The Impact of the Low-Income Housing Tax Credit on Local Eviction Rates

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**Abstract**

The low-income housing tax credit (LIHTC) program has produced and rehabilitated approximately 3 million rental units for low-income households since it was passed in 1986. It has become the largest and fastest growing federal housing assistance program in the United States. This paper estimates the impact of low-income housing developments on local eviction rates in Virginia from 2000 to 2016. Using the panel structure of the data, a simple two-way fixed effects model is implemented. We find evidence to suggest the LIHTC projects do not significantly affect the eviction rates of any county or independent city.

**1. Introduction**

Low-income housing assistance is a core part of United States welfare policy. Poverty and homelessness represent only several of the outcomes that U.S. low-income housing assistance attempts to alleviate and end. However, many housing assistance programs are often under scrutiny for efficiency, cost, and political reasons.

Based on Point-in-Time (PIT) counts in January 2018, approximately 500,000 individuals experienced homelessness in the United States on a single night.[[1]](#footnote-1) From 2000 to 2017, median sales prices of houses sold in the United States grew 104.4% while income only grew by 46.2% in comparison to an inflation rate of 42.35%.[[2]](#footnote-2) With housing costs increasing faster than incomes, moderate to low income households face more difficulty finding quality housing. Housing instability has steadily increased in the last 20 years, with significant increases after the 2008 recession.

Since the 1980s demand for rental properties has increased, but the supply of affordable and available housing has not kept up. In 2019, the U.S. only had 37 affordable and available rental units for every 100 extremely low-income households. 71% of these extremely low-income households spent more than half of their incomes on rent and utilities alone.[[3]](#footnote-3) In context the recommended maximum share of income to be spent on rent and utilities is 30 percent. Spending more than 30 percent of pretax income on renting is defined as being “rent-burdened.” This gap of affordable housing has forced many households to become rent burdened by moving into unaffordable housing. Low-income households face housing instability primarily because of a lack of income or unaffordable high cost of housing. The average duration of rent burden has increased to 3 years. During that period any larger than anticipated increases in rent or a sudden change or loss in income could lead to an eviction and the loss of a home. There is a need for not only more cost-effective programs, but also programs that will simply provide additional housing to many of the poorest of people currently without it.

The number of evictions has increased since 2000. Nearby LIHTC units could influence the number of eviction filings and evictions. One direct mechanism is that by increasing the affordable housing stock, more low-income households can pay rents less than 30% of their income. If the family, a cost-burdened household, dedicated over 50 percent of their income towards rent and utilities, the likelihood they would miss a rent payment and be evicted is high. All else constant, the probability of missing rent payments decreases if the cost of housing decreases. Without missing rent payments, landlords and property owners evict less and less tenants. Landlords receive the rent they are due and tenants get to live at a rental unit without facing a high potential of eviction over their heads.

The purpose of this paper is to examine the effects of low-income housing developments subsidized by the Low-Income Housing Tax Credit on local evictions in the United States. We combine two data sources to create a panel dataset of 133 counties and independent cities in the state of Virginia by spatially merging 959 different LIHTC projects to these different localities. The variation between the number of low-income housing units in each locale to estimate the relationship evictions and LIHTC rental units each year. We do not find results that suggest that the Low Income Housing Tax Credit Project decrease the number of evictions in any locality.

The paper is organized in 5 additional sections. Section 2 describes a summary of economic literature on the effects of the LIHTC program and details the recent increase in evictions. The second half of Section 2 provides a policy background on the LIHTC program in detail. Section 3 describes the data used in the paper while Section 4 presents the methodology and empirical strategy. Section 5 shows results and Section 6 presents the discussion and conclusion of the preceding section.

**2. Background**

**2.1 Economic Literature**

Compared to other means-tested welfare programs, the LIHTC program has significantly less evidence-based studies on its effects. The studies that do exist have suggested that LIHTC projects have mixed effects on important outcomes used in housing policy analysis.

Some of the literature has shown that LIHTC projects do not significantly affect the overall concentration of property **(Ellen et al, 2016).** The paper has a significant caveat in that many LIHTC projects are located in already high-poverty neighborhoods. The effects of projects on the poverty rate of these high poverty areas seemed minimal and insignificant. Assumptions can be made that projects placed in high-poverty areas essentially place households in areas with less job opportunities, poorer quality of schooling, and difficult access to quality medical care.

