

# Data & Observations

Regional Targets Advisory  
Committee  
June 3, 2009



# MPO Data



## Request for MPO Data



- Model input and output data underlying most recent RTP and additional scenarios
- Input data:
  - Demographics, land use, transportation infrastructure and pricing
- Output data:
  - Passenger vehicle VMT and GHG emissions

3

## Staff Compiled Data



- Table displays all data received
- Calculations include:
  - Per unit VMT and CO2
  - Jobs/housing balance
- Confirms assessment of model status
  - More complete dataset across regions for demographics, VMT and GHG emissions
  - Less complete dataset on land use, transportation infrastructure and pricing

4



## Important Caveats

- Differences in years across MPO data
  - “Current years”: 2003 to 2010
  - “Scenario years”: 2018, 2020, 2030 and 2035
- Differences in types of vehicles represented
- Differences in GHG emissions data
  - CO<sub>2</sub> vs CO<sub>2</sub>e
- Differences in year dollars are reported in
- Differences in data sources

5



## Additional Data Needed

- Lane miles
- Congestion indicators
- Housing price/affordability
- Transportation demand management/  
transportation system management
- Interregional travel statistics
- Other

6

## General Observations Based on RTP Scenarios



## Percent Change in RTP Per Capita CO2



	<b>% Change</b>	<b>Time span</b>
Sacramento	- 8%	2005-2035
San Diego	- 1%	2006-2030
Southern California	+ 1%	2003-2035
Butte	+ 1%	2008-2035
Bay Area	+ 2%	2006-2035
San Joaquin Valley	+ 9%	2010-2030
Shasta	+ 12%	2005-2030
Santa Barbara	+ 15%	2000-2030

\* Excludes fuel and technology benefits.

8

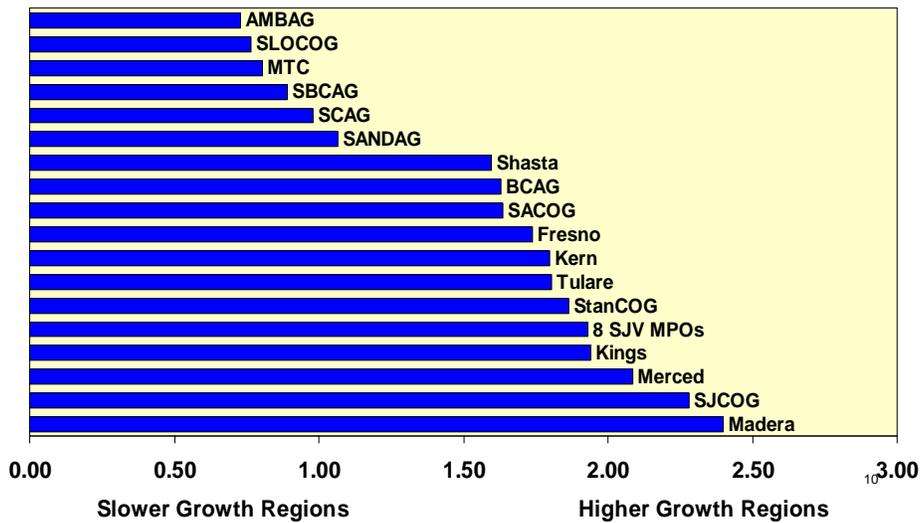
# 2020 Population Projections Data

MPO	Projected 2020 Population	% of 18-MPO Total
SCAG	21,467,900	49.9%
MTC/ABAG	8,069,700	18.8%
8 SJV MPOs	4,906,500	11.4%
SANDAG	3,635,900	8.5%
SACOG	2,755,000	6.4%
Fresno COG	1,184,500	2.8%
Kern COG	967,500	2.2%
AMBAG	847,900	2.0%
SJ COG	781,900	1.8%
Stan COG	694,000	1.6%
Tulare CAG	521,100	1.2%
SBCAG	505,000	1.2%
Merced CAG	340,000	0.8%
SLO COG	295,400	0.7%
Butte CAG	277,260	0.6%
Shasta RTPA	214,700	0.5%
Madera CTC	224,600	0.5%
Kings CAG	192,900	0.4%
Tahoe MPO	51,200	0.1%
<b>TOTAL</b>	<b>43,026,460</b>	<b>100.0%</b>

