Rethinking Community Impacts

*An Analysis of the Deployment of Low-Income Housing Tax Credits in the Commonwealth of Pennsylvania and Recommendations for Change*

January 2007

This document was prepared by czbLLC (czb) for the Pennsylvania Housing Finance Agency (PHFA). It is an examination of market strength throughout Pennsylvania and the recent deployment of Low-Income Housing Tax Credits by PHFA, with a focus on the community impact of subsidized projects. While this report raises several important issues, two warrant special attention. First, poor households, though helped by PHFA efforts to address their housing cost burdens, remain locked in poor neighborhoods and thus disproportionately denied access to economic opportunities and upward mobility. Second, poor neighborhoods, though receiving PHFA multifamily housing investments, remain in economic distress and are actually further impeded from achieving economic recovery by the over-concentration of subsidized projects.

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Introduction

What Outcome Do You Want; What Problem Are You Trying to Solve?

All markets have “housing needs” (households facing excessive cost burdens) which could therefore benefit from some form of housing assistance.

In strong markets, with high-quality schools and easy access to employment, lower-cost rental housing is typically scarce and need is high. In weaker markets, where most private rental housing – even where it is plentiful – is too expensive for residents’ lower incomes, need is also high. Households in both strong and weak markets, then, could benefit from housing subsidies. However, poor households have far more to gain in stronger markets (with their environmental benefits) – where they typically are not - than in weaker ones – where they typically already live.

Yet housing programs responding to “need” tend to over-concentrate putative assistance in weaker markets. In Pennsylvania, for example, fully two-thirds (66 percent) of General Occupancy Low-Income Housing Tax Credit projects developed between 1990 and 1999 were in neighborhoods with existing concentrations of poor residents and rental housing. In contrast, just one in ten (12 percent) were located in low-poverty, high-value neighborhoods – precisely those places where affordable rental housing is especially scarce.

This pattern, though assisting individual households in need, only reinforces (or worsens) existing concentrations of poverty, with serious consequences for both people and places. Residents of high-poverty neighborhoods typically deal with lower-quality public services (particularly schools), face higher levels of crime, and have less access to jobs. As a result, subsidies that reduce households’ housing cost burdens while keeping them in high-poverty neighborhoods temporarily solve one problem (housing unaffordability) while causing or worsening others (potential for long-term self-sufficiency). At the same time, the concentration of housing subsidies in these weaker markets does nothing to encourage (and in many cases actively discourages) market recovery.

This raises several important issues for the Pennsylvania Housing Finance Agency (PHFA):

1. Pennsylvania includes a wide range of housing markets – from booming suburbs to distressed inner-cities; from appreciating historic urban neighborhoods to declining older boroughs. Is it reasonable to deploy housing resources as if all places were the same? Or should different programs be tailored for and/or targeted to particular neighborhood types?

2. Currently, present neighborhood conditions do not factor prominently into the deployment of General Occupancy Low-Income Housing Tax Credits. Is there a desired relationship between a General Occupancy Low-Income Housing Tax Credit project and the health of the surrounding neighborhood?¹

¹ There are many ways to define neighborhood health. For this document, czb considers neighborhood health to be a dynamic expression of the financial and social investment and disinvestment choices of households and other investors in a given neighborhood. These choices illustrate insiders’ and outsiders’ willingness to pay, or the desirability of and demand for a particular neighborhood, in the context of other nearby areas. High willingness to pay places typically have physical qualities and amenities that the housing market demands, and are places which investors and households expect to maintain or improve their
3. Currently, most General Occupancy Low-Income Housing Tax Credit projects are concentrated in weaker markets, where there is no evidence that such investments lead to market improvement, and, indeed, where evidence shows a strong correlation with market decline. Is the concentration of affordable rental housing in high-poverty, low-value neighborhoods an acceptable outcome—in the long run—for low income households or weaker markets?

4. On the one hand, there are places with a large number of households with incomes too low to afford quality housing on the private market. On the other hand, there are places with almost no low-cost rental housing. Should the General Occupancy LIHTC respond to where poor people are or where affordable housing is not?

We would argue that it is essential for PHFA to specify “need” in each community, to recognize how subsidized investments might interact with current market conditions, and to tailor assistance accordingly. To help the agency do so, this report seeks to determine for PHFA the types of market conditions in the Commonwealth and how existing tax credit projects have impacted different markets.

Finally, this report proposes a potential strategy for redeploying scarce agency dollars in the future to better link subsidies to market conditions, enabling PHFA to both meet needs and move markets. By rethinking the optimal outcomes of PHFA programs, for households and for the neighborhoods into which subsidies flow, and by reworking the mechanisms for distributing resources accordingly, it may indeed be possible to do both.

market value and general quality of life in the future. The healthier a neighborhood, the greater its ability to generate and sustain a strong willingness to pay (or demand) among those able to invest or move someplace else.

The socioeconomic status of current residents—a large portion of any neighborhood’s potential investors—also affect a neighborhood’s ability to generate and sustain demand. The greater the local earning power, for example, the greater the local capacity to invest in neighborhood maintenance and improvement. Conversely, the lower the local earning power (and the higher the local poverty rate, high school drop-out rate, unemployment rate, etc.) the lower the local capacity to invest and the greater the likelihood of worse or worsening neighborhood conditions.

Therefore, household income and property condition trends are often reinforcing. Good neighborhoods with sufficient local capacity to invest become better. The better they become, the greater their resilience in the face of inevitable, intermittent, detrimental market forces. The more resilient, the more likely that new activity adds additional value. In contrast, new real estate activity that reduces a struggling neighborhood’s capacity can hold that neighborhood back and prevent improvements. Additional negative activity, such as a liquor store or pawn shop, can do more harm than merely holding a community back. In either case, the new investment can tilt an already weak neighborhood into an even more precarious market position.
Market Strength throughout Pennsylvania

The Pennsylvania Housing Finance Agency’s mission encompasses two clear goals:

1. To reduce the housing cost burdens of lower-income households struggling to afford quality housing on the open market or maintain the housing they own.

2. To positively impact housing markets throughout the Commonwealth.

It is clear that PHFA is successfully helping poorer Pennsylvania households access, retain, and maintain quality housing. Indeed, since its inception, the agency has assisted nearly one hundred and fifty thousand homeowners and over sixty thousand renters. This has not however translated into improved neighborhoods.

According to data collected and analyzed by czb as part of this study, it is clear that PHFA’s multifamily housing activities, specifically those financed using General Occupancy Low Income Housing Tax Credits (LIHTC), are not positively impacting the state’s housing markets. Even worse, the over-concentration of subsidies in some of Pennsylvania’s weakest markets only worsens existing patterns of economic segregation and may even prevent these neighborhoods from recovering.

The major challenge currently facing PHFA, then, is to find a way to deploy housing resources so that they meet the housing needs of lower-income households while also linking clients with employment opportunities and high quality public services (particularly schools), and strengthening weaker markets.

