Governments' Role in Markets: Identifying Variation in States' Success in Influencing Affordable Housing

by

Aaron Ngo

Thesis Advisor: Jerry Davis

PhD Advisor: Mayank Kumar

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Abstract

The increasing polarization of modern politics combined with the increasing cost burden housing provides for many families has placed the Low Income Housing Tax Credit (LIHTC) under scrutiny. Once known for being an effective compromise across the aisle, LIHTC used tax credits to create a market for affordable housing developments across the country. This program has created a majority of the affordable housing units in the country, but the involvement of private profit seeking organizations has many concerned over the incentives of these agents. Previous studies demonstrate that despite utilizing a market based approach, some state housing authorities like Texas have been able to successfully create affordable rental units that meet their stated priorities. However, some states such as North Carolina have not been as successful. This study aims to identify the variation in state housing authorities' potency in implementing their LIHTC programs and creating affordable housing in their states.

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Introduction

As social issues become increasingly contested in the public sphere, so too, are potential solutions. How to approach dealing with pressing matters such as climate change and health inequities, as well as the racial and gendered undertones to all of this, is debated. The type of organizations with the decisions and ability to implement potential solutions matter to many. This happens in the debate on affordable housing. Advocates have brought up housing vouchers, rent control, public housing, and tax credits as ways to help create and preserve housing for low-income individuals. In this paper, I focus on a popular affordable housing tax credit, the Low-Income Housing Tax Credit (LIHTC), and the debates on the effectiveness of this program. I aim to suggest potential reasons why this program has so much variation across states.

Prior work on LIHTC shows that states vary enormously in how effectively they implemented LIHTC (Ellen et. al 2015). In this study I compare two states at different ends of the effectiveness spectrum, Texas and North Carolina, and determine how different population and economic factors may influence the efficacy of LIHTC allocations. Contrary to my original hypothesis, the findings suggest that a stronger economy and real estate market helps state housing authorities meet their affordable housing priorities.

Texas may be more effective in incentivizing LIHTC developments that meet their specifications because of a more robust real estate market. This contradicts popular beliefs and my original hypothesis that more states and private markets were in tension with one another. Instead, the findings suggest more effective states like Texas are able to control and utilize private markets to achieve their desired social goals. Additional and more robust research is needed to further validate these findings.

Context

With the advent of urbanization, increasing cost of construction materials, and more people in America living alone, housing costs in the US have skyrocketed in a number of places. There has been much debate amongst public officials over how to respond to this, especially given the history of affordable housing policies. The United States has been grappling with providing affordable housing for a number of years, and their initiatives have mixed results. Homeowner’s insurance, Housing Vouchers, and Public Housing are some of the more popular solutions, though they all have their respective shortfalls.

The federal government first started becoming involved in housing in 1934 (Gross 2017). The Federal Housing Administration offered potential homeowners insurance on their mortgages to encourage homeownership and economic development. This drove suburbanization throughout the mid-20th century, but selective lending practices also contributed to the racial wealth gap. It also did little to nothing to address the poorest individuals and families, who were likely renters.

Public housing, the first attempt at an affordable rental program in the US, are owned and managed by government bodies. Theoretically, these entities would be able to set rents below market rate in order to provide affordable housing for low income individuals since their goal was not to maximize profits. Unfortunately, these developments became known for being under-managed and being community “eyesores” (National Low-Income Housing Coalition 2015). In addition, they tended to concentrate the low-income folks into certain neighborhoods, perpetuating social stereotypes and not providing opportunities for upward mobility. Eventually public housing grew to become a political risk for government officials, since popular opinion of these developments was so poor. Supporting public housing was a detriment to politicians’ campaigns, and therefore no longer a priority.

Lastly, Section 8 Housing Vouchers act as subsidies for tenants whose income does not allow them to afford market rate housing. This allows them to find housing wherever rental units are available. Previous studies show that these vouchers increase the financial earnings of participating families, demonstrating how these can help increase opportunity for children from low-income backgrounds (Chetty et al. 2015). However, this is contingent on families choosing to relocate to a neighborhood with higher opportunity. Often participants choose to stay in the same neighborhood, and not move away.

