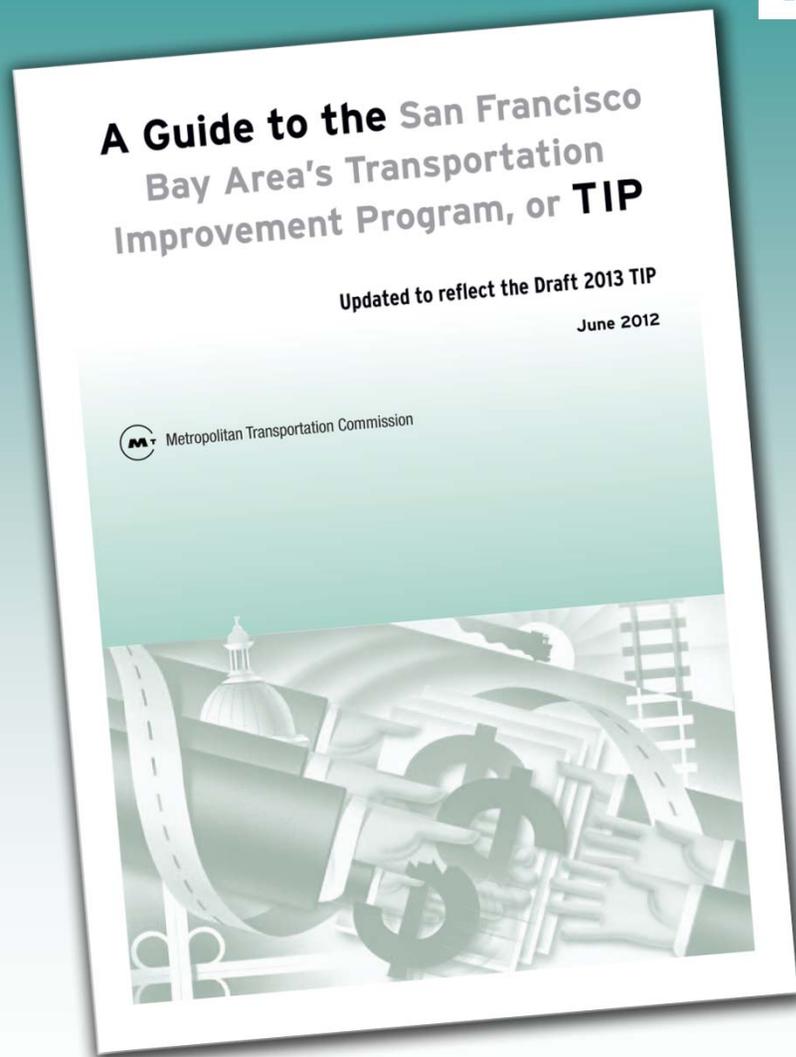


Draft 2013 TIP Investment Analysis



**Presentation to
Policy Advisory Council**

July 2012

Purpose of the 2013 TIP Investment Analysis

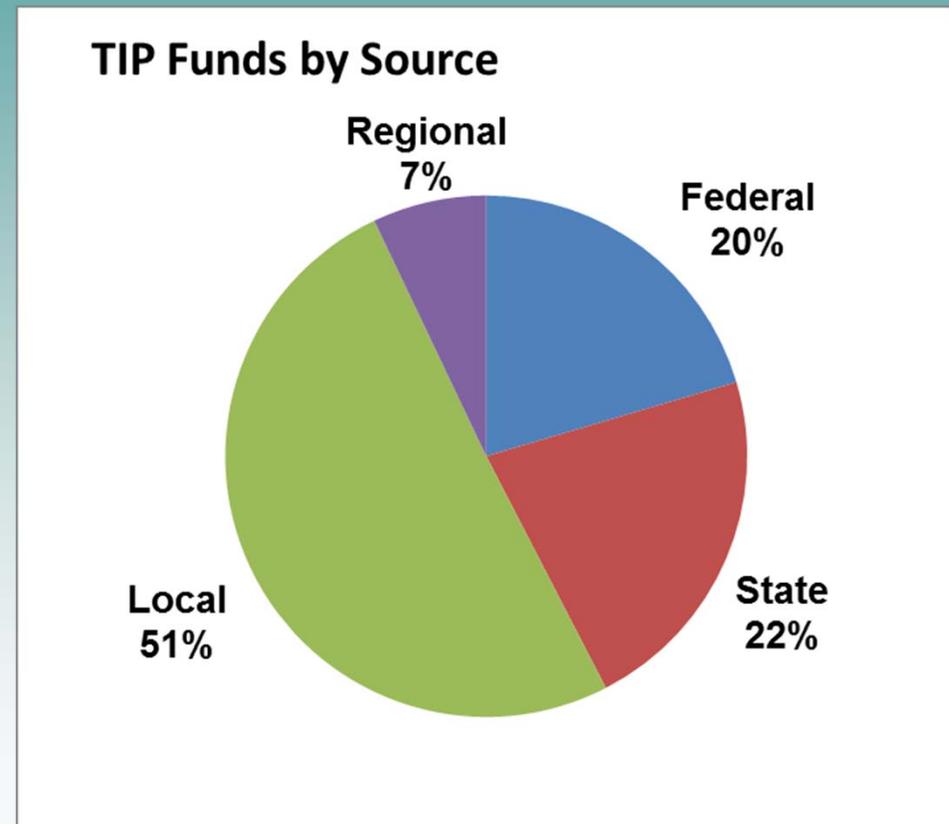
- Assists in the public assessment of the 2013 TIP
- Illustrates the equity implications of the proposed TIP investments. Evaluate key question — “Are low-income and minority populations sharing equitably in the TIP’s financial investments?”
- Follows in steps of the 2011 TIP investment Analysis
- Responsive to Title VI and Environmental Justice MPO Planning Requirements.

