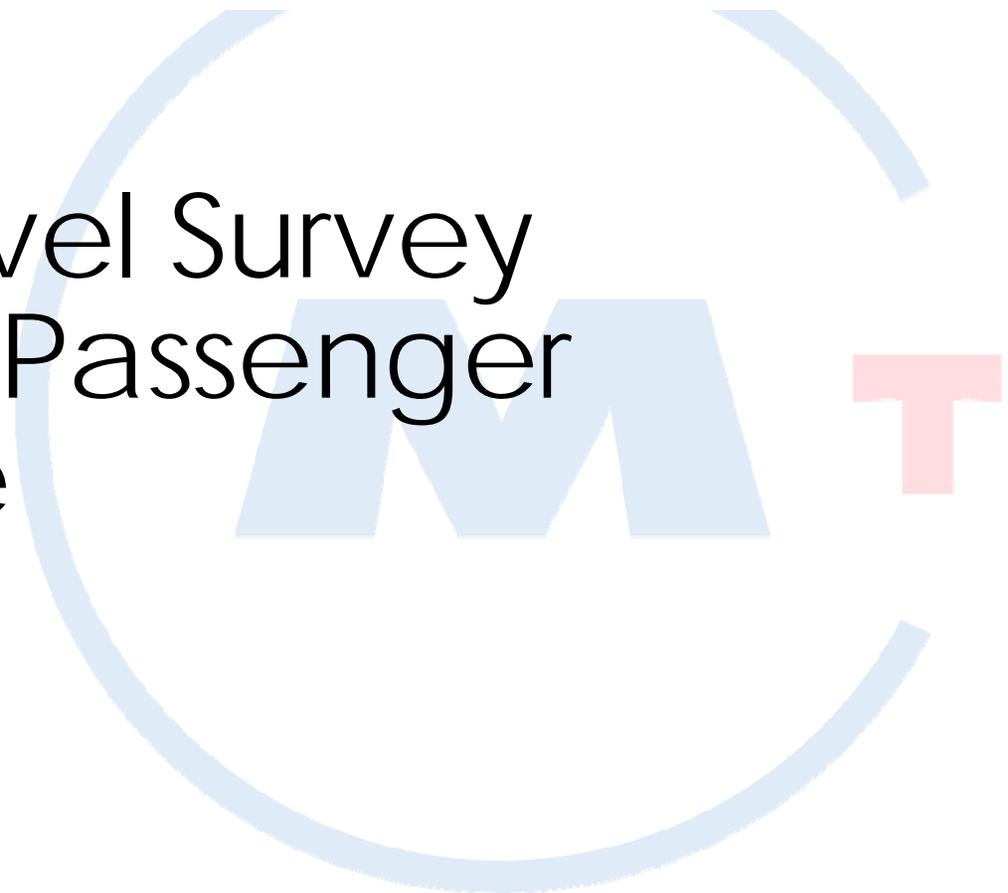


# Household Travel Survey and Onboard Passenger Survey Update

A large, light blue watermark of the Metropolitan Transportation Commission (MTC) logo is visible in the background. It features a stylized 'M' and 'T' inside a circular arc.

Policy Advisory Council  
Equity and Access Subcommittee  
February 11, 2015

Shimon Israel  
Metropolitan Transportation Commission  
[sisrael@mtc.ca.gov](mailto:sisrael@mtc.ca.gov)

# Presentation Overview – HH Travel Survey

1. Goals for household travel survey
2. History of HH travel surveys in region
3. Overview of 2013 HH travel survey
4. Status of work with survey data
5. Future of household survey data collection



# Presentation Overview – Onboard Transit Survey

1. Goals for transit passenger survey
2. MTC's current approach to passenger survey
3. Challenges to assembling a complete data set
4. Interactive survey results (if time allows)



# Household Travel Survey

Gather data on travel patterns and socio-demographics to inform:

- a. Travel models
- b. A variety of equity analyses
- c. Travel behavior trends



# Household Travel Survey

Types of data collected:

- Household characteristics
- Person characteristics
- Vehicle information
- Activity/travel diary
- GPS data



# History of Household Travel Survey

- 1946/47 – Southern Crossing Project Study
- 1965 – Bay Area Transportation Study Commission (in home interview)
- 1981,1990,1996,2000 – MTC (Bay Area Travel Survey, a.k.a. BATS)
- 2012/2013 – In partnership with Caltrans (California Household Travel Survey)



