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Chapter XVIII

Measuring Crime in and around Public Housing Using GIS

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Abstract

For many people, the phrase "public housing" conjures up images of serious violent crime. However, the neighborhood surrounding public housing may be a greater factor in crime than the housing itself. Because most police departments do not routinely keep statistics on small parcels of land like public housing developments or neighborhoods, measuring the incidence of crime in public housing has proved difficult. Consequently, there is little hard evidence with respect to whether public housing is more or less crime-ridden than the neighborhoods that surround it. This chapter explores the application of geographic information systems (GIS) technology in measuring reported crime levels in and around public housing developments. GIS technology was used to extract crime counts from police

data bases of reported incidents for (1) public housing developments and (2) the surrounding neighborhoods. Rates of reported Part I crimes in public housing developments are compared with those in the surrounding neighborhoods and in the respective municipal jurisdictions. Odds ratios are used to compare the risk of victimization in public housing with that in the respective neighborhood and municipal catchment zones. The GIS-based analysis of reported crime in and around public housing communities reveals that risk of falling victim to aggravated assault in public housing communities is much higher than in the surrounding neighborhoods or in the parent jurisdictions as whole. Conversely, risk of property crimes such as burglary, larceny and car theft appears to be much lower. These crime patterns are discussed in the context of routine activity theory.

Introduction

Today, over two million people reside in public housing in the United States. Public housing in America has long been recognized as the housing of last resort for the poorest of our fellow citizens (President's Commission on Housing, 1982). Much has been written in both scholarly journals and the popular press about the problem of crime in public housing, but relatively little substantive information is available with respect to crime rates in public housing developments. The absence of such data has thwarted efforts to rigorously evaluate crime prevention initiatives in public housing developments. This chapter describes the methodology and findings of a three-city study of the application of geographic information systems (GIS) technology to measure reported crime levels in and around public housing developments, using counts of reported crimes extracted from official police databases.

Public Housing: Uncharted Islands in Stormy Seas

Since the late 1970s, a body of research on crime in public housing has begun to take shape, funded in large part by the federal government through the U.S. Department of Housing and Urban Development (HUD) and the National Institute of Justice (NIJ). Collectively, these studies present a picture of deeply troubled communities, beset by disorder and violent crime (Newman, 1972;

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