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Get a Lot for Less: Evaluation of the \$1 Vacant Lot Pilot Program in Milwaukee's 15th Aldermanic District

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GET A LOT FOR LESS: EVALUATION OF THE \$1 VACANT LOT PILOT PROGRAM IN
MILWAUKEE'S 15th ALDERMANIC DISTRICT

by

Sierra Starner-Heffron

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ABSTRACT

GET A LOT FOR LESS: EVALUATION OF THE \$1 VACANT LOT PILOT PROGRAM IN MILWAUKEE'S 15th ALDERMANIC DISTRICT

by

Sierra Starner-Heffron

The University of Wisconsin, Milwaukee, 2016
Under the Supervision of Professor Joel Rast

Between July, 2014 and July, 2015, the city piloted a program in which City-owned vacant lots could be sold for \$1 to adjacent homeowners exclusively in the 15th Aldermanic District. The focus of this research was to determine the effectiveness of the \$1 lot program in revitalizing the neighborhoods within that District. Using a visual assessment, this research observed the condition of 26 vacant lots sold approximately one year prior to the assessment and scored them based on a unique set of factors including the presence of a fence (a proxy for defensible space) the presence of gardens, whether any improvements had been made, and a maintenance score of 1-3. The findings showed that the majority of new purchased vacant lots were unfenced and without gardens. The average maintenance score was 1.7 indicating the general maintenance level was good. Most vacant lots were not markedly improved, but were maintained at a level similar to, or better than, when they were owned by the City.

Additionally, this research conducted telephone interviews with 18 of the 26 first program participants. Through these interviews, this research ascertained the motivation for the purchase, future plans for the lots, and if owners perceived benefits to themselves and/or their community. Significantly, the findings showed residents viewed the additional land as beneficial and appreciated being a stakeholder in the development options around them. The

interviewees wanted the responsibility and control of adjacent vacant land. Expanded ownership incentivized continued investment in the area and reduced blight conditions. The increased space expanded territoriality, an aspect of defensible space, as well as decreased perceived crime rates, especially dumping and loitering. Program participants spoke of plans to utilize the additional land in unique and beneficial ways. The residents of the area are essential components of this grassroots revitalization effort, especially in the absence of top-down development plans.

This research also examined the financial benefits of the program for the City of Milwaukee in the form of increased property taxes and decreased maintenance fees. Using the total number of vacant lots sold from July 1, 2014 through February 29, 2016, the total increase in property taxes was between \$10,800 and \$21,600. Total savings in maintenance fees was \$46,080. Other benefits of the program include increased housing code compliance and increased payment of delinquent property taxes due to the program's requirements.

Overall, the program represents a small step in the right direction for revitalization efforts in the 15th Aldermanic District. However, the \$1 Vacant Lot Pilot Program cannot alone solve the problem of land vacancy. More could be done by the City of Milwaukee to ensure there is an increase in homeownership in order to better absorb present and future vacant lots and incentivize further yard improvements.

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1. Introduction

The “\$1 Vacant Lot Pilot Program” was implemented in Milwaukee, Wisconsin's 15th Aldermanic District July, 2014. This initiative was one of many implemented by the City of Milwaukee to reduce the burden of proliferating vacant lots. After the recession in 2008, the City of Milwaukee gained ownership of thousands of tax foreclosed homes. Many of the newly acquired homes were concentrated within Aldermanic Districts 6, 7, and 15 of Milwaukee's near north side. Many of these houses were demolished due to their dilapidated condition and vacant lots multiplied. Vacant lots burden cities with high maintenance costs, a reduction in property taxes and lower investment in the community. The 15th Aldermanic District presently owns the largest share (15%) (City of Milwaukee— Resolution # 140326) of Milwaukee's vacant lots. Under the \$1 lot program, homeowner-occupants living adjacent to a City-owned vacant lot can purchase the lot for \$1. Alderman Russell W. Stamper II sponsored this effort in hopes of revitalizing his district. The map of the Milwaukee, as shown in Figure 1, shows the location of vacant lots citywide.

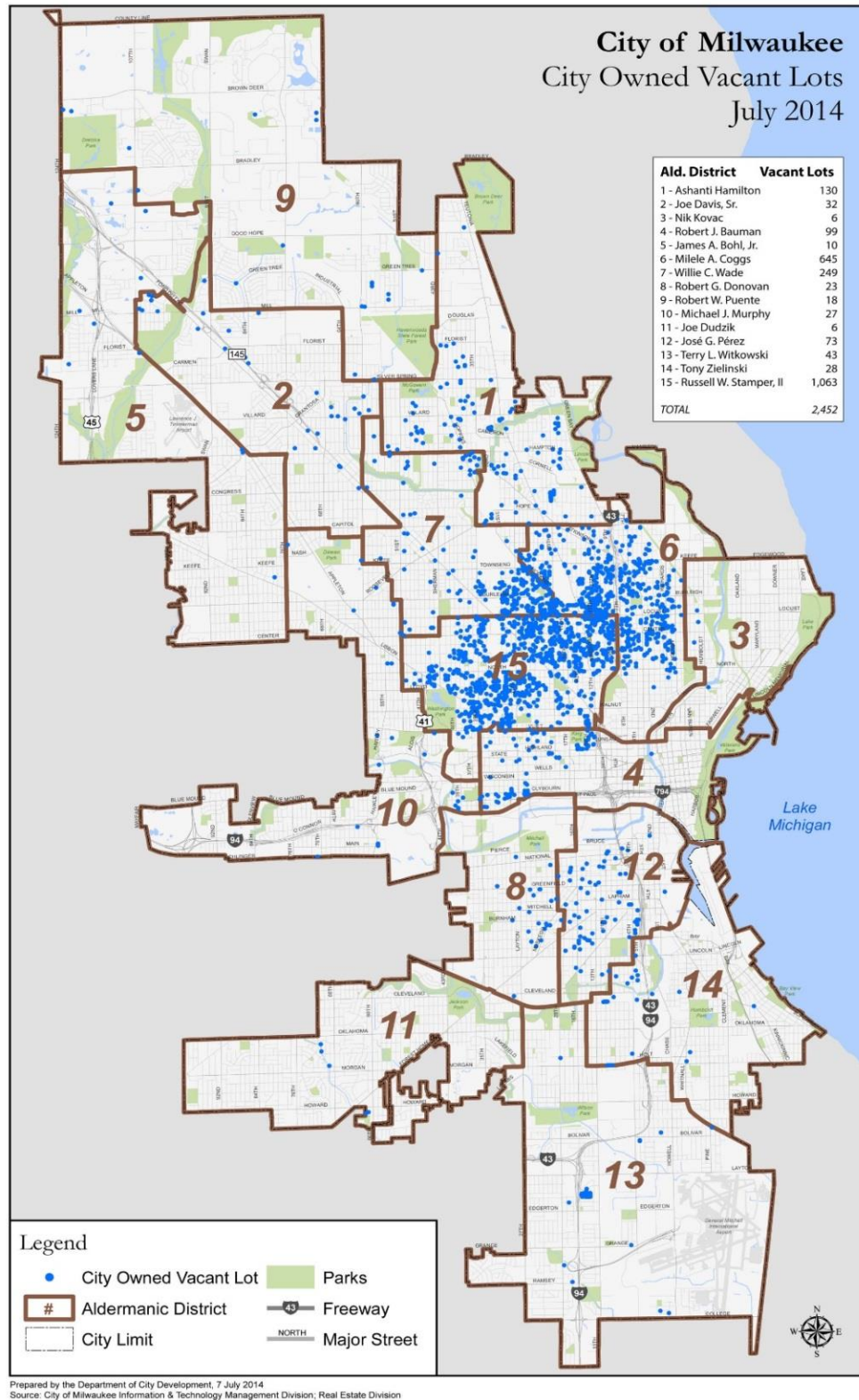


Figure 1: Map of Milwaukee's City-Owned Vacant Lots Permission to use graphic was permitted by the creator: Nolan Zaroff and Martha Brown Deputy Commissioner of the Department of City Development

The adoption of the \$1 Vacant Lot Pilot Program is mainly in response to lack of development interest specifically in the 15th District. Alderman Russell Stamper II commented that he would like to "just give the land away to the adjoining neighbors, but there must be a transaction" (Kevit, 2014a). Presently, Habitat for Humanity and other nonprofit housing development organizations simply cannot keep up with the current volume of vacant lots (Willms, 2013). Developers also are not buying vacant lots for new construction because of current zoning restrictions. In the past, some 30 feet wide lots might have been buildable, but this is limited today. In fact, some districts have a minimum lot width of as much as 100 feet (Willms, 2013). Alderwoman Milele Coggs of the 6th District proposed allowing construction of tiny houses (98 to 1000 square feet) on the narrow lots. Unfortunately, the city's height requirements of 20 feet could be a potential problem with this latest trend in infill development. The narrow lots themselves also make construction difficult, tiny house or otherwise, and as of now, no one has actually tried to build one (Kevit, 2014b). Milwaukee's current options for vacant lot disposition include permitting for seasonal and long-term gardening, the establishment of tot lots or pocket parks, and sales for development or as side yards (Department of City Development internal document).

1.1. Project Rationale and Expectations

The goal of this research is to determine the effectiveness of the City of Milwaukee's \$1 Vacant Lot Pilot Program in revitalizing the 15th Aldermanic District. By considering not only the number of lots sold and the condition and use of those lots, but also the insights of those purchasers, this research will examine the role these vacant lots fulfill in their neighborhoods. This research will help uncover what happens when home owners are allowed to double their

lot size and spread out. This approach will better assist planners and policy makers in evaluating the \$1 Vacant Lot Pilot Program as a development strategy. This goal will be addressed through the following objectives:

Objective 1: Determine the effectiveness of the \$1 Vacant Lot Pilot Program in selling City-owned lots

The number of City-owned lots sold in the 15th District will be compared to the number of lots sold in the year prior to the implementation of the program. Also, since the city expanded the \$1 Lot Program citywide in July, 2015, I will also compare the number of lots sold within each district over various time periods. I will determine the percent of lots sold within the 15th District using the Department of City Development's administrative database. My expectation is that a high percentage has been sold due to the City's concentrated effort in this district. A high percentage will underscore the effectiveness of the \$1 Lot Program while a lower percentage may reveal obstacles either in the selling process, outreach for the program, residents' disinterest in the program, or something else entirely.

By interviewing various City officials and using the Department of City Development's administrative database, maintenance costs will be estimated for the upkeep of City-owned vacant lots. By determining how many lots were sold in the 15th District, the increased property taxes will also be estimated. Maintenance costs will likely decrease for the City and there will be a modest increase in property taxes collected from the focused effort of selling vacant lots in this district.

Objective 2: Determine if the \$1 Vacant Lot Pilot Program has reduced blight conditions

To determine if this program has had a stabilizing or revitalizing effect on the neighborhoods within the 15th District, this research will examine if homeowners are improving their lots and reducing blight conditions. This will be measured with a visual assessment using the “windshield survey” approach. My expectation is that homeowners are maintaining, and even improving, their newly purchased lots. These improvements will reduce blight conditions in the 15th District.

