

Rail~Volution 2010

# Transit in Bay Area Blueprint

October 21, 2010



# Bottom Line



- State-of-Good Repair essential for reliable transit service – large funding shortfalls
- BART not out of capacity today
- Ridership could dramatically grow
- Capacity improvements not in regional plan (T2035)
- MPO's need to consider transit capacity in regional Sustainable Communities Strategy (SCS)



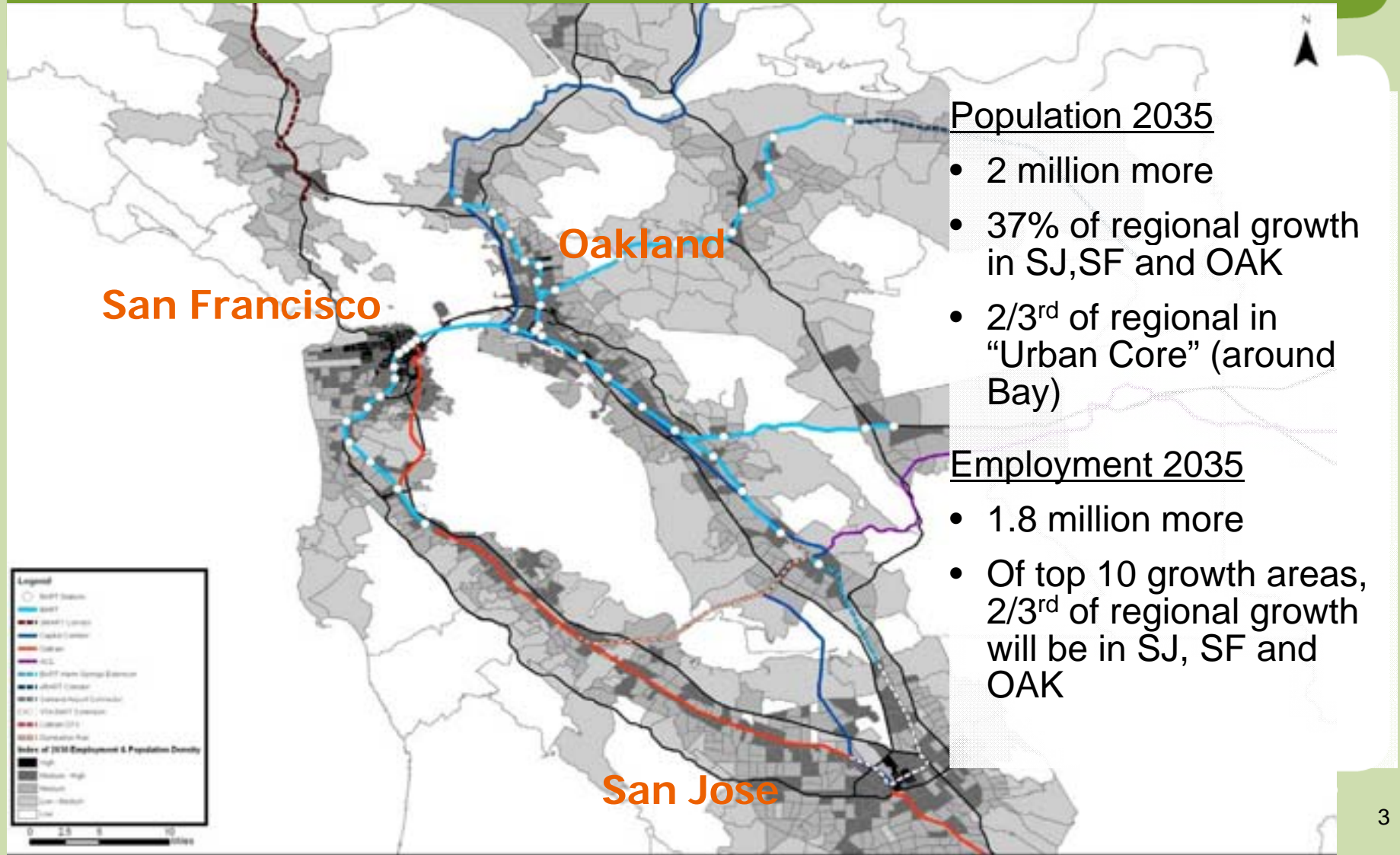
# BART Basics



- 360,000 daily riders
- 104 miles
- 43 stations
- 1.3 billion annual passenger miles



