A logical transit line is a direct path between any two destinations on it.



The Ridership Recipe

PROXIMITY *Does transit have to traverse long gaps?*



+ Short distances between many destinations are faster and cheaper to serve.



- Long distances between destinations means a higher cost per passenger.

Why Frequency Matters

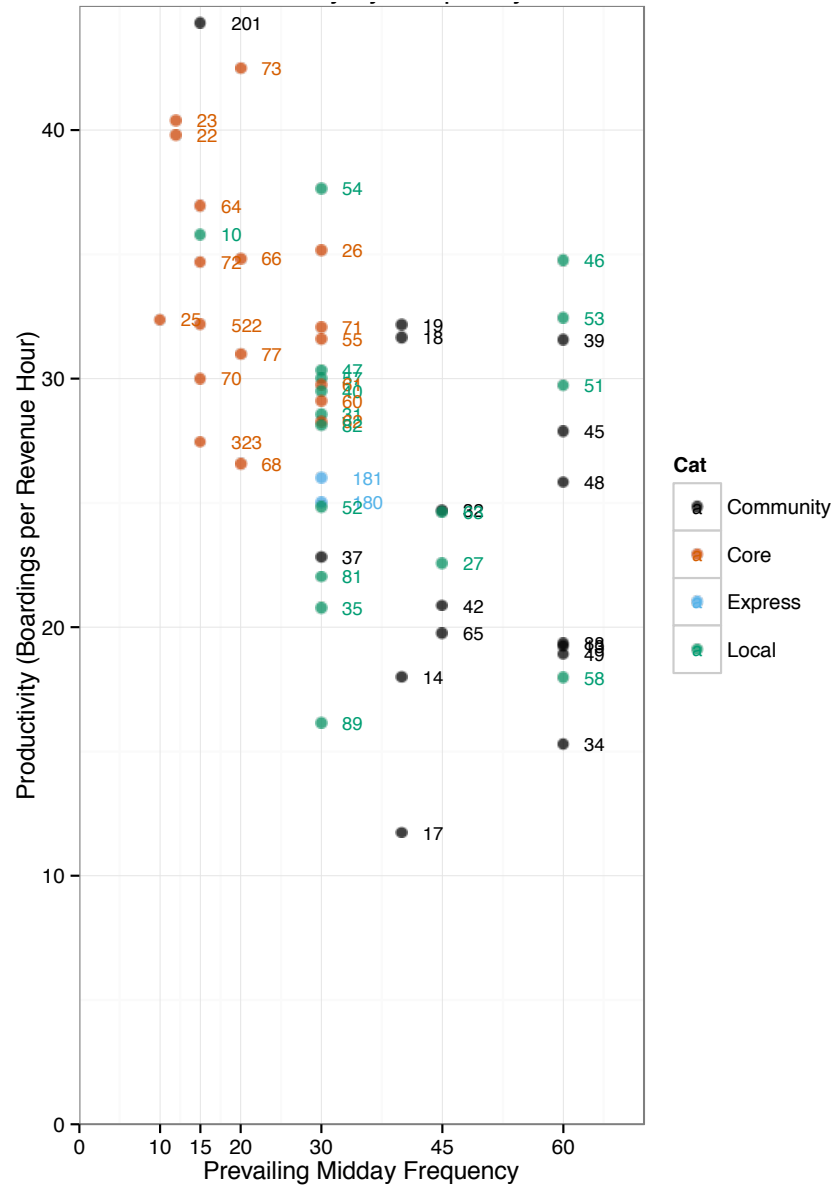
Frequency is a “cubed” benefit”:

- Go when you want to go, arrive when you want to arrive.
- Make connections easily, multiplying the places you can go.
- Better reliability.

