The Social Impact of Home Rehabilitation in Low-Income Neighborhoods

Draft: Do not Cite

3/1/2013

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Urban planners, community development professionals and urban policy makers face a perennial neighborhood dilemma and one exacerbated by the foreclosure crisis: the proliferation of dilapidated and abandoned homes in distressed neighborhoods. Many consider these homes a sign or even a cause of larger neighborhood problems: abandoned homes in low income neighborhoods are viewed as "magnets for crime, violence, and other social ills" (Apgar, 2005) and that they "reduce the value of neighboring homes" (Schwartz, 2006) One proposed solution has been to rehabilitate these properties and therefore presumably reduce opportunities for crime, prevent social ills and increase neighboring housing prices.

Community development corporations focus a substantial portion of their resources on housing, largely through rehabilitation. This focus is partly motivated by an acute need for housing assistance in many low to moderate income neighborhoods, but also by the perception that housing investment generates positive spillovers to the neighborhood, such as increased home values and improved social conditions (Edmiston, 2012). Some evidence does indicate that rehabilitating abandoned homes elevates home prices. A small body of literature attempts to investigate the impact of housing rehabilitation on nearby crime. However, while journalistic accounts and the practical literature make claims of strong links between physical blight and social conditions, empirical evidence supporting these claims is much harder to find. For the most part, policy makers and researchers have not investigated whether improving the appearance and finding occupants for abandoned homes leads to larger, lasting neighborhood improvements in neighborhood social conditions, as measured by levels of social capital, collective efficacy or sense of community.

This paper examines the impact of abandoned home rehabilitation on neighborhood social relations. It will first review the literature on the relationship between housing distress and revitalization on nearby home prices, crime rates and social conditions generally. Then we will introduce our study which seeks to assess how rehabilitating abandoned homes influences social conditions on the block. We do so by using a quasi-experimental mixed methods longitudinal approach: tracking home conditions and

neighbor sentiments before and after neighboring homes had been rehabilitated in both a treatment and control group.

Literature Review

Several literatures attempt to address the neighborhood level impact of individual home physical distress and home foreclosure. This review separates the literature into three categories: first, literature that examines the price externalities associated with distressed homes; second, studies that look at the relationship between distressed homes and crime; and finally, literature that looks at the relationship between distressed homes and social conditions. Throughout this review we will seek to make the distinction between research that investigates the potential negative impact of the introduction of abandoned home and research that seeks to establish the potentially positive impact of the rehabilitating an abandoned home, since it seems unlikely that the introduction of a disamenity and its removal will have equal impacts. We only report on studies that look at the issue of vacant properties, rather than occupied, physically distressed ones. For the most part, these studies use foreclosed properties, rather than properties abandoned due to other forces.

Economic Impact of Distressed Homes

Economists and others have long attempted to assess the economic impact of public investments on housing on the prices of nearby housing. The large scale of the recent foreclosure crisis has allowed researchers to test some of the assumptions about the impact of abandoned homes on nearby home prices. Some studies test for the negative impact of abandoned often foreclosed homes, on nearby home prices. The types of housing studied vary from single family home, multi-family houses or large scale developments. Several studies have shown that housing divestment negatively impacts nearby home prices. Immergluck and Smith (Immergluck, 2006) show that abandoned homes reduce the price of nearby homes by about 1%. Most recently, Gerardi et al (Gerardi, 2012) have shown that negative effect on prices initiates much earlier in the divestment process: when homeowners become delinquent on their mortgages. Abandoned homes are costly from a municipal perspective as well. Vacant homes often

produce no property tax, can be the targets of arson or locations of accidental fires. The decrease in property values also has an impact on public coffers, as tax revenue is reduced.

Other studies investigate the price impact of rehabilitating abandoned homes and specifically in the low-income neighborhood context. Researchers in this arena have produced fairly consistent evidence that rehabilitating abandoned homes increases the prices of nearby homes. Edmiston, using data on homes that sold more than once between 2004 and 2011 in Jackson County, Missouri, reports that housing investments by CDC "substantially" increased the appreciation of homes nearby. Homes within 500 feet of the development projects appreciated, on average, at an 11.8 percent greater rate than homes further away from the housing investment. The analysis also shows that these effects dissipate beyond 500 feet. The analysis was limited to low and moderate income neighborhoods in Kansas City, which are the typical targets of CDC investments in housing. Schwartz et al similarly show that subsidized housing investments in New York City generated significant external benefits in the form of increased property values in the vicinity of the investment. They further find that the larger (Schwartz, 2006) the project, in terms of numbers of housing units generated, the greater the impact. Others suggest that the mechanism for price increases in that the housing investments may increase surrounding property values through a demonstration effect. One study documented that housing investment can lead to additional investment in nearby properties (Goetz et. Al, 1997), a phenomena sometimes known as "incumbent upgrading" (Clay, 1979).

Who captures the benefits of rising prices is less clear. For example, if rising prices are coupled with residential turnover, then it may be a new class of higher-rent paying residents who benefit from the improvement. Long term renters can be negatively impacted if the rents increase to reflect the elevated values of the property. Additionally, homeownership rates in low income neighborhoods are usually low (one study showing a price boost due to home renovations had 20% home ownership rate).Therefore, the beneficiaries of price increases are often landlords.

In sum, abandoned, foreclosed homes exert modest negative price externalities on nearby homes and rehabilitating these homes exerts a modest, positive price externality. However, not all of the above

studies concerned exclusively low income neighborhoods and most authors stress that the economic context of the neighborhood likely mediates the impact on prices. The manner that the context mediates the price effect is not consistent across studies, with some reporting higher income neighborhoods capture more of the benefits, while others demonstrate that low income neighborhoods benefit more greatly from the intervention.

Relationship between distressed homes and crime

Many findings of the impact of home foreclosure on crime are mixed. Studies report different kinds of crime, the most two common distinctions being between property crime and violent crime. For example, Ihlanfeld and Mayock (2012) report that the stock of REOs at the neighborhood level does impact crime in the immediate area of a property. However, this effect is only seen for property crime. Using Chicago area foreclosure and crime data for the year 2001, Immergluck and Smith [11] find that a one standard deviation increase in their foreclosure rate variable is associated with an increase in neighborhood violent crime of approximately 6.7 percent. However, in this case, they did not find statistically significant effect is found for property crime. Immergluck and Smith rely on cross-sectional data, leaving open the possibility that their results are biased by omitted variables. "Specifically, higher neighborhood foreclosures are likely to be correlated with unobserved neighborhood factors that determine crime rates (CITE.)" Two studies employ difference-in-differences models to relate foreclosures to nearby crime. Cui (2010) compares violent and property crimes within 250 feet of a foreclosure filing to those that occur between 250 and 353 feet in Pittsburgh, Pennsylvania. These results show that violent crimes within 250 feet of the foreclosed home increase by more than 15 percent once the foreclosed home become vacant compared to crimes located between 250 and 353 feet away from the foreclosure. However, Jones and Pridemore (2012) found no evidence of a relationship between housing mortgage distress and either crime rate or property crime. Using a random effects model, Kirk and Hyra (2012) too find an insignificant association between foreclosure-and crime. The authors also report that crime rates continued to decline despite the severity of the foreclosure crisis.

Most recently, the Furman center reported a significant increase in crime near foreclosed homes, but only if the area had three or more foreclosures clustered.   However, there is a strong dissenting faction of scholars that argue that it is not clear that an association between foreclosure and crime is causal but rather the association could be attributed to confounding variables.

The lack of consensus regarding the impact of foreclosed homes on crimes is paired by theoretical disagreements about how home distress might lead to crime. One of the best known theories linking housing blight to crime is the broken windows theory which holds that minor problems in a neighborhood, such as property distress, vandalism (or broken windows) can lead to increased levels of more serious crimes (Wilson and Kelling). Spellman argues further that in the case of foreclosure, "the relationship between vacant properties and crime goes beyond the "broken windows" phenomenon. Vacant properties often are taken over by squatters and can become breeding grounds for crime, particularly drug dealing and prostitution. More serious, violent crimes often follow these lesser crimes. "Some studies have offered evidence in support of this phenomenon in cities such as Baltimore (Taylor, Shumaker and Gottfreson, 1985), Chicago (Sampson and Raudenbush, 1999), and Philadelphia (Brown, Perkins and Brown).

Impact of Housing Distress on Social Conditions

Very few studies attempt to measure impact of neighborhood divestment or reinvestment on neighborhood level social relations beyond crime, including social capital or social cohesion. There is very little empirical evidence of the social impact of home abandonment, despite strong theoretical support. For example, proponents of social capital theories suggest that it is less the physical distress of a home than the loss of its occupants that places negative pressure on social conditions. The neighborhood loses a member of its social group when the household exits, thus reducing neighborhood level of social cohesion. Sampson outlines the "the destabilizing potential of rapid population change on neighborhood social organization. A high rate of residential mobility, especially in areas of decreasing population, fosters institutional disruption and weakened social controls over collective life." This is because it takes time to form meaningful social relationships.

Some argue that blighted properties not only reduce the physical attractiveness of the neighborhood, but also are thought to cause a variety of social problems (Edmiston, 2012). One study found little effect of publicly funded home rehabilitation efforts on neighborhood demographic, economic, or property stability (Margulis, 2008). However, other surveys have shown the physical appearance of the neighborhood to be a critical component of neighborhood satisfaction (Hur and Morrow-Jones).