Context of the Analysis

- **One of several different assessments that MTC conducts**
 - Plan Bay Area Equity Analysis (On-going)
 - 2011 TIP Investment Analysis (September 2010)
 - Snapshot Analysis for MTC Communities of Concern (June 2010)
 - Transportation 2035 Equity Analysis (February 2009)

About the 2013 TIP (Draft Only)

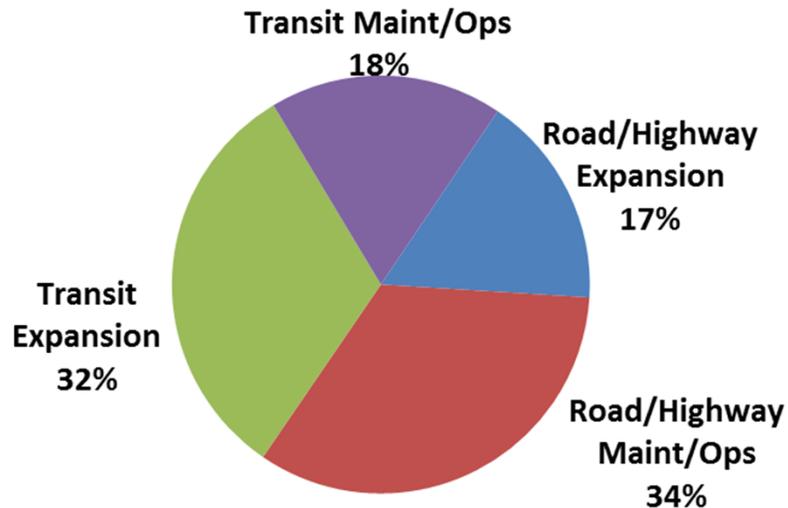
- Includes nearly 900 surface transportation projects
- Total investment level of approximately \$11.2 billion
- Covers four-year period through Fiscal Year 2016
- Local funds are largest share, even though TIP is focused on projects with a federal interest



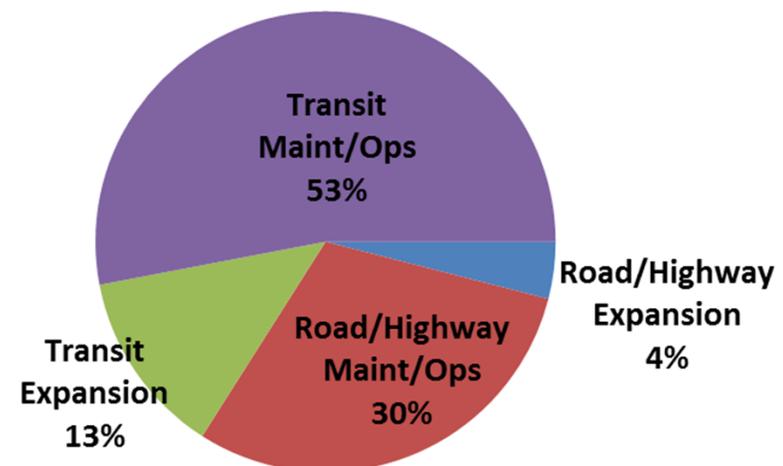
Key Differences: 2013 TIP and Transportation 2035

- Period covered – 4 years versus 25 years
- Mode and type of projects – the share of expansion and road/highway projects is greater in the 2013 TIP than Transportation 2035