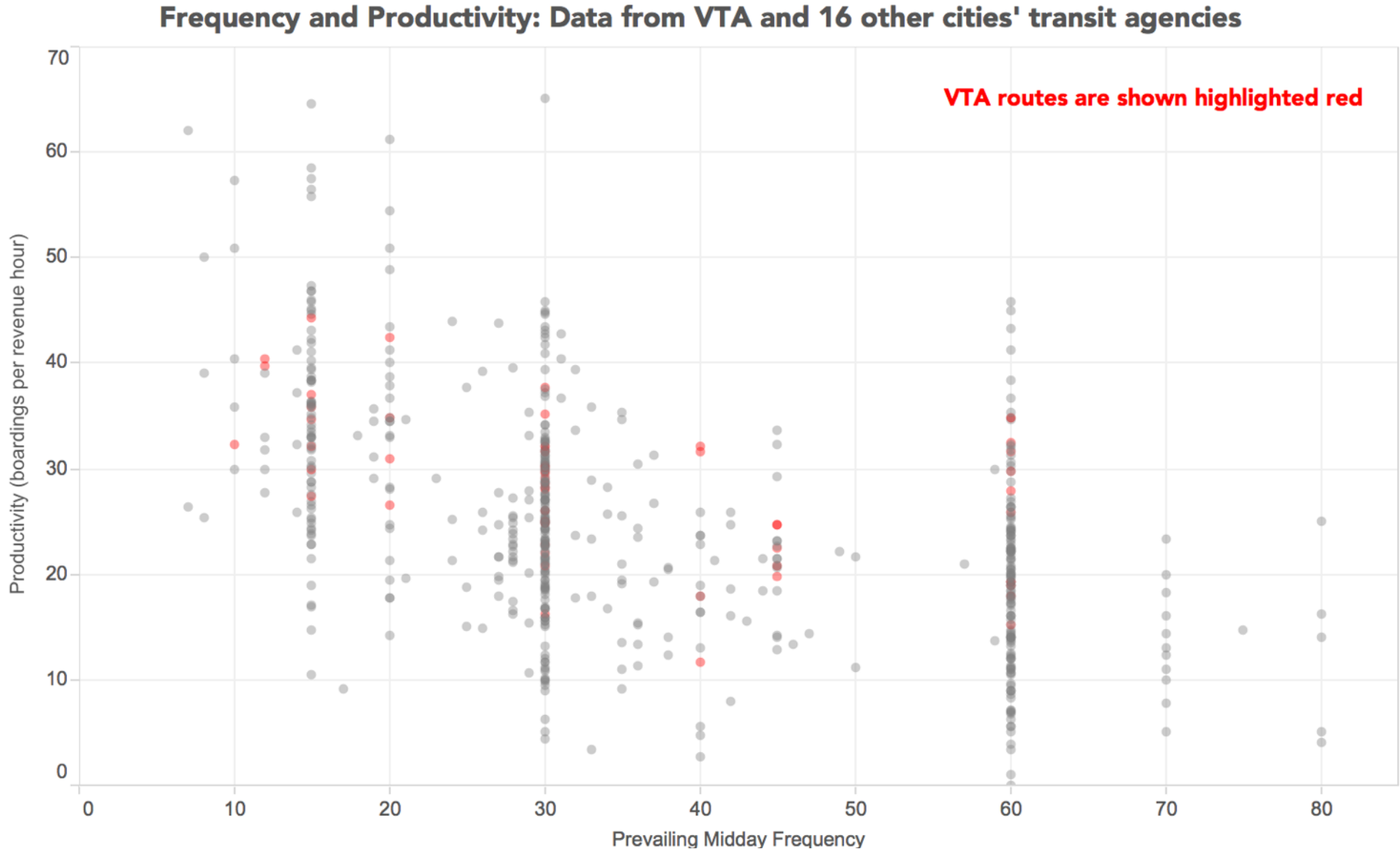
For short trips, waiting is a large part of travel time.

(Speed and reliability matter too, but they are less neglected than frequency.)

