



MTC & Kern COG Equity Analyses Public Involvement Evaluation



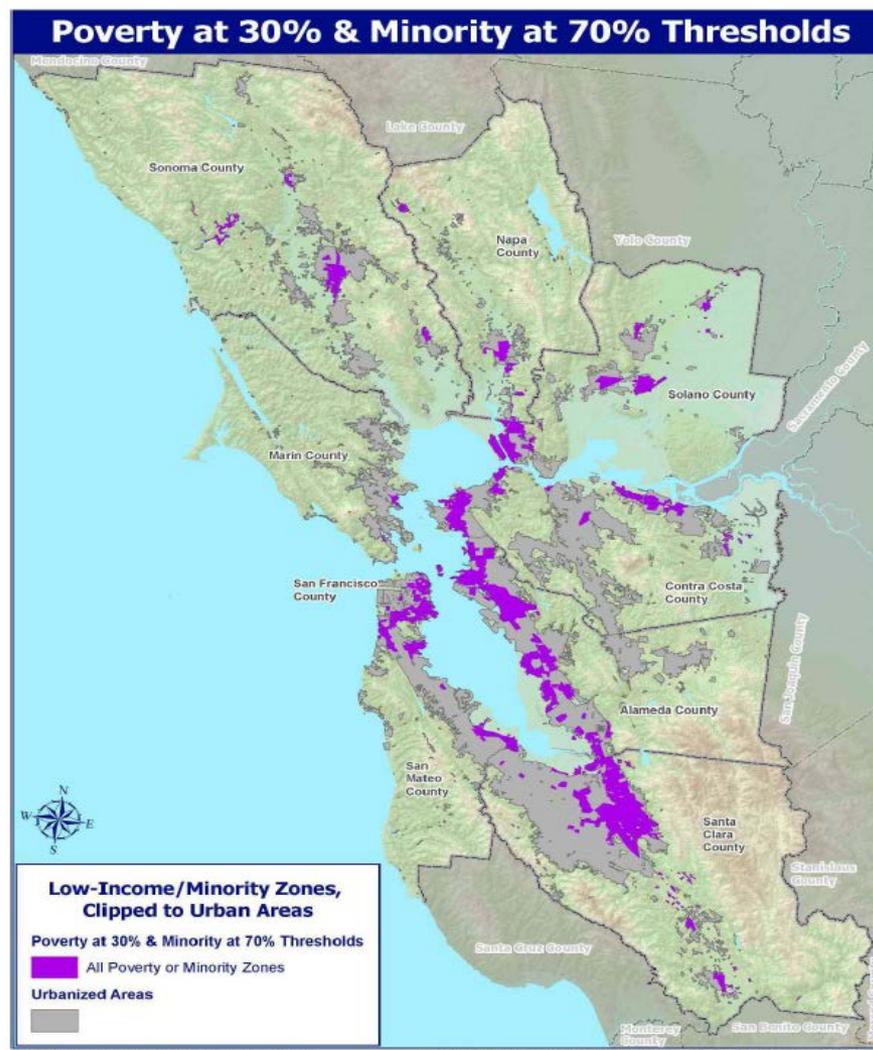
U.S. Department
of Transportation
**Federal Highway
Administration**

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Civil Rights Program Manager
California Division*

Define EJ Areas

70% minority

30% low income
(below 200% Federal
poverty level)



Equity Measures

- RTP Expenditures
- Access to low-income jobs by auto and transit
- Access to non-work activities by auto and transit
- Emissions
- Affordability (test measure)

RTP Expenditures

Transportation 2035 Expenditures per Household by Income Level

T2035 Expenditures (\$Billions)	All Households	Low Income Households Share	All Other Households Share
Transit Maintenance/Ops	\$119.7	\$31.9	\$87.7
Transit Expansion	\$29.2	\$7.8	\$21.4
Transit Subtotal	\$148.9	\$39.7	\$109.1
Road/Highway Maintenance/Ops	\$66.8	\$1.6	\$65.2
Road/Highway Expansion	\$9.7	\$0.2	\$9.4
Road/Highway Subtotal	\$76.4	\$1.8	\$74.6
Total T2035 Expenditures	\$225.3	\$41.6	\$183.7

