BORDER CROSSING & TRADE STATISTICS OVERVIEW

- **Northbound Individual Crossings**
  - Vehicle Passengers (total occupants) including Passenger Vehicles and Buses
  - Pedestrians

- **Northbound Vehicle Crossings**
  - Private Vehicles
  - Buses
  - Trucks

- **Trade Value by Truck (Imports & Exports)**
  - Otay Mesa / Mesa de Otay
  - Tecate / Tecate
SAN DIEGO-BAJA CALIFORNIA LAND PORTS OF ENTRY (POEs)

BIG PICTURE – SAN DIEGO/TIJUANA

Percentage of Total Northbound Individual Crossings by Port of Entry (2017)

San Ysidro 61%
Otay Mesa 32%
Tecate 5%
CBX 2%
BIG PICTURE – SAN DIEGO/TIJUANA

Northbound Individual Crossings

- Total Individual Crossings (San Ysidro and Otay Mesa)
- Vehicle Passengers (San Ysidro)
- Vehicle Passengers (Otay Mesa)
- Pedestrians (San Ysidro)
- Pedestrians (Otay Mesa)

MODE SHARE OF TOTAL INDIVIDUAL CROSSINGS (2017)

- SAN YSIDRO: 26% Pedestrian Crossings, 74% Vehicle Passenger Crossings
- OTAY MESA: 20% Pedestrian Crossings, 80% Vehicle Passenger Crossings
- TECATE: 27% Pedestrian Crossings, 73% Vehicle Passenger Crossings

Diameters are proportionate based on total crossings through each POE.
Two-Way (U.S.-Mexico) Trade by Truck

<table>
<thead>
<tr>
<th>Year</th>
<th>Exports by Truck</th>
<th>Imports by Truck</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>$8.7</td>
<td>$5.9</td>
</tr>
<tr>
<td>2009</td>
<td>$10.5</td>
<td>$9.0</td>
</tr>
<tr>
<td>2010</td>
<td>$11.2</td>
<td>$10.2</td>
</tr>
<tr>
<td>2011</td>
<td>$18.2</td>
<td>$16.2</td>
</tr>
<tr>
<td>2012</td>
<td>$21.2</td>
<td>$19.2</td>
</tr>
<tr>
<td>2013</td>
<td>$27.0</td>
<td>$25.0</td>
</tr>
<tr>
<td>2014</td>
<td>$27.5</td>
<td>$25.5</td>
</tr>
<tr>
<td>2015</td>
<td>$27.0</td>
<td>$25.0</td>
</tr>
<tr>
<td>2016</td>
<td>$14.8</td>
<td>$12.8</td>
</tr>
<tr>
<td>2017</td>
<td>$15.3</td>
<td>$13.3</td>
</tr>
</tbody>
</table>

2.4% increase (+)

U.S.-MEXICO TRADE (2017)

Mexico ranks as #2 export market for the U.S. (2017)

- 3rd largest trading partner for U.S. ($557 billion in total trade)
- #1 or #2 export market for 27 states
- 30 states exported more than $1 billion
- California Exports to Mexico: $26.7 billion
Projected Housing and Job Growth

Projected Growth 2018-2050
- 1 dot = 50 housing units
- 1 dot = 50 jobs
- Conserved Lands

Existing and Projected Growth

2050
- 1 dot = 50 housing units
- 1 dot = 50 jobs
- Conserved Lands
Comparison – Existing vs. Projected

2018
- 1 dot = 50 housing units
- 1 dot = 50 jobs
- Conserved Lands

2050
- 1 dot = 50 housing units
- 1 dot = 50 jobs
- Conserved Lands

What Has Changed Since 2015 Plan?