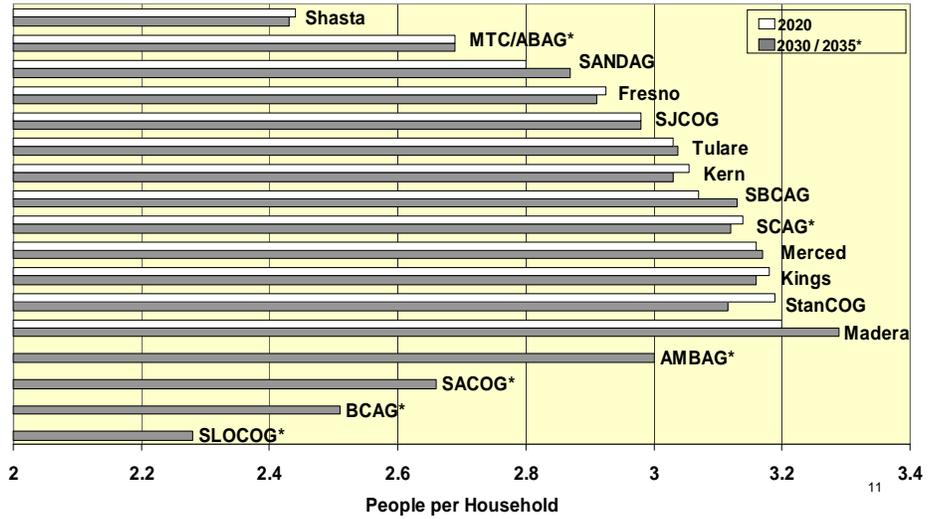


9

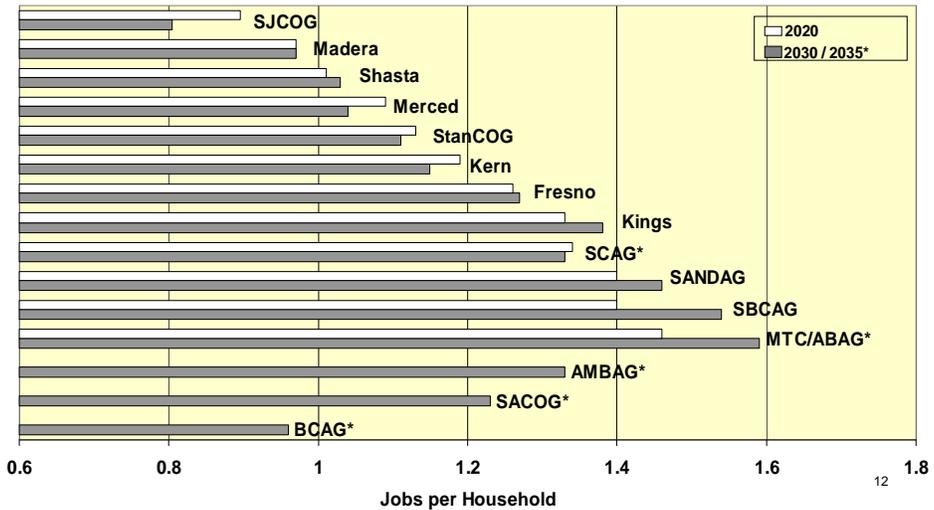
# Compound Population Growth Rates Data



## People per Household Data



## Jobs per Household Data



## Percent Increase in RTP Jobs & Households



	Current*-2020		2020-Future*	
	Jobs	HHs	Jobs	HHs
Southern California	22%	23%	12%	13%
Bay Area	22%	13%	23%	12%
San Diego	17%	16%	10%	7%
Sacramento	25%	29%	23%	27%
Santa Barbara	15%	20%	11%	1%
Butte	13%	19%	29%	29%
Shasta	28%	29%	17%	15%

