



DATE: July 26, 2018

TO: Transportation Authority of Marin Board of Commissioners

FROM: Dianne Steinhauser, Executive Director
Derek McGill, Planning Manager

SUBJECT: Accept the TAM Origin & Destination Final Report (Action), Agenda Item No. 7

RECOMMENDATION

Accept the TAM Origin & Destination Final Report. The Draft Report was presented to the TAM Board in March 2017, and the final report was presented to the TAM Programming and Projects Executive Committee in July 2018, who accepted the report and referred it to the full Board.

Note this report represents an ongoing effort as requested by our local member jurisdictions to develop more and better traffic data for the purpose of understanding our current traffic demand and providing a tool for planning improvements.

Note also that data was from a specific period of time. Growth in travel has likely occurred since the data collection period.

BACKGROUND

In 2016, TAM retained a consultant to develop the next generation of TAM's Travel Demand Model (TAMDM), specifically the travel demand forecasting tool to assess future travel volumes on local roadways, highways and transit systems. TAM has operated the Marin Travel Model as its primary forecasting tool, however increasing costs of maintaining outdated software, and challenges with lack of functionality have led to the need to develop the next generation of the Model.

TAM has historically prepared origin and destination surveys as part of a project level assessment to understand the travel behaviors being addressed by a proposed project. Beginning in 2016 TAM began an update to its Origin and Destination studies to assess countywide travel behaviors to support the development of TAM's new Travel Demand Model and provide TAM along with our local jurisdictions with information for planning near-term and long-term improvements. The draft origin and destination report was presented to the TAM Board in March 2017.

TAM's model development consultant, Fehr and Peers, have piloted the use of extremely large data sources, referred to as "Big Data" collected from mobile phones, GPS devices and automobiles to provide a cost-effective approach to once burdensome system of mail surveys, traffic counting and license plate reader technology. This 'Big Data' approach allows for 75 million origin and destination points to be included in the analysis of Marin County's travel behavior. Note that the data is aggregated and anonymized rather than captured as personalized data due to privacy requirements.

DISCUSSION/ANALYSIS

TAM working with its travel model consultant developed an approach to obtain origin –destination data for three primary purposes:

1. Provide a detailed source of information for origin and destination relationships, between Marin County and other counties, and within Marin County. A zone structure was set up for 30 zones in Marin County, and 10 zones including the 8 other bay area counties, for a total 40 x 40 zone structure.
2. Obtain a better understanding of origin and destinations of users of 11 specific Marin County Roadways, including the Highway 101 at the Marin Sonoma County Line, State Route 37, the Richmond San Rafael Bridge and the Golden Gate Bridge.
3. Determine “work” locations of commuters who live in specific “home” zones, to provide information related to a wide range of planning activities.

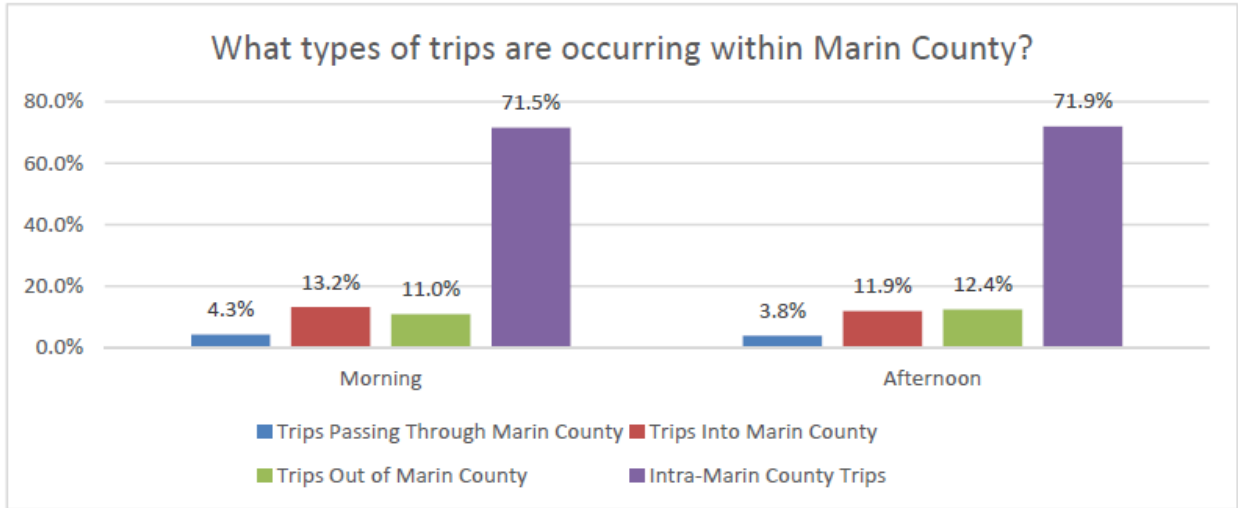
Note that the data collected was limited in nature. Data from the 2009-2013 American Community Survey (ACS) was utilized as part of the study. Traffic data is also several years old. The following therefore must be noted:

