LIHTC-funded Projects in Los Angeles: Are They Concentrated in High-Poverty Census Tracts?

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Introduction
The scarcity of affordable housing in Los Angeles is a well-documented problem facing policy makers and city planners. According to one recent study, almost 60% of renters in the Los Angeles metro area face a “cost burden,” defined as spending more than 30% of their monthly income on rent, while another study calculates that the county’s affordable rental deficit stands at more than 500,000 units. One of the root causes of the affordability problem is that the supply of housing, particularly housing for middle- and low-income persons, has not kept up with demand for decades. The state Legislative Analyst’s Office estimates that from 1980 to 2010 the housing stock in Los Angeles grew by about 20%, compared to an average increase of 32% for coastal metro areas in the state and average growth of 54% in all U.S. metro areas. One of the key factors constraining supply is the lack of sustained, reliable funding sources for building affordable housing, which requires significant subsidies given the high cost of land and construction in the state.

Given the lack of a permanent source of funding for affordable housing, one of the most important financing tools used by developers is low-income housing tax credits (LIHTC), a program through which the federal government provides a dollar-for-dollar tax credit to entities that invest in affordable housing complexes. In California, the program is administered by the California Tax Credit Allocation Committee, which has allocated $18 billion in tax credits for low-income housing investments since 1987, creating and preserving more than 4,300 rental complexes in that time.

Despite the key role of tax credit financing in building affordable housing, some have criticized the program for contributing to income segregation by awarding the majority of its funding to projects located in high-poverty neighborhoods, perpetuating the cycle of poverty, for example, by limiting access to high-quality schools. Another study of LIHTC programs in New York found that they have failed to expand the choices available to low-income people in terms of deciding where to live, and in doing so, they “run afoul of the duty to affirmatively further fair housing under the Fair Housing Act.”

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1 Joint Center for Housing Studies, Harvard University. “America’s rental housing: Expanding options for diverse and growing demand.” http://www.jchs.harvard.edu/americas-rental-housing
3 “California’s High Housing Costs: Causes and Consequences.” Legislative Analyst’s Office, March 17, 2015.
Research Question
In light of these criticisms, the question I sought to answer using GIS is the following: Are LIHTC-funded affordable housing projects evenly distributed throughout the city of Los Angeles or are they concentrated in high-poverty census tracts? In an era in which income segregation is an increasing concern, GIS is an essential tool for conducting the kind of spatial analysis that can’t be performed with a list of addresses and zip codes. Depending on how sophisticated the map is, it can provide a preliminary answer to the question and indicate where more in-depth research is warranted.

Research Data
This mapping project uses the following data:

- US Census data on the percentage of the population in poverty at the census tract level in the city of Los Angeles;
- US Census data on median home value at the census tract level in the city of Los Angeles; and
- CTCAC data on LIHTC-funded housing projects placed in service in the city of Los Angeles since 1987 (when the program began).

The shapefiles used are:

- Los Angeles legal city boundary shapefile, obtained from ArcGIS Online; and
- 2010 Los Angeles County census tract shapefile, obtained from the LA County GIS Data Portal, which was clipped to show only census tracts within the city of LA boundary.

The US Census poverty data was obtained from the American Fact Finder web site, specifically the American Community Survey (ACS) 2014 5-year estimates of “Poverty Status in the Last 12 Months,” which is calculated by dividing the number of people in poverty in a given geographical area by the total population in that area, to derive a percentage. For my purposes, I used the data at the census tract level, which downloads as a csv file which I then converted to Excel. I created new columns for census tract number and poverty percentage to format the data so it could be joined to the census tract shapefile.

The median home value was also obtained from American Fact Finder, again using the ACS 2014 5-year estimates of “Median Value (Dollars)” for owner-occupied units. The median home value data is meant to be an approximation of land value, which represents a significant portion of the cost of housing development.