\* See spreadsheet for current and future years by region

\* Butte and Sacramento use 2018 instead of 2020

13

## Percent Change in RTP Developed Acres



	% Change	Years	Time span
Bay Area	+ 10%	29	2006-2035
San Diego	+ 10%	10	2020-2030
San Luis Obispo	+ 16%	27	2008-2035
Southern California	+ 21%	32	2003-2035
Shasta	+ 32%	15	2005-2020
Sacramento	+ 41%	30	2005-2035

14

# Region-specific Observations Based on Non-RTP Scenarios



## Non-RTP Scenarios



- Regions that provided scenario data outside their RTPs include:
  - Bay Area
  - Sacramento
  - San Diego
- Other regions have developed non-RTP scenarios, including:
  - San Joaquin Valley (Blueprint)
  - SCAG Region (Compass Blueprint, Conceptual Land Use Scenario)

16

## MTC/ABAG: 2035 Enhanced Land Use and Pricing Alternative



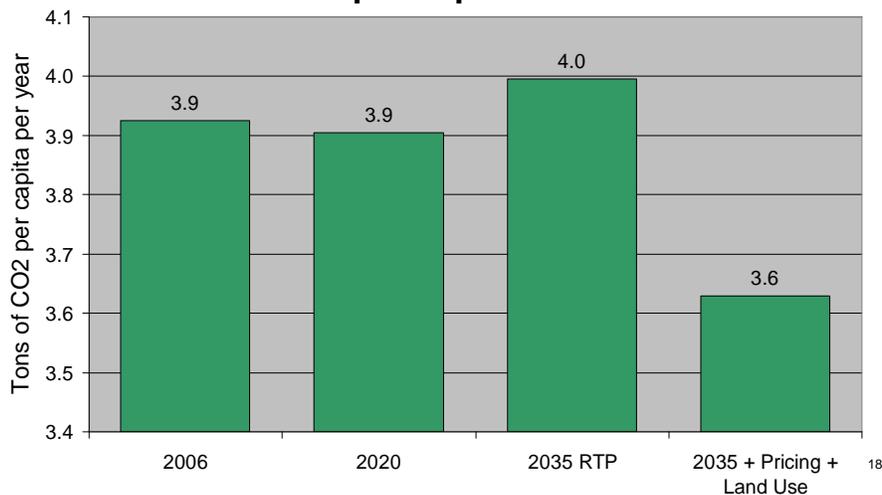
- Builds upon adopted 2035 RTP
- Includes aggressive land use and pricing strategies to illustrate impacts on infrastructure performance – not policy recommendations

17

## MTC/ABAG Greenhouse Gas Impacts



### 7.7-10.0% CO2 per capita reduction in 2035



*MTC/ABAG*

## Key Factors in Reducing GHG: Land Use



- **Balance jobs and housing**
  - Accommodates 37,000 more households
  - Eliminates net in-commute of 231,000 workers
- **Concentrate job and population growth in:**
  - Existing communities
  - Near transit
  - Less suburban (share decreases from 54% to 46%)
  - More urban (share increases from 35% to 47%)

19

*MTC/ABAG*

## Key Factors in Reducing GHGs: Pricing Strategies



- **User-based pricing strategies include:**
  - Carbon tax or tax on VMT
  - Congestion fee (\$0.25/mi)
  - Increased parking charges (\$1/hr)
- **Increase in vehicle operating cost of ~ 20%**
- **Increase in cost of gasoline of ~21%**

20

## **Other Factors Influencing GHGs**



- **Socio-Economic Forecasts, 2006 to 2035:**
  - 26% increase in population and housing
  - 29% real increase in mean household income
  - 50% increase in jobs, 53% increase in labor force
  - Small increase in zero-vehicle households (9.3% to 9.5%)