Evidence from a study on LIHTC projects in Tallahassee finds that the difference between market rent of a unit and the rent paid by the tenant is less hand 37% of the present value of the subsidies to the developers **(Burge, 2011).** This study shows that there is little evidence to support that the program lowers rates substantially for low-income households renting out LIHTC units. If the results from this study are generalized to all LIHTC projects in the U.S. then LIHTC units are rented out at rates only nominally lower than market rents. This potential issue is exacerbated by the affordability requirements of LITHC projects. Low-income housing units created through LIHTC must designate units to serve households who earn less than 60 percent of the area median income. In order to maximize the value from the tax credits, they will serve households right at that margin instead of households with extremely low incomes.

In order to tackle the gap in affordable housing, the housing stock needs to increase. Previous literature has shown that there is significant crowd out of new unsubsidized rental units. For every government subsidized unit created under the LIHTC program, only one-third to one-half of a unit is added to the total housing stock **(Sinai and Waldfogel, 2005)**. Other literature claims up to 100 percent crowd out. **Baum-Snow and Marion (2009)** detail that crowd out is significant in gentrifying areas, but not in stable or declining neighborhoods. If crowd out exists, the potential benefits of adding to the affordable housing stock are diminished.

Several studies look at particular outcomes. The LIHTC program and its effects on crime has presented evidence that in the poorest neighborhoods, LIHTC projects brought significant decreases in violent crime. Non-violent crime saw no significant changes (**Freedman and Owens, 2011**). Other studies have shown that despite community opposition to LIHTC projects in their own neighborhoods, there was no significant evidence to prove that LIHTC projects negatively impact the performance of local schools (**Di and Murdoch, 2013**).

**2.2 Evictions**

Matthew Desmond in his book *Evicted* describes how millions of people are being evicted from their homes – “an eviction epidemic”. His book follows several different families in Milwaukee who lose their homes due to evictions. Evictions have increased significantly since 2000 and are a result of the affordable housing crisis. Evictions have increased not only in large cities like San Francisco or New York, but also smaller city-towns like Richmond, Virginia. A large portion of evictions are targeted at African Americans, specifically black southerners.[[4]](#footnote-4) Many families are only a “car repair or a hospital visit away from missing the rent check.”[[5]](#footnote-5)

The low-income housing tax credit (LIHTC), our policy of interest, incentivizes the provision of rental units for low-income families at rents below market rates by private developers. If more affordable housing is created then more households will pay rents less than market rent at prices affordable to them. The tax credit acts as a subsidy towards improving tenants’ financial condition and this may decrease the likelihood of evictions. Increase in the availability of affordable housing also improves the chances for extremely low-income households to obtain quality housing. Financial instability decreases and negative household income shocks have less of an effect with less income devoted to rent and utilities.

**2.3 Overview of the low-income housing tax credit program**

Since its inception through the Tax Reform Act of 1986, the Low-Income Housing Tax Credit (LIHTC) program has been the United States’ largest and fastest growing affordable housing program. This complex tool is used towards the production and preservation of affordable and available rental housing. The intention of the policy was to incentivize public housing construction that would have otherwise not have been financially attractive to do so. Although the stock of public housing has declined, the share of public housing created through LIHTC has increased. Approximately 2.97 million affordable housing units have been placed in service through LIHTC (Scally et al, 2018).

Current housing assistance programs are dedicated towards rental units. Housing assistance programs fall into three types: public housing, housing vouchers, and privately-owned subsidized projects. The Low-Income Housing Tax Credit falls under privately-owned subsidized projects. Unlike other federal rental housing production programs, LIHTC operates through the federal tax code. Instead of the Department of Housing and Urban Development, the IRS administers the program. Developers apply and potentially receive nonrefundable tax credits. Developers can choose to either offset their own federal income tax liabilities or sell to financial institutions. Private investors are incentivized to make equity investments in affordable rental housing projects in exchange for federal income tax credits – a tax credit to lower federal income tax liability in exchange for project equity.