Bipartisan Compromise: LIHTC Overview

The demand for housing, combined with tax incentives such as the Low-Income Housing Tax Credits (LIHTC), has attracted many for-profit developers to respond to the housing crisis. Under the LIHTC program, the Department of Housing and Urban Development (HUD) allocates a specific number of tax credits to state and local housing authorities every year (Usowski, K.G.). Developers apply for these tax credits through Qualified Allocation Plans (QAP), which is a detailed breakdown of the projects' costs and outside financing, building information like units and tenants, and other information depending on the authority's priorities (e.g. distance from public transportation). All of this is consolidated into a rubric where authorities score each proposal before granting the tax credits to the developers, who then sell the tax credits in exchange for equity in their housing projects (Qualified Allocation Plan). There is an ongoing tenant reporting process in order to ensure that projects that receive allocations are providing housing to low income individuals and families (i.e., those that earn less than a certain percentage of the AMI, area's median income). Projects must meet these requirements for 15 or 30 years, depending on the type of LIHTC used. These programs provide incentives to profit-seeking individuals for helping in the development and maintenance of affordable housing units, in exchange for tax relief. In fact, an average of 1,411 projects were serviced every year from

1995 to 2017 (Low-Income Housing Tax Credits, HUD USER). While creating more units is certainly a positive from a social welfare point of view, it's also important to ensure these units have equal access to other social services, such as transportation and education.

While this is a great example of public-private partnerships and how firms' pursuing their individual best interests can lead to greater societal benefits, there is concern over letting profit driven private entities be responsible for affordable housing. In 2015 HUD released a report titled *Effect of QAP Incentives on the Location of LIHTC Properties* that explored how effective different states' QAPs were in affecting the developments of the LIHTC units being built. Using the QAPs and allocation data from 21 different states, they determined that changes in the QAPs scoring and priorities did have a significant impact on where the LIHTC units were built (Ellen et. al 2015). However, this report did not explain 1) understand why some states QAPs were more effective than others and 2) if firm behavior changed at all due to the changes in the scoring rubric, rather it just explains that the projects that were awarded the credits were affected.

This study aims to identify several variables that may explain this variation between states' effectiveness and theorize why they drive variation amongst the states. In particular, I focus on Texas and North Carolina, since they were on the extreme ends of the states examined. I evaluated economic, population, and political factors that may influence states' LIHTC potency. These factors included:

- Amount of Organizations that Receive LIHTC Allocations
- States' Unemployment Rate over 2002 - 2010
- Average Median Income between 2002 - 2010
- The % of the population below 30% AMI
- Average New Residential Permits Issued between 2004 - 2010

- Number of Retail Banks (i.e. physical locations)
- Voter registrations by party affiliation

There are, of course, other criticisms of the LIHTC program. For example, LIHTC also draws further criticism because of how it determines who qualifies to live in the developments. A metric called AMI (Area Median Income) is used as a threshold of who is able to live in affordable housing. Those individuals with up to 60% of the AMI are able to live in a LIHTC development. This can be problematic since the AMI can be skewed. LIHTC in general seems better at providing housing options for moderately poor folks, though not those on the far end of the income distribution. In conjunction with other policies such as the Section 8 Housing Vouchers, LIHTC developments can serve those populations as well.

Another valid question about LIHTC are the expiration dates on affordable housing requirements, which expire within either 15 or 30 years. Meaning after this period, LIHTC developments are able to be transformed into market rate units and no longer serve low-income folks. There have been several studies that look at the transition of previous LIHTC developments after these tenant requirements expire, showing that most developments maintain affordable for current and future tenants.

The entire premise of LIHTC is that it is based on a "market", with the tax credits acting as a subsidy for the development. This is what has made LIHTC so effective at creating new affordable housing developments. However this also makes LIHTC vulnerable to downturns in said market, specifically the dollar amount of equity able to be obtained with $1 of a LIHTC. This amount varies based on the returns of other available investments, the health of the economy, and overall federal taxes. During the 2008 recession and after the 2017 TCJA, the amount $1 of LIHTC received dropped significantly.