Another expectation is that residents who buy vacant lots are increasing defensible space and potentially reducing the incidence of crime, especially trespassing, loitering, and dumping. For the purposes of this study, defensible space will be defined as a fence or other symbolic barrier that has been constructed on the newly purchased lot. The presence of a new fence or other symbolic barrier will help determine whether or not there has been an increase in territorial surveillance of former public spaces. An increase in the number of fences constructed on the newly purchased vacant lots will be measured as an increase in defensible space.

Also, through telephone interviews with project participants, I will demonstrate expanded property ownership will increase participants’ perception of safety. This will be measured by the interviewees’ responses to several questions asked in the telephone interview. My expectation is that buyers of vacant lots perceive their investment to be a way of improving security in the neighborhoods.

Objective 3: Assess the use and added benefits of the \$1 Vacant Lot Pilot Program for residents of the 15th District

Vacant lot use will be examined by visual assessment and described by telephone interviews with project participants. Another expectation tested is that this program is helping to promote urban agriculture in the 15th District. This will be measured by the number of newly established gardens on purchased vacant lots. The final expectation this research will test is that the \$1 Vacant Lot Pilot Program will increase residents' satisfaction with their neighborhood. Changes in resident satisfaction will be assessed in telephone interviews.

2. Literature Review

2.1. History of Disinvested Areas

Considerable research has focused on population decline and how that has increased the amount of vacant land within cities. Milwaukee is similar to many other Rust Belt and Northeastern cities that experienced deindustrialization, urban renewal efforts, and white flight that caused depopulation. The precipitous population decline within Milwaukee's 15th Aldermanic District is shown in Figure 2. Land clearance for both the I-43 and Park West Freeways took place within the 15th Aldermanic District in the 1960s causing huge population loss (Gurda, 2015).

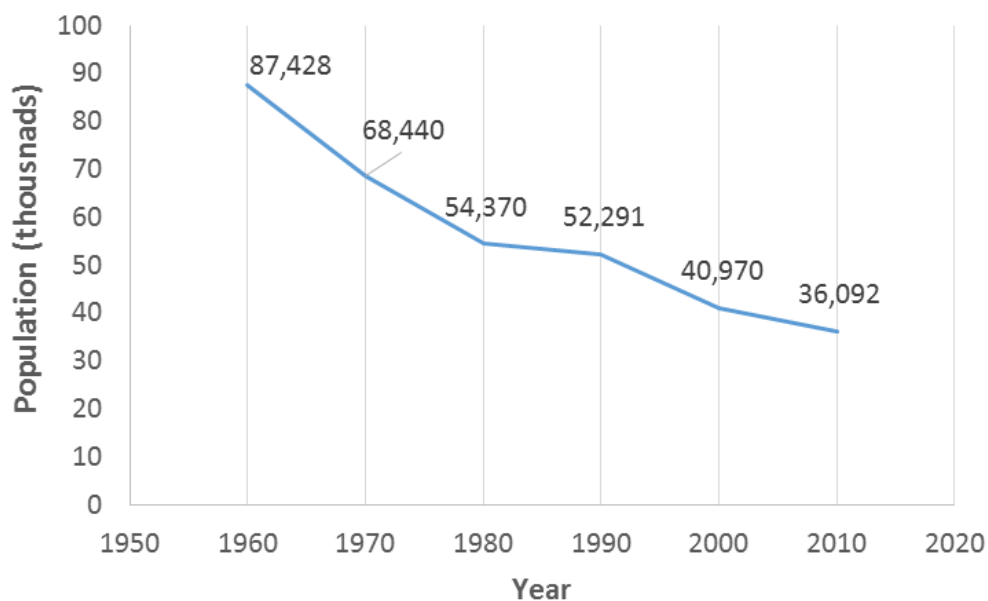


Figure 2: Total Population of the 15th Aldermanic District. Source 1960-2010 Census Data

Additionally, as African American populations moved in, the overall population declined. Some distinct neighborhoods within the 15th District (Lindsay Heights, Amani/Metcalf Park, Washington Park, and Midtown) experienced huge demographic changes from the 1950s on. In Lindsay Heights, “the community’s black population surged from 22 percent of the total in 1950

to 95 percent in 2010.” (Gurda, 2015, p. 237) Similarly, the Amani/ Metcalfe Park neighborhood “went from virtually no African Americans in 1950 to 53 percent in 1970 and nearly 94 percent in 2010.” During the 1980s through 1990s, this neighborhood was “widely considered the most dangerous neighborhood in Milwaukee” (Gurda, 2015, p. 249). These demographic changes and growing concentration of African American populations within the central city highlight Milwaukee’s notorious level of segregation. Table 1 illustrates the present demographics of the 15th Aldermanic District. The concentration of African Americans remains high while the percentage of homeowners and per capita income are low.

Table 1: Demographic Information of the 15th Aldermanic District. Source ACS 2008-2012

Total Population	35,051
Percent African-American	85%
Median Age*	32
Average Per Capita Income	12,145
Median Per Capita Income**	16,853
Total Housing Units	13,931
Percent Owner-Occupied Units	27%

* Weighted median of Census tract medians

** Weighted median of Census tract averages

The current deteriorated condition of much of the housing within Milwaukee’s central city can be traced back to past insurance and bank redlining. Many scholars have documented the discriminatory policies of the Home Owners Loan Corporation and Federal Housing Administration (Squires & Velez, 1987; Jackson, 1980). A more recent account of blatant discrimination perpetrated by the City of Milwaukee was chronicled by Schmidt (2011). She wrote about a specific planning agenda within Milwaukee's Department of City Development in the 1970s that prioritized investment in white neighborhoods. According to Schmidt, planners used a Relative Residential Status (RRS) evaluation to classify neighborhood health and create a

map that outlined where financial institutions and the real estate markets could profit the most. The three dimensions of neighborhood health were used to unmistakably rate African-American neighborhoods lower than predominately white neighborhoods. Resources like subsidized home improvement loans and programs to increase homeownership were provided to those mostly white neighborhoods and denied to more mixed neighborhoods. This policy reinforced segregation and caused majority African American neighborhoods to be further disinvested in.

As real estate demand for the neighborhoods within the central city lessened, so did property values and tax revenues. These factors also coincided with a decrease in federal aid to cities in the late 1970s and 1980s (Bright, 2000; Ryan, 2015). New housing development was clearly prioritized over redevelopment in central cities (Swope, 2006; Jackson, 1980). Without many options for financing home repairs, the condition of housing greatly suffered. Figure 3 mirrors the same steady decline in total housing units (until approximately 2000) as the total population within the 15th Aldermanic District during the same time period.

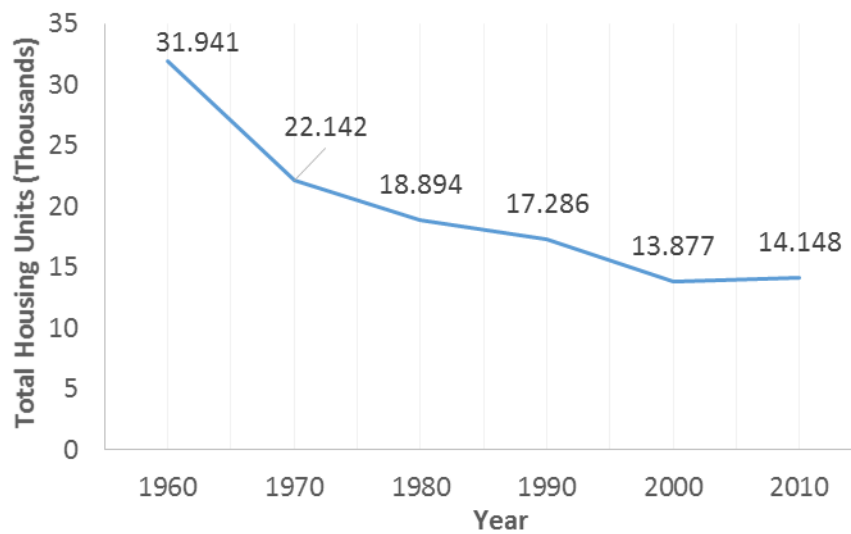


Figure 3: Total Housing Units within the 15th Aldermanic District. Source 1960-2010 Census Data

Only recently has the tide turned, as governments are beginning to look for ways to restore inner cities. In the recommendations for New York City's outer Borough Development Strategy, the author stated the importance of older central cities:

As vital centers of finance, trade and distribution, and culture these cities are important cogs in their regional economies, affecting the growth and well-being of the suburbs that surround them, as well as essential subnational centers in the global economic network. (Rogowsky, Berkman, Shom, & Maniscalco, 1995, p. 98)

2.2. Financial Crisis's Effect on Minority Neighborhoods

The financial crisis of 2008 hit central cities especially hard. All over the country, African American and Latino neighborhoods were subject to both higher levels of unemployment and higher levels of foreclosures (Hall, Crowder and Spring, 2015; Dreier, Bhatti, Call, Schwartz, & Squires, n.d; Carpenter, Mitchell and Price, 2015). According to Pawasarat and Quinn (2007), in Milwaukee "low income city neighborhoods [had] the highest concentration of subprime and

high-interest rate loans” (p. 17). Additionally, because of increased mortgage lending activity, housing assessments dramatically rose, resulting in increased property taxes. Utility costs also increased as incomes remained stagnant forcing an increasing number of homeowners and renters to spend “70% or more (well over twice the HUD-recommended 30% level) of household income on housing costs” (Pawasarat and Quinn, 2007, p. 12). These untenable circumstances led to Milwaukee’s foreclosure crisis. Even years later, a Haas Institute report stated that “40 percent of Milwaukee homeowners were still underwater on their mortgages at the end of 2013” (Dreier et al., n.d., p. 12), making it one of the hardest-hit metropolitan areas in the country.

The foreclosure crisis necessitated the demolition of hundreds of abandoned, dilapidated City-owned homes. Ryan (2012) chronicled the lack of development strategies in place once these demolitions are done. He commented that “apart from eliminating possible neighborhood hazards, demolition [does] little to improve the quality of life for remaining inhabitants” (p. 185). In Milwaukee, many Aldermen cited the vast amount of “greenspace” in their districts during the summer of 2014 and demanded a “more aggressive approach to dealing with nearly 2,500 vacant lots” citywide (Toner, 2014).

2.3. Problems with Vacant Lots

Vacant land creates a number of problems for cities. Vacant lots are often perceived as a problem for revitalization efforts (Accordino & Johnston, 2000). Most frequently cited issues are “high maintenance costs, uncollected taxes, decreased neighborhood stability due to lower property values, lower investment in the community and increased crime rates” (Slabinski, 2012, p. 258). Scholars like Whitaker and Fitzpatrick (2011) have explored how vacant land

drags down property values for nearby properties. Others have observed how vacant land and houses negatively affect neighbors' mental well-being (Garvin, Branas, Keddem, Sellman, & Cannuscio, 2012). These vacant spaces produce what some have described as “missing teeth” in the neighborhood fabric.

2.4. Defensible Space and Crime Prevention through Environmental Design

Since the City is responsible for the maintenance of 2,934 vacant lots citywide (Department of City Development Interdepartmental Correspondence dated March 7, 2016), they have taken several measures to ensure their upkeep. One such measure is a program called Homegrown which aims to improve the appearance of City-owned vacant lots and stem their use in criminal activities. Homegrown is experimenting with planting trees and shrubs that beautify but do not impede surveillance by neighbors or police. Yet, this program cannot improve all vacant lots. As the majority of vacant lots are within the 15th Aldermanic District, the burden of upkeep is especially acute there. If lot maintenance is lacking or overburdened, the overall appearance of the area could suffer. Some scholars have linked the appearance of disorder with the eventuality of more serious levels of crime (Wilson and Kelling, 1982). Another study found the presence of open space adjacent to a home made it vulnerable to burglary (Artimage, 2007). The city's decision to incentivize the sale of vacant lots by lowering the price is a concerted effort to create increased feelings of ownership on these problematic spaces.

