

Economic Impact Study:



Otay Mesa East Port of Entry

Executive Summary

This study estimates the economic impact from the construction of an additional Port of Entry (POE) on the U.S.-Mexico border in San Diego County, during its first 10 years of operation, projected for 2015 through 2024. By looking at historical data, it predicts reductions in wait times and additional crossings that would result from the additional capacity to process northbound personal vehicle and truck traffic. Applying methodology and data developed in previous national border studies, we calculated the resultant increase in trade, personal spending, labor productivity and employment gains expected at the state and sub-state levels over various sectors and industries.

The positive economic impacts of the new POE at Otay Mesa East are estimated to exceed \$31.6 billion over the first 10 years of operation from 2015-2024, with \$29.1 billion from increased output due to enhanced freight crossing and \$2.5 billion from enhanced personal vehicle crossing.

Construction of the new POE at Otay Mesa East (OME) is not a certainty, although at the time of writing it appears likely. On the U.S. side, a Phase 1 Environmental document and Presidential Permit are expected to be completed in 2008. The project will proceed with Phase 2 Environmental Clearance, establishment of design and identification of right of way, and finally financing.

A revenue bond is planned for issue in early 2010. Cost estimates for construction of OME range from \$550-660 million including expansion and construction of the necessary rights-of-way to handle vehicle traffic on the U.S. side. Substantial coordination between different levels of government on both sides of the border is necessary for the project to move forward as scheduled. Notwithstanding unexpected delays, construction is projected to begin in 2012 with the POE becoming operational in 2015.

A number of additional infrastructure initiatives on the horizon at various stages in the development process are relevant to this study. These include a cross border airport passenger crossing, capacity and infrastructure improvements at the San Ysidro POE, and two cross-border industrial conveyor belts. Additionally, infrastructure improvements in Imperial County continue with proposals to connect the seaport at Ensenada with the Calexico POE via a rail line.

Based on predicted annual truck crossing volumes of 1.16 million to 1.79 million from 2015-2024, reduced transport time is estimated to increase economic output by \$29.1 billion. The largest portion of gains will go to the machinery & equipment sector (\$26.5 billion), concentrated in electronics, machinery and precision equipment. San Diego and Los Angeles will receive the bulk of the additional imports.

Textiles/leather and furniture will see the largest rise in goods flow in the manufacturing sector, with an expected additional growth of \$1.3 billion. Agriculture will see an additional \$1 billion in trade.

Personal vehicle crossings were estimated from forecasting vehicle flow from 2015 to 2024 with and without the addition of the OME POE. Differentials in wait time and additional crossings yielded \$2.2 billion in additional spending, \$247 million in employment and \$64 million in labor productivity over 10 years.

Economic Impacts of Proposed Otay Mesa East Port of Entry on the San Diego Region: Quick Facts

The positive economic impacts to California from the new port of entry (POE) at Otay Mesa East are estimated to exceed \$31.6 billion over the first 10 years of operation from 2015-2024, with \$29.1 billion from increased output due to enhanced freight crossing and \$2.5 billion from enhanced personal vehicle crossing. Some industries expected to benefit the most from the new POE over the 10-year period are electronics (\$19.7 billion), machinery (\$4.2 billion), precision instruments (\$1.8 billion), and manufacturing (\$1.25 billion).

Benefits to San Diego's economy are as follows:

Gains to trade: A new border crossing will reduce truck congestion, decreasing the amount of time that goods produced in Mexico spend in transit. Costs fall due to lower shipping costs and reducing variances in shipping times, which enable faster, more responsive production schedules and reduced working capital requirements. Competing manufacturers pass on savings to buyers. Buyers respond to lower prices with higher demand, thus increasing sales. As companies' costs fall, consumers and producers gain from lower prices, growing sales and higher net profits. Trade impacts to San Diego County are estimated to be \$14 billion.

Employment and labor productivity: Lower wait times also produce economic gains by allowing labor to be employed where it is economically most efficient. Reducing wait times creates the potential for more Mexican and U.S. workers to commute both ways across the border. Impacts from increased employment and labor productivity are estimated to exceed \$311 million.

Personal spending: Lower wait times increase the number of cross-border trips to purchase goods and services. Building on surveys of how much Mexicans entering San Diego spend on food, recreation, lodging and shopping, and also how the frequency of visits would change with lowered wait times, we calculated the additional spending that would result in San Diego. On net, San Diego businesses will experience large increases in sales, while San Diegans will enjoy more efficient trips for shopping, recreation, food and healthcare services in Mexico. Impacts from increased spending in San Diego County are estimated to exceed \$2.2 billion.

Introduction

Since 1994, U.S. trade in goods with Mexico has increased from \$297 billion in 1993 to \$883 billion in 2006. This increase of 198% elevated Mexico to the second largest trading partner for the U.S. after Canada and to California's number one export market.¹

Over the same period, economic exchange via land ports of entry between San Diego County and Mexico increased dramatically, stretching the capacity of existing infrastructure, especially in San Diego County. San Ysidro is the busiest POE in the world, with 30 lanes (24 northbound, six southbound) processing passenger traffic of approximately 17 million crossings in 2006.

- 70% of truck traffic between California and Mexico travels through San Diego County POEs,² with approximately 90% passing through Otay Mesa and the rest through Tecate.
- According to estimates of the San Diego Association of Governments, \$6 billion in gross revenue was lost in 2005 due to lengthy border wait times.³
- By the same standards, San Diego County is expected to have lost \$2.7 billion concentrated in the retail sector in 2005 due to constrained border infrastructure.⁴

Proposed Purpose of New Port of Entry at Otay Mesa East

- Increase interconnections between rapidly growing population and economic centers in Baja California and Southern California;
- Reduce long border wait times and facilitate trade and cross border investment; and
- Create an alternative border crossing for San Ysidro, Otay Mesa and Tecate.