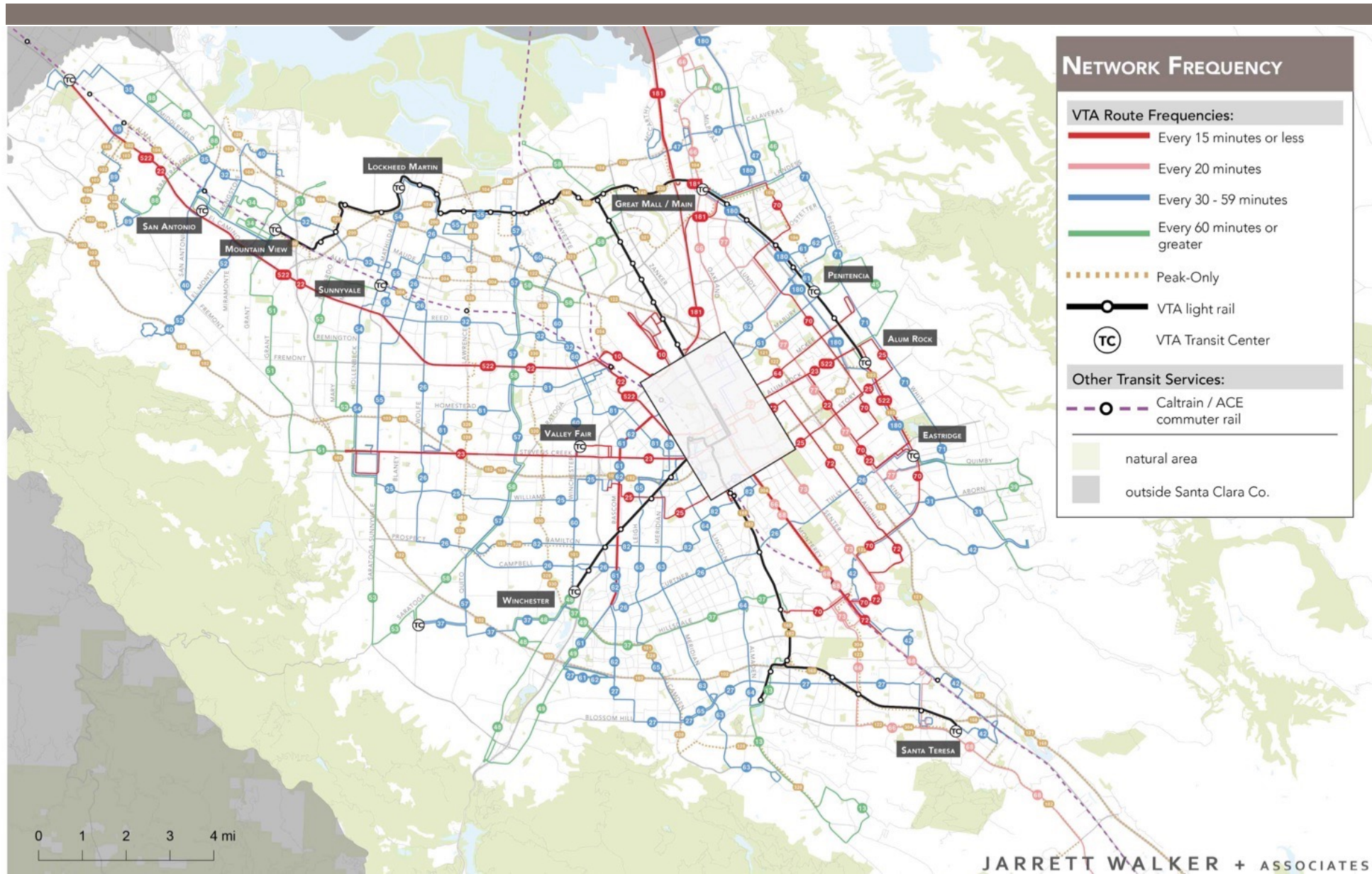
Most Productive Routes are Frequent



