CATALYZING REINVESTMENT THROUGH HOME

IMPROVEMENT: EXAMINING THE ROLE OF THE PRIVATE MARKET IN DETROIT'S HOME REHABILIATION LANDSCAPE

Danielle Wallick, MURP/MPP '23

Professional Project, submitted April 2023

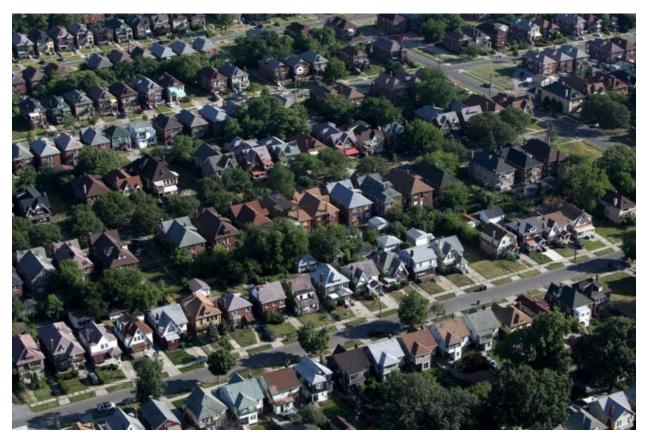


Photo credit: Detroit Free Press

A. Alfred Taubman College of Architecture and Urban Planning

Detroit Future City

TABLE OF CONTENTS

Acknowledgements	3
Executive Summary	4
Part 1: Background	5
What is home Improvement?	7
Why is home improvement important?	9
Individual impacts	9
Neighborhood impacts	11
What are the barriers to home improvement?	11
Part 2: Home Improvement Conditions in Detroit	13
Trends in Improvements and Repairs	14
Trends in Financing	16
Geographic Dispersion	23
Part 3: Recommendations	29
One: Leverage owner-occupied investment	30
Two: increase nonprofit capacity	30
Three: Support exterior improvements	31
Four: Grant financially prohibitive repairs	31
Five: Expand reach of existing programs	32

ACKNOWLEDGEMENTS

I would like to extend a huge thanks to Dr. Lan Deng for serving as my advisor on this project, as well as Edward Lynch from Detroit Future City for agreeing to continue this work on from when we started it over Summer 2022, when I was an intern and needed something to work on.

I would also like to thank Linda Smith from U SNAP BAC and Karen Kling from University of Michigan's Poverty Solutions for speaking with me at various points for this project.

Finally, an additional huge thank you to a variety of wonderful friends who helped me get through this semester.

EXECUTIVE SUMMARY

With a limited pool of public funding from which to draw to address housing stock with significant home repair and improvement needs, it is essential to understand the role the private market plays within Detroit's home improvement landscape.

Broad trends in recent Detroit building permitting activity reflect these trends observed at the national level — assumed rehabilitation activity rose in 2021, and much of this activity is concentrated in replacement projects below \$10,000. This is on trend considering many owner-occupied households in Detroit are considered low-income. Despite strong gains since the Great Recession, traditional financing activity in Detroit remains slim compared to the rest of the region, and disparate along racial and economic lines. Adverse credit histories, insufficient collateral, and too much debt-to-income bars many Detroiters from accessing financing from financial institutions to rehab their homes. While traditional home improvement financing targets only a few of the city's highest income and most stable neighborhoods, concentrations of permitted building activity are occurring in many neighborhoods. These pockets suggest potential opportunities to leverage public investment to catalyze additional home improvement activity at a broader scale.

Detroit needs a multi-faceted approach to supporting housing reinvestment activity throughout the city that builds confidence in Detroit's housing market, builds value in housing to support wealth creation and generational mobility, and builds on existing private home improvement activity that is occurring throughout the city. Needs differ based on different types of neighborhood markets, and thus the City needs a targeted approach to strategically invest limited public dollars to catalyze housing revitalization across Detroit.

PART I: BACKGROUND

Many Detroit neighborhoods are still reeling from the impact of the foreclosure crisis that started in the mid-2000s and lasted about a decade. The crisis hit the city particularly hard, due to the region having one of the highest subprime market penetration rates in the country in the early 2000s. These conditions, combined with recession-induced economic hardship, led to excessive mortgage foreclosures throughout the city, and subsequent deferred maintenance, abandonment, vacancy, and property deterioration (See Figure 1). Detroit's dual tax foreclosure crisis further exacerbates these issues, as many homes in the worst condition continue to cycle through loss to unpaid property taxes, country auctions, and public ownership.

Today, very modest average incomes and an aging housing stock, exacerbated by these challenges of property abandonment, vacancy, and deterioration, have contributed to a significant backlog of deferred housing maintenance and rehabilitation among Detroit's single-family housing stock. In 2020, University of Michigan's Poverty Solutions estimated that there are 8,000+ severely & moderately inadequate owner-occupied households in Detroit.⁵ This is likely a low estimate, given the severity of the mortgage and tax foreclosure crisis Detroit has faced. 6 This estimate does not encompass, though, the likely hundreds or thousands of additional homeowners whose properties are not technically inadequate, but who seek to improve their homes to increase marketability, meet changing wants and needs, and update out-of-date systems and features. Almost 86% of Detroit's owner-occupied housing was built prior to the 1960s, compared with 39% for the region (See Figure 2). In addition, the majority (55%) of Detroit homeowners earn less than \$50,000 annually, compared with 29% for the region. This combination of factors indicates that even outside cases of significant need for rehab to improve safety and livability, there are likely many additional homeowners who would like to modernize their properties but have not been able to due to income as a limiting factor to making progress on repair and modernization needs of their older homes.

Despite these conditions, Detroit's landscape for public assistance for home repair and improvement is relatively sparse. The City's most widespread and flexible program, the Detroit 0% Interest Home Repair Loan, was created in 2014 to help address some Detroit-specific housing market intricacies, such as high proportions of lower-income homeowners and old, low-value stock. It was designed to reach lower income, more credit constrained households, borrowing to make improvements on houses with less value. Specifically, the program has a lower credit score limit of 560, a debt-to-income ratio upper limit of 45%, and a loan-to-value upper limit of 150%. It loans sums of \$5,000 to \$25,000 to be paid back over 10 years and is limited to low-to-moderate income homeowners unless the owner lives in a HUD-designated area. The program is funded and run through a partnership between the City of Detroit, LISC, and Bank of America, and supports a wide range of repairs and improvements, including roof replacement, kitchen and bathroom remodeling, and electrical repairs. Second contents of the program is funded and run through a partnership between the City of Detroit, LISC, and Bank of America, and supports a wide range of repairs and improvements, including roof replacement, kitchen and bathroom remodeling, and electrical repairs.

Figure 1. Neighborhood-Level Implications of the Mortgage Foreclosure Crisis



Adapted from Deng et. al., Saving Strong Neighborhoods from the Destruction of Mortgage Foreclosures: The Effects of Community-Based Efforts in Detroit, 2018

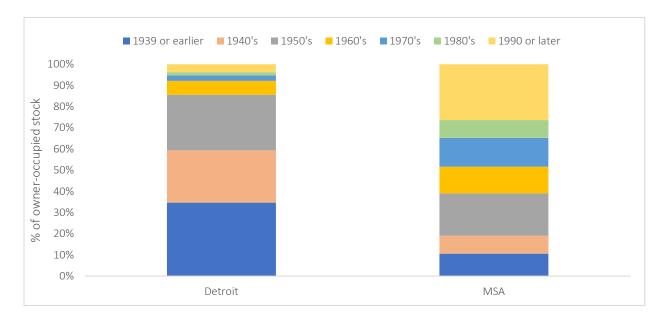


Figure 2. Year Owner-Occupied Structure Built, 2021

Source: ACS 2021 5-year estimates

Though the 0% Interest Home Repair Loan program aims to reach lower-income households, many residents still struggle to qualify for the program. As of June 2019, just over a third of applications for the program had been approved since the program launched – meaning the majority, about two-thirds, of applicants have been denied. There are a handful of additional public grant programs available, but they are expended quickly, and are earmarked for specific uses or demographics, such as emergency repair, senior accessibility needs, lead abatement, or weatherization.