The Problem: States have significant variation in the potency of their LIHTC programs, possibly ceding decision-making power to profit motivated organizations

Some of the most vocal critics of LIHTC have concerns over the reliance on private organizations, particularly profit driven ones, in creating affordable housing. Most of these concerns arise from political beliefs, such as housing is a human right and democratically elected leaders should be the ones responsible for these decisions. There are differences in how state housing authorities implement LIHTC and how well the market creates affordable housing that meets housing priorities.

The effectiveness and perspectives of social enterprises is not an easy thing to measure or conclude, though there are countless examples of how profit seeking organizations seeking to help address social issues can go awry. Juul, a popular e-cigarette company, states that their mission is to “transition the world’s billion adult smokers away from combustible cigarettes, eliminate their use, and combat underage usage of our products” (JUUL Mission and Values). While their intentions may have been good and have helped at least a few individuals quit smoking, they’ve also come under large scrutiny for introducing nicotine to minors. Another company, SoFi, helps refinance student loans at a lower rate. They do this by including data points on a borrower’s education and major to predict repayment probability. This helps those at elite institutions or STEM majors with high earnings potential, though it also perpetuates educational inequality by creating another higher class of “assets”. Others criticize private organizations for not doing enough, or only engaging in these activities to gain a better reputation or dodge tax bills.

Though LIHTC is not a tech company like Juul or SoFi, if the proper incentives and safeguards are not in place then the incentives could potentially be skewed as well. At least in theory, if a public democratic organization is responsible for these decisions, they can be held accountable through future funding or votes in the next election. That same accountability does not occur with private organizations like Juul or SoFi, who can produce profits without addressing the social issues that they claim to solve. For LIHTC to be effective and beneficial to tenants and the community alike, the developers using the credit should be accountable for tenant success and unit affordability. This paper observes these factors that affect the control of state housing authorities over where LIHTC units are developed and the private LIHTC developers.

Literature Review

There is significant existing literature on affordable housing and the many different programs in the US. However, no study evaluates why certain states may be better at implementing affordable housing policies, or the LIHTC in particular. The closest study, The Role of Private Agents in Affordable Housing Policy (Gaddy and Bastic 2009), focuses on how governance structures shape the processes and behaviors of LIHTC developers. Of course, I also build upon the work done by the HUD and the Furman Center on how QAP incentives affect the location of LIHTC properties. I was also inspired by studies on the effect of LIHTC units on property values, conducted at Stanford. However, none of the research analyzes or identifies how other factors, such as overall health of the economy, the real estate sector specifically, or how the value of $1 of LIHTC can affect the control a state housing authority can have.

The Effects of Exposure to Better Neighborhoods in Children: New Evidence from the Moving to Opportunity Project

This study built upon the work of the “Moving to Opportunity”, which offered randomly selected families housing vouchers to move from high-poverty areas to lower-poverty neighborhoods (Chetty et. al 2015). The original study did not find significant correlation between those families that moved to lower poverty neighborhoods vs. the control group. Several years after the original study, the team revisited this work, combining the original study's findings with new tax data from the children that were a part of the study's experiment, data that wasn't available before since the children were not old enough. They found that those families that moved to a lower poverty area had higher earnings and were more likely to go to college. This however, was only true of children that moved before their teenage years. They hypothesized this was due to "disruption effects", or the children having to readjust and make new friends during an already confusing time in their lives. Overall, this study proves the idea that where you live or grow up plays a significant role in future life outcomes, which spurred the question of how LIHTC developers choose the location of their properties.