Considerable research has examined whether increased territoriality and ownership can reduce crime and foster safer neighborhoods. Oscar Newman's influential study, *Defensible Space*, explored several concepts and mechanisms that increased residents' perception of safety in public housing (Newman, 1973). These concepts have influenced later planning

principles like Crime Prevention through Environmental Design (CPTED). The key elements of defensible space and CPTED include “territorial reinforcement, natural surveillance, image (capacity of design to influence a project’s peculiarity, vulnerability, isolation and stigma), and geographic juxtaposition” (Grohe, 2011, p. 44). Territorial reinforcement refers to both the physical aspect of defining private space from public space and also the social aspect of territoriality i.e. social attachment to a place or neighborhood. People that have lived in a neighborhood for a long time exhibit territoriality of that place (Grohe, 2011).

Natural surveillance is commonly understood as Jane Jacob’s ‘eyes on the street’ concept (Jacobs, 1961). This concept focuses on maximizing visibility and promoting social interaction between neighbors. Reynald (2011a) found that many factors influenced whether or not people participated in active surveillance of their neighborhoods. She found that residents of high crime, low income neighborhoods often lacked the willingness to supervise and intervene. This reluctance to supervise and intervene correlated to the public distrust. When there is distrust, there is more crime. Still, the study found active guardianship was found to be essential to Crime Prevention through Environmental Design (CPTED) (Reynald, 2011a; Reynald, 2011b).

Image refers to how the design of buildings or neighborhood are perceived by its inhabitants as well as outsiders. This factor involves the perception of controlled spaces versus uncontrolled. Newman found that well-maintained spaces (landscaped, signage showing ownership, decorations) signaled to outsiders that that property was controlled and under its owners’ surveillance.

Sampson and Raudenbush (2005) found that stereotypes of minority neighborhoods greatly influenced whether respondents perceived disorder. They found that “concentrated poverty, the proportion of blacks, and the proportion of Latinos in a neighborhood were related positively and significantly to perceived disorder” (p. 9). When they added physical aspects, like larger numbers of bars and liquor stores, they found an even greater positive statistical relationship to disorder.

Interestingly, perceived disorder differed among racial groups. Whites living in an all-white neighborhood tended to have a lower threshold for disorder than African Americans, who have lived in historically segregated, systematically disinvested all-black neighborhoods. These findings suggest that perceptions of disorder stem in large part from past exposure to disorder and that eliminating physical disorder may help distressed neighborhoods revitalize.

The last principle of defensible space is juxtaposition of geography. This principle refers to the wider social and physical context of where a neighborhood is located within a city. This principle highlights the importance of planning/zoning in new developments (Grohe, 2011). By creating an environment that clearly shows ownership, Newman and others agree this can help increase residents’ feeling of security and result in safer, more stable neighborhoods.

2.5. Strategies for Managing Vacant Lots

2.5.1. Greening

One approach used by many cities dealing with a large number of vacant lots is simply greening them. Greening can mean different things, such as transforming neglected lots into community gardens, parks, sports fields, trails, urban forests or orchards. Greening has had ostensibly impressive results. Philadelphia’s pioneering use of a simple greening treatment to

remove debris and plant grass and trees, was shown to improve property values of nearby properties (Heckert and Mennis, 2012). Another study (South, Kondo, Cheney, & Branas, 2015) measured people's heart rates as participants walked by vacant lots before and after Philadelphia's greening treatment. The team found that residents' heart rates were significantly reduced when walking by "greened" lots as compared to non-greened lots. Neighborhood green space has been linked to improved mental well-being and lower levels of depression, anxiety, and stress (Beyer et al., 2014). These studies suggest that an effective way to improve peoples' health might be as simple as increasing green space. In a related study, Heckert (2013) examined the total greenspace to which different racial groups have access and found that minorities and renters had less access to greenspace than whites and homeowners. Greening vacant lots in Philadelphia increased the total amount of greenspace everyone had access to, but did not decrease the difference between racial groups.

2.5.2. Return to Nature and Urban Agriculture

Another recommendation for vacant land reuse is letting lots return to nature. Proponents claim a host of benefits, including improving biodiversity, storm water retention, soil building and pollution removal (Tree Bark, 2014; Kremer, Hamstead, & McPhearson, 2013). Developers might also be interested in using vacant lands to recreate wetlands or other natural environments to mitigate ecosystem destruction elsewhere. The mayor of Youngstown, Ohio, postulated that "[d]evelopers may come to value Youngstown land not because they want to build on it but because they don't want to build on it" (Swope, 2006).

Kremer, Hamstead, and McPhearson (2013) examined vacant lots' larger function within the five boroughs of New York City. The research team used ArcGIS and Google Earth to survey

a random sample of 5% of vacant lots. They surveyed vacant lot land cover and land use. They also examined social characteristics of the neighborhoods where they found the vacant lots. The team found that 33% of sampled vacant lots appeared to be unused, were relatively green, and were located in residential neighborhoods of high population density and low income. This finding suggests that some vacant lots may serve an important social function, similar to a park for these communities. The greatest proportion of vacant lots were found in low-density residential areas. Greener lots were located in greener neighborhoods with higher income levels. They also found that 62% of vacant lots in New York City were covered by trees, herbaceous vegetation, and grass. The researchers suggested that this space may have important ecological value by providing storm water runoff mitigation and human health benefits. The study concluded with the recommendation for other cities to carefully survey their vacant lots before determining what development strategies might be beneficial to the surrounding communities.

In addition, research on the benefits of increased urban agriculture has recently proliferated. Many studies have focused on how food insecurity is a major problem facing many low-income populations residing in inner cities (Bonanno and Li, 2012). Food security and nutrition are widely accepted advantages of gardens. Recent research has shown physical and mental benefits of gardening. Recreational gardening has also been linked to reduced stress, fear and anger, and even passersby experience these rewards (Brown & Jameton, 2000). Urban gardens are even credited with creating opportunities for leadership and thus contributing to a community's "social capital" (Brown & Jameton, 2000). Citywide in Milwaukee, there are

approximately 60 seasonal and three-year garden permits operating on City-owned vacant lots presently (Department of City Development internal document).

While soil contamination is an issue that would have to be monitored, especially in high poverty, minority neighborhoods due to the historic industrial and commercial uses, this is a surmountable problem given the overall benefits. Kaiser's (2015) study showed how residents of low-income areas were interested in pursuing urban agriculture, but had legitimate concerns about soil contamination and foodborne pathogens. This study found that long-term gardens had much less soil contamination, perhaps due to soil tillage which diluted the soil metal contaminants.

2.5.3. Right-Sizing

The terms “right-sizing” and “smart decline” have recently emerged in urban planning lexicons as a new approach in dealing with shrinking cities. Smart decline and right-sizing entail reorganizing cities that have experienced high levels of abandonment. This reorganization can mean eliminating services to some areas of a city and concentrating the population into the most salvageable parts of the city (Popper, 2002). For example, in Youngstown, Ohio the city has decided to focus on the more stable neighborhoods rather than continuing to invest home improvement aid in the most disinvested areas. Youngstown's mayor, Jay Williams, asked in an interview, “[d]oes it make sense to invest \$40,000 or \$50,000 in a home that is on a street where more than half of the other homes have to be demolished?” (Swope, 2006). While right sizing and smart decline evoke memories of urban renewal projects in which minority neighborhoods were razed by eminent domain to make way for new development (Gomez, 2013), scholars maintain that these strategies can be carried out appropriately and sensitively.

Right sizing aims to stabilize neighborhoods with high levels of abandonment while also adjusting the amount of developable land needed for present and future population decline. According to Schilling and Logan (2008), shrinking cities could convert the most depressed, depopulated areas of a city into green infrastructure that would create community assets rather than blight. Schilling and Logan note that this approach to green space within cities will be very different than greenbelts of the past. Tappendorf and Denzin (2011) write that increased greenways could be used as bike paths and trails to better unite disconnected communities and reduce car travel. Of course, green infrastructure would need contiguous parcels of vacant land.

Places like Detroit have ample supplies of large, empty swaths of land remaining after failed urban renewal efforts or where population and housing greatly declined. Developers delight in this "tabula rasa" style of development rather than infill or scattered site development. One such development in 1990s Detroit was lauded as a success. This suburban-styled housing development within the city was said to have "made existing housing more valuable" and made it "easier for other homeowners to finance improvements to their homes" (Ryan, 2012, p. 109). Yet, this development was an exception to the rule rather than the new norm. Other suburban-like housing developments could not replicate what this one had done. After the 2008 Recession, more developers were extremely weary of trying to increase housing stock within shrinking cities. Importantly, Wiechmann and Bontje (2014) recommended studying why these neighborhoods declined in the first place and if those fundamental reasons have been fully addressed.

While shrinking cities are often perceived to be undesirable places to live, this might not truly reflect residents' perceptions. One study surveyed residents' happiness in both growing cities and shrinking cities. Hollander (2011) examined 38 cities and explored the concept of happiness, measured by residents' opinions of their neighborhoods' quality. He looked at population and housing change over two periods of time. A difference of means test measured how the group of shrinking cities differed from the group of growing cities. His findings were surprising. Shrinking cities' neighborhood quality scores were not adversely affected by depopulation or the loss of housing and were actually higher than in growing cities. Hollander concluded that shrinking cities are not inherently bad places to live. He recommended residents' perceptions of their neighborhood quality should be further researched with qualitative field work to further explore the reasons behind his results.

2.5.4. New Suburbanism

One such reason residents may enjoy their shrinking cities is that they are less congested and dense than a growing city. Detroit based planning firm, Interboro Partners, has championed the term and concept of "blotting". This term describes how "entrepreneurial homeowners take, borrow, or buy" (Armborst, 2008) the vacant lots surrounding their homes. Interboro cites a few cases of homeowners who have claimed the contiguous vacant lots surrounding their property and created lots that are three or four times the size of a traditional lot. Interboro Partners says this enables homeowners to create "more desirable spaces than are possible on the typical 30'x100' lot" (Armborst, 2008). Interboro advocates the process of blotting as a reward to homeowners who have remained in their homes despite decades of

population and economic decline. The planning firm views spreading out as a new grass-roots development called “New Suburbanism”.

New Suburbanism has interesting implications for neighborhoods in depressed, shrinking areas. While Interboro believes this is a positive development that organically solves both the problem of vacancy and high city maintenance costs, it also raises the question of what the legal ramifications could occur if blotted land is not legally purchased. Illegal blotting is especially likely to happen if the mechanism for buying vacant land is too complicated and/or expensive. Additionally, Ganning and Tighe (2014) warn about the unintended consequences of blotting on a city’s cohesive approach to development. This kind of grass roots approach could interfere with how larger scope neighborhood and city plans are shaped. Also, the question of whether homeowners will take better care of the surrounding vacant land than the city remains unanswered.