The thin literature on the impact of housing revitalization on neighborhood social conditions may come in part because scholars and practitioners disagree about the likelihood that physical revitalization will improve neighborhood social relations. On the one hand, Broken Windows theory explains why abandoned homes are associated with crime, divestment and social disorder. Consequently, proponents maintain that they physical rehabilitation of abandoned buildings will improve the quality of life for neighborhood residents by increasing the projected sense of community efficacy and therefore discouraging crime. Broken Windows theory has been adopted into community revitalization efforts that aim to create the visual sense of a neighborhood with residents who maintain their homes to increase the sense of community efficacy For example, The International City/County Management Association advises local governments on how to encourage the revitalization of vacant properties directly, citing the broken windows theory (Schilling, 2002).

The practical literature often cites the social impact of home distress and revitalization. For example some maintain, "When foreclosures are filed and homeowners leave, the social fabric of communities is frayed." (CR Report, Summer 2011).The National Vacant Properties Campaign notes that "a large number of vacant buildings in the neighborhood symbolizes that no one cares" (National Vacant Properties, 2005). The President of the Federal Reserve Bank of Boston argues that foreclosed homes are associated with "depressed home prices, but also a host of *other community problems* (Rosangren's emphasis)." A spokesman for Shore Bank noted, "A house owned by a bank is boarded up, so it's all very counterintuitive to a sense of community." The Local Initiatives Support Coalition in its annual report stated, "Building and preserving affordable homes and other real estate is a cornerstone of community

development……It is, in short, crucial to the strength of neighborhoods" (LISC, 2009). Broken Windows theory has many skeptics, including its own author. As noted above, some assert simply that the theory conflates causation and correlation (2000:7). Sampson et al reject the notion that the bricks and mortar of physical renovation will create the needed social change to prevent crime and disorder that is central to the Broken Windows theory. They argue that the most important influence on neighborhood crime is neighbors' collective efficacy or willingness to act, when needed, for one another's benefit. Research shows that collective efficacy exerts an influence over a neighborhood's crime rate strong enough to overcome the far better known impacts of race, income, family and individual temperament. Contrary to "Broken Windows" Sampson et al found that most major crimes were linked not to "broken windows" but to two other neighborhood variables: concentrated poverty and collective efficacy. Wilson later noted that the theory lacked substantive scientific evidence that it worked. "I still to this day do not know if improving order will or will not reduce crime…People have not understood that this was a speculation"(Hurley, 2004).

Moreover, while many reference the macro-level negative social and economic forces such as deindustrialization, suburbanization and most recently the global housing crisis that contribute to home foreclosure and abandonment in disadvantaged neighborhoods. "The root of the problem may seem far beyond the control of local governments. The vacancies are often the result of larger forces, such as corporate decisions to transfer jobs overseas, or developers' decisions to invest in sprawling new homes far on the urban fringe." It is not clear how home rehabilitation can countervail these forces.

However, while there is disagreement about how abandoned home rehabilitation can impact social conditions, there is greater consensus about the importance of positive social conditions in disadvantaged neighborhoods. Most basically, when neighborhoods have weakened or nonexistent community systems, they cannot serve as a resource for its resident (Brodsky A, 1999). Social scientists measure the strength of a community system in various ways. The well-known concept of social capital originated in the fields of sociology and political science to explain how residents within certain

communities cooperate with each other to overcome the problems of collective action. Social capital, as defined by its main theorists (Coleman, 1990 and Putnam 1993) consists of those features of social organization – such as networks of secondary associations, high levels of interpersonal trust and norms of mutual aid and reciprocity. These features can act as resources for individuals and facilitate collective action (Lochner, 1999).

Although several other definitions and measures of social capital have been proposed, "there is enough consensus to draw some important generalizations about the nature of social capital. The most important of these is that social capital is a collective dimension of society external to the individual. Sampson et al (1997) expanded upon the concept of social capital and proposed a form of social capital they labeled "collective efficacy." Collective efficacy is neighborhood level social cohesion combined with a wiliness to act on behalf of the common good is a determinant of neighborhood violence. Collective efficacy definitions share the "notion that group members believe in the overall ability of the collective to act effectively" (Lochner, 1999). As Sampson notes, many indicators of neighborhood mechanisms are inter-correlated (Sampson, Morenoff, Gannon-Rowley, 2002). The discipline of psychology has developed the concept of a psychological sense of community or SOC. Sense of Community is a related concept to collective efficacy. It includes several individual items that tap into the same indicators of a community's stock of social capital as defined by Putnam (1993). Additionally, SOC refers to a collective characteristic, not to individual relationships and behaviors. Because it is an aggregate variable, it is most usefully measured and studied at the community level (Lochner 1999).

Studies have shown that across literatures and disciplines, places where neighbors who share a perceived sense of similarity and feelings of interdependence show both lower levels of crime and other positive outcomes, even controlling for other socio-demographic characteristics. Some studies demonstrate that weaker social ties directly increase the likelihood of crime (Sampson & Groves, 1989, Bellair, 1997). Sampson et al (1997) showed that after controlling for individual-level socio-demographic characteristics, neighborhood collective efficacy showed a strong inverse association with measure of

perceived neighborhood violence, violent victimization and homicide events. Higher levels of social

capital, collective efficacy and sense of community can mediate some of the negative processes

associated with disadvantaged neighborhoods beyond direct measures of crime. For example, several

studies show that higher informal social control is negatively associated with adolescent problem

behavior (Elliott et al, 1996, Sampson 1997), after controlling for structural levels of disadvantage and

individual characteristics. Thus far, researchers have not determined whether this construct is linked to

individual level outcomes (Leventhal and Brooks-Gunn). Davidson and Cotter (1991) found that a

positive sense of community is associated with increased political activity and voting behavior. Others

found that sense of community mediated the impact of neighborhood disadvantage on juvenile

delinquency (Cantillon, 2006). Thus, across various measures of neighborhood social conditions,

research shows that enhanced social conditions of disadvantaged neighborhoods can have a powerful

mediating effect on various negative impacts of disadvantage.

Some do disagree with community development's focus on improvement to

neighborhood level social relations because such a focus places the importance of intra-

neighborhood relationships above inter-neighborhood relations. Empirically, for example, some

show that controlling for neighborhood structural characteristics such as home ownership, social

cohesion is not related to crime (Greenberg, Rohe & Williams, 1982, Perkins et al 1993) and that

crime is most influence by structural variables. That is, improving how neighborhoods interact

with one another likely does little to help structural disadvantage. In the case of Sense of

Community, while the beneficial effects of a psychological sense of community are

uncontroversial, some object to the emphasis on local community. The concern is that the focus

on community development in neighborhoods may distract attention from the broader political

economy (Nassar and Julian, 1995). Similarly, Sampson notes that collective efficacy is

embedded in structural contexts and a general political economy that stratifies neighborhoods by

key social characteristics. Thus, neighborhood outcomes are a result of dynamics both within a neighborhood and between a neighborhood and the greater metropolitan context.

Possibly because there is such a loose relationship between social theory and practical application, rigorous tests of the thesis that rehabilitating abandoned homes improves an areas' social conditions, such as levels of social capital or sense of community have not been established. Given the literature, there are several reasons to believe that rehabilitating abandoned homes will have little impact on social conditions. First, one of the strongest correlates of positive social conditions is tenure: Rehabilitation, at least in the short term involves bringing new households into the neighborhood. The second correlate of positive social conditions is high socio-economic status. While rehabilitation can increase nearby home prices modestly, it likely cannot influence the distribution of wealth across the city. Moreover, while rehabilitation might increase nearby home prices, there are no established links between these kinds of increases and a general improvement in the kinds of neighborhood social and economic conditions that encourage residents to stay. The observed price increases in the economics literature could be associated with speculation because rehabilitated houses offer a demonstration effect. Without an accompanying improvement in social conditions, it is hard to imagine how these prices can be sustained. On the other hand, there is some reason to believe that rehabilitating homes will have a positive impact on social relations, given the social impact that home abandonment appears to have on neighborhoods. Moreover, many practitioners, after engaging in the work of home rehabilitation and revitalization have observed the positive impact of this kind of work.

Of course, most community development organizations don't just renovate homes. Some also seek to re-occupy those homes with home owners. However, other organization target rehabilitated homes for other kinds of tenure, such as affordable rental or transitional housing.

Almost all organizations complement their rehabilitation efforts with other community building efforts, such as youth programs or job training assistance. Most recently, organizations have aimed to address the neighborhood level variables thought to influence individual outcomes, such as housing, education, employment and health simultaneously. Yet with so much time, money and confidence invested in thesis that home rehabilitation leads to improved social conditions, it seems appropriate to put this idea in isolation to the test. This study then directly tests the thesis that rehabilitating abandoned homes improved neighborhood level social conditions.

