SR 37 Travel Behavior & Transit Feasibility Study Preliminary Findings

Kevin Johnson

November 8, 2018

Topics

- Study Purpose
- Study Approach
- Preliminary Findings
- Next Steps

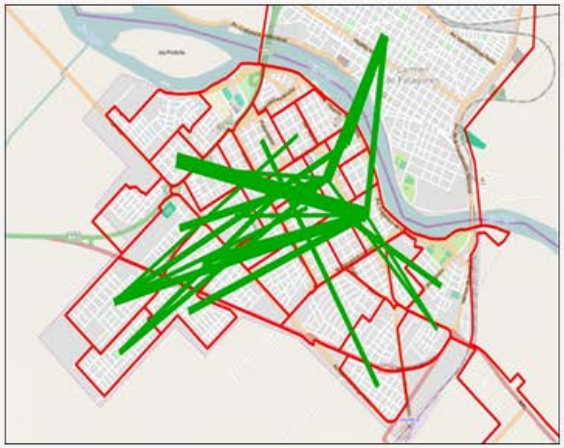
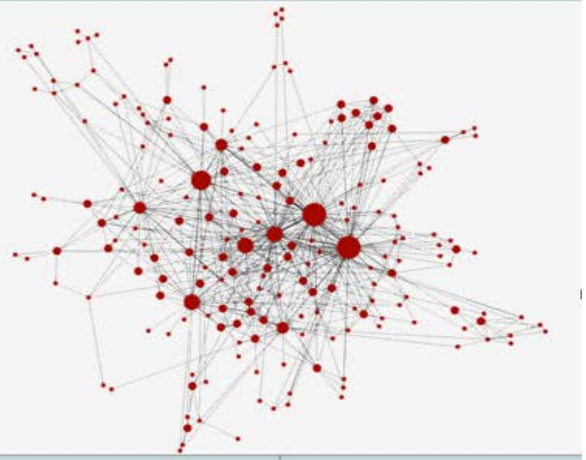
Study Purpose

- Explore other modes of travel to relieve congestion
- Address equity concerns
- Understand demand and propensity to use fixed bus service, micro-transit, and pooling options

About incrementally getting people out of their cars

FEHR PEERS

“Right-Sized Transit” Approach

Backbone		Crowd-Sourced		Door-to-Door	
					
Rail	Hi Cap Bus, BRT	Coverage Bus	Shuttles	Pooling	Drive
High density, limited linear corridors	High / Moderate demand density corridor trunks	Moderate demand corridors and branches		Low moderate many-many demand landscape	Low demand landscape

- Corridor serves lower density, dispersed development patterns
- Suggests on-demand and pooling as opposed to fixed route service

Four-Step Approach

- [x] Who is using the corridor?
- [x] What do the travel markets look like?
- [x] What are the demographics of the users? What is their transit propensity?
4. What transit approaches might work in this corridor?

Key Findings

- Solano residents accessing jol
  Marin/Sonoma counties
- Mostly long distance, work-related trips
- High percentage of trips made by those earning at or below the median income
- Many-to-many demand landscape with just a few trip centers
- Some bus opportunities, micro-transit and pooling options best to serve others

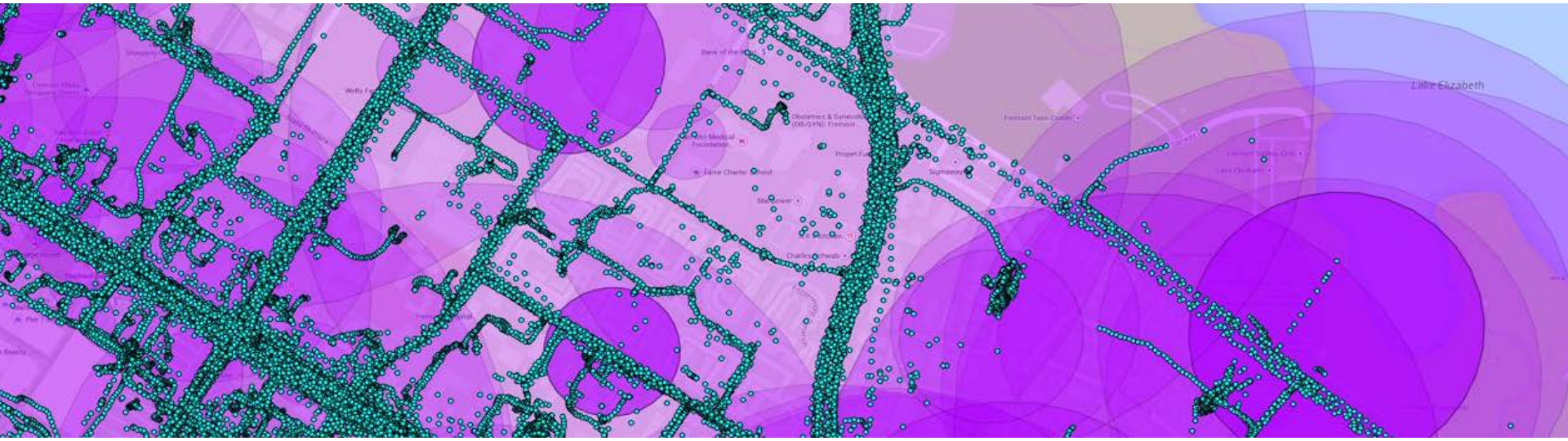
Source: StreetLight Data
Average of Tue to Thu in March to May 2018, Westbound 6 to 10 AM