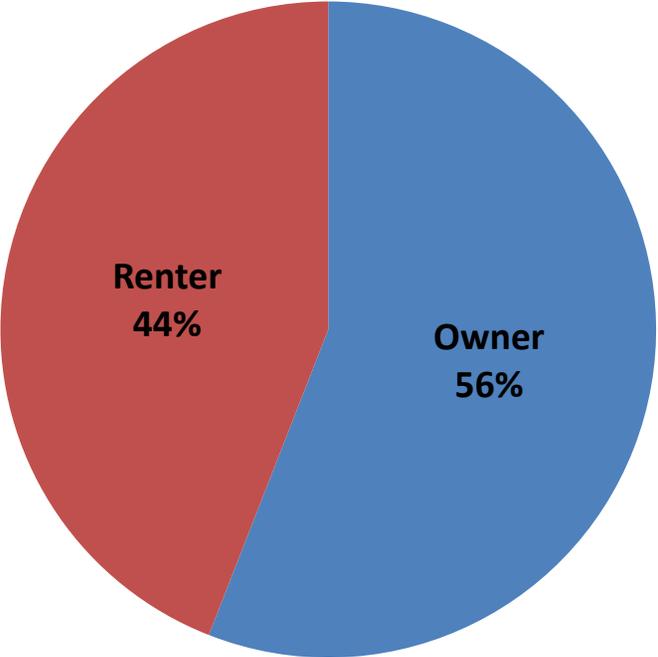
# CHTS 2012/13

- Data collected Feb. 2012 – Jan. 2013
- 42,500 sample HHs statewide
- Collaborative effort
- Address-based recruitment
- One-day activity diary survey
- Vehicle, OBD, wearable GPS components
- Supplemental sample purchase (9,700 Bay Area HHs)