Methods

The scale of the current housing crisis allowed for a test of the social impact of home rehabilitation on neighborhood social conditions via a quasi-experiment which compares homes slated to be rehabilitated through in a Federal foreclosure intervention program to similar homes that were not included in the program. The foreclosure intervention policy, the federally funded Neighborhood Stabilization Program, awarded the City of Boston several million dollars to acquire, rehabilitate and resell abandoned, foreclosed homes in Boston's high foreclosure neighborhoods. These high-foreclosure neighborhoods were also Boston's highest crime, lowest- income and most racially segregated neighborhoods. Our question was whether the policy enabling the rehabilitation of foreclosed homes would have an impact, not just on home prices, but on neighborhood social conditions as well. To answer this question we employed a mixed-method, quasi experimental, longitudinal approach. First, in order to quantify residents' social capital and social cohesion, we administered a "Sense of Community" survey, which is a standardized and validated survey used in the community development field. We augmented our survey with 2 open ended questions, to enable more qualitative analysis. Second, to test the secondary thesis that improvements to the target property would lead to improvement on neighboring parcels, we collected observational data regarding the physical conditions of the parcels in Year 1 and Year 2. We assessed the condition of the abutting parcels using a parcel condition assessment form we

based on standard assessment forms used in the urban planning field. The reliability of this scale was good ($\alpha = 0.81$ and $\alpha = 0.72$ for Year 1 and Year 2, respectively).

This study was conducted longitudinally: the first round of data collection occurred prior to the planned intervention (rehabilitating and reoccupying the foreclosed homes) and the second round of collection took place one year later, after program participants indicated that the treatment properties would be completed. Thus, we had Sense of Community scores, qualitative interviews and Parcel Condition ratings for both prior to the intervention and one year post intervention. Finally, to test for the impact of the program treatment, we compared the residents' responses to resident responses for a group of abandoned foreclosed properties in the same neighborhoods.

Both the treatment and control groups consisted of two and three family properties in the neighborhoods of Dorchester and Roxbury. We selected the properties in the treatment group from the list of properties acquired by the City of Boston using NSP funds over the six month period preceding the Time 1 data collection. In order to create a control group to track what might happen to abandoned foreclosed homes absent the Federal intervention, we paired the group of properties acquired with the NSP funds with a group of abandoned, foreclosed properties in the neighborhood. The control group would allow us to observe the conditions and changes around a foreclosed property in the neighborhood absent the NSP. The study included eight NSP treatment properties and eight control group properties. Throughout the rest of this paper, we use the phrase, "NSP properties" when referring to the treatment properties acquired with NSP funds, "Control properties" when referring to the abandoned, foreclosed homes that remained in the private market and "target properties" when referring to both the treatment and control properties.

Again, our concern was the impact the potential rehabilitation would have on residents living nearby. We reasoned that the intervention would have the greatest impact on residents who live closest to the abandoned buildings; therefore, we included in our universe of participants all residents of buildings

that directly abut an abandoned property, all buildings that were one house away from the abandoned house and all buildings directly across the street from these houses. Figure X illustrates a typical block and the houses that would have been considered in our sample. In certain instances we included houses that did not fit these rules. This occurred when upon visiting the block we noted that a house outside of this area had a very clear view of the house, thus suggesting that the residents of the building would be aware of and potentially influenced by the abandoned building.

Upon identifying the target properties, we visited every street, assessed the condition of every parcel and attempted to conduct an in-person interview at every unit in the buildings that were in our universe both before the intervention, in 2011 and after in 2012. Our approach was to ring the door-bell or knock on the door. Based on a resident list maintained by the City of Boston, we estimated that there were about 550 qualifying adults in our universe in both Year 1 and Year 2. For the in person surveys and interviews we followed a standard protocol: If someone answered the door, we introduced ourselves and explained the survey. If a resident was willing to participate, we administered the survey in the entryway or in some instances inside the respondent's home. We administered the survey to every resident over 18, who was present and willing to participate in the survey. We compensated all participants with a money order for $20. In a few instances, residents indicated that they were not interested in participating, in which case we removed the unit from our list. If no one answered the door, we would leave a flyer with our phone number telling the resident that if they were eligible to participate in a short survey and we would pay them $20 for participating. We visited neighborhoods and conducted surveys between the hours of 2pm and 8pm on weekdays and Sundays in the months of June and July in for both Year 1 and Year 2.In year 1, we administered 58 surveys through this outreach method, reaching about 10 percent of our sample of qualifying adults and about 20 percent of our target households. In year 2, we administered 65 surveys through door-to-door outreach.

Given the fact that many residents either did not answer their doors or were not home when we visited their homes, we opted for a mailing. In order to personalize the mailing we used the Boston Resident List, which was obtained from the Boston Elections Department. The list contains the names and addresses of Boston residents, is collected annually and was updated May 2011 and May 2012. The list was not comprehensive. We compared the names of the people we interviewed in person to the list and found that roughly 25 percent of the respondents were not included on the list. In most cases the people who were not on the list reported moving within the last few months. There were some longtime residents who were not on the list. While the list was imperfect we concluded that a personalized letter and mailing would be more likely to produce a response than an anonymous mailing.

Therefore we used the Resident List to generate a mailing list with every resident of the buildings that were in our universe. We removed from the mailing list any resident who we had interviewed in person and all of the residents of the unit that the respondent lived in. In addition, we removed from the list the residents of any unit where we had been told that they were not interested in participating. Across both years, the list averaged 410 residents of addresses that were contained within our buildings of interest.

We used the Dillman Tailored Design Method (2009). After our initial mailing we mailed a reminder postcard to all households where we had received no responses. Finally, we mailed a reminder letter with a replacement survey to all residents of units where we had not received any responses. If the mailed surveys or reminder post cards came back with a notation from the Post Office "vacant" we removed this household from our list. In year 1, this method left us with an estimated total of universe 256 households, 123 of whom responded to our survey (for a total household response rate of 48%). In year two we received responses from 14X households. Year Two response rate still under analysis.

In year 2 we followed the same protocol, but maintained a separate list of residents who had responded in 2011, as these respondents represented a potential participant panel. We also modified the interview protocol based on our qualitative findings from Year 1. In Year 1, we asked people, "What do

you think influences home prices on your block?"However, based on the findings detailed below, this question involved several assumptions which proved to be false. We therefore replaced that question with one that read, "What could make your neighborhood a more desirable place to live in?" which proved to be a more generative question. We also added one more question to the mail survey in Year 2 and asked residents to rank neighborhood problems. Again this change was based on our qualitative findings in Year 1.

Because year over year individual participation was potentially more valuable, during the mail administration portion of the data collection, subsequent to the reminder postcard to non-respondents, we mailed a follow-up survey to these households and offered to double their compensation from $20 to $40. This method, however, of offering to double compensation, did not appear to greatly incentivize participation. Of the 144 residents who responded in 2011, 62 responded again in 2012

In total, in the Year 1 survey period, we interviewed or surveyed 148 residents out of a total of 263 households. Of the 146 surveys, 92 contained qualitative responses (58 in person interviews and 24 write-in responses from the mailed survey). All but 2 participants were people of color, most self-identified as "Black/African American," but others identified as Trinidadian, Jamaican or Haitian. Additional residents classified themselves as Latino, Hispanic, Puerto Rican or Dominican Republican.

In year two, we received 164 surveys, of which 121 had qualitative data.

Results

We present the data below in several ways. First, we review the data from the parcel condition analysis, to look for changes from Year 1 to Year 2 in the physical condition of the target homes and abutting homes. Then we review some of the trends in the data that emerged in Year One of the study. We follow this with changes from year 1 to year 2, including our main outcome of interest: whether rehabilitation of the foreclosed home led to an increase in sense of community. We also offer comparisons between the NSP program treatment groups and the private market control groups and between renovated

and still abandoned properties, regardless of their program status. However, true to the quasi-experimental nature of the study, the trajectory of the treatment and control properties did not proceed as anticipated. First, despite published projections, only half of the NSP program treatment properties where renovated or undergoing renovation in Year 2. Secondly, nearly all (7 of the 8) control group properties had been purchased and were undergoing rehabilitation by Year 2.

Parcel Data

Ratings were not available for one parcel in 2011, and ratings were dropped from a separate parcel in 2012 due to unusual circumstances (i.e., extensive fire damage and on-going renovation while the parcel continued to be occupied). Thus, 138 parcels were rated in both 2011 and 2012. On average, overall parcel scores were higher in 2012 than in 2011 (t[137] = -2.74, $p < .01$; see Table 1). Further, the correlation between 2011 parcel scores and change in parcel scores from 2011 to 2012 indicated that parcels in the worst condition in 2011 had the greatest improvements ($r = .74, p < .001$). However, when target properties were excluded from the sample, the difference between 2011 and 2012 scores became non-significant, except when examining only low-cost parcel condition items (t[121] = -2.11, $p < .05$).

Regressions examining the difference in parcel condition from 2011 to 2012 based on NSP status and renovation status, respectively, revealed that neither was significantly associated with parcel condition when the target properties were excluded from the sample (Table 2). Further, individual parcel ownership status was not predictive of change in parcel condition from 2011 to 2012 (Table 3), although in both years owner-occupied parcels were in significantly better condition compared with non-owner-occupied parcels (t[121]= 3.37, $p < .01$, and t[121]= 3.88, $p < .001$, for 2011 and 2012, respectively). Interactions between NSP status, renovation status, and ownership status were also non-significantly associated with changes in parcel condition (complete results available upon request).