Determining the Strength of Pennsylvania’s Various Housing Markets

Pennsylvania is home to a wide range of housing markets. Across the state, there are strong and weak cities, boroughs, and townships, booming and declining counties. Some regions, particularly along the state’s eastern and southeastern borders, are linked to strong external economic engines (such as New York City, northern New Jersey, and Greater Baltimore/Washington, DC) while others are not. Resulting median values and rent levels tend to reflect the power of these external forces:
Analyses and Recommendations Regarding the Deployment of the Low-Income Housing Tax Credit in the Commonwealth of Pennsylvania

Median Value (2000)

Median Rent (2000)

Sources: czbLLC, U.S. Census
Population trends and migration patterns do so as well, and also reinforce existing discrepancies between cities and their surrounding suburbs:

### Population Change (1990-2000)

- Less than 0 (Population Loss)
- 0 - 499
- 500 - 999
- 1,000 - 3,499
- 3,500 or More

### Average Household Income (1990s Migrants)

- Less than $35,000.00
- $35,000.00 - $49,999.99
- $50,000.00 - $74,999.99
- $75,000.00 - $124,999.99
- $125,000.00 or More

Sources: czbLLC, U.S. Census
These private market forces exacerbate existing concentrations of poverty and create a “locational mismatch” between lower-income households and job opportunities:

**Poverty Rate (2000)**

<table>
<thead>
<tr>
<th>Poverty Rate (2000)</th>
<th>0% - 4.9%</th>
<th>5% - 9.9%</th>
<th>10% - 14.9%</th>
<th>15% - 24.9%</th>
<th>25% - 62.2%</th>
</tr>
</thead>
</table>

**Jobs-to-Household Ratio (2003)**

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 0.50</td>
<td>0.50 - 0.99</td>
</tr>
<tr>
<td>1.00 - 1.49</td>
<td>1.50 - 1.99</td>
</tr>
<tr>
<td>2.00 or More</td>
<td></td>
</tr>
</tbody>
</table>

Sources: czbLLC, U.S. Census, The Reinvestment Fund
Analyses and Recommendations Regarding the Deployment of the Low-Income Housing Tax Credit in the Commonwealth of Pennsylvania

The Location of General Occupancy Low-Income Housing Tax Credit Projects

Too often, housing subsidies are allocated based solely on individuals’ housing needs with little or no concern for either the neighborhoods’ needs, or the wider area’s distribution of affordable housing opportunities. What’s more, the “success” of housing subsidies is typically a function of volume (the number of units preserved or developed, or the number of households served) rather than long-term impact on either households or neighborhoods.

In other words, when housing subsidies are thought of strictly as tools for reducing the housing cost burdens of as many low-income households as possible, essential things – like clients’ access to quality neighborhoods and employment opportunities, as well as neighborhood housing market strength – become irrelevant to “success.”

Moreover, subsidy itself ceases to function as a transitional ingredient capable of triggering health market activity. Instead, it evolves to replace choice and consequence in an open market. Rather than solving housing problems and encouraging revitalization, over-concentrated subsidies – by focusing solely on increasing affordability and discounting the importance of neighborhood livability (the basis of demand) – actually prolong weak market conditions and hinder recovery. As a result, “successful” subsidized housing programs typically (inadvertently or not) concentrate low-income households in high-poverty, distressed neighborhoods, where there are fewer amenities, worse public services, and more barriers to upward mobility, and little genuine market functionality.

According to this study, this appears to be the case in Pennsylvania. While PHFA has successfully delivered and managed quality housing at prices that lower-income households could afford (something that the private sector could not do), the location of these units presents long-term challenges for their residents and their neighborhoods.

Measuring “Community Impact”

To better understand the nature of the neighborhoods receiving General Occupancy LIHTC-sponsored housing, the czb team first calculated a “Community Impact Score” for census tracts across the Commonwealth.

Each tract’s “Community Impact Score” reflects how much more or less than its share it houses of the area’s poor population, rental units, and low-cost rental units. (See Appendix A for further details on the “Community Impact Score” Methodology.) A lower “Community Impact Score” reflects a smaller share of area poverty and affordable rental housing; a higher score reflects a larger share.
Since the early 1990s, few General Occupancy LIHTC dollars have gone to census tracts with less than their share of poor households, rentals, and low-cost rentals (“Community Impact Scores” of 1 and 2), particularly since 1999. At the same time, until reversing in 2003, the portion of General Occupancy LIHTC dollars going to extremely concentrated-poverty tracts (“Community Impact Score” of 5) had been increasing since 1998.

For example, in Philadelphia, census tracts in neighborhoods like Chestnut Hill and Mayfair – with very low poverty rates and high housing values – tend to have “Community Impact Scores” of 1 or 2. While these markets are positioned to absorb low-income households and could provide high quality public services and low crime rates for these households, no General Occupancy LIHTC project was located in either neighborhood throughout the 1990s.

At the same time, census tracts in neighborhoods like Allegheny West and Powelton – with extremely high poverty rates and low housing values – tend to have “Community Impact Scores” of 4 or 5. These housing
markets are least able to absorb additional low-income households and have the least (in terms of public services and overall quality of life) for their residents. Yet, these neighborhoods (and others like them) are exactly where most local General Occupancy LIHTC projects were located between 1990 and 1999.

<table>
<thead>
<tr>
<th>Typical &quot;Community Impact Score&quot;</th>
<th>Chestnut Hill</th>
<th>Mayfair</th>
<th>Fishtown</th>
<th>Allegheny West</th>
<th>Powelton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty Rate (2000)</td>
<td>4%</td>
<td>8%</td>
<td>21%</td>
<td>31%</td>
<td>31%</td>
</tr>
<tr>
<td>Median Value (2000)</td>
<td>$199,072</td>
<td>$70,228</td>
<td>$53,086</td>
<td>$25,270</td>
<td>$59,434</td>
</tr>
<tr>
<td>Median Rent (2000)</td>
<td>$857</td>
<td>$535</td>
<td>$540</td>
<td>$468</td>
<td>$394</td>
</tr>
<tr>
<td>% Renter-Occupied (2000)</td>
<td>51%</td>
<td>22%</td>
<td>43%</td>
<td>35%</td>
<td>79%</td>
</tr>
<tr>
<td>% of Renters with Unaffordable Costs (2000)</td>
<td>35%</td>
<td>41%</td>
<td>40%</td>
<td>45%</td>
<td>49%</td>
</tr>
<tr>
<td>General Occupancy LIHTC Projects</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>12</td>
<td>17</td>
</tr>
</tbody>
</table>

Sources: czbLLC, Cartographic Modeling Lab (University of Pennsylvania)

Even worse, in region after region across the state, these high-poverty tracts – receiving the bulk of General Occupancy LIHTC dollars – are also typically low-value areas with stagnant real estate markets and far from economic opportunity.

To quantify job and housing market strength, czb developed an “Opportunity Score” for all Pennsylvania Zip Codes. A Zip Code’s “Opportunity Score” reflects its Job-to-Household Ratio and Jobs-within-10-miles-to-Household Ratio; as well as its median value (in 2000), median sale price (in 2005), and the rate of appreciation (between 2000 and 2005) of its owner-occupied housing stock. (See Appendix B for further details on the “Opportunity Score” Methodology.) The higher the “Opportunity Score,” the greater the number of available jobs and the stronger the housing market; the lower the score, the lower the number of available jobs and the weaker the housing market.

The following maps illustrate this mismatch – between the location of General Occupancy LIHTC projects and economic opportunity, strong housing markets, and low poverty levels. (On the maps, General Occupancy LIHTC Projects (represented by light blue dots) are within larger circles indicating “Community Impact Score.” The background shading reflects the “Opportunity Score” for each zip code: the darker the shading, the higher the score.)
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Philadelphia General Occupancy LIHTC by “Community Impact” and “Opportunity”

Within Philadelphia, most General Occupancy LIHTC Projects are located in tracts with more than their share of area rentals, low-cost rentals, and poor residents (“Community Impact Score” of 4 or 5). Few are in places accessible to the most jobs and with the strongest housing markets. Is this the outcome PHFA wants?

