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Which Way to Recovery?
Housing Market Outcomes and the Neighborhood Stabilization Program

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Abstract

To help communities recover from the foreclosure crisis, Congress enacted a set of policies known as the Neighborhood Stabilization Program (NSP). NSP's objective was to mitigate the impact of foreclosures on neighboring properties, through reducing the stock of distressed properties and removing sources of visual blight. This paper presents evidence on production outcomes achieved through the second round of NSP funding (NSP2), and discusses the housing market context under which the program operated from 2010 to 2013. Two key findings emerge. First, local grantees undertook quite different approaches to NSP2. The type and scale of activity, expenditures per property and spatial concentration vary widely across grantees. Second, census tracts that received NSP2 investment had poor economic and housing market conditions prior to the program, but generally saw improved housing markets during the program's implementation period, as did non-NSP2 tracts in the same counties. Based on these findings, we outline topics and suggested approaches for additional research.

Keywords: Urban redevelopment; mortgages; housing markets; federal housing policy; fiscal federalism
JEL codes: H5; H7; R1; R3; R5

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Section 1) Introduction

The U.S. housing market experienced unusually volatile cycles over the past 15 years. The S&P/Case Shiller National Home Price index increased by 80 percent from 2000 to 2006, accompanied by construction booms in many parts of the country. These gains ended abruptly with a surge in mortgage defaults and foreclosure filings during 2006-2009, and price declines of more than 30 percent. The tsunami of foreclosures and subsequent housing collapse created ripples throughout the financial system, precipitating the longest U.S. recession since the Great Depression. However, these national statistics conceal large geographic variations in housing market conditions prior to and during the foreclosure crisis (Brown et al 2012). Not all localities benefitted from rising prices during the boom, and some cities and neighborhoods experienced disproportionate impacts from foreclosures. Financial distress from the housing market collapse was particularly prevalent among older, central city neighborhoods in Rust Belt cities such as Cleveland and Detroit, as well as among newly built exurban fringes in the "Sand States" of Florida, California, Arizona, and Nevada.

Federal and local policymakers adopted a number of programs to mitigate impacts of the foreclosure crisis and repair damage to affected borrowers, financial institutions, and communities. For instance, direct financial assistance to banks attempted to ensure the stability of the overall financial system. The Home Affordable Modification Program sought to reduce debt burdens on underwater homeowners (Fleming 2012). Beginning in 2007, Congress adopted a series of policies known as the Neighborhood Stabilization Program (NSP), designed to assist neighborhoods that were severely affected by concentrated foreclosures. Under the program, the U.S. Department of Housing and Urban Development (HUD) awarded grants to state and local governments and qualified non-profits to support activities such as acquisition and rehabilitation

of foreclosed properties, redevelopment of affordable housing, demolition of blighted structures, land banking, and homebuyer assistance. NSP's objective was to mitigate the impact of foreclosures on hard-hit neighborhoods and communities through reducing the stock of distressed properties, removing visual blight and sites of crime, and signaling to residents that the neighborhoods were capable of improvement. Totaling $6.9 billion across three rounds of funding, NSP was the largest effort to address the impact of foreclosures on neighborhoods and was a substantial influx of resources for many local communities.

In this paper, we examine production outcomes from the second round of NSP (hereafter, NSP2). NSP2 was designed around three distinctive features (Immergluck, 2013; Joice, 2011). First, the range of allowable activities gave grantees flexibility to tailor their strategies to local housing market conditions. Second, to ensure that NSP2 funds were spent quickly – as required of other stimulus programs during the Great Recession – grantees were required to expend funds within three years of the initial allocation. Third, grantees were encouraged to concentrate their investments in a few targeted neighborhoods, at sufficient scale to improve housing market outcomes. The program's relatively decentralized nature allowed grantees to pursue fundamentally different strategies in different cities—an approach that has potential benefits for program effectiveness but raises complications for evaluation. This paper presents the first systematic evidence on NSP, and makes several contributions to our understanding of the program. We begin by documenting the housing outcomes that NSP2 produced (i.e., the number, type and mix of housing units treated) and discuss how implementation strategies and outcomes varied across local grantees. Then we describe how key housing market conditions – prices, financially distressed and vacant properties, and investor activity – changed in NSP2 neighborhoods during the program's implementation period. We also outline a future research

agenda and suggest feasible empirical approaches to several questions based on lessons learned about NSP's structure and implementation.

The outcome analysis presented in this paper uses administrative data on NSP2 production from 28 grantees across 19 counties, collected during an evaluation of NSP2 for HUD. Two key findings emerge from the analysis. First, local grantees took quite different approaches to NSP2. Collectively, the grantees in this study spent just over $1 billion of NSP2 funds to acquire, rehabilitate, demolish, finance, or otherwise affect approximately 6,400 housing units. Choice of activity, type and scale of housing treated, geographic concentration and expenditures per property varied widely across counties and grantee organizations. Second, census tracts targeted for NSP2 investment had poor economic and housing market conditions prior to NSP2, but generally saw improved housing market outcomes during the implementation period. Changes in specific housing indicators varied across housing markets and followed similar patterns in both NSP2 and non-NSP2 tracts in sample counties.