¹ Office of the United States Trade Representative, "NAFTA Analysis," 2007

² 2003 Commercial Vehicle Border Crossing Survey, Caltrans District 11

³ SANDAG Feasibility Study "Economic Impacts of Wait Times at the San Diego-Baja California Border", 2006

⁴ Ibid

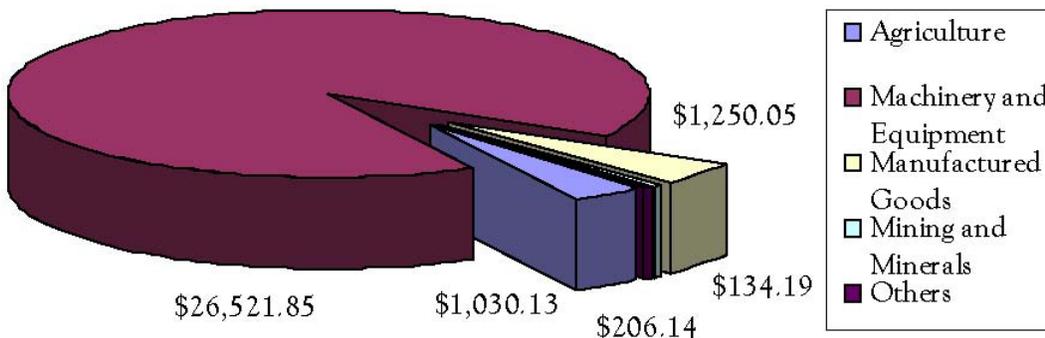
Key Findings: Economic Impact to the State of California

The study identifies major positive economic impacts for the State of California on imports of machinery & equipment, with secondary but significant positive impacts on manufacturing. The study identified the following detailed breakdown of projected gains across major freight categories over the 2015-2024 period. All impacts are in 2008 constant dollars.

Economic Impact of Increased Trade Volumes: STATE OF CALIFORNIA						
in 2008 U.S.\$ millions						
Impact Values by Freight Category:						
Year	Agriculture	Machinery & Equipment	Manufacturing	Mining	Other	Total
2015	71.8	1,302.6	78.8	13.9	8.7	1,475.7
2016	77.5	1,499.3	86.6	15.1	9.5	1,688.0
2017	83.6	1,726.5	95.3	16.4	10.4	1,932.2
2018	90.1	1,989.1	104.8	17.8	11.4	2,213.3
2019	97.2	2,292.7	115.4	19.3	12.5	2,537.1
5 Year Total	420.2	8,810.2	480.9	82.5	52.4	9,846.3
2020	104.9	2,643.8	127.0	21.0	13.7	2,910.3
2021	112.8	3,030.9	139.1	22.7	14.9	3,320.4
2022	121.3	3,475.7	152.5	24.6	16.2	3,790.3
2023	130.5	3,986.8	167.2	26.6	17.7	4,328.8
2024	140.4	4,574.4	183.3	28.8	19.3	4,946.2
10 Year Total	1,030.1	26,521.9	1,250.0	206.1	134.2	29,142.4

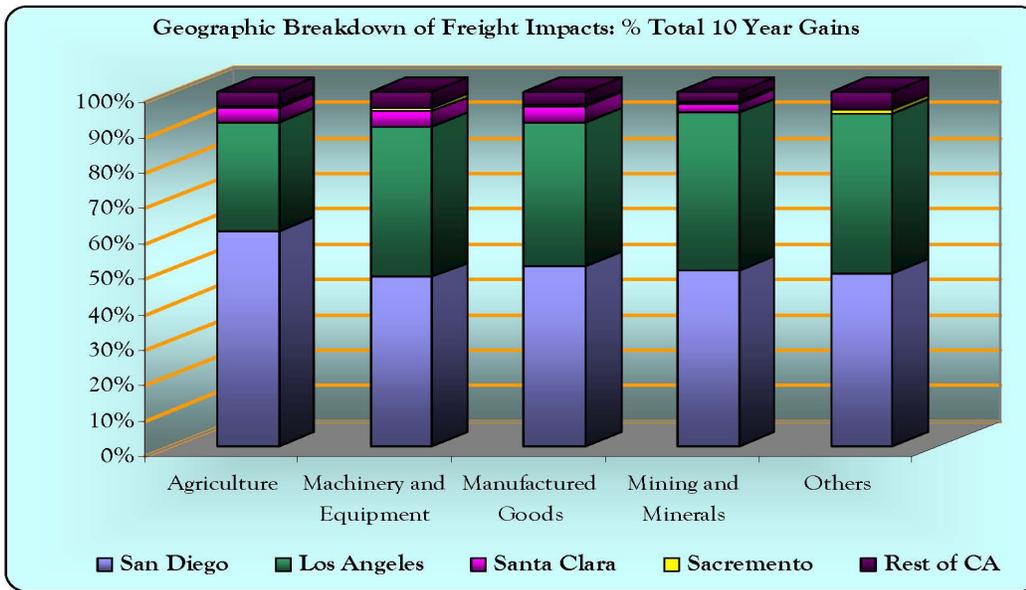
Of a total projected 10-year impact of \$29.14 billion, 91% of gains from increased trade due to reduced transit time flowed into the machinery & equipment (M&E) sector.

