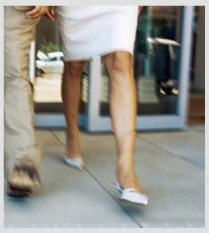

ACTIVE TRANSPORTATION AND CONGESTION

FOR PRESENTATION TO THE
SAN MATEO COUNTY TRANSIT DISTRICT

Ellen Barton, Active Transportation Coordinator
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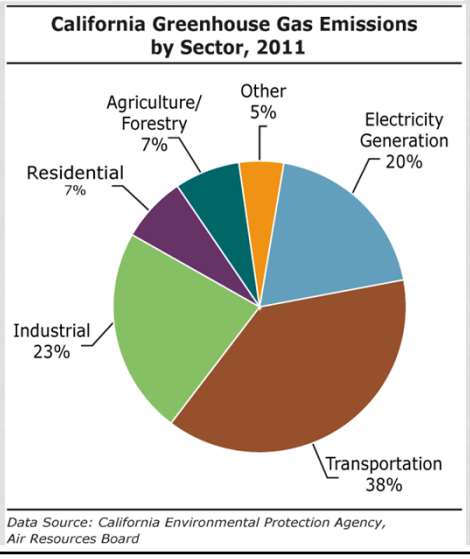
TRANSPORTATION CONTEXT

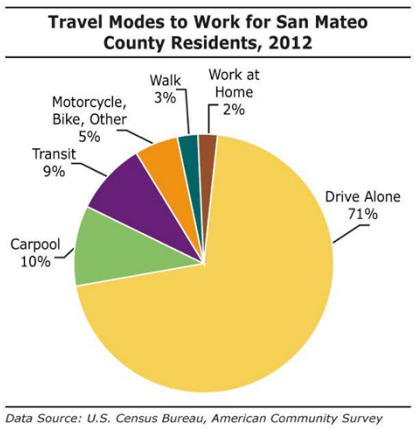
- Driving is a larger emitter than Residential, Industrial, and Agriculture combined.
- 90% of transportation emissions are from on-road; 75% of that is from private vehicles.



COMMUTING vs. TRANSPORTATION

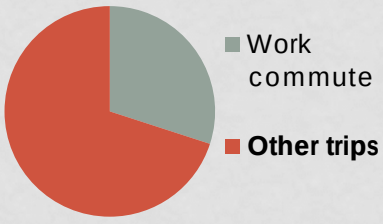
Measuring Commuting:

- Planning and engineering practices have focused on commuting issues

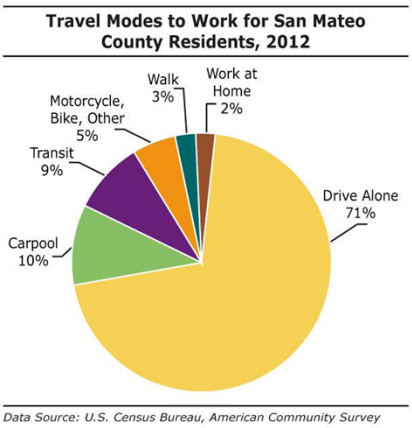


COMMUTING vs. TRANSPORTATION

Measuring other trips:



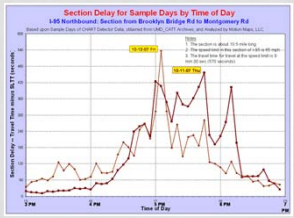
Metropolitan Transportation Commission, Plan Bay Area Environmental Review Documents



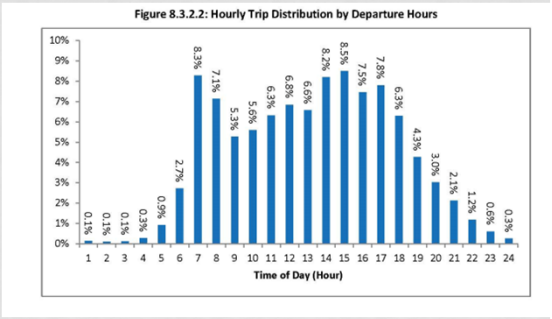
COMMUTING AND CONGESTION

Measuring Congestion:

- Commute roadway traffic corresponds to "Peak Hour"