The remainder of this paper is organized as follows. Section 2 reviews prior literature to provide some context for the foreclosure crisis and for the NSP program. Section 3 provides an overview of the data and empirical methods used in the study. Section 4 presents empirical results, and Section 5 outlines a future research agenda and concludes.

Section 2) Review of existing literature

We briefly review three relevant themes in prior literature: the impact of foreclosures on neighborhood economic and social conditions; previous studies of the Neighborhood Stabilization Program; and studies of prior federal housing policies that are similar to NSP.

2.1) Impacts of foreclosures on surrounding neighborhoods

In the wake of the foreclosure crisis, a growing academic literature has explored how foreclosures impact the value of nearby properties and neighborhood social conditions. Four mechanisms through which foreclosures create spillover effects are commonly discussed. First, the visual blight caused by poorly maintained properties may reduce the value of neighboring homes in the eyes of potential buyers. Second, completed foreclosures increase the supply of for-sale properties in the neighborhood. Third, the presence of foreclosed properties may be a negative signal to both sellers and buyers about the future stability of the neighborhood and the risk associated with a home purchase. Fourth, the lower sales prices of foreclosed or pre-foreclosure properties may affect the assessed value of neighboring homes if foreclosed properties are used as comparable properties for setting list prices. NSP is intended to address the first three mechanisms by removing sources of blight, placing new homebuyers in rehabbed properties, and sending positive signals about future expectations. Sales of completed NSP properties also provide a pool of non-distressed sales to serve as comparables.

A larger and growing empirical literature has documented significant negative impacts of foreclosures on neighborhood housing prices, generally focusing on a single city or MSA (for a selection, see Fisher, Lambie-Hanson and Willen 2013; Immergluck and Smith 2008; Hartley 2010; Leonard and Murdoch 2009; Rogers and Winter 2009; Schuetz, Been and Ellen 2008; Whitaker and Fitzpatrick 2013; Yin Rosenblatt and Yao 2009). These studies have focused on a variety of local housing markets, including Boston, Chicago, Cleveland, Dallas, New York City and St. Louis. A few papers analyze multiple housing markets (Ihlanfeldt and Mayock 2013; Campbell et al 2011; Anenberg and Kung 2013). An advantage of the single-market approach is that it implicitly controls for factors such as local housing market conditions, state foreclosure process, and other economic or regulatory conditions that could affect the size and duration of

spillover impacts. Conversely, a limitation is the difficulty of extrapolating results to other locations. Given the diversity of settings, it is notable that most studies find evidence that foreclosures generate negative price externalities of around one percent on properties in the immediate vicinity, with impacts decaying over time and distance. A few studies have used national samples (Gerardi, Rosenblatt, Willen and Yao 2012, Mian Sufi and Trebbi 2011) and have reached largely similar conclusions. The results also suggest that foreclosed properties are "contagious" (Harding, Rosenblatt, and Yao, 2009), producing a series of negative spillover effects of increased foreclosures throughout the surrounding neighborhoods.

2.2) Assessments of the Neighborhood Stabilization Program

Relatively little research on NSP has been done, likely because the first two rounds of funding have only recently been completed. In addition to the HUD-sponsored evaluation, the research so far consists of two working papers and one policy report produced for HUD.

Ergungor and Nelson (2012) examine the impact of NSP (mostly the first round) on vacancy rates in Cuyahoga County from 2006 to the end of 2010. They compare vacancy rates of former real estate owned (REO) properties purchased with NSP funds to vacancy rates of comparable former REOs, not funded through NSP. They find that NSP properties tend to be older, smaller, lower valued, and located in more heavily minority neighborhoods. Investors are the most common purchasers of former REO properties. The authors conclude that in NSP targeted areas, "vacancy rates decline if the property was purchased out of REO by an individual" (presumably an owner-occupant), compared to REO properties purchased by investors or non-profits.

Graves and Shuey (2013) conducted a small scale, mostly qualitative analysis of changes in social conditions around properties that were rehabbed using NSP funding. The study area

includes 16 city blocks in Boston, half with NSP-rehabbed properties (one per block) and half with non-NSP vacant former REOs. The authors conducted visual inspections and surveyed nearby residents. Notably, they find that only half of the NSP properties were renovated or undergoing renovation, while seven of the eight control properties had been rehabbed. The authors find no significant difference in residents' perceived sense of community between NSP blocks and control blocks. Strikingly, most residents on both treatment and control blocks did not realize that the vacant homes had undergone foreclosure and did not list the presence of vacant homes as a substantial source of concern. Boston had unusually low foreclosure and vacancy rates, relative to other NSP grantees, so it is unclear whether these results can be extrapolated to other cities.