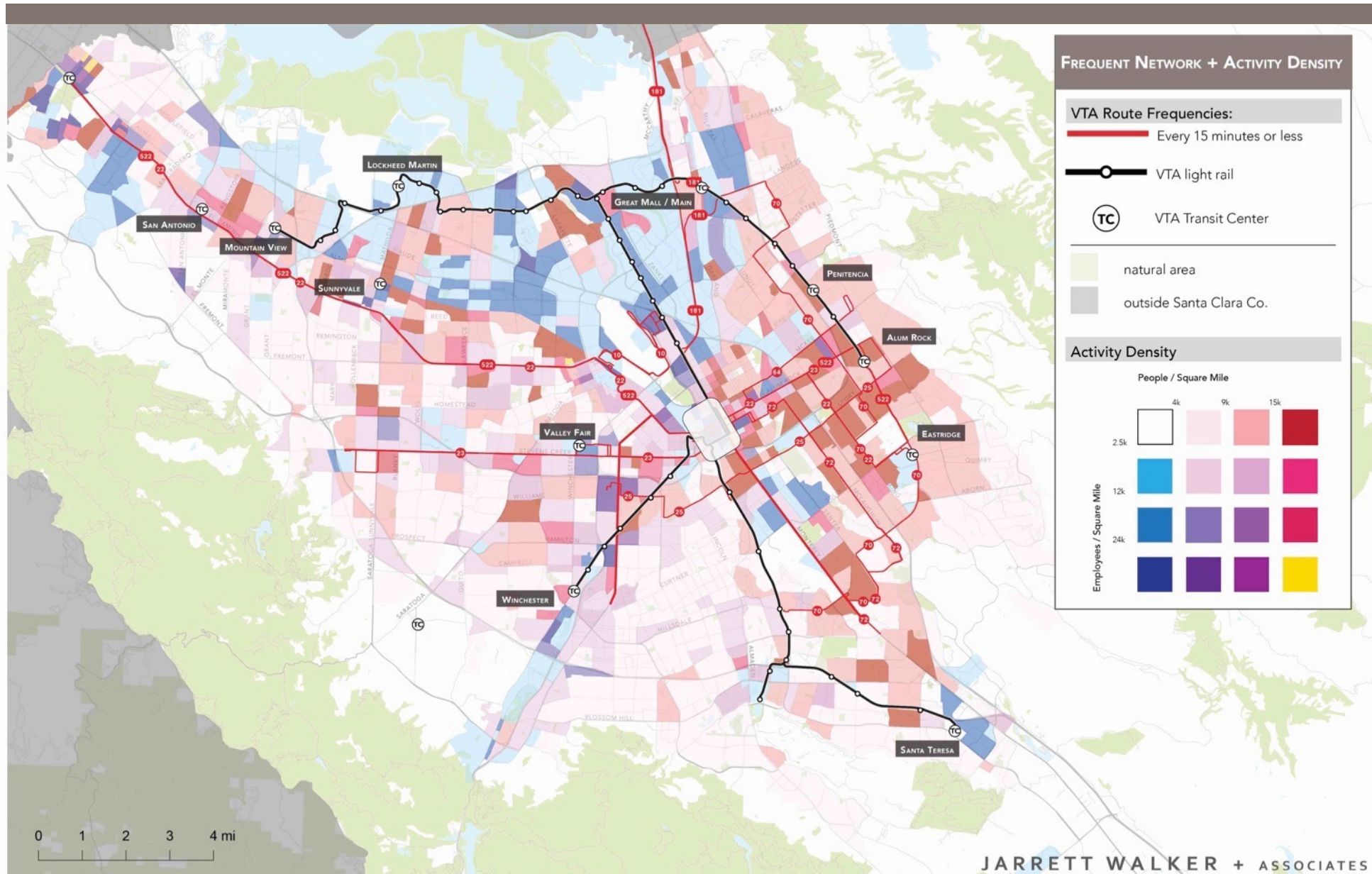
This is true everywhere



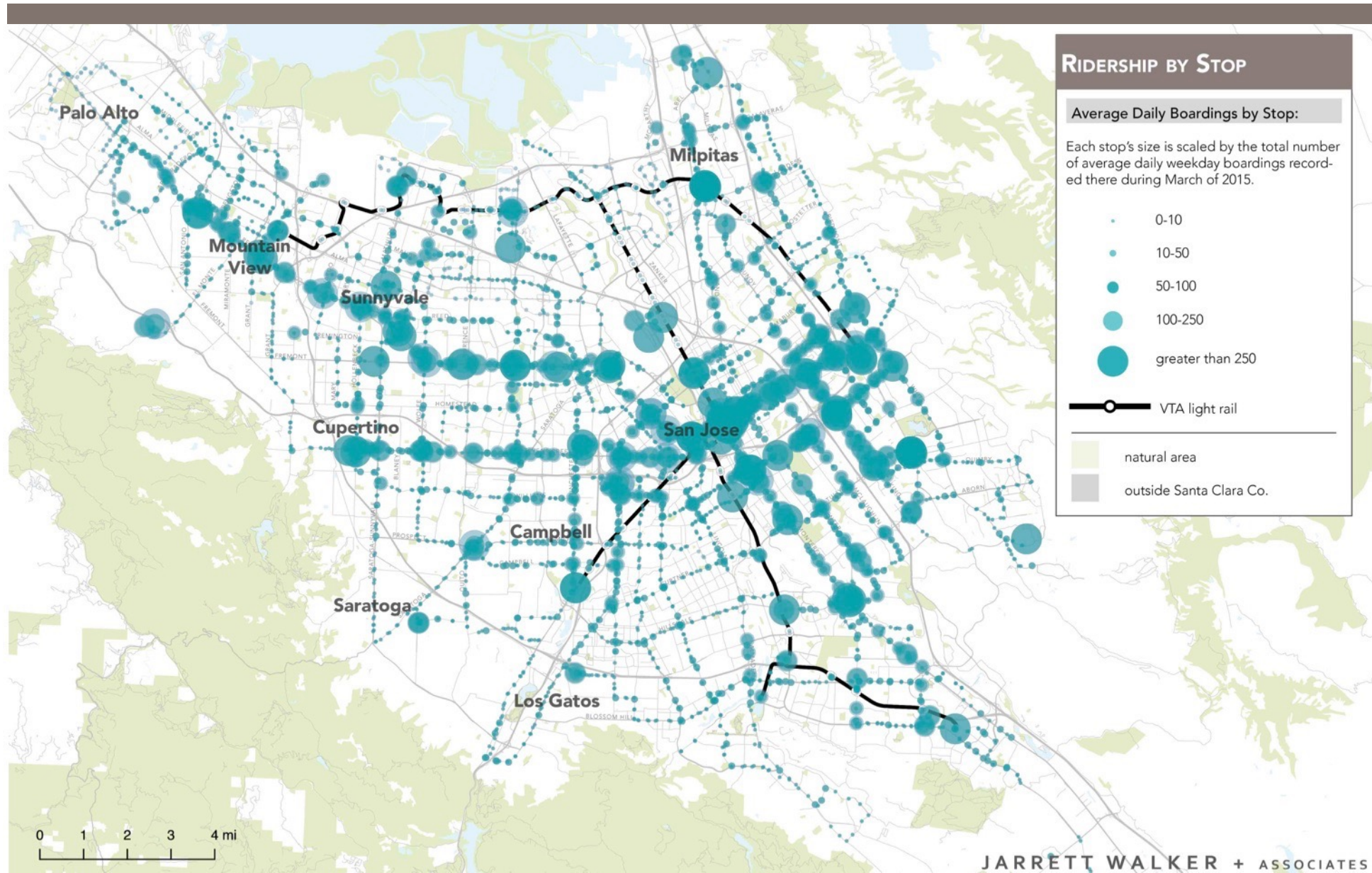
Current All-day Frequency



Density + Linearity + Frequency ...