2.6. Strategies for Selling Vacant Lots

Specific, evaluative research about how cities sell their vacant lots is scarce. Dewar (2006) looked at why two cities’ approaches of selling tax-reverted land produced very different results. In Dewar’s research, she compared Cleveland and Detroit. She found Cleveland’s strategies for selling tax-reverted land for reuse to be more methodical, cooperative, and mission-driven than Detroit’s. Dewar surveyed a random sample of 200 sold properties from each city and assessed their condition. Dewar found that while Detroit had sold many more properties than Cleveland (four times as many), Cleveland managed and planned for reuse better than Detroit. Cleveland’s city and county officials worked well with developers and prioritized new housing development. Cleveland had very clear procedures in place (the

application, the requirements, and the policies governing the sale), whereas Detroit did not.

Detroit's policies were unclear and changed frequently, Dewar found. Detroit focused more on large-scale projects rather than neighborhood redevelopment.

While Detroit sold many more vacant lots than Cleveland, nearly 23 percent of Detroit's lots were "unimproved" vacant in 2001, whereas only between 10-11 percent of Cleveland's lots remained vacant in 2003 (Dewar, 2006). This underscores Cleveland's mission to sell vacant land for new construction or to aid in existing development. Detroit's mission to simply sell as much vacant land as possible is perhaps more about getting vacant land back on the tax rolls than a long-term redevelopment goal.

Milwaukee's parcel-by-parcel approach seems to be more aligned with Detroit's method of selling vacant lots than with Cleveland's. Selling vacant land within the most depressed area of the city for nearly nothing clearly incentivizes high volume selling. Add the strong directives from many Aldermen, the Department of City Development is determined to sell as many vacant lots as quickly as possible. While alleviating maintenance costs and get these "missing teeth" back in private hands and back on the tax rolls is the City's main objective, it may turn out to be short-sighted and without a clear, long-term plan. Nevertheless, Milwaukee city officials view this approach as beneficial for the residents of the 15th District and the city.

Dewar's study concluded with recommendations for other cities trying to sell tax-reverted property in order to facilitate reuse. She suggested reducing the uncertainty facing prospective buyers with transparent, predictable policies, accurate property and ownership information, and a speedy property disposition process. Low prices were also mentioned as a way of

speeding up the process. Sales of vacant lots to adjacent homeowners in both Detroit and Cleveland were briefly mentioned as being responsible for about a fourth of sampled properties sold.

Ganning and Tighe (2014) examined a similar side yard program to Milwaukee's that sold vacant lots to adjacent homeowners. The authors explored various scenarios to gauge whether eligibility guidelines and pricing impeded participation in St. Louis's program. Ganning and Tighe's main objective was to estimate the number of eligible buyers that could purchase vacant land through the side yard program using different scenarios. The authors examined three representative census tracts that were evaluated for median household income and percent of land that was vacant in 2011 by area and the city as a whole. The three tracts corresponded to the 10th, 50th, and 90th percentiles of income and vacancy, where the 10th percentile represented low income and high vacancy, and the 90th represented high income and low vacancy.

The team compared the six different scenarios to determine which restricted the sale of vacant lots. Scenario 1 was the most lenient – all vacant, city-owned, residentially zoned lots were eligible for purchase. Scenario 2 limited the parcels that could be sold to only those with a maximum width of 30 feet. Scenario 3 combined scenario 2 with an addition requirement of buyers having to be owner-occupants. Scenario 4 combined scenario 3 with an additional limitation of including only those with a higher income, thus more likely to have expendable monies. Scenario 5 allowed for neighbors that are separated by a rear alley to be considered adjacent. Scenario 6 included scenario 2 plus the affordability constraint of scenario 4. In

creating these various scenarios, Ganning and Tighe found pricing to be prohibitive for many, especially the lowest income groups.

However, Scenario 3, the owner-occupancy requirement, restricted the most buyers from participating in the program. Also, the authors found disparity in the tracts that would sell the most lots. Under the most lenient scenario, the program could sell 59% of vacant lots in the 50th percentile tract, but only 11% in the 10th percentile. This was due to the fact that it was actually more expensive to buy a lot in the 10th percentile than the 50th percentile because of the price being based on per-foot-frontages. Because of this inconsistency, the authors propose equity-based pricing structures based on neighborhood incomes rather than price based on frontages.

While the requirement of being an owner-occupant hindered the most sales and has since been removed from St. Louis's official requirements, it is noteworthy that Milwaukee employs a similar requirement, although not exclusively. Milwaukee uses a case by case approach to sales, sometimes offering lots to non-owner occupants if they request the lot and there is not an owner occupant on the other side of the vacant lot.

High-vacancy neighborhoods face the greatest challenge since residents are usually least likely to have the disposable income needed to purchase a side lot. Programs like The Lot Next Door in New Orleans, which sells vacant lots to adjacent homeowners, have had mixed results. While the City has sold over a thousand lots as of June 2011, higher-income neighborhoods were much more likely to buy the vacant land than the most depressed neighborhoods that had the most lots available (Ganning and Tighe, 2000). Additionally, Ganning and Tighe question whether low-income residents have the means to maintain expanded lots.

Overall, St. Louis's policies and pricing created large barriers to the program's feasibility. Ganning and Tighe found that the 50th percentile of both median household income and vacant land area had the best potential for a program like theirs. St. Louis is not alone. McHugh (2012) found that Baltimore's Vacant to Value program also focused investments in the "middle markets" (p. 9). These middle markets were found where housing prices, foreclosure rates, vacancy rates, owner occupancy rates, etc. were not the worst, nor in the best condition. It is hypothesized that this effort will strengthen these transitional neighborhoods and provide the greatest impact.

3. Methodology

As an evaluative case study of one of Milwaukee's development strategies, this research relied on interviews with program participants, city officials, visual assessments of purchased vacant lots, and data collected from the City of Milwaukee's Department of City Development's (DCD) administrative database. The information gathered from these sources has informed my assessment of the program and its effectiveness. This research will also inform city officials and planners about the program's limitations and propose additional strategies for revitalization in this area of the city.

The program participants who bought vacant lots for \$1 during the first months of the program's operation are invaluable sources of information about their neighborhood and how this program has affected them. The questions I created for the interview were used to evaluate how the program actually affected their lives and if the additional land has benefited them and their neighborhood. Some questions were used to gather basic information i.e. "How long have you owned your property adjacent to the vacant lot?" and more abstract questions i.e. what was the motivation for buying the lot? Others questions were modified from Reynald's (2011b) Social Cohesion Survey Postcard to determine how well program participants knew their neighbors and if they trusted those neighbors. I also asked if the lots were problematic before the purchase and what their intentions were and currently are for the lot.

The visual assessment was a checklist I created to determine the current condition of the purchased lots. The purpose of the visual assessment was to provide evidence of whether or not this program has reduced blight conditions, increased defensible space and increased urban agriculture. Additionally, data from DCD's administrative database was gathered for the

time period of July 1, 2013 through February 29, 2016. This end date was chosen because it included the most recent reports on total lot sales produced by DCD as of this writing.

3.1. Data Collection

Most of the data gathered in this research was primary: visual lot assessments, interviews with program participants, and interviews with city officials. The City of Milwaukee's DCD's administrative database was the main source for data on the sales of vacant lots. City officials provided additional documentation.

My access to the DCD was through the Milwaukee Idea Economic Development (MIED) fellowship. This internship was created specifically to aid in the Milwaukee's vacant lot crisis and implement the sale of vacant lots citywide. Starting in September, 2014, I received and documented requests for vacant lot purchases from the City's constituents, obtained Aldermanic approval for their sale, and sent out Offers-to-Purchase (legal documents covering the terms of sale). I conducted background checks on potential buyers and determined whether all charges and taxes had been cleared on the vacant lots. I also created new deeds, closing documents for the sales, and updated the database. This position enabled me to discuss the \$1 Vacant Lot Pilot Program with the city officials responsible for its organization, maintenance, and implementation face-to-face over a 20 month period of time.

I chose the first 26 vacant lots sold in the program's initial months of operation (July 1, through December, 31, 2014) for the visual assessment because owners have had a reasonable amount of time to implement improvements (at least one year) by the time I assessed them. I conducted the visual assessments using the windshield survey approach, done from my parked

car on the street. I did not trespass on private property at any time. I photographed all the properties in October and November of 2015 during the morning or late afternoon of the work week to document examples of the various maintenance levels.

For each property, I created a checklist of six variables to assess. These variables included fencing, signage, the presence of a garden, the general maintenance level, presence of cars parked on the lot, and additional improvements. I chose the first two variables to assess increased defensible space and perception of safety. I used the general maintenance score, the presence of additional improvements, and parked cars to assess blight conditions. I assessed the presence of a garden as evidence of increased urban agriculture.

The procedure of the visual assessments went as follows: first, I determined whether the vacant lot was enclosed in a fence. If it was, I noted what kind of fence it was (chain-link, wood, etc.) and what condition it was in (new, partial, etc.). I then determined if there was any signage present on the lot. Many lots still had the city's "No Trespassing" signs. Next, I determined whether it had a garden; and, if it had one, I determined whether it was a raised bed or in-ground garden. Then, I rated the general upkeep on a one to three (1-3) scale. I gave a score of three (3) for properties that were poorly maintained – not mowed and had trash strewn throughout the lot. A score of two (2) was given to properties that were maintained well – either mowed and had some garbage on the lot, or were clean but not completely mowed. Lots that were in excellent condition – mowed and clean got scores of one (1). I also noted whether there were any structures present or if cars were illegally parked on the grass.

Using the DCD's database, I determined the number of existing vacant lots at the start of the \$1 Lot Program in July, 2014 and total number of demolitions within the 15th District from July 1, 2014 through February 29, 2016. Since the City does not keep records on the past land uses of vacant land, the total number of vacant lots at the start of the program included all City-owned commercial, industrial, and residential vacant lots. The number of lots sold can be broken down by date and by price. When the city sells a City-owned home with a vacant lot attached, the sale price of the vacant lot is listed as the total price of the home. Also, vacant lots sold in other districts prior to July, 2015 were priced according to frontage (30'-\$100, 40' for \$200, etc.). Additionally, I recorded the number of Offers-to-Purchase sent out during July 1, 2014 through February 29, 2016 from an excel file I have maintained at DCD.

Lastly, I conducted telephone interviews from the office of DCD during normal business hours of 9am-4pm Monday through Friday in November, 2015. I contacted all twenty-six participants, but only eighteen were willing and available to be interviewed. The average interview was between 10-15 minutes each. Each interview began with the assurance of confidentiality and sought their permission to be audio recorded. The script and questions used can be found in the appendix. I used the script and set of questions as the framework for the interview, but allowed participants to speak freely about whatever issues concerned them regarding the vacant lots.

3.2. Data Analysis

The data gathered from the interviews with the eighteen program participants was audio recorded, transcribed and coded for themes. The interviews with city officials were not recorded, but I was able to glean insight into whether or not city officials at DCD viewed the

program as a success. I probed into where they felt improvements could be made and how long the program might continue.

With the visual assessments, I was able to provide evidence of the program's effectiveness, or lack thereof, at revitalization by evaluating elements like fencing, signage, and level of maintenance. These factors play a role in the image, or perception, of the area.