The Reinvestment Fund has investigated the spatial concentration of NSP properties and changes in prices and vacancy rates in NSP neighborhoods (TRF 2013). The report identifies clusters of NSP investment and compares changes in housing prices and vacancy rates between each NSP cluster and three matched block groups ("comps"). The study concludes that half of NSP clusters performed better on housing prices than two or three comps, while half performed better than zero or one comps. No tests of statistical significance for the comparisons are presented. Essentially these results are consistent with expectations of a random draw: if housing prices in NSP clusters do not really differ from other neighborhoods, the probability that housing prices in an NSP cluster fall in the upper half of the distribution would be 0.5.

2.3) Effectiveness of similar federal housing policies

Relative to previous housing and community development policies, NSP2 is difficult to categorize neatly. Like traditional public housing or many urban renewal programs, funds were targeted directly at places, rather than "people-based" programs that target individual

households, such as Section 8 voucher holders. However, the broad goals and flexible set of activities allowed under NSP2 overlap with at least three different categories of prior policies: blight removal, development and/or rehabilitation of affordable housing, and homebuyer assistance. Below we briefly recap some of the previous federal policies applicable to each of those goals.

Blight removal through large-scale demolition has been undertaken in various forms prior to NSP2, from the controversial urban renewal programs of the 1940-1960s (Jacobs 1961, Wilson 1963, Teaford 2010), to more recent iterations such as HOPE VI and the exercise of eminent domain. In each case, the goal was to improve neighborhood quality and property values through removing "blight" – often a vaguely defined term and subject to differing interpretations. Urban renewal and eminent domain have been used to demolish both residential and commercial structures, often privately owned properties. HOPE VI was more narrowly targeted, applying only to federally subsidized public housing properties. Empirical research on the effects of these programs – especially HOPE VI – on neighborhood economic conditions has produced mixed results (see, for instance, Abt Associates 2003; Griswold et al 2014; Zielenbach and Voith 2010; Pooley 2014). No consistent patterns are observable from these studies on housing market outcomes such as housing prices, vacancies, and crime rates. NSP2 differs from these previous blight removal policies in two important ways. First, demolition conducted under NSP2 primarily targeted single-family houses that were vacant following foreclosure. Second, most grantees using NSP2 for demolition did not replace the blighted structures, and generally expected that the cleared land would remain vacant for some time.

The majority of NSP2 funds were used for rehabilitation and/or development of affordable housing – a goal of many prior housing programs, including public housing, Low

Income Tax Credits (LIHTC), and the Community Development Block Grant program (CDBG). Again, a notable difference between NSP2 and these earlier programs is that most of the NSP2 funds for rehabilitation or redevelopment produced scattered site, single-family detached houses, while LIHTC and CDBG are frequently used for larger multifamily structures. Several papers have found positive price spillovers from development and rehabilitation of medium-to-large federally subsidized multifamily housing properties in New York City (Ellen et al 2007; Ellen and Voicu 2006; Schwartz et al 2006). Research from other cities has found mixed results on LIHTC developments (Baum-Snow and Marion 2009), CDBG (Galster et al 2004; Pooley 2014), and housing rehabilitation sponsored by local non-profits (Smith and Hevener 2011). These studies vary in geographic area and methodology as well as programs studied, making it difficult to draw consistent conclusions about the effectiveness of publicly-funded housing rehabilitation.

Relatively few grantees used NSP2 purely as a housing finance tool, either for multifamily development or homebuyer assistance. Programs such as CDBG and HOME can be used for homebuyer assistance, but this use of the programs has received less attention from researchers. A recent study by Di, Ma, and Murdoch (2010) of a Mortgage Assistance Program in Dallas finds that low concentrations of properties financed through the program do not adversely affect nearby property values, but that high concentrations can depress property values.

Section 3) NSP2 overview and study design

This study uses data collected during a recent HUD-sponsored evaluation of NSP2 to assess the program's production outcomes. Researchers collected administrative data from a sample of NSP2 grantees, interviewed key program staff at the grantee organizations and, together with several secondary data sources, analyzed these data to learn how NSP2 was

implemented, how outcomes and implementation varied across grantees, and how local housing markets changed during program operation.

