WRCOG Travel Survey

August 3, 2022

WRCOG Background

- WRCOG is a regional agency
- Joint Powers Association (JPA) composed of 18 cities, Riverside County, 2 water districts, and the Superintendent of Schools
- Formed in 1991
- City of Corona is a long-time WRCOG member agency
- Current WRCOG representative is Councilmember Jacque Casillas

My Background

- WRCOG's Deputy Executive Director
- Oversee the Transportation & Planning Department
- One of my main responsibilities is the TUMF Program
- Worked in Transportation Planning/Engineering since 1995
- Lived in the Temescal Valley since 2005

WRCOG Travel Survey

- WRCOG was asked by the WRCOG Technical Advisory Committee (City Managers committee) to study travel behavior in the WRCOG subregion

- We used "Big Data" to look at daily travel in 2019 and 2021

- We wanted to look at data before-and-after 2020 to ensure any COVID-related effects were included in the analysis

- Big Data is a compilation of cell phone, GPS vehicle tracking, and other data sets

- 100 million records in the data for the two study years

Study Background

- Primary data source is the Streetlight Data platform

    - Streetlight Data is a web-based data platform and not actual data from streetlights
    - Uses cell phone locational data to track trips based on travel patterns of persons with cell phones

- 100 million trip records

- Each trip record is a two-way trip

    - For example: home to work / work to home

- Pre-COVID and Post-COVID analysis

    - Trip distributions and percentages were remarkably similar

- Overall number of trips went down between 2019 and 2021

What does the analysis cover?

- The origin of trips traveling into the boundaries of each member jurisdiction

- The destination of trips traveling from each member jurisdiction

- Commute trip distances

- Trip type

- Trip distribution to-and-from each member agency during the p.m. peak hour

- Prepared city level summaries, as well as summaries for each Supervisorial District

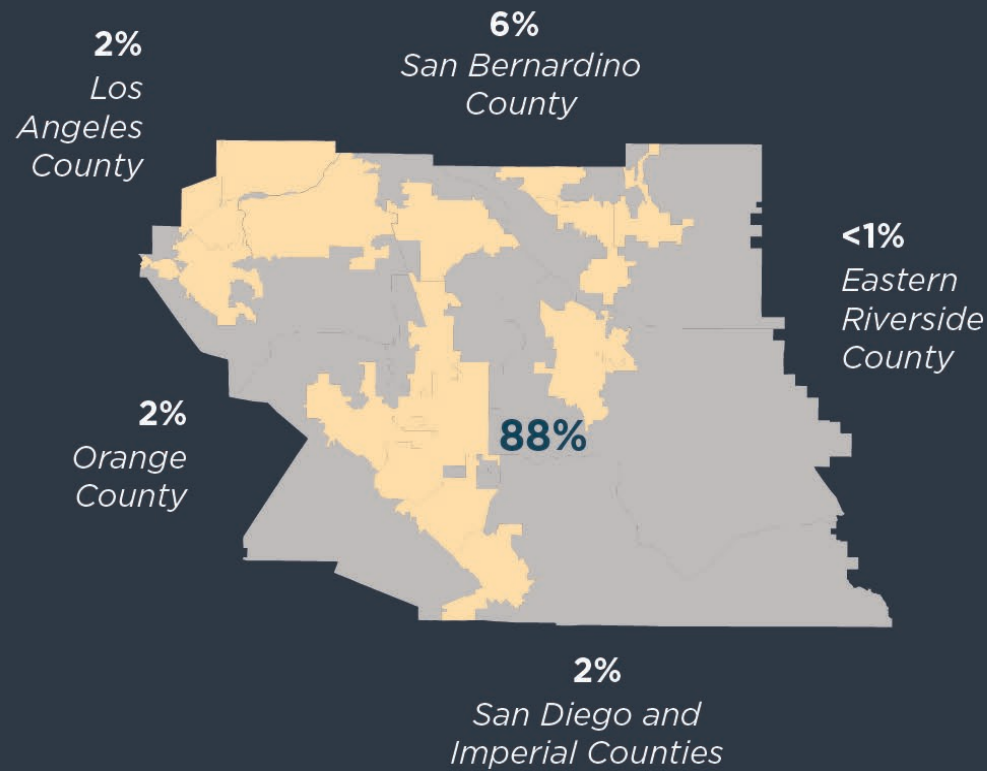   - Also prepared summaries at the TUMF Zone level

What did the analysis find?

