

## **Input-Output Based Cluster Method to Identify Traded Industry Clusters in the Cali-Baja Binational Mega-Region**

Topic: Crosshauling in regional models

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This paper presents the methodology and results of a binational industry cluster study developed using a multi-regional economic input-output (I-O) model developed for the Cali-Baja Binational Mega Region, which comprises San Diego County (California), Imperial County (California), and Baja California (Mexico). The study identifies export oriented industry clusters among 189 industry sectors based on inter-industry input-output interactions (i.e., intermediate transactions). The study begins with a location quotient analysis to first identify industries within the Mega-Region with a strong comparative advantage over the US and Mexico economies as a whole. Those industries with the largest location quotients are selected as initial cluster seeds. We then apply a distance based hierarchical clustering technique to map industry sectors to corresponding seeds based on inter-industry transaction magnitudes from the input output model. Our findings suggest that there are approximately 19 major industry clusters that are economic drivers of the Mega-Region. The identification of these industry clusters will serve a multitude of regional economic and employment development efforts. This analysis will provide analytical support in planning long-range public infrastructure investments, as well as identify opportunities for improvement in cross-border goods movement.