Using the data gathered from the DCD's database I analyzed several aspects of whether or not the \$1 Vacant Lot Pilot Program was successful. The first aspect I analyzed was how many vacant lots were sold within the 15th District over various time periods (one year prior to the program's implementation and for the year after the city expanded the program citywide). I also compared the number of lots sold in the other districts as well as the number of demolitions within the 15th District. Also, the percentage of lots sold within the 15th District was analyzed using the number of lots sold from July 1, 2014 -- February 29, 2016 divided by the number of lots reported in July, 2014. Additionally, the percentage of accepted Offers-to-Purchase was another measure of the program's effectiveness. Lastly, I analyzed how much revenue had been generated by the lot sales as well as the reduction in maintenance fees.

4. Findings

The main themes to emerge from the interviews with program participants center on ownership, how the opportunity to spread out is affecting the look and feel of the 15th Aldermanic District, and how their expanded yard has benefited them and their community. Program participants felt strongly about the need to control the space around them and the desire to take responsibility for it. These program participants spoke about the improvements they have made to reduce blight conditions as well as increase safety. Also, residents spoke about the financial benefit these vacant lots have had for them as well as for the City. Whether or not this spreading out is a sustainable development strategy remains to be seen. The long-term effects also remain unknown as this program is still relatively new.

4.1. Ownership

Taking ownership of the adjacent vacant land has allowed homeowners to feel more in control. This feeling of control over ones surroundings affects whether people invest, participate and stay in a community. A passionate program participant stated, “Definitely, having homeowners take ownership is way better than outside people being able to buy the land and do whatever they want without actually living there.” Another passionate home owner expanded on this theme saying:

We’re already invested in the beautification and the quality of life in this community, we should have access -- not people who are coming in from outside our City and being able to buy lots and being able to mess around with them. We deserve the right to have that access for growth and to stabilize our own community.

The concern some residents feel about outside forces changing their neighborhoods is understandable. Past examples of urban renewal efforts or other large scale developments may have tainted their outlook on development efforts in general. Gentrification may also play into those fears. It was clear that the interviewees I spoke with desired to be regarded as stakeholders in any plans for revitalization within their neighborhoods. As homeowners, they have a vested interest in maintaining and controlling their surroundings. Importantly, the interviewees want to make improvements that will fit in with the social fabric of their neighborhoods.

Many of the interviewees expressed how essential a program like this is in their community. In many cases, residents were already caring for the vacant land adjoining their properties. One owner who had a vacant lot next door to her home for over 20 years explained how important ownership was to her. She commented that now she can finally utilize the unused space. Before she said that “you don’t want to put anything on there because it’s not yours and you don’t want to invest any money into it because it’s not yours.” With ownership, she can now develop the land as she would in her own backyard. Another participant explained why merely maintaining the lots is not enough:

I’m responsible for it and will take care of it and I know the City is pretty good at policing their lots, but sometimes I know people come and do stuff and it might be awhile before the City even shows up.

By providing these residents an easy and affordable path to own that land, the city allows them to confidently improve and invest further in their community. Homeowners feel supported by the City when the path to ownership of vacant City land is made affordable and easy. Once

ownership is received, residents are emboldened to make necessary improvements to their surroundings.

What is most significant is the belief held by the majority of participants that taking on the responsibility and control of the vacant lot has benefitted the community. Participants commented that by keeping the lots clean and well-maintained they exhibited pride in the neighborhood. One program participant commented that owning and taking care of the vacant lot shows everyone

that I live here and that I'm gonna invest whatever I can... to say this is a good place to be... and to my children, this is a good place to be... and that land is important. I inherited the spirit of ownership from my ancestors – they didn't have any money to pass on, but they did have ideas.

Another participant echoed that same sentiment saying, "It's benefiting because it shows the young people that I interact with everyday about how much we value and respect our community." Clearly, program participants are committed to their neighborhoods and want to stay where they are no matter the difficulties associated with the area. By taking on the responsibility of more land, these interviewees are spreading their sphere of control and pride in their neighborhoods.

Two participants spoke of plans to honor family members as "pioneers" in the neighborhood with signs and banners they will create to display on the vacant lots. These dedications will serve to celebrate the decades of homeownership present in the area. The additional land will allow these homeowners to spread their influence and possibly inspire others. Such commitment to place is significant and a clear sign the \$1 Vacant Lot Pilot Program is beneficial to residents.

4.2. New Suburbanism -- Practical Uses of Vacant Lots

Milwaukee's neighborhoods are fairly dense compared to the majority of big cities in America. According to Bruce Murphy of Urban Milwaukee, "Milwaukee ranks 10th lowest in the percent of residents living in single family homes, at less than 40 percent" (Murphy, 2015). Milwaukee's density is due in part to its preference for duplexes. This compactness due to duplex living has created a need for open space. Many lots have been doubled in size with the purchase of a vacant lot and are now 60' or 70' wide instead of the typical 30' wide lot. Many interviewees spoke about the benefits of spreading out and how this is changing the look and feel of their neighborhoods. Some examples include innovative place-making, improved blight conditions, and an increase in gardens and orchards. The increased land has provided these residents with various opportunities they otherwise would not have had on their original lots.

Most improvements to the vacant lots have taken hard work and determination. One participant noted that an expanded lot has meant double the work. He commented that

you obviously need to be somebody who does not have an issue doing yard work. If you don't like mowing grass, if you don't like raking leaves, if you don't like having that added responsibility, then I guess I would say no [to the question, "do you think owning the lot has benefitted you?"] because it's just gonna give you twice the work. It actually gives you more than twice the work because it's an empty lot so it's gonna be larger than your current lot.

Yet, this participant felt the additional land was needed in order to build a garage or garden in the future. He commented that his investment of time and money will benefit him down the road.

Another buyer explained how the investment in beautification was substantial, but necessary. This participant spent several thousand dollars cleaning, putting up a fence, taking

down a tree, and landscaping. She constructed a terrace out of bricks containing shrubbery and mulch which abutt the public sidewalk (photo a) in Figure 4. All this was done because she believes her children and people in her neighborhood will appreciate seeing the improvement and investment. She explains, "This is home and they've lived here their whole lives [her grown children], so it's important. I don't regret that I did it." She goes on to say

I haven't finished doing all the things that I want to do. I really want to do a porch-deck coming out of my back door into that lot, but I'm 82 years old! So everyone's saying that maybe I need to be slowin' down.

Interestingly, this program participant is a part of a neighborhood association where multiple members have purchased vacant lots adjacent to their homes. She answered the question of why she wanted to buy the lot saying that, "I felt like if it's there and they're not going to do nothing [sic] with them, in order for us to try and kept things pulled together, we should try and buy [the] vacant lots." By keeping "things pulled together" she was referring to the look and feel of the area. She did not want the challenges vacant spaces present and the perceptions of uncared for spaces to further impact her street and neighborhood. The work she put into improving her vacant lot is truly remarkable.

At the same time, the City repurposed several vacant lots across the street from this particular interviewee's expanded lot. Ezekiel Gillespie pocket park has won multiple awards honoring innovative place-making. This park features native plantings, a border of rose bushes, fruit trees, raspberry bushes and built-in rain garden with underground rainwater storage. Being the first major neighborhood project completed by Homegrown (City of Milwaukee, 2014), its success and location are telling. Noticeably, the residents in this area have made

renovating their neighborhood a priority. This block, once containing multiple contiguous vacant lots, has been transformed into a beautiful, inviting place for residents to gather.

Another innovative approach being planned is the transformation of a flat, grass-covered corner vacant lot into an orchard. One program participant spoke about her plans to work with Walnut Way Conservation Corporation to test the soil in hopes of planting soon. Walnut Way itself was built on a former vacant lot transformed into a community center that focuses on community building, wellness promotion, and urban agriculture all beside its signature peach orchards (Gurda, 2015). This program participant spoke of the future benefit of acquiring the vacant lot and turning it into a relaxing, peaceful orchard. She commented, “The community will benefit from the orchard and the change in land use. The inner city will look better, more habitable, and more attractive -- especially for buying or selling.” Indeed the benefits of an orchard in the central city will not only improve the look and property values of nearby homes, but it will also provide habitats for local flora and fauna. Multiple scholars have written about the benefits improved green spaces for biodiversity, pollution reduction, and the psychological benefits for residents and passersby (see section 2.5.1 and 2.5.2).

Likewise, another participant also worked with Walnut Way to test the soil on her lot. She is preparing to become a master gardener and will use her vacant lot to grow fruits and vegetables for her family. The additional land will provide a training ground for her certification and it will also be “... a great place for the grandkids to play.” She also mentioned the benefit of increased exercise for her family through gardening on the lot and spoke of how her garden has provided vegetables which they use to make into fresh juice.

Additionally, multiple vacant lots have been converted into places to gather for neighbors. One participant said, “We’ve used it just to host get-togethers and it’s sort of the center point of our neighborhood block parties every year.” Another participant spoke about enjoying being able to sit outside and enjoy the cool breeze in the summertime. “... it’s just convenient for me. If I have company or even if I just wanna do something different and go out there and sit down. I really like sitting out there. It’s a cooler breeze.”

Another participant felt the additional land has been a practical way to safeguard his cars by parking them on the lot, especially in winter. This participant stated that the lot has

given me an opportunity to grow, you know, because parking on the street has been rough, especially in the winter times when you get lots of snow and get plowed in. My car’s been stolen a couple of times and it doesn’t mean they wouldn’t take it off the lot, but on the street is more visible.

Another participant shared this view and believes parking her car on her new lot has kept her car safe from dangerous drivers in the neighborhood. She credits the additional lot with “keeping the \$500 [insurance] deductible in my pocket.” Residents of the 15th Aldermanic District are undoubtedly using the additional land in ways that make sense to them. The changes in land uses will help change the image and perception of Milwaukee’s central city and will better service the needs of the communities. For these reasons, New Suburbanism might assist the revitalization process in the area.

4.3. "Aesthetic and Payment"

Both the increased property taxes and reduced maintenance costs for the City came up several times with program participants as concrete examples of the benefits of the program.

Alderman Willie Wade of the 7th District was one of the first 26 program participants in 2014 to

buy a vacant lot in the 15th District and he provided a lively picture of the merits of the program:

Well, I think it was a great piece of legislation that Alderman Stamper put together, so good that we're actually doing it throughout the whole City now. It worked in his district and it works in other places like my district, so it's good. And the benefit of it is, before it's probably property that wouldn't have been built on, in that neighborhood so, if you build a house over there, it'll be worth way more than the other houses so that automatically you're underwater. So the other part of it is that you'd have to pay someone from the City to go out there and cut the grass, shovel the snow, pick up trash and now we not only don't have to pay that person, but we also get two or three pennies in extra property taxes because, you know, you expand your property you have to pay extra taxes... three cents more. So from that standpoint, you get the aesthetic and payment. So it's a good program.

According to the Alderman, not only will the City benefit from the increased property taxes and reduced maintenance fees, but the vacant lots will be better cared for, improving the look of the community. Another opinion expressed several times was how owning more land might increase property values. Explaining why he initially wanted to purchase the vacant lot from the city, this participant said

from a home value perspective, from a resale value, even if it doesn't translate to resale price, but the possibility that somebody would be more apt to purchase the home because of how large the yard is, from all those perspectives, it totally makes sense.