The other set of data contains the addresses of 763 LIHTC-funded projects built or rehabbed in the city of Los Angeles since 1987; an Excel spreadsheet with this data was obtained from the California Tax Credit Allocation Committee web site. It wasn’t necessary to create an

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7 http://www.arcgis.com/home/item.html?id=77f61d02dedf4e858ab8af36e7cdd35a
8 http://egis3.lacounty.gov/dataportal/
9 http://www.treasurer.ca.gov/ctcac/projects.asp
address locator for the geocoding, since the LA County CAMS Address Locator\(^\text{10}\) was already available on the LA County GIS Data Portal. However, I did encounter a problem with the geocoding, as each time I attempted to geocode the addresses (after adding the table to the map), I received a message that “There was an error processing the table.” I attempted to run the geocoding process after removing unnecessary columns from the table, to no avail. I was assisted by Bonnie who was able to run the geocoding process after converting the data to a dbf file. Of the 763 records, 77 could not be matched, resulting in a total of 686 records.

**Data Limitations**

There are several limitations to the data used in this study. First, while the data on affordable housing complexes awarded tax credit funding covers a 28-year period from 1987 to 2015, the U.S. Census’ 2014 5-year poverty estimate reflects only 5 years of data collected from 2010 to 2014. It is possible that the poverty percentages for the census tracts included in this study have changed since the 1980s, so that today’s poverty percentage figures do not represent actual poverty percentage figures when the projects were placed in service. This limitation could be addressed by mapping LIHTC projects placed in service in different years against the census tract poverty data from each year. However, this would have required additional data processing that was not possible given the time available.

A second limitation of the data is that as the map shows, many LIHTC-funded projects are located on streets that are boundaries between census tracts. While technically it is possible to locate each complex in a specific census tract, in reality poverty patterns are more fluid than the census tract boundaries would suggest. Therefore, it might be helpful to drill down even further to the census block level.

A third limitation is that, as mentioned previously, 77 records could not be matched, resulting in an incomplete set of data. Some of the unmatched records may correspond to LIHTC projects located in census tracts with low poverty percentages or high median home values, such that the number of projects in those census tracts is actually higher than what appears on my map.

With unlimited time and resources, I would look more closely at the LIHTC projects in census tracts with lower poverty rates and higher median home values to determine whether they do in fact represent anomalies (and what factors might have contributed to making them possible despite a challenging development environment), or if those census tracts have been undergone gentrification since those projects were placed in service (in other words, look at changes in median home value since they were placed in service). It would be particularly interesting to look at the number of units funded by tax credits in downtown LA over the past three decades to ascertain whether the pace of affordable housing development has changed in response to the area’s “revitalization,” which has raised the median income in the area and made it more attractive to market-rate real estate developers.

Another issue that needs more in-depth exploration is the link between affordable housing and availability of public transportation, particularly light rail. The lack of public transit

\(^{10}\) [http://egis3.lacounty.gov/dataportal/2015/05/11/la-county-cams-address-locator/](http://egis3.lacounty.gov/dataportal/2015/05/11/la-county-cams-address-locator/), I followed the very helpful instructions on this page for adding the locator into ArcMap.
options in higher-income census tracts in Los Angeles may explain why they do not have many LIHTC-funded project, since one of the components of the LIHTC scoring program is proximity to transportation. It would be interesting to look at LIHTC developments, by year, in areas where LA Metro light rail has been built out over the last 25 years to determine whether expanded transportation alternatives have spurred affordable housing development.

Conclusions

**LIHTC and poverty:** The map of LIHTC-funded developments in the City of Los Angeles (p. 5) shows that they are heavily concentrated in census tracts with poverty rates of 22.4% or higher (orange tracts); 22.4% is the estimated poverty rate for the city (2014 5-year estimates, U.S. Census\(^{11}\)). In contrast, only a few LIHTC-funded complexes are located in census tracts with poverty rates below 22.4%. As a result, tax credit projects are clustered in the eastern and southern parts of the city, with a small cluster in the San Fernando Valley, while the west side of the city is practically devoid of them. There are only about 20 complexes located west of La Brea Avenue, considered by many to be the dividing line between the western and eastern parts of the city. Moreover, only 17 of the roughly 100 complexes located in the San Fernando Valley, with a population of 1.8 million, are in census tracts with poverty rates above the county average; of the 17, seven are located in the Sherman Oaks area near the 101-405 interchange.