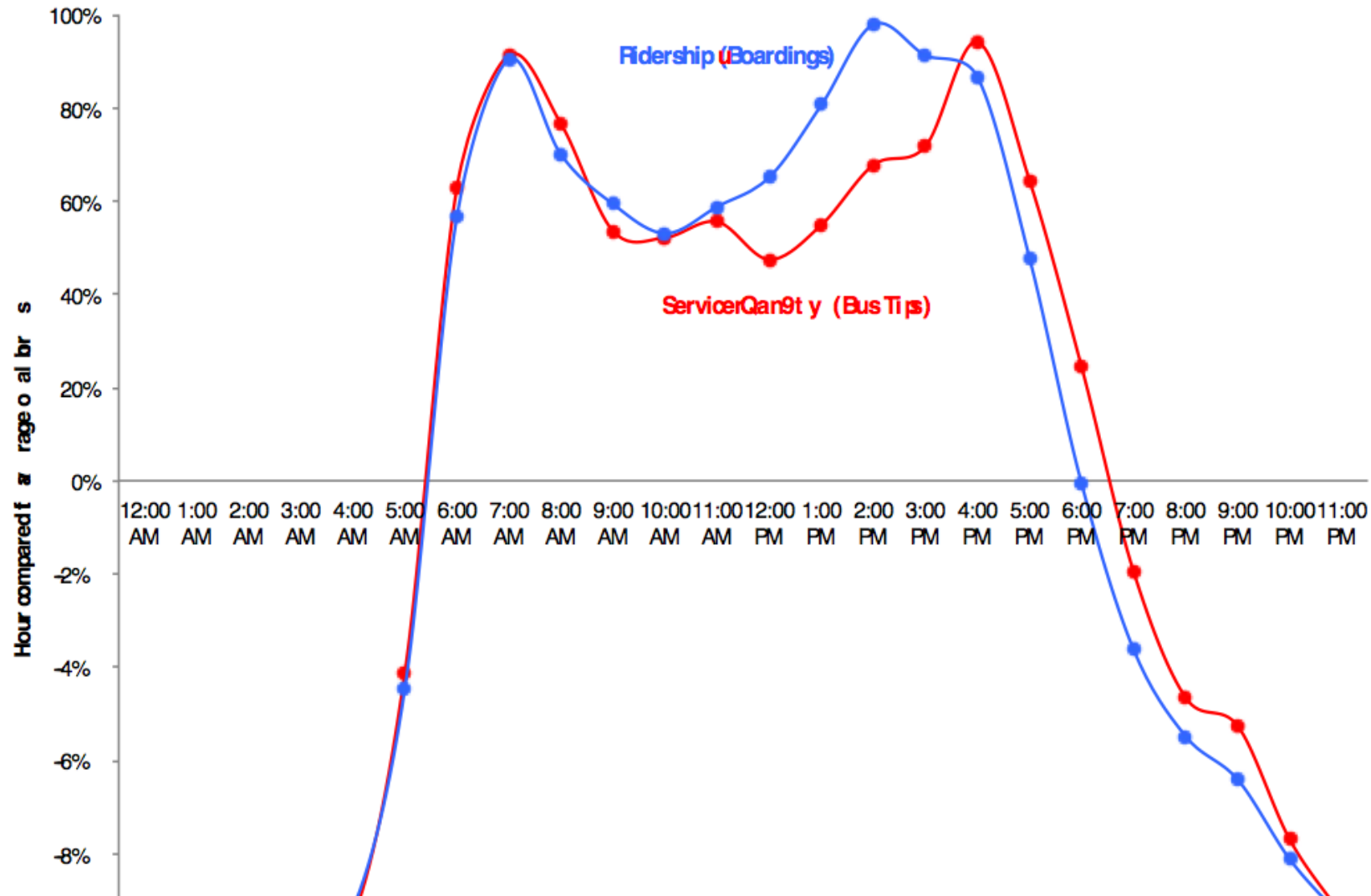


= Ridership



Peak vs All-Day

Mismatch between service quantity and ridership by borough



Why All-Day Matters

Hidden Costs of Peak Service

- Three extra costs for peak services and frequencies:
 - Cost to own/store/maintain extra buses.
 - Cost of very short shifts
 - Costs of one-way operation: all vehicles have to come back (empty).
- All of these are worst for long rush-hour commutes.