<u>Who Wants Affordable Housing in their Backyard?</u>

Rebecca Diamond and Timothy McQuade provide an analysis of how LIHTC developments affect their surrounding neighborhoods (Diamond and Mcquade 2016). Their findings indicate that LIHTC is a helpful neighborhood revitalization tool in addition to the benefits it brings to the tenants themselves. More specifically, they find that "LIHTC development helps revitalize low income neighborhoods, driving up house prices 6.5%, lowering crime rates, and attracting a more racially and income diverse population", though these same developments in higher income, low-minority areas lead to the opposite effects. With these findings, they estimate that a single affordable housing development helps local homeowners by $23,000 and renters by $6,500. This is due to LIHTC developments taking buildings that are deemed undesirable and redeveloping them, possibly making the neighborhood more desirable to live in and attract other residents. However they also find that after a LIHTC unit is built in a wealthier community, property values drop over time due to existing residents moving into other neighborhoods, consistent with NIMBY sentiments. This study forced me to think deeper about where affordable housing is built and some of the barriers that may stand in place when building them. More specifically, I began to ask "Why not build affordable housing in places with high opportunity", leading me to become interested in NIMBY beliefs, the role of local zoning policies, and non-economic barriers that prevents affordable housing in certain neighborhoods.

The Role of Private Agents in Affordable Housing Policy

With most affordable housing developed by private, for-profit developers, there is concern over maintaining the quality of units, especially because of affordable housing's "broad societal importance" (Gaddy and Bastic 2009). This study aims to determine how much control governments have over affordable housing programs, specifically in New Jersey and Massachusetts. They compared the governance structures and processes in these two states, and considered how that might incentivize private agents in their production of affordable housing units. They found significant evidence that private agents do respond to policy changes, giving the public less reason to be concerned with private enterprises handling public and governmental affairs. This article can give me the template to determine if and how private developers respond to different policy incentives and navigate their environment. It also gives useful background information on why the government began relying on private entities to administer certain programs. For affordable housing, this was a lack of political will, lack of integration of housing into the neighborhood causing the concentration of poverty into certain areas.

The Effect of QAP Incentives on the Location of LIHTC Properties

In 2015, researchers from the Furman Center and HUD conducted a study on how states' QAPs affect siting patterns of LIHTC developments using data from 20 states' QAPs (Ellen et. Al). Their findings demonstrate that changes in states' QAPs between 2002 and 2010 did significantly affect the developments built in each state during that year. For example, increased priorities in QAPs towards higher opportunity areas led to increases in proportions of LIHTC allocations in lower poverty areas. The researchers concluded this by coding changes in each states' QAPs from year to year, marking each change as an integer between -3 and 3, depending on if the change should incentivize LIHTC developments in higher poverty areas and the theoretical magnitude of the change. However, the findings fail to show "whether developers have changed their behavior in response to QAP changes (i.e. whether firms approach QAPs with a "point chasing" approach or those projects receiving the allocations simply changed). The study also identified certain states' QAP that were more effective in affecting where future LIHTC developments were built, though did not explain why. I hope to address this in my study and suggest ways that states can better implement affordable housing programs.

Rationale

As determined by Chetty, the neighborhood of one's house plays an important role in one's opportunities (Chetty et. al 2015). However, Diamond and Mcquade show that NIMBY sentiments and higher prices can make it difficult for LIHTC developers to build in higher opportunity neighborhoods (Diamond and Mcquade 2016). At the same time, LIHTC can be an effective way to help revitalize low income neighborhoods, better the community (Diamond and Mcquade 2016). This dilemma makes it important for housing authorities and public officials to carefully select and influence LIHTC to meet the state's priorities. Unfortunately, this can be a difficult task for states to do, considering the variation in housing authorities' success in influencing LIHTC locations with their QAPs (Ellen et. Al).

This study provides a general overview of the LIHTC program and evaluates its structure and potential benefits. This includes a discussion on government expenditures for the program, its efficiency, and the type of populations that are affected most. It also outlines some of the impacts that the 2008 financial crisis had on the program and the resulting policy changes in response. I draw upon this study to better understand: 1) how LIHTC differs from other affordable housing programs and 2) some of the challenges the program faced during the 2008 recession. Some examples are: a federal trade in of LIHTC for cash and an increase in the allocation per state. With this in mind, I hope to be able to understand how economic shifts can impact how LIHTC and affordable housing production.

