



West Philadelphia Scattered Site Model: An Affordable Housing Impact Study June 2016

Executive Summary

Study Purpose: The purpose of this multipronged study is to (1) understand how the rehabilitation of more than 1,100 affordable housing units in 760 single-family houses or duplexes has impacted the West Philadelphia neighborhoods in which they are located, and (2) determine whether this approach offers cost efficiencies or revitalizing impacts that differ from developments that produced a similar number of affordable units on a single site.¹ Two private sector developers, WPRE and Neighborhood Restorations (WPRE/NR) created and implemented the West Philadelphia Scattered Site Model from 1989 to the present in order to rehabilitate abandoned rowhouse shells into affordable housing. The study focuses on affordable rental housing units constructed in the City of Philadelphia and financed using Low Income Housing Tax Credits (LIHTC) in Philadelphia from 1989–2013.

Study Findings:

1. Home sales prices for houses within ¼ mile of West Philadelphia Scattered Site properties rose by 50%, while single site new construction increased sales prices by only 25%.
2. Twenty West Philadelphia Scattered Site units have the same positive impact on the surrounding neighborhood as forty single site units.
3. West Philadelphia Scattered Site Units cost 24% less than single site new construction and 27% less than other rehabilitation.
4. West Philadelphia Scattered Site cost per bedroom was 32% lower than single site new construction developments and 10% lower than single site rehabilitation developments.
5. West Philadelphia Scattered Site units used 41% lower tax credit allocations than new construction and 32% lower than rehabilitation.
6. West Philadelphia Scattered Site developments require no public subsidy while other new construction and rehabilitation projects used 10-52% of public funds to finance their projects.²

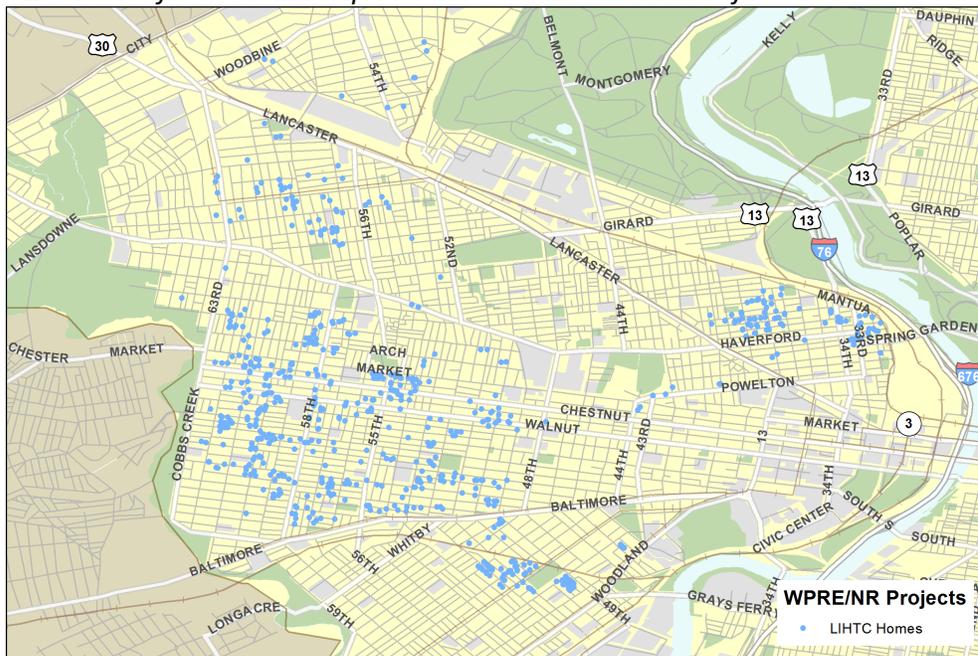
¹ Under the scattered site model, abandoned rowhouses and duplexes are rehabilitated and offered as private rental homes. In contrast, under the single site new construction model, a developer builds or renovates a building that has a single entrance and houses six or more apartment units or builds multiple units on a single parcel or multiple parcels of adjacent land.

² Public subsidy includes federal grants, community development grants, and other forms of publicly subsidized debt.

Purpose of Study and Context

WPRE and Neighborhood Restoration, two private sector developers, created and implemented the West Philadelphia Scattered Site Model from 1989 to the present in order to rehabilitate abandoned rowhouse shells into affordable housing using Low Income Housing Tax Credits (LIHTC) and private financing.³ The West Philadelphia Scattered Site Model has produced more than 1,100 units of affordable rental housing in 760 single-family houses or duplexes and has led to a direct investment of more than \$160 million in West Philadelphia. The houses are located in some of West Philadelphia's most economically distressed blocks. (See map below.) This study by May 8 Consulting and Reinvestment Fund⁴ analyzes the impact of the West Philadelphia Scattered Site Model rental housing built between 1989 and 2013 in the West Philadelphia area of the city.