**2013 TIP Investments
Expenditure by Mode/Type**



**Transportation 2035 Investments
Expenditure by Mode/Type**



Reason for Differences

2013 TIP and Transportation 2035

- 2011 TIP is roughly 50% of the investment captured in Transportation 2035, for same 4-year period
- 2013 TIP generally includes only projects that are regionally significant, have federal funds, or require a federal action
- Transportation 2035 is all planned transportation projects
- Transit and roadway O&M is under-represented in the 2013 TIP because these investments are predominantly 100% locally-funded

Context – Bay Area Demographics

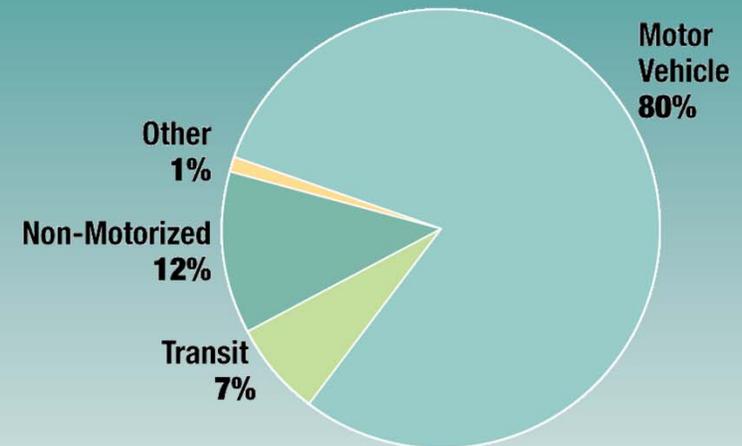
Population Distribution by Household Income	
	% of Total
Low-Income (\leq \$50,000)	25%
Not Low-Income ($>$ \$50,000)	75%
Population by Race/Ethnicity	
	% of Total
<i>Racial/Ethnic Minorities</i>	54%
White Non-Hispanic	46%
Total	100%

Sources: 2005-09 American Community Survey (ACS) tract-level data, ACS: Public Use Microdata Sample 2008 and 2005-2007 ACS.

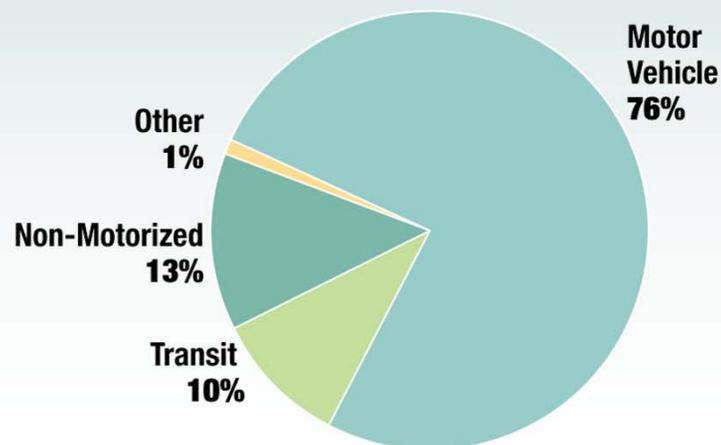
Context – Bay Area Demographics

- Majority of trips are made by motor vehicle (80%)
- Travel pattern holds for low-income and minority populations, but transit and non-motorized shares increase