With a limited pool of public funding from which to draw to address the problem, it is essential to understand the role the private market plays within Detroit's home improvement landscape. Creatively building upon existing activity in Detroit's home improvement market can increase activity overall, which in and of itself is shown to have a catalyzing impact. This project seeks to establish an understanding of how the market is currently operating, explore what barriers are in place that bar residents from searching for and accessing private resources to repair and improve their homes, and propose a suite of policy considerations that could help address the problems and gaps that emerge. Firstly, though, it is essential to create a definition for home improvement and establish why it is so important for planners and policy makers to care about.

What is home improvement?

Home improvement activity includes a wide range of maintenance, repair, replacement, and discretionary projects in which homeowners engage to maintain housing and prevent it from falling into disrepair, as well as improve housing quality to raise property values and help homeowners build wealth (See Figure 3).¹³ Home improvement projects include discretionary

projects, such as kitchen and bath remodels and room additions and attachments, as well as replacement projects, which include exterior projects like roofing, siding, and windows, interior projects like flooring and insulation, and systems and equipment projects like plumbing and electrical. These types of projects are intended to improve home values by modernizing old systems and additional amenities. ¹⁴ These types of projects accounted for about a quarter (24%) of national home improvement spending in 2019. The need for replacement projects can typically be expected on a relatively regular schedule, though over a long period of time compared to maintenance and repair projects. A homeowner can expect the need to replace a roof to arise every 30 years or so, for example. On an annual basis, homeowners across the country spend the most on replacement projects. In 2019, these projects accounted for over a third (37%) of total spending in the home improvement industry. ¹⁵

Home repair and routine maintenance projects are considered slightly differently within the home improvement industry. Rather than improving home values, they seek to preserve existing values. They typically are pursued to ensure systems continue to work properly or fix an immediate need that has emerged that threatens the safety of the structure or the resident. They accounted for about 8% of national home improvement spending in 2019.

Figure 3. National Home Improvement Spending by Project Type

Project Type	Total Expenditures (Billions of \$)
Discretionary (i.e. kitchen & bath remodels, room additions)	77.4
Replacement (i.e. exterior and interior, such as roof and flooring)	120.4
Outside Property (i.e. sheds, driveways, fencing/landscaping)	38.7
Disaster Repair	25.6
Maintenance and Repair	25.6
TOTAL SPENDING	327.4

Source: JCHS tabulations of HUD, 2019 American Housing Survey, from Improving America's Housing 2021

On a national level, the 2020 COVID-19 pandemic re-catalyzed the home improvement industry, as many with means were forced to quickly adapt to spending most of their time in their own homes. The Many updated older systems, replaced exteriors, and added outdoor features to create more comfortable spaces. For those without significant means, however, keeping up with mortgage payments and — even if they could take advantage of federal forbearance programs — a myriad of other financial responsibilities was difficult enough during the pandemic. Pandemic aside, in 2019, over half of the lowest-income homeowners spent less than \$500 on home improvements. These homeowners make up a significant portion of the market, though, by contributing to about 10% of annual national home improvement spending. Coing into 2023,

these recent gains in home improvement activity are expected to decline sharply by the middle of the year, right sizing following unsustainable growth between mid-2020 and 2022.²²

Why is home improvement important?

Home improvement has significant benefit at both the individual homeowner and broader neighborhood levels. Identifying ways to increase home improvement activity supports sustainable cycles of home maintenance/improvement and cost savings, as well as neighborhood reinvestment goals. In addition, disparities in home improvement spending, as outlined in the previous section, create and enforce disparities in housing conditions along racial and economic lines, elevating its importance as a policy issue. Catalyzing home improvement activity also therefore supports racial and economic equity.

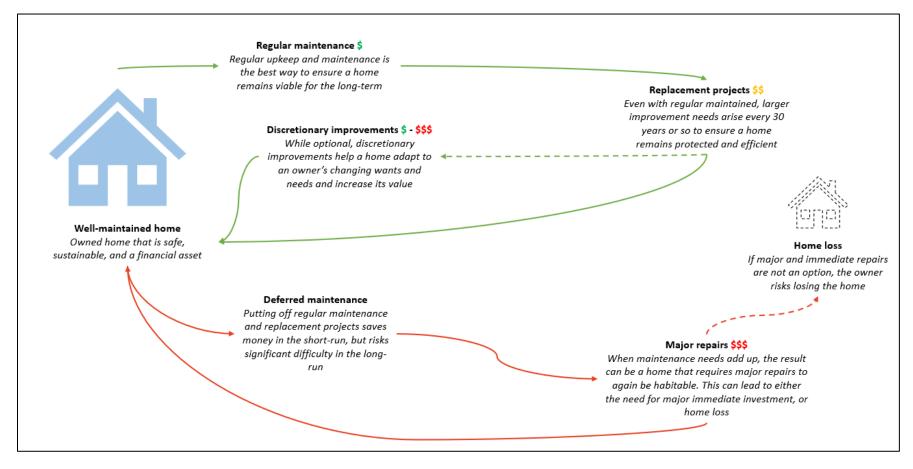
Individual impacts

At the individual homeowner level, home improvement can have a significant impact on quality of life. Researchers have found that home improvements have positive implications for mental health, stemming from perceived home quality.²³ Depending on the type of repair, homeowners report increases in comfort, peace of mind, safety, independence, health, and satisfaction with appearance of their home, and even positive relationship impacts after completing renovations with home improvement loans.

Sustainable cycles of home improvement and maintenance also support feasible expenditures and affordable home ownership. They may even induce cost savings over time, particularly with electric and thermal systems modernization.²⁴ When homes are regularly maintained and replacement projects are undertaken as needed, a home can remain safe and typically can continue as an equity-building asset. When deferred maintenance needs add up, though, issues that could have been addressed via routine maintenance and replacement projects become major and immediate repairs, necessitating either large, immediate expenditure, or often, forcing home loss (See Figure 4).

As noted, home ownership and by extension, improvement, is an important source of equity building and therefore wealth creation. This can have significant implications for decreasing the racial wealth gap as well as persisting inequities in housing conditions. Black Detroiters are impacted most acutely by inadequate housing units.²⁵ In absence of home repair resources, homeowners risk living in unsafe conditions that exacerbate health challenges and have less ability to tap into homeownership as a wealth-building asset.²⁶ Homeownership can be a pathway to safe, affordable, and stable housing for lower income, Black households. This improves racial equity by supporting Black wealth creation, as Black residents have historically had significantly restricted access to homeownership due to racist government policies and industry practices.²⁷ However, access to home rehab resources is a critical part of the equation to realize the full benefits of homeownership – particularly in Detroit, where homes are inexpensive but often in need of repair to create and maintain a comfortable home that will appreciate in value.²⁸

Figure 4. Cycle of Home Maintenance and Improvement



Adapted from: Home Repair: Rebuilding Equity in Detroit, Doing Development Differently in Detroit, 2022

Neighborhood Impacts

Home improvement activity is also extremely beneficial at a neighborhood level, as it supports neighborhood reinvestment that positively impacts residents in a variety of ways. In general, there is a positive and causal relationship between individual assets and neighborhood benefits. Increasing individual homeowner's equity through home rehabilitation, then, should lead to positive neighborhood benefit, such as improved physical conditions and infrastructure and increased social capital, economic activity, neighborhood stability, and political power.²⁹ Other studies associate property investment with increased home values for target and surrounding properties, lower thresholds of violent crime³⁰ and increased exterior repairs that decrease neighborhood disinvestment.³¹ Specifically, a study of home improvement activity in Cleveland found that a house within 150 of a rehabilitated home sells for an average of \$2,000 more, and a study of a large rehab program in New York City found increased housing prices as far as 500 feet from the originally rehabbed property.³²