Sample "Traffic Delay" graph

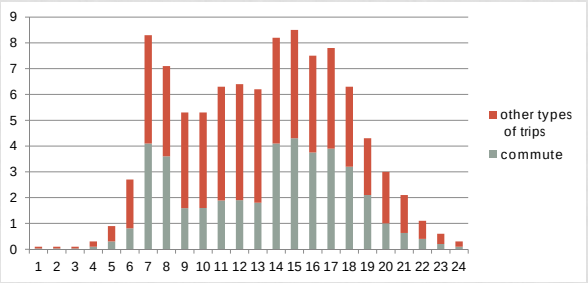


California Household Travel Survey Data, 2010

COMMUTING AND OTHER TRIPS

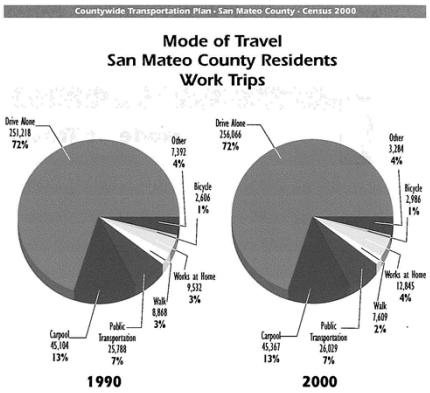
Measuring Congestion:

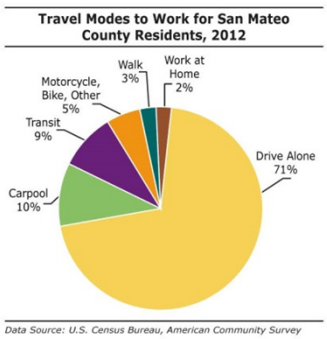
- What percentage of trips at peak hour are commutes?
- What percent are other trip purposes?



Approximation of peak and non-peak trips by trip purpose

COMMUTING MODE SHIFT 1990-2012





Commute mode shift over time:

- Drive-alone commutes in 1990 and 2000 were 72%
- In 2012, Drive-alone commutes decreased to 71%

MEASURING OTHER TRIPS

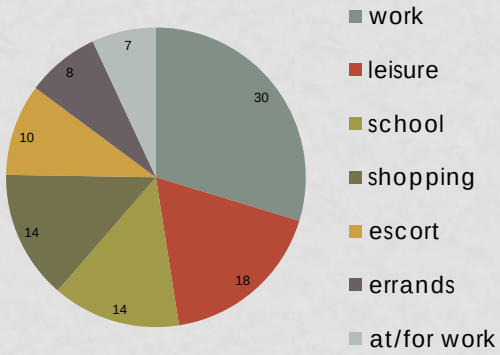
Examples of other types of trips:

- Errands
- School
- Shopping
- Entertainment

MEASURING OTHER TRIPS

Commute trips vs. other types of trips in our region:

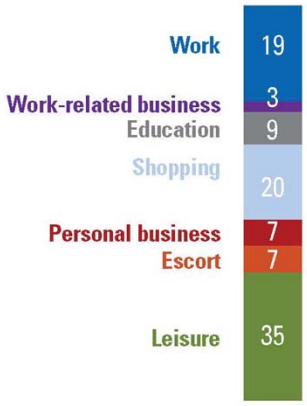
- Errands 8%
- School 14%
- Shopping 14%
- Leisure 18%
- Giving a ride to a senior or child10%
- Commute 30%



Source: Metropolitan Transportation Commission Travel Demand Forecasts, 2012.

EXAMPLE FROM ANOTHER CITY

- **Commute trips vs. other types of trips**
  - Errands 7%
  - School 9%
  - Shopping 20%
  - Entertainment 35%
  - Giving a ride to a senior or child 7%
  - Commute 19%



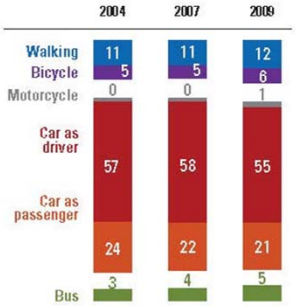
MEASURING EFFECTIVENESS

From example city

Measuring Effects of Community-wide Program:

- Walking increased by 10% (to 12% of all trips)
- Bicycling increased to 6% of all trips* (a 20% increase)
- Driving trips decreased by 6% (and more in target neighborhoods)
- Transit use almost doubled to 5%

**Portland bike mode share is 7%*



Increasing bicycling, walking, and transit mode share without construction can be cost effective.