While it is certain the expanded lots will increase property taxes; it is also likely the expanded lots will increase property values and the desirability of these lots in future sales. Yet, it is still too early in Milwaukee's case to definitively state the amount of these increases. Increased property values and improved sales rates due to larger lot sizes within the central city are beyond the scope of this research paper. However, these factors should be considered in future research when evaluating this program's effectiveness.

In order to determine the amount of increased property taxes due to the additional land, the tax assessor estimated a range of \$75 -\$150 will be added to each purchaser's property tax yearly depending on the size of the lot (Department of City Development internal correspondence). Therefore, by multiplying the number of vacant lots sold by \$75 on the low end of the scale and \$150 on the high end, I can determine the range of increased property taxes. Using all the lots that were sold for \$1 to adjacent homeowners (119) as well as the lots bundled with the purchase of City-owned homes (25) from the program's inception on July, 1, 2014 through February 29, 2016, the total increase is between \$10,800 and \$21,600. Yves LaPierre, real estate analyst for the City of Milwaukee, commented that these figures are significant, especially when comparing them to previous years when the city only sold a handful of vacant lots all year. In fact, only 32 vacant lots were sold citywide in the calendar year of 2013 (Department of City Development database). Mr. LaPierre regarded the increase in property taxes as evidence of the program's success (personal communication, March 24, 2016).

Another clear financial benefit of the program is the decrease in city maintenance fees. According to city officials, the cost of general upkeep for the vacant lots including mowing grass, shoveling snow, and removing dumped items is approximately \$320 per lot (Department of City Development enews Vol. 15 1/28/16). By multiplying the 144 lots sold in the 15th District by 320, the total savings is \$46,080. While this figure is not extraordinary, especially when compared to the city's overall maintenance budget, any savings is significant especially when budgets are tight (Yves LaPierre, personal communication, March 24, 2016). This decrease helps the city better manage the remaining vacant lots citywide.

Additionally, by comparing the number of lots sold in the 15th District during the first year of its implementation, it is clear how successful the program has been. As Table 2 shows, the greatest increase in lot sales were in the 15th District. Seventy-six more lots were sold from July, 2014 to July, 2015 than in the previous year. The attention grabbing \$1 sale price undoubtedly made an impact on the rate of sales.

Table 2: Aldermanic District Vacant Lot Sales Summary

District	Original Number of Lots	Lots Sold, 7/1/13--6/30/14	15th District Trial Period	Program open to all districts	
			Lots Sold, 7/1/14--6/30/15	Lots Sold, 7/1/15--2/29/16	Projected lots sold, 7/1/15 - 6/30/16
1	130	1	3	6	9
2	32	0	2	4	6
3	6	1	0	2	3
4	99	0	2	2	3
5	10	0	0	0	0
6	645	12	47	28	42
7	249	3	13	28	42
8	23	2	1	6	9
9	18	0	0	1	1
10	27	0	4	0	0
11	6	0	0	0	0
12	73	4	12	24	36
13	43	0	0	0	0
14	28	2	0	2	3
15	1063	22	98	64	96

Also, the implementation of the \$1 lot sales within the 15th District helped spur interest citywide. Nearly all districts show an increase in vacant lot sales after the \$1 Lot Program started. The 6th District saw the next largest increase in sales (mainly due to Alderwoman Coggs' insistence). The increases in sales also correspond to my role as an intern working exclusively on selling vacant lots from September, 2014 through May, 2016.

Additionally, the percent of vacant lots sold for \$1 in the 15th Aldermanic District is 13.5 percent. While this proportion is rather small, several factors must be taken into account. Firstly, it is important to note the severity of the vacant lot problem within the 15th District before the program began in 2014. The 15th district had nearly twice as many vacant lots as any other district. Secondly, the percent of owner-occupants living within the 15th District is a mere 27 percent. There are simply not enough owner-occupants to buy all the lots. While the City will consider selling lots to non-owner occupants (i.e. landlords) for \$1, the non-owner occupant must be living within Milwaukee, be up-to-date on property taxes and have no outstanding code violations on their property. The non-owner occupant usually must initiate the purchase and must not be a sex offender.

Lastly, there were also 96 demolitions within the 15th from July 1, 2014 to February 29, 2016. Therefore, the inventory of vacant lots could have been much larger without the \$1 Lot Program. Additionally, 18 lots were sold to Habitat for Humanity and other non-profit organizations for future single family home construction. This is an important and positive outcome since the city needs more affordable housing.

Also noteworthy, of the 285 Offer-to-Purchases that have been sent out to residents in the 15th Aldermanic District, 119 lots were sold for \$1 (Department of Development database), resulting in a 41 percent response rate. This is significant because it shows interest in the program and how efficiently the process works. Only a small number of these offers were requested by the adjacent property owners while the majority were determined by DCD staff to be appropriate for the \$1 program and sent without prior request.

4.4. Visual Assessments

Of the twenty-six lots visually assessed, the average score was 1.7. Ten lots received a score of '1', the best rating, for overall maintenance. These lots were clean of debris and litter and were recently mowed. Fourteen lots received a score of '2' meaning either there was some debris or litter on the lot or the lot was not as recently mowed. Only two lots received a score of '3', the worst rating. These lots were not mowed with debris present. These homeowners also did not participate in the telephone interview. Example pictures are shown below: a) score of 1, b) a score of 2, and c) a score of 3.

a)



b)



c)



Figure 4: Example Pictures of 1-3 Maintenance Scores

A significant note is how many program participants are long-term homeowners. Figure 5 shows the years of homeownership among program participants. Twelve program participants out of the eighteen interviewed have owned their homes adjacent to their newly purchased vacant lot for ten years or more.

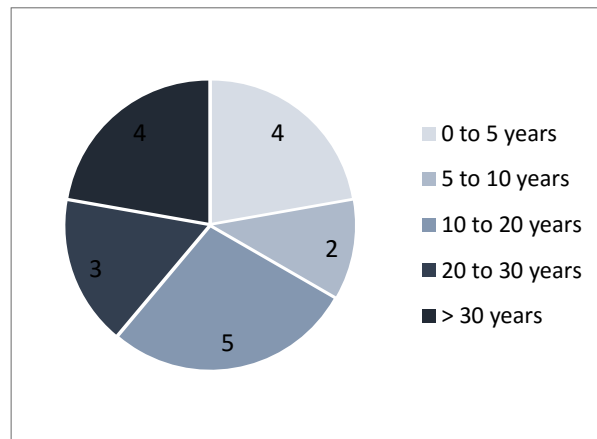


Figure 5: Homeownership of Program Participants

Long-term homeowners may be more invested in their homes and communities and thus take better care of their surroundings, the social attachment principle of Newman's defensible space concept. From my visual assessment, six of the lots with a score of '1' were owned by longer-term homeowners (10 + years). This could be due to the investment these homeowners have already made in their homes and have carried over to their expanded yard. Of course, newer homeowners cannot be dismissed as lacking pride in their homes and neighborhoods. Newer homeowners might be younger people with families that have less time to devote to yard maintenance. Also, longer-term homeowners may have more disposable income to invest in landscaping than their shorter-term home-owning counterparts.

4.5. Defensible Space

Several aspects of defensible space were tested in this research. My expectation was that people who went through the process of buying a vacant lot would also construct a fence to demarcate their new private space. This concept of territorially goes back to Newman and others who claimed increased territorially will increase peoples' perception of safety.

From the visual assessment I determined nine out of the twenty-six lots had a fence around them. Additionally, two lots already had fences around the existing property, but had not yet been expanded to enclose the new lot. There were examples of newly constructed, wooden and chain-link fencing that was both attractive and clearly demarcated where the new property lines are. There were also two examples of newly constructed, taller fencing that did not allow any visibility into the yards. Example pictures shown below in Figure 6:

a)



b)



Figure 6: Example Pictures of Fencing

Example b) shows a newly constructed, higher than average fence. Its construction might speak to the residents' need for more security and could also send outsiders the message that this neighborhood is dangerous enough to need high, solid fencing. This is the opposite message defensible space is trying to convey and also violates the City of Milwaukee's fencing requirements that state fences in the front yard may not exceed four feet high (City of Milwaukee – Fencing Requirements Residential). Incidences, like this example, could perhaps

prohibit social bonds from forming and need further research to test this proposition. Indeed, one program participant with a growing family stated

...our little daughter, her kiddie pool is out there in the summer and as she grows, it gives her a little room to grow into. So, we've talked about putting a fence around it, but there's not really any urgency to that. There's a lot of spill over from one yard to the next, it's a big yard, and as other young kids in the neighborhood grow up and play with our own... then why not have it open to those around us.

A more open landscape might be more conducive to social bonding than fencing of any type.

While the majority of newly purchased lots (15) did not have any kind fencing enclosing them, it is evident through the interviews with program participants that they desire to construct a fence in the future in order to increase their sense of safety and bring the area under closer surveillance. Twelve participants (out of 18 interviewed) included a fence in their response to the question "What are your intentions for the lot?" Some participants made it clear they were not able to construct a fence yet due to the lack of time and/or resources.

The presence of a "No Trespassing" city sign was an unexpected finding during the visual assessments. The City removes the sign once notified of the sale, yet a year after some sales the sign remained (and has seen been brought to the responsible department's attention). In all, seven lots still had a City sign up (one was knocked down, but still on the property). During interviews, I questioned what the resident's opinion was of the sign remaining on their property. One program participant said he took the sign down himself commenting, "For us, taking down the sign actually reduced trespassing on the property. It makes it seem more a part

of the neighborhood... more like it's someone's home rather than just a public lot to dump trash on." Other respondents surprisingly said they did not mind the sign staying up. They felt the sign served as an indicator reminding neighbors they cannot dump or park on the lot. One participant said she would even prefer to keep the sign up indefinitely.

Perception of safety was another aspect this study examined. Most interviewees reported some security issues associated with the vacant lot before buying it as shown in Figure 7.

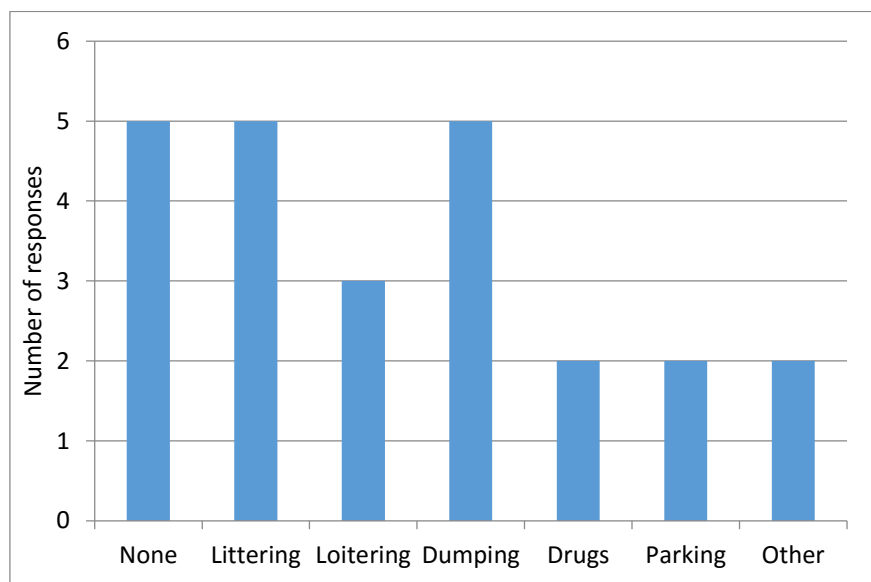


Figure 7: Security Issues on Vacant Lots before Purchase

The most common issues were littering and illegal dumping. Other issues mentioned were loitering, drug transactions or illegal parking on the lot. Nearly all participants commented that since owning the lot, they perceived a reduction in those problems. One participant said that before buying the lot, boys were loitering and hiding drugs there. After buying the lot, "It's

clear, it's done, they all gotta go... ain't [sic] no standing on my property like that. I bought the lot and fixed the problem."