Home improvement activity can have stabilizing benefits in "middle neighborhoods." The Reinvestment Fund defines these neighborhoods as "neither the poorest nor the wealthiest neighborhoods in a city, typically experiencing neither precipitous decline nor rapid appreciation." These neighborhoods are typically still majority owner-occupied and single-family but are slowly losing owners in favor of those with less of a stake in the neighborhood. The housing stock in these neighborhoods is aging, but generally in acceptable condition. That said, it often lacks features and updates that appeal to modern-day homebuyers, such as updated kitchens, more than one bathroom, etc. ³⁴ The City of Norfolk, as part of their Middle Neighborhoods Initiative, also notes that middle neighborhoods generally contain households earning between 80% and 120% of area median income and lack high contractions of poverty. ³⁵

These neighborhoods face unique challenges, as they teeter in their stability. They struggle in their ability to attract replacement owner-occupants and repel irresponsible investors, generate home values that support maintenance and updates without appraisal gaps, maintain engaged neighborhood stewards, and deliver equity to homeowners.³⁶ They are important, though, because on top of housing approximately 25-40% of a typical city's population, they sustain relatively stable property values and serve as a significant portion of a city's stock of affordable ownership housing.³⁷ As a result, particularly in middle neighborhoods, home improvement supports maintenance of existing long-term residents, supply of affordable ownership opportunities, and neighborhood diversity. It also can increase marketability of homes in the neighborhood and maintain occupancy levels, increase home values, and repel bad-actor investors from entering the neighborhood market.³⁸

What are the barriers to home improvement?

While critically important, home improvement often poses significant financial burdens for homeowners across income levels, particularly those with low-to-moderate incomes. Many low-

income homeowners spend little to no money on home improvements on an annual basis – low-income homeowners are twice as likely to pass on spending money on routine maintenance or home improvements on an annual basis. Lower-income households are more likely to spend their remodeling budgets on replacement projects and projects that are necessary for basic habitability, such as maintenance and disaster repair. In 2019, 68% of spending for owners in the bottom income quintile went towards replacement projects and disaster repair, compared to 47% for owners in the top income quintile. ³⁹

As Figure 4 showed, the impact of this cycle of deferred maintenance is that housing stock in lower-income neighborhoods becomes more likely to have large unmet repair needs – deferred repairs can lead to costlier repair needs over the long term. ⁴⁰ This is problematic as in many cities, this housing makes up the majority of the stock of affordable homeownership stock. These disparities in home improvement spending create and enforce existing disparities in housing conditions when homeowners in certain neighborhoods systemically have fewer resources to invest in their homes for maintenance, replacement, or even discretionary projects. They can also lead to loss of affordable homeownership units over the long-term.

Even for those with slightly higher incomes and more resources, there can still be many barriers to pursuing home improvement. Some cite a lack of confidence that investment is worth it for moderate-income homeowners — who may be able to afford modest upgrades to their homes — living in neighborhoods where investment is not common. This can be referred to as a "willingness gap" — a gap in willingness to invest savings into home improvements if that activity is uncommon in the neighborhood, compared to moderate-income homeowners living in areas where home improvement activity is more common.

This notion is supported by literature that suggests neighborhood effects have a significant impact on homeowner's willingness to make major home improvement decisions. For example, in a study from 1986, percent of neighborhood structures with no defects was found to significantly predict home improvement activity. ⁴² In a more recent, 2008 study, researchers cite a modest but significant "neighborhood effect" as well, one that is strongest among those households that spend the least individually — meaning that perceptions of neighborhood quality may hold homeowners back from investing much money into their homes. ⁴³ For lower-income homeowners, little discretionary income often layers with this willingness gap as well as deferred maintenance that has added up, making it even more difficult to pursue home improvement. ⁴⁴ This notion of the 'willingness gap,' though, likely explains why middle-income homeowners in many areas — folks that may be able to afford modest investment in their homes — often forego much home improvement activity.

Amidst these conditions, as well as a shortage of licensed contractors and rising cost of repairs, home improvement can be out of reach for many, especially without access to a secure home improvement loan. 45 Qualifying for a home improvement loan is also a significant barrier to improvement activity, though. This appears to be an area where little work has been published. In the following section, this report will delve into barriers present in Detroit and examine trends present in lending data, particularly in terms of accessing traditional home improvement loans. It will also investigate what types of repairs and home improvement projects Detroiters are pursuing and seek to analyze both access to financing and this home improvement activity geographically.

PART II: HOME IMPROVEMENT CONDITIONS IN DETROIT

This report utilizes a variety of data sources to explore recent trends in Detroit home improvements and repairs, financing, and the geographic dispersion of both. Figure 5 below shows an overview of these methodologies, and the corresponding question that the use of the data source aims to answer.

Figure 5. Overview of Project Methodologies

Trends in	Research Question	Data source/s	Overview of Method
Improvements and	What improvements	City of Detroit	Isolated entries for
repairs	and repairs are	Building Permits, via	single-family rehab
	Detroiters pursuing?	open data portal ¹	projects (of
>			reasonable certainty)
			for analysis
Financing	What traditional	Home Mortgage	Analyzed trends in
	financing are	Disclosure Act	HMDA records for
	Detroiters pursuing,	(HMDA) data, via	Detroit between
	and to what extent	Lending Patterns	2012 and 2021
6 00	are they finding		
	success?		
Geographic	How do trends in	City of Detroit	Mapped permit and
dispersion	improvements and	Building Permits,	HMDA data by tract,
	financing differ	HMDA, and ACS 2021	and permit data by
	geographically?	5-Year Estimates	neighborhood to
			compare dispersion
			and summarize data
			at a geographic level

It is important to note that an analysis of building permits is an imperfect measure of home improvement activity, particularly that which occurs at the lower end of the spectrum of estimated contract values. Building permit data misses home improvement activity that occurs outside of the

_

¹ To analyze Detroit's building permit data, the City's 22,000+ line open-source database, downloaded in November 2022, was cleaned to retain only entries that were for existing 1-2 unit, owner-occupied dwellings from 2020, 2021, and 2022 under reasonable certainty. This included excluding entries where it was clear that alterations or additions were sought for purposes of running an at-home business, such as a barber shop or day care. It also excluded entries that tagged the permit type as "correct violation," "change of occupancy" or "change of use," "new," "new revision," or "foundation only," and those with no tag at all. This left 15,945 lines of data as part of the final database under analysis.

explicit permission of the City, whether this was done purposefully or not. Not all home improvement activities require permits, and improvement and rehabilitation activities conducted through sweat equity, trade of services, or cash are sometimes not captured either. Still, building permits show a sample of improvement activity that has occurred recently in Detroit, and is still useful to examine as a proxy while keeping these caveats in mind.

The rest of this section will detail recent trends in home improvements and repairs, financing, and the geographic dispersion of both that emerged through analysis.



Trends in Improvements and Repairs

Broad trends in recent Detroit building permitting activity reflect these trends observed at the national level – assumed rehabilitation activity rose in 2021, and much of this activity is concentrated in replacement projects below \$10,000. This is on trend considering many owner-occupied households in Detroit are considered low-income.

Permitted home improvement activity appears to have picked up significantly in 2021, though quickly falling back downward in 2022 (see Figure 6 below). Permits for assumed single-family rehabs increased 62% between 2020 and 2021. Average estimated contract value for the rehab work hovers around \$14,300 across all years, dropping slightly in 2021. An uptick in pandemic-era federal spending may have allowed a greater number of people to make smaller value, but necessary, repairs on their homes.



Figure 6. Permits and Average Value by Year, 2020-2022

Source: City of Detroit Building Permits, via Open Data Portal. Downloaded Nov 2022.

A majority of estimated contract values (57%) fell between \$1,000 and \$10,000 (see Figure 7 below). Another 28% fell between \$10,000 and \$25,000. As noted previously, this data likely severely undercounts repairs that fall below \$1,000. That said, this data shows that a majority of permits were for fairly low value projects.