Total 10 Year Impact
2008 Real U.S. \$ Millions

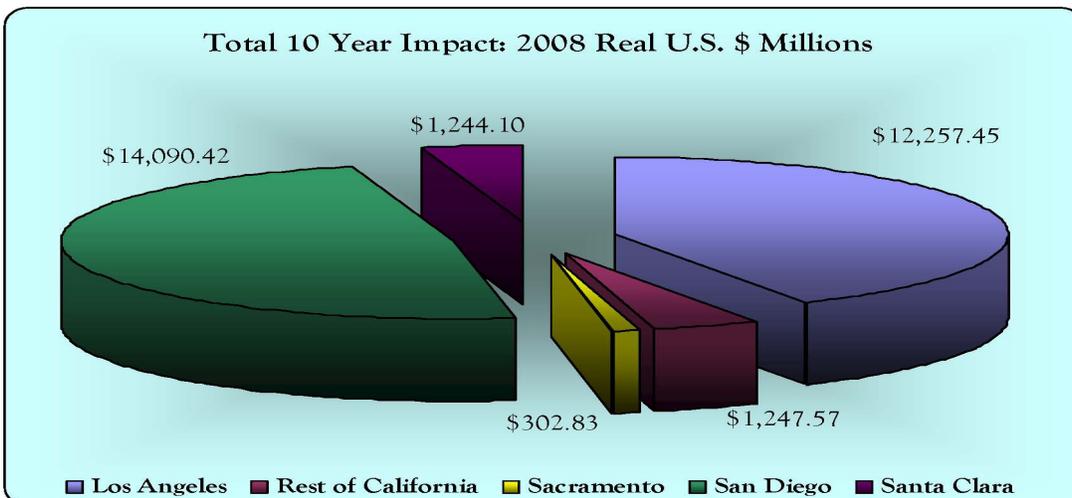


Geographic Distribution of Gains

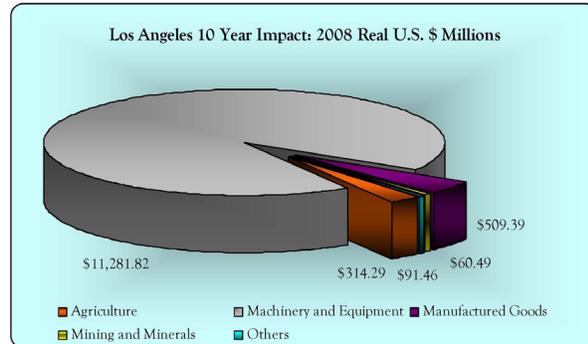
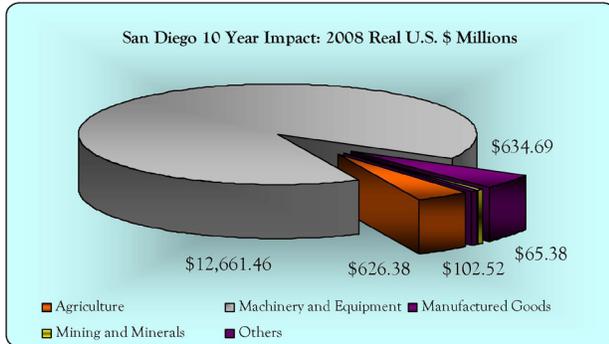
Across industrial categories, impact modeling showed that the distribution of gains from increased imports held to a general geographic impact concentrated in the San Diego and Los Angeles Counties, with significant additional impacts to Santa Clara County. Our model projects that, given current freight flow patterns, San Diego and Los Angeles Counties will capture 48.3% and 42% of total gains. The following chart illustrates the geographic distribution of projected gains across import categories.



Total projected 10-year impacts to San Diego County will exceed \$14 billion in gains from increased trade volumes, while positive impacts to Los Angeles County will reach \$12.25 billion. Santa Clara County and the City of San Jose will realize gains in excess of \$1.2 billion, while Sacramento County will benefit from over \$300 million in gains.

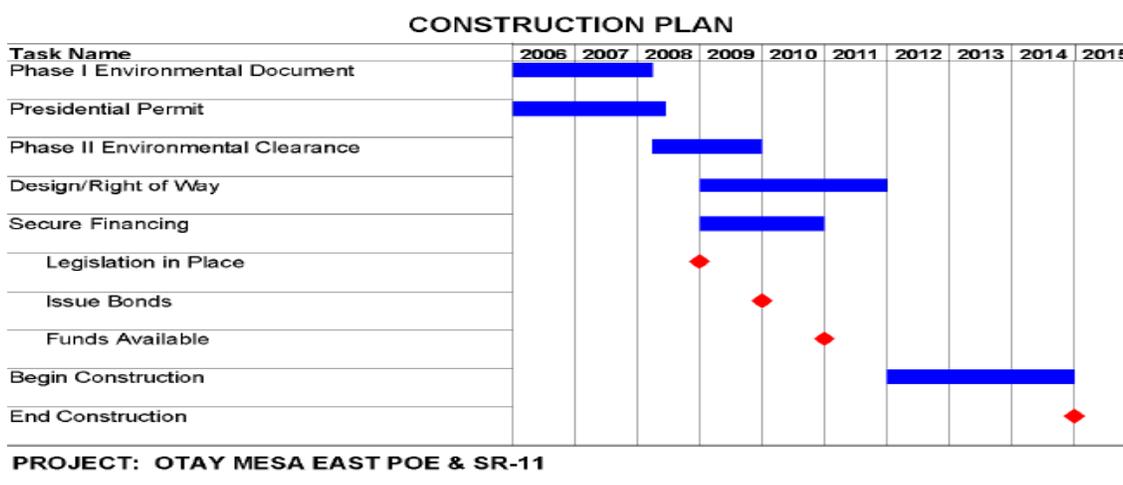


Major Gains to San Diego and Los Angeles Counties



East Otay Mesa Timeline

Plans for a POE at Otay Mesa East and the accompanying SR-11 project are long term and require the completion of several procedures. At publication, CalTrans has completed the Environmental Impact Study and Presidential Permit application. Still to be realized are the awarding of the Presidential Permit, a Phase II environmental clearance, design/right of way decisions, financing approvals, permits from state and Mexican entities, as well as the ultimate initiation and completion of construction. A major concern on this project is the ability to pass legislation enabling public-private partnerships for the development of the previously mentioned infrastructure. Federal regulations regarding bidding and origin of construction materials affect cost efficiency and timeliness. The projected timeline follows:



Several national level policy decisions have directly impacted the demand for and constraints on border crossings between the U.S. and Mexico. The ratification and subsequent implementation of NAFTA in 1994 dramatically increased traffic flows from both sides of the border.

April 2007: A San Diego Regional Chamber of Commerce delegation traveled to Mexico City to meet with government and private sector leaders, coinciding with a meeting with Felipe Calderón's Technical Secretary of the Economic Cabinet, Felipe Duarte Olvera.

May 2007: Caltrans District 11 (San Diego) hosted a U.S.-Mexico Joint Working Committee to meet with national, regional and local leaders from the U.S. Department of Transportation, Federal Highway Administration, Department of State, General Services Administration, Department of Homeland Security, Department of Commerce, various state government agencies and Mexican counterparts.⁵

- Cross-Border Tijuana Airport Passenger Crossing and SR11/Otay Mesa East Port of Entry were listed as key projects to reduce wait times and bring investment and jobs.
- Amending federal and state law to facilitate private-public partnerships for these projects a major aspect of funding procurement.

