Overview
SANDAG, the California Department of Transportation (Caltrans), and the Imperial County Transportation Commission (ICTC) have completed the “Impacts of Border Delays at California-Baja California Land Ports of Entry study.” This study estimates the economic and air quality/climate impacts caused by border delays at California-Baja California ports of entry (POEs): San Ysidro-Puerto México, Otay Mesa-Mesa de Otay, Tecate-Tecate, Calexico West-Mexicali I, Calexico East-Mexicali II, and Andrade-Los Algodones. This study is funded through federal and state grants.

The Need
California and Baja California share a 150-mile long international border. The population of San Diego and Imperial Counties and the State of Baja California reached nearly 7 million in 2016. The close proximity between cities on both sides of the border has resulted in interdependent relationships including shared economic and environmental concerns, border infrastructure, and a linked transportation system, among many others.

However, long wait times to cross the border and limited infrastructure capacity continue to create congestion. Idling vehicles impact air quality and economic drivers such as trade, cross border commuting, goods movement, linked industries, and manufacturing, are hampered.

Findings from previous studies estimated that border crossing delays cost billions in foregone gross output and thousands of jobs in both the U.S. and Mexican economies on an annual basis.

In the decade since previous studies estimated economic impacts of border delays along the California-Baja California border, key developments have changed the dynamics of border crossings including: the Great Recession, which created significant impacts on the local and regional economies, increases in trusted traveler program participation (e.g. SENTRI program), and the adoption of technologies (e.g. RFID enabled documents). In addition, recent investments in border infrastructure have resulted in efficiencies.

The current study is the first of its kind to analyze both the economic and air quality/climate impacts of border wait times along the entire California-Baja California border region.

Analysis and Key Findings
Much of the data for the analyses was gathered through an extensive survey effort which resulted in 11,000 surveys on travel behavior characteristics and emissions-related information; more than 12,000 direct measurements of border crossing times; and qualitative information from interviews with crossborder businesses.

Coordination with U.S. Customs and Border Protection helped refine key assumptions for POE operations, and the methodologies for estimating economic and emissions impacts were reviewed by a binational group of experts representing government, industry, and academia.

The analyses found that border delay impacts in the base year (2016) resulted in losses of $3.4 billion in economic output and more than 88,000 jobs to the combined U.S. and Mexico economies. Border delays also (Continued on reverse)
resulted in an average of 457 metric tons of CO₂ emissions per day. The study evaluated future scenarios in the years 2025 and 2035 that considered investments to border transportation infrastructure, which indicated positive impacts resulting from those investments.

**Final Report Volume(s)**

More study findings, as well as recommended strategies for reducing delay are included in the Final Report which is comprised of three volumes. Volume 1 provides a study overview and summary of both the Economic Impact and Air Quality Emissions/Climate Impact Analyses. Volume 2 describes the methodology, key inputs, assumptions, and results inherent to the economic impact analysis. Volume 3 describes the methodology, key inputs, assumptions, and results inherent to the air quality emissions/climate impact analysis.

**For More Information**

Visit [sandag.org/borderdelays](http://sandag.org/borderdelays) or contact the Project Manager Rachel Kennedy at (619) 699-1929 or rachel.kennedy@sandag.org.