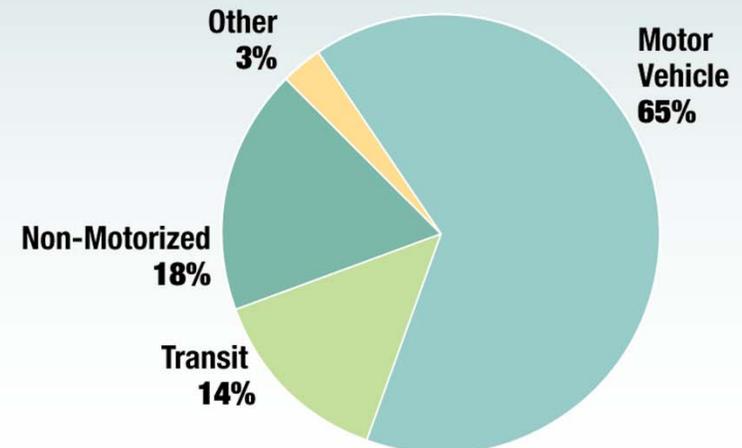
Share of Trips by Mode
Total Population



Share of Trips by Mode
Racial/Ethnic Minority Population



Share of Trips by Mode
Low-Income Population



Methodology Overview

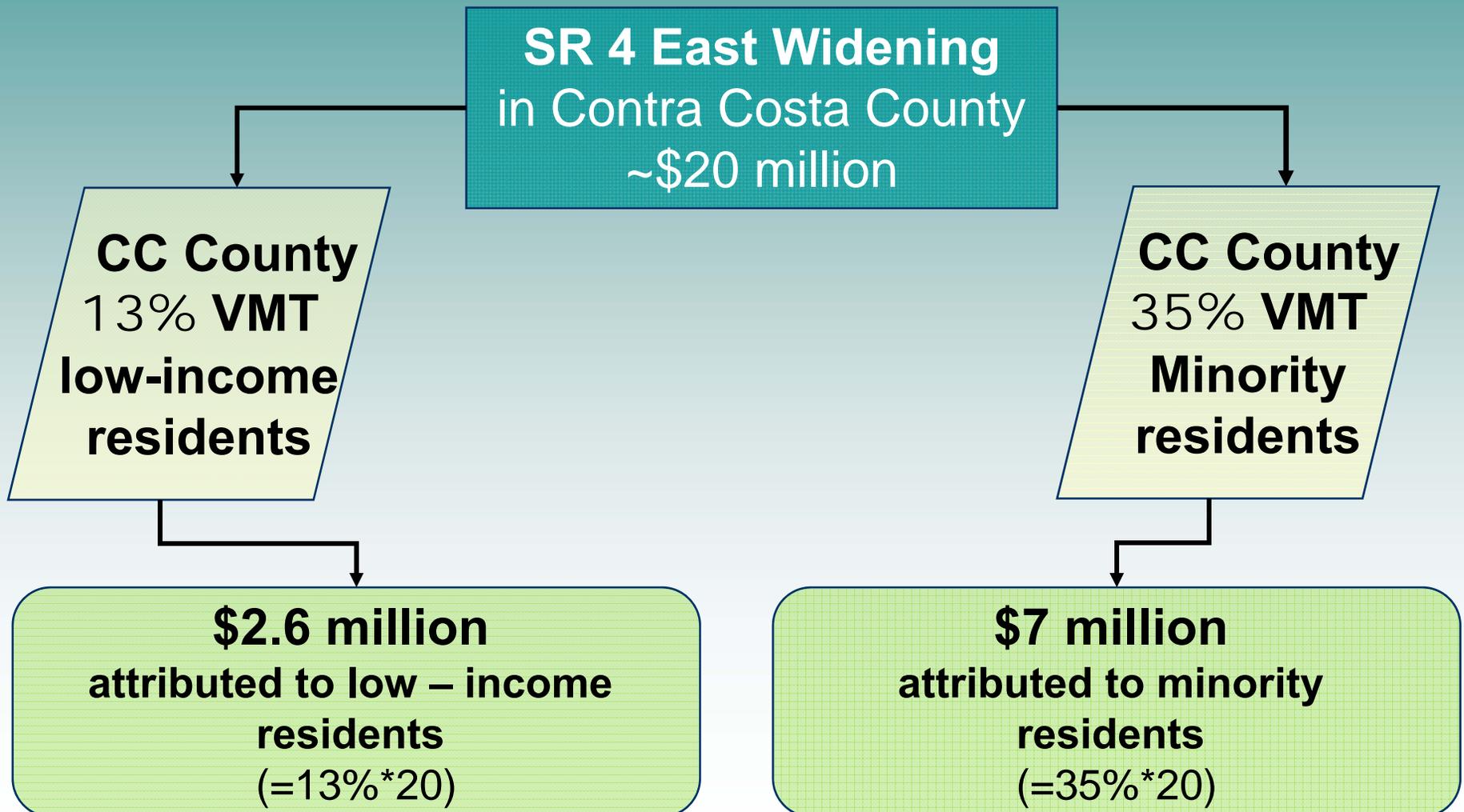
- **Two Analytical Methodologies that only account for the costs in the four-year TIP period**
 - Population Use-Based Analysis – Same as 2011 TIP Investment Analysis
 - Access - Based Analysis – Updated Communities of Concern Definition
 - Mapping all the mappable projects to show relative geography of projects
 - For Communities of Concern
 - For ethnic minorities (tracts with greater than regional average).
 - Detail by ethnicity available at <http://www.mtc.ca.gov/funding/tip/2013/maps>

Methodology Overview

- **Population or Use-Based Analysis:**
 - Use-based
 - 2013 TIP investments will be separated into two modes:
 - transit and road/highway
 - Compares % of investment for low-income and minority populations to % of use of the transportation system by the same populations.
 - Data used — Bay Area Travel Survey (2000), Transit Passenger Demographic Survey (2006), and 2013 TIP Investments
 - No change in methodology from 2011 TIP Investment Analysis