# Forecast Growth



# Climate Policy Framework



- ❑ AB32 CA Global Warming Solutions Act
  - 1990 emissions levels by 2020
- ❑ Executive Order #S-3-05 (2005)
  - 80% below 1990 emissions by 2050
- ❑ SB375 Sustainable Communities Strategy (2008)
  - Regional GHG Emission Targets for Autos / Light Trucks

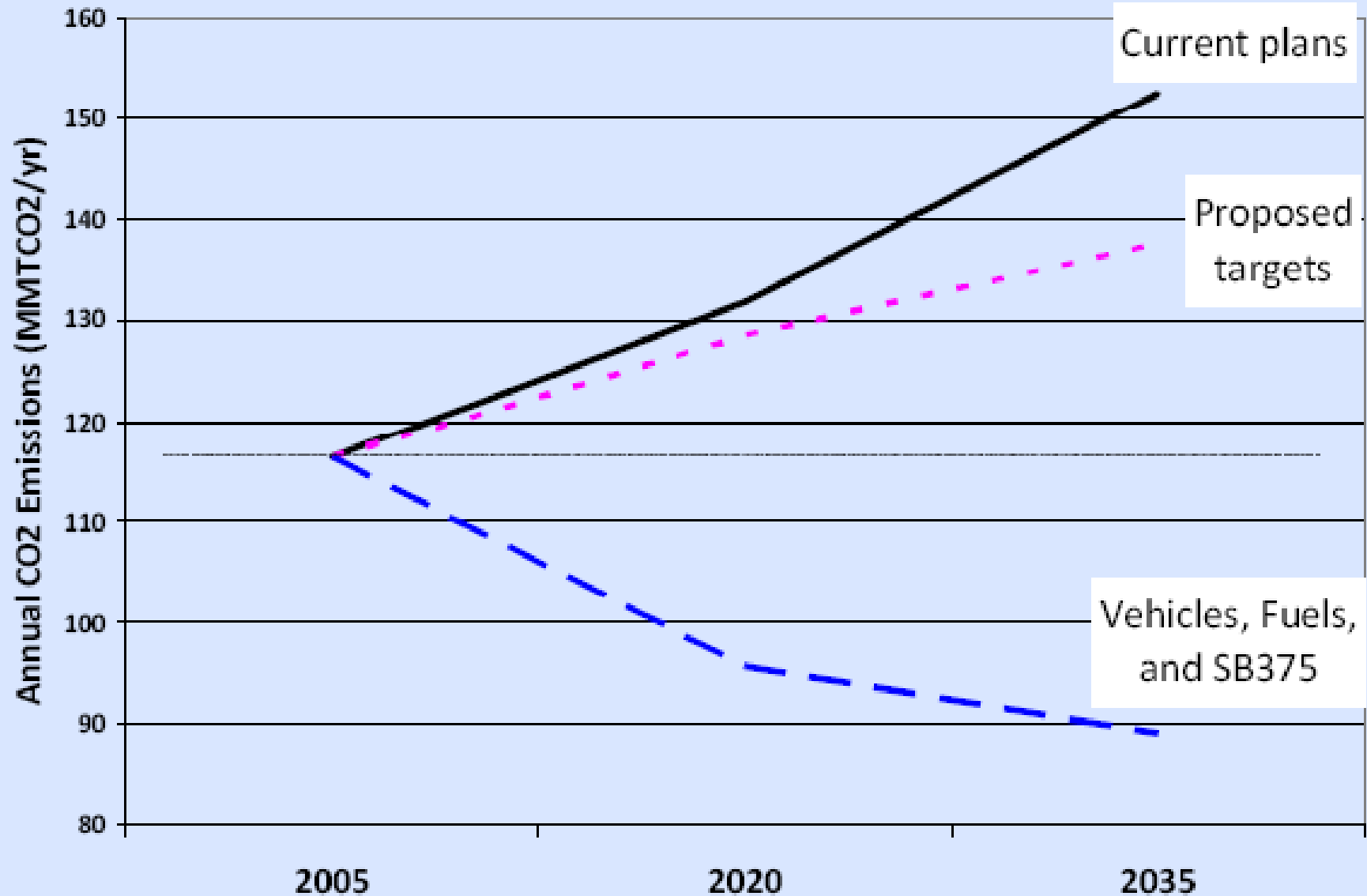


# California SB 375



- Reforms Regional Transportation Plan (RTP)
- California Air Resources Board (CARB) establishes regional GHG targets for cars and light duty trucks (travel)
- Regions design Sustainable Communities Strategies (SCS) as part off their RTP
- Consistency between transportation investments, land use, and housing allocations

# Emission Impacts of Proposed Targets



# CARB Implementation



- % reduction in GHG / capita from 2005 levels
- Established for 2020 and 2035