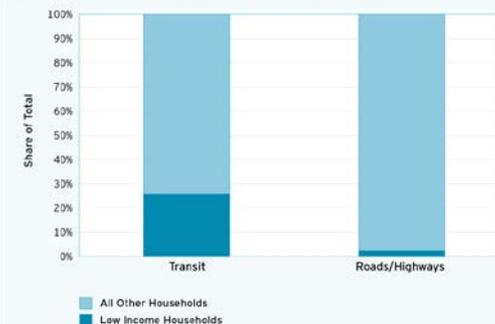
	Total	Low-Income	All Other
Number of Households (2006)	2,468,024	436,554	2,031,470

Expenditures per Household (\$000s)	All Households	Low Income Households	All Other Households
Transit Maintenance/Ops	\$48.5	\$73.0	\$43.2
Transit Expansion	\$11.8	\$17.9	\$10.5
Transit Subtotal	\$60.3	\$90.9	\$53.7
Road/Highway Maintenance/Ops	\$27.1	\$3.7	\$32.1
Road/Highway Expansion	\$3.9	\$0.5	\$4.6
Road/Highway Subtotal	\$31.0	\$4.2	\$36.7
Total	\$91.3	\$95.2	\$90.4

Source: MTC Draft Transportation 2035 Plan and 2006 American Community Survey

Note: Some figures do not add to total shown due to rounding.

Share of System Usage by Household Income Group

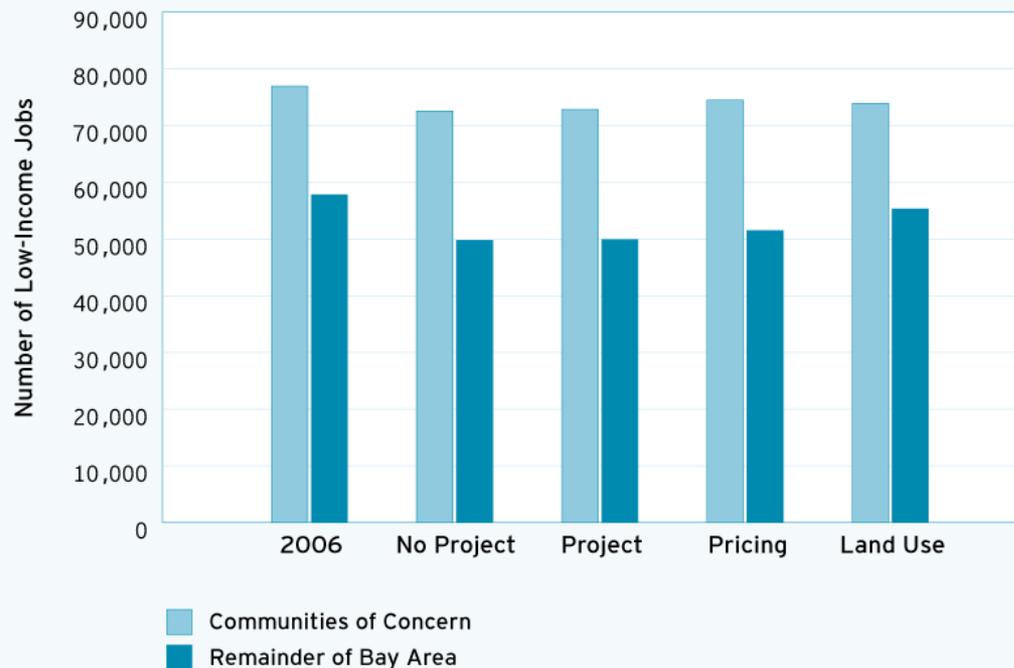


Source: MTC Transit Passenger Demographic Surveys, 2000 Bay Area Travel Survey



Low-income Job Accessibility (Auto)