Location of West Philadelphia Scattered Site Model Projects



More than 25 years ago, in 1989, Neighborhood Restoration developed the West Philadelphia Scattered Site Model to rehabilitate vacant and abandoned homes into affordable rental homes for low-and moderate-income households. In 2008, WPRE was formed as a separate company to continue pursuing the West Philadelphia Scattered Site Model, using Neighborhood Restorations as its consultant to leverage its experience and credibility with community members and funders.

This analysis of a specific scattered site housing model seeks to add to a substantial body of research that explores the positive impact of Low Income Housing Tax Credit (LIHTC) financed affordable housing in low-income neighborhoods. The Low Income Housing Tax Credit (LIHTC) was created in 1986 as an indirect federal subsidy that allows investors to claim dollar-for-dollar tax reduction on their federal income tax returns for a percentage of costs incurred in developing affordable rental housing aimed at low- and moderate-income households. Prior research has found that LIHTC financed affordable housing developments

³ On three more recent occasions, WPRE and Neighborhood Restoration have competed and received relatively small public grants from Community Development Block grants and other sources, but this is not a typical part of their financing strategy.

⁴ Since 1994, Reinvestment Fund, a community development financial institution, has provided loans to fund the scattered site investments of both WPRE and Neighborhood Restoration. Over the same time, Reinvestment Fund financed the creation or rehabilitation of more than 20,000 affordable housing units as part of both scattered site and single site developments.

have a positive impact on a low-income neighborhood,⁵ and that scattered site housing models can create affordable housing units at a lower cost than new construction.⁶ This analysis seeks to add to this rich body of research by evaluating the impact and cost-effectiveness of the West Philadelphia Scattered Site model and explicitly comparing the cost and neighborhood revitalizing impact of this model with LIHTC financed single site developments in the same or similar neighborhoods. For the purposes of this study, a scattered site model is one that rehabilitates abandoned rowhouses and twins into private rental homes, whereas a single site model is one where a developer builds or renovates a building that has a single entrance and houses six or more apartment units or builds multiple units on a single parcel or multiple parcels of adjacent land.

Purpose: The purpose of this multi-pronged study is to (1) understand how the rehabilitation of more than 1,100 affordable housing units in 760 single-family houses or duplexes has impacted the West Philadelphia neighborhoods in which they are located, and (2) determine whether this approach offers any cost efficiencies or revitalizing impacts that differ from developments that produced a similar number of affordable units on a single site. The study focuses on affordable rental housing units located in the City of Philadelphia and financed using Low Income Housing Tax Credits (LIHTC) in Philadelphia from 1989–2013.

Summary of Key Findings

1. Home sales prices for houses within ¼ mile of West Philadelphia Scattered Site properties rose by 50%, while single site new construction increased sales prices by only 25%.
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⁵ Rebecca Diamond and Tim McQuade, *Who Wants Affordable Housing in their Backyard? An Equilibrium Analysis of Low Income Property Development* (July 2015) http://web.stanford.edu/~diamondr/LIHTC_spillovers.pdf, Edmiston, K. D. Nonprofit housing investment and local area home values. *Economic Review*, (Q1), 67–96 (2012).

<https://www.kansascityfed.org/publicat/econrev/pdf/12q1Edmiston.pdf>

⁶ Smith, Marvin M; Hevener, Christy Chung, *The Impact of Housing Rehabilitation on Local Neighborhoods: The Case of Small Community Development Organizations*; *American Journal of Economics and Sociology*, Volume 70, Issue 1 (2011); Ellen, I.G. *Spillovers and Subsidized Housing: The Impact of Rental Housing on Neighborhoods*. Cambridge, MA: Joint Center for Housing Studies, Harvard University (2007).

⁷ Public subsidy includes federal grants, community development grants, and other forms of publicly subsidized debt.

Key Findings

1. Home sales prices for houses within ¼ mile of West Philadelphia Scattered Site properties rose by 50%, while single site new construction increased sales prices by only 25%.

In order to understand the impact of scattered site and single site affordable housing on a neighborhood, Reinvestment Fund calculated the prices of houses located near a scattered site or a single site LIHTC property and compared them with the price of homes in the same or similar neighborhood that were not located near a scattered site or a single site LIHTC property. Because home values vary significantly across the city, and LIHTC properties are generally built in neighborhoods with less expensive homes, the analysis explores only census block groups where at least one scattered site or one single site LIHTC development was built between 1994 and 2013.

