TECHNICAL NOTES

Five equity performance measures were analyzed for each of the five Alternative Scenarios as well as the Base Year of 2005, based on key regional equity concerns identified by the Regional Equity Working Group: Affordability, Growing Equitably, Healthy Communities, Equitable Mobility, and Jobs-Housing Connections.

Communities of Concern were identified where there are currently multiple overlapping populations of concern related to transportation, housing, and land use: minority residents, low-income residents, people who don't speak English well or at all, households with no car, seniors 75 and over, people with disabilities, single-parent households, and over-burdened renters. Most of the communities of concern are in the region's urban core, but there are also communities of concern located in suburban areas around the region.

Low-income households earning less than $38,000 (in 2010 dollars) were compared to households earning more than that amount for the affordability performance measure.

HOUSING AND TRANSPORTATION AFFORDABILITY
This measure is the combined cost of housing and transportation for a household as a share of income by income level. Low-income households spend a far greater share of their incomes on these costs than do higher-income households. Housing costs reflect base-year Census Bureau data on share of income spent on housing costs by income group and forecast to 2035 based on regional income forecasts. Census income reporting does not include non-cash subsidies for food, health, or housing, and no assumptions are made regarding future available housing subsidies or future affordable housing strategies. Transportation costs are estimated by MTC's travel model and take into account auto ownership by income level as well as the costs associated with the amount and type of daily travel by both auto and transit. The regional models used to make these forecasts are projecting actual recent trends forward, but for this analysis did not account for any absolute or perceived upper limit on the share of income spent on housing and/or transportation before low-income households would make other choices besides paying more, such as sharing housing, owning fewer autos, or moving away from the region.

DISPLACEMENT RISK
This metric identifies households currently considered "over-burdened renters" and relates these households' location to areas of proposed growth in the Alternative Scenarios. In a given area, if more than 15 percent of the housing units are occupied by renters who pay more than 50 percent of their income for housing (which is the definition of "over-burdened renters" used to help define communities of concern), and the projected growth in that area is more than 30 percent above current conditions (the lowest average amount of growth across the region in the five scenarios), the over-burdened households in that area are considered at risk for displacement. Results are shown as a share of today's cost-burdened renters whose neighborhoods would see greater-than-average growth under the different scenarios, indicating a high-demand real estate market.

VMT DENSITY
Calculating this measure relies on identifying heavily used roadways — those carrying 10,000 or more vehicles per day — and identifying areas of developed land near these heavily used roadways to include areas of residential, commercial, or industrial land within 1,000 feet of the centerline of the selected roadways. This calculation methodology is consistent with the Bay Area Air Quality Management District's (BAAQMD) "Recommended Methods for Screening and Modeling Local Risks and Hazards" (May 2011, version 2.0) as part of their California Environmental Quality Act (CEQA) review guidance for proposed land use projects. The vehicle-miles of travel (VMT) for each affected roadway are forecasted using MTC's travel model across different scenarios.

NON-COMMUTE TRAVEL TIME
"Non-commute" travel defined for the purposes of this analysis includes travel not associated with a trip involving work or school. For example, going to the grocery store and back home would be included in this definition. These trip purposes include such activities as shopping, recreation, social visits, escorting others, eating out, and "other" trips. Results are extracted from MTC's travel model based on residential location across all scenarios and averaged for communities of concern and the remainder of the region.

COMMUTE TIME
This measure provides average travel time per trip for commute trips by all modes, based on the location of a worker's residence and place of work. Commute travel time is analyzed separately because travel time between home and work generally provides an indication of the proximity of jobs and housing for different socioeconomic groups. Results are extracted from MTC's travel model across all scenarios and then averaged for communities of concern and the remainder of the region.

Plan BayArea EQUITY ANALYSIS OVERVIEW

MTC and ABAG conducted an Equity Analysis of alternative scenarios to help inform questions such as:

- What are the disparities in the region now and looking into the future for communities of concern?
- Do the alternative scenarios provide improvements for identified communities of concern relative to the base year (2005)?
- Which scenario(s) provide similar or better results for the Bay Area's communities of concern compared to the rest of the region?