Sources: czbLLC, PHFA, The Reinvestment Fund, U.S. Census

Pittsburgh Area General Occupancy LIHTC by “Community Impact” and “Opportunity”

In Allegheny County, few General Occupancy LIHTC Projects are located in the job centers and strong housing markets running north to south just west of Pittsburgh. Is this the outcome PHFA wants?

Sources: czbLLC, PHFA, The Reinvestment Fund, U.S. Census
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Reading Area General Occupancy LIHTC by “Community Impact” and “Opportunity”

In Berks County, no General Occupancy LIHTC Projects are located in the strong housing markets and job centers surrounding Reading. Is this outcome really helping low-income renters in Berks County?

Sources: czbLLC, PHFA, The Reinvestment Fund, U.S. Census

Lehigh Valley General Occupancy LIHTC by “Community Impact” and “Opportunity”

In the Lehigh Valley, the vast majority of General Occupancy LIHTC Projects are located within Allentown, South Bethlehem, and Easton – the region’s weakest markets and highest-poverty areas. Is this a good outcome for these communities?

Sources: czbLLC, PHFA, The Reinvestment Fund, U.S. Census
Scranton Area General Occupancy LIHTC by “Community Impact” and “Opportunity”

Around Scranton and Wilkes-Barre, no General Occupancy LIHTC Projects are located in high “Opportunity” and low “Community Impact” areas. Is this lack of opportunity for low-income households a good outcome?

Sources: czbLLC, PHFA, The Reinvestment Fund, U.S. Census
Concentrated Poverty and Neighborhood Effects

The over-concentration of program dollars in high-poverty census tracts, as well as the wide variation in the types of neighborhoods receiving program dollars from one year to the next, makes two things clear:

1. The deployment of General Occupancy LIHTC dollars is not strategically linked to housing market conditions; current deployment strategies do not attempt to meet needs while moving markets forward.
2. Those criteria that do dictate the deployment of General Occupancy LIHTC dollars inadvertently reward the placement of additional affordable apartments in concentrated-poverty and often distressed neighborhoods and do not factor in the costs associated with ongoing (or worsening) economic and racial segregation – patterns that isolate lower-income families far from economic opportunity.

This has serious consequences for Pennsylvania’s people and for its neighborhoods. There was a time when the consequences of concentrated poverty were not well known. This is no longer true. Concentrated-poverty neighborhoods have substantial negative consequences for residents’ current quality of life and future potential:

- High-poverty neighborhoods typically have higher rates of violent crime and drug use, and poorer quality housing and public services;
- Adult residents in these neighborhoods face higher rates of poverty, reliance on welfare, unemployment, under-education, and single-motherhood; and
- Parents’ socioeconomic status doubly disadvantages the children of these neighborhoods, who are also more likely to attend underperforming schools and to lack successful role models.

Untangling the “neighborhood effects” on individual outcomes – or determining the extent to which neighborhood conditions (as opposed to households' socioeconomic status) impact adults’ employment status or tendency to engage in criminal behavior, or children’s educational achievement or tendency to become teenage parents – is no small task.

However, researchers have found evidence of “neighborhood effects” by reviewing the outcomes for households participating in the Gautreaux Assisted Housing Program (GAHP) or the Moving to Opportunity (MTO) demonstration project. The GAHP was a court-ordered program designed to remediate the intense segregation of Chicago’s public housing. Through the program, African-American public housing tenants were given rent certificates to “spend” in neighborhoods in which no more than 30% of residents were black. Between 1976 and 1998, the program enabled over 25,000 to move into integrated neighborhoods (either within the city or in the surrounding suburbs). The Department of Housing and Urban Development’s MTO demonstration project replicated this program in Baltimore, Boston, Los Angeles and New York (in addition to Chicago), moving roughly 4,600 families into “opportunity neighborhoods.”

- Using data from the GAHP, for example, researchers found that children in families moving to suburban white neighborhoods were less likely to drop out of high school and more likely to go on to college than children in families choosing to stay in largely-black and poorer neighborhoods.
- Researchers also found that children moving with their families to integrated neighborhoods as part of the GAHP were far more likely to have jobs than those in non-integrated neighborhoods (75% vs. 41%).
And the same trends held for their parents: 46% of unemployed adults who moved to integrated neighborhoods found jobs, compared to just 30% of those staying behind.

It is less clear the degree to which neighborhoods affect residents' tendency to participate in criminal activity, but most studies have concluded that there is at least some link between neighborhood conditions and criminality. “Neighborhood effects” aside, crime is indisputably higher in poor neighborhoods.
A Missed Opportunity

While it is difficult to determine the precise neighborhood-wide impacts of subsidized housing projects, it is possible to document and compare people- and place-based trends in areas served by housing programs and those not served. To do this, the czb team located General Occupancy LIHTC projects developed between 1990 and 1999 within census tracts as well as various place types (cities, townships, and boroughs), and measured how census tracts fared along a range of demographic, socioeconomic, and housing market indicators between 1990 and 2000.

Comparing conditions in census tracts in 1990 and 2000, based on whether or not tracts had at least one General Occupancy LIHTC project during the 1990s, highlighted several notable findings. First, tracts with at least one project were more likely than those without projects to see poverty rates, their share of area rentals, and their share of area low-cost rentals, increase between 1990 and 2000. In other words, bad indicators were more likely to get worse in served tracts:

Sources: czbLLC, PHFA, U.S. Census

In addition, most General Occupancy LIHTC projects developed in the 1990s were located in tracts with worsening conditions: 63% of projects were in tracts where poverty increased between 1990 and 2000; 83% were in tracts that increased their share of area rentals; and 75% were in tracts that increased their share of area low-cost rentals.
Over the course of the 1990s, the vast majority of General Occupancy LIHTC Projects (71%) were located in census tracts within cities, while just one-in-ten (11%) were located in townships.

Unfortunately, city tracts with subsidized projects tended to perform significantly worse (relative to unserved tracts) than those in boroughs or townships.

For example, census tracts with General Occupancy LIHTC projects located in boroughs and especially townships were likely to have poverty rates similar to those in non-served tracts. In contrast, however, city tracts with General Occupancy LIHTC projects averaged significantly higher poverty rates. The fact that such a large portion of all General Occupancy LIHTC projects are located in distressed, urban census tracts (71% of the General Occupancy LIHTC projects developed in the 1990s are in cities) is responsible for the
fact that all tracts with General Occupancy LIHTC projects have an average poverty rate – nearly 24% – more than double that (11%) in non-served tracts.

Similarly, census tracts with General Occupancy LIHTC projects located in boroughs and especially townships saw population increases roughly the same as or greater than those in non-served tracts. In contrast, however, city tracts with General Occupancy LIHTC projects lost more of their population (on average nearly 6%) over the course of the 1990s. All tracts with General Occupancy LIHTC projects lost, on average, just over 1% of residents between 1990 and 2000, while non-served tracts had average gains of 5%.
Census tracts with General Occupancy LIHTC projects located in boroughs and especially townships were likely to have median household incomes similar to those in non-served tracts. In contrast, city tracts with General Occupancy LIHTC projects averaged significantly lower median incomes. In all, served tracts had an average median income equivalent to just 73% of that in non-served tracts.
While median household incomes tended to rise more slowly over the course of the 1990s (adjusting for inflation) in served tracts in boroughs and townships (compared to non-served tracts in those places), served urban tracts saw median incomes fall by over 2% (adjusting for inflation) while non-served urban tracts registered a slight increase. Overall, served tracts' income growth was just one-sixth the growth of non-served tracts.