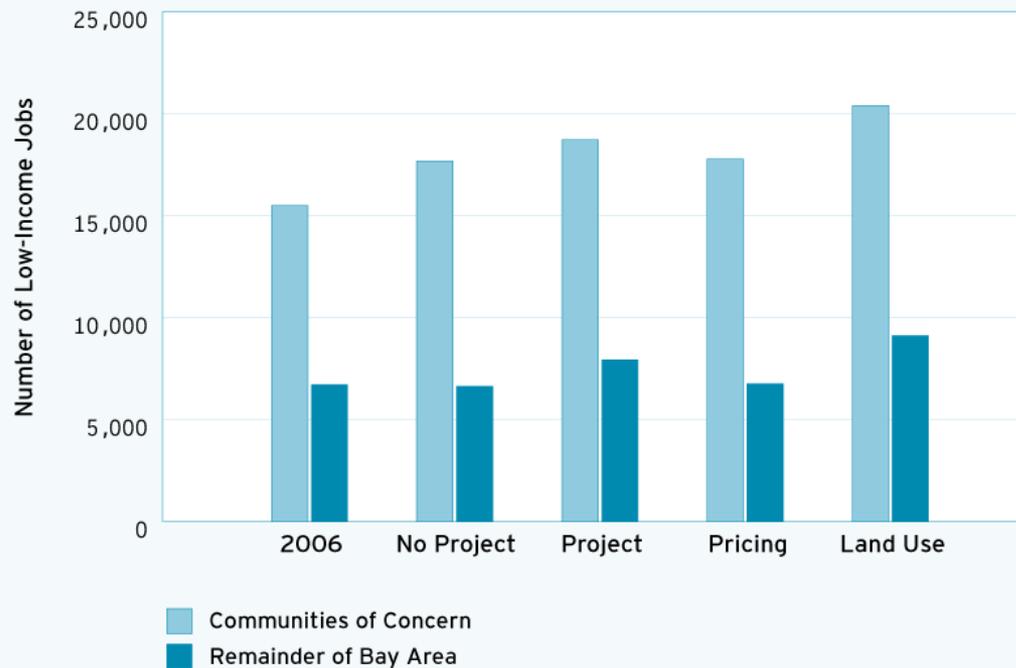
Low-Income Jobs Accessible in 30 Minutes by Auto



Source: MTC estimates

Low-income Job Accessibility (Transit)

Low-Income Jobs Accessible in 30 Minutes by Transit



Source: MTC estimates

Non-work Accessibility (Auto)

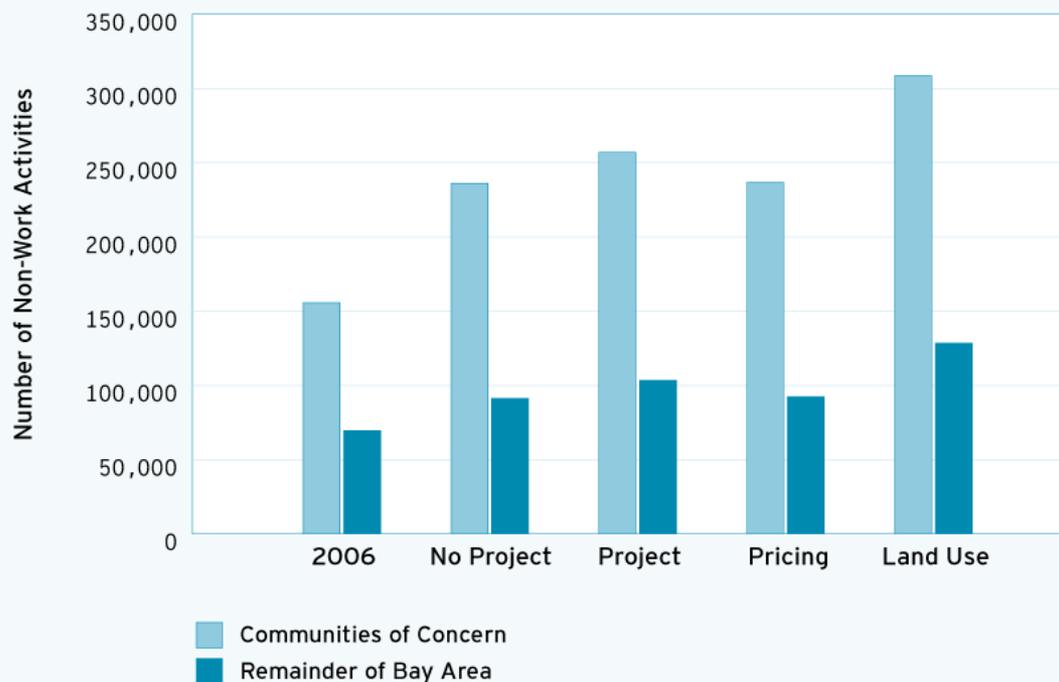
Non-Work Activities Accessible within 30 Minutes by Auto



Source: MTC estimates

Non-work Accessibility (Transit)