The Congressional Research Service states that “the process of allocating, awarding, and then claiming the LIHTC is complex and lengthy.”[[6]](#footnote-6) There are two types of tax credits developers can apply for, each with their own allocation processes and awards. The first type, 9 percent tax credit, is typically reserved for new construction and these generally don’t receive any other federal subsidies. For this tax credit, developers must meet certain criteria determined by each state’s Qualified Allocation Plan. Qualified Allocation Plans (QAP) are created and updated annually by each state. The outline of each QAP can determine the quality and characteristics of projects created. Project proposals meet criteria for points and the highest scoring projects are more likely to be awarded tax credits by each state housing finance agency. QAPs can be quite detailed and bog down the allocation process as each proposal goes to great lengths to score every point. The 9 percent credit award process is highly completive and there are often many more proposals submitted than projects selected. The second type, 4 percent, is used for rehabilitation projects and automatically awarded to new construction projects if over 50% of their funding comes from tax-exempt bonds. All qualified projects can apply individually to the IRS instead of the state housing finance agencies. Due to the nature of its application process, there is no ceiling on the total amount the IRS will allocate to all 4% tax credit projects.

With either tax credit, developers must meet several requirements. Developers must choose to meet one of two restrictions on who to serve with the units built or renovated. The program requires either that greater than or equal to 40 percent of the units have to be occupied by tenants making less than 60% of the Area Median Income (AMI) or greater than or equal to 20 percent of the units must be occupied by tenants making less than 50% of the AMI.[[7]](#footnote-7) These income eligibility and affordability requirements are the means of this policy to make rental units more affordable for low-income households. Developers in exchange for this credit or subsidy cap their rents at prices below market rents, essentially creating a rent ceiling. The “affordability” requirement states that rents must be at prices less than 30% of the income of eligible households for 30-year periods since the policy was changed in 1989.[[8]](#footnote-8)

Selected developers receive a tax credit equal to 4 or 9 percent of a project’s cost of construction to be claimed over a 10-year period as soon as the project has been built and placed in service.

An example to understand the LIHTC project construction costs compared to the foregone tax revenue for the federal government. Let there be a new LIHTC project selected by the State of Virginia for a 9% tax credit and constructed by a developer in year 2000. The new affordable housing rental units cost $1 million. The 9% tax credit applied to the $1 million cost of construction produces a $90,000 nonrefundable tax credit a year for 10 years. Assuming a 2.5% interest over the 10-year period, the $900,000 total value of tax credits would have a present value of approximately $700,000 which is relatively 70% of the construction costs. Historically the 9% tax credit has produced a subsidy of around 70% and the 4% tax credit produces a 30% subsidy.

Another important aspect of the allocation process to consider is that there are extra tax incentives available for properties that are located within a qualified census tract (QCT). Tracts that have 50% of households with incomes less than 60 percent of the area median income or the poverty rate is greater than 25 percent can be deemed as a QCT. Every year the HUD determines and releases which tracts with high-poverty receive QCT status. If a project is placed in a QCT than the project is eligible to claim 30% more in tax credits. **(Freedman and Owens, 2011)**.

***3. Data***

The data comes from two sources. The first is administrative data. The Department of Housing and Urban Development maintains the National Low-Income Housing Tax Credit Database that lists all of the LIHTC projects placed in service since the program’s start in 1987 until 2016. The dataset includes 46,544 different properties in the United States. Missing data is a major concern. 7.82% of observations were missing data on the number of low-income units for each project. After deleting cases with missing values for number of units and year placed in service, only 34,767 projects remained. Each observation or property had several variables of interest including street address, total number of low-income units, elected rent and income ceiling, year placed in service, information on other federal or state financial assistance, and whether the project is new production or preservation (rehabilitation). The data available only presents the condition and characteristics of each LIHTC project for the year placed in service. The lack of data on projects throughout their history diminishes the accuracy of the results.

Table 1 presents summary statistics of the LIHTC data. The average dollar amount allocated for each LIHTC project was $391,103.90. The total number of units and the total number of low-income units has a gap indicating not all apartment complexes are 100% full of LIHTC units.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 1**  Summary Statistics of the LIHTC data. (Selected variables of interest) | | | |  |  |  |  |
| Variables | Variable Description | Mean | Std. dev. | | Min | Max | No. of obs. |
| allocamt | Dollar Amount of tax credits allocated | 391103.9 | 314572.19 | | 952 | 3435616 | 46544 |
| n\_units | Total number of units | 91.4 | 72.40 | | 1 | 512 | 46544 |
| li\_units | Total number of low-income units | 87.5 | 67.94 | | 1 | 494 | 46544 |
| inc\_ceil | Elected rent ceiling for low income units | 1.7 | 0.46 | | 1 | 2 | 46544 |
| type | Type of credit percentage | 1.5 | 0.59 | | 1 | 3 | 46544 |
| yr\_pis | Year placed in service | 2005 | 6.26 | | 1988 | 2016 | 46544 |
|  | yr\_pis < 2000 |  |  | |  |  | 18734 |
|  | yr\_pis >= 2000 |  |  | |  |  | 27820 |