The densest clusters of LIHTC-funded complexes are found in the following parts of the city:

- downtown Los Angeles, where the census tract containing Skid Row is home to at least 20 such complexes (see map, p. 6);
- just west of downtown: neighborhoods north of Highway 10 and south of Highway 101 (Westlake, Pico Union, Koreatown) (see map, p. 6);
- South Los Angeles, particularly along the Highway 110 corridor (see map, p. 7); and
- the San Fernando Valley: North Hills and Panorama City (especially along the Highway 405 corridor), as well as small clusters in Van Nuys and Canoga Park.

**LIHTC and median home value:** The concentration of LIHTC projects in high-poverty census tracts in Los Angeles may reflect a number of factors, including the high cost of land in the high-income census tracts. Higher land costs significantly increase development costs, a deterrent for affordable housing developers given that the low rents to be charged are insufficient to cover construction and operating costs.

As shown in the map on page 9, there appears to be a correlation between location of LIHTC-funded projects and median home value in Los Angeles, closely mirroring the correlation of LIHTC projects to census tract poverty percentage. Only a small number of LIHTC projects are located in census tracts with home values above the citywide median, and of those, many are in census tracts just west of downtown in the Westlake/Koreatown area, which is undergoing increasing gentrification pressure\(^{12}\). Once again, the LIHTC competitive scoring


\(^{12}\) “Affordable Housing and Gentrification Near Transit: Case Studies in Housing Policy and Impacts in Los Angeles,” a report prepared by students in PPD 531, a studio course at University of Southern California, Price School of Public Policy, July 2012.
system itself may deter project developers from low-poverty areas, because it favors locating complexes in communities that demonstrate a need for low-income housing. It would be difficult for a developer to demonstrate need in a census tract in which median home values are high, as low-income groups will have already been excluded from those areas because of their low affordability.

The LIHTC program is a product of the generally laissez-faire approach to developing affordable housing that has prevailed in the United States since the discrediting of government investment in large-scale urban redevelopment projects in the mid-20th century. The LIHTC was approved in 1986 largely because its market-based approach, which provides tax incentives to attract private capital to affordable housing development, was able to gain bipartisan support. According to most estimates, in that period it has contributed to the development of more than 2 million units of housing throughout the country.\(^\text{13}\) However, while the program has financed thousands of units of housing in Los Angeles, it does not appear to have made affordable housing development feasible outside areas where low housing values already predominate: the eastern and southern parts of the city and small pockets of the San Fernando Valley. In that sense, it seems to be merely reinforcing the existing market mechanisms in the residential real estate market in Los Angeles by focusing development of affordable housing in low-income areas. However, as property values rise in what have traditionally been lower-income neighborhoods such as Koreatown/Westlake and downtown LA, the ability of those neighborhoods to welcome additional LIHTC projects will be tested, further shrinking the areas of the city where affordable housing is likely to be built.

LIHTC PROJECT LOCATIONS AND POVERTY
CITY OF LOS ANGELES

Census Tract Poverty %, 2014
- N/A
- 0.7% - 22.4%
- 22.5% - 93.1%

LIHTC-funded Housing Projects
- LIHTC-funded Housing Projects
LIHTC PROJECTS, DTLA AND WESTLAKE
DISTRIBUTION OF LIHTC PROJECTS AND MEDIAN HOME VALUE
CITY OF LOS ANGELES

Census Tract Median Home Value
- Below city median ($464,450, Dec. '14)
- Above city median
- LIHTC-funded Housing Projects

Sources: Data: California Association of Realtors, December 2014 Market Report; California Tax Credit Allocation Committee. Shapefiles: LA County