- Approximately 90% of all trips recorded made in the WRCOG subregion start-and-end in the WRCOG subregion

- Only 10% of the trips recorded had either an origin or a destination outside of the WRCOG subregion

  - Majority of trips with a destination outside of the subregion went to San Bernardino County (more than LA, OC, and SD combined)

- Majority of trips were non-work trips

  - Trips to / from shopping, eating, and school

- Majority of trips either stayed in their home jurisdiction or traveled to an adjacent jurisdiction
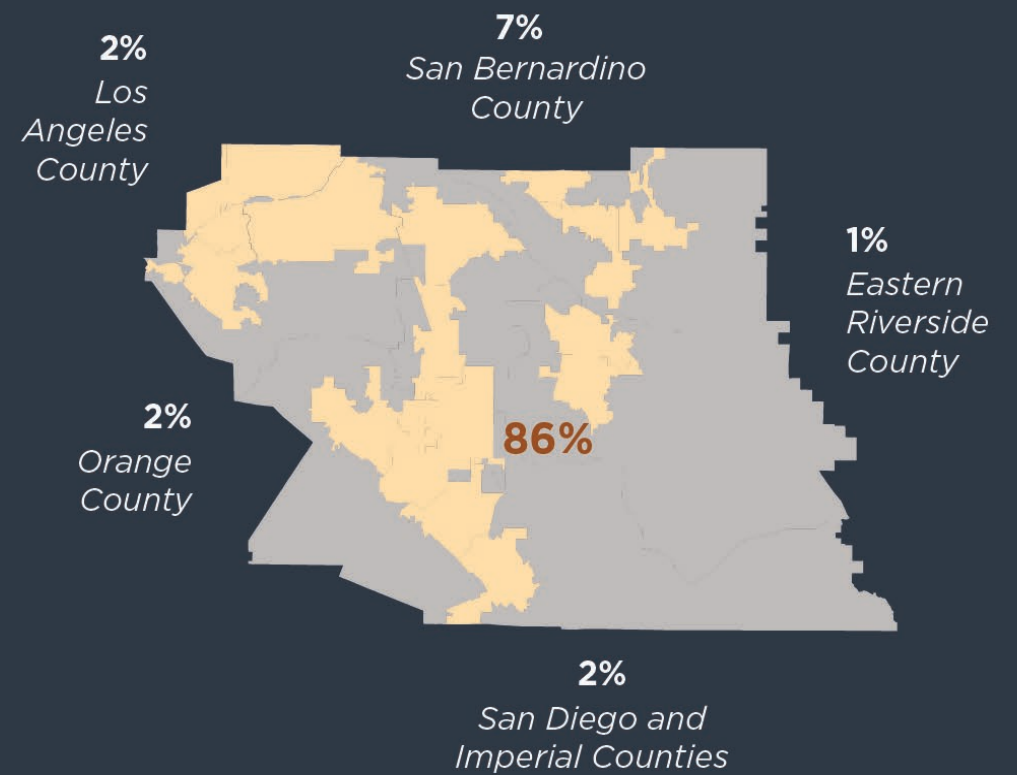
Daily Trip Distribution in WRCOG Region in 2019 and 2021

Cities
Unincorporated Area

2019

2%
Los Angeles County

6%
San Bernardino County

<1%
Eastern Riverside County

2%
Orange County

88%

2%
San Diego and Imperial Counties

2021

2%
Los Angeles County

7%
San Bernardino County

1%
Eastern Riverside County

2%
Orange County

86%

2%
San Diego and Imperial Counties

WRCOG

FEHR PEERS

City of Corona Travel Patterns

Travel pattern datasets, or "Big Data", helps to understand where, when, and how people typically travel in the Western Riverside Council of Governments (WRCOG) Region. Big Data pairs anonymized information (ex. mobile locations and demographic information) with advanced modeling to develop representative estimates of travel activities.

Corona travel patterns from Streetlight 2019 and community profile from a variety of data sources were reviewed to understand regionwide travel behaviors including origin-destination assessment, trip purpose, mode split, trip distance and direction.

Key Findings

- 85% trips to and from Corona stay in the WRCOG subregion.
- 51% of recorded trips occur within Corona.
- Home-Based Other trips make up most of the recorded trips (46%).
- 37% of recorded trips occur within the TUMF Northwest Zone.
- Outside WRCOG region, Orange County is the largest attractor of trips to and from Corona (7%).