- Construction costs up 15-20 percent
- Revenue assumptions 16 percent less than 2015 Plan
- Greenhouse gas reduction target increased from 13 percent to 19 percent
- Re-envisioned transit and highway projects
- Not all TransNet projects included
Capital Projects in all Concepts

• Regional Bike Network
• Managed Lanes – I-5, I-805, SR 78, SR 52
• Increased frequencies on all Trolley lines, COASTER, and SPRINTER
• *Rapid* routes on Managed Lane corridors
• General purpose lanes on SR 56
• Airport and border intermodal transportation centers

Network Concepts

**Concept A** – Shared Mobility

**Concept B** – Connected Corridors

**Concept C** – Policy Possibilities
Borders Related Projects

Transit
• Commuter rail double tracking (COASTER, Amtrak)
• Rapid and Trolley connections to San Ysidro and Otay Mesa Ports of Entry
• San Ysidro Intermodal Transit Center
• Rapid Route 236 (Escondido to Temecula)

Managed Lanes and Highways
• I-5 South and North
• I-8 East
• SR 11 and future Otay Mesa East Port of Entry
• I-15 North
• SR 125

Greenhouse Gas Comparisons

22% 19% 15% 13%

A B C

2019 target
2015 target
Strategies for Consideration

**Mobility Management**
- Vanpool and carpool programs
- Shared mobility and mobility hubs
- Electric vehicle program

**Technologies**
- Connected infrastructure
- Active transportation management
- Smart signals

**Potential Policies**
- Congestion pricing
- Tolling
- Mileage-based user fee
- Parking fees
- Lower transit fares

Board of Directors Workshop
Discussion Questions

1. What do you like about the network concepts?
2. What would you change?
3. Which strategies do you think are worth considering?
4. Are there any strategies that you are reluctant to use?

Regionwide Engagement

More than 3,600 surveys completed
More than 5,800 social media engagements
More than 6,000 unique SDForward.com visitors
More than 1,200 people attended our open house, six subregional community conversations, and more than 30 workshops hosted by Community Based Organizations
Nearly 2,500 comments received
What We Heard

- Improved and efficient access to jobs and other destinations via all modes of transportation
- Reduced congestion
- More transit and active transportation choices, safe places to bike and walk
- Desire for projects to be completed sooner
- Importance of meeting SB 375 greenhouse gas targets
- An efficient and equitable transportation system
- Infrastructure investments in areas with future housing growth
- Support for projects that facilitate goods movement and job creation

Network Development Process

- SANDAG Board of Directors provided input on anticipated funding for the 2019 Regional Plan
- Develop Network Concepts for Discussion
  - Shared Mobility
  - Connected Corridors
  - Policy Possibilities
- Develop Draft Scenarios for Review
- SANDAG Board selects Preferred Network Scenario for 2019 Regional Plan
- Adopt 2019 Regional Plan
Visualizing Truck Flows Based Upon Industry Data & Using Truck Visualization As A Planning Tool

Introduction and Deliverables

Caltrans Awarded SANDAG a unique Planning Grant in 2015 to develop the Truck Visualization Study Report under the direction of a Project Development Team.

3 Major Deliverables:
1. The Truck Visualization Study includes four Technical Memoranda
2. SANDAG to develop a freight visualization web tool: The SANDAG Freight Viewer
3. SANDAG to procure a dataset that was to support Freight Visualization
Scope Of Work

• SANDAG proposed to develop a tool to better understand and visualize truck flows.

• Principle goals:
  – Build upon SANDAG’s strong modeling capabilities
  – Leverage this strength with expertise from Caltrans and other partner agencies and stakeholders

• The truck flow visualization tool will:
  – Help to simulate and illustrate circulation and movement of trucks and business related goods and services within the County
  – Increase public awareness and understanding regarding these movements
  – Inform policy-level decisions about sustainable transportation

Responsible Party & Key Partner Agencies
Diagram of Existing Versus New Freight Data