**Per Capital GHG Emission Reductions from Passenger Vehicles Relative to 2005 Levels**

<b>MPO</b>	<b>2020 Target</b>	<b>2035 Target</b>
Bay Area	7%	15%
Sacramento	7%	16%
San Diego	7%	13%
Los Angeles	8%*	13%*

\* Subject to SCAG board approval



# 50+ Years of History, 35+ Years of Service



**1946**

Bay Area Council & others begin discussions

**1957**

BART District Created

**1962**

Voters Approve BART Plan

**1964**

Construction Begins

**1970**

BART Car Prototype Created

**1972**

BART Carries First Passenger



# Critical Reinvestment Needs



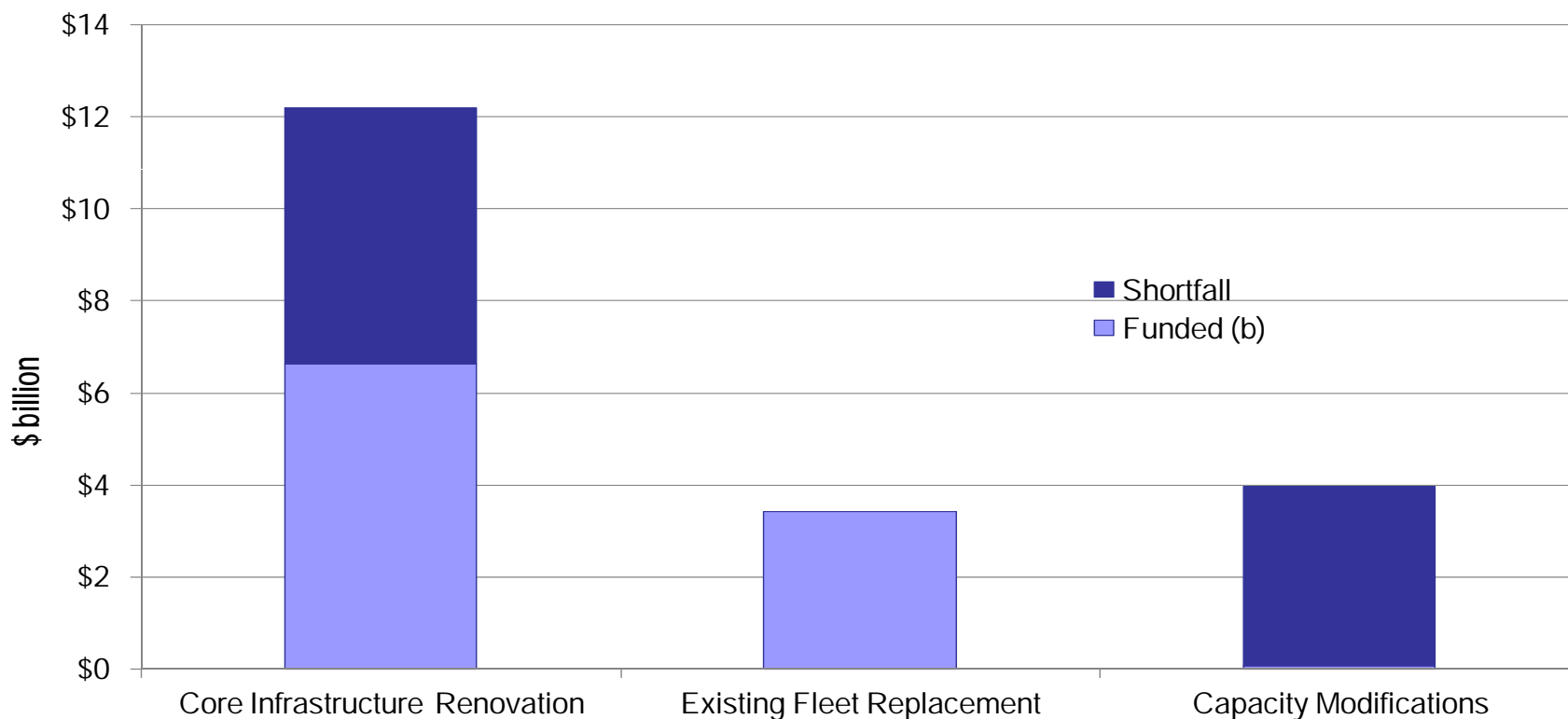
- After 35 years, reinvestment and upgrades are vital
- Investment projects include:
  - Replace/Add Rail cars
  - Station Modernization
  - Track Improvements
  - Traction Power
  - Capacity Enhancements
  - Train Control/Communication systems