- Observed traffic data was only collected during the morning and afternoon commute covering the period of 6-10 AM and 3 to 7 PM.
- Only vehicle data were provided not total person-trips, in the traffic data portion of the study, not accounting for high occupancy vehicles including transit.
- The data did not represent trips associated with split shifts or night shifts outside of the commute periods observed, and these were likely substantially undercounted. Therefore, a portion of the workforce traveling into Marin County is underrepresented.
- Workers who travel to job sites around the county or out of the county may not be adequately represented. Examples include contractors and landscape workers.
- This data does not likely include the full delivery economy, with trips often outside commute hours (Amazon deliveries, etc.)
- Traffic data from 2015 was utilized, meaning traffic growth since that time is not captured.

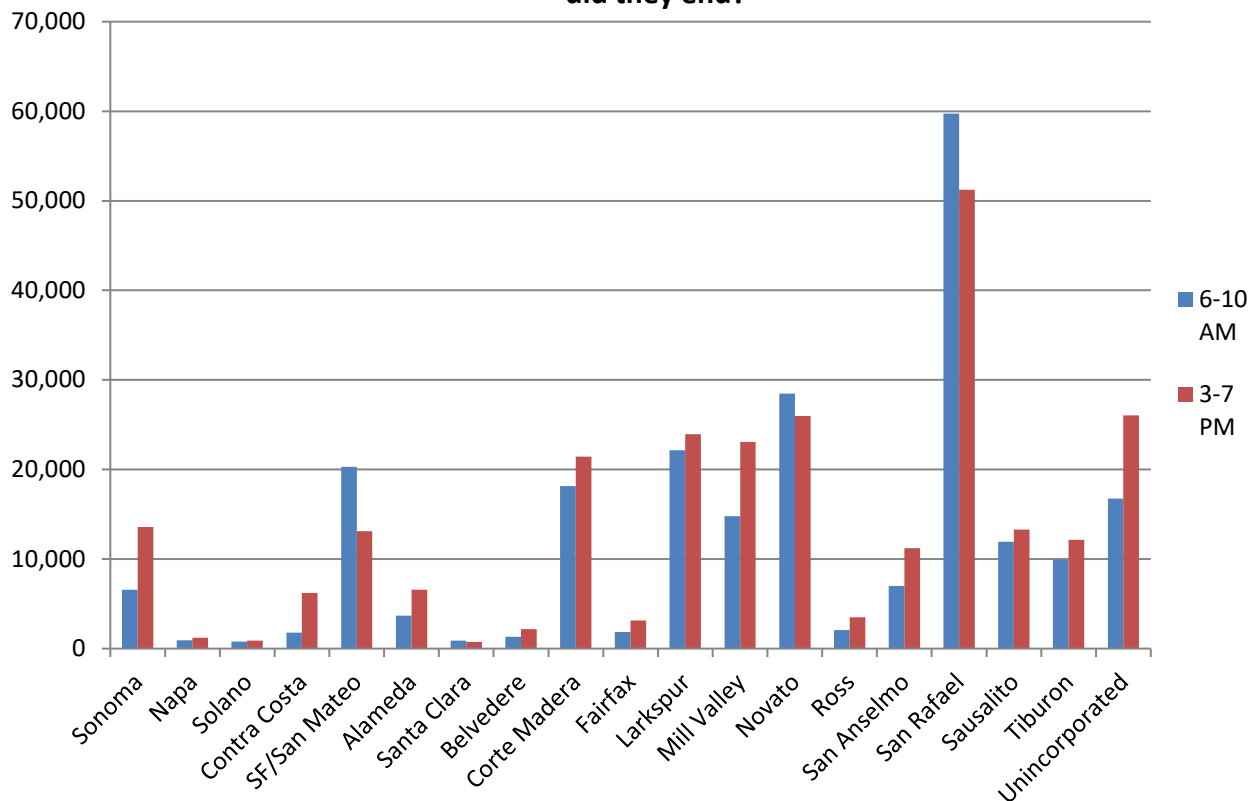
TAM has developed individual town and city data sets for each jurisdiction and have shared those with DPW and Planning departments.