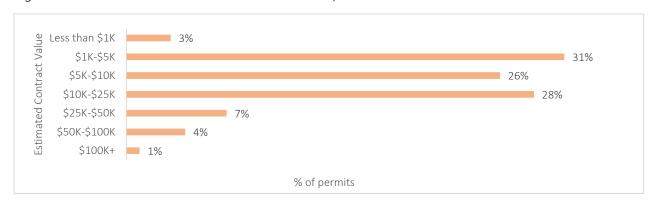


Figure 7. Distribution of Estimated Contract Value, 2020-2022

Source: City of Detroit Building Permits, via Open Data Portal. Downloaded Nov 2022.

Detroiters are overwhelmingly seeking replacement projects, like window and roof repairs (see Figure 8 below). These repairs hover between \$10K and \$15K. More discretionary projects, like kitchen and bath remodels and additions are sought out far less often – making sense, given these improvements range between \$20K and \$40K.

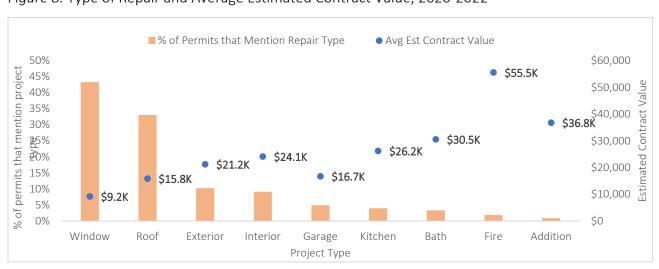
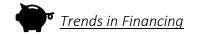


Figure 8. Type of Repair and Average Estimated Contract Value, 2020-2022

Source: City of Detroit Building Permits, via Open Data Portal. Downloaded Nov 2022.



Despite strong gains since the Great Recession, traditional financing activity in Detroit remains slim compared to the rest of the region, and disparate along racial and economic lines. Adverse credit histories, insufficient collateral, and too much debt-to-income bars many Detroiters from accessing financing from financial institutions to rehab their homes.

Home improvement lending in Detroit overall has grown significantly over the past decade. It has increased 67% since 2012, peaking in 2021 (see Figure 9 below). It has taken Detroit a particularly long time to recover following the Great Recession, and part of this recent increase may be able to be attributed to a rise in resources available to assist prospective rehabbers specifically in the Detroit market. Since 2015, for example, the Detroit 0% Interest Home Repair Loan program has helped originate an average of about 100 of these loans annually. 46

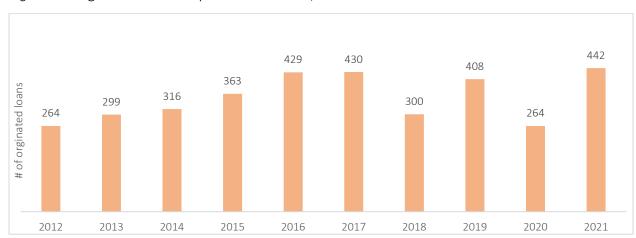


Figure 9. Originated Home Improvement Loans, 2012-2021

Source: Home Mortgage Disclosure Act (HMDA). Downloaded July 2022.

Despite increases in home improvement lending overall, it is disparate across racial lines. The gap between home improvement loan application and origination is almost 10 times larger for Black applicants versus white applicants² in Detroit (see Figure 10). While this is partially a reflection of the sheer volume of applications by Black Detroiters compared to white Detroiters, the share of originated loans as a percentage of total application for white versus Black Detroiters is striking as well (see Figure 11). In 2021, close to half of white Detroiters' home improvement loan applications were approved, compared with just over a quarter for Black Detroiters.

² Unless otherwise noted, the use of "white" throughout this report refers to non-Hispanic white folks.

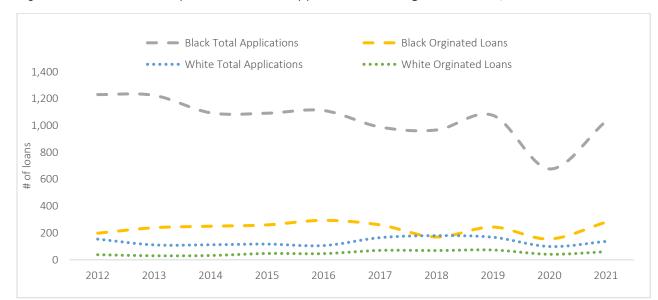


Figure 10. Total Home Improvement Loan Applications vs. Originated Loans, 2012-2021

Source: Home Mortgage Disclosure Act (HMDA). Downloaded July 2022.

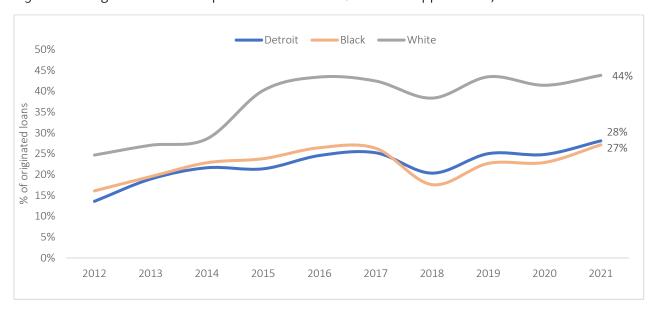


Figure 11. Originated Home Improvement Loans as % of Total Applications, 2012-2021

Source: Home Mortgage Disclosure Act (HMDA). Downloaded July 2022.

Black Detroiters have historically made up most of the city's rehab borrowers, but their share is decreasing. The share of Detroiters of all other races besides Black and non-Hispanic white households borrowing home improvement loans have increased over the past decade (see Figure

12). This appears to be the driver of the shift in share of Black borrowers, rather than an increase in white borrowers. This broad trend tracks with data observed at the city level. Between 2012 and 2021, while the city lost over 17,000 Black-headed households, but gained Asian, American Indian, Hispanic/Latino, and multiracial-headed households. Black borrowers still make up the majority of home improvement borrowers, but their share of the total has shifted from three-quarters in 2012 to 63% in 2021.

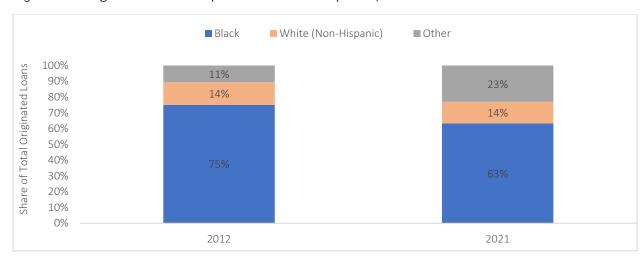


Figure 12. Originated Home Improvement Loans by Race, 2012-2021

Source: Home Mortgage Disclosure Act (HMDA). Downloaded July 2022.

Low- and moderate-income Detroiters make up a decreasing share of rehab borrowers. In 2012, low- and moderate-income Detroiters made up 56% of originated home improvement loans (see Figure 13 below). By 2021, middle- and upper-income borrowers had overtaken the majority, at 58%. This is true for both White and Black Detroiters, but for white Detroiters to a starker degree. The share of upper-income originations jumped 30% for white Detroiters between 2012 and 2021, compared to 11% for Black Detroiters. Racial disparities persist across income bands as well. For example, in 2021, about 57% of applications among upper-income white Detroiters were originated, compared with 37% among upper-income Black Detroiters — even as white Detroiters make up a significantly smaller portion of home improvement borrowers overall. Among middle-income earners, 42% of white Detroiters' applications were originated, compared to 33% of Black Detroiters. Among moderate-income earners, 44% of white Detroiters loans were originated, compared with 23% of Black Detroiters'.



Figure 13. Originated Home Improvement Loans by Income, 2012-2021

Source: Home Mortgage Disclosure Act (HMDA). Downloaded July 2022.

