

## LIGHT RAIL SYSTEMS AND CRIME REDUCTION

The construction of new light rail transit lines is sometimes met by concerns that such lines might increase crime rates in neighborhoods. The following is a review of published works on this subject. Although information on crime on transit systems can be found, virtually no data exists that specifically relates crime levels to neighborhoods near stations.

### ***Published Works***

**Literature shows that transit crime is highly correlated with the general crime rates for the neighborhood in which the station is located.** A criminal tends to commit crime close to home because he does not have a mental map of and is not familiar with unknown neighborhoods. A combination of different physical attributes of the neighborhood and social attributes of the community members in the neighborhood impact crime at a station as shown below.

<b>Factors That Affect Crime</b>	<b>Examples</b>	<b>Affect On Crime</b>
Station Design	lighting, fencing, surveillance cameras, security hardware	Discouragement
Land Use	bars, liquor shops, pawnshops abandoned buildings	Attraction
Neighborhood Conditions	deteriorating buildings, graffiti, litter, vagrants, prostitutes	Attraction
Population Characteristics	population density, income levels, age compositions, education, unemployment	Attraction

### **A Case Study: The Green Line (Liggett et al., 2002)**

The Green Line is a light rail line that runs 19.6 miles from Norwalk to El Segundo in Los Angeles County. The line has 14 stations and passes through diverse communities in terms of their land use and socio-demographic characteristics: affluent suburban neighborhoods at the west, inner city neighborhoods in the middle, and middle class families on the east end.

Crime rates along the Green Line corridor vary significantly. At the west end, crime rates are low. In its middle section, crime rates are high. At the east end, crime rates are low to average. The fact that the Green Line passes through both high-crime inner city areas and low-crime suburban areas makes it a good test case.

The result of the study indicated that **“Overall, most station neighborhoods have either experienced no change or have witnessed a *reduction in crime* after the introduction of the Green Line.”**

“Transit has certainly not brought more crime to the affluent suburban areas . . . We were also unable to notice a relationship between hot spots of crime and proximity to a transit station . . . it seems clear that criminals have not used the Green Line to access potential targets, miles away”.

### **Additional studies support the findings of the Green Line Study:**

- An analysis of burglary trends before and after the opening of two MARTA stations in suburban Atlanta found no evidence to suggest that burglaries have increased after the opening of the stations.
- A study of crime patterns before and after the opening of the Blue Line in Los Angeles found that in most station areas the introduction of the light rail has *reduced crime* incidence in the immediate station neighborhood.