Working papers economics - Spatial Mobility, Economic Opportunity, and Crime

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Neighborhoods that initially had high crime rates, and that were connected to the cable cars experience a significant decrease in the likelihood that their residents engage in criminal activities, and this change is proportional to the reductions in travel time provided by the new infrastructure.

Publication Date: Wednesday, 10 of December 2025 **Approach**
This document seeks to quantify the benefits of improving connectivity between segregated and low-income neighborhoods and the rest of the city, in terms of the greater opportunities they would have—particularly in the labor market—and the potential costs for the rest of the city due to a possible increase in crime rates, stemming from residents of those neighborhoods traveling to commit crimes.

We use a novel individual-level database based on several administrative records from Medellín, which includes the origin and destination of both employees and criminals. The construction of several cable car lines of the Medellín Metro is leveraged to show how access to stations connected by these cables reduces participation in criminal activities and increases formal employment. Event studies are estimated, and several parameters are identified to feed a general equilibrium model that simulates individual decisions on where to work and whether to engage in criminal activities, incorporating effects on both the legal and illegal sectors.

Contribution
The article contributes to the crime literature regarding the link between labor market opportunities and criminality (Becker, 1968; Blattman et al., 2022; and Sviatschi, 2022), by examining—through reduced-form and general equilibrium models—how investment in transport infrastructure, by connecting segregated neighborhoods, affects both the distribution and level of crime in the city. Our general equilibrium model (Tsivanidis, 2023; and Zárate, 2023) also accounts for externalities between the legal and illegal sectors, identifying cases where connectivity reduces crime and others where it increases it. Finally, the article documents that reducing employment segregation by connecting poor and marginalized neighborhoods to job opportunities in other parts of the city, can have significant impacts on criminal activity.

Results
Neighborhoods that initially had high crime rates, and that were connected to the cable cars experience a significant decrease in the likelihood that their residents engage in criminal activities, and this change is proportional to the reductions in travel time provided by the new infrastructure. These residents gain access to

employment opportunities that discourage involvement in crime, while those who continue committing crimes can travel more frequently to commit offenses in distant neighborhoods. This phenomenon is one of the reasons why, in several parts of the world, expansions of public transportation have faced opposition. The shift from criminal activities to formal employment among residents of neighborhoods connected by cable cars explains approximately 30% of the welfare gains derived from the new infrastructure. Overall, although some neighborhoods see an increase in crime rates, the city as a whole experiences reductions in crime and significant improvements in welfare.

Fuente: https://www.banrep.gov.co/en/publications-research/working-papers-economics/spatial-mobility-economic-opportunity