How often do you shop online?

- Once a month
- Once a week
- More than once a week
- Once a day
- Never
Project Team

- SCAG
  - Alison Linder, PhD – Project Manager
  - Prithvi Deore – Deputy Project Manager

- Consultant Team Leads
  - Seth Contreras, Fehr & Peers – Project Manager
  - Susan DeSantis, Arellano Associates – Outreach Lead
  - Tyler Reeb & Tom O’Brien, CITT – Education & Workforce Development Leads
Engage the populations of identified communities to understand their views related to goods movement challenges and opportunities.

- Identify burdens related to air quality, traffic, and lack of employment
- Identify goods movement opportunities and how to connect to them

Build relationships with disadvantaged, freight impacted and frequently underrepresented communities

- Prepare, execute, and evaluate an innovative communication approach

Prepare an Opportunities Toolkit of strategies for the region
Agenda

• Project Overview
• Workshop Goal + Outcomes
• Listening Breakout Session #1
  • Share-Back
• Listening Breakout Session #2
  • Share-Back
• Next Steps
• Zoom protocol
Workshop Goal and Outcomes

Primary Goal

• Present initial analysis of goods movements throughout the region and discuss the opportunities, challenges, and community types associated with goods movement.

Key Outcomes

1. Strategic partnerships with community leaders who are willing to share project updates and opportunities to engage.
2. Insight to advance the community types and study process.
3. Insight to further define the contents of the opportunities toolkit
GOODS MOVEMENT ORIGINS
Supply Chain Evolution

• Equity & History: How did we get here?
  • Land use and zoning
  • Access to education, jobs and healthcare
• Shift from production, manufacturing, bricks and mortar sale to final assembly, tech developers, and service oriented economy
• In 2020, 16% of total retail sale was e-commerce. Long-term trend shows at least 13% share
• Labour retention: trucking companies are heavily recruiting drivers but they remain short staff
Global Trends and Disruptions

- Importance of Resiliency: Covid-19 spike in demand (less $ spent on services and leisure & more on goods) and bottlenecks in global freight flows

- Global Warming: Despite significant investment in zero emission freight technologies and adopting air quality measures, still long way to go.

- Infrastructure deficiency: ports have been pushed to operate 24/7, containers sit too long on docks and terminals due to lack of warehouses, and delayed maintenance of critical facilities
Economic benefits of goods movement sector: Workforce & career development ensures that local communities have access to the benefits of the freight system, including expanding the ease and speed of obtaining necessary certifications, training programs, and fostering communities of practice where apprenticeships are encouraged in line with community, governmental and industry need.

Pros/Cons when choices/policies are considered

- Mitigation Strategies
  - Truck Electrification / Plug-in
  - Off-Hour Deliveries / Re-Routing
  - Goods movement infrastructure
  - First/Last Mile Solutions

- Funding resources: AB617, SCAQMD, CARB
More Opportunities

- Workforce & Career Development:
  - From High School & Community College to Higher Education: Educate the students on available career pathway opportunities in goods movement
  - Workforce training on truck electrification technology & maintenance
  - Inform communities the skillset prospective logistics employers are looking for when they consider a new development location
  - Here's what the independent/owner operators are also looking for
Regional Challenges

- Air Quality
- Public Health
- Quality of Life
- Lack of Access to Economic Opportunities
- Disproportionate Impacts on disadvantaged communities
- Potential lack of representation in traditional outreach methods
Local Challenges

• Parking
• Noise
• Safety
  • Speed, school routes
• Pollution
• Congestion
• Aesthetics / Sense of Community
• Community engagement/participation
Public Engagement Challenges

- **Non-English Speaking**
  - Limited understanding of project/policy issues
  - Translation services

- **Low Access to Technology**
  - Limited access to internet
  - Access to information
  - Websites, Surveys, StoryMaps to be mobile-compatible

- **Older Adults**
  - Limited access to internet/understanding how to use new technology
  - Access to information
  - Limited understanding of project/policy issues

- **Persons with Disabilities**
  - ADA needs – venue access, graphics, additional assistance, accessible materials

- **Immigrants**
  - Lack of trust or difference in expectations of government
  - Limited/different understanding of project/policy issues