3.1) NSP2 overview and study goals

All three rounds of NSP were intended to improve housing market outcomes for neighborhoods with high concentrations of foreclosures and/or vacant properties. NSP2 was designed to correct several limitations of NSP1, particularly achieving greater spatial concentration of investment and targeting funds to organizations with demonstrated capacity to carry out the work under short deadlines (Joice 2011). NSP2 also expanded the pool of eligible grantees to include qualified non-profit organizations. HUD determined the initial eligibility of neighborhoods (census tracts) based on foreclosure and/or vacancy rates.[1] Local or state government agencies, as well as qualified non-profits, applied to HUD for funds, which were allocated through competitive bidding. Applications had to indicate the census tracts in which grantees intended to work, the type of activities they intended to carry out, and provide evidence of organizational capacity (prior experience carrying out similar work). HUD allocated grant funds in January 2010; grantees were required to obligate 50 percent of funds by February 2012 and 100 percent of funds by February 2013.

NSP2 funds were awarded to 56 grantee organizations operating in 133 counties across 27 states. More than half the grantees were local public agencies, such as city/county housing and redevelopment agencies, who used NSP2 funding within their primary political jurisdictions. Four state governments (Massachusetts, Michigan, Ohio, and Oregon) were responsible for administering NSP2 across multiple localities within the state. The remaining grantees were non-profit organizations; most of these also implemented NSP2 in a single location, but four

[1] Throughout this study, census tracts serve as our proxy for neighborhoods, because tracts are the geographic unit used by HUD to determine eligibility for NSP2 funds and the areas that grantees targeted.

large non-profits (Center for Community Self-Help, Chicanos Por La Causa, Habitat for Humanity International, and The Community Builders) created national consortia that worked in multiple cities and states.

This analysis seeks to understand how NSP2 was implemented in different market contexts and how housing markets in NSP2 neighborhoods changed over time. Specific research questions include:

1) What type and quantity of housing investments were made by NSP2 grantees? How spatially concentrated were NSP2 investments?
2) How did implementation strategies and production outcomes vary across local areas?
3) What housing market conditions prevailed in NSP2 neighborhoods prior to program implementation, and how did conditions change over time?

Data for the analysis was collected from 28 grantee organizations working in 19 counties. The counties were selected to offer diversity in underlying housing markets (i.e. price levels and trends, composition of the housing stock), and to include large grant recipients who represented the bulk of NSP2 funds (Table 1). For purposes of sampling and analysis, counties are grouped into four general housing market types. Counties in Sand States (Arizona, California, Florida, and Nevada) experienced high housing price appreciation and high volumes of new construction during the boom period and dramatic price declines during the bust. East Coast counties (Kings County NY, Cook County IL, and Washington DC) also saw large price appreciation during the boom period, but with more modest rates of new housing construction.[2] Declining counties (Ingham and Wayne Counties MI, Cuyahoga County OH, and Little Rock County AR) had experienced declining population and housing values for many years before the onset of the

[2] Cook County is grouped with East Coast counties because of similarities in pre-NSP2 housing market trends, rather than geographic proximity.

crisis. The final group of counties is referred to as Moderate because these counties (although quite geographically and economically diverse) saw fairly moderate rates of housing appreciation and depreciation during the period, generally without construction booms. Almost all of the sample counties had received investments through the first round of NSP funding as well, although in some cases the grantee organizations changed (for instance, NSP1 funds were administered through the state government while NSP2 funds were allocated to the city/county).

3.2) Data description

Each grantee organization provided data on the location, property characteristics, and timing of its NSP2 investments. Final records were collected in summer 2013, shortly after the deadline for obligating 100 percent of funds.[3] Many grantees reported that construction had just been completed shortly before data collection, or in some cases was still ongoing. Researchers interviewed key staff at each grantee organization to learn how they developed their strategies, selected neighborhoods and properties for intervention, what challenges grantees faced during implementation, and their perception of how NSP2 affected targeted areas.

The analysis also makes use of various secondary data sources on foreclosures, housing sales, vacancies, and tract-level economic and social indicators. The full list of variable definitions and data sources is shown in Appendix Table 1. More discussion of data cleaning and variable construction is available in the technical appendix of the full evaluation (Abt Associates 2014).

Property-level data on housing transactions (obtained from Core Logic) are used to identify properties that were sold and their sale price, whether properties were purchased by an

[3] The obligation deadline applied to NSP2 funds initially allocated to grantees from HUD. Grantees that rehabbed or redeveloped properties received additional income when those properties were sold, and could use this additional program income for further work. There is no deadline for obligation or expenditure of ongoing program income.

investor or owner, and properties in financial distress. These data include all residential properties with a recorded transaction between January 2000 and February 2013. Sales prices were drawn from arms-length transactions of one-to-four family properties and condominiums. To measure the prevalence of financial distress in NSP2 targeted areas, we construct an aggregate count of all properties in any stage of distress. A property enters distress with a foreclosure filing (also referred to as notice of default or *lis pendens*) and remains in distress until it is sold to a new owner-occupant or investor owner. This may occur prior to foreclosure, at the foreclosure auction, or after the property becomes REO. The buyer name on property transaction records was also used to determine the percent of housing sales in which properties are purchased by an investor rather than an owner-occupant.[4]

Vacancy status was obtained from U.S. Postal Service (USPS) data. Tract-level vacancy counts are available for each quarter from 2000 to March 2013, shortly after the end of the NSP2 period. We define vacant properties for two classes of USPS properties: those where mail has not been collected for at least 90 days, and properties that are not collecting mail and are not active for mail delivery.