Non-Work Activities Accessible within 30 Minutes by Transit



Source: MTC estimates

Narrowing Accessibility Gap: Auto vs. Transit

Ratio of Accessibility by Auto to Accessibility by Transit

	Low-Income Jobs		Non-Work Activities	
	2006	2035	2006	2035
Communities of Concern	5.0	3.9	9.1	6.4
Remainder of Region	8.6	6.3	16.5	12.2
Low-Income	4.0	3.2	8.0	5.7
Not Low-Income	9.5	7.0	16.9	12.5

Source: MTC estimates

Emissions

Mobile Source Air Toxics Emissions Density

Diesel Particulates, Benzene, and Butadiene: Kg per average weekday per square mile

	2006	No Project	Project	Pricing	Land Use
Communities of Concern	5.92	1.29	1.26	1.24	1.29
Remainder of Bay Area	2.26	0.48	0.46	0.47	0.47
Total Region	2.94	0.64	0.61	0.61	0.63

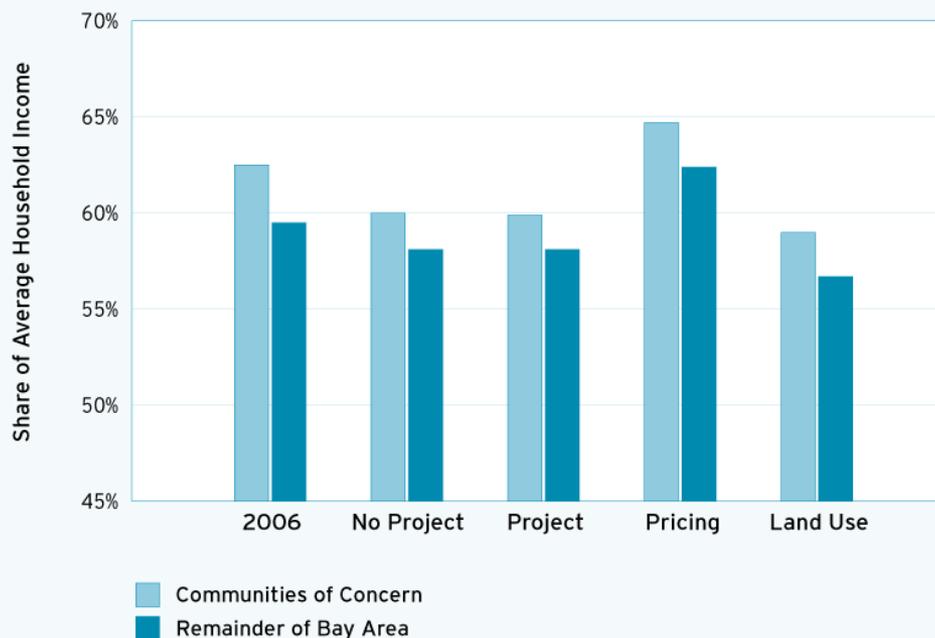
Source: MTC estimates

Affordability

$$\text{Affordability} = \frac{\text{Average Housing Cost} + \text{Average Transportation Cost}}{\text{Average Household Income}}$$

Housing + Transportation Affordability for Low and Moderate-Low Income Households:

Housing and Transportation Costs as Share of Mean Household Income



Source: MTC estimates

Summary

Key questions	Low-Income Jobs Accessible by Auto	Low-Income Jobs Accessible by Transit	Access to Non-Work Activities by Auto	Access to Non-Work Activities by Transit	Emissions Density	Affordability
Are conditions in communities of concern better overall than the remainder of the region?	Yes	Yes	Yes	Yes	No	No
Do conditions in communities of concern improve under the Project relative to the No Project?	Yes	Yes	Yes	Yes	Yes	No Change
Do communities of concern receive similar or greater benefit compared to the remainder of the region under the Project, relative to the No Project alternative?	Yes	No	Yes	Yes	Yes	Yes