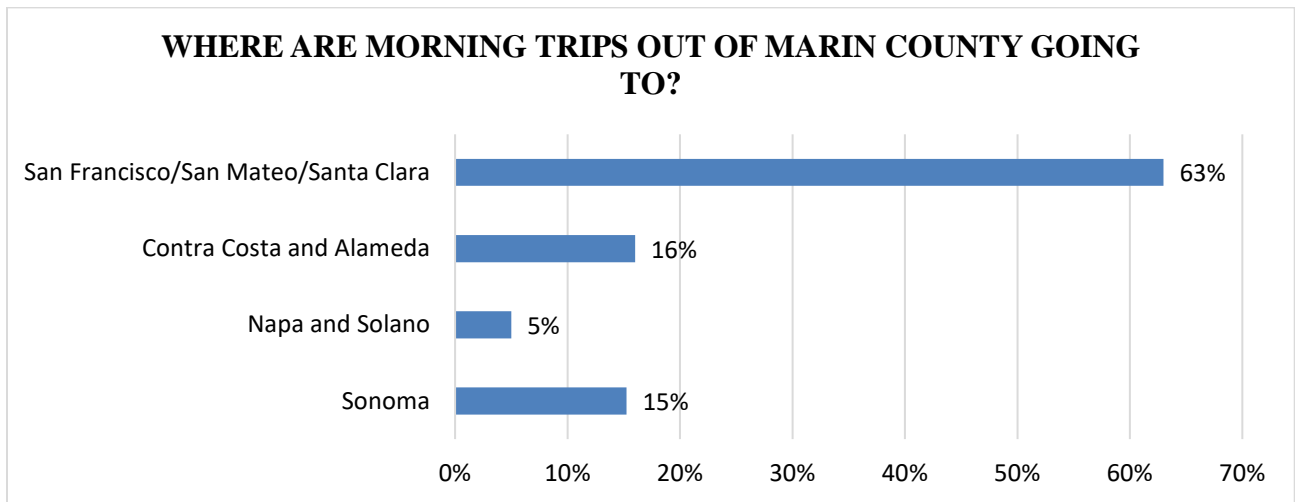
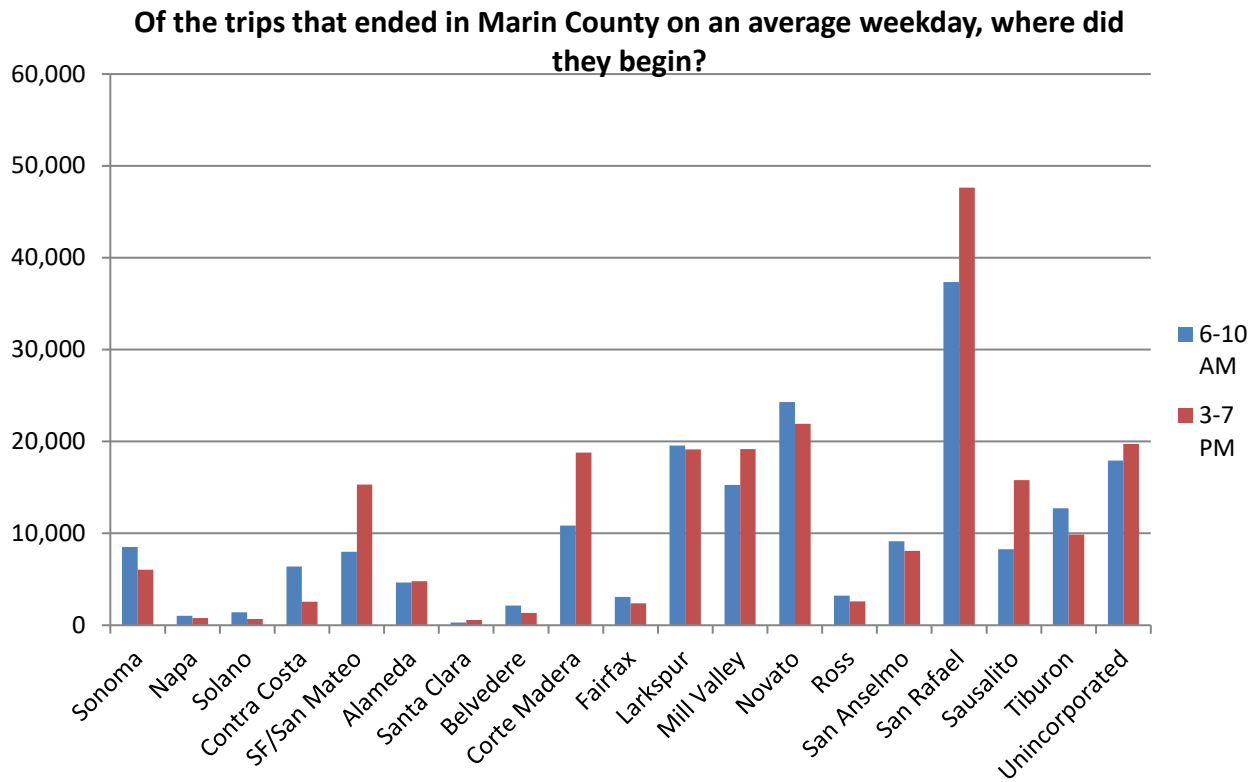
Based on data collected, below is a snap shot of some of the types of relevant information developed from this report:

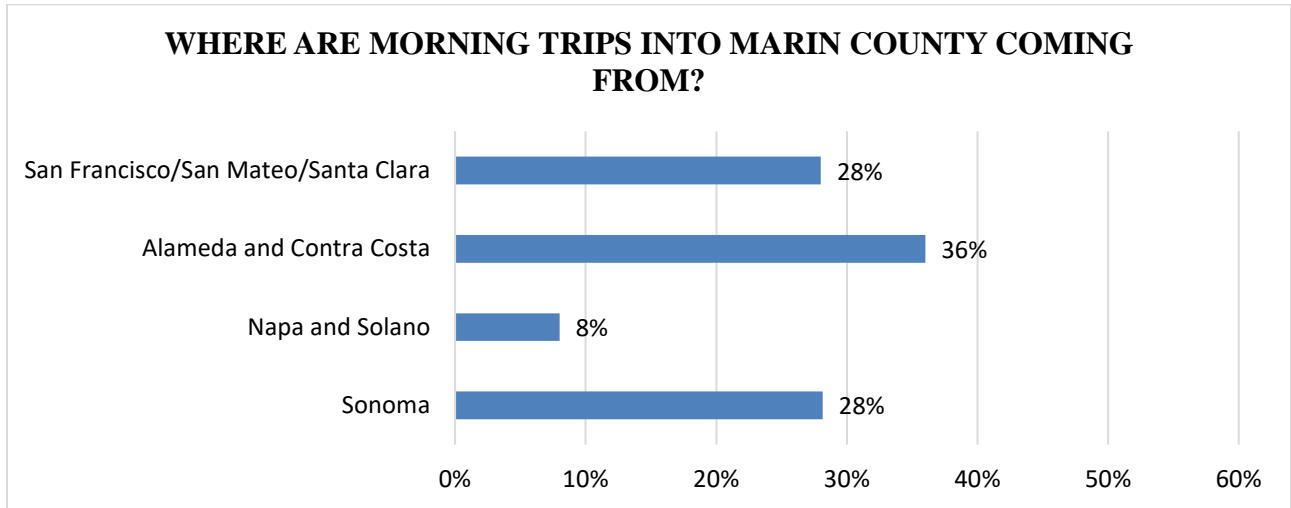
COUNTYWIDE TRIPS BY TRIP TYPE
 Please note this is from a limited data set