Property values are a good measure of overall neighborhood impacts because they show the willingness of homeowners or investors to pay for neighborhood attributes.

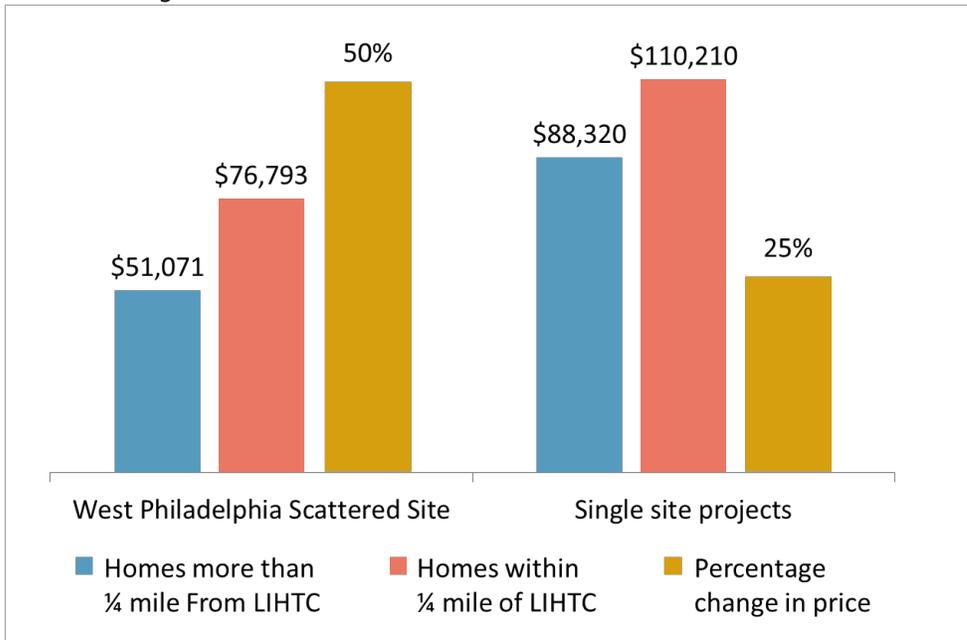
Homes sold within ¼ mile of a scattered site property sold for an average of 50% more than those homes not located near a scattered site property. Homes sold within ¼ mile of a West Philadelphia Scattered Site house (roughly two and a half blocks) sold for an average of \$76,793. Homes in the same census block group, but not located near a scattered site house or sold before the scattered site house was rehabilitated, sold for only \$51,071. The prices paid for homes located near scattered site projects were 50% higher than prices paid for homes not located near scattered site projects. The additional \$25,722 real home buyers paid for homes near scattered site properties in West Philadelphia suggests they are having a positive effect on their surrounding communities.

Houses near single site development show a smaller positive benefit of 25% on sales prices. Homes sold near a single site project sold for an average of \$110,210. Homes in the same census block group but located more than ¼ mile away from a single site project, or sold before the single site project was built, sold for only \$88,320. Single site projects were generally located in block groups with more expensive homes than scattered site projects. The development of a single site multifamily building resulted in an increase in price of 25% when compared with the prices paid for homes not located near single site properties.

The following chart shows that the benefit of being located near a scattered site property is nearly twice as large as the benefit of being located near a single site project.⁸ The gold bar shows the percentage change in actual sales price and documents the fact that homebuyers were willing to pay proportionally more to live near the rehabilitated single-family homes that make up the scattered site development. Homes sold near a single site development, although more expensive to begin with, sold for only 25% more than homes not located near a single site development.

⁸ Reinvestment Fund performed a survey of LIHTC property condition to ensure that the properties being compared were comparable. The physical condition and quality of LIHTC properties was assessed through a windshield survey of a random selection of West Philadelphia Scattered Site and single site properties during the summer of 2015. Every LIHTC property surveyed, both scattered and single site, was found to be in “good” or “excellent” condition; however, properties adjacent to West Philadelphia Scattered Site properties were on the whole, in better condition than properties adjacent to single site projects. Ninety-five percent of homes adjacent to West Philadelphia Scattered Site properties were rated as being in “good” or “excellent” condition, whereas 88% of homes adjacent to single site properties were rated in “good” or “excellent” condition.

Average Price Of Homes In Block Groups With At Least One Scattered Site Or Single Site Unit Of LIHTC Housing



Note: All sales prices were adjusted to 2013 dollars

2. Twenty West Philadelphia Scattered Site units have the same positive impact on the surrounding neighborhood as forty single site units.