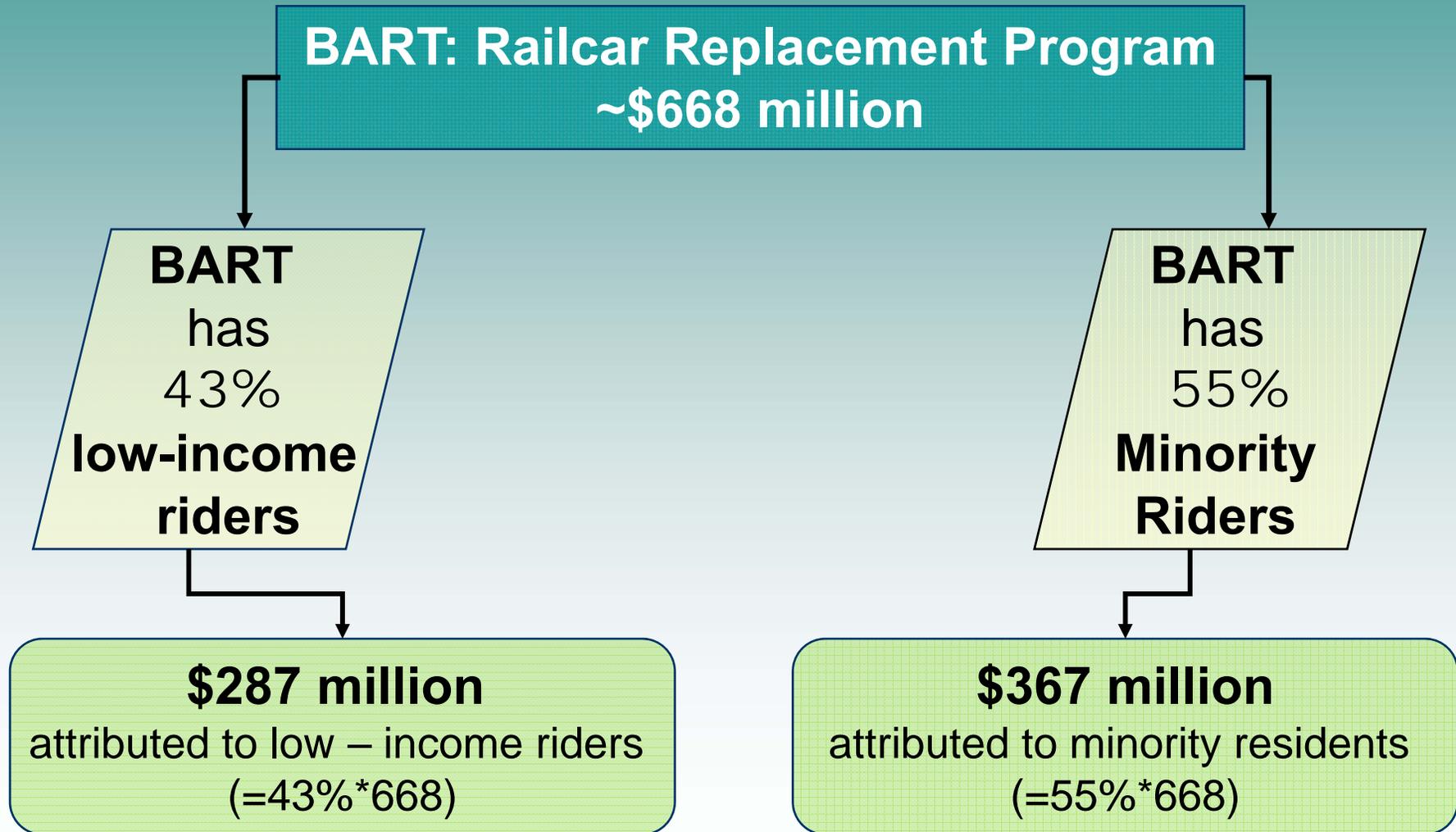
Example Project Assignment

Population Use-Based: State Highway



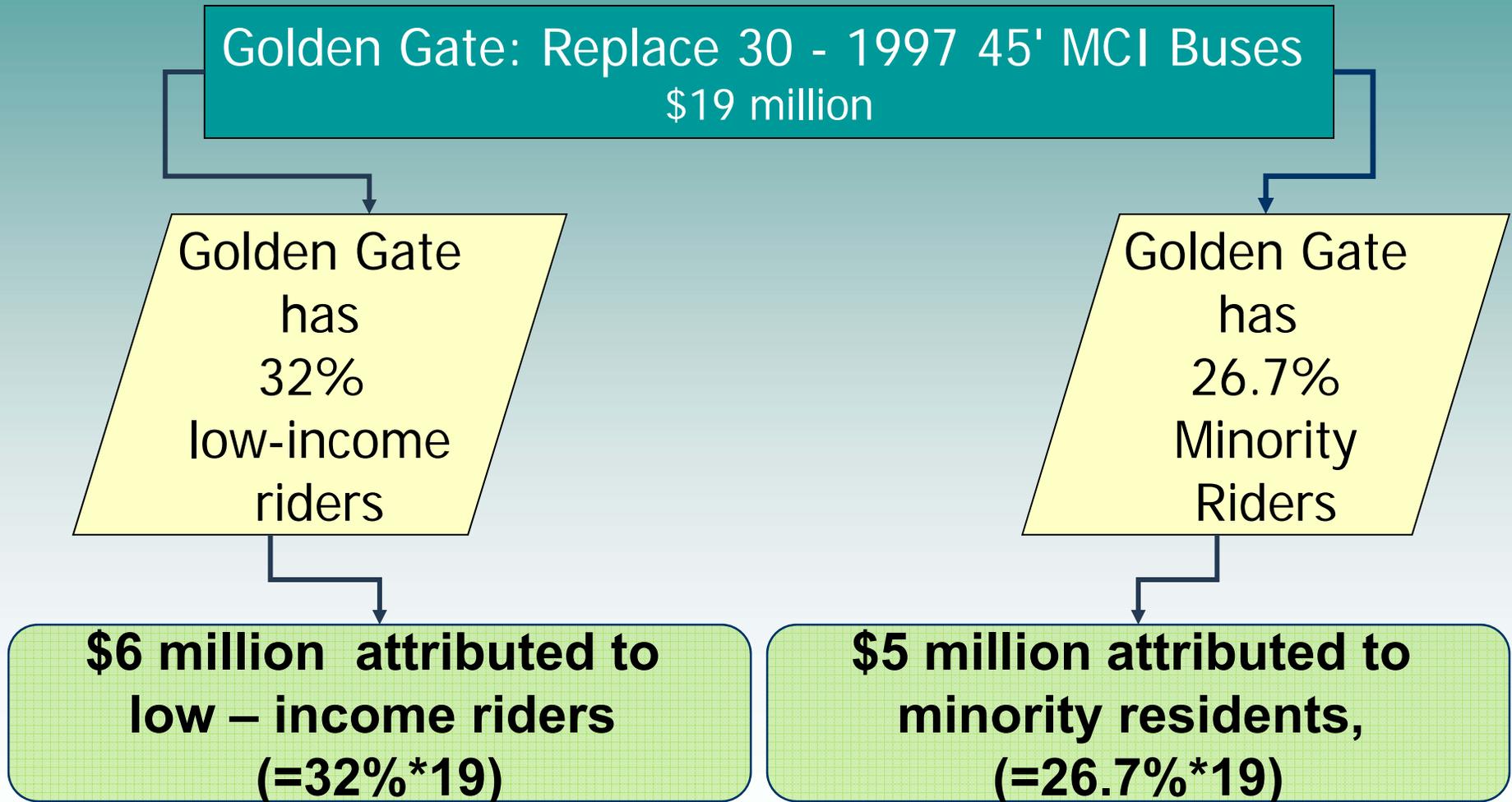
Example Project Assignment

Population Use-Based: Transit



Example Project Assignment

Population Use – Based Transit



Example Project Assignment

Methodology Overview

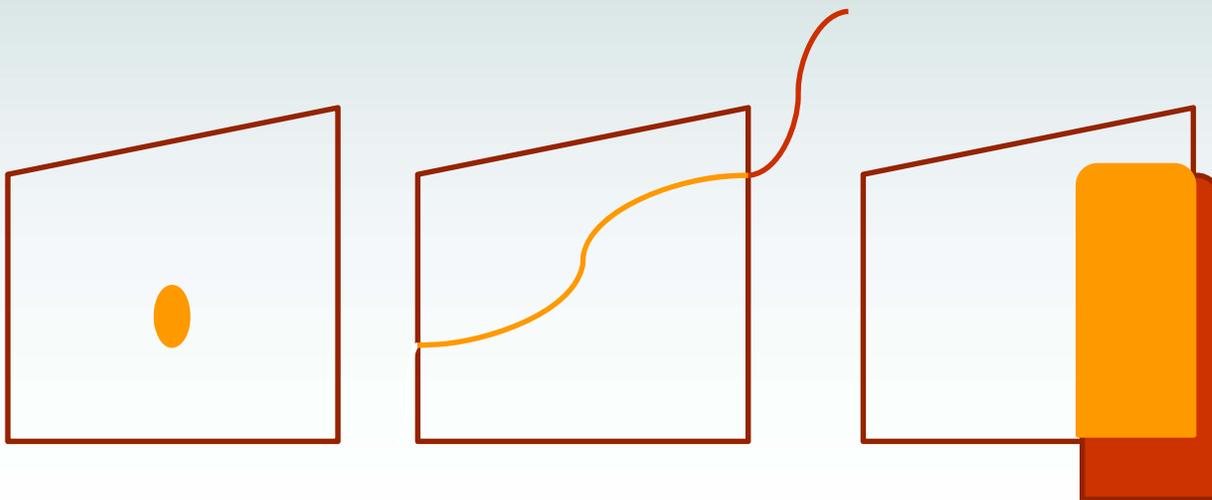
- **Access-Based Analysis:**
 - Location and access-based; it does not take into account system use.
 - Compares the % of investment in Communities of Concern (CoCs) to % population or infrastructure located in these communities.
 - Data used — 2013 TIP Investments and Accumulation of the American Community Survey (ACS) data for 2005-2009
 - CoC Definition was updated since the 2011 TIP Investment Analysis, consistent with Plan Bay Area