September 2007: 9th Circuit Appeals Court of San Francisco rejected an appeal from the Teamsters union, the Sierra Club and consumer group Public Citizen to halt the start of a one-year pilot program approved by Congress to allow Mexican trucks access to U.S. highways. The program began its pilot phase with a target of accommodating approximately 100 trucking companies.

September 2007: Leaders in Baja California continue to move forward in the planning stages of the Punta Colonet project in Ensenada, Mexico. Bahía Colonet will receive container ships with a projected one million Twenty Foot Equivalent Units (TEUs) within a decade and six million TEUs by 2025.⁶ The project will soon enter into the bidding stages. Effect of the new port freight and passenger traffic through land POEs remains uncertain. Although much of the projected container traffic is expected to travel via a special rail-line to Mexicali, displacements of incoming freight from the crowded facilities in Long Beach could lead to a redirection of U.S. import flows from Long Beach to Punta Colonet for truck transport to San Diego.

September 30, 2007: The San Diego Regional Chamber of Commerce led a delegation to Washington, D.C., to discuss the possibility and benefits of a third border crossing with White House officials, Under Secretary of Transportation Jeffrey Shane, General Services Administrator Lurita Doan, Commissioner of the U.S. Customs and Border Protection Agency Ralph Basham, and Mexican Ambassador Arturo Sarukhan.

December 6, 2007: Bills were simultaneously introduced in the House and Senate under the name "Border Wait Times Study Act," calling on the Secretary of Transportation and the Secretary of Commerce to submit reports to Congress regarding the wait times at certain land ports of entry dating back to 2000, as well as the effect staffing levels have had on those wait times. The legislation called for a study of the economic impact with respect to the volume of commercial and passenger vehicles over the same period of time, specifically focusing on border states and communities. Senator Hutchinson (R-TX) and Rep. Ciro Rodriguez (D-TX) introduced bills in the Senate and the House with Rep. Bob Filner of CA-District 51 cosponsoring the bill in the House.

⁵ http://www.borderplanning.fhwa.dot.gov/mm_5-22-07.asp

⁶ June 2007, Diane Lindquist of San Diego Union Tribune "Mexico Set to Offer Bidding on Megaport"

January 14, 2008: The Department of State notified the public that it received Caltrans' application for a Presidential Permit to authorize the construction, operation and maintenance of a new border crossing facility on the U.S.-Mexico border at Otay Mesa East. The Office of Mexican Affairs Border Affairs Unit, directed by John Dickson, took public comment until April 28, 2008.

February 8, 2008: The San Diego Regional Chamber of Commerce's Mexico Business Center held a United States-Mexico Border Efficiency Conference. In conjunction with the Borders Working Group within the "Security and Prosperity Partnership," federal, state and municipal authorities from both sides of the border came together to make recommendations for an integrated program to reduce wait times at the California-Baja California border. Key speakers included San Diego Mayor Jerry Sanders and Tijuana Mayor Jorge Ramos.

April 7, 2008: The San Diego Regional Chamber of Commerce's Mexico Business Center took a San Diego/Baja California mission to Mexico City to address binational and cross border issues such as the crossing of goods and people at ports of entry and the importance of the Federal Government's support of the creation of a third port of entry.

Presidential and Congressional attention to the issue of wait times enables local stakeholders in San Diego to frame this and other projects in light of the benefits of cross-border trade. In addition to the benefits captured post-construction, hundreds of millions of dollars in contracting revenues and materials purchases will go up for competitive bid by U.S. firms, earmarked through the "Build America" requirements held by the U.S. General Services Administration.

- Land in close proximity of the build site has rapidly developed in recent years with land values jumping 200% over the past four years, based on right-of-way costs for the SR-905 project recently completed by Caltrans.⁷
- Population growth projections through 2030 reach 30% in San Diego County and the region.⁸
- Baja California has reserved 91 acres across from the East Otay Mesa site. Development pressure on this land from migrants and businesses endanger renewal following expiration in 2011.

Additional Infrastructure Projects

In addition to the Otay Mesa East POE project, there exist a number of other major infrastructure projects in San Diego and Imperial County regarding cross border commerce and trade.

Cross-Border Airport Passenger Crossing: The previously mentioned Cross-Border Airport Passenger Crossing between San Diego International Airport and the Rodriguez International Airport in Tijuana has long been a topic of discussion for Caltrans and local aviation authorities but, as of 2008, only a feasibility study has been commissioned to study proposals:

- Parking in California linked to Rodriguez International Airport terminal by a secure walkway.
- Full-service terminal in California linked to a U.S. concourse at Rodriguez International Airport

⁷ Caltrans

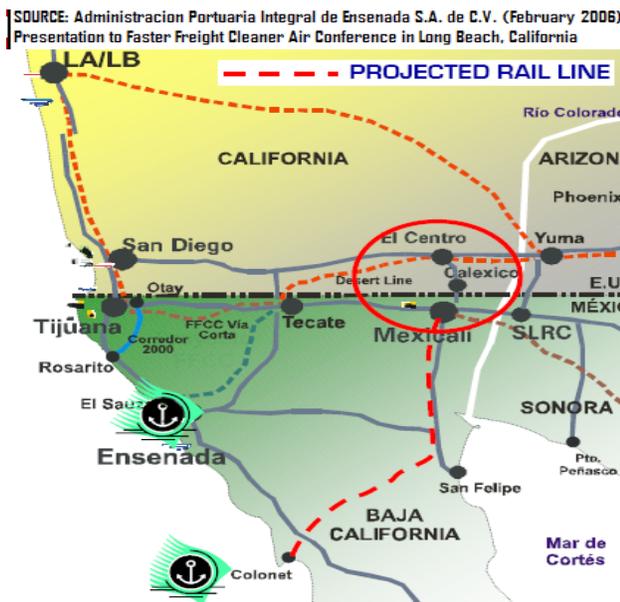
⁸ SANDAG "Regional Transportation Plan 2030", 2007

San Ysidro/El Chaparral Border Expansion/Rerouting Project: An expansion is expected to reroute southbound traffic through the El Chaparral-Virginia Avenue gates west of current southbound crossing lanes.⁹ Plans require significant construction to Interstate-5. In addition to rerouting traffic, plans include tandem booths (double staffing existing inspection booths), a secondary inspection area, and an additional pedestrian processing facility. Three phases of project execution are expected to conclude between 2013 and 2014 at an estimated cost of \$577 million.¹⁰

Otay Mesa Conveyor Belt Project: Austin Industries, a commercial and industrial construction company based in Texas, presented a Presidential Permit for an aggregate conveyor belt running from Mexico into Otay Mesa. The permit has been pending since 2001 and has yet to receive approval.