# BART Capital Program for Core System Major Funding Shortfalls



BART Capital Program (a)  
(\$billion)



(a) Not shown are \$30 million in Security improvements and \$30 million in Quality Enhancements  
(b) Funding as "programmed" in MTC 2035 Regional Transportation Plan

BART Ridership

# Current Travel Markets



2/3rds of BART trips to/from Market Street stations

Weekday Trips by Sub-Area

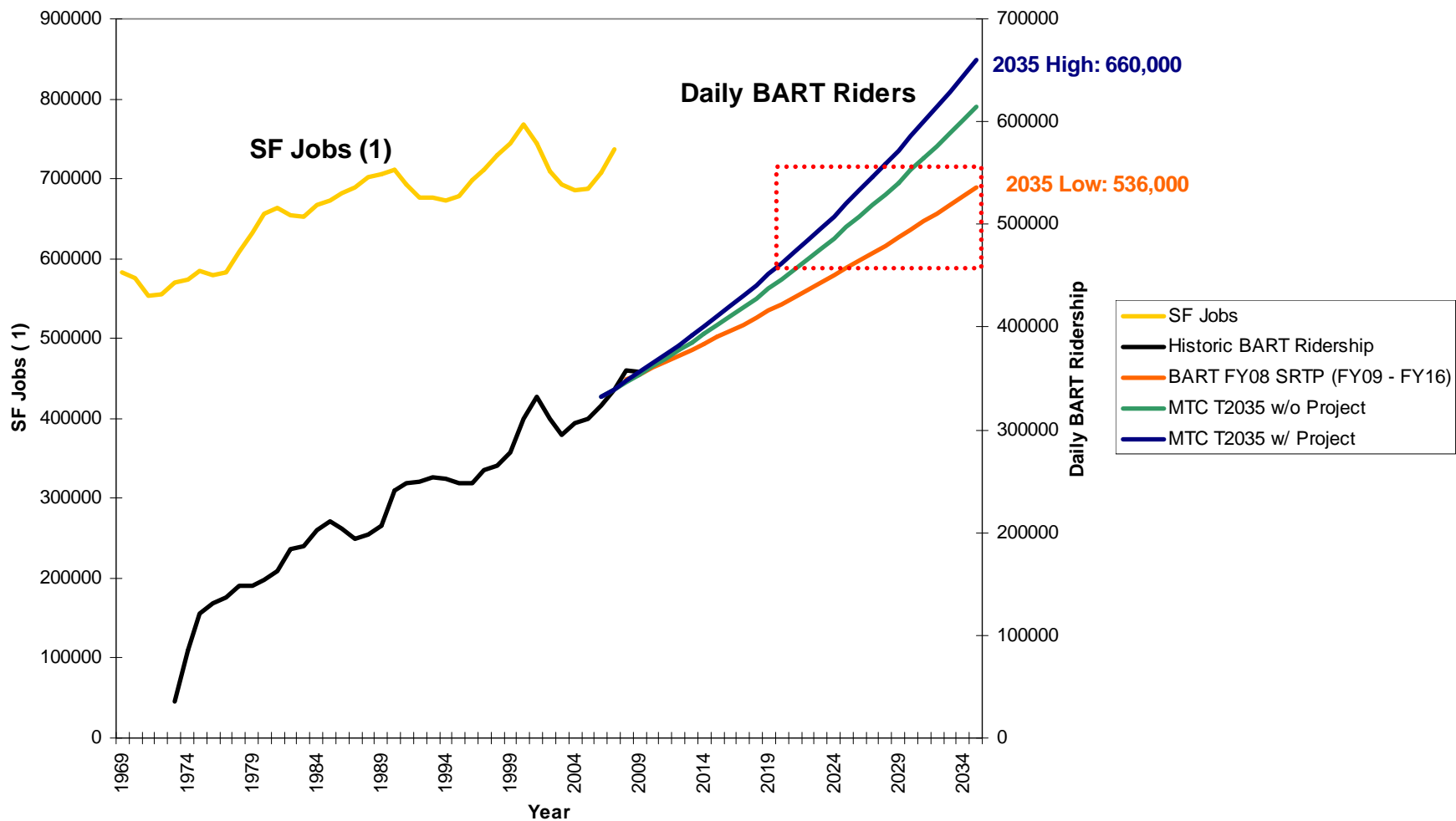
- 48%: Transbay
- 28%: intra-West Bay
- 24%: intra-East Bay