The Ridership-Coverage Tradeoff

But is Ridership What You Want?

The Ridership-Coverage Tradeoff

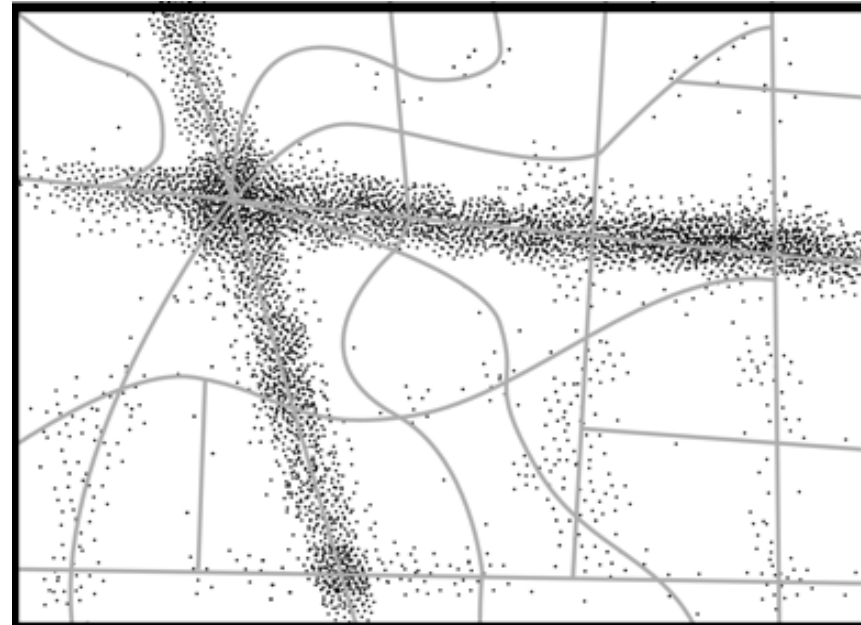
- Maximizing Ridership (and farebox return) requires thinking like a business.
- Businesses choose which markets to enter, based on where their product can succeed.
- This is not the same as meeting people's needs or expectations.

How should a transit agency allocate its resources?

Fictional Urban Area

Dots = residents and jobs

You have 18 buses



Ridership Goal "Maximize Ridership"

Think like a business, choosing which markets you will enter.

The straight roads offer density and walkability, so you focus frequent service there.

Frequency's payoff is "cubed."