The typical median gross rent in served tracts in boroughs and townships was actually greater than the median in non-served tracts in both places - suggesting that projects here are responding to the lack of affordable rental housing. In cities, however, served tracts averaged rents well below those in non-served tracts.
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Census tracts with General Occupancy LIHTC projects located in boroughs and especially townships were likely to have median values similar to those in non-served tracts. In contrast, city tracts with General Occupancy LIHTC projects averaged significantly lower median values. Overall, served tracts had average median values equivalent to just 67% of the median in non-served tracts.

<table>
<thead>
<tr>
<th>Place Type</th>
<th>Average Census Tract Median Value (2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borough</td>
<td>$87,376</td>
</tr>
<tr>
<td>City</td>
<td>$71,474</td>
</tr>
<tr>
<td>Township</td>
<td>$112,219</td>
</tr>
<tr>
<td>Total</td>
<td>$97,361</td>
</tr>
</tbody>
</table>

Regardless of the type of place in which census tracts are located, it appears that General Occupancy LIHTC projects do not adversely affect the housing markets in stronger neighborhoods but do little to combat ongoing decline in weaker neighborhoods. Among those tracts receiving General Occupancy LIHTC dollars during the 1990s, those with less than their share of area poor households in 1990 gained more population, and saw median household incomes and values rise far more than tracts with well above their share of area poor households. High-poverty tracts typically lost people and local purchasing power despite receiving General Occupancy LIHTC investment.

Sources: czbLLC, PHFA, U.S. Census
(Other studies have documented similar outcomes. For example, a review of Low-Income Housing Tax Credit projects in Wisconsin found that projects in affluent communities did not cause property values to decline while those in less affluent communities adversely affected appreciation.)

Lessons from the 1990s are good predictors for how more recent projects (and their home neighborhoods) will do. If anything, General Occupancy LIHTC projects developed since 2000 are more heavily concentrated in tracts with significantly more than their share of area residents in poverty, area rentals, and area low-cost rentals. During the 1990s, 64% of projects were located in census tracts with a “Community Impact Score” (in 1990) of 4 or 5; since 2000, 68% of projects were located in census tracts with a “Community Impact Score” (in 2000) of 4 or 5.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Less than Share</td>
<td>11%</td>
<td>Less than Share</td>
<td>10%</td>
</tr>
<tr>
<td>At or Just Above Share</td>
<td>25%</td>
<td>At or Just Above Share</td>
<td>22%</td>
</tr>
<tr>
<td>More than Share</td>
<td>64%</td>
<td>More than Share</td>
<td>68%</td>
</tr>
</tbody>
</table>

Sources: czbLLC, PHFA, U.S. Census, American Community Survey

And while a smaller percentage of post-2000 General Occupancy LIHTC Projects were located in cities (54% versus 70% in the 1990s), a similar portion of the General Occupancy LIHTC Allocation went to cities since 2000 compared to during the 1990s (65% versus 68%).

<table>
<thead>
<tr>
<th>Location</th>
<th>% of General Occupancy LIHTC Projects</th>
<th>% of General Occupancy LIHTC Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1990s</td>
<td>2000+</td>
</tr>
<tr>
<td>In Boroughs</td>
<td>18%</td>
<td>22%</td>
</tr>
<tr>
<td>In Cities</td>
<td>70%</td>
<td>54%</td>
</tr>
<tr>
<td>In Townships</td>
<td>12%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Sources: czbLLC, PHFA, U.S. Census
More recent trends in six cities, collectively receiving over half (51%) of all General Occupancy LIHTC projects, further supports this. In each case, cities’ poverty rates increased between 2000 and 2005; in four of the six cities, cities’ poverty rates increased faster than regional rates as a whole, meaning poverty became more concentrated in four of the six cities.

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<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Allentown</td>
<td>18.5%</td>
<td>23.0%</td>
<td>2.13</td>
<td>2.63</td>
</tr>
<tr>
<td>Erie</td>
<td>18.8%</td>
<td>20.2%</td>
<td>1.57</td>
<td>1.42</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>22.9%</td>
<td>24.5%</td>
<td>1.86</td>
<td>1.86</td>
</tr>
<tr>
<td>Pittsburgh</td>
<td>20.4%</td>
<td>23.2%</td>
<td>1.82</td>
<td>1.87</td>
</tr>
<tr>
<td>Reading</td>
<td>26.1%</td>
<td>35.1%</td>
<td>2.76</td>
<td>3.08</td>
</tr>
<tr>
<td>Scranton</td>
<td>15.0%</td>
<td>22.9%</td>
<td>1.38</td>
<td>1.70</td>
</tr>
</tbody>
</table>

Sources: czbLLC, PHFA, U.S. Census, American Community Survey

Moreover, area rental units became more concentrated in all six cities between 2000 and 2005.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Allentown</td>
<td>1.61</td>
<td>1.82</td>
</tr>
<tr>
<td>Erie</td>
<td>1.42</td>
<td>1.44</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>1.29</td>
<td>1.37</td>
</tr>
<tr>
<td>Pittsburgh</td>
<td>1.45</td>
<td>1.46</td>
</tr>
<tr>
<td>Reading</td>
<td>1.88</td>
<td>2.02</td>
</tr>
<tr>
<td>Scranton</td>
<td>1.48</td>
<td>1.54</td>
</tr>
</tbody>
</table>

Sources: czbLLC, PHFA, U.S. Census, American Community Survey

These cities have also struggled to attract new homeowners since 2000. Each attracted well below its share of the area’s new owners; in every case, the homeownership rate among households moving into their current unit since 2000 was below 33%.

<table>
<thead>
<tr>
<th>County Subdivision</th>
<th>Owner Households Moving in 2000s</th>
<th>Target Area Owners Moving in 2000s</th>
<th>Share of Owners Moving in 2000s</th>
<th>Homeownership Rate, Households Moving in 2000s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allentown</td>
<td>6,919</td>
<td>54,405</td>
<td>0.70</td>
<td>28.2%</td>
</tr>
<tr>
<td>Erie</td>
<td>5,943</td>
<td>20,017</td>
<td>0.82</td>
<td>31.9%</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>81,313</td>
<td>291,424</td>
<td>0.72</td>
<td>32.5%</td>
</tr>
<tr>
<td>Pittsburgh</td>
<td>17,607</td>
<td>87,235</td>
<td>0.78</td>
<td>26.8%</td>
</tr>
<tr>
<td>Reading</td>
<td>4,230</td>
<td>33,572</td>
<td>0.61</td>
<td>24.7%</td>
</tr>
<tr>
<td>Scranton</td>
<td>2,557</td>
<td>31,030</td>
<td>0.61</td>
<td>19.5%</td>
</tr>
</tbody>
</table>