In regards to natural surveillance and active guardianship, this study asked interviewees "How well do you know your neighbors?" and "If crime was happening on the lot, would your neighbors intervene in some way (call the police or the City)?" Ten participants responded "Not well" or "Somewhat" to the question about knowing their neighbors. Eight interviewees responded they knew their neighbors "Well" or "Very well" as shown in Figure 8. Of the interviewees that responded in the affirmative that they knew their neighbors well, all also reported they thought their neighbors would intervene in some way if crime was happening on their vacant lot as shown in Figure 9. These homeowners all were long-term homeowners (9+ years). This shows greater social trust among neighbors who knew each other.



Figure 8: How Well Do You Know Your Neighbors?

Figure 9: Would Your Neighbors Intervene if Crime was happening on Your Lot?

Of the interviewees that reported that they did not know their neighbors well, usually they also said they did not think their neighbors would intervene if crime was happening on the

vacant lot next to their home. Interestingly, of those that reported they did not know their neighbors well at all, three were also long-term homeowners (15+ years). One of these long-term homeowners explained that she knew some of her neighbors quite well and others not well at all. She said, "I live in the 53206 zip code. Not many people call the police." Another participant responded in a similar way saying he was not sure if his neighbors would call the police: "I don't want to get in to the details of stuff because, you know, but it could do with a bit of monitoring." The concept of natural surveillance and active guardianship is complicated by the socioeconomic conditions of the surroundings. Recent crime reports released by the Milwaukee Police Department show the 15th Aldermanic District has the highest crime levels citywide (Murphy, 2016). High crime areas usually report less incidences of active guardianship and social trust (Reynald, 2011a).

Another program participant hypothesized that perhaps part of the reason for increased crime in the area could be related to how close together houses are in the central city. While housing density might contribute to high crime rates, a more likely reason might be the dilapidated condition of the inner city. Image, or perceived disorder, has been shown to increase the likelihood for crime (Grohe, 2011). A few participants spoke about how difficult it was to get to know their neighbors since people were moving in and out so frequently. The high number of renters in this area may explain this occurrence.

Another expectation was to find an increase in the number of gardens started on vacant lots. From the visual assessment, two gardens had been established, one in-ground and the other in a raised bed. There was also a hoop-house on one property, but since it was not physically on the newly purchased lot, it was not counted. While the number of newly

established gardens on the purchased vacant lots was small, it is noteworthy that many interviewees still plan to build a garden in the future. To the question, “Are you interested in gardening or growing food on your new lot?” thirteen out of eighteen respondents responded they were or already are (some commented that they were gardening on their original yard, not the newly purchased lot). Also, five participants included adding a garden (for food production or otherwise) in their intentions for the lot. While this is only a small increase in urban gardening, it is still an increase. Plans for orchards were an unexpected result which will definitely help change the look and feel of the neighborhood while also exacting more resources to implement. In all, while the increase in urban gardening is slight, the increased land has provided residents the opportunity and space needed for a future improvements, whatever they may be.

5. Analysis

This research has demonstrated what residents are doing with their added land as well as provide evidence about the significance of this program. One hundred and forty-four vacant lots were sold to adjacent homeowners in a 19-month time period within the 15th Aldermanic District. The \$1 Lot Program has helped the City reduce their maintenance bill by over \$46,000 to date. Also, the \$1 Vacant Lot Pilot Program has increased tax revenue by between \$10,800 and \$21,600 since beginning the program. While these figures do not represent a huge economic windfall for the City, all savings are beneficial no matter how small. The most significant benefits are found in how the residents of the 15th District feel about their neighborhood. The interviewees communicated how important it was to be acknowledged as stakeholders in their neighborhood's development. By giving these residents the option to buy vacant land adjacent to their own property, the program showed them how much the City values their steadfastness and continued investment in their communities. The residents interviewed saw their neighborhoods in a positive light. They believed the increased space was beneficial for themselves as well as their communities.

The average score for the visual assessment was closer to '2' than '1'. This could be due to the snapshot aspect of the visual assessment. Homeowners might have mowed their lawn or picked up trash later that same day and it would not have been recorded. Conversely, by examining only the most motivated residents, the first residents to participate in the program, the findings could be skewed more positively since these participants may also be the most likely candidates to have made improvements on their lots.

While it is noteworthy that the majority of lots have not been completely transformed, it is important to note that none were blighted either. Most lots were maintained, yet not markedly improved. The worse rating, a score of '3', was rare. These lots with a score of '3' were only slightly overgrown with small amounts of litter present. They were certainly not in a worse condition than when the city owned them. Certain lots were uneven and not completely covered by grass which could have been due to the demolition process and subsequent reseeded, all of which are beyond the buyer's control. Indeed, some lots might have been scored lower than others due to the poor maintenance by the city to begin with.

Incidents of blight like illegal dumping, parking, loitering, and other crimes were perceived to be greatly diminished after they were purchased by program participants. As the residents actively surveilled and maintained their new properties – the concept of defensible space at work – the lots were brought under their control. Overall, the vacant lots were maintained well, albeit without many major improvements. Residents communicated how substantial improvements take time. A longer study is needed to show if more substantial investments like fencing, gardening, garages, driveways, porches, decks, sheds, etc. have materialized.

Importantly, these future plans cannot be discounted because they demonstrate optimism for neighborhood health. The homeowners who plan on making future improvements are invested in their properties and are their neighborhoods' greatest assets. One way to encourage more investment in improvements like fencing and gardening would be a rebate program. New Orleans has a program, Growing Home, in which people are offered the vacant lot next to a City-owned home and if they agree to purchase both, buyers can receive \$10,000

off the purchasing price if they make basic landscaping improvements that incorporate storm water management (Carpenter, Mitchell and Price 2015; Ohtake, 2010).

Milwaukee currently offers a similar program where owner-occupants buying City-owned tax-foreclosed homes can receive a \$500 cash award for yard improvements to build fences, start gardens, and/or buy landscaping tools and material (City of Milwaukee – Roots). This program has an emphasis on front yards, but excludes vacant lot only purchases. Additional funding for the expansion of this program to include vacant lot only sales could be obtained by redirecting some of the money set aside for programs like the “Vacant Lot Challenge” (City of Milwaukee – Vacant Lot Challenge). This particular grant offered to reimburse creative uses on five vacant lots within designated zones of the City with an award of up to \$10,000 each. As of this writing, no plans have been accepted or awarded yet. It is certainly worthwhile to reconsider the how these resources are being used. I would argue that \$50,000 would go a much longer way towards improving the condition of side yards citywide than the handful of special lots chosen for the challenge. Additionally, funds could be set aside for this rebate program from the added revenue the \$1 Lot Program currently generates.

Also, the unchanged nature of most of the lots may still be regarded as a positive finding since increased greenspace was strongly favored by program participants and many scholars. By letting the lot remain undeveloped, many ecological benefits can occur like storm water retention, increased biodiversity and soil building as well as increased access to greenspace in lower-income, minority neighborhoods. The increased greenspace may also translate into higher property values and increase the desirability of the neighborhoods. Clearly the buyers of vacant lots perceived their investment to be a way of improving their neighborhood. The

increased freedom and control over one's surroundings is an important aspect of this program and homeownership in general.

Increasing homeownership might be the best way to increase lot sales and further the revitalization of the district. Increased public sector incentives could be used to promote the rehabilitation of older housing stock or to help encourage private development of new, affordable housing for families to relocate to the central city. This type of development could be more aligned with New Urbanism concepts that stress better access to public transportation and the amenities of downtown. Another possibility could involve infill development of small, or tiny, homes specifically built by the public sector for disadvantaged populations like the homeless. Zoning will need to be changed to accommodate this plan, however. Whatever future development occurs, it is important to keep in mind that Milwaukee's existing boundaries are fixed and thus by directing new development within the inner city it could increase property values citywide.

Of course, if crime rates remain high, poverty and segregation continue unchecked, and the quality of public schools within the inner city do not improve, Milwaukee's central city could continue to depopulate just as other cities like Detroit, Cleveland, and Youngstown have. Indeed, if more is not done to rehabilitate many of Milwaukee's dilapidated homes in the area, these homes will also become slated for demolition causing the vacant lot problem to increase. If the rate of demolitions keeps pace, there will not be enough adjacent owners to buy and maintain the additional vacant lots. This could force Milwaukee to consider other development options for larger, contiguous parcels of land.

Several options exist that could be used together with vacant lot side-yard sales when addressing varying levels of vacancy in relation to population density. Potential development options could include redesigned light industry or manufacturing development along the 30th Street rail corridor. Large, cleared tracts of land could also be used for green infrastructure, natural preserves, bike paths or large-scale urban agriculture. Smaller, contiguous parcels could house Bubl-r-bike sites or small, corner stores that could sell donated, nearly expired foodstuffs for a fraction of the price. While these options are unlikely since Milwaukee's current vacant lot problem is being managed, several factors could undo the progress made. Another financial downturn could occur, or the City could simply lessen their aggressive sales approach. By planning for more involved strategies, the 15th Aldermanic District could further improve current residents' quality of life and possibly even entice more growth in the area.

Finally, answering the question of whether the \$1 Vacant Lot Pilot Program has improved the quality of life for residents in the 15th Aldermanic district is difficult to answer definitively. Certainly the expanded yards are increasing the suburbanization of the inner city and this could increase property and land values. Yet, having a larger yard is demanding and can be costly. Not all residents are equipped for the added responsibility or want the added property taxes. Younger residents may not have the time or disposable income to maintain an expanded yard. Nevertheless, all eighteen participants interviewed said they would recommend the program to others and some already have. One such participant said, "It's been nothing but positive for us and we'll just continue to see and reap the rewards of a \$1 investment. You really can't go wrong – few things have such a positive turn around for \$41 in life" [\$40 is charged by the City to record the deed].

Importantly, the practicality and long-term strategy of selling land for \$1 remains unknown. By focusing nearly completely on the single strategy of increasing lot sizes parcel-by-parcel, the City is limiting its potential to make large-scale developments in the area. This research has provided evidence that homeowners appreciate this approach to development, but it could be short-lived if other developments materialize. I was told this program will undoubtedly end if the real estate market improves (Yves LaPierre, personal communication, January 26, 2016). If the vacant land within the 15th District becomes more valuable, homeowners are likely to see their control over adjacent vacant land diminish. Plus, the City could regret nearly giving vacant land away if property values increase enough that the neighborhoods within the 15th Aldermanic District become prime targets for investment and possible gentrification. Milwaukee's general population is growing. This would, of course, signal a full revitalization of the area and that is the ultimate goal for the City. Unfortunately, this is a long way from happening and in the absence of other top-down development options, expanded lots are the remaining, workable strategy for the area.