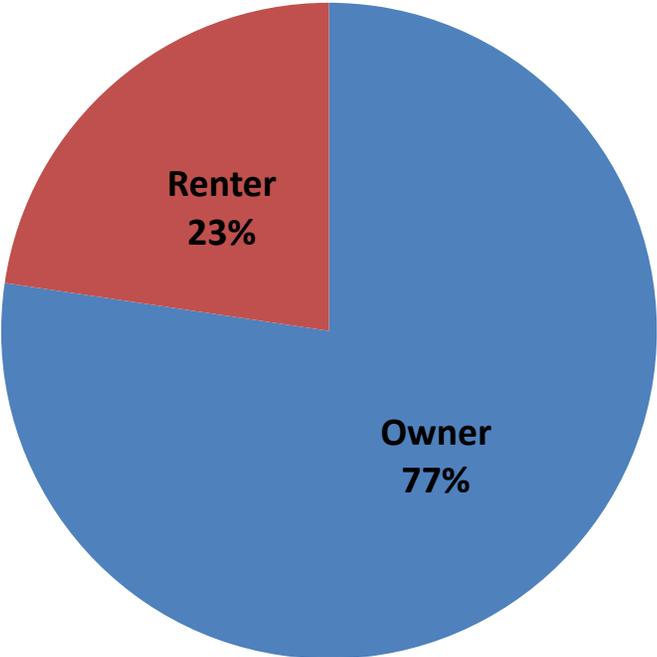


# Tenure

Census

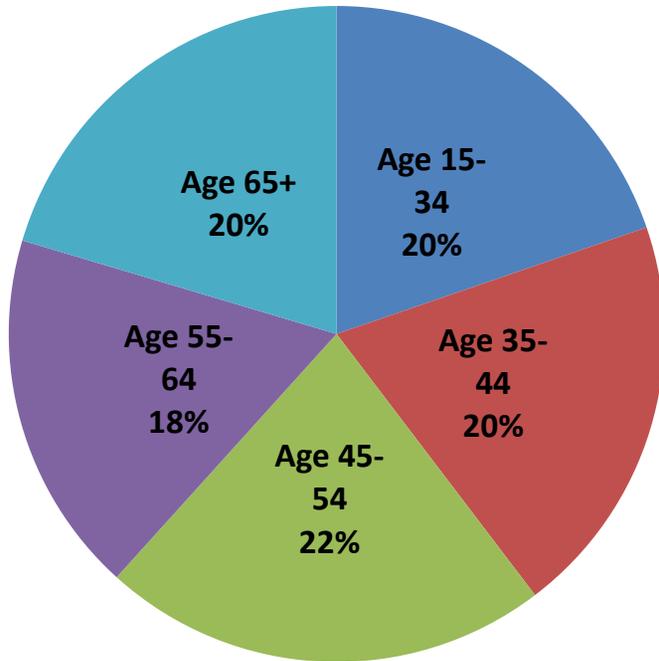


Survey

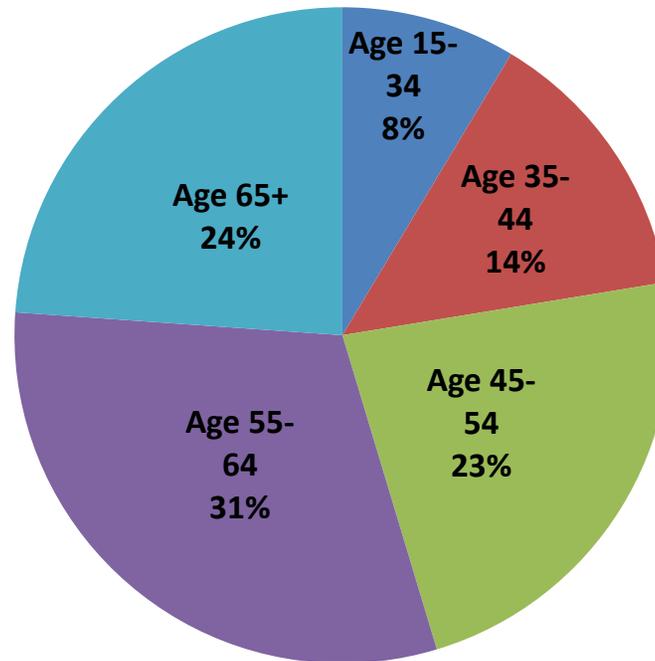


# Age of Householder

Census

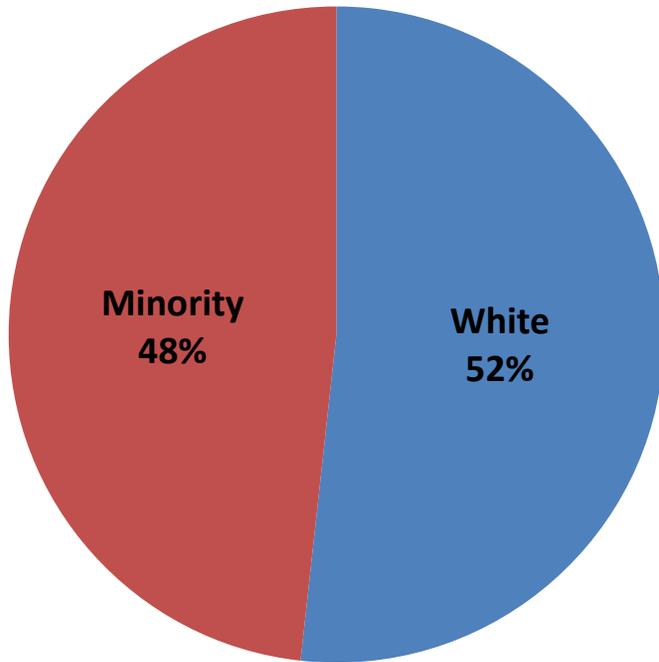


Survey

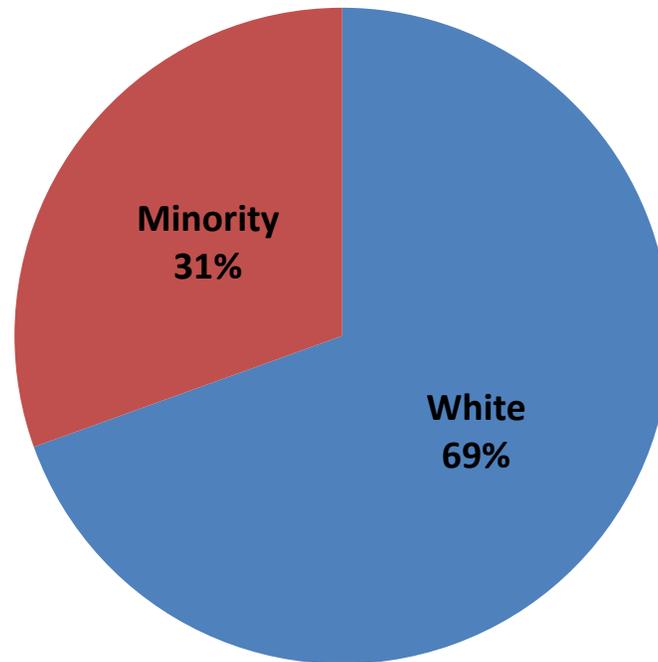


# Race of Householder

Census

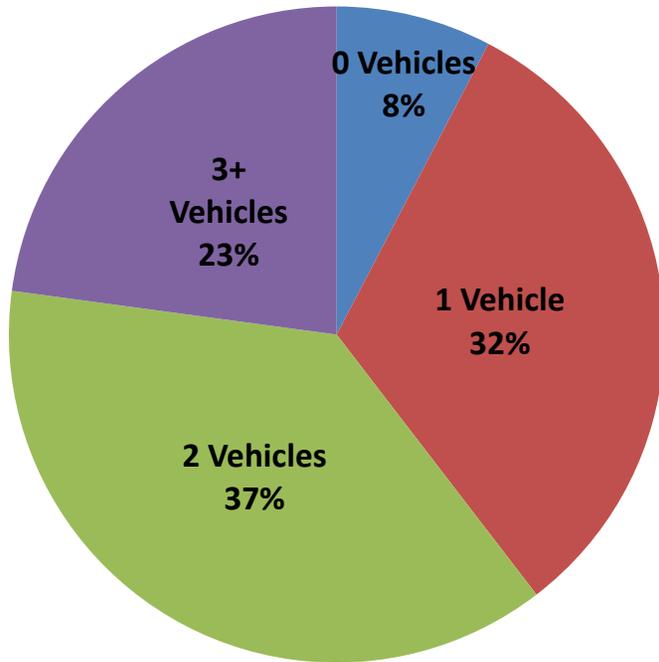


Survey

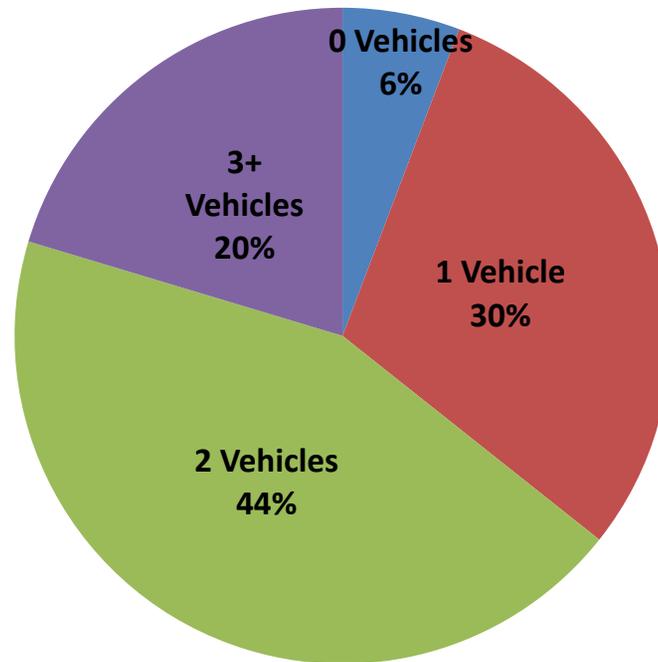


# Vehicles in Household

Census

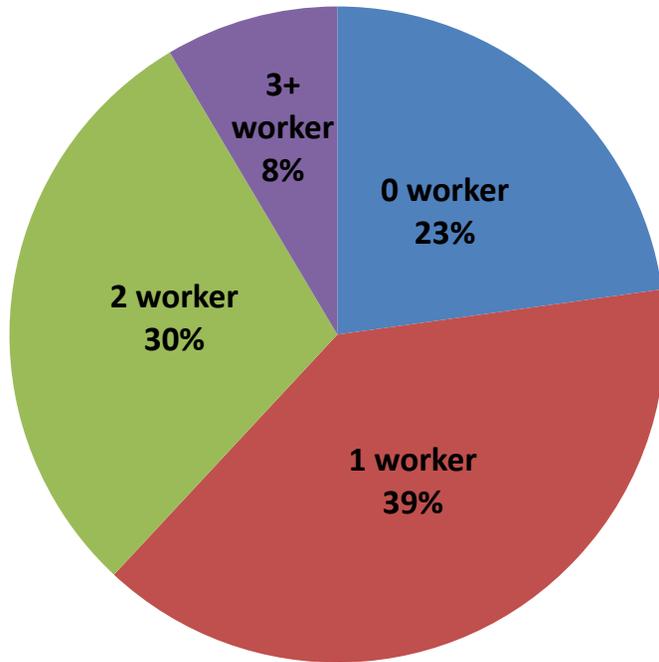


Survey

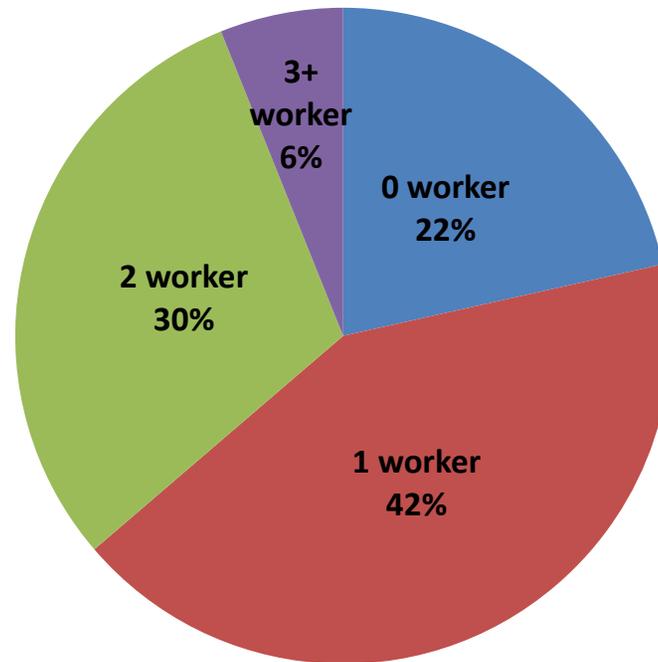


# Workers in Household

Census

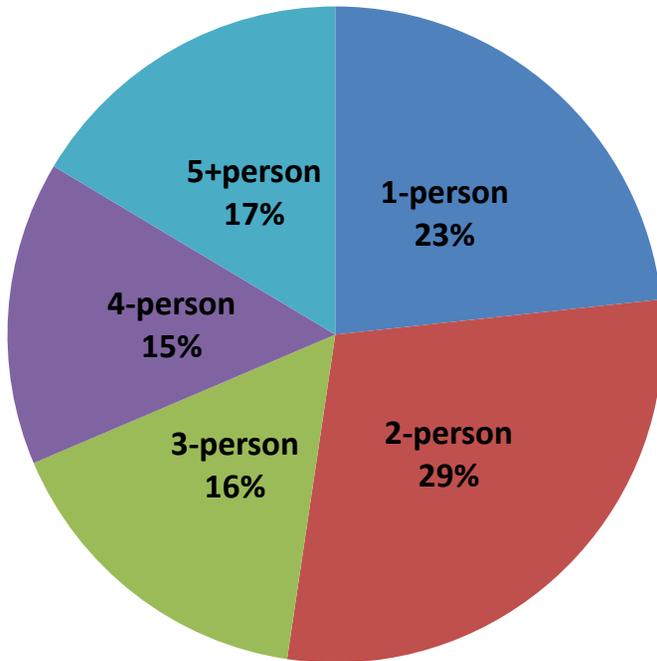


Survey

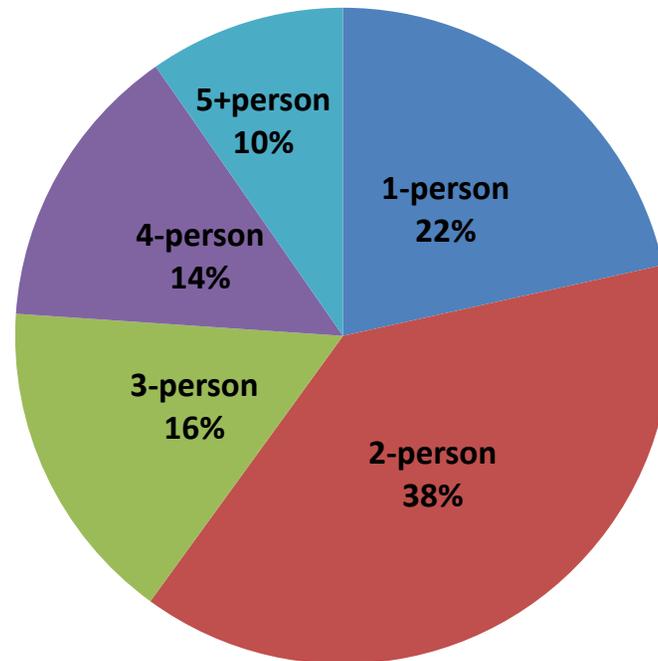


# Household Size

Census



Survey



# Next Steps

- Trip Linking, Trip Chaining, Travel Tours Procedures
- Trip Correction Factors based on GPS Datasets
- Reporting Regional Travel Characteristics
- Disaggregate Model Estimation