- **Low-income**
  - Access to childcare
  - Limited time
  - Lack of trust in government
GOODS
MOVEMENT AND
EQUITY
Identify 6–8 communities that:

- Are disproportionately affected by goods movement supply chain
- Represent various geographic areas and issues
- Need support to implement and improve equity measures of community health & well-being

Key Indicators include:

- Public Health Indicators (tonnage of pollution)
- Population & Jobs Density
- Freight intensive Job's Density
- Median Household Income
- Access to Transit
- Proximity to heavy truck corridors
- Truck-involved collision history
- CalEnviroScreen
OPPORTUNITIES
TOOLKIT
Engagement Approach

- Discussions with community leaders and elected officials to identify communities of interest
- Public workshops in participating communities
- Online survey using Fehr & Peers Crowdsource+ Tool
- Community Advisory Committee (CAC)
- Partnerships with community-based organizations to amplify grassroots outreach and opportunities to engage
Study Approach and Deliverables: Toolkit Development

- Toolkit StoryMap development approach
  - CrowdSource+
  - Focus groups
  - ESRI

- Toolkit targeted to 3 different audiences
  - Community-based organizations & leaders
  - Public agencies
  - Elected officials

- Toolkit and strategies shall be focused around
  - Workforce & career development opportunities
  - Co-generated strategies & potential grants/funding
  - Communication & engagement best practices
Study Approach and Deliverables: Toolkit Examples

- Example of StoryMap & CrowdSource+ applications
Study Approach and Deliverables: Toolkit Development

Community Types

Target Users

Users

Community / CBOs

Planners / Policy Makers

Opportunity Modules

Workforce Development

Strategies & Funding

Engagement
Study Approach and Toolkit Development

"The Crowdsolve tool was a valuable resource for Safe Streets Pinellas. It provided the public with an easy way to let us know their concerns, upload a picture, and upvote what other people noted."

Sarah Caper, AICP, Principal Planner
Forward Pinellas
"We were then able to analyze the feedback using clear categories and see how it looked when compared to other data sources – confirming things we already knew and providing suggestions for other areas to look into."

Sarah Caper, AICP, Principal Planner Forward Pinellas
PROJECT OUTCOMES
Expected Project Outcomes

- Improved approach to outreach with goods movement impacted communities
- Identification and evaluation of innovative outreach tools
- Improved understanding of challenges faced by goods movement impacted communities and how they are perceived
- Locally generated solutions and best practices to address goods movement challenges

Ultimately, community empowerment to address goods movement challenges and benefit from economic opportunities
Tangible Products

• Develop a map of goods movement community types using data and stakeholder feedback

• Engage communities to generate solutions to local challenges together, and share them in a storymap, collection of videos and final report

• A toolkit for the region:
  • Directory of workforce opportunities including training programs and job boards
  • Best practices of equitable outreach strategies
    • Templates and facilitator guides for engagement plans, media toolkits, and other outreach tools
  • Best practices for mitigating freight impacts, plus grants/funding
LISTENING BREAKOUT SESSIONS
LISTENING
BREAKOUT SESSION
#1
LISTENING
BREAKOUT SESSION
#1
Share Back
Community Identification
COMMUNITY IDENTIFICATION
COMMUNITY TYPE VARIABLES

Population
- Total Population
- Working Population (ages 15 – 64). Census Block Groups with more than 10 people

Employment
- Total Jobs
- Freight Intensive Jobs

CalEnviroScreen

Pollution Burden
- Truck Vehicle Hours Traveled (VHT)
- Truck Vehicle Miles Traveled (VMT)
- Pollution Tonnage

Income and Access
- Median Household Income
- Total Population using Public Transportation to travel to/from work

Truck-Involved Collisions (2016-2020)
Exposure Indicators
• Air Quality, Diesel PM, Drinking Water Contaminants, Pesticides, Toxic Releases, Traffic Impacts

Environmental Effects Indicators
• Cleanup Sites, Groundwater Threats, Hazardous Waste Generators and Facilities, Impaired Water Bodies, Solid Waste Site and Facilities

Sensitive Population Indicators
• Asthma, Cardiovascular Disease, Low Birth Weight Infants

Socioeconomic Factor Indicators
• Educational Attainment, Housing-Burden Low-Income Households, Linguistic Isolations, Poverty, Unemployment
WORKING POPULATION