The study also uses a variety of publicly available secondary data sources. Population counts and demographic information were obtained from the 2000 decennial Census and the 2005-2009 American Community Survey. Specific variables of interest include population density, income and educational attainment, racial and ethnic composition, and composition of the housing stock.

[4] Consistent with the prior literature, investor purchases are identified by corporate entities in the purchaser name, mailing address of the purchaser, and multiple purchases by the same entity. For more discussion, see Ellen, Madar, and Weselcouch, 2013; Fisher and Lambie-Hanson, 2010; and Immergluck, 2013.

3.3) Empirical methodology

The first part of the analysis focuses on housing production outcomes from NSP2: the types of activities pursued by grantees, the number of housing units affected, NSP2 dollars expended, spatial concentration, and the timing of investments. These descriptive statistics are presented in a series of cross-tabulations and graphs, aggregating the administrative data collected from grantees. NSP2 outputs are tabulated at the property level and at the neighborhood level (census tract). We are particularly interested in geographic variation in activity types, production levels, expenditures, and spatial concentration.

To measure the concentration and neighborhood scale of NSP2 investments, we construct two metrics. First, we calculate the number of NSP2 properties and value of NSP2 expenditures for each census tract with any NSP2 investment. Second, we calculate a nearest neighbor index for each NSP2 property (Clark and Evans, 1954; Fischer and Harrington, 1996). The index is essentially an average distance from each property to its five spatially closest NSP2 properties, with increasing index values indicating greater average distances or lower spatial concentration. The index is constructed as shown in Equation 1. d_{ij} is the pairwise distance between each NSP2 property (i) and all other NSP2 properties (j).

(Eq 1) $$\overline{D_{min}} = \frac{\sum_{j=1}^{n} Min(d_{ij})}{n}$$

The second part of the analysis examines housing market conditions for census tracts that received NSP2 investment. We begin by summarizing pre-NSP2 housing market conditions (prices, structure types, sales volume, and investor purchases), indicators of housing market distress (vacancies and financially distressed properties) and population characteristics. NSP2 tract conditions are compared to non-NSP2 tracts in the sampled counties. As intended by HUD and Congress, NSP2 investments were made in tracts with highly distressed housing markets and

weak fundamentals—low income and educational attainment, housing prices, and homeownership rates—prior to intervention. However, because NSP2 funds were limited, and grantees were encouraged to concentrate their investments, not all initially distressed tracts received NSP2 investments. For descriptive purposes, we divide non-NSP2 census tracts in the sample counties into two groups based on the median housing price in 2008 (during the recession but prior to NSP2 implementation). The large majority of NSP2 tracts had prices below median value in their counties, so we would anticipate that the trajectory of housing markets in NSP2 tracts would more closely follow that of other lower-value tracts. To illustrate the volatility of housing markets during the past 15 years, and show the different trajectories of NSP2 tracts and the two groups of non-NSP2 tracts in different housing markets, we present data on four housing indicators during the boom and bust years and during NSP2 implementation period. This allows us to observe whether NSP2 tracts follow generally similar time trends to other low-value tracts, and whether low- and high-value tracts behave differently over time.

The final piece of the analysis shows the percentage change in each housing market indicator from 2008 to 2013 for the three groups of census tracts (NSP2, other low-value and high-value), tabulated separately by housing market type. The four outcome measures illustrate a range of responses in housing markets during the latter part of the housing bust and into the recovery period, providing a comparison of NSP2 tracts to other tracts in the same market, and comparing recovery rates across the four housing market groups.

Section 4) Results

NSP2 was intentionally designed to be flexible, so that grantees could tailor their approaches to local housing market conditions and organizational expertise. Not surprisingly,

therefore, approaches to and outcomes from NSP2 vary considerably across local grantees with some discernable patterns across broad housing market types. Variation is apparent in activity type, production scale, per-property expenditures, and spatial concentration. Also in accordance with the program's design, tracts that received NSP2 investments had initially weaker housing markets and economic conditions than typical tracts in sample counties. In general, NSP2 tracts saw improved housing market outcomes during the program's implementation period, as did non-NSP2 tracts in the sample counties.