# BART Average Daily Ridership Historic Trends and Projections

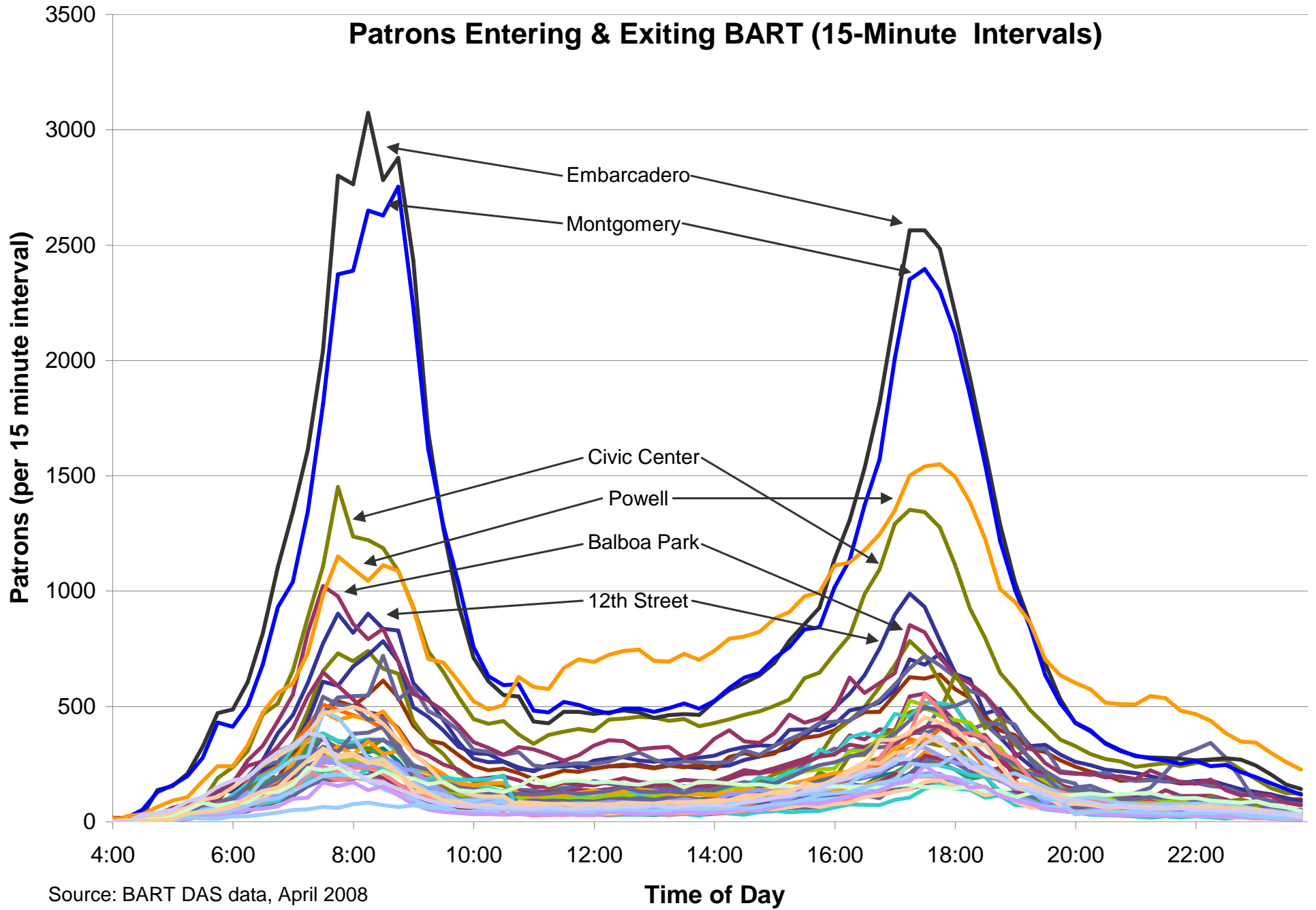


BART Ridership and SF Job Growth



(1) US Bureau of Labor Statistics

# Patrons Entering & Exiting BART (15-Minute Intervals)



Source: BART DAS data, April 2008

# Sustainable Communities Strategy

## Shape Demand

### 1) Policy (pricing, parking)

### 2) Land Use / Job Centers

- Expand where ample transit capacity
  - reverse commute
  - regional employment sub-centers
  - off-peak



# Where Could BART See Problems in the Future?



- On-Board Train Crowding
  - ❑ Passenger per Seat or per Car (Load Factors)
  - ❑ Train Control System
  - ❑ Vehicles
- SF Downtown Stations
  - ❑ Platform Crowding (PM)
  - ❑ Stair, Escalator & Faregate Queuing (AM)
  - ❑ Emergency Exiting
- Yards & Shops
- Station Access





# Transbay Corridor Management

Illustrative – Phased Improvements over 50 Years



Max. Load Point in peak direction (future peak hour <u>increase</u> )	Short < 2,500	Medium 2,500 – 7,500	Long 7,500 – 12,000
<b>BART</b>			
Remove Train Seats	●		
Demand Management Strategies	●	●	●
Station Access	●	●	●
Station Capacity	●	●	
3-Door Train Fleet		●	
Train Control Improvements		●	
Expand Train Fleet		●	●
Construct New Transbay Tube + Stations			●
<b>Bus</b>			
Transbay Terminal	●		
Bay Bridge Contra-Flow Lane		●	

JR Railway (Japan)  
**Supply-Side Strategy**



# Capacity Overview



**Questions?**