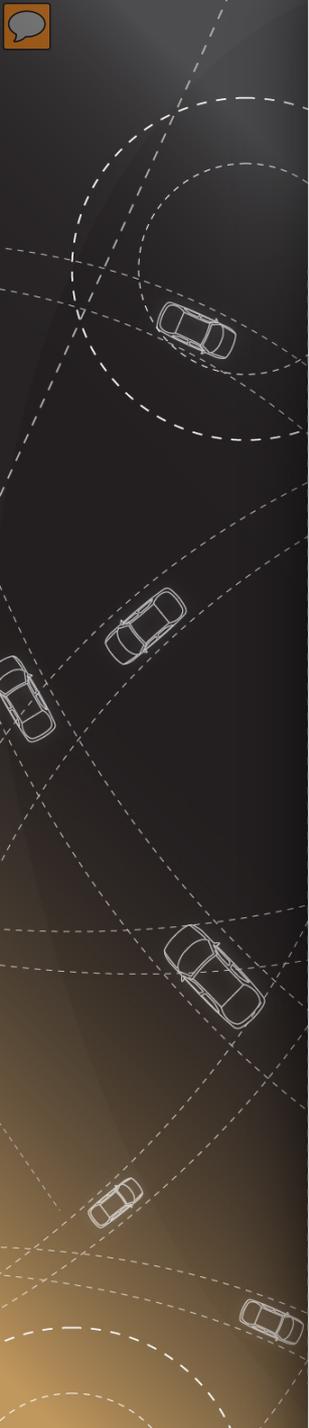
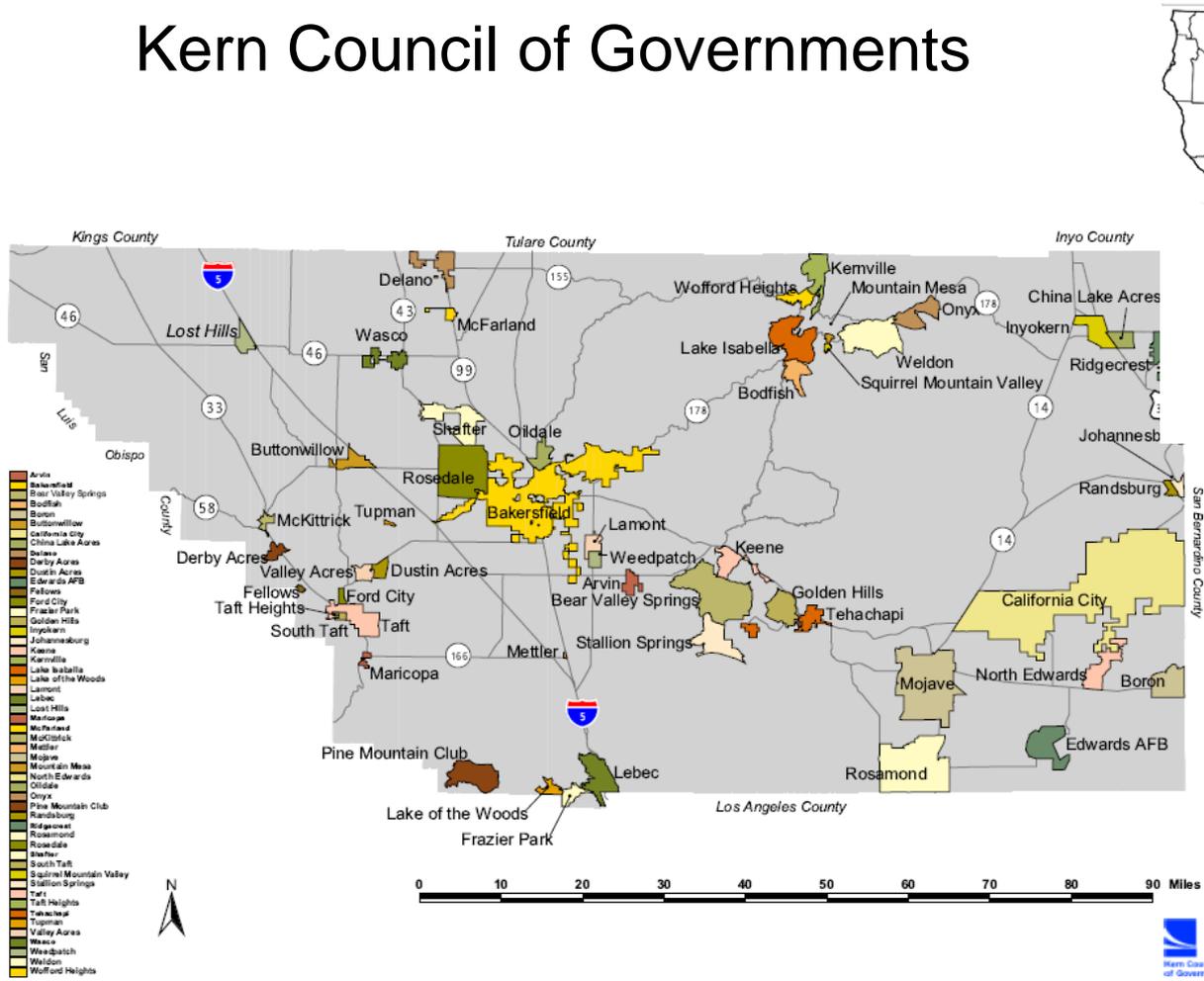