As rehab loans to low- and moderate-income Detroiters have fallen, loans for rehab projects of \$25,000+ have increased dramatically since 2012 (see Figure 14 below). This change has been rapid and recent. In 2012, 94% of originated home improvement loans were for amounts less than \$25,000, whereas in 2021, only 10% were for amounts below \$25,000. This is likely an indicator of increasing owner-occupant and/or investor investment in and redevelopment among Detroit's housing stock. It could also be an indicator of rising home values and subsequent increases in allowed loan-to-value ratios — such as those allowed via the 0% Interest Home Repair Loan program — as well as post-recession stabilization among homebuyers. To a lesser degree, it is also reflective of rising construction costs constricting the amount of rehab possible for less than \$25,000.



Figure 14. Originated Home Improvement Loan Amount, 2012-2021

Source: Home Mortgage Disclosure Act (HMDA). Downloaded July 2022.

Adverse credit histories are by and large the most prevalent reason for home improvement loan denial, especially among Black borrowers (see Figure 15 below). While just over half of white Detroiters denied applications list credit history as a reason, almost 70% of Black Detroiters denied applications do. White Detroiters struggle a little bit more with insufficient collateral barring their loan, likely meaning the bank has deemed the home they wish to rehab to be worth too little for the loan amount. Just over a quarter of white Detroiters denied applications list this as a reason, compared with just under 20% of Black Detroiters denied applications. Too high debt-to-income ratio is the third most prevalent denial reason for rehab loans in Detroit, with 18% of all denied applications in the city listing it as a reason.

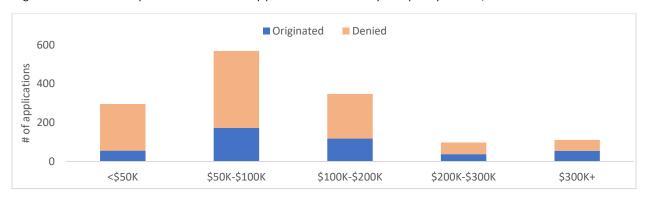
Figure 15. Top 3 Reasons for Home Improvement Loan Denial, by Race, 2021

% of applications listing as a denial	All	White	Black
reason			
Credit History	63.1%	52.8%	68.3%
Collateral	20.6%	26.4%	19.0%
Debt-to-Income Ratio	18.2%	22.2%	18.1%

Source: Home Mortgage Disclosure Act (HMDA). Downloaded July 2022.

Despite rise in larger value rehab loans, loans for lower-value properties continue to make up most of Detroit applications, and only a fraction are originated (see Figure 16 below). Despite rising popularity of larger-scale rehabs, 61% of Detroit home improvement loan applications are for properties with a value of \$100,000 or less. Only 26% of these loans are originated. Credit history is still the most common reason for denial among this group, with 57% of 2021 applications listing it as a reason for denial. 16% of these applications listed collateral as a reason for denial and 11% of applications listed debt-to-income ratio.

Figure 16. Home Improvement Loan Application Result by Property Value, 2021



Home improvement lending is significantly easier to acquire outside of Detroit proper. The rate of loan origination remains significantly higher — as much as almost 3x higher in 2015 — averaged across the rest of the region (exclusive of Detroit), compared to loan origination within the city. In 2021, only 28% of home improvement loan applications were originated in the entire city, compared to 64% in the rest of the MSA (see Figure 17 below). Though this proportion increased from 14% in 2012. This is reflective of the significantly stronger housing market in Detroit compared to the rest of the MSA. Detroit has made gains since the introduction of the 0% Interest Home Repair Loan helped make financing easier to obtain for some. That said, this shows the city continues to have much to overcome to build up a more sustainable housing stock.

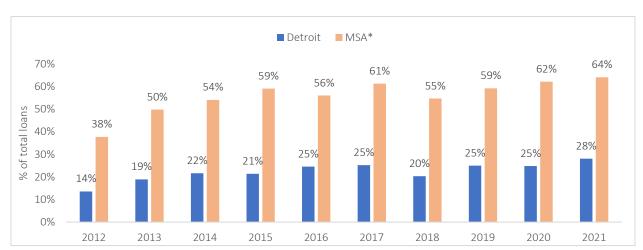


Figure 17. Originated Home Improvement Loans by Income, 2012-2021

Source: Home Mortgage Disclosure Act (HMDA). Downloaded July 2022.

Rates of home loan origination trail across income levels in Detroit compared to the rest of the MSA. Origination rates are about twice as high across income bands for the rest of the region compared to Detroit. For example, among upper-income earners, in 2021, 37% of Detroiters' applications were originated, compared to 71% for the rest of the region. Among low-income earners, 18% of Detroiters saw their applications approved, compared to 41% for the rest of the region. Similar trends persist for middle- and moderate-income earners as well.

Unsurprisingly, home improvement activity across Detroit's neighborhoods is minor in comparison to activity happening throughout the rest of the region. Only a small number of neighborhoods compare to the level of lending activity occurring in much of the region, typically more established and wealthier neighborhoods like University District, Boston Edison, and Rosedale Park (see Figure 18 below). These neighborhoods have higher home values and median owner-occupied incomes – some of the highest in Detroit – that place these neighborhoods relatively on par with well-

^{*}Rest of MSA, excluding Detroit city proper

known professional suburbs like Ferndale and Royal Oak (see Figure 19 below). When looking at rate of approved home improvement lending, however, these neighborhoods are much more comparable to inner ring, working class suburbs like Harper Woods, Redford, and Oak Park. These areas also have high proportions of Black residents. This indicates firstly that even those in some of Detroit's highest income neighborhoods, residents struggle to secure home rehab financing. It also indicates, though, that communities in the rest of the region are not necessarily insulated from these same problems. It is still easier to acquire financing, though, given that it is areas with lower median incomes and home values that are comparable to some of Detroit's highest income neighborhoods.

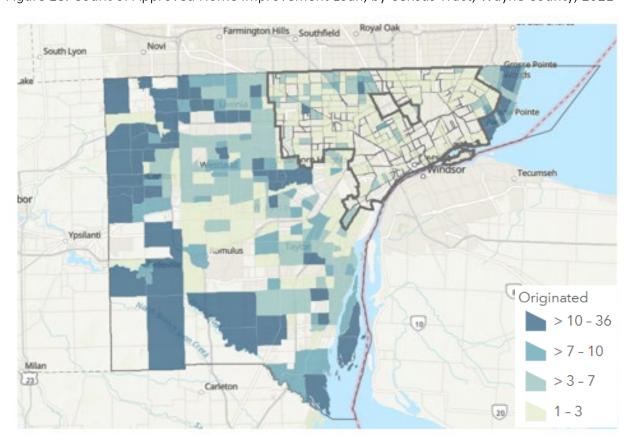


Figure 18. Count of Approved Home Improvement Loan, by Census Tract, Wayne County, 2021

Source: Home Mortgage Disclosure Act (HMDA). Downloaded July 2022.

Figure 19. Neighborhood Comparison, 2021

Neighborhood/	Med. Owner-	% Owner-	Home Imprv.	Median
City (County)	Occupied	Occupied Built	Loan Approval	House Value
	Income	Before 1959	Rate	
Detroit	\$44,407	85.6%	29.2%	\$57,700
Rosedale Park, Detroit	\$63,542	95.0%	62.5%	\$146,700
University District, Detroit	\$107,303	92.4%	48.1%	\$270,700
Boston Edison, Detroit	\$97,750	97.5%	47.1%	\$170.300
Harper Woods (Wayne)	\$59,225	83.1%	47.5%	\$111,200
Redford Charter Twp	\$65,821	78.7%	52.6%	\$105,945
(Wayne)				
Southfield (Oakland)	\$81,618	33.5%	50.2%	\$176,000
Oak Park (Oakland)	\$66,846	79.7%	56.8%	\$143,700
Ferndale (Oakland)	\$87,597	83.5%	63.0%	\$192,100
Royal Oak (Oakland)	\$102,656	75.7%	75.3%	\$249,900

Source: Home Mortgage Disclosure Act (HMDA). Downloaded April 2022.