Five equity performance measures were analyzed for the five Alternative Scenarios selected by ABAG and MTC, as well as for a base year of 2005, and results produced for the region's identified communities of concern and for the remainder of the region, in order to compare average results between the two types of communities.

Results across the scenarios did not vary greatly. However, some results indicate challenges that may need to be addressed with additional policies and strategies not analyzed in any of the alternatives. The results showed that:

- **Housing and transportation affordability continue to present a major challenge to low-income households in all future-year scenarios,** with housing costs rising relative to incomes more than transportation costs. The analysis does not incorporate any regional policies or strategies to create affordable housing, which may need to be addressed in the Preferred Scenario.
- **Communities of concern have a greater share of renter households identified as vulnerable to displacement based on future growth patterns** than the remainder of the region, and especially in the Core Concentration Scenario (#2), which adds more households to communities of concern than the other scenarios.
- **Compared to the rest of the region, communities of concern see a greater relative increase in vehicle travel** on heavily-used roadways in or near populated areas under the Core Concentration (#2) and Constrained Core Concentration Scenarios (#4), which emphasize development in the region's urban core.
- **Both commute and non-commute travel times increase across all scenarios,** due to increasing congestion and shifts from driving to taking transit for some trips. The Core Concentration and Constrained Core Concentration Scenarios show the greatest increase in travel times for communities of concern; these scenarios also provide enhanced transit service in the region's core.
- **The Outward Growth Scenario (#5) performs slightly better overall in terms of the selected equity performance measures,** as it generally puts the least pressure from future development on communities of concern, which are predominantly located in the region's core.

BayArea Plan EQUITY ANALYSIS SCORECARD

DECEMBER 2011-REV. 12/14/11

Scenarios were assessed for equity based on five measures chosen to reflect key regional equity issues. This table shows how each scenario performs for both the region's communities of concern and the rest of the region.

MEASURES

	1 HOUSING AND TRANSPORTATION AFFORDABILITY Share of income spent on housing and transportation costs		2 DISPLACEMENT RISK Share of today's overburdened-renter households at risk for displacement based on future growth patterns		3 VMT DENSITY Average daily miles of vehicle travel per square kilometer in residential and commercial areas near major roadways*		4 NON-COMMUTE TRAVEL TIME Average travel time in minutes for shopping, visiting, recreation, etc.		5 COMMUTE TIME Average commute travel time in minutes	
	Households less than $38K/year (2010$)	*Households more than $38K/year (2010$)*	*Communities of Concern*	*Remainder of Region*	*Communities of Concern*	*Remainder of Region*	*Communities of Concern*	*Remainder of Region*	*Communities of Concern*	*Remainder of Region*
BASE YEAR	**77%**	**41%**	**n/a**	**n/a**	**n/a**	**n/a**	**12.2**	**12.5**	**25.4**	**27.1**
SCENARIOS	10% ---- 100%	10% ---- 100%	0% -------- 50%	0% -------- 50%	0 --------- 3,200	0 --------- 3,200	0 ------------ 15	0 ------------ 15	0 ------------ 30	0 ------------ 30
1 Initial Vision	77%**	43%	38%	10%	2,900	1,000	12.8	13.1	28.5	28.7
2 Core Concentration	84%	44%	40%	10%	3,100	1,000	12.9	13.1	27.6	28.7
3 Focused Growth	85%	44%	35%	7%	2,900	1,000	12.7	12.9	27.3	27.7
4 Constrained Core Concentration	85%	44%	35%	7%	3,000	1,000	12.7	12.9	27.4	27.8
5 Outward Growth	85%	44%	30%	7%	2,800	1,100	12.5	12.8	27.3	27.8

* The location of "major roadways" is based on 2035 network volumes, so a base year comparison is not provided.

** ABAG revised the regional income forecast after completing the Initial Vision Scenario. Scenarios 2-5 have a greater number and share of low-income households.