Journal of Urban Economics 88 (2015) 67–81

Contents lists available at ScienceDirect

Journal of Urban Economics

www.elsevier.com/locate/jue

Blowing it up and knocking it down: The local and city-wide effects of demolishing high concentration public housing on crime ☆

Dionissi Aliprantis, Daniel Hartley *

Federal Reserve Bank of Cleveland, USA

ARTICLE INFO

Article history:
Received 27 December 2013
Revised 1 June 2015
Available online 10 June 2015

JEL classification:
I38
R20

Keywords:
Public housing
Crime
Poverty

ABSTRACT

This paper estimates the effect that the closure and demolition of roughly 20,000 units of geographically concentrated high-rise public housing had on crime in Chicago. We estimate local effects of closures on crime in the neighborhoods where high-rises stood and in proximate neighborhoods. We also estimate the impact that households displaced from high-rises had on crime in the neighborhoods to which they moved and neighborhoods close to those. Overall, reductions in violent crime in and near the areas where high-rises were demolished greatly outweighed increases in violent crime associated with the arrival of displaced residents in new neighborhoods.

1. Introduction

Large public housing developments, particularly those with high-rise buildings, have had a reputation as epicenters of crime and gang activity. This reputation developed from the mid-1970s through the mid-1990s as many large public housing developments originally built in the 1950s and 1960s became infamous for extremely high levels of poverty, poorly maintained units, and dangerous living conditions. In the 1990s, policymakers began to take measures aimed at changing public housing in ways that would reduce the concentration of poverty and thus reduce the negative externalities associated with concentrated poverty, including high crime.

However, the size and even the direction of the overall effect of de-concentrating public housing on city-wide crime have, to this point, remained unknown. On one side, researchers have postulated that in the presence of non-linearities in the relationship between neighborhood poverty rates and crime, spreading poverty more evenly throughout a city could lead to overall reductions in crime (Turner et al., 2007).[1] Critics fear that crime will simply be displaced to the neighborhoods where former public housing residents move (Rosin, 2008).[2]

We use a change in federal policy to measure the effect of public housing de-concentration on crime. The policy (known as HOPE VI) made grants available for (and in some cases required) local public housing authorities to demolish and revitalize large public housing developments. We study the effects of this program in Chicago, where it led to the demolition of roughly 20,000 units of high-rise public housing and the relocation of the former residents to either private market housing (through the use of vouchers) or low-rise public housing (not slated for demolition), either

☆ The authors would like to thank seminar participants at Kent State, the Federal Reserve Banks of Chicago, Cleveland and New York, Oberlin College, the Ohio State University, Queen's University, and the Urban Economics Association Meetings (Miami, November 2011). This and previous drafts of the paper have benefitted from the authors' interactions with David Card, Tim Dunne, Ingrid Ellen, Brad Hunt, Brian Jacob, Patrick Kline, Jeffrey Lin, Jens Ludwig, Enrico Moretti, Giorgio Topa, Philip Oreopoulos, Stephen L. Ross, John Quigley, and Wesley Skogan. All errors are our own. The opinions expressed are those of the authors and do not necessarily represent the views of the Federal Reserve Bank of Cleveland or of the Board of Governors of the Federal Reserve System.

* Corresponding author at: Federal Reserve Bank of Cleveland, Research Department, PO Box 6387, Cleveland, OH 44101-1387, USA.
E-mail address: daniel.hartley@clev.frb.org (D. Hartley).

[1] Throughout this paper we use the terms neighborhood and geographical area to refer in general to Chicago community areas, Census tracts, Census block groups, and Census blocks. When necessary, we specify to which of these we are referring.

[2] There is a large literature concerned with negative externalities that arise from concentrated poverty (see Wilson, 1987; Massey and Denton, 1993; Sampson, 2012). Empirically, the causal link between concentrated poverty and crime has been harder to establish (see Durlauf, 2004; Heller et al., 2011) for overviews.

http://dx.doi.org/10.1016/j.jue.2015.06.002
0094-1190/

permanently or temporarily until new mixed-income developments went up where high-rise developments were demolished.[3]

Estimating the effect that this massive demolition and relocation program had on crime throughout the city is challenging because it requires measurement of the effect that closing and demolishing high-rise public housing developments had on their immediate and nearby neighborhoods, as well as the effect that displaced former high-rise residents had on the neighborhoods to which they moved. We overcome these challenges by using detailed data on the address and timing of the closure of almost every non-senior-citizen high-rise public housing building in Chicago prior to demolition. We track households displaced by the demolitions using administrative data from credit report histories showing how their Census block of residence changes over time. Finally, we use geographically detailed, Census block-level data on types of crime as outcome measures.

The key assumption for identification is that the timing of closures is not correlated with crime trends. We provide evidence showing that high-rise buildings with lower occupancy rates in 1990 were likely to be closed earlier than those with higher occupancy rates. However, there appears to be no relationship between levels or trends of crime prior to closure and the order in which buildings were closed. We also show evidence of similar pre-existing trends in crime in blocks that were selected by displaced public housing households and in blocks with similar characteristics. This alleviates the concern that households may be selecting neighborhoods based on pre-existing trends which would lead us to conflate these trends in crime with changes to crime that are due to the arrival of the displaced households.