Sources: czbLLC, PHFA, U.S. Census
As a result of this weaker demand, median values rose only moderately in most of these cities between 2000 and 2005. And in each case, the cities’ median value represented just a fraction of the area median. In extreme cases (like Philadelphia and Reading), the city median was equivalent to less than half of the area median.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Allentown</td>
<td>$76,900</td>
<td>$111,500</td>
<td>0.65</td>
</tr>
<tr>
<td>Erie</td>
<td>$65,900</td>
<td>$73,400</td>
<td>0.76</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>$59,700</td>
<td>$100,200</td>
<td>0.44</td>
</tr>
<tr>
<td>Pittsburgh</td>
<td>$59,700</td>
<td>$74,000</td>
<td>0.73</td>
</tr>
<tr>
<td>Reading</td>
<td>$44,500</td>
<td>$48,000</td>
<td>0.35</td>
</tr>
<tr>
<td>Scranton</td>
<td>$78,200</td>
<td>$91,100</td>
<td>0.87</td>
</tr>
</tbody>
</table>

Sources: czbLLC, PHFA, U.S. Census, American Community Survey
Changing the Equation: Meeting Needs and Moving Markets

As this report makes clear, the current deployment of General Occupancy LIHTC dollars favors places already overburdened with concentrations of poverty and low-cost units, and weak or stagnant housing markets. As a result, while the program is providing affordable housing to low-income households, this is (at best) a short-term victory: By relegating low-income households to weaker housing markets, the present pattern is not providing clients with high quality neighborhoods nor is it linking clients with economic opportunity or the means for upward mobility. At the same time, by concentrating low-cost apartments in weaker housing markets, the program is not positively affecting (and may even be harming) impacted neighborhoods.

A far more effective strategy would be:

- To provide affordable housing in areas with strong markets and close proximity to employment;
- To mix incomes to a greater degree in projects going into weaker areas; and
- To use a range of other place-based investment tools in order to both meet the needs of lower-income households and help increase local housing market strength in weaker markets.

There are many reasons why affordable housing is not going into strong markets.

1. For one, land costs are often prohibitive and generate deals that are too expensive.
2. In addition, with affordable housing still stigmatized and seen as a trigger for neighborhood decline and reduced property values, subsidized developments are typically subject to tremendous political and popular opposition.

If any attempt to develop decent, safe, and sanitary affordable housing in a good neighborhood is going to face keen financial pressures and ugly local politics, and is likely to produce fewer units (owing to higher costs), it is not illogical that advocates for quality housing for low-income households opt to preserve or build (and finance) whatever they can wherever it is possible. Nevertheless, there is no denying that these new units, built too often in high-poverty, weak-market neighborhoods, come at great cost.

The existing research has consistently found that high-poverty neighborhoods have their own negative impacts on the economic and social well-being of their residents. Living in a high-poverty neighborhood reduces children’s chances of graduating from high school and attending college, worsens their employment prospects and future wages, and increases their changes of being involved with the criminal justice system. Living in a high-poverty neighborhood makes adults more likely to be unemployed and reliant on welfare.

Knowing this, is it suitable housing policy to actually contribute to these problems? A far more appropriate approach would be to use place-based policies (like the Low-Income Housing Tax Credit program) to help move recipients from high-poverty to low-poverty neighborhoods, improving both their housing condition (the quality and affordability of their home) and also adults’ and children’s access to opportunity.

This analysis of existing General Occupancy LIHTC Projects in Pennsylvania has further highlighted serious neighborhood-based consequences stemming from the concentration of low-cost units in weaker markets: increasing concentrations of poverty and low-cost housing, decreasing ability to attract new investment,
Analyses and Recommendations Regarding the Deployment of the Low-Income Housing Tax Credit in the Commonwealth of Pennsylvania

and widening disparities between the neighborhood and its surroundings (in terms of household income and housing value).

For these reasons the czb team proposes changing the equation that guides the allocation of General Occupancy LIHTC dollars to:

- Proactively account for existing neighborhood conditions, concentrations of poverty and access to economic opportunity in funding decisions;
- Proactively counter harmful private market tendencies to segregate low-income households in distressed, isolated neighborhoods; and
- Proactively invest in Pennsylvania’s housing stock and communities in a way that both meets affordability needs and moves markets in a positive direction.

We propose awarding up to half of all points given to developers seeking General Occupancy LIHTC funding based

- On the receiving census tract’s current concentrations of poverty and low-cost rental units and how the developer plans to work with and improve those concentrations; and
- On the receiving zip code’s job market and housing market strength.

First, we propose awarding points in such a way that encourages developers to mix incomes, place affordable (particularly very-low-cost) units in stronger markets, and diversify incomes in projects in weaker markets.

In places with existing concentrations of poverty and low-cost rental units (those with “Community Impact Scores” of 4 or 5), we propose rewarding developments with a lower percentage of very-low-cost units and discouraging those with high percentages of very-low-cost units.
Analyses and Recommendations Regarding the Deployment of the Low-Income Housing Tax Credit in the Commonwealth of Pennsylvania

In lower-poverty places with fewer existing apartments (those with “Community Impact Scores” of 1, 2, or 3), to take advantage of neighborhoods’ ability to absorb additional low-cost units (and give developers an incentive to fight local resistance to subsidized housing), we propose rewarding projects with larger allocations of very-low-cost units.

<table>
<thead>
<tr>
<th>Zip Code’s Opportunity Score</th>
<th>QAP Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4 to 2.2</td>
<td>0</td>
</tr>
<tr>
<td>2.3 to 2.8</td>
<td>5</td>
</tr>
<tr>
<td>2.9 to 3.4</td>
<td>15</td>
</tr>
<tr>
<td>3.5 to 4.2</td>
<td>20</td>
</tr>
<tr>
<td>4.3 to 5.4</td>
<td>25</td>
</tr>
</tbody>
</table>

(Note: Points are based on a possible total of 100 points per application.)
Analyses and Recommendations Regarding the
Deployment of the Low-Income Housing Tax Credit in the Commonwealth of Pennsylvania

References


Pollakowski, Henry; David Ritchay and Zoe Weinrobe. Effects of Mixed-Income Multi-family Rental Housing Developments on Single-Family Housing Values, Center for Real Estate, Massachusetts Institute of Technology, 2005.

Appendix A: Methodology for Community Impact Score

COMMUNITY IMPACT represents a census tract’s composite score in four areas:

1. Its share of the county’s or target area’s poor population;
2. Its share of the county’s or target area’s rental units;
3. Its share of the county’s or target area’s apartments renting for less than $750; and
4. How its percentage of apartments renting for less than $750 compares to the county’s or target area’s percentage.

Census tracts were assigned a “summary score” for each indicator according to the following scale:

<table>
<thead>
<tr>
<th>Score</th>
<th>Value</th>
<th>Score</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.0 to 0.49</td>
<td>1</td>
<td>0.0 to 0.49</td>
</tr>
<tr>
<td>2</td>
<td>0.5 to 0.99</td>
<td>2</td>
<td>0.5 to 0.99</td>
</tr>
<tr>
<td>3</td>
<td>1.0 to 1.49</td>
<td>3</td>
<td>1.0 to 1.24</td>
</tr>
<tr>
<td>4</td>
<td>1.5 to 1.99</td>
<td>4</td>
<td>1.25 to 1.49</td>
</tr>
<tr>
<td>5</td>
<td>2.0 or more</td>
<td>5</td>
<td>1.5 or more</td>
</tr>
</tbody>
</table>

The median value among the tract’s four fair share indicators became the tract’s COMMUNITY IMPACT SCORE.

If all poor individuals, rentals, and low-cost rentals, were distributed in the same way as the population or households as a whole, all tracts’ COMMUNITY IMPACT SCORES would equal 1.0. The lower the COMMUNITY IMPACT SCORE, the smaller the census tract’s share of the county’s poor population, rentals, or low-cost rentals; the higher the COMMUNITY IMPACT SCORE, the greater the census tract’s share.