Other Features of MTC's Equity Analysis

- Identify assumptions and limitations of analysis
- Discussion of alternative equity measures and why they are not used
- Identify sub-regional differences with respect to an equity measure
- Data Sources
- Alternatives
- Regional Trends
- Next Steps

Kern COG's Equity Analysis

Kern Council of Governments



RTP/EJ Performance Measures

- Mobility
- Accessibility/Economic Well Being
- Reliability/Congestion
- Reliability/Safety
- Efficiency/Cost Effectiveness
- Livability/Consumer Satisfaction
- Equity

Mobility

Av. Trip time by mode (auto & transit) from EJ TAZs and countywide

Table 2-4 Average Travel Time – Peak Highway Trips (in minutes)

Place Type	2006	2035 Build	2035 No Build
Urban/Metro	12.67	13.39	14.47
Rural Areas	20.58	20.78	21.37
Countywide	16.26	16.94	18.75

Table 2-5 EJ TAZs Average Travel Time – Peak Highway Trips

Place Type	2006	2035 Build	2035 No Build
Urban/Metro	12.40	13.00	13.51
Rural Areas	20.31	20.69	21.34
Countywide	14.14	14.71	15.23

Mobility

Table 2-6 Average Travel Time – Peak Transit Trips²

Place Type	2006	2035 Build	2035 No Build
Urban/Metro	44.77	46.10	45.50
Rural Areas	N/A	N/A	N/A
Countywide*	47.54	47.98	49.07

*includes portions of trips outside of Metro that drive to use metro transit

Table 2-7 EJ TAZs Average Travel Time – Peak Transit Trips

Place Type	2006	2035 Build	2035 No Build
Urban/Metro	43.86	45.38	44.14
Rural Areas	N/A	N/A	N/A
Countywide*	48.63	45.65	44.73

*includes portions of trips outside of Metro that drive to use metro transit

Accessibility/Economic Well Being

Av. Trip time by mode (auto & transit) from EJ TAZs and countywide

Table 2-8 Average Travel Time to Major Job Centers – Highway

Place Type	2006	2035 Build	2035 No Build
Urban/Metro	12.13	12.12	13.24
Rural Areas	27.26	27.16	27.73
Countywide	19.69	19.39	21.55

Table 2-9 Average Travel Time from EJ TAZs to Major Job Centers – Highway

Place Type	2006	2035 Build	2035 No Build
Urban/Metro	11.85	11.78	12.20
Rural Areas	25.31	24.73	25.27
Countywide	14.80	14.65	15.08

Table 2-10 Average Travel Time to Major Job Centers – Transit ³

Place Type	2006	2035 Build	2035 No Build
Urban/Metro	43.98	46.23	44.91
Rural Areas	N/A	N/A	N/A
Countywide*	47.07	49.35	49.02

*includes portions of trips outside of Metro for those who drive to use metro transit

Table 2-11 Average Travel Time from EJ TAZs to Major Job Centers – Transit

Place Type	2006	2035 Build	2035 No Build
Urban/Metro	43.88	45.29	44.73
Rural Areas	N/A	N/A	N/A
Countywide*	44.42	45.62	17.1

*includes portions of trips outside of Metro for those who drive to use metro transit

Reliability/Congestion

Distance of LOS D & F links within EJ TAZs and countywide

Table 2-12 Average Level of Congestion in Hours

Place Type	2006	2035	Percent increase
Urban/Metro	284,056	500,661	76
Rural Areas	276,468	503,753	82
Countywide	560,524	1,004,414	79

Table 2-13 Average Level of Congestion in Hours – EJ TAZs

Place Type	2006	2035	Percent increase
Urban/Metro	122,791	183,661	50
Rural Areas	64,257	116,046	81
Countywide	187,048	299,896	60