Calexico-Mexicali Aggregate Products Conveyor Belt Project: Aggregate Products had its Presidential Permit approved in April 2003 and has since been dealing with permit and paperwork related complications on the Mexico side of the border. The project plans to import materials for construction projects throughout the southwest United States via an industrial conveyor belt running from Mexicali to Calexico starting at the end of the year.

Calexico West-Mexicali Crossing Project/Imperial County Highway Construction: Imperial County has undertaken several steps to leverage its geographical position in wake of the NAFTA. Since the mid 90s, highway improvements and modernization have been a major focus of decreasing congestion and facilitating NAFTA Net Project goals along the U.S.-Mexico border. SR-7 recently completed a five and a half-mile stretch of four-lane highway from the Baja California-Imperial County border up to SR-8. A four-lane expressway was recently completed from the portion of SR-111 between El Centro and Brawley, improving flow from where SR-8 intersects SR-111 at El Centro. Additionally, Brawley bypass plans seek to accommodate future expansion of the Brawley Airport by adjusting highway and rail infrastructure capacities with an estimated cost of \$300 million.¹¹



Additional traffic through the Calexico POE is expected as a result of the Bahía Colonet project south of Ensenada in Baja California. The Bahía Colonet project's success currently depends on the approved construction of a rail-line from Punta Colonet traversing Baja California from west to east before traveling north to the Mexicali – Calexico Port of Entry. Due to the large increase in volumes of freight traffic flowing from the Calexico POE expected as a result of this project, highway, rail and airport renovations in Imperial County are becoming more of a priority for Caltrans District 11 and Congressional District 51.

9 SANDAG Transportation Committee White Paper, "Crossborder Transportation", December 2006, File Number 3000400
http://www.sandag.org/2007_rtp/crossborder.pdf

10 San Ysidro Port of Entry (POE) Border Station Expansion Traffic Impact Study, October 2007, prepared by KOA Corporation for the U.S. General Services Administration.

11 Bill Figue of CalTrans, "Presentation to San Diego American Planning Association", September 21, 2006

Detailed Impacts of Increased Trade to the State of California

A new border crossing will reduce truck congestion, decreasing the amount of time that goods and trucks spend in transit. New infrastructure also reduces the cost of goods that depend on Mexican inputs and raw materials. Costs fall due to lower shipping costs and reduced variance in shipping times, which enables faster, more responsive production schedules and reduced working capital requirements. Simply put, companies in the U.S. and Mexico spend less on moving goods across the border, which create lower inventory and transport costs.

In a competitive marketplace, competing manufacturers pass on reduced costs to buyers in order to compete with rivals who also experience cost savings or take market share from those who do not capture gains from lower costs. Overall, the market size for products produced in Mexico or using Mexican parts expands as buyers respond to lower prices by demanding more products. Demand growth leads to increased profits for manufacturers who can sell higher volumes of goods to an expanded market. Because of competition, a portion of profits will again be passed on to the end consumer in the form of lower prices for finished goods.

In addition, the chance for manufacturers and importers to source goods at lower prices from Mexico will lead companies that are importing from other regions, such as China, to consider manufacturing operations in Mexico. As companies experience lower cost of goods sold, consumers and producers gain from lower prices, growth in sales and higher profits.

In this study, we will focus on major impacts in machinery & equipment and manufacturing. Increased trade in manufacturing imports accounts for 3.5% of total 10-year impacts, while gains in machinery & equipment account for 91%.



Machinery and Equipment: \$26.5 Billion

Within the machinery & equipment (M&E) sector, statewide gains move predominantly to the electronics industry, reflecting the high degree of electronics manufacturing taking place in the Mexican Maquila industries.

The following table presents annual projected impacts within the sector.

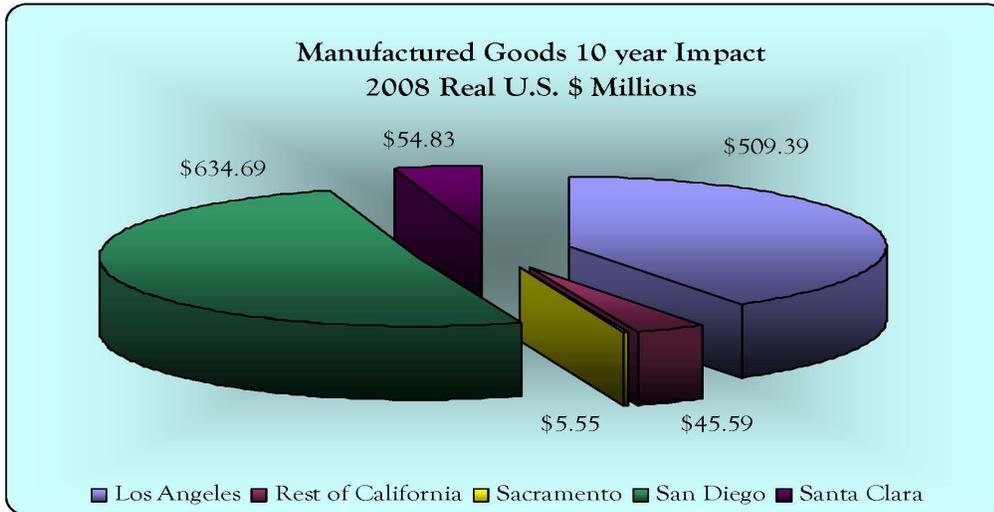
Economic Impact of Increased Trade Volumes : STATE OF CALIFORNIA						
in 2008 U.S.\$ millions						
Machinery & Equipment:						
Year	Electronics	Machinery	Motorized Vehicles	Precision Instruments	Transport Equipment	Total
2015	908.40	252.21	25.10	95.75	21.10	1,302.55
2016	1,059.65	280.22	27.46	108.58	23.38	1,499.29
2017	1,236.12	311.36	30.04	123.12	25.91	1,726.54
2018	1,442.01	345.95	32.86	139.61	28.71	1,989.15
2019	1,682.23	384.40	35.95	158.32	31.82	2,292.71
5 Year Total	6,328.42	1,574.14	151.40	625.38	130.91	8,810.24
2020	1,962.52	427.12	39.33	179.53	35.26	2,643.76
2021	2,270.83	475.29	43.03	202.77	38.97	3,030.89
2022	2,627.63	528.89	47.07	229.02	43.08	3,475.68
2023	3,040.53	588.54	51.49	258.67	47.62	3,986.85
2024	3,518.38	654.93	56.32	292.16	52.64	4,574.43
10 Year Total	19,748.31	4,248.90	388.64	1,787.52	348.48	26,521.85