The fairer the geographic distribution of low-income households, and of rental housing opportunities for low-income households, the higher the score.
Appendix B: Methodology for Opportunity Score

OPPORTUNITY represents a Zip Code’s composite score for:

1. Its Job-to-Household Ratio;
2. Its jobs-within-10-miles-to-Household Ratio;
3. The median value of its owner-occupied housing stock in 2000;
4. The median sale price for owner-occupied housing in 2005; and

(Job data was compiled by The Reinvestment Fund (TRF) during the first phase of PHFA’s housing study; median values from 2000 came from the U.S. Census; and median sale prices in 2005 came from Realtor.com, also collected by TRF.)

Zip codes were given a “summary score” for the two job-related indicators according to the following scale:

<table>
<thead>
<tr>
<th>Job-to-Household (JHH) Ratio</th>
<th>Nearby-Jobs-to-Household (NJHH) Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Score</strong></td>
<td><strong>Ratio</strong></td>
</tr>
<tr>
<td>1</td>
<td>0.0 to 0.49</td>
</tr>
<tr>
<td>2</td>
<td>0.5 to 0.99</td>
</tr>
<tr>
<td>3</td>
<td>1.0 to 1.49</td>
</tr>
<tr>
<td>4</td>
<td>1.5 to 1.99</td>
</tr>
<tr>
<td>5</td>
<td>2.0 or more</td>
</tr>
</tbody>
</table>

For the value-related indicators, zip codes received interim scores based on their Z Score (the relative value when all Pennsylvania zip codes were compared to one another) for each value-related indicator:

<table>
<thead>
<tr>
<th>Median Value, Median Sale Price, and Rate of Appreciation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Score</strong></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
</tbody>
</table>
These three interim scores were then averaged into one “Value-based” score.

Finally, an OPPORTUNITY SCORE was calculated using the following equation:

\[
(40\% \times \text{JHH Score}) + (20\% \times \text{NJHH Score}) + (40\% \times \text{Value-based Score})
\]

Points are awarded to projects in various zip codes according to the following scale:

<table>
<thead>
<tr>
<th>Opportunity Score</th>
<th>QAP Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4 to 2.2</td>
<td>0</td>
</tr>
<tr>
<td>2.3 to 2.8</td>
<td>5</td>
</tr>
<tr>
<td>2.9 to 3.4</td>
<td>15</td>
</tr>
<tr>
<td>3.5 to 4.2</td>
<td>20</td>
</tr>
<tr>
<td>4.3 to 5.4</td>
<td>25</td>
</tr>
</tbody>
</table>

The greater the economic opportunity for low-income households (access to jobs and place of residence in a neighborhood of choice), the higher the score.
Appendix C: Scenario Pressure Tests

To check the practicality of developing the range of project types that could be used to change markets, we tested a number of representative scenarios to determine the most market appropriate kind of activity for each market type.

Our financial projections show that developing a true “mixed income” (market-rate and LIHTC) project is difficult at best and, for a variety of reasons, usually more expensive. There is currently a limited syndication market for mixed-income deals because of significant compliance issues, investor insecurity about underwriting projects with market-driven (variable) rents, and the fact that a smaller tax credit portion of the deal reduces equity and syndication cost efficiencies.

Two additional issues without current solutions are:

- The “next available unit” rule, which is currently very complicated and does not accommodate projects in places where the market is not initially strong but where market demand and rents may increase.

- High land acquisition costs in high-cost-rental areas. Such land costs increase per unit costs and reduce the per unit tax credit equity. (This may suggest the need for allowing tax credits to support land acquisition in stronger markets.)

Yet mixed-income projects could offer significant social advantages by providing lower-income households with access to higher-quality neighborhoods; and mixed-income projects could act as a key ingredient in deconcentrating poverty in high-poverty neighborhoods and revitalizing distressed neighborhoods. For these reasons, mixed income (LIHTC/Market rent) deals are the approach that makes most sense.

But, importantly, the very deals that sound appropriate from both a policy and market perspective are costly. Our representative scenarios test when these costs are worth bearing by asking the question: which costs are higher: the costs of subsidizing mixed-income projects, or the social and market costs of continuing to develop strictly low-income projects, especially in weak markets?

Based on our analysis, mixed-income projects appear most appropriate only in selective markets.
“What if”

LOW- INCOME

1. **All low-income project in a strong market:**
   **Challenges:**
   A market study will need to demonstrate a sufficient number of qualified applicants (or a strategy for attracting applicants) and the presence of strong market conditions. This scenario may also require utilizing Section 8 certificates, particularly for units targeting tenants at 20% to 60% of AMI.

   **Probable Outcomes:**
   In strong markets with (or able to attract) an adequate number of AMI-qualified tenants, developments with 100% of the units at either 50% or 60% of AMI both work. Both models require minimal subsidy; having all units at 60% AMI requires the least subsidy.

   The concentration of tax credit projects in areas meeting the “adequate number of qualified tenants” test becomes problematic as these markets mature. New developments limit the rent increases of existing (older) developments, minimizing their ability to generate funds for maintenance and capital improvements. As the appearance and upkeep of the older buildings declines, they become even less desirable relative to the newer developments.

2. **All low-income in a distressed market**
   **Challenges:**
   In this market rents are rising more slowly than inflation, flat, or decreasing. Vacant units are hard to fill and unit turnover times are above average.

   **Probable Outcomes:**
   Even low-income people don’t want to live in low-demand areas. Increases in the number and longevity of vacancies add to the area’s distressed image. A LIHTC project here may reach stabilization but only if the area reaches an “image” equilibrium. Projects in these areas have a high probability of failure.

   Running the scenario projection in low demand markets, project NOI continues to decrease (under certain circumstances rapidly). The reduced NOI is initially offset set by funding reserves, but maintenance expenditures eventually decrease and repairs are ultimately suspended entirely as property management oversight is reduced. Carried far enough, the result could be foreclosure.
MIXED INCOME

3. Mixed-income in a strong market

Challenges:
Finding and qualifying tenants for the low-income units is more difficult and may require a comprehensive marketing strategy and effort to reach low-income tenants in other areas. (This could present fair housing implications and other challenges, as low-income households do not normally frequent the locations where this type of project would be built.) Additional thought must be given to selling the idea of low-income and market-income tenants living side-by-side.

Probable Outcomes:
In the modeling, if the “market” rents are above the HUD listed fair market rents, the project performs adequately – the project is stable over its life and generates a moderate level of NOI. Surprisingly, subsidies are still required and the per unit subsidy is slightly higher than the per unit subsidy for a 100% LIHTC project in a strong market. Increases (per unit) in land cost and underwriting seem to be the main cost problems.

4. Mixed-income in a distressed market

Challenges:
This market proved the most complex. The scenarios showed time and again that mixed income in distressed markets did not work. This was a surprise and more work is clearly needed to confirm this preliminary result.

The problem with mixed-income projects in distressed markets is the relationship between LIHTC rents and fair market rents. We used the FMRs as a proxy for market rents in all areas while searching for localized areas where rents exceed the FMRs. In distressed areas, rents are lower and the localized FMRs are lower. In the test scenarios, 60% AMI rents were at or slightly above the FMRs in distressed areas.