Reinvestment Fund next performed a Surrounding Home Value Regression Analysis to assess how the number of LIHTC units within ¼ mile of a home increased or decreased the home’s sales price holding all physical characteristics of the home constant. (See graphic that follows for an illustration of this approach.) This analysis, known as a hedonic regression, controls for the characteristics of each home, taking into account the fact that homes located near a LIHTC development might be qualitatively different than those located farther away and estimates the value of each home sold based on its physical characteristics, location, and the year in which it was sold. This approach provides a capacity to estimate the differential impact of scattered site and single site development projects at different scales within a limited geography. By examining the relationship between the number of LIHTC units located near each property transaction on sales prices, this model provides different estimates for home sales located near a single-family rowhouse or duplex property that houses one or two LIHTC units, and those surrounded by multiple single site, multifamily LIHTC units.

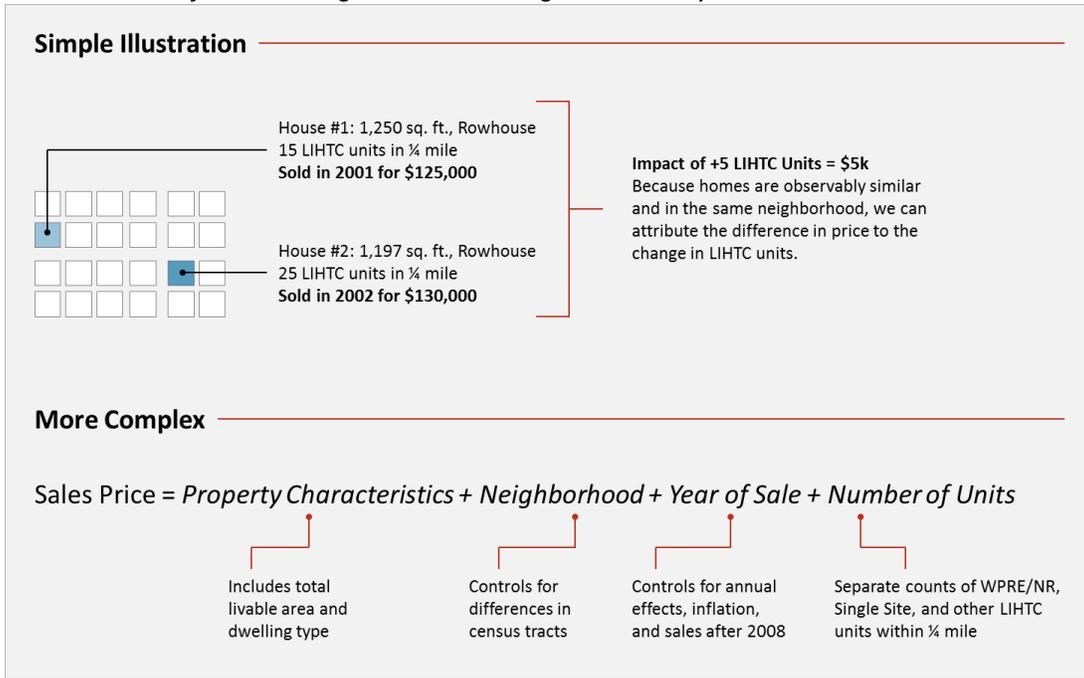
The results confirmed that a smaller number of LIHTC scattered site has a greater positive impact than a comparable number of single site development units on surrounding homes values. The size of the impact varies depending upon the concentration of LIHTC units around a home. For example, a small scattered site project that placed 10 LIHTC units in a concentrated area would improve home values by 7.8%, whereas a similar sized single site development would only improve home values by 4.5%.⁹

As the next graphic illustrates, scattered site units provide a larger boost to local property values than a single site development because they impact a larger geography. Where the primary benefit to neighborhood

⁹ Parameters related to the impact of West Philadelphia Scattered Site and single site LIHTC developments were significant at p<0.05 levels.