Manufacturing: \$1.25 Billion

Statewide impacts to manufacturing are concentrated heavily in sectors with strong traditional Mexican presence. Textiles/leather and furniture imports will realize the largest gains, accounting for 44% and 25% respectively, while total 10-year impacts exceed \$1.25 billion.

Economic Impact of Increased Trade Volumes : STATE OF CALIFORNIA								
in 2008 U.S.\$ millions								
Manufacturing								
Commodity	2015	2016	2017	2018	2019	5 Year Total	10 Year Total	% Ten Year Total
Alcoholic beverages	2.18	2.34	2.51	2.69	2.89	12.60	30.38	2.43%
Chemical prods.	1.88	2.04	2.21	2.40	2.60	11.14	27.57	2.21%
Fertilizers	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00%
Furniture	16.75	18.97	21.48	24.33	27.56	109.09	310.13	24.81%
Meat/seafood	0.22	0.24	0.26	0.27	0.29	1.28	3.08	0.25%
Milled grain prods.	0.62	0.67	0.71	0.76	0.82	3.59	8.57	0.69%
Nonmetal min. prods.	2.25	2.43	2.63	2.84	3.06	13.21	32.54	2.60%
Paper articles	1.79	1.92	2.06	2.21	2.37	10.34	24.99	2.00%
Pharmaceuticals	0.17	0.19	0.22	0.26	0.30	1.13	3.49	0.28%
Plastics/rubber	5.44	5.93	6.47	7.05	7.69	32.59	81.98	6.56%
Printed prods.	0.71	0.76	0.81	0.87	0.93	4.07	9.70	0.78%
Textiles/leather	36.02	39.40	43.10	47.16	51.59	217.27	553.61	44.29%
Wood prods.	1.60	1.73	1.88	2.03	2.20	9.44	23.40	1.87%
Other	9.16	10.01	10.94	11.95	13.06	55.12	140.59	11.25%
Grand Total	78.79	86.63	95.28	104.82	115.36	480.87	1,250.04	100.00%

Gains in manufacturing are concentrated more solidly in San Diego County, likely due to the effects of proximate markets and higher concentrations of heavier goods by value. San Diego and Los Angeles Counties capture 51% and 41% of projected impacts for manufactured goods.



Trade Impacts to San Diego County: \$14 Billion

The model for increased trade volumes for industry that arise from improved flow of freight from the new POE provides large gains for the manufacturing industry, to the order of \$635 million over 10 years. However, the largest beneficiary of expanded border infrastructure will be the machinery & equipment industry, which stands to gain over \$12.6 billion over the same period. Agriculture will also gain an estimated \$626.4 million. The following table provides an overview of the projected economic gains of the Otay Mesa East POE on San Diego industry.

Economic Impact of Increased Trade: SAN DIEGO COUNTY						
Impact Values by Freight Category:						
2008 U.S. \$ millions	Agriculture	M & E	Manufactures	Mining	Other	Total
5 Year Impact	254.3	4,160.7	242.3	40.5	25.3	4,723.1
10 Year Impact	626.4	12,661.5	634.7	102.5	65.4	14,090.4

Machinery & Equipment

Within the machinery & equipment sector, importers of electronics and machinery across a variety of industries emerge as clear projected winners from expanded infrastructure. Biotech, healthcare and media services will gain from electronics and precision instrument imports from Mexico. Construction and manufacturing will realize significant cost-savings in the importing of machinery ranging from power-tools to earth-moving equipment. Decreased wait times in the transport of the following commodities will generate gains to importers of machinery & equipment (see table below).

Economic Impact of Increased Trade: SAN DIEGO COUNTY						
Machinery & Equipment:						
2008 U.S. \$ millions	Electronics	Machinery	Motorized Vehicles	Precision Instruments	Transport Equipment	Total
5 Year Impact	2,923.10	846.66	66.36	256.67	67.92	4,160.71
10 Year Impact	9,261.84	2,310.69	170.43	737.86	180.63	12,661.46

Manufacturing

Detailed information from the Department of Homeland Security has allowed our analysis to further break down these gains among the major industrial sub-sectors. This information allows policy makers a more detailed understanding of the major beneficiaries within San Diego industry clusters.

Our modeling identifies two major winners in the manufacturing sector: furniture, and textiles/leather. In addition to consumers, local retailers and manufacturers who import furniture pieces, sub-assemblies and textiles for finishing will be clear beneficiaries.

Economic Impact of Increased Trade: SAN DIEGO COUNTY			
Manufacturing:			
2008 U.S. \$ millions	5 Year Impact	10 Year Impact	% Ten Year Total
Alcoholic beverages	7.07	17.22	2.71%
Chemical prods.	5.42	13.43	2.12%
Fertilizers	0.00	0.01	0.00%
Furniture	50.85	145.16	22.87%
Meat/seafood	0.59	1.43	0.22%
Milled grain prods.	1.71	4.09	0.64%
Nonmetal min. prods.	6.31	15.61	2.46%
Paper articles	4.67	11.37	1.79%
Pharmaceuticals	0.69	2.12	0.33%
Plastics/rubber	14.00	35.37	5.57%
Printed prods.	1.42	3.42	0.54%
Textiles/leather	118.90	307.15	48.39%
Wood prods.	4.82	12.00	1.89%
Other	25.80	66.33	10.45%
Grand Total	242.25	634.69	100.00%

Regional Impacts of OME POE in San Diego County: Impacts of Increased Civilian Travel

Lower wait times also produce economic gains by allowing labor to be employed where it is economically most efficient. In some cases, this need goes unfilled because higher pay does not compensate for the hours spent waiting at the border. Reducing wait times creates an opportunity for more workers to commute from both sides of the border.