Access-Based Analysis

- **2013 TIP investments classified into two groups:**
 - 1) Local mapped projects; and
 - 2) Network/system projects.

Access-Based Analysis (Cont.)

- 1) **Local mapped projects: compared against the physical locations of the CoCs. Funding for projects that are located in a CoC boundary or partially in a CoC have their funding amounts assigned to CoCs in the same ratio as the length or area of overlap; those that do not intersect a community of concern are assigned to outside of Communities of Concern.**



Access -Based Analysis (Cont.)

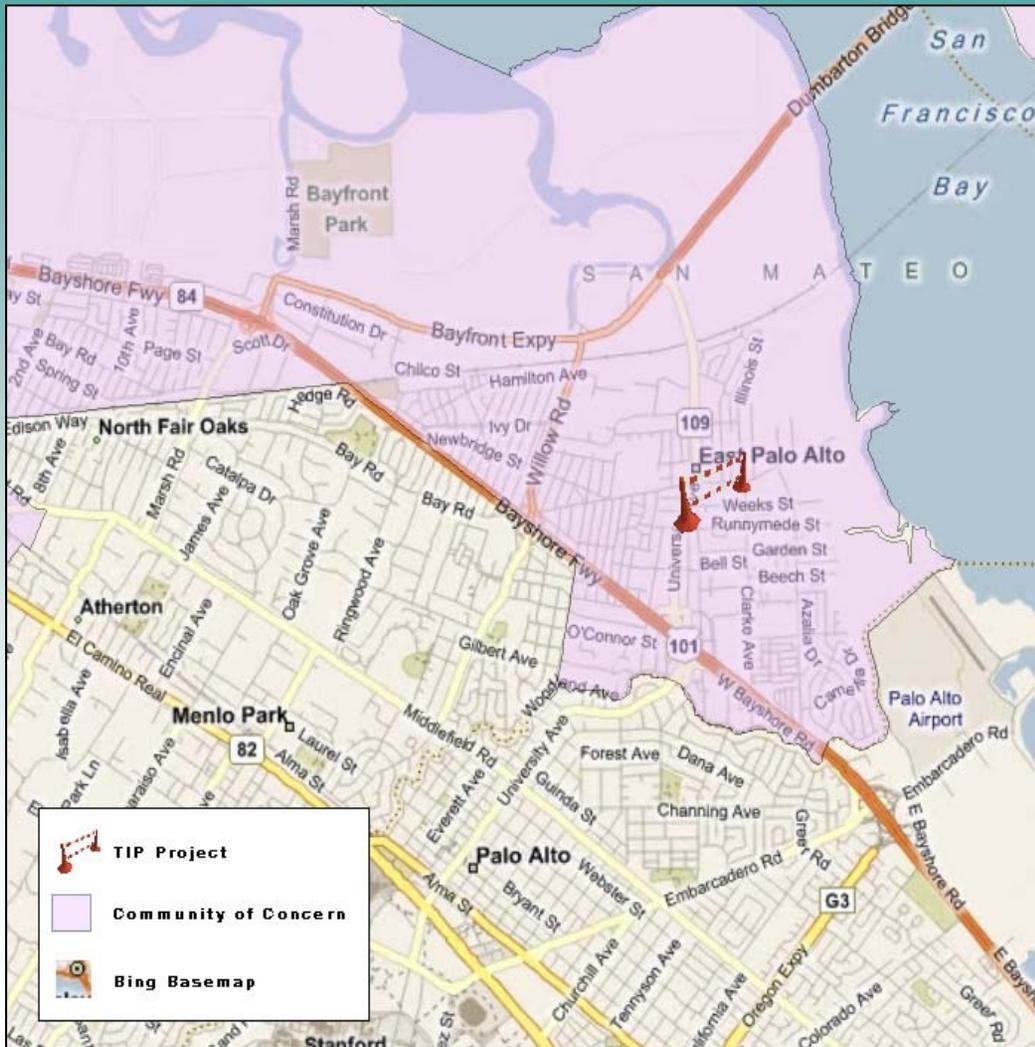
2) **Projects that are network or system-based:**

subdivided by mode (state highways, local roads, and transit) and have a share of funding assigned either in or outside of CoCs using percentages derived from MTC's geographic information system (GIS) as follows:

- **State highway projects:** % of each county's total state highway lane-miles in or outside of CoCs.
- **Local streets and roads projects:** % of each county's total local streets and roads lane-miles in or outside of CoCs.
- **Transit projects:** For rail and ferry: % of each operator's total number of stations and terminals in or outside of CoCs. For bus and multi-modal systems, % of each operator's total route-miles in or outside of CoCs.