# Future of Household Travel Survey

- 2015 to 2020 – In partnership with SACOG, SCAG, and SANDAG
  - “Right size” for partnership
  - Should gain from efficiencies
  - Allows for, but does not require
    - Annual surveying to better track trends and smooth expenses
    - Research, e.g., cell phone surveys, more efficient methods



# Regional Onboard Transit Survey

Why?

- Rare for household travel surveys

Why MTC?

- Similar yet different survey approaches for individual operators
- Economies-of-scale efficiency
- Leveraging of MTC growing expertise
- Regionally consistent and useful data



# Regional Onboard Transit Survey

- Prior to 2012 – Paper and pencil (~20-30% response)
- 2012 to 2013 – Paper recruitment with telephone follow-up: great data (20-30% response)
- 2013 to today – Personal interviews with tablet computer recording: good data, very high response rates (~70 to 90%)



# Regional Onboard Transit Survey

- 5 to 7.5 percent sampling rate
- 20% funding match from operators
- 5-year time horizon
- Demographics and trip information
- Boarding-to-alighting surveying



# Example BART Trip



City of Martinez



Work

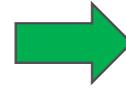
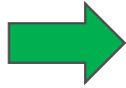


UCSF Medical Center

# Example BART Trip



City of Martinez



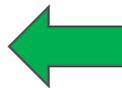
Pleasant Hill Station



Embarcadero Station



Muni N-Judah



UCSF Medical Center



# Regional Onboard Transit Survey

- Surveyed 14 operators and 25k passengers since 2012
- BART survey later this month
- Data used for SMART USDOT TIGER Grant, CHSR 2016 Business Plan, long- and short-range transit planning
- Improved working relationships with agency partners



Completed Date

Anticipated Date

Operator	Completed	Completed Date
ACE	X	Spring 2014
AC Transit	X	Fall 2012
BART		Spring 2015
Caltrain	X	Fall 2014
County Connection	X	Spring 2012
Fairfield and Suisun Transit (FAST)		Spring 2016
Golden Gate Transit	X	Fall 2013
Marin Transit		Fall 2015
Muni		Spring 2016
Petaluma Transit	X	Spring 2012
Rio Vista Transit		Spring 2016
SamTrans	X	Spring 2013
Santa Rosa CityBus	X	Spring 2012
SolTrans (Vallejo and Benicia Transit)		Spring 2016
Sonoma County Transit	X	Spring 2012
Tridelta Transit	X	Spring 2014
Union City Transit	X	Spring 2013
Vacaville Transit		Spring 2016
Vine	X	Spring 2014
VTA		?
Westcat		?
WETA Ferries	X	Fall 2013
Wheels (LAVTA)	X	Fall 2013
<b>Total</b>	<b>14</b>	

# Challenges to Timely Surveying of All Operators

- Yearly budget limitations
- Operator inertia
- Lack of understanding of MTC's methods
- Emphasis on Title VI surveying
- Scheduling challenges



# Questions

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