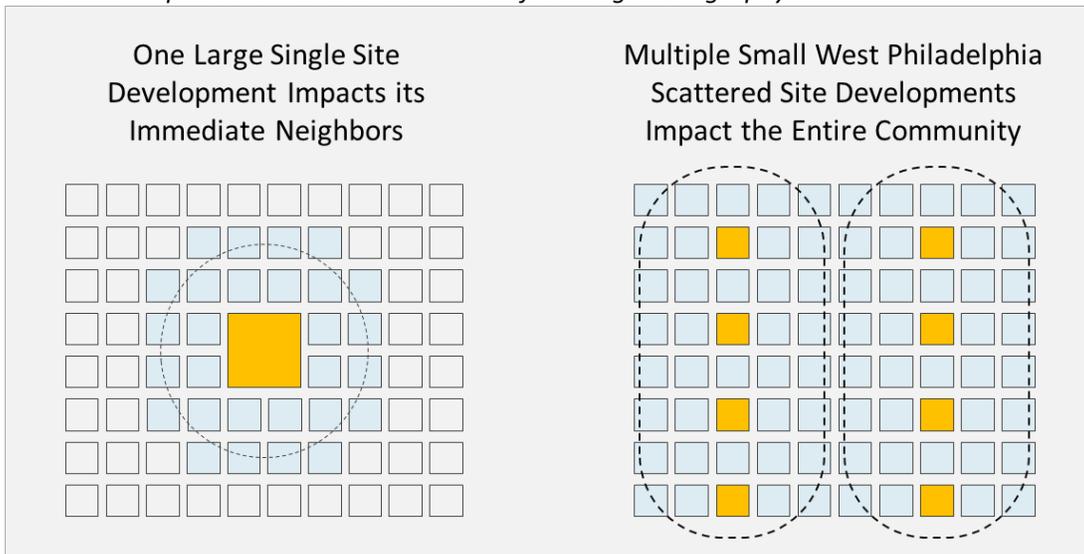
conditions occurs within roughly ¼ mile from each rehabilitated property, each scattered site unit impacts the ¼ mile surrounding it, whereas single site developments impact just one ¼-mile radius.

An Illustration of Surrounding Home Value Regression Analysis



The impact of both West Philadelphia Scattered Sites and single site projects reach a tipping point before their relative effect on home prices begin to decline. The results suggest that WPRE/NR scattered site rehabilitation has a maximum impact at 21 units, improving nearby home values by approximately 10%. Beyond 21 units, West Philadelphia Scattered Site projects begin to have diminishing positive benefits. On the other hand, single site projects require 42 units to boost property values by approximately 10%, after which additional units have diminishing positive benefits.

West Philadelphia Scattered Site Units Benefit a Larger Geography



3. West Philadelphia Scattered Site units cost 24% less than single site new construction and 27% less than other rehabilitation.

To define the relative cost effectiveness of the West Philadelphia Scattered Site model compared with other LIHTC developments, Reinvestment Fund analyzed data provided by the Pennsylvania Housing Finance Agency (PHFA) on Philadelphia LIHTC projects constructed between 2005 and 2007.¹⁰ Between 2005 and 2007, PHFA allocated credits to twenty-four LIHTC projects in Philadelphia. Within that 2-year time period, WPRE/NR produced five LIHTC scattered site developments using the West Philadelphia Scattered Site Model. In addition, LIHTC credits were allocated to six single site or townhouse style new construction projects, three single site or townhouse style rehabilitation projects, and seven Philadelphia Housing Authority (PHA) projects.¹¹ The table below shows acquisition costs, construction costs, and total development costs per unit for each of the 21 Philadelphia LIHTC projects built between 2005 and 2007.

Comparison of Development Costs Shows West Philadelphia Scattered Site Units Cost 24% Less than New Construction and 27% Less Than Rehabilitation (Not Adjusted for Inflation)

Project Type	Total Projects	Total Units	Acquisition Costs	Construction Costs	Other Costs	Total Development Cost
West Philadelphia Scattered Sites	5	225	\$16,586	\$117,889	\$35,743	\$170,218
New Construction Single Site/Townhouse	6	285	\$1,060	\$174,595	\$48,302	\$223,958
Rehabilitation Single Site/Townhouse	3	112	\$465	\$178,737	\$54,578	\$233,780
Philadelphia Housing Authority	7	589	\$56	\$184,602	\$46,236	\$230,894

Note: Purchase costs include the cost of purchasing land and buildings used in the development. Five new construction developments and two rehabilitation developments reported purchase costs below \$5,000, which suggests their costs were either subsidized or incorrectly recorded. Other costs include additional costs such as professional fees, development reserves, financing fees, taxes, insurance and other carrying costs.

4. West Philadelphia Scattered Site cost per bedroom was 32% lower than single site new construction developments and 10% lower than single site rehabilitation developments.

Per bedroom, West Philadelphia Scattered Site development costs were 32% lower than new construction development and 31% lower than PHA projects. West Philadelphia Scattered Site developments were 10% less expensive per bedroom than other rehabilitation projects. Between 2005 and 2007, 68% of the units built in West Philadelphia Scattered Site developments offered three or more bedrooms, compared with 51% of new construction units, and only 48% of PHA units. Seventy-five percent of rehabilitation units offered three or more bedrooms. The table below shows acquisition costs, construction costs, and total development costs per bedroom for each of the 21 Philadelphia LIHTC projects built between 2005 and 2007.