<table>
<thead>
<tr>
<th>Existing</th>
<th>Recent</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing = Widely used for a while, often includes legacy government data programs</td>
<td>Recent = Has been around for a while but not yet widely available</td>
<td>New = Increasingly available and not yet widely applied/understood</td>
</tr>
<tr>
<td>Commodity Flow Survey</td>
<td>Truck GPS Data</td>
<td>Crowd Sourced Data</td>
</tr>
<tr>
<td>Freight Analysis Framework</td>
<td>Business Data</td>
<td>Road Sensor Data</td>
</tr>
<tr>
<td>Transearch</td>
<td>Truck Permit Data</td>
<td>Vehicle Data Streams</td>
</tr>
<tr>
<td>Satellite Accounts</td>
<td>Billing Sourced Data</td>
<td>Non-vehicle Device Data Streams</td>
</tr>
<tr>
<td>Real Time Truck Parking</td>
<td></td>
<td>CF5 PUIMS</td>
</tr>
</tbody>
</table>

Source: CPCS, Truck Data, Visualization and New Data Sources for Addressing Metropolitan Freight Challenges PPT, October 2016

SANDAG: Visualizing Truck Flows

Click here to access the complete report.

Click here to access Visualizing Truck Flows on SANDAG.org
SANDAG FreightViewer Application - Beta

Future Plans With “Big Data”

Source: INRIX
Questions? Comments?

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Keri Robinson, SANDAG Goods Movement Planner
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$6 billion of CaliBaja’s $24 billion in foreign exports are actually trade between San Diego and Baja.
### CaliBaja’s Economy

- **7.1M** total population 2018
- **2.2M** total jobs 2013
- **$24.3B** total foreign exports 2013
- **73.6M** northbound crossings (vehicle passengers + pedestrians) 2017
- **1.4M** northbound truck crossings 2017

### Key Takeaways

**WE SPECIALIZE IN ADVANCED MANUFACTURING**

Globally recognized as a leader in advanced manufacturing, the mega-region’s manufacturing sector directly employs **418,300 workers**. Cali Baja produces exports including medical devices, semiconductors, aerospace parts, and audio and visual equipment.

**WE MAKE THINGS TOGETHER**

The Cali Baja mega-region is globally competitive because of the complementary nature of our economies. In fact, the mega-region’s co-producing manufacturing supply chain accounts for **$2.5 billion** in trade.

**HIGH-VALUE SERVICES ARE THE FUTURE OF TRADE IN NORTH AMERICA**

Today, more than **51 percent of total trade** within the Cali Baja mega-region is in the service sector. Establishing a robust framework for IP protections, data transfer, and privacy will be essential in ensuring North America remains competitive in the global economy.
CaliBaja Cross-Border Trade

SAN DIEGO & IMPERIAL  BAJA CALIFORNIA

Audio & Video Equipment MFG 11.7%
Semiconductor & Other Component MFG 9.8%
TOTAL EXPORTS = $2.1B

Metal Production & Processing 3.3%
Transportation MFG 3.0%
Plastics Product MFG 3.0%

BAJA CALIFORNIA  SAN DIEGO & IMPERIAL

Audio & Video Equipment MFG 13.9%
Semiconductor & Other Component MFG 4.0%
TOTAL EXPORTS = $4.1B

CaliBaja Manufacturing

MANUFACTURING EMPLOYMENT SHARE BY INDUSTRY

BAJA CALIFORNIA

TOTAL MANUFACTURING JOBS = 418.3K

SAN DIEGO & IMPERIAL

Navigational, Measuring, Electromedical, & Control Instruments Manufacturing
Aerospace Product & Parts Manufacturing
Medical Equipment & Supplies Manufacturing
Pharmaceutical & Medicine Manufacturing
Ship & Boat Building
Other

10.1% 6.0% 5.0% 5.0% 5.0%
The Future Frontiers of Trade

The future of North American trade is not about avocados and dairy, or even automobiles and medical devices, but about the ways in which high value services cross borders, and the framework for IP protection, data transfer and privacy, and sustainability that will govern and secure tomorrow’s global economy.

KEY TRADED SERVICES IN CALI BAJA’S INNOVATION ECONOMY

- Computer Systems Design Related Services: $7.6M
- Scientific Research Development Services: $3.5M
- Other Professional, Scientific, & Technical Services: $3.1M
- Software Publishers: $2M
- Data Processing, Hosting, & Related Services: $2M

51% of total trade within Cali Baja is in the service sector.