Overall, reductions in violent crime in and near the areas where high-rises were demolished greatly outweighed increases in violent crime associated with the arrival of displaced residents in and near their new neighborhoods. Our estimates indicate that high-rise closures are associated with large reductions in crime in Census blocks in which the high-rises were located; ranging from a 33% reduction in theft to an 86% reduction in shots fired, relative to crime levels in those blocks in 1999. For most types of crime, these reductions spill over into the Census blocks within a half-mile of the high-rise block, but the reductions are smaller in magnitude, ranging from 7%, for theft, to 40%, for homicide, relative to the 1999 crime levels in these blocks.

We find an increase in crime associated with the arrival of displaced high-rise households in the Census blocks to which they relocate, for about half of the crime types. These effects range from about 2%, for disturbance, to 30%, for gang activity, of 1999 crime levels in these blocks. For the other half of the crime types, we find no effect of displaced households on crime. For assault and battery and burglary, there is also a measurable increase in crime in blocks within a half mile of the blocks where high-rise households relocate. However, these increases represent only 2.5–3.5% of 1999 crime levels in this set of blocks.

Overall, public housing demolitions appear to have had a big impact on homicide, shots fired, and vice and prostitution. Our analysis attributes a drop of between 5% and 10% of the 1999 city-wide levels of these crimes to the high-rise closures. There were smaller, but measurable, drops in city-wide assault and battery, theft, vandalism, and disturbance crimes attributed to public housing closure.

The next section discusses public housing demolition in the U.S. generally and in Chicago specifically. In Section 3, we document the sources of the data used in our analysis. Section 4 presents our identification strategy. We develop our empirical specification in Section 5. Our results are presented in Section 6. Section 7 provides a discussion of the results. Section 8 concludes.

[3] We define high-rises as buildings with 45 or more units sharing a single address. These are typically 8 story or taller buildings with elevators.

2. Public housing demolition

From the mid-1970s through 1992, laws requiring one-for-one replacement of demolished units in order to qualify for HUD funding made demolition of public housing a prohibitively expensive option for local public housing authorities. However, after severe funding cuts during the 1980s, much of the public housing stock was in need of repair. In October 1992, a new housing bill and HUD appropriations bill changed the law to make funding available for demolition and redevelopment of distressed public housing developments. The program created by the law eventually became known as HOPE VI (the sixth iteration of a program identified by an acronym for "Housing Opportunities for People Everywhere").[4] One of the objectives of the HOPE VI program is to "provide housing that will avoid or decrease the concentration of very-low-income families."[5]

During the period from 1993 through 2006, the HOPE VI program awarded the Chicago Housing Authority (CHA) $258M in revitalization grants (representing 4.4% of the total). The CHA received an even larger share of the demolition grants. Of the 127 housing authorities awarded demolition grants from 1996 through 2003, the CHA received $83.4M earmarked for 12,500 units of public housing, representing about 21% of the total HOPE VI demolition grants awarded.

The scope of the HOPE VI program was broadened when, in 1996, the United States Congress passed a law that required local housing authorities to remove any units from their stock that cost more to maintain than the combined cost of demolition and provision of voucher-based private sector rental assistance (known as Section 8 Vouchers or Housing Choice Vouchers). As a result, in 1998, the CHA announced that all of Chicago's gallery-style high-rise public housing developments had failed the viability test and were slated for demolition. In February 2000, the CHA's Plan for Transformation was approved by HUD. The plan called for the demolition of roughly 22,000 units of public housing out of an existing stock of about 40,000 units. The remaining units were to be rehabilitated and an additional 8000 units were to be constructed, leaving the city with approximately 25,000 new or revitalized units by the end of the ten-year plan, equivalent to the number of units that were occupied at the time the plan was drawn up. The proposed redevelopments focused on mixed-income housing employing private developers and management companies.[6] Under the plan, lease compliant households as of 1999 would be given the option of taking private market housing vouchers or relocating to low-rise public housing (not slated for demolition), either permanently or temporarily until new mixed-income developments were completed. The desire to remain lease compliant, and thus continue to receive a housing subsidy, provided a strong incentive to move when the CHA closed buildings (rather than moving preemptively in expectation of building closure).

What led to this drastic policy change in Chicago? Throughout the 1970s and early 1980s, a number of factors contributed to a change in the demographics of the tenants of public housing from a mixture of working-class and poor households to a more

[4] Polikoff (2006). HOPE VI program information is available at: http://www.hud.gov/offices/pih/programs/ph/hope6/about/.

[5] Popkin et al. (2002).

[6] More information on the CHA's Plan for Transformation can be found at http://www.thecha.org/transformplan/files/plan_for_transformation_brochure.pdf. Rosenbaum et al. (1998) study Lake Parc Place, one of the first low-income public housing developments in Chicago that was converted to mixed-income housing.