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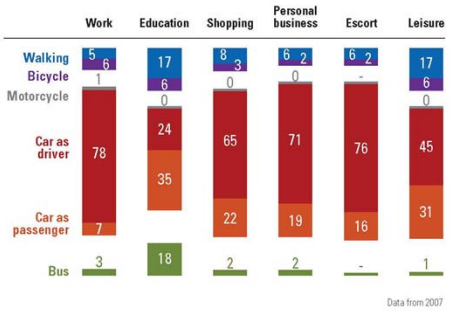
MEASURING TRIP PURPOSE

From example city

Mode Share varies by:

- Trip purpose
- Demographic
- Distance
- Trails/Services
- Marketing



This degree of detail in data is not available from the census. It is more expensive to get this kind of data and analysis than is usually collected in standard travel surveys. Measuring accurately allows success to be documented and shows which elements of a program work best.

RESEARCH HIGHLIGHTS

From example city

Characteristics of trips most likely to shift from car to Environmentally Friendly Modes (EFM):

- Female, age 35 to 50
- Small shopping trip
- Short distance (2 miles or less)

Least likely trip to shift:

- Commute

WHAT IS ACTIVE TRANSPORTATION?

- Active Transportation means walking or bicycling for daily errands and short trips
- Some examples:
  - Walking to the corner store for a jar of mayonnaise
  - Bicycling to the library with the kids
  - Walking from the bus stop to the park-and-ride

ACTIVE TRANSPORTATION IS SHORT TRIPS

Active Transportation is not about speed or endurance/distance

Sample Active Transportation distances:

- Walking ½ mile takes 10 minutes
- Bicycling 1 mile (level) takes 10 minutes
- 20% of all trips are less than 1 mile
- 50% of all trips are less than 3 miles

Active*, but not really *Transportation

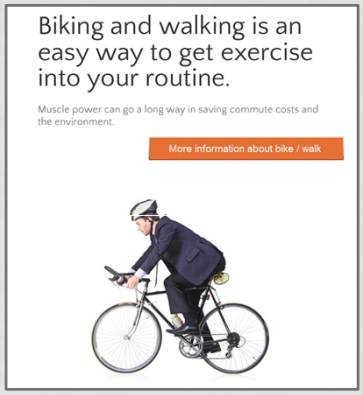
TRANSPORTATION BEHAVIOR CHANGE

- Changing Modes starts with changing Attitudes

TRANSPORTATION BEHAVIOR CHANGE

Behavior change is about Marketing:
Messages that evoke <u>feelings</u> are more likely to affect behavior.

Evokes good feelings



Cites facts and looks uncomfortable

COMMUNITY-WIDE
TRANSPORTATION DEMAND MANAGEMENT

- **San Mateo County already has some elements:**
  - Building Complete Streets (sidewalks, trails, bicycle routes)
  - Teaching Bicycling Skills
  - Reaching Employers with Vanpools, Shuttles, Transit
  - Better enforcement for crosswalks, stop signs

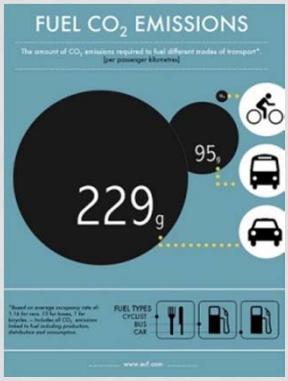
Methods to consider adding community-wide:

- Market research and improved data collection
- Improved marketing and motivational outreach
- Woman-focused bicycle encouragement
- Rewards and events
- Emergency Ride Home community-wide
- Marketing the Bike-Share system

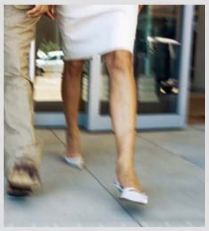
COMMUNITY-WIDE
TRANSPORTATION DEMAND MANAGEMENT

Sample Results:

- In Eugene, Oregon, about 50,000 households were contacted, and 10% of these households participated. They reduced drive alone trips by 7% resulting in a total reduction of about **716,000 lbs.** of CO_2 not emitted.
- Estimated CO_2 reduction for a 7% drive-alone trip reduction over the course of 1 year in Redwood City (if about15% participate): **1 million lbs.**



Questions/Conclusions



ACTIVE TRANSPORTATION AND TRAFFIC CONGESTION

ACTIVE TRANSPORTATION OPPORTUNITIES

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