Community Profile

Data Source: Riverside County Transportation Analysis Model (RIVCOM), 2021
California Household Travel Survey, 2012-2013
US Census, 2019

157,000 Population

48,000 Households

79,000 Employment

$ 87,000 Household Income

Mode Share for All Trips

5%	48%	45%

2% Other

Commute Trip Distance & Direction from Corona

Data Source: Longitudinal Employer-Household Dynamics, 2018

20,000 Trips
15,000 Trips
10,000 Trips

Commute Trip Distance & Direction to Corona

10,000 Trips

Legend:
- <10 miles
- 10-24 miles
- 25-50 miles
- >50 miles

Live and Work Share

15% of Corona residents live and work in the City

Top Places Corona Population Travel to and from

Data Source: Streetlight, 2019

Legend:
- Home-Based Other Trips
- Home-Based Work Trips
- Non Home-Based Trips

	Within Corona	Unincorporated	Riverside	Orange County	Los Angeles County
Home-Based Other Trips	25%	7%	3%	3%	1%
Home-Based Work Trips	8%	2%	2%	2%	1%
Non Home-Based Trips	18%	5%	3%	2%	1%

All Day Trip Distribution from Corona

Legend:
- City of Interest
- Trip Distribution (High to Low)
- x% Trip Distribution %
- Transportation Uniform Mitigation Fee (TUMF) Network

3% Los Angeles County
5% San Bernardino County
8%
51%
14%
<1% Eastern Riverside County
7% Orange County
<1% San Diego and Imperial Counties
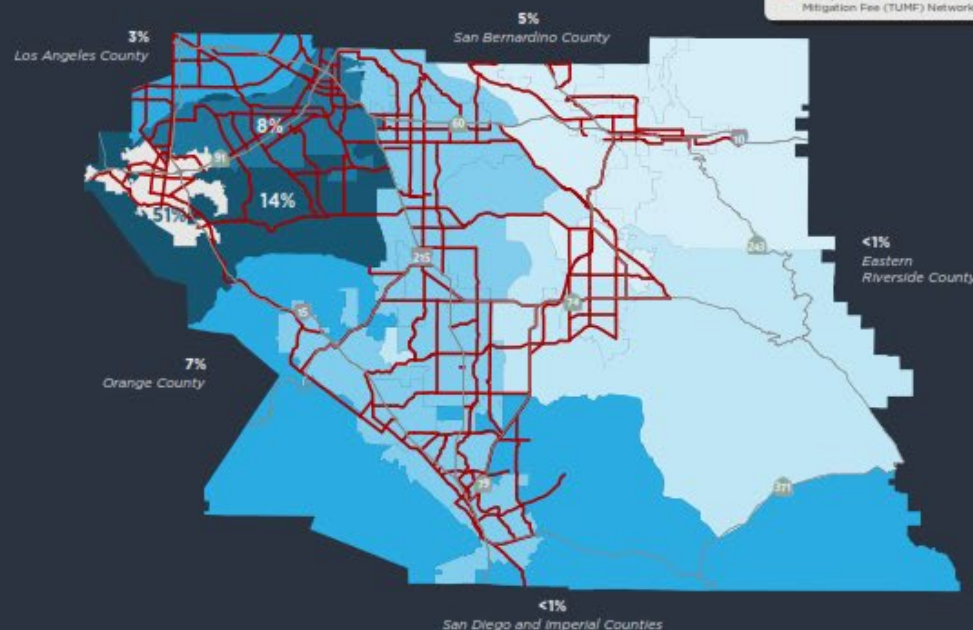
PM Trip Distribution from Corona

PM Trip Distribution to Corona

FEHR & PEERS

City of Corona Conclusions

- 51% of all trips stay within the City
- 15% of all trips leave the County
  - LA County- 3%
  - Orange County- 7%
  - San Bernardino County- 5%
- 46% of trips are not work-related
  - School
  - Shopping
  - Eating
- 22% of trips to/from the City of Corona come from Riverside or adjacent unincorporated County

Policy Considerations

- #1- Corona is a regional travel destination for work and non-work trips
- #2- Most common trip type is non-work home based trips
  - Eating, shopping, and school
- #3- People from Corona do travel to Los Angeles and Orange County
  - More people traveling to San Bernardino County than LA County
- #4- More people traveling to/from the City of Riverside than Orange County on a daily basis

Concluding Thoughts

- Important that we base our policy decisions on the best available data
- Big Data provides an opportunity to gain a deeper understanding of how-and-where we travel
- Travel behavior is more complex than just people traveling to-and-from work
- In the end, traffic congestion is truly a regional issue