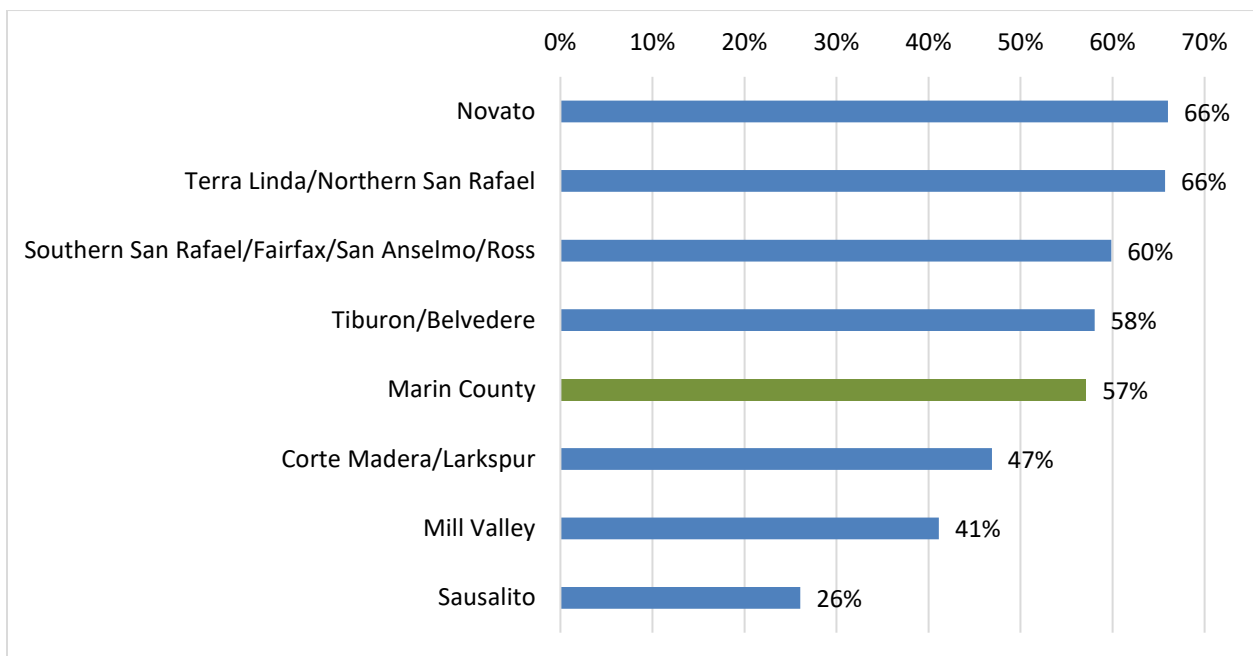
Of the trips that started in Marin County on an average weekday, where did they end?







WHAT PERCENTAGE OF MARIN COUNTY RESIDENTS WORK IN MARIN COUNTY?



TAM has revised the draft report to include these charts and tables and provide updated discussion based on the TAM Board of Commissioners Meeting in March 2017 and public presentations and discussions. With recent State of California Office of Planning and Research guidance on changes to CEQA to shift towards vehicle miles traveled transportation metrics, the final origin and destination study provides one source of information for development of the TAM Travel Demand Model (TAMDM), and for local jurisdictions use for local transportation discussions.

This item was heard at the July 2018 Programming and Projects Committee who recommended the TAM Board accept the report.

In- Commute Patterns and Employment Data

Vehicle trips do not directly relate to workers or jobs due to various reasons, including the limited commute period studied (certain hours only), transit and high occupancy vehicle usage, multiple jobs filled by a single worker, non-site-based workers like contractors or landscapers, and commute information is further varied by shift workers including mid-day and late-night.

FISCAL CONSIDERATION

There are no fiscal impacts to this action.

NEXT STEPS

TAM will post the final study online and begin validation of the TAMDM Model development to reflect the travel behaviors documented in the report.

ATTACHMENTS

Attachment A: Origin Destination Report Final Draft