We calculated the quantity of additional hours that would be worked in San Diego from survey responses where northbound commuters were asked how they would change their crossing habits if wait times were different. For workers crossing the border for their job, each minute of reduced wait time could be a minute gained on the job. We know from survey data the percentage of workers that would use this 'extra' time gained in order to work more, and used this to calculate the total number of work hours gained.

San Diegan and Mexican workers who are already crossing and will save time and take advantage of improved cross border opportunities will gain from higher wages and time savings, which they can choose to spend as leisure time or to work longer and earn more. Employers will also win because they will be able to hire workers more easily and their current employees will be more productive.

Facilitating commutes across the border will have a direct positive effect on San Diego businesses, expanding the available pool of labor and increasing productivity. The following table shows projected impacts of increased crossings in constant 2008 U.S. dollars.

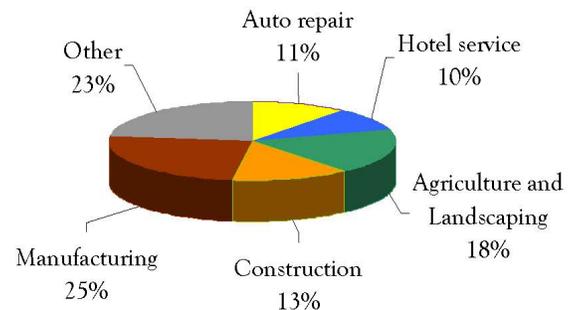
Economic Impact Of Gains from Personal Vehicles				
in 2008 U.S.\$ millions				
Impact Values by Freight Category				
Year	Personal Spending	Additional Employment	Labor Productivity	Total Personal Impact
2015	\$203.17	\$22.02	\$4.76	\$229.95
2016	\$205.88	\$22.54	\$5.06	\$233.47
2017	\$209.19	\$23.13	\$5.39	\$237.71
2018	\$212.51	\$23.73	\$5.73	\$241.98
2019	\$215.83	\$24.34	\$6.09	\$246.27
5 Year Total	\$1,046.59	\$115.76	\$27.03	\$1,189.39
2020	\$218.87	\$24.93	\$6.47	\$250.27
2021	\$222.80	\$25.64	\$6.88	\$255.32
2022	\$226.12	\$26.28	\$7.31	\$259.71
2023	\$230.06	\$27.00	\$7.77	\$264.83
2024	\$233.99	\$27.74	\$8.26	\$270.00
10 Year Total	\$2,178.44	\$247.35	\$63.73	\$2,489.51

Employment Gains

Gains to employers will account for nearly 20% of gains from increased passenger travel from Mexico, an estimated \$247 million over 10 years. These benefits will flow predominantly to five major sectors.

- **Manufacturing:** \$76.2 Million
- **Agriculture and Landscaping:** \$56.9 Million
- **Construction:** \$41.4 Million
- **Auto Repair:** \$33.6 Million
- **Hotel Service:** \$30.5 Million

Mexican Commuters by Industry



Impact of Increased Personal Spending: \$2.18 Billion

Lower border wait times increase the number of cross-border trips, including those whose primary purpose includes shopping, tourism, education or healthcare. Knowing how much Mexicans entering San Diego spend on the average trip in categories such as food, recreation, lodging and shopping, as well as how their trip frequency would change as a result of lowered wait time at the border, we calculated how much additional spending would take place in San Diego.

Shorter border crossings will also cause some Americans to spend money in Mexico that they would have spent in San Diego, so we subtracted the spending San Diego will forgo as a result of being able to go to Mexico more frequently. The difference is a large net gain to the San Diego economy. The businesses that receive that extra spending will enjoy increased sales and revenues, while San Diegans will enjoy more time-efficient opportunities for shopping, recreation, food and healthcare services in Mexico.

The largest positive impacts from expanding volumes of civilian traffic into San Diego Country arrive in the form of consumer spending. Major winners from this projected \$2.18 billion dollars in net gains over a 10-year period

include not only retail outlets in National City, Chula Vista and the other large shopping districts of San Diego County, but also hotels, restaurants and recreation businesses across the entire geography. The table to the left presents the percentage breakdown of the increased spending over 10 years by category.

Economic Impact Of Increased Personal Spending:			
% of Total			
Retail	Food / Restaurant	Recreation	Hotel / Lodging
57%	30%	8%	4%

Detailed projected impacts of personal spending appear in the following table:

Economic Impact Of Increased Personal Spending:					
in 2008 U.S.\$ millions					
Impact Values by Spending Category					
Year	Retail	Food / Restaurant	Recreation	Hotel / Lodging	Total Spending
2015	\$115.84	\$61.53	\$17.21	\$8.60	\$203.17
2016	\$117.38	\$62.34	\$17.44	\$8.72	\$205.34
2017	\$119.27	\$63.35	\$17.72	\$8.86	\$208.64
2018	\$121.16	\$64.36	\$18.00	\$9.00	\$211.94
2019	\$123.06	\$65.36	\$18.28	\$9.14	\$215.25
5 Year Total	\$596.71	\$316.94	\$88.64	\$44.31	\$1,044.34
2020	\$124.79	\$66.28	\$18.54	\$9.27	\$218.27
2021	\$127.03	\$67.47	\$18.87	\$9.43	\$222.18
2022	\$128.92	\$68.48	\$19.15	\$9.57	\$225.49
2023	\$131.17	\$69.67	\$19.49	\$9.74	\$229.41
2024	\$133.41	\$70.86	\$19.82	\$9.91	\$233.32
10 Year Total	\$1,242.02	\$659.69	\$184.50	\$92.22	\$2,173.01

Freight Impacts: Los Angeles County

In Los Angeles County, increased trade in manufacturing will increase by \$509 million over 10 years. As in San Diego, the largest beneficiary of the OME POE will be the machinery & equipment industry, which stands to gain just under \$11.3 billion over the same period.