Example Project Assignment

Access – Based: Local Project



**Bay Road
Improvement Project
in San Mateo County
~\$11 million**

**Mapped and in a
Community of
Concern**

**\$11 million
attributed to
residents in CoCs
(=100%*11)**

Example Project Assignment Access - Based: Transit

BART: Railcar Replacement Program
~\$668 million

BART's Share
of Number of Stations in a
Community of Concern
is **37%**

\$247 million
attributed to residents in CoCs
(=37%*105)

Key Findings: Overall

- Key question posed — “Are low-income and minority populations sharing equitably in the TIP’s financial investments?”
- Several results suggest the 2013 TIP invests greater share of funding to the benefit of low-income and minority communities than their proportionate share of the region’s population or travel as a whole

Key Findings: Total Investments

- Both methodologies show a higher proportional investment in the 2011 TIP than either the proportionate share of trips taken by minority and low-income populations, or communities of concern populations

	2011 TIP Investment Share	Share of Total Trips/Population
Population Use-Based		
<i>Low-Income</i>	24%	16% (total trips)
<i>Minority</i>	49%	42% (total trips)
Access-Based CoC	22%	20% (population — community of concern)

Draft Key Findings: Population Use-Based

- Both methodologies — for total investments — show a higher proportional investment in the 2013 TIP than either the proportionate share of trips taken by minority and low-income populations, or communities of concern populations in several cases

Population Use-Based	2013 TIP Investment Share	Share of Total Trips
Comparison of % Total Investments to % Trips		
<i>Low-Income</i>	24%	16% (total trips)
White – Non Hispanic	51%	58% (total trips)
Racial/Ethnic Minorities	49%	42% (total trips)
<i>Black/African-American</i>	10%	6% (total trips)
<i>Asian or Pacific Islander</i>	18%	16% (total trips)
<i>Hispanic/Latino</i>	15%	14% (total trips)
<i>Other/Multiple Races</i>	6%	6% (total trips)

Data Source: Bay Area Travel Survey (2000); 2013 TIP

Draft Key Findings: Population Use-Based

Population Use-Based	2013 TIP Road, Highway, and Bridge Investment Share	% Vehicle Miles Traveled
Comparison of % Investments to % VMT		
<i>Low-Income</i>	13%	13%
White – Non Hispanic	60%	60%
Racial/Ethnic Minorities	40%	40%
<i>Black/African-American</i>	5%	5%
<i>Asian or Pacific Islander</i>	17%	16%
<i>Hispanic/Latino</i>	13%	14%
<i>Other/Multiple Races</i>	5%	5%

Data Source: Bay Area Travel Survey (2000); 2013 TIP

Draft Key Findings: Population Use-Based

Population Use-Based	2013 TIP Transit Investment Share	Share of Transit Trips
Comparison of % Investments to % Transit Trips		
<i>Low-Income</i>	59%	56%
White – Non Hispanic	39%	40%
Racial/Ethnic Minorities	61%	60%
<i>Black/African-American</i>	13%	18%
<i>Asian</i>	18%	14%
<i>Hispanic/Latino</i>	26%	23%
<i>Other/Multiple Races</i>	4%	5%

Data Source: Transit Passenger Demographic Study (2006); 2013 TIP

Draft Key Findings: Access-Based CoC

Comparison of % Investments in CoC to % Population Share in CoC

Geographic Access-Based: Communities of Concern	2013 TIP Investment Share	Population Share
In CoC	22%	20%

Comparison of % Streets & Roads Investments in CoC to % Lane Miles in CoC

Geographic Access-Based: Communities of Concern	2013 TIP Investment Share	Share of Lane Miles
In CoC	23%	8%

Comparison of % Transit Investments in CoC to % Route Miles / No. of Stations in CoC

Geographic Access-Based: Communities of Concern	2013 TIP Investment Share	Share of Route Miles / No. of Stations
In CoC	20%	18%

Data Source: American Community Survey (2005-2009); GIS Data; and 2013 TIP

Next Steps for 2013 TIP

- Public comment period
June 22, 2012 through
August 2, 2012
- The 2013 TIP is scheduled
for adoption by the
Commission at the
September 26, 2012
meeting