Utilized Big Data

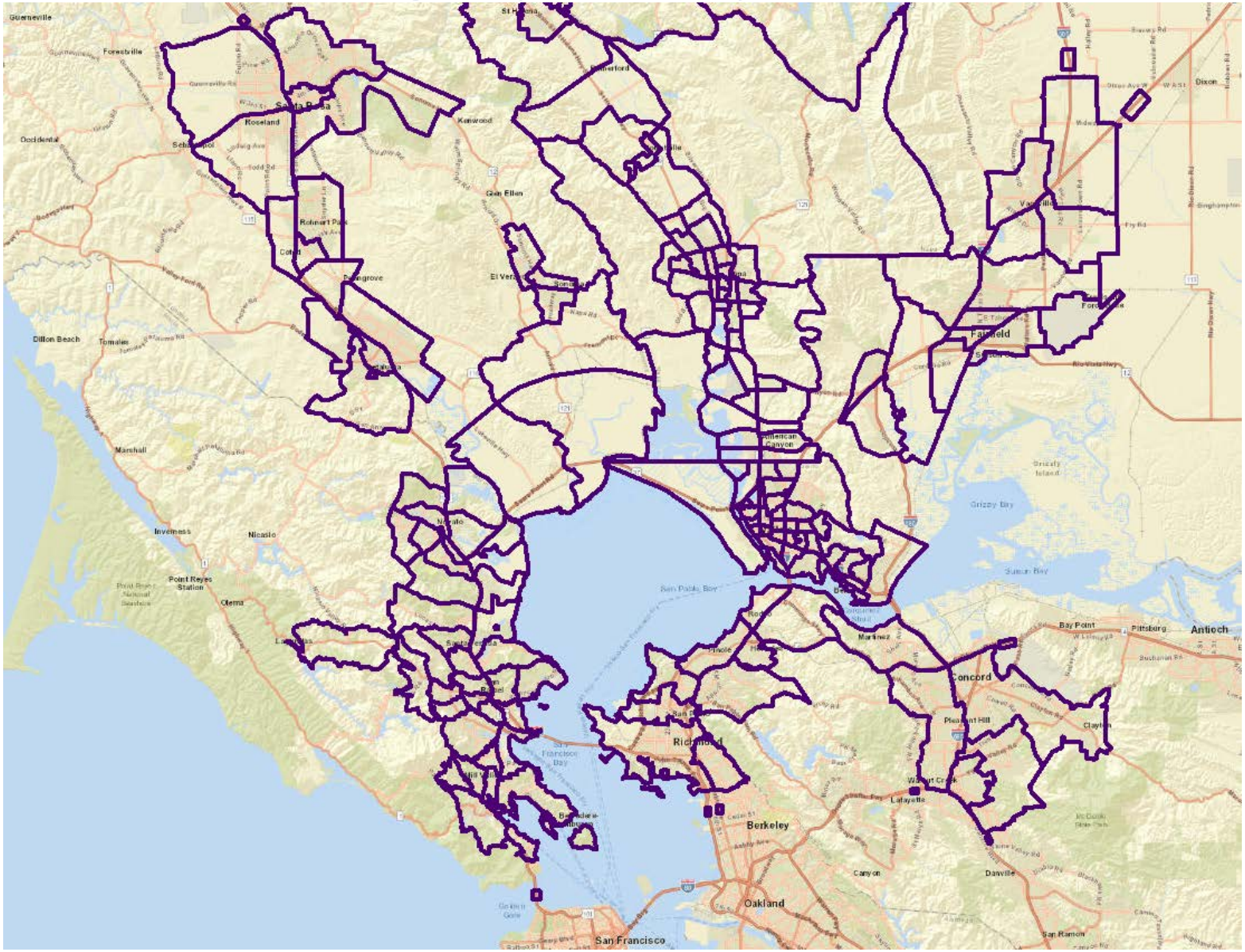
STREETLIGHTDATA

- Used app-based location data from mobile devices
- Provided large sample of true origin-destination data passively and anonymously