Economic Impact of Increased Trade: LOS ANGELES COUNTY						
Impact Values by Freight Category:						
2008 U.S. \$ millions	Agriculture	M & E	Manufactures	Mining	Other	Total
5 Year Impact	129.4	3,804.3	198.1	37.0	23.8	4,192.6
10 Year Impact	314.3	11,281.8	509.4	91.5	60.5	12,257.4

Manufacturing

The table below presents summary projections for total five and 10 year impacts.

Economic Impact of Increased Trade: LOS ANGELES COUNTY			
Manufacturing:			
2008 U.S. \$ millions	5 Year Impact	10 Year Impact	% Ten Year Total
Alcoholic beverages	5.53	13.14	2.58%
Chemical prods.	4.76	11.75	2.31%
Fertilizers	0.00	0.00	0.00%
Furniture	47.32	134.29	26.36%
Meat/seafood	0.56	1.35	0.26%
Milled grain prods.	1.68	4.00	0.78%
Nonmetal min. prods.	6.75	16.56	3.25%
Paper articles	4.42	10.63	2.09%
Pharmaceuticals	0.44	1.35	0.27%
Plastics/rubber	15.16	37.97	7.45%
Printed prods.	2.14	5.07	0.99%
Textiles/leather	81.49	203.19	39.89%
Wood prods.	3.92	9.68	1.90%
Other	23.89	60.41	11.86%
Grand Total	198.05	509.39	100.00%

Machinery & Equipment

Los Angeles County will benefit from large increases in trade in electronics, machinery and precision instruments. Projected gains to the electronics sector exceeds \$8.2 billion over 10 years.

Economic Impact of Increased Trade: LOS ANGELES COUNTY						
Machinery & Equipment:						
2008 U.S. \$ millions	Electronics	Machinery	Motorized Vehicles	Precision Instruments	Transport Equipment	Total
5 Year Impact	2,677.08	698.30	78.36	289.86	60.70	3,804.29
10 Year Impact	8,234.35	1,860.60	201.63	823.47	161.77	11,281.82

Freight Impacts: Santa Clara and Sacramento Counties

Economic impacts for Santa Clara and Sacramento are smaller than San Diego and Los Angeles County, yet still significant, exceeding \$1.2 and \$3 billion total in the 10-year period, respectively, with impacts concentrated over 90% the in M&E sector.

Economic Impact of Increased Trade: SANTA CLARA COUNTY						
Impact Values by Freight Category:						
2008 U.S. \$ millions	Agriculture	M & E	Manufactures	Mining	Other	Total
5 Year Impact	17.6	371.9	20.7	2.3	0.1	412.6
10 Year Impact	44.0	1,139.5	54.8	5.6	0.2	1,244.1

Economic Impact of Increased Trade: SACRAMENTO COUNTY						
Impact Values by Freight Category:						
2008 U.S. \$ millions	Agriculture	M & E	Manufactures	Mining	Other	Total
5 Year Impact	2.1	90.4	2.1	0.4	0.5	95.6
10 Year Impact	5.1	289.8	5.6	0.9	1.4	302.8

The machinery & equipment sector accounts for the bulk of economic impact in Santa Clara County. Electronics accounts for all machinery & equipment flows for Sacramento County.

Manufacturing

Sacramento County impacts account for 10% of impacts in Santa Clara County and San Jose City. Moderate gains will be felt among importers of textiles and leather, and Santa Clara furniture importers will realize positive impacts in excess of \$16 million over the 10-year period.

Economic Impact of Increased Trade: SANTA CLARA COUNTY			
Manufacturing:			
2008 U.S. \$ millions	5 Year Impact	10 Year Impact	% Ten Year Total
Chemical prods.	0.49	1.23	2.24%
Furniture	5.76	16.38	29.87%
Meat/seafood	0.07	0.18	0.32%
Milled grain prods.	0.20	0.47	0.86%
Paper articles	0.66	1.61	2.94%
Plastics/rubber	1.87	4.76	8.68%
Printed prods.	0.23	0.55	1.01%
Textiles/leather	8.34	21.66	39.51%
Wood prods.	0.39	0.96	1.76%
Other	2.73	7.03	12.81%
Grand Total	20.73	54.83	100.00%

Economic Impact of Increased Trade: SACRAMENTO COUNTY			
Manufacturing:			
2008 U.S. \$ millions	5 Year Impact	10 Year Impact	% Ten Year Total
Chemical prods.	0.07	0.18	3.30%
Furniture	0.10	0.29	5.24%
Nonmetal min. prods.	0.13	0.33	5.89%
Paper articles	0.09	0.23	4.08%
Printed prods.	0.05	0.13	2.33%
Textiles/leather	1.31	3.41	61.38%
Other	0.37	0.99	17.79%
Grand Total	2.14	5.55	100.00%

Conclusion

The positive economic impacts of the new POE at Otay Mesa East are estimated to exceed \$31.6 billion over the first 10 years of operation from 2015-2024, with \$29.1 billion from increased output due to enhanced freight crossing and \$2.5 billion from enhanced personal vehicle crossing. The largest impacts will go to the machinery & equipment sector, with most of that to be realized in electronics (\$19.7 billion). Additional personal vehicle traffic and less time waiting will most significantly impact San Diego's retail sector (\$1.2 billion). These impacts will continue and likely grow beyond the period studied. Clearly the gains far outweigh the expected construction costs, even at the high end, of \$660 million.

As the process of realizing a POE at Otay Mesa East progresses, support from citizens, businesses and local governments is needed to maintain political will and momentum. Additional studies may wish to assess the optimal number of lanes, alternative POE configurations and the impact that technology will have on further reducing wait times. This study assumed a configuration and technology level similar to the current Otay Mesa POE based on the information available at the time of writing. As the project takes shape, additional configuration details will emerge that will allow for further study.

Forecasting complex economic phenomenon 17 years into the future is inherently challenging. The estimates provided herein operate on a number of simplifying assumptions that may or may not hold true. While the numbers in this report represent the authors "best guess," it should be kept in mind that there exists a considerable range of uncertainty around these predictions.

Where appropriate, the authors have taken a conservative approach in estimation and certain impacts are not included in our analysis. The long run effects of reduced wait times and lower freight costs will possibly lead to investment in the border region that may have otherwise gone elsewhere as competitive advantages in yet unknown industries could be realized.

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