Geographic Dispersion

While traditional home improvement financing targets only a few of the city's highest income and most stable neighborhoods, concentrations of permitted building activity are occurring in many neighborhoods. These pockets suggest potential opportunities to leverage public investment to catalyze additional home improvement activity at a broader scale.

Pockets of significant thresholds of traditional financing are limited to small number of areas throughout the city. These areas appear to be largely higher-income, consistently stable, perhaps historic neighborhoods like University District, Rosedale Park, and Boston Edison (See Figure 20 below). Figure 21 shows that there are a number of additional areas that surround these few areas of concentrated traditional financing activity – these are areas where there is interest in home investment, but rehab loan applications are getting denied more frequently than they are getting approved.

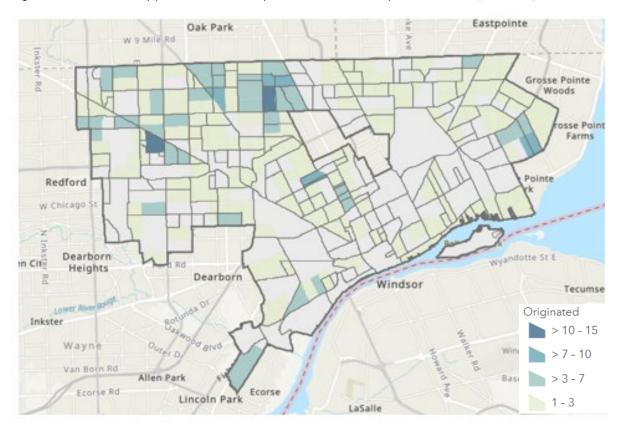


Figure 20. Count of Approved Home Improvement Loans by Census Tract, Detroit, 2021

Source: Home Mortgage Disclosure Act (HMDA). Downloaded July 2022.

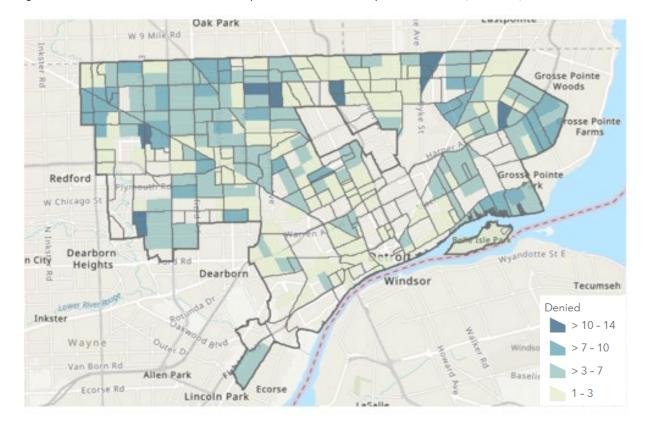


Figure 21. Count of Denied Home Improvement Loans by Census Tract, Detroit, 2021

Source: Home Mortgage Disclosure Act (HMDA). Downloaded July 2022.

Looking at the geographic dispersion of building permits, though, it is clear that there is indeed home improvement activity occurring outside of this small number of areas where traditional rehab financing is concentrated. Figure 22 shows that while some of the strongest concentrations of building permits align with well-financed areas like University District and Boston Edison, a lot of activity is happening outside of these areas too. Additional hot spots emerge as well, such as the east side around Morningside, central riverfront neighborhoods like Islandview and East Village, and the larger area surrounding University District in the northwest, extending to Bagley, Fizgerald/Marygrove, etc.

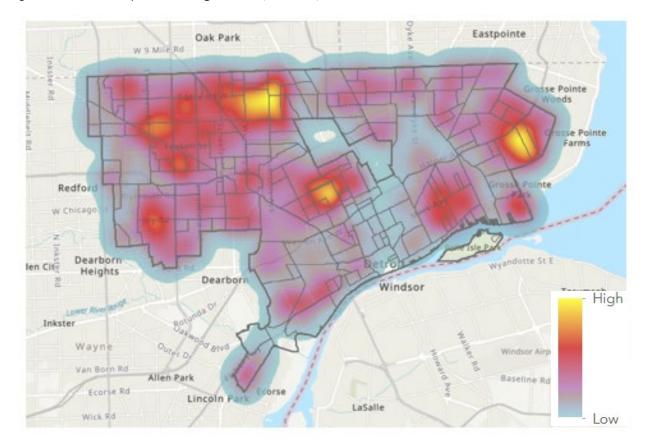


Figure 22. Heat Map of Building Permits, Detroit, 2021

Source: City of Detroit Building Permits, via Open Data Portal. Downloaded Nov 2022.

Figure 23 shows that a small number of neighborhoods are consistently seeing large amounts of investment per estimated contract value – unsurprising areas like Midtown, Brush Park, Corktown and others are consistently seeing rehab investment of \$20,000+ per contract value. This indicates that these are areas that are seeing larger scale, full or partial home rehabs relatively regularly. It also shows, though, that there are a significant number of neighborhoods that see middle amounts of investment, \$10,000-\$20,000 worth, at a time. These may be areas where homeowners are taking on replacement and discretionary projects as they are able, and they occur relatively frequently on the aggregate. These neighborhoods may be considered more "middle neighborhoods" – they do not get as much attention as hot spots for new investment. It appears, however, that there is still a threshold of home improvement activity happening regularly.

A number of neighborhoods in the city also fall into a bucket of lower thresholds of investment, pursuing less than \$10,000 worth of projects at a time, often far less. These may be areas where homeowners are infrequently pursuing rehab projects, especially those beyond routine maintenance.

Figure 23. Neighborhoods by Estimated Average Building Permit Contract Value, 2021

Avg Est.	Neighborhoods
Contract	
<\$10,000	Von Steuben, East Canfield, Conant Gardens, Fiskhorn, Brightmoor, Gratiot
	Town/Kettering, Conner Creek, Northwest Community, Warren Ave Community,
	Regent Park, Sharwood, Evergreen-Outer Drive, Aviation Sub, Boynton, Franklin
	Park, Dexter-Fenkell, Moross-Morang, Historic Atkinson, Winship, Franklin, LaSalle
	College Park, Greenfield-Grand River, Evergreen Lahser 7/8, Cadillac Community,
	Nolan, Pulaski, Greenfield Park, Schulze, Campau/Banglatown, Riverdale, Castle
	Rouge, Miller Grove, West Outer Drive, Grand River-St Marys, Grant, Harmony
	Village, Oakwood Heights, Mapleridge, Krainz Woods, Hubbell-Puritan, Blackstone
	Park, Mohican Regent, Outer Drive-Hayes, Gratiot-Findlay, Pembroke, Rogue Park,
	Paveway, Belmont, Southfield Plymouth, Five Points, Pershing, Weatherby, Chandler
	Park-Chalmers, Westwood Park, Oak Grove District 1, Michigan-Martin, Plymouth-
	196, Seven Mile Lodge, Mexicantown, Conner Creek Industrial, Penrose
\$10,000-	Oak Grove District 2, Littlefield Community, Morningside, North Rosedale Park,
\$15,000	Bagley, Jamison, Hawthorne Park, Claytown, South of Six, Garden Homes, Dexter-
	Linwood, Holcomb Community, Elijah McCoy, Rosedale Park, West End, San
	Bernardo, Bethune Community, Pride Area Community, North Campau, Virginia
	Park Community, Fitzgerald/Marygrove, Schoolcraft Southfield, Gratiot Woods,
	Jefferson Chalmers, Riverbend, Hubbell-Lyndon, Gateway Community, O'Hair Park,
	McDougall-Hunt, Nardin Park, Midwest, Crary/St Marys, Delray, Joy-Schaefer, Tri-
	Point, East English Village, Old Redford, Davison, College Park, Buffalo Chalmers,
	Grixdale Farms, Greenfield, Nortown, Airport Sub, Eden Gardens, Cadillac Heights,
	McNichols Evergreen, Green Acres, Butler, The Eye, We Care Community, Davison-
	Schoolcraft, Farwell, Warrendale, Poletown East, Plymouth-Hubbell, Eliza Howell,
	Joy Community, Northeast Central District, Wade, Minock Park, Yorkshire Woods,
	Grandmont, Chalfonte, Greenwich, Seven Mile-Rouge, Oakman Blvd Community,
	Elmwood Park, Far West Detroit, Barton-McFarland, Cornerstone Village, Grand
\$15,000-	River-196, Denby, McDowell, Virginia Park Fox Creek, Berg-Lahser, Springwells, Gratiot-Grand, Martin Park, East Village,
\$13,000	Wildemere Park, Petoskey-Otsego, Schaefer 7/8 Lodge, Hubbard Farms, Pingree
720,000	Park, Lasalle Gardens, Pilgrim Village, Grandmont #1, NW Goldberg, Core City,
	Central Southwest, Russell Woods, Mount Olivet, Chadsey Conden, Piety Hill
\$20,000-	Corktown, Marina District, Melvern Hill, Hubbard Richard, Islandview, Lafayette
\$30,000	Park, Happy Homes, Woodbridge, Chandler Park, University District, Sherwood
, , , , , , , , ,	Forest, North Corktown, Arden Park, Ravendale
\$30,000-	Cultural Center, West Village, Jospeh Berry Sub, New Center Commons, North End,
\$50,000	Detroit Golf, Boston Edison
\$50,000+	Midtown, Medical Center, Palmer Woods, Brush Park, Indian Village