6. Conclusion

One city program alone cannot solve the vacancy problem nor do much to change the socioeconomic factors within the 15th Aldermanic District. However, the \$1 Vacant Lot Pilot Program has positively affected how residents feel about their neighborhoods. Many program participants have eagerly taken control over the adjacent vacant land and made ambitious plans for future use. By empowering residents to reduce blight conditions and control their surroundings, the program has fostered long-term investment and a commitment to further improve the area. Most importantly, the program has proven to be an inexpensive path toward expanded ownership and increased participation in neighborhood development.

Nearly two years since the pilot program began the 15th District, the area remains a high vacancy, low-income area. Yet, programs like the \$1 Vacant Lot Program are having a positive effect. This program can possibly lead to more substantial revitalization, including increased homeownership rates and higher property values. Together with Milwaukee's other initiatives (*e.g.*, Homegrown, urban gardens, development sites for new housing construction), the \$1 Vacant Lot Program activates vacant land for beneficial uses. The program's financial benefits for the City, as well as possible future benefits for the homeowners, will help rejuvenate the district. However, this program hinges on residents' abilities to maintain these lots and the City could do more to guarantee their success. As one participant put simply, "A lot of people who might get [a vacant lot] might let it go. As long as it's maintained, it's an asset to the community."

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APPENDICES
APPENDIX A: Census Tract Data

Census Tract	Total Population	Census Tract		Total Population				
	1960	1970 - 2000	2010	1970	1980	1990	2000	2010
27	3066	61	61	2682	2486	2709	2761	2133
28	2960	62	62	3670	3715	3817	3438	3101
36	6113	84	84	3213	2156	2017	1583	1394
37	4234	85	85	2863	2246	1906	1590	1418
38	3596	86	86	3495	2733	2395	1651	1550
39	3289	87	87	3311	2705	2477	1739	1578
40	2852	88	88	4050	3761	3326	2528	2052
46	2629	89	89	2799	2559	2471	1759	2005
47	5101	90	90	3840	3379	3837	3106	2425
48	4167	91	91	2928	2599	3106	2901	2164
49	3180	92	92	2203	1899	2106	1986	2061
50	3503	96	96	3708	3365	3501	2805	2079
51	3305	97	97	3971	3197	2993	2155	2043
52	5285	98	98	2847	2589	2437	1577	1576
68	3029	99	99	4008	3186	2684	1592	1146
69	3671	100	1854	2323	1553	1380	920	1700
70	4330	101		2319	1648	1440	1158	
75	1955	102	1855	2599	1648	1355	880	2037
76	4108	103		2221	1099	1036	794	
77	4773	117	1859	1390	604	504	436	1022
78	3801	118		2028	1179	1039	639	
97	2761	119	1858	2033	1114	1091	863	1804
98	3407	120		2238	1365	1251	871	
99	2313	123	123	1701	1585	1413	1238	804
Total	87428	Total		68440	54370	52291	40970	36092

1960 Census: Population and Housing Data NHGIS ID: ds92

1970 Census Data: Count 4Pa-Sample-Based Population Data NHGIS ID: ds98

1980 Census STF: 1-100% Data NHGIS ID: ds104

1990 Census STF: 1-100% Data NHGIS ID: ds120

2000 Census: ST 1a -100% Data [Areas Larger Than Block Groups] NHGIS ID: ds 146

2010 American Community Survey: 5 Year Data [2006-2010, Block Groups & Larger Areas] NHGIS ID: ds176

Census Tract	Total Population	Census Tract		Total Housing Units				
1960		1970 - 2000	2010	1970	1980	1990	2000	2010
27	1036	61	61	885	880	880	862	873
28	1200	62	62	1209	1198	1151	1099	1177
36	2299	84	84	948	743	672	549	554
37	1481	85	85	895	832	720	586	577
38	1255	86	86	1065	886	766	590	599
39	1222	87	87	964	853	752	585	567
40	1160	88	88	1271	1186	1046	847	829
46	1059	89	89	994	878	811	578	536
47	1958	90	90	1197	1175	1172	965	1020
48	1691	91	91	1023	1052	1103	975	979
49	1212	92	92	751	758	766	716	762
50	1205	96	96	1190	1221	1139	914	879
51	1153	97	97	1365	1184	914	578	615
52	1893	98	98	959	826	750	504	564
68	1207	99	99	1346	982	843	551	539
69	1274	100	1854	690	543	486	357	685
70	1681	101		749	552	493	372	
75	897	102	1855	785	605	532	406	722
76	1330	103		751	417	342	298	
77	1671	117	1859	423	228	200	151	455
78	1229	118		616	373	324	242	
97	884	119	1858	608	335	299	268	620
98	1159	120		699	447	375	284	
99	785	123	123	759	740	750	600	596

Total	31941	Total	22142	18894	17286	13877	14148
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1960 Census: Population & Housing Data [Tracts: Major Cities & Surrounds] NHGIS ID: ds92

1970 Census: Count 3 - 100% Data [Blocks & Tracts] NHGIS ID: ds96

1980 Census: STF 1-100% Data NHGIS ID: ds104

1990 Census: STF 1-100% Data NHGIS ID: ds120

2000 Census: SF 1a - 100% Data [Areas Larger Than Block Groups] NHGIS ID: ds146

2010 American Community Survey: 5-Year Data [2006-2010, Block Groups & Larger Areas] NHGIS ID: ds176

Data obtained from: <https://www.nhgis.org/>

Census Tract (2010)	Population	Median Age	Per Capita Income	Black Population	% Black	Total Housing Units	O/O Housing Units*	% O/O Housing Units*
61	1876	32.1	16853	1486	79%	876	392	45%
62	2609	26.2	11754	2512	96%	1165	289	25%
84	1287	24.5	11075	1024	80%	502	131	26%
85	1356	27.8	12068	1299	96%	537	153	28%
86	1499	29.4	10408	1315	88%	549	122	22%
87	1394	39.9	14679	1342	96%	586	193	33%
88	2083	28.3	12384	1977	95%	885	218	25%
89	1363	26.5	9041	1180	87%	553	82	15%
90	2752	23.1	10809	2466	90%	982	200	20%
91	2290	27.8	15229	1832	80%	944	198	21%
92	2036	27.7	14854	1529	75%	746	252	34%
96	2381	23	10748	2167	91%	864	126	15%
97	2063	19.2	7632	1052	51%	568	169	30%
98	1490	27.3	8979	1405	94%	563	150	27%
99	1154	23.8	10181	986	85%	551	110	20%
1854	1543	29.4	12931	1440	93%	671	171	25%
1855	2158	24.7	9880	2089	97%	720	198	28%
1859	1230	22.2	10056	815	66%	458	155	34%
1858	1531	31.5	18211	1275	83%	578	299	52%
123	956	33.6	16488	577	60%	633	94	15%

15 th District Totals	35051	27.5	12145	29769	85%	13931	3702	27%
Weighted medians		32.1	16853					

* O/O = Owner occupied

Data obtained from the American Community Survey, 2008-2012 by tract.

<http://www.getfacts.wisc.edu/mapping.php>

APPENDIX B: Visual Assessment Checklist

Date of Acquisition	Date of Visual Assessment	Type of Fence	Condition of Fence	City Signage Present	Garden	Overall Condition (1-3)	Parking	Other
7/16/2014	11/19/2015					2	Yes	Driveway, sidewalk cut
7/24/2014	10/15/2015	Wood	Only posts	Yes- knocked down		3		
8/22/2014	11/12/2015	Chain link	Missing front panels			1		Some shrubs added
9/4/2014	11/19/2015			Yes		1		
9/5/2014	10/15/2015	Chain link	Missing front panels	Yes		2		Corner lot, lots of trees and bushes
9/10/2014	11/12/2015	Chain link	Good		In-ground	1		Retaining wall added, landscaped beautifully
9/12/2014	11/12/2015			Yes		1		
10/14/2014	10/17/2015					2		Shrubs added
10/14/2014	11/19/2015	Chain link	Missing panels			1	Yes	
10/21/2014	11/19/2015			Yes		2		Lots of trees and stumps
10/21/2014	11/19/2015	Chain link	Only on the older lot, not the new			2	Yes	
10/23/2014	10/14/2015					1		
10/27/2014	11/12/2015					2		
10/28/2014	11/19/2015	Wood	Six foot tall, no visibility behind it			2		fence blocks view of the space
10/31/2014	11/19/2015	Wood	Older lot has fence, falling down, new wooden fence			2		Slope is overgrown - 6' fence
11/13/2014	10/15/2015			Yes		2		Double lot?
11/19/2014	11/12/2015	Wood-painted	Excellent			1		Beautiful, small fence. Couldn't see into yard
12/1/2014	11/12/2015					1		Car parked in front of lot
12/2/2014	10/16/2015	Chain link	Good- all the way around property			2		Lots of kids toys
12/3/2014	11/19/2015					2		Lots of trees and stumps
12/3/2014	11/12/2015					2		Double lot?
12/4/2014	11/19/2015					1		

Date of Acquisition	Date of Visual Assessment	Type of Fence	Condition of Fence	City Signage Present	Garden	Overall Condition (1-3)	Parking	Other
12/19/2014	10/15/2015	Wood	Only in the back	Yes		2		
12/22/2014	11/12/2015					2		
12/23/2014	11/19/2015				Raised Bed	3		Possible start of a hoop house
12/23/2014	10/15/2015					1		

APPENDIX C: Interview Script and Question

Hello, my name is Sierra Starner-Heffron and I work with the City of Milwaukee. I am doing a research paper evaluating the \$1 Vacant Lot Pilot Program. Would you like to participate in an interview?

If you agree to participate, your responses will be treated as confidential and any use of your name and or identifying information about anyone else will be removed during the transcription process so that the transcript of our conversation is de-identified. All study results will be reported without identifying information so that no one viewing the results will ever be able to match you with your responses. Direct quotes may be used in publications or presentations. Data from this study will be saved on a password-protected computer in a locked room for six months. Only I will have access to your information. However, Joel Rast, my academic advisor and the Institutional Review Board at UW-Milwaukee or appropriate federal agencies like the Office for Human Research Protections may review this study's records. Audio recordings will be destroyed after my thesis is submitted for completion.

Your participation in this study is voluntary. You may choose not to take part in this study, or if you decide to take part, you can change your mind later and withdraw from the study. You are free to not answer any questions or withdraw at any time. Your decision will not change any present or future relationships with the University of Wisconsin Milwaukee

During this interview you will be asked questions about the sale of a vacant lot to you. This will take approximately 10-20 minutes of your time. The interview will take place in a private location and it will be audio recorded.

Risks that you may experience from participating are considered minimal. There will be no costs for participating. There are no benefits to you other than to further research.

Interview Questions:

1. How long have you owned your property?
2. How did you learn about the option to buy the vacant lot adjacent to your property?
(Neighborhood group, Website, News, Alderman, Inquired on own)
3. Why did you want to purchase the lot?
4. Have there ever been any security issues with the lot in the past? Loitering, Littering, Dumping, Other Crime
5. How well do you know your neighbors?
6. Do you think your neighbors would intervene in some way (call the police or the City) if they saw crime happening on your lot?
7. What do you intend to do with the lot?
8. Are you interested in gardening or growing food for your household?
9. Have there been any unforeseen problems with owning the lot?
10. How do you think owning this lot has benefitted you and your community? In what way?
11. Would you recommend buying a lot to others?