Probable Outcomes:
Based on our scenarios, true mixed-income projects in distressed areas are not likely. However, mixing incomes within LIHTC units is appropriate. The results show that in several scenarios the 60% rents are above FMR but a “mix” of 50%, 40%, and 30% incomes is both possible and practical in this market.

Unexpectedly, the best case scenario is a 100% LIHTC development in a strong market. This scenario requires the least per unit subsidy. The mixed-income project in a strong market with rents above the FMR requires a slightly higher per unit subsidy but provides low-income tenants access to services and amenities better than those offered in weaker markets. However these are the very areas least likely to conceptually support and/or attract affordable developments.
Appendix D: Gentrification Across Pennsylvania

Few issues arouse as much passion – and misunderstanding – in the community development field, as does gentrification. Passion about the issue is often based on a concern for the displaced, those households with incomes too inadequate to permit them to compete for housing in the neighborhoods where they traditionally have lived, and ostensibly would have otherwise stayed.

The misunderstanding is on one hand often a function of believing gentrification to be either an unalloyed bad or good. On the other, it is frequently a failure to understand that gentrification is a long-term process of change, not the sudden-out-of-nowhere transformation many think it to be. In fact, gentrification is a long-term process that is characterized by various degrees of impact, and one that occurs in stages.

In addition to the passions aroused by the subject of gentrification, and the many misunderstandings of neighborhood change, there is the issue of precisely how gentrification is defined.

- Some consider gentrification to be the actual displacement in real time of specific low income households from their homes.
- Others consider gentrification to be the replacement of specific low income households in real time by specific higher income households.
- And still others consider gentrification to be the change of a place’s real estate market to the point where future low income households will be unable to live there.

In fact all three can be true. But because each is accurate does not mean they are one and the same. Neighborhoods change over time, and change occurs for a variety of factors. A neighborhood with every ingredient needed for displacement to occur might actually adjoin markets that are soft, and so many never actually have to contend with gentrification. A neighborhood with seemingly few of the usual preconditions needed for gentrification – historic architecture, low prices – might tip because land values trigger take-downs. Gentrification is a specific kind of displacement occurring for many interconnected reasons, over usually long stretches of time, with displacement being a negative effect but neighborhood quality of life increases being a positive outcome. A key issue around which many rally is that improvements are held to be enjoyed by new arrivals, not those who endured previous stages of distress.

Because the positive outcome of an improved quality of life comes at the expense of affordable housing, agencies tasked with preserving and developing stocks of affordable housing are wise to pay attention to market trends. Being able to forecast the possible loss of affordable units is an essential planning element.

But while being able to pinpoint such locales would be useful in shaping affordable housing preservation strategies, it is a very complex undertaking. Data needed to make these kinds of forecasts is collected as scales (zip codes and census tracts) far larger than the geography at which gentrification occurs, and before displacement takes place, the building blocks of transformation set in.

In addition, its important to obtain clarity about so complex an issue as neighborhood change, and the potential for displacement of low-income households, whether by development activity, in-moving upper income HHs, or loss of rental units owing to conversions.

Four central elements of neighborhood dynamics frame the issue:
1. **Neighborhoods are in constant state of change.**
   a. Household formation and re-formation is an on-going reality in our communities.
   b. People marry, divorce, adopt children, die, and change jobs with regularity.
   c. As life happens, household size and housing needs ebb and flow.
   d. Because households are in a constant state of change, neighborhoods are as well.

2. **The constant change neighborhoods undergo means they are always “in-play”, generating “ability to pay” and “willingness to pay” scores among different populations of households.**
   - Being “in-play” means that on some days, neighborhoods lose households to other neighborhoods (in the same city or state, or perhaps not). Losing households is a function of many factors, but they can be boiled down to two:
     i. The sum of the strengths (of the current neighborhood in comparison to other affordable options) in the context of any given households’ circumstance. This can be thought of as the “pull”.
     ii. The sum of the weaknesses (of the current neighborhood in comparison to other affordable options) in the context of any given households’ circumstance. This can be thought of as the “push”.
   - Being “in-play” also means that on some days neighborhoods may also gain new households (from the same city or state, or perhaps not). Gaining households is also a function of other factors. But they can also be boiled down to two:
     i. The sum of the strengths
     ii. The sum of the weaknesses
   - The net of being “in-play” is that individual households are constantly choosing one destination over or instead of another, thus at once bringing to one place all of their own strengths and weaknesses and simultaneously depriving all other places of those same individual household pluses and minuses.
   - The destination a household chooses, over all others, is an expression of that household’s willingness to pay in the context of their ability to pay.
   - In effect, the stronger the neighborhood in terms of being attractive to the most households (thus generating high degrees of willingness to pay), the greater the demand. The weaker the neighborhood in terms of being attractive to households (thus generating low degrees of willingness to pay), the less the demand.

3. **When a neighborhood generates a high willingness to pay among potential households, demand rises.**
   - Amid constant supply, prices rise, in turn reducing the number of households that have the ability to pay to live there.
4. When there is a differential between willingness to pay and ability to pay, the circumstances are ripe for neighborhood transformation and the potential for gentrification increases in similar nearby communities.

- High degrees of willingness to pay mean high demand and high prices and an ever higher ability to pay threshold.
- Eventually, prices rise to a point where even financially strong households are priced out of their first, and sometimes second and third choice neighborhoods.
- Households unable to secure a foothold in their first or second choice neighborhoods search for what they can afford that also has at least some of the attributes they found in their top choices.
- These second or third choice neighborhoods are perceived as neighborhoods of future value since many households at once are attracted to more costly versions of the same that they can’t afford either.
- Demand, unsatisfied in most expensive neighborhoods owing to prohibitive costs, is shifted to next best options.

To determine which places may gentrify, there are certain indicators PHFA may wish to examine:

- Where are the Commonwealth’s high willingness to pay neighborhoods?
- What are the main ingredients in those places, such as historic architecture, good value, location, et cetera?
- Where are those same ingredients present nearby?
- Which such places have excess demand?

To check what has been happening across the Commonwealth of Pennsylvania, czb performed several tests. In a first pass attempt to identify Pennsylvania census tracts where gentrification is occurring, czb used data from the 1980 and 2000 Census to analyze the change in the number of rental units and the change in gross rents. Gentrification tends to occur at very small levels - block-by-block or even house-by
Analyses and Recommendations Regarding the Deployment of the Low-Income Housing Tax Credit in the Commonwealth of Pennsylvania

House - thus it is difficult to observe even at the relatively small level of the census tract. However, we believe that the rental markets within a census tract are sufficiently small that gentrification would be detectable by analyzing trends in rental units and gross rents. Moreover, strong symptoms of gentrification are the conversion of rental units into condominiums and the displacement of low-income households from the area; both of which would show up in the rental market.

Therefore, for the purpose of this analysis we generated analyses tracking the percent change in gross rent and percent change in rental occupied units between 1980 and 2000 by census tract. We then identified census tracts where gross rent had at least tripled in the last 20 years (excluding inflation), and where the number of rental units declined by at least 25 percent. We considered census tracts with both these conditions present to be ones where at least some gentrification was occurring. Of the 3135 census tracts analyzed, 68 met the gentrification requirements (about two percent of the state's CTs).