Survey Data

Sample demographics were not significantly different from Year 1 to Year 2, and are reported for both years combined in Table 4. Similarly, sample demographics did not differ based on

NSP status; however NSP status was associated with some neighborhood social indicators (Table 5), and this result held for data from both 2011 and 2012. Walkability and safety were rated as significantly lower by residents on blocks with a NSP property compared with residents on blocks with a control property, but residents on blocks with a NSP property also reported more involvement in neighborhood organizations than their counterparts on blocks with a control property.

Difference in difference regressions (Table 6) revealed that a block's NSP status was not associated with residents' sense of community differently by year. The interaction of renovation status of a target parcel and year, however, was marginally significantly associated with residents' sense of community, such that sense of community declined on blocks that where renovations occurred. Examining resident perceptions of neighborhood walkability and safety also indicated no association with NSP status by year, but the overall negative program effect was again evident, such that blocks with city-owned target parcels received lower ratings on both walkability and safety regardless of the year. Further, walkability was rated as higher on blocks where renovations occurred, but this was again regardless of the year, suggesting that renovations simply happened more often on blocks already rated by residents as more walkable.

Finally, to understand the determinants of sense of community for this sample, we ran a full regression of all respondent demographics, neighborhood social indicators, block-level homeownership rates and parcel condition, as well as NSP and renovation statuses (Table 7). The results of this regression indicated that length of residence on the block and neighborhood walkability were positively associated with sense of community. In addition, average block parcel condition was negatively associated with sense of community, indicating that greater average parcel distress at the block-level reduced residents' sense of community, but average change in parcel condition was also negatively associated with sense of community, suggesting that greater improvement in average parcel condition[1] was also associated with lower sense of community. Participation in neighborhood organizations was

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[1] Average change in block condition ranged from -5.0 (some deterioration in average parcel condition) to 20.7 (strong improvement in average parcel condition).

positively associated with sense of community and living on a block with a renovated property was negatively associated with sense of community, although both of these associations only reached marginal statistical significance.

Panel Data

Sixty-two individuals responded to the survey in both 2011 and 2012. Panelists were more likely to live on blocks with a higher percentage of owner-occupied parcels ($t[143]= -2.30, p < .05$), were more likely to be female ($t[138]= 2.56, p < .05$), Black ($t[141]= -2.36, p < .05$), and employed ($t[142]= -2.03, p < .05$), and less likely to be Hispanic ($t[140]= 2.00, p < .05$), compared with 2011 respondents who did not participate in the 2012 survey. There were roughly equal numbers of panelists from blocks with city-owned and REO target properties ($n = 32$ and $n = 30$, respectively). Correlations among neighborhood social indicators were high, indicating relatively stability in reports from year to year (Table 8). As with the full sample, walkability and safety were both rated lower on blocks with city-owned properties, but this association dissipated in regressions controlling for 2011 sense of community, suggesting continuity—blocks with city-owned properties felt less walkable and safe in 2011 and remained so in 2012. In contrast to marginal findings from the full sample, renovation status was not significantly associated with panelists' sense of community. To understand the determinants of changes in sense of community for this sample, a full regression of all respondent demographics, neighborhood social indicators, block-level homeownership rates and parcel condition, as well as NSP and renovation statuses was run (Table 9). None of these variables were significantly associated with variation in sense of community from 2011 to 2012.

Qualitative

We analyzed the qualitative responses using the qualitative software NVivo. A professional transcriber fully transcribed the recorded interviews and the write- in responses were also fully transcribed. Nvivo allows users to code the qualitative data by themes. We developed an initial set of themes based on the two qualitative questions, one regarding residents' general impression of the

neighborhood and the other on home price. As the data was analyzed using the Nvivo software, additional themes developed and form the basis of the analysis below. This analysis will review topics covered in the interview and open ended responses which relate to the quantitative findings presented above.

Year 1

The quantitative findings suggest that the renovation of distressed properties has no positive impact on the social conditions on the block face, regardless of whether this renovation is undertaken via the Federal Program or through the private marketplace. The qualitative data collected in this study serve to both confirm these findings and begins to explain them. In the first round interviews prior to the intervention several themes arose which illuminate the quantitative findings. The first theme is that residents did not view the abutting abandoned, foreclosed home on their block as a primary threat to neighborhood stability. The second theme is that residents expressed a great deal of belief in the power of and their alienation from public and private institutions such as community groups, city government and banks. The third theme concerns the social and spatial categories residents employ when living in high–distress/high foreclosure neighborhoods.

Resident Views of Abandoned, Foreclosed Homes

The quantitative data shows little impact of the home rehabilitation on either sense of community or on the conditions of nearby parcels. It does not appear that the rehabilitated home alone encourages neighbors to take better care of the physical condition of their homes or increases their sense of community. The observational data we collected suggests some of the reasons why this might be the case. First, in neighborhoods with many abandoned homes[2], some on the same street as the foreclosed one question. Moreover, the neighborhoods contained many additional vacant parcels. Thus, in retrospect, it may not be that surprising that many residents, especially renters and younger people, we spoke with were not aware that the target home had been foreclosed on. As one young woman responded, "I didn't even know it was closed until you told me."Another female renter had observed a realtor showing the abandoned house to a potential buyer. However, we said that the building next door had been foreclosed

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[2] City of Boston's abandoned buildings report

on, she responded, "Oh I've been wondering about that." A male renter commented, "Wow, it's a foreclosure. Nobody knows about it. "

For those who did know of the foreclosure, several explained the foreclosure as an outcome of an individual problem rather than a sign of a community issue. Another older woman living in her elderly mother's home recounted how a "Women, husband and mother owned [the foreclosed home] for over 40 years, and the granddaughter manipulated it out of her hands and she lost it, she was using it for collateral on projects elsewhere." Another middle aged woman recalled that, "The homeowner of [the foreclosed property] was a very pleasant person. Always greets his neighbors. I think it sad when people lose their homes." A male owner detailed how the owners got "swindled" by the banks. In each of these resident narratives, their focus is on the individual circumstances of the former owners. Their commentary did not include speculation how these individual's problems might relate to a larger neighborhood issue, such as the impact on nearby home values, increased vulnerability to crime or loss of social cohesion.

Additionally, contrary to accounts in the popular press, we rarely heard reports of crime in foreclosed homes. One older female owner attested, "No one goes in there [foreclosed house]. If someone went in there the neighbors would call."Another older female owner responded similarly, "I'm watchful and would report anything." Moreover, she reported that the house didn't concern her very much. "[It] hasn't affected the block" because "It's not that run down."

Other residents recalled activity in the home, and their response to it. One middle aged female renter told us that one day she heard screaming and crying from the house next door and several children came running out. She called the police and a neighborhood group. Soon thereafter "They came and boarded it up."A retired male renter living near that same house recalled how at one point, "There was a lot of trash, doors and windows were open. " He contacted several agencies, including Inspectional services, City Hall and the Mayor's Office. For many of the residents who recalled seeing activity, and then several also recounted taking action. One female renter with small children, however, recalled that "And the other night I woke up and the light to the first floor was on and a couple weeks ago the light to

the basement was on. I don't know if somebody's staying there now. But they're going in there." However, in this woman's case, she felt powerless to take action wanted to contact someone about this but, "who do I call?"Actually, the city owned this property and had posted a notice on the front door which contained contact information.

For many residents the topic of the nearby abandoned, foreclosed home connected to that of vacant lots also on the block. Their comments suggest that abandoned lots present an equal, if not greater, threat to neighborhood stability. One middle aged female renter referenced the vacant lot next door to her (the foreclosed home abutted her on the other side).She commented of that lot, "There goes your sense of community." A female middle-aged renter wrote that, "There is an empty lot beside my apartment, which needs to be kept up. There are bushes over there and the neighbors throw trash over there and I wish the city would do something about it."Another female renter noted that, "We have vacant lots. They [the city of Boston] need to put something there instead of just trees and weeds. "Similarly, another female renter suggested, "If the city of Boston were to maintain its vacant lots and hold property owners responsible for their abandoned lots and units our neighborhood would prosper much faster. "Another female owner said that she and "a few others, who think [vacant lots] are very distracting. It is going to cause people to hang out there, throw trash." These comments, in contrast to those made on the foreclosed homes, suggest that residents perceive abandoned lots to be a greater threat to community stability. Residents associate empty lots to loss of sense of community and lack of community neighborhood prosperity. As noted before, these neighborhoods have many abandoned homes. Thus while an abandoned home may create a space for illicit activity, with 99 abandoned homes littering the high foreclosure neighborhood landscape, there are possibly more opportunities than there are opportunists.

Other threats to neighborhood stability

While foreclosed homes didn't generate a lot of comments from residents, other neighborhood problems, especially crime and anti-social activity, did. Residents recounted these activities in general terms, such as one woman who noted, "There are major crimes on the cross streets. We try to get people to notice things- to pay attention," Another woman recounted how, "We still deal with a lot of violence,

drug addicts, and home or auto theft." Another young man reported that he saw, "prevalent drug dealing and prostitution that occurs around the corner." Another male renter detailed how he sees, "Drug addicts and deals on steps of homes or corners; gangs/robbery/assaults."