Hypotheses

My goal is to explain the variation between how effective states housing authorities were in determining LIHTC developments' locations (Figure 1). I hypothesize that a stronger real estate market favors private organizations, reducing the potency of state housing authorities. Based on the spectrum of states in the *Effectiveness of QAP Incentives on the Location of LIHTC Properties* study, I expected states that performed well (e.g. Texas) to have a strong state housing authority that limited the motivations of profit-seeking firms (Ellen et al. 2015). On the other hand, I believe states that did not perform well, like North Carolina, to have a real estate market that reduced the amount of potency the state housing authority could achieve.

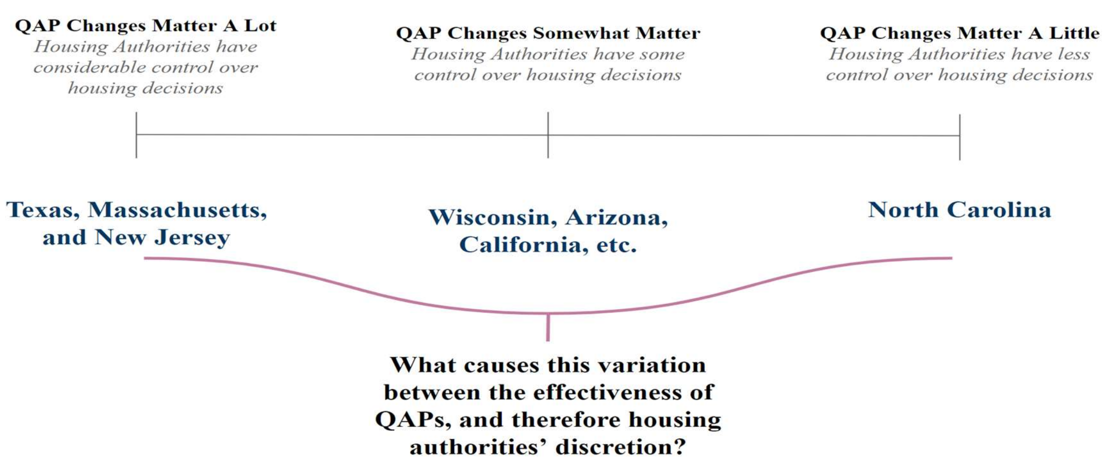


Figure 1

To test this, I made predictions on how the dependent variables (i.e. companies receiving allocations, unemployment rate, avg. median income, % population below 30% AMI, avg. new residential permits, number of retail banks, and political leanings of voters) would appear as characteristics of each state, and possibly influence the role of housing authorities (Figure 2).

Variable	Description	Hypothesis
Companies Receiving Allocations	The avg. number of organizations that receive LIHTC allocations in any given stat from 2002-2010	More organizations that receive allocations in any given state would give more control to housing authorities. We expect the higher number of projects would result in housing authorities to have more options when selecting projects to receive allocation, and drive competition amongst each other for these allocations.
Unemployment Rate	The percentage of people without a job that are seeking a job in any given state	A lower unemployment rate would increase the control for private developers. Unemployment is negatively correlated with the strength of the economy, which would increase real estate construction and the strength of LIHTC, potentially taking power from housing authorities
Avg. Median Income	The median income in that state during the 2002 - 2010 period	Higher median income would indicate a stronger economy, and potential to collect higher rents to tenants since tenant eligibility is calculated using this, therefore giving states more control.
% Pop. below 30% AMI	The proportion of people that live below 30% of the area's median income.	How many people in a given state are able to qualify for LIHTC tenant requirements is dependent on the distribution of the incomes in that state. A larger number of people below this threshold would motivate housing authorities to be more involved.
Avg. New Residential Permits	The raw amount of new rental units built in that state during the study period	A growing rental housing market may also lead to decreased state influence, since the strength of the market would overtake the ability of state housing authorities to determine where LIHTC units are placed.
# of Retail Banks	The total number of retail banks in the state in 2019 with physical locations.	A higher relative value of $1 of tax credits would give states more control in where LIHTC units are built. This is because these tax credits are worth more to the project, and therefore organizations' behavior will adjust their behavior to earn them. Because the value of these tax credits are driven by retail banks due to CRA requirements.
Political Leanings	Political affiliations and beliefs of voters in the state. We measure this by the percentage difference between registered Democratic and Republican voters.	A more liberal population would be more inclined to larger forms of government and therefore favor government, rather than market, control.