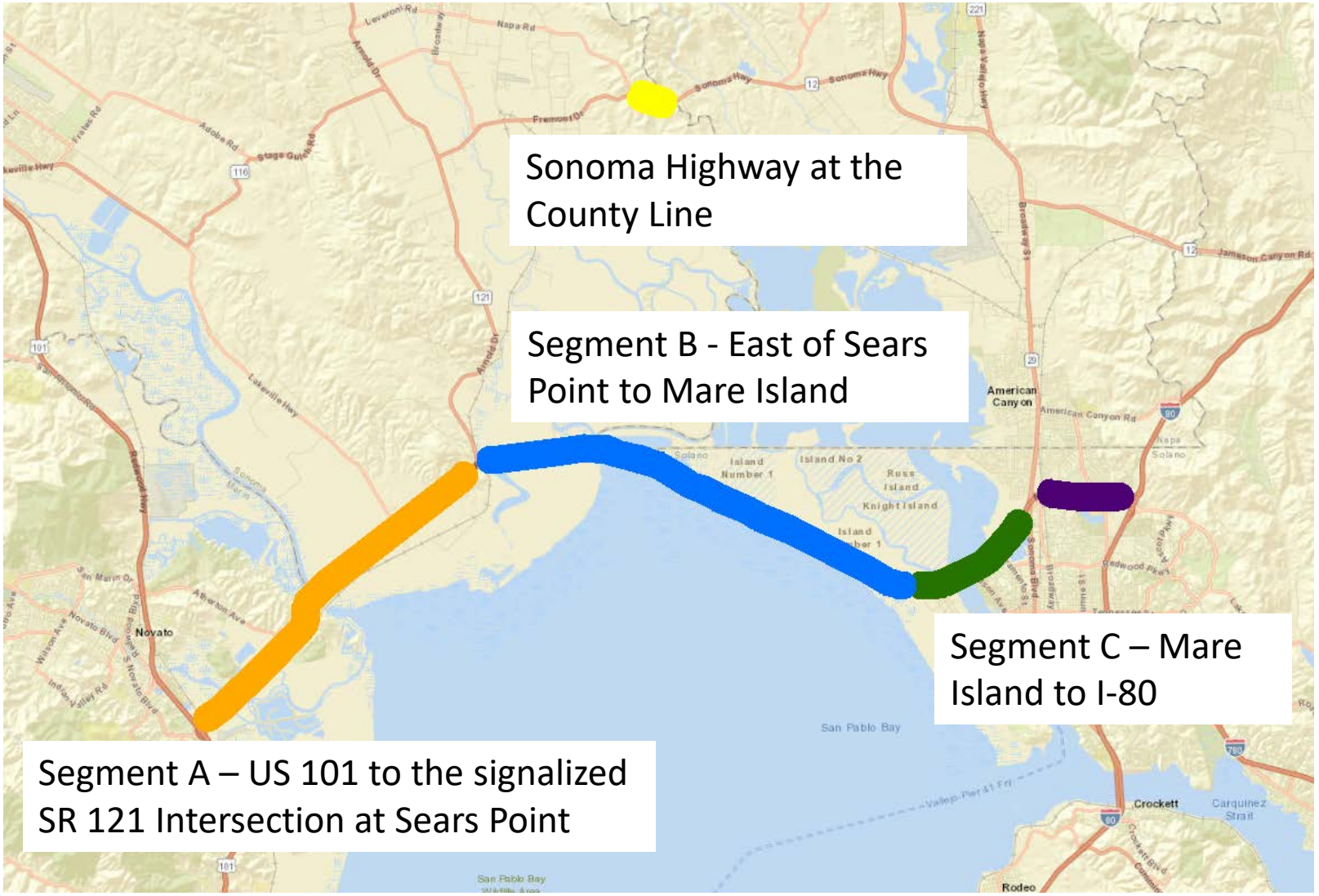
CUEBIQ



180-Zone Geographic System

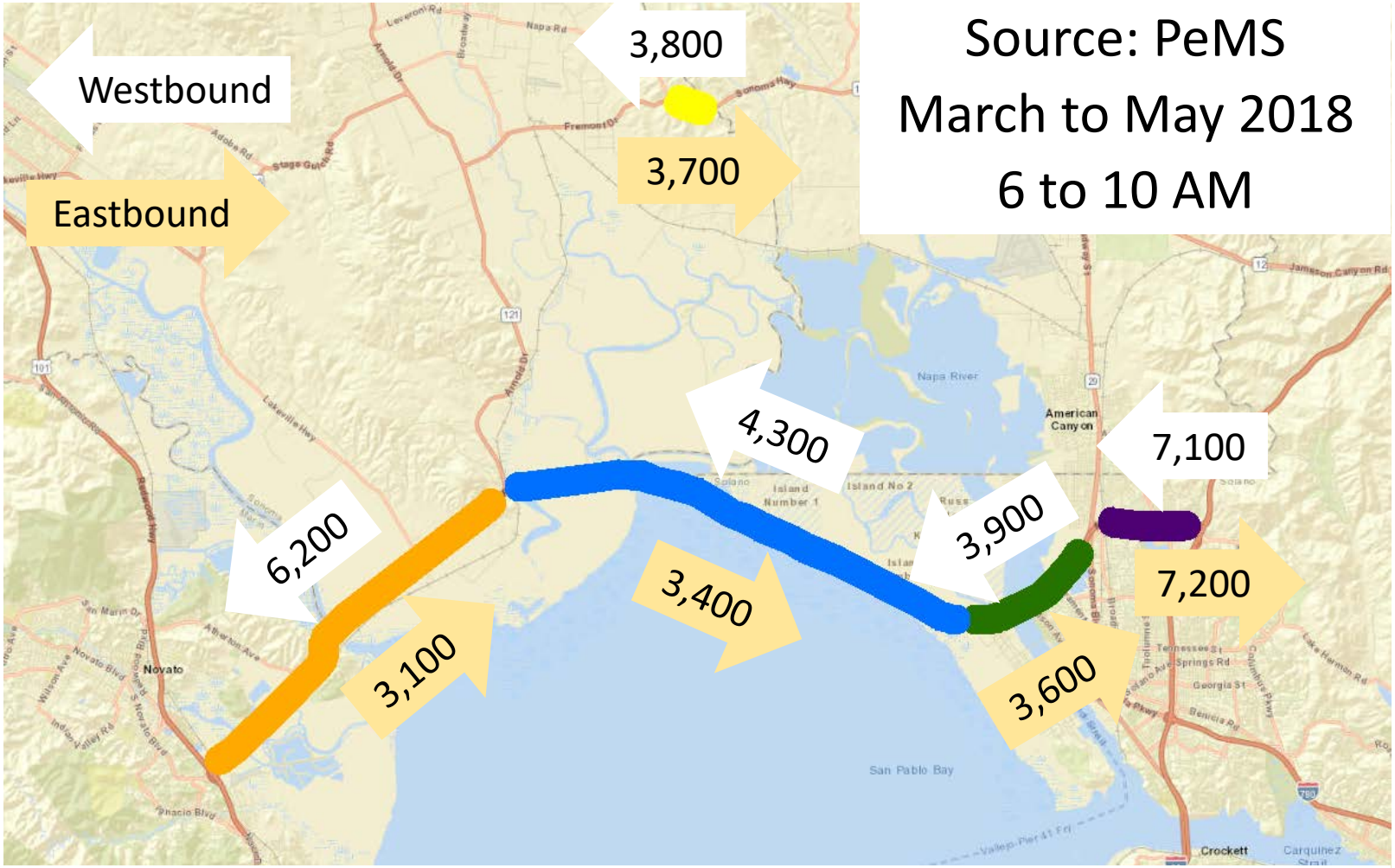


5 Study Segments



FEHR PEERS

Traffic Count Data



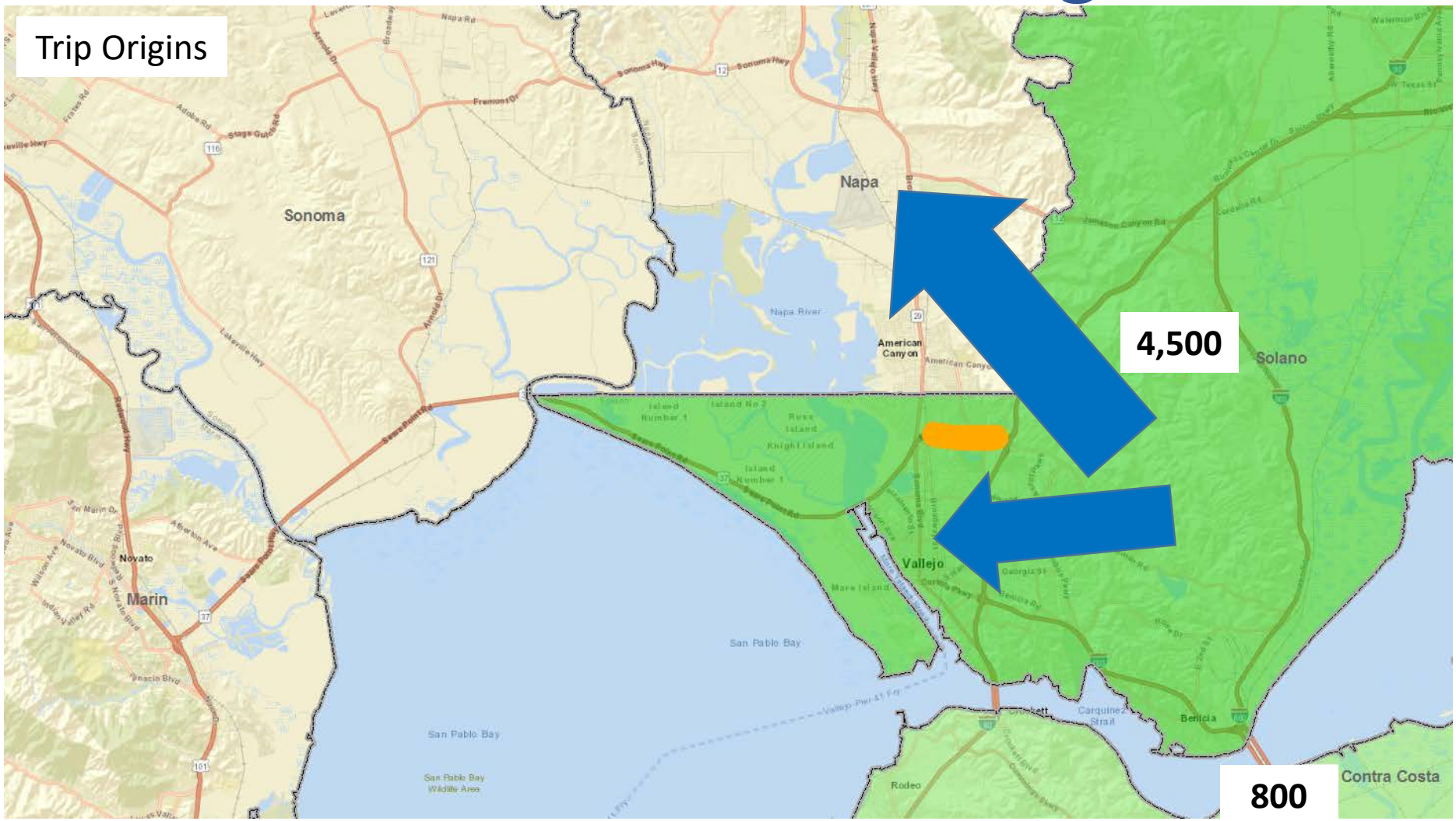