Reliability/Safety

Percentage increase between property damage, injury, fatal accident rates between 2006 and 2035

Table 2-14 Annualized Accident Statistics for Annual Average Daily Traffic

Place Type	2006	2035	Percent increase
Urban/Metro			
Property damage	1,537	2,862	86
Injury	879	1,636	86
Fatality	55	103	87
Rural			
Property damage	2,239	4,092	83
Injury	1,279	2,338	83
Fatality	81	147	81
Countywide			
Property damage	3,776	6,954	84
Injury	2,158	3,974	84
Fatality	136	250	84

Table 2-15 Annualized Accident Statistics for Annual Average Daily Traffic – EJ TAZs

Place Type	2006	2035	Percent increase
Urban/Metro			
Property damage	647	1,001	55
Injury	370	572	55
Fatality	23	36	57
Rural			
Property damage	490	911	86
Injury	280	521	86
Fatality	18	33	83
Countywide			
Property damage	1,137	1,912	68
Injury	650	1,093	68
Fatality	41	69	68

Efficiency/Cost Effectiveness

Planned expenditure per passenger mile traveled inside EJ TAZs and countywide

Table 2-16 Average Daily Investment per Passenger Mile Traveled – Highways

Place Type	2035 Build
Urban/Metro	\$.009
Rural Areas	\$.004
Countywide	\$.007

Table 2-17 Average Daily Investment per Passenger Mile Traveled – Highways – EJ TAZs

Place Type	2035 Build
Urban/Metro	\$.015
Rural Areas	\$.006
Countywide	\$.0105

Table 2-18 Average Daily Investment per Passenger Mile Traveled – Transit⁴

Place Type	2035
Urban/Metro	\$.11
Rural Areas	N/A
Countywide	\$.13

Table 2-19 Average Daily Investment per Passenger Mile Traveled – Transit – EJ TAZs

Place Type	2030
Urban/Metro	\$.0723
Rural Areas	N/A
Countywide	\$.06

Livability/Consumer Satisfaction

Average trip delay after feedback from constrained and unconstrained roadways on links within EJ TAZs and countywide

Table 2-20 Average Trip Delay Time in Hours

Place Type	2006	2035	Percent increase
Urban/Metro	61,929	105,837	71
Rural Areas	24,703	48,163	95
Countywide	86,632	154,000	78

Table 2-21 Average Trip Delay Time in Hours for EJ TAZs

Place Type	2006	2035	Percent increase
Urban/Metro	27,134	43,190	59
Rural Areas	8,905	15,344	72
Countywide	36,039	58,534	62

Equity

Passenger miles traveled vs. percent of investment in EJ areas and urban and rural place types

Table 2-25 Percent of Expenditures Versus Passenger Miles Traveled in 2035 - Highways

Place Type	2035 PMT	Total investment	PMT (percent)	Investment (percent)
Urban/Metro	23,381,541	\$2,403,140,132	41	63
Rural Areas	33,427,754	\$1,435,741,868	59	37
Countywide	56,809,295	\$3,838,882,000	100	100

Table 2-26 Percent of Expenditures Versus Passenger Miles Traveled in EJ TAZs by 2035 - Highways

Place Type	2035 PMT	Total investment	PMT (percent)	Investment (percent)
Urban/Metro	8,179,260	\$1,303,108,495	52	73
Rural Areas	7,443,927	\$481,971,635	48	27
Countywide	15,623,187	\$1,785,080,130	100	100

Table 2-27 Percent of Expenditures Versus Passenger Miles Traveled in 2035 - Transit

Place Type	2035 PMT	Total investment	PMT (percent)	Investment (percent)
Urban/Metro	95,045	\$96,000,000	100	85
Rural Areas	N/A	\$16,800,000	N/A	15
Countywide	N/A	\$112,800,000	100	100

Table 2-28 Percent of Expenditures Versus Passenger Miles Traveled in EJ TAZs by 2035 - Transit

Place Type	2035 PMT	Total investment	PMT (percent)	Investment (percent)
Urban/Metro	64,610	\$46,944,000	N/A	90
Rural Areas	N/A	\$5,410,000	N/A	10
Countywide	N/A	\$52,354,000	100	100

Common Equity Analysis Errors

- Define EJ TAZs as a neighborhood that contain X% or more of the county average percentages of minority, low income, elderly or disabled populations.
- No “burdens” measure(s).
- Discussion of benefits and burdens of RTP, but no quantitative analysis (cannot determine disproportionate impact).