Figure 2

Methodology: Case Study of Texas and North Carolina

Based on the previous study done by HUD, Qualified Allocation Plans (QAPs) are effective tools for public organizations (i.e. state housing departments) to maintain control over the location of LIHTC developments. This study also revealed that some state housing authorities' QAPs are more effective than others, raising the question of why? In other words, what external factors present in each state in the study affect how effective QAPs are? Given my experience and comfort level, I chose to answer this question through a case study of Texas and North Carolina's state housing departments, or public entities.

Texas and North Carolina were identified in the HUD study as two states that were on the extremes of effective-ineffective QAPs (Figure 2). This case study is an extension of the aforementioned HUD study, and aims to identify what external factors can cause this variation.

I am exploring why Texas and North Carolina's QAP effectiveness differs based on different characteristics of the states' political affiliation, overall economy, real estate industry, and several other factors. In short, think of their QAP effectiveness as the "Y" variable, and the characteristics and data for each state as the X variables.

From the Evaluating QAP Influence on the Location of LIHTC Property study done by HUD, the variation in state housing authorities' LIHTC potency is established. Some states, like Texas, demonstrated they were able to significantly affect the location of LIHTC developments, others like North Carolina, did not. My original hypothesis was that the tension between private and public entities over the location of LIHTC developments would mean a stronger economy meant less state influence. This would be problematic, since LIHTC is a market based tool that tends to achieve higher outputs of units in strong economic periods. I also believed some states chose not to utilize their influence through QAPs, instead opting to pursue other methods of influence or not to exercise their control due to political leanings. My goal was to identify these key variables, so states could better exercise control of their LIHTC developments if they chose.

Before collecting all of the data used in the case study, I formed hypotheses on how it would affect the LIHTC potency of each state. For example, I expected a more liberal population to be more comfortable with government programs and decision making. Therefore, I expected Texas to have a higher discrepancy between Democratic and Republican voters, measured by "StatePoliticalLeanings", since LIHTC programs in Texas were more potent.

Limitations

Because of the limited nature of a case study and lack of comprehensive data, no conclusions or correlations can be drawn. Instead, I pose ideas and theories as to why and how different state housing authorities approach LIHTC developments. In addition, this is limited because of the number of states in my analysis, and using the HUD Study's criterion and ratings of QAP effectiveness as the guardrails. Some may critique only two states in this study, and others would point out that public organizations can exhibit other forms of influence other than housing authorities' QAPs, such as stricter regulations and zoning codes.

In addition, I chose to study the selected variables based on its relevance to the LIHTC and state housing authorities, as well as the ability to find relevant state level data. For example, I wanted to examine the number of new rental units developed in Texas and North Carolina over the original study period. This proved to be too difficult, so I used the average new residential permits issued from the Census as a substitute. In an ideal world, I could find data on exactly how many new rental units are built and the amount occupied in each state in any given year.

Moving forward, there is potential for follow up studies to further investigate how states may better their LIHTC potency. For example, researchers could recreate the original HUD study and control some of the factors I identified. If North Carolina is underperforming relative to Texas potentially because of a weaker rental market, what happens if we isolate and control for that variable? Alternatively, a qualitative study with interviews of housing authority professionals might be able to uncover the operational or descriptive differences between how states approach their LIHTC policies. I hope that this study can lay the groundwork for future researchers to investigate how we may better implement affordable housing.

Results

The findings from my research are mixed, with some variables matching the predictions made summarized in *Figure 2* and others contradicting them. For a complete summary of these results, please see *Figure 3*. The average number of organizations that receive LIHTC allocations in each state matched my expectations. Specifically, I assumed a greater number of organizations trying to compete and earn LIHTC allocations would provide states with more options in selecting which projects best matched their housing priorities. Texas' has 58.89 organizations earning an allocation, compared to North Carolina's 42.8 (HUD. Low Income Housing Tax Credit Database 2019). Because they have 30% more organizations trying to earn allocations, Texas has more discretion in selecting the "best" projects, and therefore a higher LIHTC potency.