Moreover, while residents made reference many kinds of criminal and antisocial activity, such as gangs, prostitution and property theft, many of them also recalled in detail specific incidences of gun violence, and references to gun violence on and near the street turned out to be one of the most salient themes. Many times, multiple residents would recall the same instance of gun violence on or near their block. Additionally, residents on almost one half of the blocks we visited (seven of sixteen), related some episode of gun violence. As one female homeowner on one street recounted "But, believe it or not, I have literally witnessed three people lying in the street after being shot. I don't know if you'll recall in the news, Halloween they shot someone. Another holiday they shot, it was a teenage boy." Another female homeowner on another street spoke of how "Somebody just got shot [one street over] last week. They did a big community meeting; they did a big block party trying to straighten the air up. A massive email went up from the police department."Another female renter on a third street recalled how, "There was a shooting. " A female homeowner on a 4th street told us how, "The other night there were five shots right here." A male renter on a 5th street related that "Wish they would stop the gunfire. A little boy was shot." A Female Latino renter on that same street related an episode, "Like we had two shootings, actually, like in my apartment. There were bullets coming straight into my apartment last summer, twice. And it was all due to the people who lived upstairs who eventually got evicted. That created like a really sense of insecurity on the street." A woman living with family on a 6th street commented that, "There was a gun shot behind the house. A kid threw his gun and it went off. The cops came by afterwards w/in minutes because of a new police program shot spotter. "A male renter on a 7th street noted" If we got rid of the guns it would be safe." These comments, given by residents on many of the target blocks, show the prevalence of gun violence in the neighborhood

The Role of City and Community Institutions

Residents had many comments regarding the performance of police and other institutional actors

charged with maintaining social stability. First, many express confidence in the legitimacy and competence in the police and city officials but argue that their area is underserved. For example, one young adult male renter noted that "I feel like my neighborhood could be better if there was more cops in it." Another middle aged female homeowner argued, ""We need more patrols. More police presence." Another elderly female homeowner explained, "There needs to be more police visibility. I hardly ever see police coming through or driving through the street to make their presence known." There is some dissent on legitimacy of the police, such as one older female homeowner who found the police to be "cocky." Another young male renter reported a property crime to the police and but didn't feel the officer was very concerned with the issue.

Additionally, many view local community organizations as effective in confronting some neighborhood problems and instrumental in bridging community concerns to city level actors. As one older female renter recounted, "Over the years there have been incidences [of crime] but because of the neighborhood association and the community watches [in neighboring developments] it's been controlled. " Another elderly female home owner related that her daughter "is the Neighborhood Association president. It takes time but can be done." An older male homeowner detailed how a neighbor living on an adjoining street was the leader of a neighborhood organization. "So he can give you all kinds of [advice]. So we are very active in the organization, and everybody is quite participating. If anything happens in this community, so there's this issue we try to solve." Residents recalled participating in a variety of local organizational activities including meetings, neighborhood watches, marches vigils, email list serves and neighborhood clean-ups. Many residents engaged with their communities through their churches and places of worship.

Other residents believed that neighborhood participation were necessary to bring about positive change and that residents needed to be more engaged.   As one resident noted, people can solve community problems, "if they have the right resources." Another resident wrote "I feel there should be more community participation, and a way to gather the residents together to get more involved with their

community/block. Another resident believed that "my neighborhood should have better organizations and we all should share our opinions. Also the government should fix things around here. "As this final comment suggests, many residents see bridging between local and municipal organizations as crucial in promoting neighborhood stability. In fact, many residents recounted collaborations between local neighborhood organizations and extra-local actors, especially the police. One resident "belongs to the neighborhood association which has monthly meetings and get a lot done, for example, they got stop signs. There is a community officer who reports to the group on the monthly crimes. Encourages everyone to call 911 if they see anything. "Another woman recalled working together with neighbors to deal with a group of young men would hang out at the park and intimidating children. They collaborated with the police and the security company that works at their building and successfully confronted the issue. Another resident (26) noted that "The neighborhood has changed a lot of the people who have moved in are younger people. So there are a lot of parties w/ noise late at night. But [the neighborhood association] takes care of it. First we talk to them then if they don't respond we call the police to let them know that we tolerate this."

Some residents did express a sense of institutional abandonment and alienation. A few residents communicated their frustration with government services, beyond the city's inability to maintain abandoned lots, as discussed above. One young woman believed that her communities' inability to effectively confront instability was "because the state's an ass." Banks however, were one extra local institution for which residents expressed an almost uniform lack of confidence and sometimes outright disdain. Often, they connected bank and government behavior. One homeowner expressed frustration with both government and banks and their role in the foreclosure issue. " The city/gov't is reactive rather than proactive. They wait until they're in foreclosure. Banks are the same. No one is helping people keep their homes."Others place blame squarely on the shoulders of banks. "Where it comes to foreclosure we haven't had much luck, but when it comes to sanitation…we have garbage pickup 2 days a week." Another person noted, "I wish bank and other lenders could work with owners to avoid these problems. "

A neighbor also recounted how the owners got "swindled" by the banks.

Stability and Sense of Community

It may not come as a surprise then, when learning of residents' engagement with their neighborhood, to note that almost as frequently as residents spoke of their neighborhoods in negative terms, they related positive views as well. While residents made 47 statements relating positive sentiments about the neighborhood as positive ones, they made 49 negative statements. Sometimes the negative and positive perspective would be contained in the same sentiment. For example, a young male resident noted, "I love the neighborhood with the exception of prevalent drug dealing and prostitution that occurs around the corner." Female renter with 3 young children noted that her neighborhood was "very pleasant -- until about 7 o'clock." A young single man who lived with his family members reported that in his neighborhood, "Sometimes it's quiet. Sometimes it's not quiet." A middle-aged female owner recounted that, "I would say quite safe although (laughing) given some of the news reports what is striking to me is for some reason there's a lot of stuff that happens on this street."

Looking over the comments of our sample, a pattern appears to emerge which may explain how residents cope with instability. It appears that when explaining neighborhood conditions, many residents employ social and spatial boundaries, such as between good places and bad ones, between "us" and "them" and between insiders and outsiders. These schemas are perhaps similar to what many urban residents use to distinguish safe places from unsafe ones. For residents of highly unstable neighborhoods, however, these boundaries are more tightly drawn, encompassing perhaps a street, a section of the street and sometimes just the dwelling unit itself.

First, in reviewing residents' comments, it became clear that many residents draw careful distinctions between well-intentioned insiders and poorly behaved outsiders. One of the clearest distinctions residents make between insiders and outsiders are spatial ones. For example as one woman recounted, "On occasion, there is violence…" But she was also careful to add, "…on the first street over."Another resident vouched for her side of the street commenting, "We haven't had any trouble, as

you say, where we can see. The other side is a different story."Another female homeowner noted that while her street was safe, "There are a couple of streets that have bad residents that flow into our street." Another female renter phrased it more directly, "I find that lots of things happening in the area are done by outsiders." Another female renter reported that while no violence occurred on her street, "A couple of streets over I heard about gang violence, shootings. A female homeowner vouched for her immediate neighbors, saying that the gun violence she witnessed was, "Never people, in this-- who live on these blocks. Or, you know, so it's kind of odd." Another male renter told us about killings that occurred, "further down [the street]." Finally, a male renter literally distanced himself from instability, recounting, "If there is ever any problem it is always at that end."

Residents made distinctions about insiders and outsiders according to housing tenure, classifying homeowners as insiders who maintained stability and renters as outsiders who threatened it. Both homeowners and renters describe homeowners as committed, responsible and admirable community members and compared this to the behavior of renters. For example, an older male renter maintained a positive view of his block explaining, "There's homeowners and they seem to keep it up." Other people suggested that homeowners have a particular responsibility to maintain order. As one older female renter stated, "Resident owners should not let groups of people standing in front of their homes smoking, drinking or even being loud with conversation."A young female renter attributed the low level of crime on her street to the presence of homeowners; I haven't heard any gun shots, which is a plus. [This street has] mainly homeowners and they are older." One middle aged male homeowner attributed instability to tenants, arguing, " A lot of people around here now are tenants, not homeowners ….The tenants are residents, but you know what I mean, they change all the time ." An older homeowner described the abandoned foreclosed home this way, "The abandoned home is the eyesore of the street. In the 27 years I have been back here, the house and tenants have been less than good. [I have] often suspected drug activity. "A middle aged male renter (57) explained his feelings of marginalization because of his housing tenure, "It is difficult for renters to feel a sense of ownership and power in a neighborhood like this.

Renters are temporary. "

However, it was not always the case that residents considered long-term residents to be homeowners. Resident repeatedly cited long-term residents as a source of stability without direct reference to their tenure type. Sometimes residents attributed neighborhood stability to their own long-term presence. As one older female homeowner explained, "I've lived in this neighborhood for the past 30+ years without any major incidents. Neighbors always offered help." Another middle aged man recounted, "Our family has lived in the house since 1974 and everybody knows me and I know them."A middle aged female renter linked the high quality of the neighborhood to the presence of long-term residents.

Residents do, however, make class distinctions based on income. As one older male renter explained, "And I don't like to generalize and category people, but the closer you get to the public housing, and to the, yeah, the closer you get to the end with public housing it's always a problem at that end. Where the private homes are you never see any police come down here, never any fights any argument, you know none of that outlandish language used. Or anything. It's very pleasant on this end."Another older female homeowner expressed a similar view of residents receiving housing subsidies, "This neighborhood is very noisy all times of the day. Most of this can be attributed to the apartment building on the street and surrounding streets. Most of the tenants are young, on assistance and somewhat transient. I do not believe landlords care. "Another older female homeowner attributed the violence occurring on her street to people "running from these [housing] projects over this way." And a third female homeowner detailed how the subsidized housing residents, "are not grateful. Government, tax dollars assisting them with the rent. The increase in crime has occurred since they moved in."