Source: City of Detroit Building Permits, via Open Data Portal. Downloaded Nov 2022.

While traditional financing targets only a few of the city's most stable neighborhoods, concentrations of improvement activity are occurring in pockets in many neighborhoods throughout the entirety of Detroit. This poses a potential catalytic opportunity for the City and potential philanthropic partners to leverage this existing activity and build upon it, perhaps particularly in areas of more middle thresholds of investment. This could be one aspect of a multifaceted approach to catalyzing owner-occupied property investment in neighborhoods across the city. The next section of this report will identify a variety of policy avenues to explore, organized by potential impact in neighborhoods with varying levels of existing private home improvement and repair activity.

PART III: RECOMMENDATIONS

The analysis in this report suggests the need for a multi-faceted approach to supporting housing reinvestment activity throughout the city that builds confidence in Detroit's housing market, builds value in housing to support wealth creation and generational mobility, and builds on existing private home improvement activity that is occurring throughout the city. Needs differ based on different types of neighborhood markets, and thus the City needs a targeted approach to strategically invest limited public dollars to catalyze housing revitalization across Detroit.

Many researchers have studied whether strategic investments of public resources can catalyze additional home improvement activity in distressed, low- and moderate-income neighborhoods. These studies have found that they do, indeed, have positive impact on resident, private investment in these target areas and conclude that the greatest impacts occur with public investments in excess of about \$20,000 per block (in 2006\$). This is because public resources offer a starting point for folks who may be weary of investing in their homes – as they have a point from which to start, and as they see others on their block or in their neighborhood making investments in their home, willingness to invest in additional home improvements increases. Older studies have found that revitalization investment generates externalities in increased land value that radiate about 1,000 feet around the development. These externalities decrease by half every 1,000-foot increment beyond the original investment location. Thus, the benefits of targeting limited resources are clear: targeted public investment can have catalyzing effects in neighborhoods where some home improvement activity exists. This strategy is particularly helpful in aforementioned middle neighborhoods, where homeowners may be able to afford a bit more home investment than they are currently doing.

The goals of a multifaceted, targeted approach to housing revitalization throughout Detroit should include the following:

- 1. Build confidence in the city's housing market overall, as well as neighborhood housing markets.
- 2. Support wealth creation and generational mobility for Detroiters throughout the city by building value in owned housing.
- 3. Creatively leverage existing private home improvement activity and effectively target public investment to catalyze additional activity throughout the city.

The City has an opportunity to create a variety of creative owner-occupied home rehabilitation programs that target different areas throughout the city to establish a multi-faceted approach to housing revitalization. In areas of the city with higher thresholds of investment in home improvement, focus should be on ensuring that this investment remains equitable and benefits both new and existing Detroiters. In parts of the city seeing middle thresholds of investment in home improvement, the goal should be to build confidence among homeowners to invest in their properties and use public or philanthropic funding to catalyze additional homeowner investment. In neighborhoods with lower thresholds of investment in home improvement, higher levels of

public or philanthropic funding may be required to see movement, but helping with prohibitive repairs may inspire increased willingness to invest small amounts as possible among homeowners. This section details five recommendations that could help strategically leverage public funding to create catalytic impact among the City's housing stock.

One: Leverage owner-occupied investment

Successful programs across the country highlight the impacts of using public or nonprofit funds to catalyze home improvement activity and cross leverage additional private dollars. In Oswego, New York, for example, the Oswego Renaissance Association offers matching funds up to \$1,000 per household for clustered home improvement activity. Over eight years, the nonprofit has engaged over 1,000 homes across participating blocks with an over 80% success rate. They have granted \$1.4 million to homeowners, which has cross leverage over \$4.8 million in total neighborhood investment. The program has found evidence of formal rental houses converting to owner-occupied housing and home values increasing for long-term residents.⁴⁹

Another, newer program in Des Moines, Iowa created by Invest DSM aims to accomplish similar impact, but with an annual budget of \$10 million, is offering a much wider range of programs to meet differing needs across income levels and neighborhood types. They offer a block challenge grant as well, and also offer 25-50% cost share for one-off homeowner renovation projects. One way in particular that the program seeks to engage homeowners at the lower end of the income spectrum is by allowing residents to phase multiple projects over time within their total cap allowance of grant funding, so they can complete projects as they are able to use their money to invest in their home. This allows lower-income homeowners to come back again and again within their cap funding allowance and hopefully move beyond basic maintenance to get to discretionary repairs, positioning their home with better marketability and encouraging growth in value when they hope to sell.⁵⁰

Using these programs as inspiration, Detroit could offer matching funds – perhaps up to \$5,000 – to homeowners who identify perhaps a minimum of 3 other homes on their same block to undertake home improvement projects at the same time. This program could be very successful in areas that are seeing middle levels of existing home improvement activity by building on the activity that is already happening and helping to catalyze additional investment beyond what the homeowner would do by themselves. The idea is also that by targeting this investment within the same block, additional investment will spur from it.

Two: Increase nonprofit capacity and empower residents

The Minneapolis Neighborhood Revitalization Program (NRP) provides funding for neighborhood organizations throughout Minneapolis as a means of investing in neighborhoods and supporting resident-directed revitalization. The funding goes towards the development and the

implementation of Neighborhood Action Plans. Over 20 years, this program invested more than \$158 million in improving existing and developing new housing, though the implementation of Neighborhood Action Plans. ⁵¹ This program places resident direction at the forefront, allowing them to create the change they want see, by simultaneously supporting and building nonprofit capacity by funding them to lead the development of resident-centered plans for neighborhood reinvestment.

Building off of the success of this program, Detroit could create its own version – perhaps by utilizing some of its American Rescue Plan Act (ARPA) funding. Detroit currently has \$30m of its \$820+ million ARPA funding planned for home repair efforts and \$15.5M for neighborhood investments like grants to block clubs and neighborhood associations. The City could support neighborhood nonprofits, block clubs, and associations to develop revitalization plans that center home improvement as well as other place-making strategies, and then provide the funds for implementation. This program could help achieve catalytic revitalization goals by targeting neighborhoods and block clubs.

Three: Support exterior improvements, especially in areas of high visibility

Detroit could establish a program to offer a smaller amount of funding – perhaps \$1,000 – to support exterior improvements for homeowners in more distressed neighborhoods. This could help address the willingness gap to invest in homes that may be created as many homes within a small radius look run down and weathered from the outside. By addressing some of the needs of the exterior of the property, the goal would be to increase the desire among homeowners to continue investing in home improvement projects as they are able.