21

## **Sacramento Region (SACOG): 2008 RTP and Blueprint TOD Enhanced Scenario**



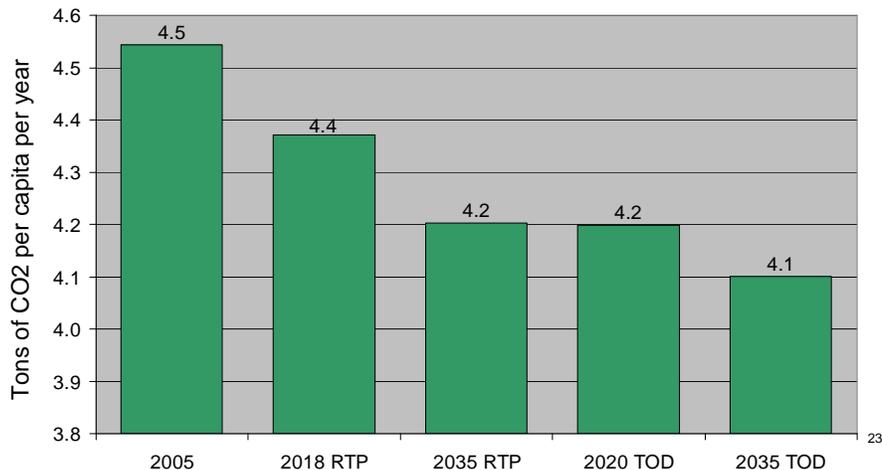
- **2008 RTP**
  - Fairly consistent with Blueprint vision
- **Blueprint TOD enhanced scenario**
  - Emphasis on transit-oriented development (TOD)
  - Reallocated ~11% of 2005-2035 dwelling unit growth to transit corridors
  - Front loads transit services planned by Year 2035 to Year 2020

22

## SACOG Greenhouse Gas Impacts



- 3.8-7.5% per capita GHG decrease by 2018/2020
- 7.5-9.8% per capita GHG decrease by 2035



## SACOG Key Factors in Reducing GHGs



- **More compact land uses (% of housing growth)**
  - 33% new housing attached or small lot dwellings in 2005
  - Increasing to 61-73% in 2035:
- **More infill and redevelopment residential**
  - 50-60% of growth in 2018 and 2035 RTP
  - 60-80% of growth in 2020 and 2035 TOD Enhanced
- **Increased transit infrastructure**
  - 2.8% of work trips by transit in 2005
  - Increasing to 3.8-6.6% by 2018/2020; 5.8-7.2% by 2035
  - Supported by near-tripling of transit funding

24

## SACOG

### Other Factors Influencing GHGs



- **Increasing household income increases CO2**
  - \$48,220 in 2005
  - 12% real increase in income by 2035  
(NOTE: Per capita decrease in CO2 includes this factor)
- **Increasing auto operating costs decreases CO2**
  - \$0.15 per mile in 2005
  - 33% increase in operating costs by 2035

25

## SANDAG: 2006 RTP and Smart Growth Scenario



- 2006 RTP (2030)
  - Land use
  - Systems Development and Management
  - Demand Management
- Smart Growth Scenario
  - Added all potential smart growth areas to reasonably expected 2006 RTP

26

## SANDAG Greenhouse Gas Impacts (2030)



- **RTP: 1.3% per capita GHG reduction from current year (2006)**
- **Smart growth scenario: 4.9% per capita GHG reduction from current year**
  - Percentage of residential infill and redevelopment increases from 37% to 47%
  - Greenfield development decreases from 63% to 52%

27

## TDM/TSM Strategies



- Transportation demand management (TDM) and transportation systems management (TSM)
  - Reduce GHG by reducing vehicle trips/VMT and/or relieving congestion
  - Complement and support land use and transportation strategies
- SCAG & SANDAG compiled list of possible strategies
  - Examples: parking management, telecommuting, employee transit subsidies, safe routes to school programs, signal priority for buses, incident management systems
- SCAG prepared table of strategies and how they plan to be measured using their regional model

28

# SANDAG Presentation

---