I expected Texas to have a higher median income than North Carolina, as a stronger economy would drive real estate construction and the ability to collect higher rents (since tenant eligibility is calculated using the AMI). This turned out to be true, as Texas and North Carolina had average median incomes of $43,647.78 and $40,896, respectively (Duffin 2019). Though it supported my hypothesis, the difference was not great enough to cause major variation.

As more people qualify for affordable housing under LIHTC requirements, states have a larger incentive to prioritize these programs. I evaluated the % of the population that earned less than 30% of the AMI, and found that Texas and North Carolina had similar numbers at 23% and 22%, respectively (North Carolina & Texas, National Low Income Housing Coalition). Though Texas does have a higher number like I expect, it is not a significant difference.

Organizations receiving LIHTC allocations then sell this to individuals or for-profit entities looking to lower their tax bill in exchange for equity and cash in the project. The vast majority of these buyers are banks motivated by Community Reinvestment Act (CRA). A larger number of banks looking for LIHTC projects to invest in would drive up the value of every dollar of these allocations, making more projects feasible. Consistent with my expectations, Texas had a much larger number of retail banks than North Carolina (420 to 46), possibly explaining Texas LIHTC potency (Federal Deposit Insurance Corporation).

Three variables contradicted my original hypotheses: the average unemployment rate, average new residential permits, and voter party affiliations.

- **Average unemployment rate**: I expected a lower unemployment rate would increase control for private developers, and that Texas would have a higher one than North Carolina (Duffin 2020). I assumed a stronger economy would cause housing authorities to be unable to control LIHTC decisions, though the findings indicate the opposite may be true (i.e. the economy helps augment states' LIHTC potency).
- **New residential permits issued**: Similar to the average unemployment rate, I expected average new residential permits issued to be a signal of a stronger economy and therefore overtake public authorities' priorities. Between 2004 and 2010, Texas had more than double the amount of North Carolina, at 156,501 and 71,297, respectively (Cornish et. al, 2011). While it contradicts initial expectations, it does indicate that a stronger economy would help bolster states' effectiveness, and not the other way around.

- **Voter party affiliations**: The political beliefs of key elected officials and the constituents would likely affect affordable housing programs. I chose to use voters party affiliations to determine how comfortable government officials would be with making certain decisions. To my surprise, Texas had more registered 3% more Republicans than Democrats while North Carolina had 5% less (Gallup 2018). I expected the opposite results, given the efficacy of Texas' LIHTC programs.

Variables	Texas	North Carolina	Results
Companies that Receive Allocation	58.89	42.8	Texas scored high on the QAP control rating and has a larger number of companies that received a LIHTC allocation, which does reinforce our previous idea that more organizations competing for these credits helps the housing authorities maintain control. This, however, could be due to the higher dollar value of LIHTC allocations given to each state (since that is based on population).
Unemployment Rate	6.01%	6.74%	Texas, with an unemployment rate over a half of a % point lower than North Carolina, which contradicts the original hypothesis that the strength of the economy (or unemployment rate in particular) would decrease the power state housing authorities have over LIHTC placements.
Avg. Median Income (2002 - 2010)	43647.78	40896	Texas' average median income is higher than North Carolina's, though not significantly. Looking at other indicators of the economy, such as wage distribution or total GDP created, might be a better way to determine the economy's effect on LIHTC placements.
% Population below 30% AMI	23%	22%	Texas and North Carolina have a similar proportion of their population below 30% of their respective AMIs, though Texas is slightly higher. This supports our claim that state housing authorities have more incentive to be involved if there is a greater amount of need for affordable housing. Though, the discrepancy between Texas and North Carolina is not great enough to reason this is worth investigating.
Avg. New Residential Permits Issued (2004 - 2010)	156,501.57	71,297.71	Over the time period when data was available, Texas had more than double the amount of new residential permits issued than North Carolina. Lack of comprehensive data prevented us from looking at 2002 and 2003, or other real estate indicators, like rental vacancy rates.
Number of Retail Banks	420	46	Texas has over 9x as many retail banks as North Carolina, meaning there is a lot more demand for the LIHTC allocations for each individual project. This is consistent with our hypothesis that more retail banks would lead to a more robust affordable housing market, and therefore more potential for a housing authority to use the market to meet its priorities. Even when taking into account population differences, the number of retail banks in Texas are significantly greater than North Carolina's.