*SOURCE:* Department of Housing and Urban Development National Low-Income Housing Tax Credit Database

The second source of data is fairly recent and formatted as panel data. The Eviction Lab at Princeton University led by Matthew Desmond created and aggregated data of 83 million evictions from court records across the United States. From 2000 to 2016, the dataset includes demographic and eviction measures readily available for analysis. This provides an easy measure of evictions. This new availability of data provided an incentive to pursue the topic of this paper and understand the link between LIHTC policy and evictions. Variables of interest include population, percentages of racial groups, median household income, poverty rate, evictions, evictions filed, and eviction rate. This national dataset contains eviction data at the county-level. The impacts of LIHTC projects on eviction rates could be localized. Without knowing more detailed tract-level information, county-level was determined to be sufficient for this analysis. [[9]](#footnote-9)

The two datasets were merged with a two-step process. First, street addresses from the LIHTC database needed to match with county and independent cities from the eviction dataset. The mailing street address provided in the LIHTC database were address-geocoded to place each property within their respective county or independent city. To create a final aggregate data set it was apparent that a restriction needed to be applied.[[10]](#footnote-10) This study focused on the 135 counties and independent cities located within the state of Virginia. Next, for each specific year, the number of low-income units for each property were summed cumulatively for each individual county. Properties placed in service before 2000 were summed in aggregate and assigned to year 2000.[[11]](#footnote-11) This determined the number of LIHTC rental units assigned to each county. There are 959 observations in this final sample that accounts for 83,962 rental units built across the 17-year period.

Table 2 presents summary statistics of the Eviction Lab data for Virginia. The average number of eviction filings and evictions in each county per year are 975.03 and 388.48 respectively. Median household income and median gross rent are $48,236.08 and $728.4 respectively. The average rent burden for counties and independent cities is 27.37% which is below the maximum suggested 30% share of income. The rest of the table provides summary statistics on demographic variables such as percent white or African American and poverty rate.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table 2**  Variable names and summary statistics for the data on Virginia Evictions from 2000-2016 | | | | |  | |
| Variables | Min | Max | Mean | Std.dev | | No. of obs. | |
| Population | 2244 | 1128722 | 57769.89 | 112420.2 | | 2283 | |
| Poverty Rate | 0.76 | 31.35 | 10.71 | 5.52 | | 2283 | |
| Renter Occupied Households | 175 | 131159 | 7291.77 | 14456.74 | | 2283 | |
| Percent Renter Occupied | 7.49 | 65.55 | 29.05 | 12.03 | | 2283 | |
| Median Gross Rent | 318 | 1827 | 728.4 | 280.56 | | 2283 | |
| Median Household Income | 22105 | 123453 | 48236.08 | 18134.18 | | 2283 | |
| Median Property Value | 52500 | 718900 | 170264.2 | 101326.3 | | 2283 | |
| Rent Burden | 14.5 | 50 | 27.37 | 4.66 | | 2283 | |
| Percent White | 15.12 | 99.51 | 73.74 | 17.61 | | 2283 | |
| Percent African American | 0 | 78.57 | 18.95 | 16.53 | | 2283 | |
| Percent Hispanic | 0 | 35.19 | 3.76 | 4.72 | | 2283 | |
| Percent American Indian | 0 | 7.72 | 0.28 | 0.63 | | 2283 | |
| Percent Asian | 0 | 18.31 | 1.64 | 2.69 | | 2283 | |
| Percent Native Hawaiian/Pacific Islander | 0 | 0.9 | 0.04 | 0.07 | | 2283 | |
| Percent Multiple | 0 | 4.3 | 1.46 | 0.88 | | 2283 | |
| Percent Other | 0 | 0.87 | 0.13 | 0.14 | | 2283 | |
| Eviction Filings | 0 | 23285 | 975.03 | 2699.56 | | 2283 | |
| Evictions | 0 | 6478 | 388.48 | 904.02 | | 2283 | |
| Eviction Rate | 0 | 18.13 | 4.04 | 2.87 | | 2283 | |
| Eviction Filing Rate | 0 | 50.53 | 7.89 | 8.37 | | 2283 | |

*SOURCE:* Department of Housing and Urban Development National Low-Income Housing Tax Credit Database

**4. Empirical Strategy**

We use a two-way fixed effects model to estimate the magnitude of the impact of LIHTC units on the eviction rates in counties and independent cities. Instead of taking an OLS regression pooling the data, we run a fixed effects model to eliminate any endogeneity that affect the relationship between evictions and low-income units. Our panel data suggests using county as the unit for our first level fixed effect. Any county specific levels of evictions could be correlated with our independent variable.