Common Equity Analysis Errors

- Equity analysis for the RTP addresses distribution of equity measures for low-income populations only.
- Define EJ area with minority and income thresholds below the regional averages.

Public Involvement Requirements

TMA Certification Process Field Handbook

- Development and use of a documented participation plan providing for . . . reasonable opportunities to be involved in the metropolitan planning process.
- Adequate public notice of public participation activities and time for public review and comment at key decision points.
- Timely public notice and reasonable access to information about transportation issues and processes.
- Visualization techniques to describe MTPs and TIPs.
- Public information and meeting available in electronically accessible formats and means, such as World Wide Web.
- Public meetings at convenient and accessible locations and times.

Public Involvement Requirements

TMA Certification Process Field Handbook

- Explicit consideration and response to public input received.
- Seeking out and considering the needs of people traditionally underserved by existing transportation systems.
- Providing additional opportunities for public comment if the final MTP or TIP differs significantly from the version that was made available for public comment.
Coordination with statewide public involvement and consultation processes.
- Provide a summary, analysis, and report on the disposition of significant written and oral comments received.

Public Involvement Requirements

TMA Certification Process Field Handbook

- A minimum public comment period of 45 days before adoption or revision of the public involvement process.
- Consult with agencies and officials responsible for other planning activities that are affected by transportation or coordinate the planning process with such planning activities.
- *Periodically reviewing the effectiveness of the procedures and strategies contained in the participation plan to ensure a full and open participation process.*

See TMA Certification Field Handbook for more public involvement requirements.

Review of Public Involvement

- MPO should periodically review its public involvement process to ensure that it provides full and open access to all, including those traditionally underserved by existing transportation systems, such as minorities and low income households.



MTC's Public Involvement Performance Measures

■ *Diversity:*

- The demographics of targeted groups (age, ethnicity, income, geographic location, disability) roughly mirror the demographics of the Bay Area's population.
- Participants represent a cross-section of people of various interests, places of residence and primary modes of travel, as reported on evaluation forms distributed at meetings.

MTC's Public Involvement Performance Measures

■ *Reach:*

- 2,500 or more comments are logged.
- 2,500 individuals actively participate in the Transportation 2035 Outreach and Involvement Program, as measured by survey responses and meeting attendance (excluding repeat attendance).
- There are 30,000 visits or “views” to the 2035 section of the MTC Web site during active periods of the public outreach and involvement program.
- The 2035 Plan or elements of it are mentioned in at least 70 radio or TV broadcasts, newspaper articles, editorials, commentaries, or other printed media.

MTC's Public Involvement Performance Measures

■ *Accessibility:*

- Meetings are held in all nine counties.
- 100 percent of meeting locations are accessible by transit.
- Meetings are linguistically accessible to 100 percent of participants, with 3 working days' advance request for translation.* (Meeting announcements will offer translation services with advance notice to participants speaking any language with available professional translation services.)
- All meetings are accessible under the requirements of the Americans with Disabilities Act (ADA).

MTC's Public Involvement Performance Measures

■ *Impact:*

- 100 percent of written comments received are logged, analyzed, summarized and communicated in time for consideration by staff or Commissioners.
- 100 percent of the written comments are acknowledged so that the person making them knows whether his or her comment is reflected in the outcome of a Commission action or, conversely, why the Commission acted differently.

MTC's Public Involvement Performance Measures

- *“High-quality” Input and Participation, Education and Participant Satisfaction*
 - 60 percent of participants *“strongly agree or agree”* with statements that rate the Transportation 2035 Outreach Program. The statements cover the following performance dimensions:
 - Accessibility (meeting locations, materials presented in appropriate languages for targeted audiences, with sufficient advance notice, etc.)
 - Sufficient opportunity to comment
 - Clear information at an appropriate level of detail

MTC's Public Involvement Performance Measures

- “Educational value of presentations and materials
- Understanding of other perspectives and differing priorities
- Quality of the discussion

Common Public Involvement Assessment Errors

- Only tally how frequently the MPO used various public involvement activities.
- Public involvement assessment methodology is described in Public Involvement Plan, but not implemented yet.