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Modeling El Paso-Juarez Illicit Drug Networks

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Abstract: In 2013, El Paso, TX, was selected for the third time in a row by the Congressional Quarterly Press as the number one safest city with a population over 500,000 people (Borunda, 2013). Just across its border though, sits Ciudad Juarez, considered one of the most dangerous cities in the world. There is a unique social ecosystem between the two cities, a product of many years of shared history and traditions. The El Paso-Juarez area also happens to be one of the most valuable plazas for the Mexican Drug Cartels. According to BBC Mundo, the Sinaloa Cartel has won the El Paso-Juarez territory over the Juarez Cartel and the Zetas (Najar, 2012). Consequently, now that the territory is dominated by one cartel, drug trafficking through the area will likely increase and smuggling through border crossing check points will continue to be more prevalent. The purpose of this research effort is to assist the Border Patrol in allocating its resources towards improved interdiction of illicit trafficking. Whether it is manpower, money, technology, or any other resource, the Border Patrol desires to efficiently allocate to maximize interdiction. This analysis is intended to suggest a tool that will assist in allocating resources and aid the extremely important effort to maintain El Paso, TX, as the safest city in the U.S. by keeping drugs away from the streets. This research presents a network flow model of the complex illicit trafficking network operating in the El Paso-Juarez area, and provides insight that will aid such agencies as the Border Patrol in allocating its resources.

Keywords: Illicit Trafficking, El Paso, Juarez, Border Patrol, Network Flow, Drugs