4.1) Approaches and outcomes vary across regions & activities

Through summer 2013, NSP2 grantees working in the nineteen sample counties had obligated $1.04 billion in NSP2 funds to treat 6,356 properties (Table 1). This translates into an average of $54.5 million and 335 properties per county, but the size of NSP2 investments varied considerably. Los Angeles County received the largest allocation of NSP2 funds at $220 million, spread across six local grantees. However, Wayne County, MI (home to Detroit) treated by far the largest number of properties (nearly 2,000), with a much smaller NSP2 allocation of $75.6 million. That the rank order of counties varies depending on whether investment size is measured by expenditures or properties reflects grantees' different approaches. In Wayne County, the State of Michigan concentrated mostly on demolitions while Los Angeles County's grantees primarily invested in acquisition and rehabilitation. This variation is also evident in the average NSP2 funds per property (last column). The four counties with the lowest NSP2 dollars per property – Cuyahoga OH, Wayne MI, Pulaski AR and Ingham MI – are all located in Declining markets and focused on demolition. Kings County NY (Brooklyn) had the highest per-property expenditures; grantees there financed redevelopment of multifamily properties.[5]

[5] Data on the number of housing units was missing or inconsistent for many properties, so we are not able to calculate per-unit expenditures for multifamily properties.

The differences across activities in production volumes and per-property expenditures are shown in Table 2. Acquisition and rehabilitation accounted for 36 percent of all NSP2 properties treated, but 64 percent of NSP2 expenditures. Demolition accounts for 44 percent of properties, but only 3 percent of funds. Most grantees doing demolition did not purchase the property prior to demolition, which reduced the costs relative to acquisition and rehab, and the labor and materials costs in demolition is generally less expensive that than required for rehabilitation or redevelopment. Together, rehabilitation and demolition make up 80 percent of NSP2 properties and two-thirds of expenditures. Land banking was the least frequently used activity, and stand-alone financing was also relatively scarce. The final column in Table 2 shows the average per-property cost by activity type. Not surprisingly, redevelopment – which sometimes involved removal of an existing structure as well as new development – had the highest cost per property, at $375,000, followed by acquisition and rehab ($290,000), and multiple activities (often a combination of demolition and redevelopment, at $228,000/property).

The most fundamental part of grantees' strategy – what activities to undertake – varied consistently across housing market types (Table 3). In Sand States, acquisition and rehab was the dominant activity, both in share of properties (76%) and share of funds expended (73%). In Declining counties, more than three-quarters of NSP2 properties were demolitions, but redevelopment and rehabilitation together accounted for more than half of all spending. The distribution of activities was more heterogeneous among East Coast and Moderate counties, in part because of different strategies across counties within each of these groupings. For instance, in the East Coast counties, Cook County rehabbed 60 percent of properties, using 90 percent of its funding, with most of the remaining properties being demolished. Kings County split its efforts between financing and redevelopment, while Washington DC split its funds between

rehab and financing. Among the Moderate counties, acquisition and rehab was also the dominant activity. Most of the demolition in Moderate counties occurred in Philadelphia.

Comparing the per-property expenditures across market types also reveals some interesting patterns. Redevelopment was the costliest activity in all markets. Costs per property ranged from $300,000-400,000 in three of the market types, but were around $1.3 million per property in the East Coast. Most of the redevelopment occurred in Kings County (Brooklyn), which is one of the most expensive housing markets in the U.S., and the properties were mostly multifamily structures. Acquisition and rehab costs were also highest in East Coast counties, while Declining counties had the lowest per-property rehab costs – unsurprising given average housing values in Detroit, Cleveland, Little Rock, and Lansing. Demolition was the lowest cost activity in all markets, but even that varied from under $10,000 per property in Declining markets to nearly $30,000 per property in Cook County (the only East Coast county to undertake demolition).

Among the 19 counties sampled, rehab and redevelopment activities focused mostly on one-to-four family structures (Table 4).[6] This is particularly pronounced in the Sand States, where 88 percent of NSP2 properties were in one-to-four family buildings. East Coast grantees used NSP2 funds to rehab and redevelop a more diverse building stock, with about one-third of NSP2 properties composed of one-to-four family buildings, 28 percent multifamily structures, and 19 percent condominiums.

An important difference in program design between NSP1 and NSP2 is NSP2's emphasis on concentrated investment. Whereas NSP1 resulted in small amounts of funding being spread

[6] Demolished or land-banked properties had no observable structure type, post treatment, and information on structure type or unit count was missing for many of the financed properties. Unit counts are missing or inconsistent for most properties, thus no analysis can be done based on size of multifamily properties.

over spatially dispersed areas, NSP2 encouraged grantees to spend sufficient funds in targeted areas to achieve a scale of intervention that could halt the downward spiral. Based on the nearest neighbor index, spatial concentration of NSP2 properties varies considerably across the four market types (Figure 1). NSP2 investments were most concentrated in Declining counties; 60 percent of NSP2 properties were located within 0.1 miles of five other NSP2 properties, and over 90 percent within one-quarter mile. Concentration also was fairly high among East Coast and Moderate counties, where about 75 percent of NSP2 properties were within one-quarter mile of five other properties. But Sand States properties were more dispersed: fewer than half of NSP2 properties were located within one-quarter mile from the five nearest NSP2 properties.[7]