We also believed a time fixed effect to be appropriate. The recession in 2008 caused by the financial crisis eliminated a large amount of wealth held by moderate-income households. Immediately after the recession, the number of families facing homelessness increased due to foreclosures and evictions. A model with a yearly fixed effect could soak up any specific time trends that could potentially affect the dependent variable. This situation among many that affects the model and including the fixed effect helps fight endogeneity.

In this panel data model, the treatment variable of interest is the cumulative number of low-income housing units per year while our dependent variable is the number of evictions within a specific county for a specific year. We begin with a very simplified model, a basic OLS non-pooled model, to estimate the impact of our treatment variable of interest, number of low-income units, on the number of evictions.

(1)

The second model, our model of interest, includes several different covariates represented by X.

(2)

The parameter η is for a time fixed effect which will indicate the average differences for all of the observations for a specific year t. The μ controls for averages differences for a specific Virginia county or independent city. β and X represent the covariates within the model we will try to control for. And the outcome and treatment variable of interest γ remain the same. This approach will help control for any other unobserved factors within the panel data.

Additionally, we conduct a lag regression because of the potential issues of estimating the impact on evictions when tenants don’t feel the effects of new affordable housing on their rental housing decisions until a significant time has passed. Most leases are between 6 months and one year. The leasing contract is binding unless the tenants or landlord breach it or the tenant is evicted. Including a one-year lag on the number of evictions allows the model to account for any lag effects from the placement and service of a LIHTC project in a county.

(3)

Other empirical strategies proved to be difficult to implement because of the nature of the data. In the scope of this paper, no discontinuity seemed apparent nor was there a before and after treatment effect for the policy. Future research could easily be dedicated to using tract-level data for a instrument variables approach exploiting the variation between QCT status within counties and tracts.

In the next section, we present the OLS estimates of γ. This empirical strategy identifies the use of the available panel data and attempts to efficiently produce estimates that capture the impact of low-income housing units on eviction rates.

**5. Results**

The coefficient estimates of the LITC variables on evictions are presented in Table 3. In columns 1 and 2 we report the basic OLS model estimates and the two-way fixed effects model estimates that includes our covariates.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 3**  *Fixed effect estimates of evictions and low-income housing. Dependent variable =* Number of Evictions | | | | |
| Variables | Variable Description | (1) | (2) | (3) |
| cuml\_units | Low-income units | 0.0737\*\* | 0.0773\*\*\* | 0.0385\*\*\* |
|  |  | [0.0094] | [0.0095] | [0.0074] |
| pov.rate | Poverty Rate |  | 4.3978\* | 0.6459 |
|  |  |  | [1.7561] | [1.2912] |
| Log median HH income | Log median HH income |  | -80.911**.** | -12.4582 |
|  |  |  | [75.048] | [54.4653] |
| Log population | Log population |  | 112.31**.** | 6.5674 |
|  |  |  | [60.693] | [45.251] |
| Percent African American | Percent African American |  | 4.1991 | -1.0736 |
|  |  |  | [2.2867] | [1.6684] |
| Eviction (lagged) |  |  |  | 0.5499\*\*\* |
|  |  |  |  | [0.0164] |
|  |  |  |  |  |
| R-squared |  | 0.03049 | 0.03968 | 0.402 |

*Notes*: All specifications include county fixed effects and yearly fixed effects and   
Significance codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

For a 100 unit increase in the number of low-income housing units, in a county for a particular year, the number of evictions actually increases by 7.37 for the column 1 model and 7.73 for the column 2 model. Both estimates of β are statistically significant. The R-squared for both models have extremely low R-squared values which can potentially be problematic when using the model to interpret and predict results. Adding additional covariates to increase the explanatory power of the model did increase the R-squared value but did not change the magnitude of the treatment variable of interest Looking at column 3, our eviction lagged model. We see another statistically significant result but the coefficient estimate is half the estimates in models 1 and 2. For a 100 unit increase in the number of low-income housing units in a county, the number of evictions increases by 3.85.