Within these 68 census tracts we highlighted 22 tracts with extreme gentrification pressures, where rents increased at least 500 percent and the number of rental units declined by at least 40 percent. We then analyzed these census tracts to determine how many LIHTCs had gone into these areas. We found that of the 68 tracts identified as gentrifying, only 6 had received any LIHTCs. Moreover, only 1 of the 22 tracts identified as having extreme gentrification had received LIHTCs. While a definitive conclusion is difficult to reach, we do not detect a pattern whereby LIHTC projects as inputs generate displacement outcomes.2

Because displacement is principally an urban condition, and in Pennsylvania mainly a situation in Philadelphia, we examined Philadelphia more deeply to determine co-existence of general LIHTC units and gentrification indicators.

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2 CTs with a 1 in the "gent" column mean that the CT had at least a tripling of rents between 1980 and 2000 and a decline of at least 25% in the number of units renter occupied. The "gent3" variable means that the CT had more than a 500% increase in rents and lost at least 40% of its rental units. The thresholds for gentrification that we used simply picked from the percentile distributions of change in rent and change in rental occupied units between 1980 and 2000, so they are subjective and could easily be changed to expand (or narrow) the gentrification definition.
The second map above includes a broader definition of gentrification to catch more tracts where this might be an issue. All tracts highlighted in red lost rental units between 1990 and 2000. Tracts edged in light blue not only lost units but also saw median rents increase from a level below $500 in 1990 to a level above $500 in 2000. Tracts edged in yellow not only lost rental units but also saw median rents increase from a level below $750 in 1990 to a level above $750 in 2000. This is critical because there are at least two critical indicators to keep an eye on:

- One is the presence of pressures that would reduce the percent and number of rentals, and within this, affordable rentals.
- The other is the presence of pressures on housing stocks ordinarily within reach of first time buyers.

In the former the issue is generally actual and outright displacement risk of existing residents, whereas in the latter it usually means a loss of a place traditionally home to working class households.

This next map shows similar categories but only shades those tracts where rental units declined even as the number of occupied units increased between 1990 and 2000 (highlighting possible conversions).
Appendix E: Considerations on Measuring the Value of Senior Housing

Not all affordable housing is equal. Housing for the very poor, typically handled by housing authorities, means housing for single parents, families, and multi-generationally poor. These three elements - children, single parent head of households, and chronically poor - have profound implications for capital and operating cost structures, service dependency, and economy of scale in management. These implications translate into substantial site challenges, and also to neighboring values. These issues are notably absent in senior housing and less present in workforce housing situations. For these reasons it is useful for state finance agencies to examine the factors that would be most relevant in ranking senior housing development proposals. Doing so requires utilizing an objective methodology, which we describe below, a methodology czb recommends PHFA consider when evaluating geographic and market appropriateness of locating senior projects in the Commonwealth.

Elderly Population
From the 2000 U.S. Census, czb determined the number of elderly residents (the population aged 65 or older) and the number of elderly household heads for all Pennsylvania zip codes. czb also calculated what portion of zip code residents and household heads were at least 65-years-old.

To determine which tracts had significantly high numbers and portions of elderly residents and household heads, czb then converted each of the four indicators (population 65 and older, % of population 65 and older, household heads 65 and older, % of household heads 65 and older) into Z Scores.

<table>
<thead>
<tr>
<th>Z Score</th>
<th>Relative Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than -2</td>
<td>Well Below Average</td>
</tr>
<tr>
<td>-2.0 to -1.1</td>
<td>Below Average</td>
</tr>
<tr>
<td>-1.0 to 0.1</td>
<td>Just Below Average</td>
</tr>
<tr>
<td>0.0 to 0.9</td>
<td>Just Above Average</td>
</tr>
<tr>
<td>1.0 to 1.9</td>
<td>Above Average</td>
</tr>
<tr>
<td>2.0 or More</td>
<td>Well Above Average</td>
</tr>
</tbody>
</table>

A zip code’s ELDERLY POPULATION level was the average of its four individual Z Scores. Zip codes with an average greater than 0 were considered to have an Above-Average Elderly (65 or older) Population; zip codes with an average greater than 1 were considered to have a Well Above-Average Elderly (65 or older) Population. This provided a baseline for determining geographic location of need.

Housing Problems for Elderly Householders
Housing Problems for the elderly first reflect the number and portion of householders 65 or older with unaffordable housing costs (where rent or mortgage payments exceeded 30% of household income), and the number and portion of owners 65 or older living in housing units built prior to 1940.
To determine which tracts had significantly high numbers and portions of such housing problems, czb converted each of the four indicators into Z Scores and averaged them together. Zip codes received an interim housing problem score based on this average:

<table>
<thead>
<tr>
<th>Score</th>
<th>Z Score</th>
<th>Relative Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Less than -2</td>
<td>Well Below Average</td>
</tr>
<tr>
<td>2</td>
<td>-2.0 to -1.1</td>
<td>Below Average</td>
</tr>
<tr>
<td>3</td>
<td>-1.0 to -0.1</td>
<td>Just Below Average</td>
</tr>
<tr>
<td>4</td>
<td>0.0 to 0.9</td>
<td>Just Above Average</td>
</tr>
<tr>
<td>5</td>
<td>1.0 to 1.9</td>
<td>Above Average</td>
</tr>
<tr>
<td>6</td>
<td>2.0 or More</td>
<td>Well Above Average</td>
</tr>
</tbody>
</table>

Next, czb determined whether a zip code's median income for elderly households could afford that zip code's median rent or median value. The 2000 U.S. Census provides a median income for householders aged 65 to 74 and for householders aged 75 or older; the Census also provides a zip code's median gross rent and median value.

czb calculated the maximum affordable rent and purchase price for each median, whenever the actual median rent and median value exceeded older households' ability to pay, zip codes received one point. Zip codes’ **interim housing affordability score** (their total number of points) could range from 0 to 4.

<table>
<thead>
<tr>
<th>Rents and Values vs. Income</th>
<th>Score if Yes</th>
<th>Score if No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Gross Rent &gt; Maximum Rent for Median Income (65-74)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Median Gross Rent &gt; Maximum Rent for Median Income (75+)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Median Value &gt; Maximum Price for Median Income (65-74)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Median Value &gt; Maximum Price for Median Income (75+)</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Zip codes with an interim housing problem score of 4 or higher or an interim housing affordability score of 3 or 4 were considered to have **Above-Average Housing Problems for Elderly (65 or older) Population**; zip codes with an **interim housing problem score** of 5 or higher or an interim housing affordability score of 3 or 4 were considered to have **Well Above-Average Housing Problems for Elderly (65 or older) Population**.

**Amenities**

To determine which zip codes were “amenity-rich” for elderly households, czb collected County Business Pattern data for all zip codes on the number of health establishments and jobs and the number of retail establishments and jobs. czb calculated totals (one figure for health and retail establishments, another for health and retail jobs) and a health and retail jobs-to-households ratio for all zip codes.

To determine which tracts had significantly high numbers and these jobs and establishments (in total and relative to households), czb then converted each of the three indicators (health and retail establishments, health and retail jobs, and health and retail jobs-to-household ratio) into Z Scores and averaged them together. Zip codes received an **interim amenity score** based on this average:
czb also downloaded all hospitals and all home health agencies licensed by the Pennsylvania Department of Health and summarized the number of each in all zip codes. Zip codes with an interim amenity score of 4 or higher, at least one hospital, or at least one home health agency were considered to have “Amenities in Zip Code.” By merging affordability scores and amenity scores against senior populations, czb was able to determine objectively location of greatest need, thus enabling PHFA to make future senior housing project investment decisions guided by an objective rationale.
czb then calculated senior housing need on an existing and on an emerging basis, based on age of residents by PHFA regional designation.