Source: PeMS
March to May 2018
6 to 10 AM

Focus on AM Peak Period because typically when modal decision is made

Step 1

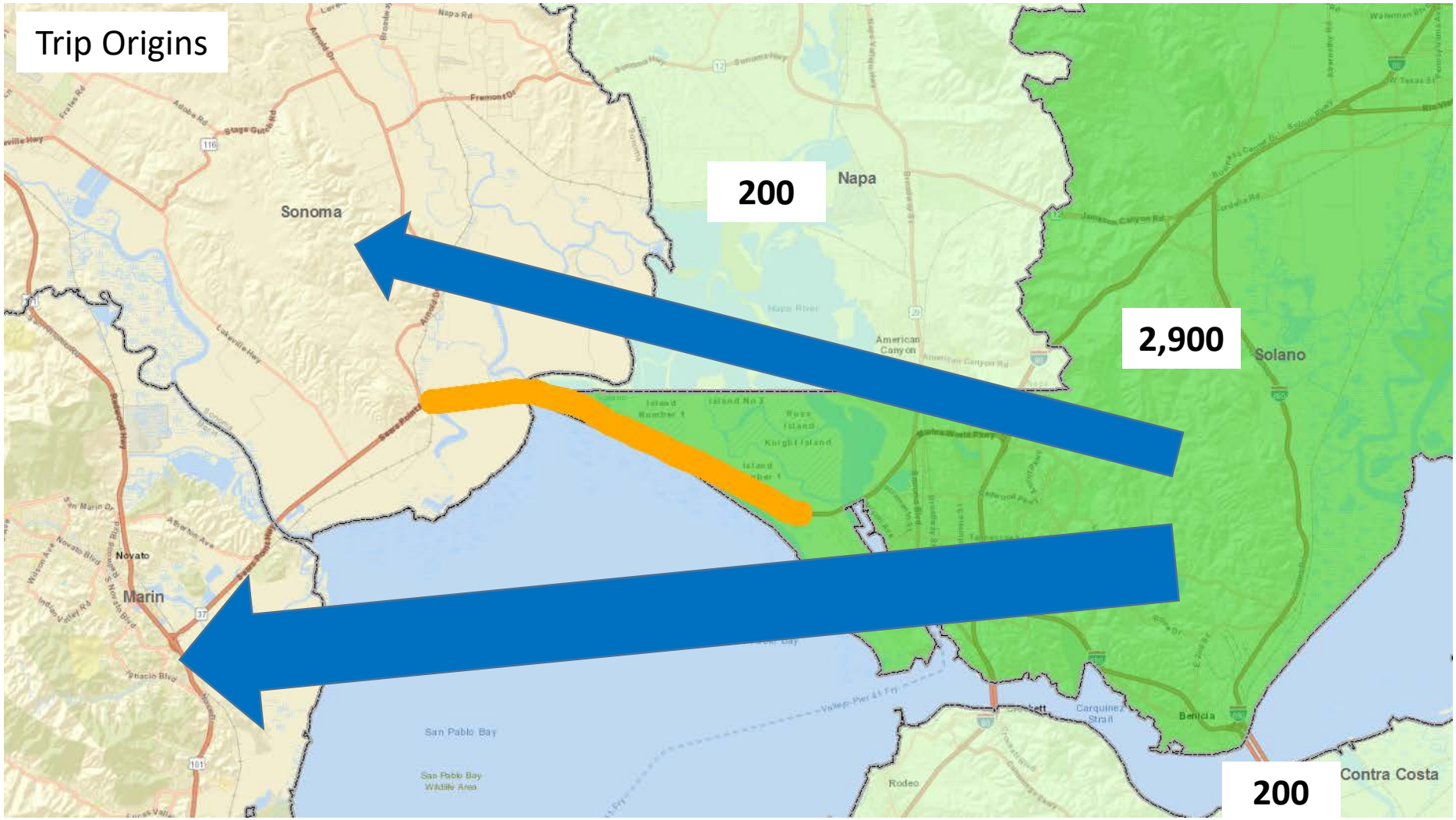
Who is using the corridor?