¹⁰ Reinvestment Fund requested data from Pennsylvania Housing Finance Agency for all Philadelphia LIHTC projects constructed between 1991 and 2013. Specifically for each project, the data requested included the number of units, the size of each unit, the development costs, tax credit allocation, and funding sources for each unit. Unfortunately the data set was incomplete, but the time period covering units created between 2005 and 2007 had the fewest pieces of missing information. As a result, this analysis evaluates the relative cost of LIHTC projects constructed in Philadelphia between 2005 and 2007 to ensure a legitimate comparison.

¹¹ The data also included senior, special needs and preservation projects during this time, but as they benefited from additional subsidies, they were excluded from this analysis.

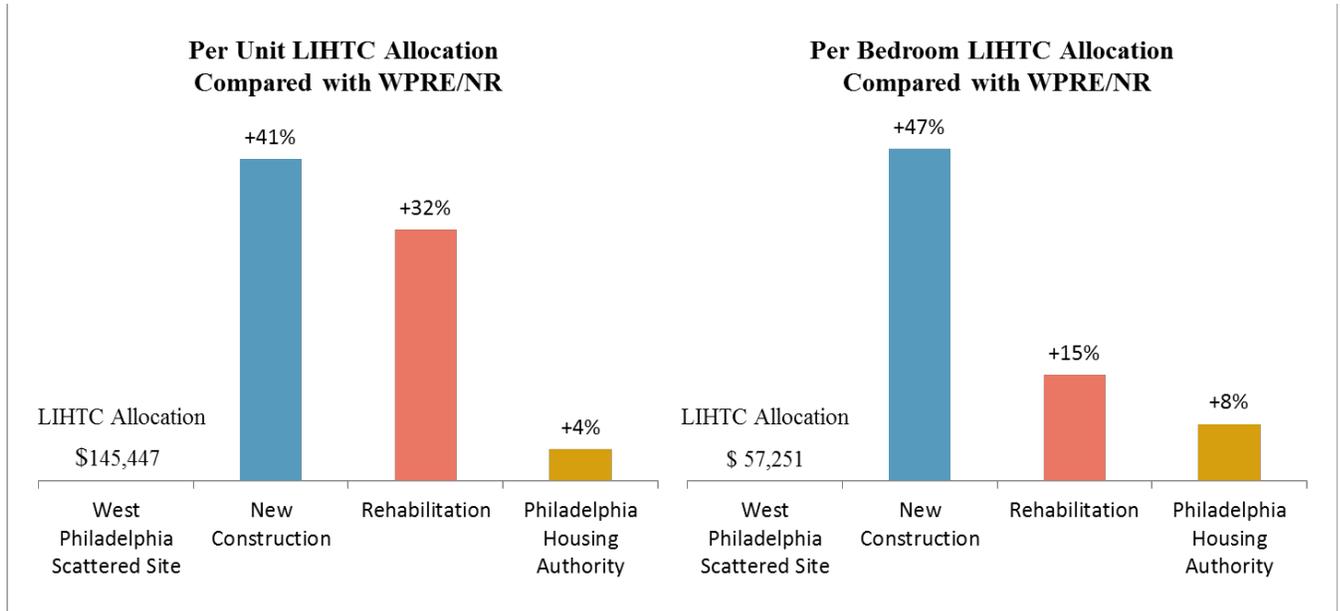
Comparison of Development Costs Shows West Philadelphia Scattered Site Units Cost 32% Less Than New Construction and 10% Less for Rehabilitation Development Per Bedroom (Not Adjusted for Inflation)

Project Type	Total Projects	Total Bedrooms	Acquisition Costs	Construction Costs	Other Costs	Total Development Cost
West Philadelphia Scattered Sites	5	627	\$6,250	\$43,641	\$13,322	\$63,213
New Construction Single Site/ Townhouse	6	711	\$460	\$71,694	\$20,210	\$92,364
Rehabilitation Single Site/ Townhouse	3	382	\$113	\$53,823	\$16,364	\$70,299
Philadelphia Housing Authority	7	1,466	\$23	\$72,832	\$18,193	\$91,047

5. West Philadelphia Scattered Site units used 41% lower tax credit allocations than new construction and 32% lower than rehabilitation.