In addition to distinctions residents make by economic class, residents also opposed the development of supportive housing in the neighborhood. One middle aged female homeowner complained that "Recently a "mental house" was built down the street." Another older female homeowner wrote that she hoped that the abandoned, foreclosed home in question would be rehabilitated

and that she "would love to see respectful law-abiding families to move in not rooming house or halfway house."Another homeowner recounted how she initially objected to the City's plans to convert the abandoned, foreclosed home into a "become a transition home for Little Wanderers [kids aging out of foster care]. "However, after the developer had presented the plans before the neighborhood council, she changed her mind and decided, "It will be good if it's done right. New folks, will help them acclimate to life beyond foster care.

Residents of unstable neighborhoods construct a sense of safety by dividing their communities both spatially and socially into areas of positively influencing insiders and negatively influencing outsiders. Making spatial distinctions such as viewing their part of their block as a safe zone and social distinctions between those seen as committed to neighborhood safety and those who are not appears to help residents cope with living in unstable communities.

Year 2

While in Year 1, residents on all blocks lived near an abandoned foreclosed home, in Year 2, the state of the target homes varied, from abandoned, to undergoing renovation, to renovated and unoccupied to renovated and occupied. Given the varied of statuses of the target homes, residents views of these homes varied as well, making systematic differences more difficult to detect. However, several trends were clear. First, many residents expressed an interest in taking ownership of the house whether it was for themselves, their friends and family or the community organizations. For example, one survey respondent wrote, "I feel of my family had a chance to purchase the foreclosed home on our street (our credit not so good), that would be one less problem." Other interview participants detailed their interest in purchasing the home. One neighbor told us how I have a girlfriend and she was interested in buying it." The property in question as a NSP target property and the participant explained that it was quite difficult to learn any information about the property. Because they couldn't get in touch with anyone from the City of Boston, she explained that they went "out on the deck… we were looking, she was trying to peek in from my deck to see in that window . . . you could see that kitchen from my deck." Another neighbor who lived across from a control property and thought he might purchase it as an investment went into

great detail of his repeated and ultimately unsuccessful attempts to learn what institution currently owned the property. After being forwarded to several banks, eventually gave up trying to find out ownership. Other residents we interviewed explained that they considered purchasing the property on behalf of their community group. One man detailed how his neighborhood organization, explaining that the organization "even thought about raising the money and buying [the target property] themselves." Regardless of the intended purchaser, all residents recounted the difficulties they encountered and measures taken when trying to find out sales information.

A second clear theme of resident interactions with the target properties that were undergoing renovation was procurement: residents approached the contractors and offered their services. This occurred at several skill levels, for example, a neighbor who was a licensed electrician explained how an investor who purchased the target home out of foreclosure hired him. "We got into communicating and I told him I was an electrician and they called me a for couple of days [work]." Another resident, who had skills as a painter, approached one of the NSP contractors and received the contract for painting the home's exterior. As his wife recalled, "[My husband] just talked to the guy, [my husband] was out of work and he's been out of work for a long time and he spoke to the guy and he subcontracted him and he painted. They paid him and he painted it." In another case, an enterprising neighbor recalled that she had observed that during the renovation process, "they had different companies come with the plumbing and such and such. But I was, you know, I-I was unemployed….So I was like, you know, you need any help, so he said in September well, you know, possibly you can sweep out the dust." Unfortunately in this case, the contractor did not contact her again regarding the job.

Finally, with the exception of the residents who saw the renovation as an opportunity to sell their services, consistent with the prior year findings, residents did not express much enthusiasm for the renovation. For example, when asked if they had contacted the owner or manager during the renovation process, residents almost always responded that they had not. Importantly, too, in the case of the NSP program properties, when asked if the contractor or manager had contacted the residents during the renovation process, all but one resident said no. This is important because one assumption about the NSP

intervention was that the CDCs renovating the target property would also engage in some outreach to the neighbors. [3]

Typically, our exchange around residents' interaction with the parties renovating the housing proceeded like this:

Interviewer: So during that process, has the owner or the manager of the property contacted you regarding the property or its condition?

Participant: No, no, no.

Interviewer: And for any reason did you contact anyone about the property?

Participant: No, no, no. We mind our own business.

Similarly, when it came to procurement for NSP properties, residents who generated work through the renovation reported this was due to their initiative, not outreach on the part of the community organization.

However, while residents expressed little interest in the renovation process, or as one resident summarized, "leave well enough alone," residents showed much more curiosity about the re-occupation of the target property. For example, when asked "Do you have any other comments about that renovation process as a neighbor? The participant responded, "I just hope they put somebody good to live there." Another resident expressed an active curiosity about the identities of the new occupants of a redeveloped NSP property. She described her thought process, "Is it a rooming house or, or he's renting it out to college students, because I see a—or is it some kind of program that the City is covering up, you know what I'm saying… because of the mixture of the people that are coming and going." Again, the property in question was a program property. In another case, the next door neighbors of a target NSP property took a more active stance. The neighbor updated us on their relationship with the target property being used by a community organization to house young adults aging out of foster

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[3] A separate implementation analysis of this project is forthcoming.

care. "For the ages of the children over there, they seem— Well, I guess the young adults, I shouldn't call them children, but they seem to be doing pretty well over there. We don't have any trouble. Once in a while, the music may be loud, but that's natural for their age, you know? But I mean, I think it was a good thing what they did…because they took in people that were homeless… or maybe even in just closet space in someone's house." The neighbor then recalled taking the initiative to host a welcoming party for the new residents. The intent of the party was not simply to introduce the residents to the neighborhood. The neighbor added that it was also an opportunity to introduce the new residents to the neighborhood norms. "And then we would just kind of casually say that, you know, we want to work on this thing about parties or whatever." Another neighbor explained that he approached the new owner of a renovated control property and found out that, "He told me it's going to be some—it's going to be section 8 he's trying to get to." Other residents more explicitly objected to the idea that the new occupants would be on public subsidy, "We don't want any more affordable housing. We, you know—some of the values of our community group. We're—we want to have a community that we're proud of. That we feel that, you know, shows our values, you know? We all have investments in the community. Most of us in this area are homeowners, and so we want to see our property value go up." This is consistent with the findings in Year 1 where residents expressed a desire for the homes to be re-occupied with home owners.

These resident observations might illuminate the somewhat puzzling quantitative finding that the Sense of Community scores on blocks with rehabilitated properties actually showed a decline. Residents' interest in the new occupants highlights two facts: One, these new occupants represent a new introduction to the neighborhood social group. It is a hardly a surprise to find that the presence of strangers in a community pulls the sense of community down, as Sampson outlined. This could change over time, if the new residents remain and socially integrate into the neighborhood. Secondly, however, residents expressed concern both with the unfamiliarity of the new residents and their housing tenure status. Residents expressed particular concern about incoming tenants who used housing subsidies or supportive housing. While on some level this reaction is similar to the class conscious objections of many residents in affluent neighborhoods to the introduction of lower status residents in their

neighborhoods, it is also consistent with the established findings about the correlates to strong communities. Many of these intended uses of the target homes (halfway homes, transitional homes for youth) make the new residents by design, transitory. Again, some of the strongest associations to high levels of neighborhood social capital, social cohesion and sense of community are length of tenure. Therefore, residents have the force of social science behind them when they object to introduction of temporary households.

Similar to Year 1, many residents made explicit their preference for home-owning residents. As one respondent wrote, "If the homes were more owner occupied. residences/buildings which are managed by companies have no monitoring and the residents don't care. If people cleaned up in front of their home." Another resident summarized his viewpoint this way," Because residents have no ownership, they don't care." Others envisioned an explicit policy to enable resident home ownership, "I feel that if programs were available which may facilitate middle and low income people a possibility to own their own property it may enhance the community and their by kept in better condition "Residents preferred home owners to renters, then, because they perceived home owners to be invested in the neighborhood, long term residents and able to maintain their properties.

A final outstanding issue raised by residents in Year 2 appears to be the increased insecurity around the target homes. That is, despite the fact that more of these homes were occupied, residents more often related anecdotes of squatting, trespassing and crime occurring in the target properties that remained abandoned. Residents' often offered vivid and alarming recollections. As one woman described during the night "drug people were coming in and be doing drugs, [One time] somebody was going to come out of there blood dripping down. I called 911 and they put a big, you know, 2x4 whatever thing over the front door. And they put a big one in the back, and they put one over like a little window that they had for them to crawl into. And when they try to get in there again or loosened it up, I'd call 911 again and they came back and put it back." Thus, it appears that boarding up the property was no longer a sufficient deterrent to determined parties. Some residents did believe

that the renovation of the property would end the anti-social activity. "It's good to see the building being used for the right thing. Before there were streetwalkers using it, and drug addicts figured out how to get in through the back. Sometimes I would see them leaving in the morning. So it being empty brought that kind of thing to our block, until the renovation started."