Political Leanings	-3	5	North Carolina has more registered Democrats than Republicans, and a greater proportion of Democrats than Texas, which is contradictory to our expectation that control was discretionary and exercised to the extent politically comfortable. Democrats tend to be more comfortable with government involvement in markets, therefore we expected Texas would have a higher proportion of Democrats than North Carolina.

Figure 3

Discussion

The findings indicate that my original hypothesis was wrong, and that stronger economic conditions may actually allow state housing authorities to better influence the location of LIHTC developments. In other words, public and private entities are not always at odds. Stronger LIHTC and real estate markets allow state housing authorities to better meet their priorities. This is in line with the theory that "markets are a tool" of sorts, especially in this case where state governments are trying to utilize a market to solve an important political problem.

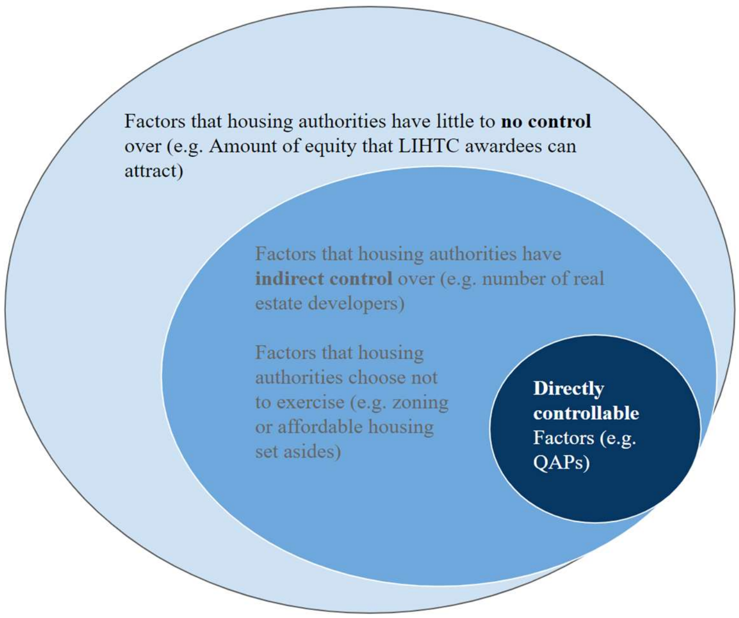
Of course, given the lack of available data and format of using a case study, more analysis is needed to validate this claim. However, the initial findings indicate that public entities are not in a battle with the invisible hand of markets, rather they can use them to reach their own priorities. It may also lead one to question how state housing authorities can develop and incentivize a stronger real estate market. Though, it is likely that state housing authorities may not have control over this many aspects, as it's difficult to imagine how they might influence the number of retail banks in an area or the unemployment rate (Appendix 1). Given the complexity and number of parts of even a state economy, it is difficult and may even be impossible for public entities to use markets as a tool to achieve humanitarian goals.

Conclusion

In this study, I set out to answer the question of why some states are better at implementing their LIHTC programs than others. Because of the importance of housing in creating opportunity, I thought it'd be in every states best interest to maximize the potency of their programs. I initially expected states to be more effective when the local real estate market was performing less well, as a stronger market would crowd out states' efforts. My findings, however, suggest that states are better able to influence the location of LIHTC developments under stronger markets, as they can use the market to incentivize the types of developments that meet their needs. This is encouraging, as it suggests private and public enterprises are not always at odds. However, some aspects of the economy and local real estate sector are out of a housing authority's immediate realm of control, bringing into question how they might further their goals under such constraints.

Appendices

Dependent Variables Level of Control or Responsibility of State Housing Authorities



Appendix 1

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