Other indicators of scale are the number of NSP2 properties and expenditures per census tract (because tracts were used to define eligibility, this is our definition of "neighborhood"). In the 19 counties selected for analysis, 862 census tracts—about 10 percent of all tracts in those counties—received some NSP2 investment. To put the size of NSP2 investments in context for the size and value of NSP2 tracts, Table 5 shows the average number of NSP2 properties, divided by total housing units in the tract, and the average NSP2 investment, divided by tract median housing price.[8] Across all housing markets, 5.4 properties per 1000 housing units (i.e., about 0.5 percent of houses) received NSP2 funding, with total NSP2 expenditures equivalent to 25 times the median housing price. NSP2 tracts in Declining counties had the largest relative investments, with tracts in Sand States and East Coast counties seeing the smallest investments.

[7] Nearest-neighbor indices that measure the distance from NSP2 properties to both NSP1 and NSP2 properties have very similar distributions, because NSP1 investments were considerably more dispersed across space. Results available upon request from authors.

[8] Housing unit counts are taken from the 2005-2009 ACS, median prices as of 2009 from Core Logic. The numbers vary slightly when using housing units in 1-4 family properties, or a different year of housing prices, but the general range and differences across market types are similar.

The relatively small scale of NSP2 per census tract reduces the likelihood that NSP2 will have measurable impacts on tract-level housing markets for the average treated tract.

Because NSP2 was part of the overall economic stimulus, and because a goal of the program was to provide immediate support to hard-hit neighborhoods, grantees had a fairly short window during which to obligate the funds – a challenge compounded by the difficulty of acquiring properties in various stages of financial distress. Figure 2 shows the timing of completed NSP2 interventions. HUD awarded NSP2 grants in January 2010; grantees had to obligate 50 percent of funds by February 2012 and 100 percent of funds by February 2013. Some grantees layered NSP2 onto projects started with NSP1 (or used NSP3 funds to complete NSP2 projects), complicating the question of when projects appeared complete to external observers. By the fourth quarter of 2012, about two thirds of NSP2 projects had been completed. Therefore, we only observe the performance of housing markets for a short period of time after implementation of most NSP2 investments.

4.2) NSP2 neighborhoods had weak but improving housing markets

NSP2 grantees targeted their investments to census tracts that had weaker housing markets and more signs of economic distress prior to NSP2 than other tracts in the same county (Table 6). In 2008, housing prices in NSP2 tracts were less than half those in non-NSP2 tracts (about $150,000 per housing unit relative to $310,000), although price appreciation during the housing boom was similar in NSP2 and non-NSP2 tracts.[9] NSP2 tracts had greater prevalence of properties in any stage of mortgage distress (the inventory of properties in a tract that had received foreclosure notice, completed a foreclosure sale, or in REO). About 58 properties per 1,000 housing units were in some stage of distress in NSP2 tracts, compared with 32 properties

[9] All dollar values are adjusted to constant 2012 values, using the CPI for all urban consumers, by census region.

per 1,000 in non-NSP2 tracts. The vacancy rate in NSP2 tracts was substantially higher, as was the prevalence of investor purchases. Some of the differences in housing outcomes can be explained by differences in population characteristics. On average, NSP2 tracts had lower median household incomes and lower educational attainment (higher share of residents with only high school degrees). They had larger shares of black and Hispanic residents and slightly lower population density. Although the housing crisis hit neighborhoods in central cities as well as those in suburban or exurban locations, within the 19 sample counties, tracts that received NSP2 investment were more likely to be in central cities. These descriptive statistics suggest that grantees did indeed focus their NSP2 investments in low-income tracts with distressed housing markets, which the program was intended to serve.

To illustrate the volatility of housing markets over the past 15 years, Figures 3-6 show changes in several housing outcomes from 2000-2013 for three groups of tracts: NSP2 tracts, non-NSP2 tracts with below-median housing values in 2008, and non-NSP2 tracts with above-median value tracts. Consistent with the S&P/Case Shiller National Home Price index, housing prices in the sampled counties increased rapidly during the boom years (2000–2006), collapsed during the bust (2007–2009), and stabilized somewhat during the recovery (2010–2013). As expected, the biggest swings in prices occurred in Sand States, with the least variation in Declining markets (Figure 3). For all four market types, prices in NSP2 tracts were very similar to other low-value tracts in the same counties, and prices generally followed the same patterns over time. Within housing market types, NSP2 and other low-value tracts experienced similar time trends to high-value tracts.