There are a few potential explanations for the apparent increase in anti-social activity occurring in the target properties. First, the properties had been unoccupied for an additional year, thus adding the amount of time that a potential incident could take place. Second, because there were in general fewer abandoned properties in the neighborhood, the reduction in the stock of vacant properties increased the likelihood that the remaining vacant properties would be the target of anti-social activity. A third possibility has more to do with the research methods than with neighborhood dynamics: it is possible that residents were more comfortable discussing neighborhood problems with the researchers, because they had met them the previous year and developed some sense of trust. Likely, it is some combination of all three explanations. Thus, there could have been an under-reporting of activity in the abandoned properties in Year 1.

After: Resident Neighborhood Concerns

While this is foremost a study of neighbors' reactions to the presence and subsequent rehabilitation of an abandoned, foreclosed home, in both years the qualitative data indicated that when we asked the affected residents to talk about the impact that the foreclosed home had on their residential lives, they often linked this topic to more general neighborhood concerns. As noted earlier, the Year 2 survey asked residents to rank neighborhood concerns, based on the topics that residents raised in Year 1. As indicated in Figure 1,
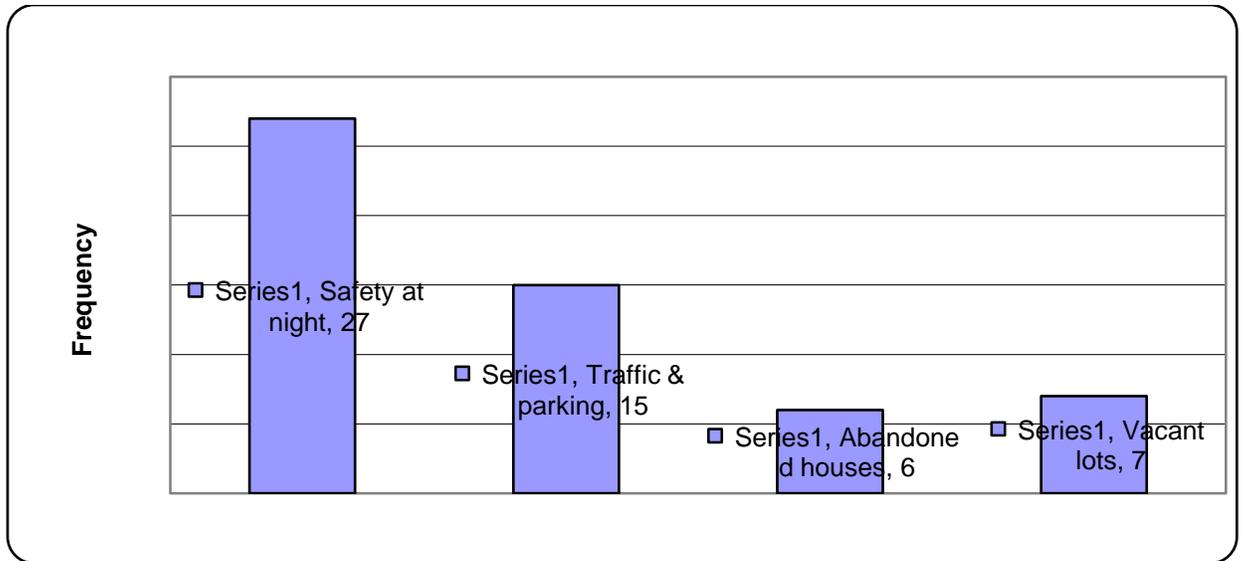
Figure 1: Resident rankings of neighborhood problems

Residents reported being less concerned about foreclosed homes and vacant lots than safety at night and traffic and parking. In fact, respondents ranked abandoned houses as the least concerning problem. Consistent with this ranking finding, while residents offered accounts of misconduct in the foreclosed homes, reports of social disorder in the neighborhood remained high. One respondent's report was typical, "Keep the drug dealers off the street. They all sit in a group they are all on the corner. If I can take drugs and guns off the street it will be better for people and people with sleep good at night. "Another resident explained, "My neighborhood is not safe to sit on the porch because they all stand outside in front of your house young man selling drugs and fighting with gang members I wish a better neighborhood but it is hard for me to walk on my door because their people sitting on my porch." Or in the perhaps hyperbolic words of one resident, "Unsafe, unclean, unpredictable, no values, no morals, no limits, wild, uncivilized, worse than third world countries." These comments also show how crime is connected to general social disorder. As one resident reported, "kids are roaming the streets disrespect elderly and neighbors. Parents have no control over their children."

These resident responses indicate a very low sense of social control in the neighborhood and underscore why resident report of misconduct in the abandoned homes is less extreme than many

assumed. Issues around social control were the most frequently coded theme in the qualitative analysis. Resident complain about people engaging openly in anti-social and illegal activity on sidewalks, in vacant lots and in parks with little formal or informal sanctioning. Therefore, there is less incentive to seek out more covert locations, like an abandoned home, to pursue these activities. Also, an abandoned home represents a risk for a potential trespasser as well.

In our initial set of interviews in Year One, we also noted that residents expressed equal or perhaps greater concern in vacant lots compared to vacant homes. It is interesting to note in Year Two then was residents appeared to be taking action to remediate the vacant lots. For example, one resident detailed how the local resident group was negotiating with the city to transform a vacant parcel into a community garden. On a separate block, the neighborhood association was working on a master plan to turn a series of vacant parcels into an urban farm. The president of the neighborhood association explained that, "At that time we just said we wanted to look into all the possibilities of what could be on this land besides houses…So, we used to kind of just get our heads together. Let's do a farm so we can create some jobs for some of these knuckleheads over here. That are sitting around and they're not working and stuff. And having people in the community work on the farms, right? So, that was like the master plan." Some resident groups simply set out to clean up the vacant lots. As one resident recalled, "In between that, it was like really bad. So one time we had an organized, a group organized a cleanup for right here. And what I did was I prepared food and drinks and they came over, but they were, they gave us garbage bags and plates and things. And we just took up that whole spot over there. Put stuff in the bags and everybody ate chicken and drink something cold to drink, and it was good." In one case, resident members of a community group sought to transform a troublesome vacant lot into a space they labeled a sanctuary. "So we want to preserve a little part of it for that just to keep the—some of the natural habitat there, and we want to create something. Sort of like a little memorial for the people that have lost their life to

violence. Just to represent, you know, a symbol of peace for the community, but we don't want to distract from what the city wants to do with this, the development that we were fighting badly to bring into the community." Not all residents agreed the sanctuary would be a success, however. One resident questioned the project's viability, given the high level of social disorder in the neighborhood. "Who's going to keep the guys out of there from playing cards and drinking beers? Who's going to keep the prostitutes out? I'm the one that calls up all the time for stuff that goes on behind the police station. Like fires, drugs, prostitution. There was one guy living here who was totally naked. He built himself a cardboard house. He thought he was in Vietnam fighting the war. It attracts those kind of people. I'm not saying some day it wouldn't be a great idea. Right now, we have kids in this neighborhood that are dealing drugs and shooting each other." All of the above examples were cases of collective action.

Finally, in Year 2, as in Year 1, residents continued to make a strong call for community. This theme was the most frequently coded in the qualitative analysis. Resident comments varied on a simple identification for the need for community groups, "More community activities to know our neighbors." Others saw the need for community groups to help with crime and property protection, "We used to have, way back when, a neighborhood watch and you know, I don't know what happened to that, but that was something that I remember as being a very good thing when you talk about looking out for each other's homes and stuff like that. "Many residents also made the connection between strong social capital and positive neighborhood conditions. As mentioned in the methods section, we added a question to the survey, "what factors would make your neighborhood more desirable?" Residents had many suggestions, including reducing social disorder and increasing policing. However, the most common response to this question, (25 out of 107 responses) was an increase in community cohesion. Thus residents articulated a strong need for community cohesion

Conclusion

This was a study on the social impact of abandoned home rehabilitation. The quantitative portion found no effect of public policy treatment and a marginal effect of rehabilitation, though not in a positive

direction. Findings also show the influence of homeownership. In both years owner-occupied parcels were in significantly better condition compared with non-owner-occupied parcels. In multivariate models, no demographic characteristics were significantly associated with sense of community. In contrast to resident perceptions, bivariate associations between home ownership and sense of community, and other research indicating that the percent of owner-occupied parcels on the block is likely to be associated with sense of community, we failed to find a significant association in the multivariate models. This may suggest that the relatively small scope of the face-block is not sufficient to capture wider, more diffuse neighborhood effects, in-line with resident perceptions that crime and disorder are often more prevalent on other parts of the block, or on neighboring streets. However, years of residence on the block was significantly associated with sense of community, indicating that residential stability may be more central than homeownership *per se* for promoting feelings of community.

Notably, residents' perceptions of walkability on their block were positively associated with sense of community, indicating that feeling comfortable walking on the block may be one way in which residents gain familiarity with one another, thereby building sense of community. That reports of block walkability operated differently than perceptions of safety (which was not significantly associated with sense of community), highlights the potential importance of block walkability, suggesting that it is not simply individual differences in positive block perceptions. Along these lines, blocks with better average parcel conditions were also associated with positive sense of community; better physical condition may be another factor that promotes walking, time outside, and opportunities to build relationships with neighbors. This again points to the role of homeownership, as owner-occupied parcels were significantly better maintained in both years compared with parcels that were occupied solely by renters.