We may have expected for the coefficient estimates to be either closer to zero or negative because we could see the mechanism that more affordable housing should result in lower evictions. However, the positive coefficient estimates for all three models for the treatment variable may imply a different theory. We tested changing the treatment variable of interest from cumulative number of low-income units in case if there was any bias by aggregating the years pre-2000. We saw no significant change in results. Instead of the number of evictions, eviction rate and eviction filings and rate were used to determine if any sign change occurred, but results remained statically significant with marginal coefficient estimates and in the same negative direction.

**6. Discussion and Conclusions**

The Literature has listed numerous challenges for the LIHTC program to overcome. Despite bipartisan support in Congress, many economists and researchers have attempted to tackle the economic inefficiencies of the program and provide solutions through reform or funding redistribution.

In this paper, we have shown that the effects of LIHTC projects on local eviction rates. We find that there is little evidence to support that the LIHTC program helps the eviction crisis. Our results show the opposite in that an increase in the number of LIHTC units actually increased the number of evictions. A caveat to this paper’s results is the smaller sample size and very small number of rental units involved (46,000 projects compared to 959 in Virginia). To generalize any of these results to the rest of the U.S. would be inappropriate.

Studies have produced evidence that show LIHTC units can still be too expensive for many extremely low-income individuals and households. The Urban Institute presents a list of challenges that the LIHTC program faces due its structure and performance. Among those challenges includes the fact that “LIHTC does not serve the lowest-income households well on its own” (Scally, 2018). Many property owners seek households who earn as close to the 60 percent Area Median Income requirement as possible. Therefore, the program has not served extremely low-income households historically. This means that the policy does not affect those who are at most risk for evictions. The policy implications from these results present another issue that the Low-Income Housing Tax Credit has despite the bipartisan support it receives. The results parallel the lack of strong evidence to support such a policy without more research.

Further research could be directed towards the expansion of the sample used in this paper to the United States.

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1. The 2018 annual homeless assessment report (AHAR) to Congress. [↑](#footnote-ref-1)
2. U.S. Census Bureau and U.S. Department of Housing and Urban Development, Median Sales Price of Houses Sold for the United States [MSPUS], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/MSPUS, May 1, 2019. [↑](#footnote-ref-2)
3. National Low-Income Housing Coalition produces an annual report on the gap of affordable housing for low income households. [↑](#footnote-ref-3)
4. Blau, M. (2019, January 18, 2019). Black southerners are bearing the brunt of America’s eviction epidemic. Stateline, [↑](#footnote-ref-4)
5. Badger, E., & Bui, Q. (2018, April 7, 2018). In 83 million eviction records, a sweeping and intimate new look at housing in america. Upshot, New York Times, [↑](#footnote-ref-5)
6. The Congressional Research Service published a brief that describes the LIHTC allocation process. The process is overly detailed with many different partners involved, and produces a very long process that takes up to several years before the project is finally placed in service. [↑](#footnote-ref-6)
7. Area Median Income is a measure used by the HUD to compare family incomes within a geographic area. The HUD uses this measure to determine eligibility for many of its housing programs. Making 30% or less of AMI defines you as extremely low income while making less than 50% of AMI makes you very low-income. [↑](#footnote-ref-7)
8. Previously for projects placed in service between 1987 and 1989, the period of affordability was only 15 years. [↑](#footnote-ref-8)
9. *Data*: Matthew Desmond, Ashley Gromis, Lavar Edmonds, James Hendrickson, Katie Krywokulski, Lillian Leung, and Adam Porton. *Eviction Lab National Database: Version 1.0*. Princeton: Princeton University, 2018, [www.evictionlab.org](http://www.evictionlab.org). [↑](#footnote-ref-9)
10. During the cleaning process of the dataset, it was apparent that a restriction needed to be placed. Geocoding each LIHTC property required pinging a Google API service called Geocoding API that processed addresses into geographic coordinates. These geographic coordinates were used to find the exact county or city each project was located in. Google provided this service for free until a certain quota or limit was met. After hitting the limit, a $250 purchase could provide unlimited access or at a billable cost of $5 for each 1000 requests to the API service. This was deemed too high of a cost for this paper and therefore the dataset for this study was restricted to Virginia. [↑](#footnote-ref-10)
11. Properties developed between 1987 and 1989 have use restrictions for 15 years. After the 15 year period, property owners had the right to forego affordability and income requirements and raise prices for rental units to market levels. Without data on which properties ended their commitments to affordable housing, all LIHTC projects placed between 1987 and 1989 were excluded from the sample. [↑](#footnote-ref-11)