Westbound AM Corridor Usage



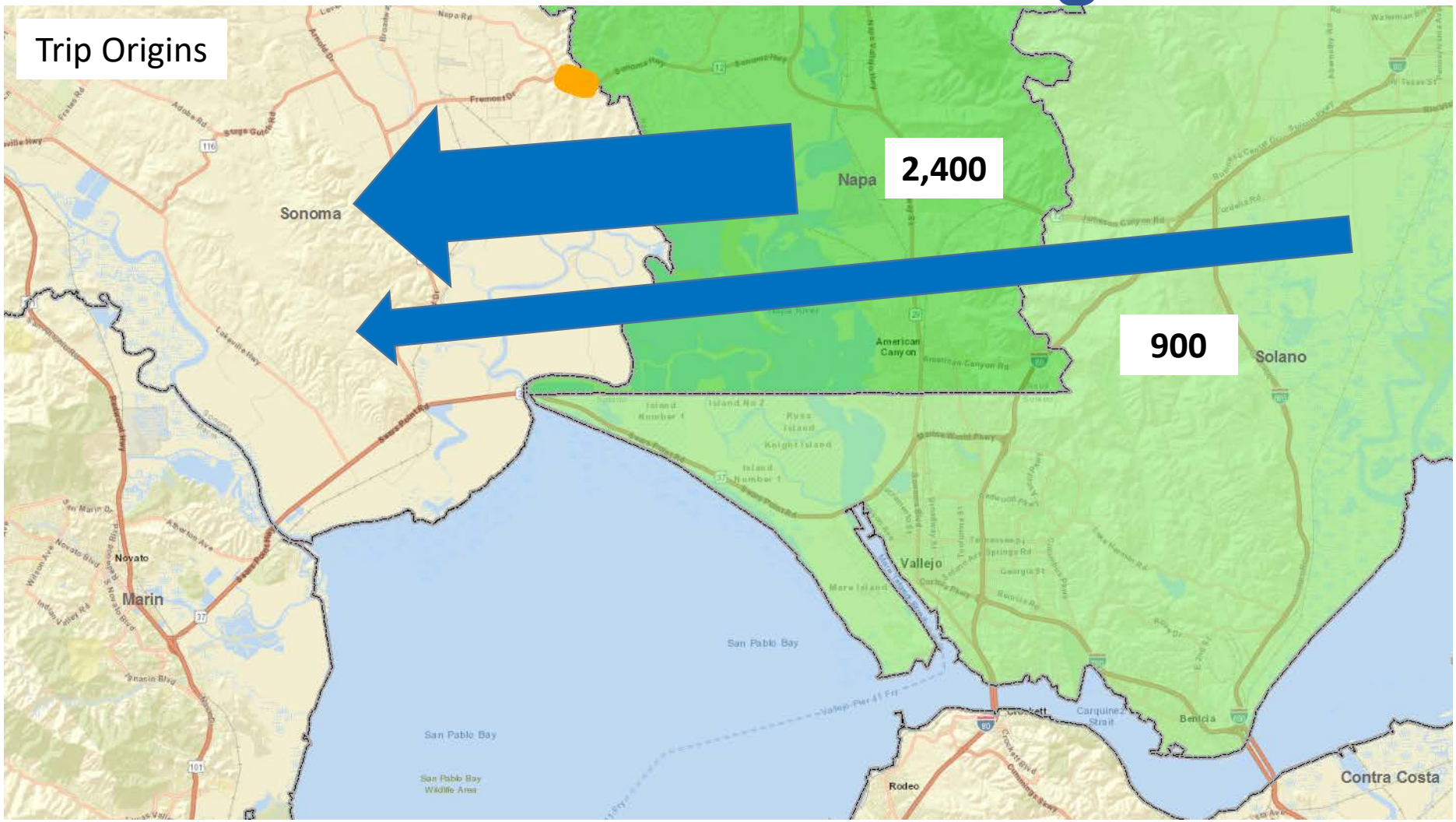
FEHR PEERS

Westbound AM Corridor Usage



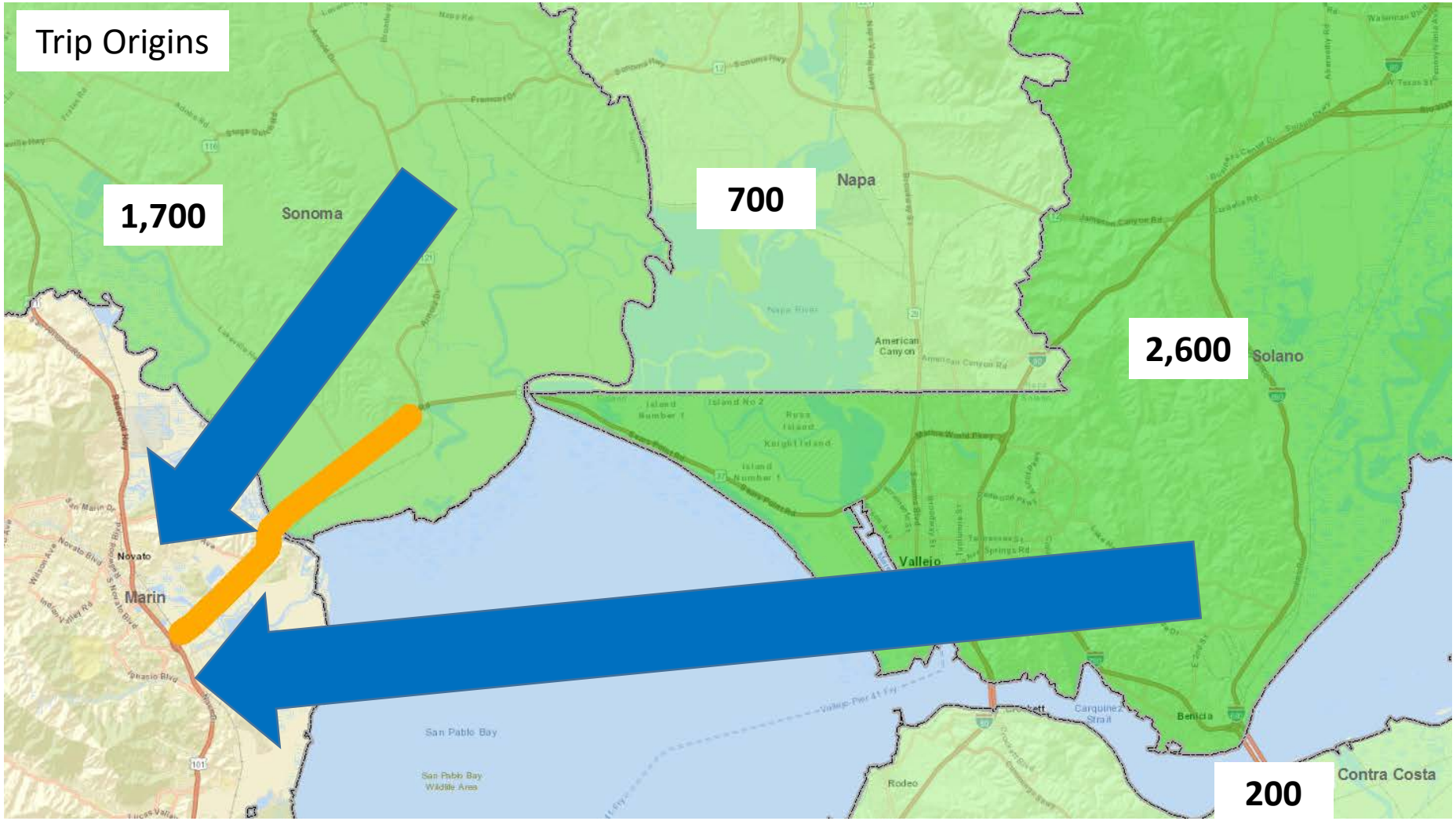
FEHR PEERS

Westbound AM Corridor Usage



FEHR PEERS

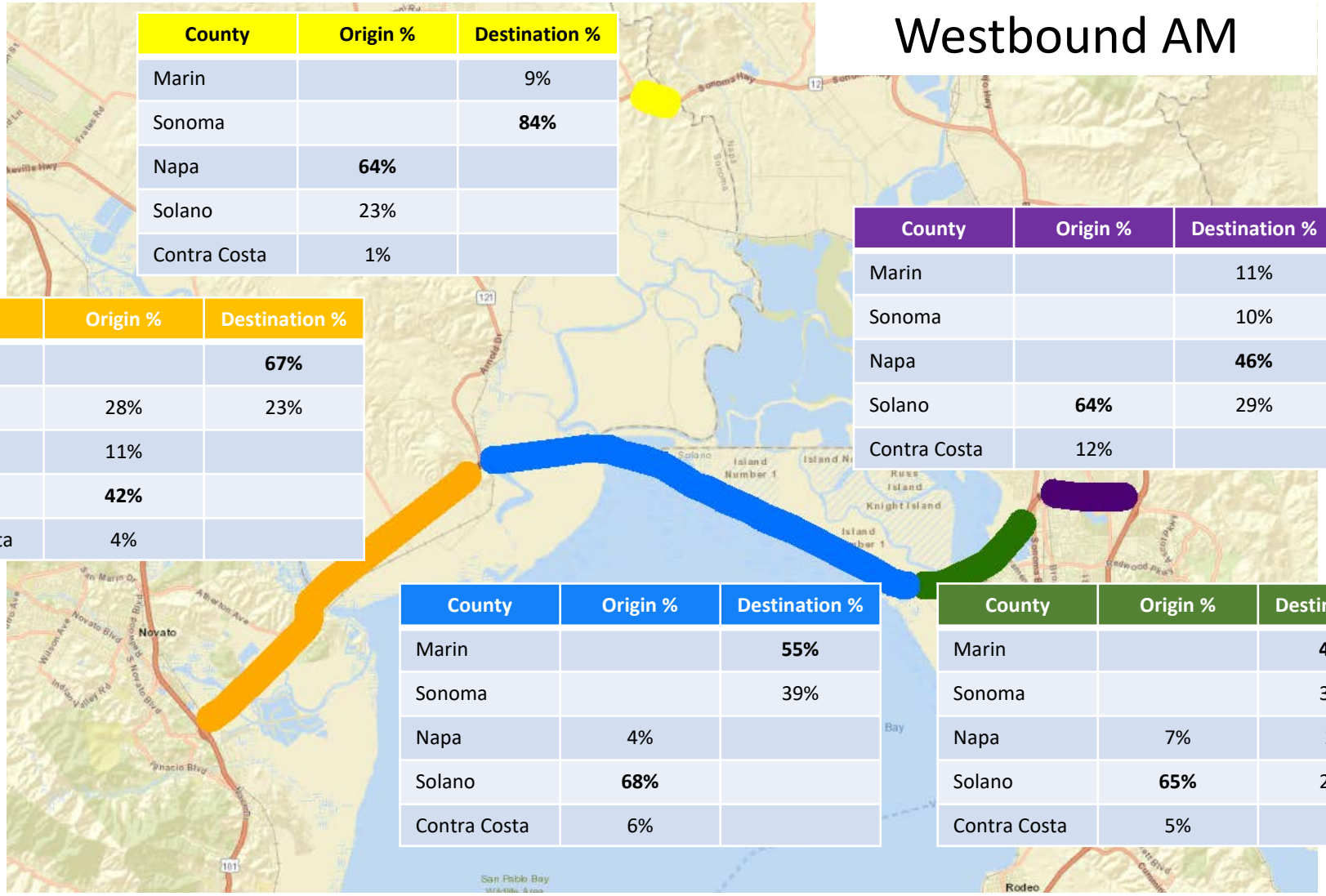
Westbound AM Corridor Usage



FEHR PEERS

Segment Usage by County

Westbound AM



County	Origin %	Destination %
Marin		9%
Sonoma		**84%**
Napa	**64%**	
Solano	23%	
Contra Costa	1%	

County	Origin %	Destination %
Marin		**67%**
Sonoma	28%	23%
Napa	11%	
Solano	**42%**	
Contra Costa	4%	

County	Origin %	Destination %
Marin		11%
Sonoma		10%
Napa		**46%**
Solano	**64%**	29%
Contra Costa	12%	

County	Origin %	Destination %
Marin		**55%**
Sonoma		39%
Napa	4%	
Solano	**68%**	
Contra Costa	6%	

County	Origin %	Destination %
Marin		**40%**
Sonoma		30%
Napa	7%	2%
Solano	**65%**	23%
Contra Costa	5%	