Scattered site rehabilitation required 41% less tax credit financing per unit than new construction projects and 32% less per unit than other rehabilitation projects. Per bedroom, West Philadelphia Scattered Site used 47% lower tax credit allocations than new construction projects, 15% lower than rehabilitation projects, and 8% lower than Philadelphia Housing Authority projects.

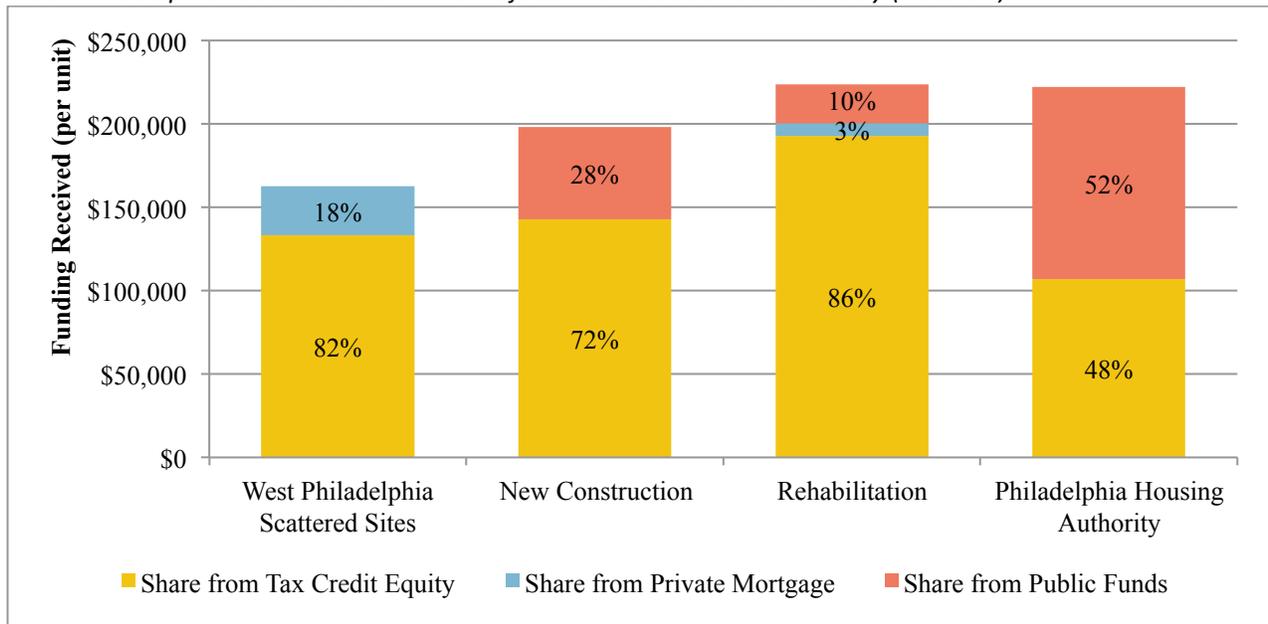
LIHTC Allocations to Scattered Site were 41% Lower Than New Construction and 32% Lower Than Rehabilitation



6. West Philadelphia Scattered Site developments require no public subsidy while other new construction and rehabilitation projects used 10-52% of public funds to finance their projects.

West Philadelphia Scattered Site projects built between 2005 and 2007 were funded exclusively from tax credit equity and private mortgage loans. In contrast, new construction developments used 28% public funding, rehabilitation projects used 10% public funding and Philadelphia Housing Authority used 52% public funding for projects built during this timeframe.

West Philadelphia Scattered Site LIHTC Projects Did Not Use Public Subsidy (2005-07)



Note: Funding from “Public Funds” included federal grants, community development grants, and other forms of publicly subsidized debt. Data from PHFA has been corrected with consultation with PHFA to correctly classify \$575,000 as “Private First Mortgage” funding for one WPRE/NR scattered site development.

How Does the West Philadelphia Scattered Site Model Work?

Since 1989, two private sector developers, WPRE and Neighborhood Restoration (WPRE/NR) created and implemented the West Philadelphia Scattered Site Model in order to rehabilitate abandoned rowhouse shells into affordable housing. WPRE/NR have used the West Philadelphia Scattered Site Model to rehabilitate more than 1,100 units of housing from abandoned, blighted single-family rowhouses and duplexes, and have maintained these units over the long term. This section of the report describes the West Philadelphia Scattered Site model for creating and maintaining scattered site affordable rental housing at scale.

Step 1: Land Acquisition

Acquisition of vacant houses is the critical first step. For the most part, these are rowhouse shells that have been abandoned for more than 10 years. Early on, WPRE/NR focused on acquiring properties on stable blocks that contained just a few vacant properties. When properties on these blocks were mostly redeveloped, WPRE/NR tackled blocks with multiple vacancies ensuring acquisition of a sufficient number of these properties to stabilize the block.