Four: Grant financially prohibitive repairs in targeted neighborhoods

Detroit could establish a program that seeks to provide a cost-prohibitive repair – like a new roof or full set of new windows – with the expectation that this would help catalyze additional smaller investments over time. A huge, cost prohibitive repair need, like a new roof, can serve as willingness block as homeowners feel hesitant to invest in even smaller repairs or improvements without being able to address the largest issue at hand. Addressing these needs, particularly in small, targeted areas, could spur a lot of smaller investments as homeowners feel more confident in investing smaller amounts of money in their home as they are able. This program would be directed at areas of Detroit with lower thresholds of private home improvement investment and given its hefty price tag, would likely need to be a public private partnership with a philanthropic funder. Assuming \$10,000-\$20,000 a home, a \$5 million initial commitment could fund 250-500 homes. If an initial pilot program that targets a handful of neighborhoods is successful, the program could be expanded out to the rest of the city.

Five: Expand reach of existing programs

Detroit could build upon its existing 0% Interest Home Repair Loan to introduce additional targeting mechanisms within its rules to expand reach within additional neighborhoods. For areas with higher thresholds of private home improvement activity, this could involve providing an increased boost for more moderate-income homeowners or long-term existing homeowners to ensure investment remains equitable. For areas with middle or lower thresholds of existing private home improvement activity, this could involve offering extended repayment time frames that could ultimately lower the risk of the loan and allow for a slightly lower minimum credit limit or slightly more lenient debt-to-income ratio. The goal of these changes would be to expand access to home improvement resources in a targeted way, while maintaining the program's commitment to granting good loans that are highly likely to be repaid.

ENDNOTES

_

http://www.detroithomeloans.org/frequently-asked-questions/

¹ Deng, L., Seymour, E., Dewar, M., & Thomas, J. M. (2018). Saving Strong Neighborhoods From the Destruction of Mortgage Foreclosures: The Impact of Community-Based Efforts in Detroit, Michigan. *Housing Policy Debate*, *28*(2), 153–179.

² Deng et al, 2018

³ Deng et al, 2018

⁴ Ruggiero, R., Rivera, J., & Cooney, P. (2020). *A decent home: The status of home repair in Detroit*. University of Michigan Poverty Solutions.

⁵ Ruggiero et al, 2020

⁶ Ruggiero et al, 2020

⁷ ACS 2021 5-year estimates

⁸ FAQ. (2015, March 6). Detroit 0% Interest Home Repair Loans.

⁹ FAQ. (2015, March 6). Detroit 0% Interest Home Repair Loans. http://www.detroithomeloans.org/frequently-asked-questions/

¹⁰ Mondry, A. (2021). Detroit home repair program proves helpful—for the few who qualify. *Outlier Media*. https://outliermedia.org/detroit-home-repair-program-proves-helpful-for-the-few-who-qualify/

¹¹ Ruggiero et al, 2020

¹² Galster, G., Tatian, P., & Accordino, J. (2006). Targeting Investments for Neighborhood Revitalization. *Journal of the American Planning Association*, *72*(4), 457–474.

¹³ The National Middle Neighborhoods Community of Practice. (2022). *New Data and New Ways of Thinking About Maintaining the Housing Stock in Middle Neighborhoods* [Slide show].

¹⁴ The National Middle Neighborhoods Community of Practice, 2022

¹⁵ The National Middle Neighborhoods Community of Practice, 2022

¹⁶ The National Middle Neighborhoods Community of Practice, 2022

¹⁷ Joint Center for Housing Studies of Harvard University. (2021). *Improving America's Housing* 2021.

¹⁸ Joint Center for Housing Studies of Harvard University, 2021

¹⁹ Joint Center for Housing Studies of Harvard University, 2021

²⁰ Joint Center for Housing Studies of Harvard University, 2021

 $^{^{\}rm 21}$ Joint Center for Housing Studies of Harvard University, 2021

²² Sharp Slowdown Projected in the Pace of Home Remodeling. (2022, October 20). Joint Center for Housing Studies. https://www.jchs.harvard.edu/press-releases/sharp-slowdown-projected pace-home-remodeling

²³ Clark, J., & Kearns, A. (2012). Housing Improvements, Perceived Housing Quality and Psychosocial Benefits From the Home. *Housing Studies*, *27*(7), 915–939.

²⁴ Bos, E., & Henry, N. (2015). *Demonstrating Quality of Life Impacts: Home Improvement Loans for those Experiencing Financial Exclusion*. Coventry University Centre for Business in Society.

²⁵ Ruggiero et al, 2020

²⁶ Ruggiero et al, 2020

²⁷ Ruggiero et al, 2020

²⁸ Ruggiero et al, 2020

- ³⁰ Gill, L., Boggess, L., and Chamberlain, A., "Neighborhood Fixer Uppers: Do Home Improvement Loans Influence Crime Across Race and Over Time?," American Journal of Criminal Justice (2022).
- ³¹ Glaeser, E., Kim, H., & Luca, M. "Nowcasting Gentrification: Using Yelp Data to Quantify Neighborhood Change," *American Economic Association papers and proceedings* 108, (2018): 77-82.
- Hwang, J. & Sampson, R., "Divergent Pathways of Gentrification: Racial Inequality and the Social Order of Renewal in Chicago Neighborhoods." *American Sociological Review* 79 no. 4 (2014): 726–751.
- ³² Ding, C., Simons, R. A., & Baku, E. (2000). The Effect of Residential Investment on Nearby Property Values: Evidence from Cleveland, Ohio. *Journal of Real Estate Research*, *19*(1), 23–48. Schill, M. J., Ellen, I. G., Schwartz, A. E., & Voicu, I. (2002). Revitalizing inner-city neighborhoods: New York city's Ten-Year Plan. *Housing Policy Debate*, *13*(3), 529–566.
- ³³ Reinvestment Fund. (2015). *Philadelphia's Middle Neighborhoods: Demographic and Market Differences by Race, Ethnicity, and Nation of Origin.*
- ³⁴ The National Middle Neighborhoods Community of Practice, 2022
- ³⁵ City of Norfolk, *Middle Neighborhoods Initiative*.
- ³⁶ The National Middle Neighborhoods Community of Practice, 2022
- ³⁷ City of Norfolk, *Middle Neighborhoods Initiative*
- ³⁸ The National Middle Neighborhoods Community of Practice, 2022
- ³⁹ The National Middle Neighborhoods Community of Practice, 2022
- ⁴⁰ Doing Development Differently in Detroit. (2022). *Home Repair: Rebuilding Equity in Detroit*.
- ⁴¹ The National Middle Neighborhoods Community of Practice, 2022
- ⁴² Boehm, T., & Ihlanfeldt, K. R. (1986). The Improvement Expenditures of Urban Homeowners: An Empirical Analysis. *Real Estate Economics*.
- ⁴³ Kevin Park, Good Home Improvers Make Good Neighbors
- ⁴⁴ The National Middle Neighborhoods Community of Practice, 2022
- ⁴⁵ A Decent Home
- ⁴⁶ Mondry, 2021
- ⁴⁷ Galster et al, 2006
- ⁴⁸ Rossi-Hansberg, E., Sarte, P., & Owens, R. J. (2010). Housing Externalities. *Journal of Political Economy*, *118*(3), 485–535.
- ⁴⁹ The National Middle Neighborhoods Community of Practice, 2022
- ⁵⁰ The National Middle Neighborhoods Community of Practice, 2022
- ⁵¹ City of Minneapolis, *History of the Neighborhood Revitalization Program*. https://www2.minneapolismn.gov/government/departments/ncr/neighborhood-programs/neighborhood-revitalization-program/nrp-history/
- ⁵² City of Detroit, *How Detroit's ARPA funds are being spent*. (2023, April 25). City of Detroit. https://detroitmi.gov/departments/office-chief-financial-officer/how-detroits-arpa-funds-are-being-spent

²⁹ Assets and Neighborhoods: The Role of Individual Assets in Neighborhood Revitalization (2003)