Source: 2019 American Community Survey 5-Year Estimates
TOTAL JOBS

Source: Data Axle USA 2019 (formally known as InfoUSA)
FREIGHT INTENSIVE JOBS

North American Industry Classification System (NAICS):

- Agriculture, Forestry, Fishing and Hunting
- Mining, Quarrying, and Oil and Gas Extraction
- Utilities
- Construction
- Manufacturing
- Wholesale Trade
- Transportation and Warehousing

Source: Data Axle USA 2019 (formally known as InfoUSA)
TOTAL TRUCK VHT

Source: SCAG Heavy Duty Model RTP 2020
POLLUTION TONNAGE

Source: CalEnviroScreen 4.0
MEDIAN HOUSEHOLD INCOME

Source: 2019 American Community Survey 5-Year Estimates
PUBLIC TRANSPORT

Source: 2019 American Community Survey 5-Year Estimates
TRUCK-INVOLVED COLLISIONS

Source: Transportation Injury Mapping System (TIMS) - 2016-2020
SCENARIO OVERVIEW – 6 COMMUNITY TYPES

- Freight Passive (1)
- Freight Passive (2)
- Freight Active Edge (3)
- Near Freight (4)
- Freight Hubs (5)
- Urbanized Core (6)
# Freight Passive Type

## Community Types 1 & 2 Breakdown

<table>
<thead>
<tr>
<th>Variable</th>
<th>Type 1</th>
<th>Type 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Freight Employment</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>MHHI</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Pollution</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Public Transport</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Truck Vehicle Hours Traveled (VHT)</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Working Population (15 – 64)</td>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

## Community Examples

- None
### Community Type Breakdown

<table>
<thead>
<tr>
<th>Variable</th>
<th>Community Type 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment</td>
<td>Low</td>
</tr>
<tr>
<td>Freight Employment</td>
<td>Low</td>
</tr>
<tr>
<td>MHHI</td>
<td>Low</td>
</tr>
<tr>
<td>Pollution</td>
<td>Medium</td>
</tr>
<tr>
<td>Public Transport</td>
<td>Low</td>
</tr>
<tr>
<td>Truck Vehicle Hours Traveled (VHT)</td>
<td>Low</td>
</tr>
<tr>
<td>Working Population (15 – 64)</td>
<td>Low</td>
</tr>
</tbody>
</table>

### Community Examples

- Calexico/El Centro, North Salton Sea, Victorville

---

CalEnviroScreen Score $\geq$ 75%
## Near Freight Type

### Community Type Breakdown

<table>
<thead>
<tr>
<th>Variable</th>
<th>Community Type 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment</td>
<td>Medium</td>
</tr>
<tr>
<td>Freight Employment</td>
<td>Medium</td>
</tr>
<tr>
<td>MHHI</td>
<td>Medium-High</td>
</tr>
<tr>
<td>Pollution</td>
<td>Medium-High</td>
</tr>
<tr>
<td>Public Transport</td>
<td>Medium</td>
</tr>
<tr>
<td>Truck Vehicle Hours Traveled (VHT)</td>
<td>Medium</td>
</tr>
<tr>
<td>Working Population (15 – 64)</td>
<td>Medium-High</td>
</tr>
</tbody>
</table>

### Community Examples

- Indio, Lancaster (e/o SR-14), El Rio/Nyland Acres (NE/o Port Hueneme), Pomona (w/o Ontario Airport), Colton (n/o 10 fwy), Rialto
FREIGHT EMPLOYMENT HUBS & FREEWAY ADJACENT TYPE

Community Type Breakdown

<table>
<thead>
<tr>
<th>Variable</th>
<th>Community Type 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment</td>
<td>Medium</td>
</tr>
<tr>
<td>Freight Employment</td>
<td>High</td>
</tr>
<tr>
<td>MHHI</td>
<td>Medium</td>
</tr>
<tr>
<td>Pollution</td>
<td>High</td>
</tr>
<tr>
<td>Public Transport</td>
<td>Medium</td>
</tr>
<tr>
<td>Truck Vehicle Hours Traveled (VHT)</td>
<td>High</td>
</tr>
<tr>
<td>Working Population (15 – 64)</td>
<td>Medium-High</td>
</tr>
</tbody>
</table>