Over the years, WPRE/NR purchased these abandoned homes for a range of prices including \$1 for city-owned properties,¹² below market value bids at tax sales, and market value for privately owned listed properties. The average cost paid for the scattered site vacant housing units from 1989 to 2015 was \$13,380 adjusted for inflation to 2015 dollars. Under the West Philadelphia Scattered Site Model, abandoned homes are purchased with an acquisition line of credit. The acquisition line is paid off once the developer breaks ground on the project and obtains a construction loan.

Step 2: Create an Eligible LIHTC Project

WPRE/NR has applied for and received LIHTC support for 24 projects since 1989. The smallest project in 1991 helped to fund the redevelopment of 10 units—six single-family homes and two duplexes. Two of the largest projects in 2004 and 2006 funded the redevelopment of approximately 80 single-family homes each. In order to create a viable LIHTC project, an investor, typically a company, is identified that wishes to take advantage of tax credits.

Prior to submitting a LIHTC application, WPRE/NR purchases a certain number of properties and obtains private construction and permanent financing to leverage the money allocated from LIHTC to redevelop as many new affordable rental units as possible.

With site control of multiple abandoned properties clustered in the same area and private financing, WPRE/NR next applies for LIHTC financing. If WPRE/NR's project is selected by PHFA to receive tax credits, the investor partner who receives the tax credits typically pays the present-value of the LIHTC credits over a period of time, and these funds are used by WPRE/NR for construction and development of the scattered site units.

Step 3: Rehabilitating Abandoned Houses

WPRE/NR performs gut rehabilitation on the abandoned shells that they acquire. WPRE/NR completes about 60 homes per year or five homes per month. They strip the houses down to their bare bones and build them new on the same footprint and with the same square footage. Often, the only original features that remain are the exterior walls. In each home, WPRE/NR provides all new plumbing, wiring, roof, floors, studs and walls. WPRE/NR hires a general contractor to perform the rehabilitation work. The general contractor must provide documentation that they have 50% minority employees and at least 50% local resident employees.

¹² Beginning in 1996, WPRE/NR obtained city-owned abandoned homes in West Philadelphia for \$1 for use in the developments under the Rendell (former Philadelphia mayor) Administration.

Since 2008, WPRE/NR has used sustainable building practices to ensure each home receives LEED certification by the U.S. Green Building Council and Energy Star certification by the U.S. Environmental Protection Agency. This ensures that all houses are energy efficient and utility costs are reduced to increase the home's affordability. It also contributes to making each home warm, safe and dry and lowers indoor air pollutants.

Since 2004 WPRE/NR has provided each tenant with the ability to obtain free supportive services from the Public Health Management Corporation including preventative health programs, job training and placement programs, child care assistance services, substance abuse treatment, legal services and mortgage counseling. Since 2004, 10% of all homes that are rehabilitated are made accessible for persons with disabilities.

Step 4: Lease and Maintain Homes

To qualify to rent a house, tenant households must have incomes at or below 60% of area median income. Most WPRE/NR properties offer three bedrooms. In the first 10 years, almost 90% of tenants had Section 8/Housing Choice vouchers. In 2015, only 40% of tenants used a Section 8 voucher, and the other 60% are able to pay the affordable market rents without assistance.

WPRE/NR has created a property management program that is designed to provide quality, affordable scattered site housing to responsible tenants. Most homes include a basement and small yard. Tenants sign a 1-or 2-year lease but tend to stay 3.5 to 4 years.

An affiliate of WPRE/NR called Prime Property Management leases and manages the more than 1,100 units. Since 2000, the average maintenance cost per unit has been \$1,200 per year. Operating expenses average \$3,380 per year for each unit and include debt service, insurance, legal and professional fees, advertising and taxes. Prime Property Management is responsible for fixing all systems within the house and the home's structure. Prime Property Management has a full time staff of 16 employees. Half of these employees perform maintenance on houses, while the other half provide administrative support. Almost 90% of Prime Property Management employees are minority and live in Philadelphia. About 70% of these employees live in West Philadelphia neighborhoods. The most common maintenance requests from tenants are plumbing issues and help getting into their locked unit when a tenant loses a key.

Conclusion

The West Philadelphia Scattered Site Model is a cost-effective method for developing LIHTC affordable housing and has a significant positive impact on neighborhood conditions. Further, using LIHTC to perform scattered site rehabilitation of abandoned houses has a greater positive impact than single site affordable housing developments.