Despite these positive association with sense of community, in the multivariate regression improvement in average block parcel condition were associated with *less* sense of community. This is consistent with the difference-in-differences regression that found a marginally negative effect of target property rehabilitation in Year 2 compared with Year 1 for sense of community. Thus, the quantitative data appear to reflect qualitative themes around concerns about who moves into rehabilitated properties,

and the fact that newly rehabilitated homes were occupied by strangers. On the other hand, despite overall improvement in parcel upkeep from Year 1 to Year 2 (assessed using only low-cost parcel condition items), neither NSP program status nor rehabilitation status were significantly associated with improvements in parcel condition; thus, although rehabilitation of target properties seems to have a negative effect on sense of community, it is not associated with neighbors' efforts at maintaining their own properties. Further, no association was found between NSP program status and sense of community, raising questions about the implementation of the community engagement aspects of this program.

This study faced a number of problems which might have been interfering with the production of statistically significant results. The first are the relatively small numbers of target properties and universe of participants. Just sixteen target properties and on average, 140 survey participants each year does not allow for much statistical power to detect significant results. In a somewhat related point, we chose to measure the sense of community for residents living in abutting parcels, as this measurement method mirrors those employed the price and crime effects literature. However, it is possible that this logic does not apply for detecting changes to social conditions of the neighborhood and that these changes might be more diffuse. Secondly, the program was not implemented as planned, and just half of the treatment properties were renovated over the study period, rather than all of them, as we anticipated. Thus, the quasi-experimental nature of the design was further compromised. Context matters too. It might be difficult to generalize about findings reported from disadvantaged neighborhoods in the Northeastern United States, especially right after the Great Recession. The housing market -- and the regional economy more generally -- are quite different from those found in places like the Rust Belt.

However, there are also several reasons to take these results -- that is that abandoned home rehabilitation has little impact on social conditions in the neighborhood, and when they do, the effects are negative -- seriously and to take that knowledge to inform policy making. First, is that despite the frequency with which home rehabilitation is employed in neighborhood revitalization strategies, there is little theoretical or empirical support to show how the effort leads to the desired outcomes, except in the case of price. And even here, price gains are modest, depend on residential turnover and have not proven

to be enduring. Second, the findings that were statistically significant are in line with previous findings: homeownership is positively associated with sense of community and negatively associated with home distress. Third, our qualitative findings support our quantitative analyses. When we spoke to residents about home foreclosure and abandonment, they made it clear they do not see these developments as primary threats to neighborhood social conditions. It is not surprising then that they report little enthusiasm for home rehabilitation and re-occupancy as mechanisms for improving neighborhood social conditions. Rather, larger neighborhood dynamics like crime in general and gun violence in particular concerned residents much more than foreclosures on the block face. On the block, anti-social activity engaged in by adults and youth and paralyzing lack of safety, absence of opportunities and oversight for children and youth who live in the neighborhood are residents' stated concerns. Increasing the level of homeownership and community organizing are among the solutions residents propose.

This study then does offer some policy suggestions and ones based on the observations and experiences of the residents whom the policies are intended to reach. As noted above, the most frequent theme by residents was a call for community cohesion. At a very minimum then, policies that provide funds for housing rehabilitation should make some very explicit requirements that recipients also engage in community building. It is notable that they only instance of community building with the new occupants of the target program property was a welcome party initiated by neighbors, rather than the NSP fund recipients. More broadly, however, given the lack of results regarding the rehabilitation, policy makers could start by questioning whether community development funding programs should support home rehabilitation. These results suggest that efforts might be better directed in two areas: community building or homeownership. Given the digital age, community building can take many creative forms, from the traditional block party to Facebook groups. An added advantage of online social networking is that groups can easily link up to other institutional actors, like the police (assuming they maintain digital presence on social networking site like Facebook, Twitter or Google Groups).

Second, residents also identify a need for policy to focus on helping residents become homeowners through proven mechanisms such as home ownership counseling and down payment

assistance. With a ready supply of consumers, the private sector might be incentivized to the work of

housing development. Residents know that one of the many features that distinguishes disadvantaged

neighborhoods from mainstream ones are levels of home ownership and that a structural change –

increasing the level of home ownership in the neighborhood will benefit all residents. This study shows

that residents of high foreclosure neighborhoods are both social structuralists and social capitalists, and

community development stakeholders need to play these dual roles too.

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Table 1
Parcel Data for 2011 and 2012

	2011	2012	2011 – No target properties	2012 – No target properties
Mean	32.9	27.01	28.41	26.59
SD	23.2	17.31	20.59	15.78
Min.	0	-5	0	-5
Max.	110	75	110	75
N	139	139	123	123

Table 2
Regression Results Predicting Change in Parcel Scores from 2011 to 2012 for Non-Target Properties

	NSP Status	
	B	Robust SE
Intercept	0.77	2.45
Block with City-Owned NSP Property	1.42	3.37
	Renovation Status	
	B	Robust SE
Intercept	-1.54	1.90
Block with Renovated Property	4.37	2.99

Table 3
Regression Results Predicting Change in Parcel Scores from 2011 to 2012 Based on Ownership Status for Non-Target Properties

	B	Robust SE
Intercept	1.20	2.73
Parcel is Owner-Occupied	0.41	3.46

Table 4
Survey Respondent Demographics

	M (SD)	%
Years at residence	11.75 (13.16)	
Age	46.04 (17.04)	
Homeowner		26.5
Male		38.1
Black		80.6
Hispanic		12.3
Married		23.6
Employed		52.6
Children in home		40.0

Table 5

Neighborhood Social Indicators by NSP Status

	City-Owned		REO	
	M (SD)	%	M (SD)	%
Sense of community	3.30 (.74)		3.25 (.67)	
Walkability***	2.97 (.88)		3.38 (.67)	
Safe***	2.26 (.87)		2.75 (.77)	
Involved in community groups*		39.1		2.6

Comparison of City-Owned and REO parcels; * *p* < .05; *** *p* < .001

Table 6

Difference-in-Differences Regression Predicting Neighborhood Social Indicators

	Sense of Community	
	B	Robust SE
Intercept	3.32***	0.07
City-Owned Treatment	0.00	0.11
Year is 2012	-0.12	0.11
Treatment x Year	0.10	0.16
Intercept	3.23***	0.09
Property rehabbed	0.13	0.12
Year is 2012	0.11	0.13
Rehab x Year	-0.29[+]	0.16
	Walkability	
	B	Robust SE
Intercept	3.38***	0.09
City-Owned Treatment	-0.44**	0.14
Year is 2012	0.01	0.11
Treatment x Year	0.07	0.18
Intercept	2.98***	0.14
Property rehabbed	0.28[+]	0.16
Year is 2012	0.17	0.17
Rehab x Year	-0.20	0.20
	Safety	
	B	Robust SE
Intercept	2.77***	0.09
City-Owned Treatment	-0.47**	0.15
Year is 2012	-0.04	0.12
Treatment x Year	-0.03	0.19
Intercept	2.39***	0.14
Property rehabbed	0.23	0.17
Year is 2012	0.10	0.18
Rehab x Year	-0.26	0.21

[+]*p* < .10; ***p* < .01; ****p* < .001

Table 7
Regression Predicting 2012 Sense of Community

	B	Robust SE
Intercept	3.59***	0.72
Years at residence	0.01*	0.004
Age	0.00	0.01
Homeowner	0.14	0.14
Live with family/friends	0.12	0.16
Male	0.04	0.11
Black	-0.07	0.15
Hispanic	0.04	0.19
Married	0.07	0.12
Employed	-0.08	0.11
Children in home	-0.03	0.11
Walkability	0.35***	0.08
Safe	-0.02	0.08
Involved in community groups	0.19+	0.10
Rate of homeownership on block	0.17	0.35
Average parcel condition on block	-0.06***	0.02
Average change in parcel condition on block 2011 to 2012	-0.02*	0.01
Target property rehabbed	-0.26+	0.15
Target property is city-owned	0.01	0.14

+$p < .10$; *$p < .05$; ***$p < .001$

Table 8
Correlations Among Neighborhood Social Indicators for Panelists

	1	2	3	4	5
1. 2011 Sense of Community	-				
2. 2012 Sense of Community	0.67***	-			
3. 2011 Walkability	0.37**	0.35**	-		
4. 2012 Walkability	0.45***	0.42**	0.69***	-	
5. 2011 Safety	0.26*	0.12	0.70***	0.46***	-
6. 2012 Safety	0.30*	0.35**	0.45***	0.68***	0.53***

Table 9
Regression Predicting Change in Sense of Community Among Panelists

	B	Robust SE
Intercept	-0.84	1.30
Years at residence	0.00	0.01
Age	0.00	0.01
Homeowner	-0.02	0.41
Live with family/friends	-0.13	0.25
Male	0.31	0.32
Black	0.40	0.43
Hispanic	0.34	0.45
Married	0.19	0.35
Employed	-0.31	0.25
Children in home	0.06	0.27
Walkability	-0.04	0.11
Safe	0.00	0.15
Involved in community groups	-0.27	0.27
Rate of homeownership on block	0.13	0.69
Average parcel condition on block	0.01	0.03
Average change in parcel condition on block 2011 to 2012	0.00	0.02
Target property rehabbed	0.16	0.26
Target property is city-owned	0.27	0.27

$^{+}p < .10$; $^{*}p < .05$; $^{***}p < .001$