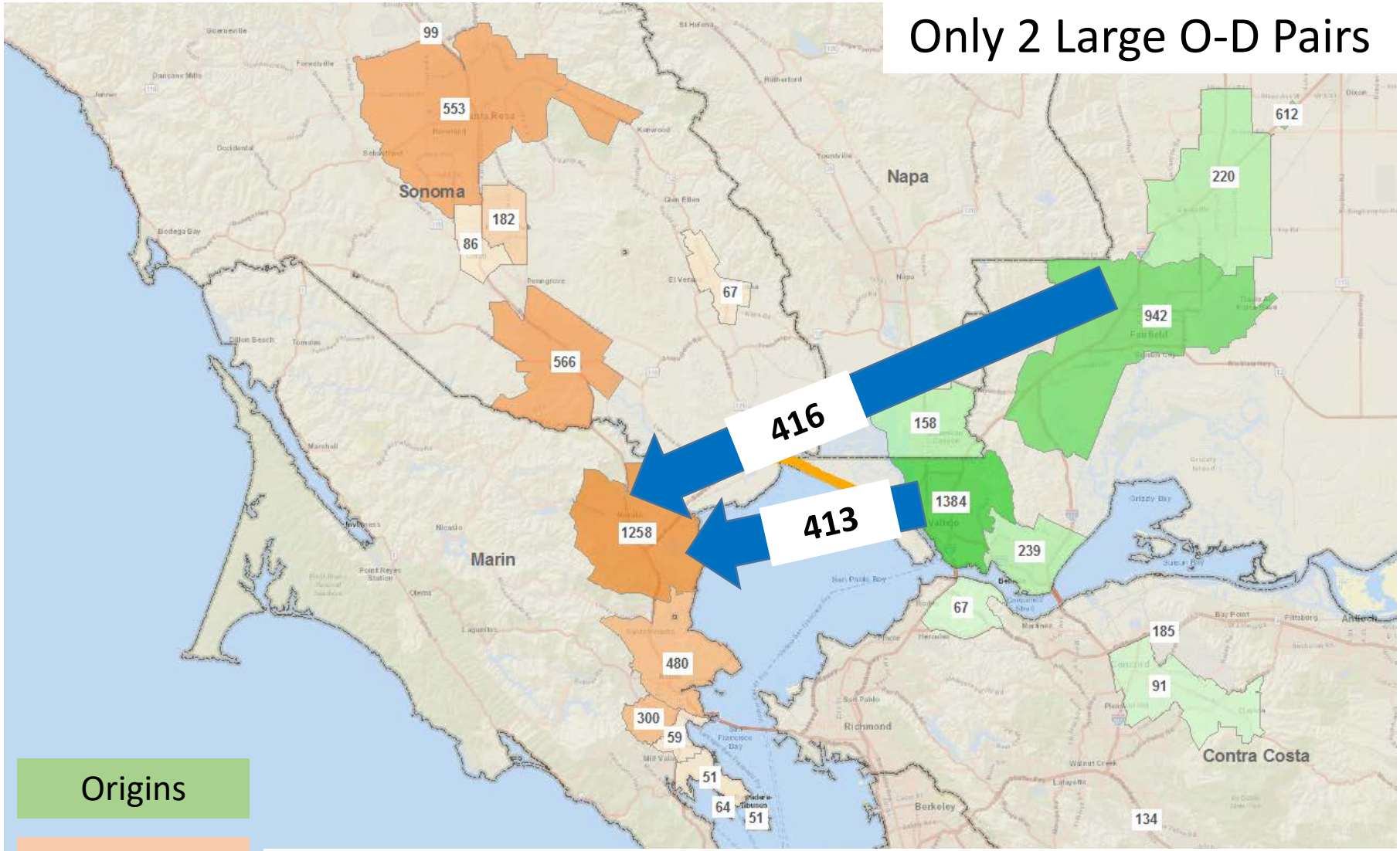
FEHR PEERS

Step 2

What do the travel markets look like?

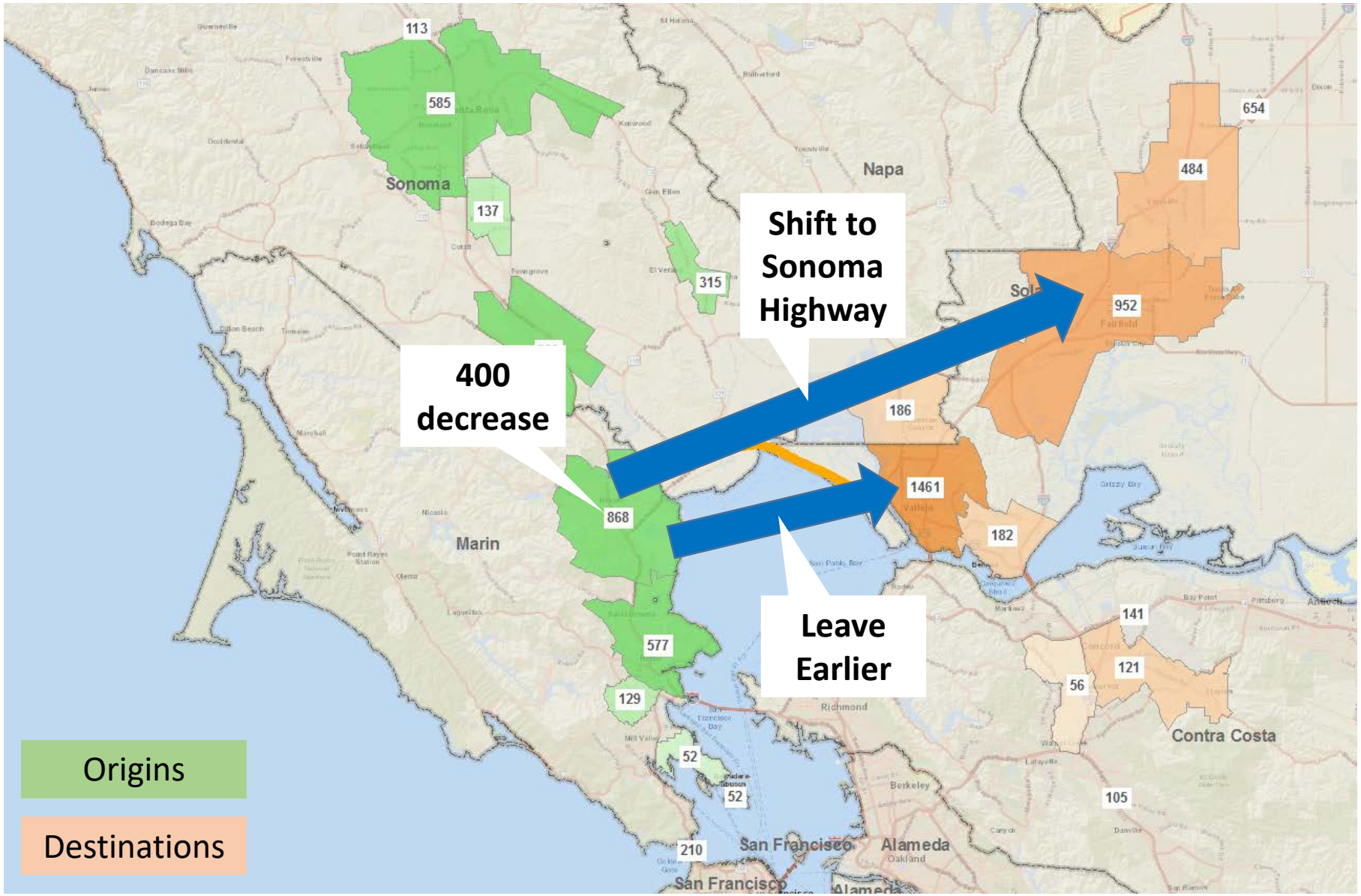
Origin and Destination Combinations Matter for Transit