Community Examples

- Long Beach (w/o I-710) around ICTF area, Corona Airport (I-15 and CA-91 interchange), around LATC railyard (DT LA)

CalEnviroScreen Score >=75%
DENSE URBAN CENTERS
TYPE

Community Type Breakdown

<table>
<thead>
<tr>
<th>Variable</th>
<th>Community Type 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment</td>
<td>High</td>
</tr>
<tr>
<td>Freight Employment</td>
<td>Medium</td>
</tr>
<tr>
<td>MHHI</td>
<td>Medium-Low</td>
</tr>
<tr>
<td>Pollution</td>
<td>High</td>
</tr>
<tr>
<td>Public Transport</td>
<td>High</td>
</tr>
<tr>
<td>Truck Vehicle Hours Traveled (VHT)</td>
<td>Medium</td>
</tr>
<tr>
<td>Working Population (15 – 64)</td>
<td>High</td>
</tr>
</tbody>
</table>

Community Examples

San Pedro, DT LB, Santa Ana, along 110 (n/o 105), Van Nuys/Panorama City
## Highlights of Each Community Type

<table>
<thead>
<tr>
<th>Freight Active Edge</th>
<th>Near Freight</th>
<th>Dense Urban Centers</th>
<th>Freight Employment Hubs &amp; Freeway Adjacent</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Low freight employment/working pop. density</td>
<td>• Moderate freight employment/working pop. density</td>
<td>• High total employment/working pop. density</td>
<td>• High freight employment/working pop. density</td>
</tr>
<tr>
<td>• Moderate pollution</td>
<td>• Moderate pollution</td>
<td>• High access to transit</td>
<td>• High pollution</td>
</tr>
<tr>
<td>• Low truck traffic</td>
<td>• Moderate truck traffic</td>
<td>• Moderate truck traffic</td>
<td>• High truck traffic</td>
</tr>
</tbody>
</table>

Images are from google photos
## COMMUNITY EXAMPLES

<table>
<thead>
<tr>
<th>Community Types</th>
<th>Community Examples</th>
<th>Sub Regions</th>
</tr>
</thead>
</table>
| Freight Active Edge Type         | 1. Calexico/El Centro  
2. North Salton Sea  
3. Victorville                                           | • Imperial County  
• Coachella Valley AG  
• San Bernardino County |
| Near Freight Type                | 4. Indio  
5. Lancaster (e/o SR-14)  
6. El Rio/Nyland Acres (NE/o Port Hueneme)  
7. Pomona (w/o Ontario Airport)  
8. Colton (N/o I-10)  
9. Rialto                        | • Coachella Valley AG  
• North L.A. County  
• Ventura County  
• San Gabriel Valley  
• San Bernardino County          |
| Freight Employment Hubs & Freeway Adjacent Type | 10. Long Beach (W/o I-710) near Intermodal Container Transfer Facility (ICTF)  
11. Corona Airport (I-15 & CA-91 interchange)  
12. LATC railyard (Downtown Los Angeles) | • South Bay Cities  
• West Riverside COG  
• Central Los Angeles |
| Dense Urban Centers Type         | 13. San Pedro  
14. Downtown Long Beach  
15. Santa Ana  
16. Near I-110 (n/o I-105 fwy)  
17. Van Nuys/Panorama City      | • South Bay Cities  
• Gateway Cities  
• Orange County  
• Westside Cities  
• San Fernando Valley |

CalEnviroScreen Score $\geq 75\%$
LISTENING
BREAKOUT SESSION
#2
LISTENING
BREAKOUT SESSION
#2
Share Back
Next Steps

- Reconcile the feedback with the initial analysis & Identify the 6–8 Communities
  - Diverse geographic & issue representation
  - Community interest & engagement

- Opportunities to get involved:
  - We’d like to hear from the CBO & COG members
    - Early on – Other than funding opportunities, what information would be helpful for you to include in the toolkit?
    - What are some of your existing barriers to implementing strategies that reduce goods movement impacts on your communities?
  - Later on – Volunteers to review the beta version of the Toolkit and provide feedback

Everything you buy touches a truck at some point!
Thank you

Alison Linder, PhD
Senior Regional Planner
linder@scag.ca.gov | +1 (213) 236-1934

www.scag.ca.gov