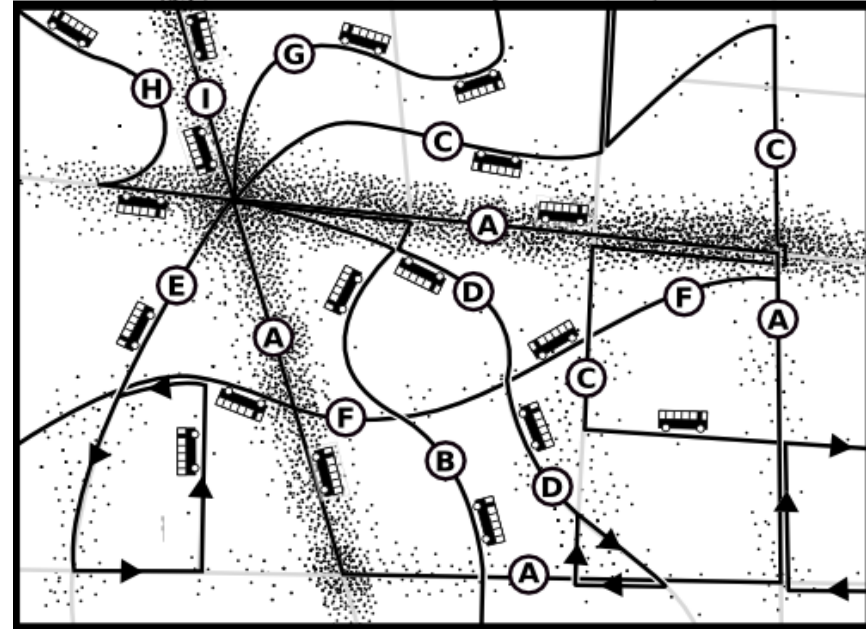


Performance Measure: *Productivity*

Coverage Goal "Serve Everyone"

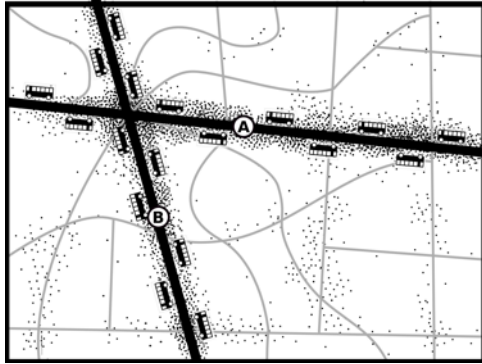
Think like a government service.
Try to serve everyone, even
those in expensive-to-serve
places.

The result is more routes
covering everyone, but worse
frequency, more complexity, and
lower ridership.



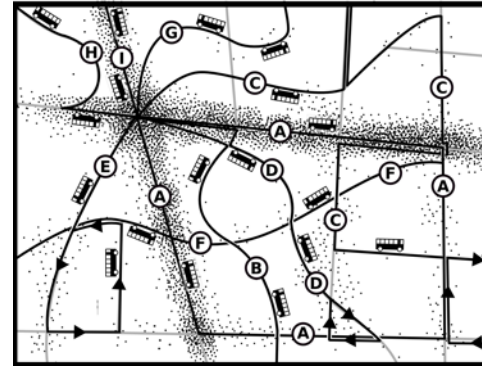
Performance Measure: Access or coverage

Both goals are important,
... but they lead opposite directions!



Ridership Goal

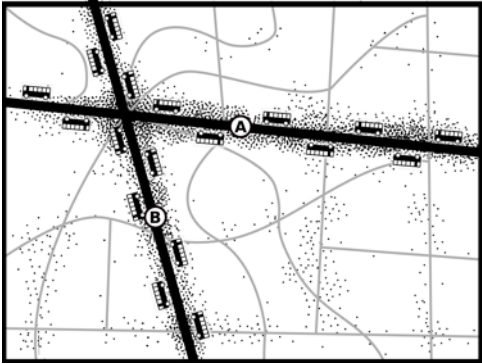
- “Think like a business.”
- Focus where ridership potential is highest.
- Support dense and walkable development.
- Max. competition with cars
- Maximum VMT reduction



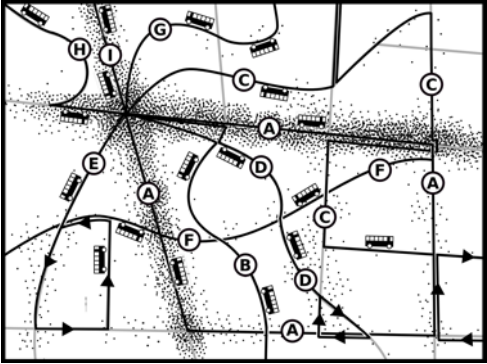
Coverage Goal

- “Think like a gov’t service.”
- “Access for all”
- Support suburban low-density development.
- Lifeline access for everyone.
- Service to every member city or electoral district.

So it helps to choose a point on the spectrum ...



Ridership Goal



Coverage Goal



Existing System
~ 70% ridership

About 70% of your service is where it would be if ridership were VTA's only goal.

Outtakes

Falling Behind Population Growth

Growing Population, but Unstable Transit Service and Ridership