Segment B - Westbound AM

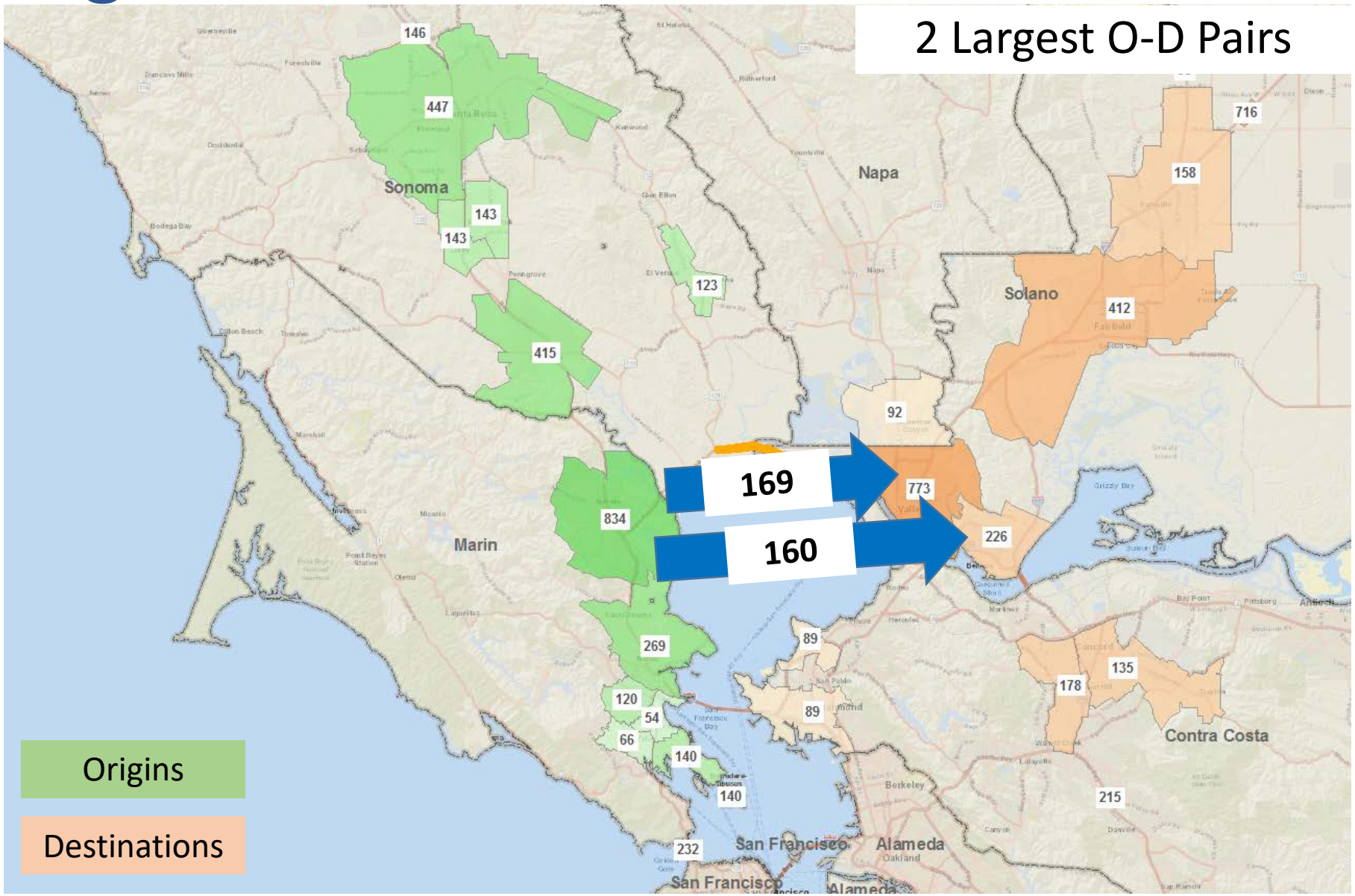


Focus on AM Peak Period because typically when modal decision is made

Segment B – Eastbound PM



Segment B – Eastbound AM



Step 3

What is their transit propensity?

Propensity for Taking Transit

- Focus on metrics that influence transit ridership
  - Low Income
  - Work Trip Percentage
  - Kids in Household
  - Trip Length

Origin-Destination Pair	Average TLI
Novato to Vallejo	8.7
Novato to Fairfield	6.6
San Rafael to Vallejo	8.8
Vallejo to Petaluma	7.6
Vallejo to San Rafael	8.3
Petaluma to Vallejo	7.5
Sonoma to Vallejo	8.8
Sonoma County to Vallejo	8.4
Vallejo to Larkspur	8.5
San Rafael to Fairfield	7.3
Fairfield to San Rafael	7.2

Next Steps

Step 4: What transit approaches might work in this corridor?

- Express bus, micro-transit, park and pool, etc.
- Specific capital improvements
- Mobility-as-a-Service App
- High-level cost and revenue analysis

Questions?