The prevalence of financially distressed properties rose steadily throughout the bust years, peaking around 2009 for most market types, and then declined somewhat during the

recovery period (Figure 4). Again the biggest swings occurred in Sand States, with NSP2 tracts showing higher distress rates than other low-value or high-value tracts. The peak year of distress varies slightly across market types—tracts in Declining and Moderate markets hit their peak in 2008, while Sand States and East Coast tracts peaked in 2009. NSP2 tracts in Moderate counties had higher rates of distress than other low-value tracts, while in East Coast and Declining counties, NSP2 tracts had similar distress rates to other low-value tracts.

Vacancy rates also show large differences across market types (Figure 5). Vacancy rates are highest throughout years in the Declining markets, with vacancies continuing to rise even during the recovery. Among East Coast counties, NSP2 tracts (mostly in Cook County) had higher vacancy rates than other low-value or high value tracts. In Sand States and Moderate counties, vacancies are relatively low and stable over time.

Figure 6 shows an increase in investor purchase shares over time—implying a decline in owner-occupancy over time—but with considerable variation across markets. Tracts in Sand States experienced low rates of investor purchases during the boom, higher rates after 2009, with similar investor activity across the three tract groupings. NSP2 tracts clearly have higher investor activity in East Coast counties, although investor shares in all tracts rise rapidly beginning in 2006. In Declining markets, NSP2 tracts and other low-value tracts had 60–80 percent investor purchases throughout the recovery period. Moderate markets also saw a growing share of investor purchases in the bust years, with NSP2 and low-value tracts exceeding high-value tracts.

Overall, these figures confirm the general trends in housing markets during three time periods. Housing prices increased during the boom, decreased from 2007 through the collapse, and flattened during the recovery. Indicators of housing market distress increased from 2006 to

2008, then declined somewhat from 2008 to 2012, although not generally to pre-bust levels.[10] The exhibits provide additional evidence that NSP2 investment went into tracts with lower home values, more distressed properties, and more investor activity (implying lower homeownership rates), compared with high-value tracts within the same counties, but were generally similar to low-value tracts that did not receive NSP2 investments.

The final piece of analysis shows the percent change in each housing market indicator from 2008 to 2013, just before and after program implementation, again for three groups of census tracts. Figures 7 through 10 show box plots of each indicator, with the median indicated by the white bar in the shaded box, the upper and lower bounds of the shaded box showing the 25th and 75th percentile, and the whiskers showing 10th and 90th percentiles. Housing prices decreased from 2008 to 2013 in all three groups of census tracts across all four market types, although by varying amounts (Figure 7). In Sand State counties, median prices dropped by around 25 percent for all three groups of tracts. In East Coast counties, NSP2 tracts saw somewhat larger price drops than non-NSP2 tracts, with high-value tracts having the smallest declines. NSP2 tracts in Declining counties saw comparable price drops to non-NSP2 tracts (although price chances in NSP2 tracts were more dispersed), while NSP2 tracts in Moderate counties saw slightly smaller price drops than non-NSP2 tracts. This graph is consistent with the S&P/Case Shiller National Home Price Index, which estimates that housing prices declined around 30 percent during the Great Recession, but shows the substantial variation in price drops across neighborhoods.

Another key indicator of the housing recovery, the inventory of properties in some stage of foreclosure or REO, improved substantially for all census tract groups in all housing market

[10] Core Logic did not track foreclosure starts, sales, or REO entry and exit prior to 2006-2007, therefore measures of mortgage distress are not available during the boom period.

types during this period (Figure 8). The number of distressed properties dropped by 80-90 percent during 2008-2013, as the rate of new foreclosures slowed and REO properties were gradually transferred from banks to new owners. The patterns are generally similar across NSP2 and non-NSP2 tracts, and there is less variation across housing market types in distressed property changes than in price changes.

Vacant properties also showed fairly consistent improvement during the recovery in three of the four market types (Figure 9). Sand State counties had very low initial vacancy rates, even in NSP2 and other low-value tracts, and saw decreased vacancies over time. Low-value tracts in Declining counties had initially high vacancy rates, around 200 per 1,000 properties, and saw only minimal changes in vacancies during the recovery period. In Moderate counties, vacancies declined around 25-30 percent for the three groups of census tracts. Among the East Coast counties, most of the initial vacancies and the decline in vacancies was concentrated in Cook County, while both NSP2 and non-NSP2 tracts in Kings County and Washington DC had fairly low and consistent vacancies during the period.

Changes in the prevalence of investor activity show more variation across housing market types than across low- and high-value tracts (Figure 10). The East Coast counties saw nearly 50 percent growth in investor (non-owner-occupant) purchases, more than double that in Sand States and Moderate counties. Investor purchases stayed essentially unchanged across all tracts in Declining counties. Across all housing market types, investor purchases grew more among the higher-value tracts (although from a lower base), which is consistent with investors seeking properties that would produce more rental income or were more likely to generate future capital gains.

This paper presents simple comparisons of housing market indicators between NSP2 and non-NSP2 tracts across different market types, but we do not address whether NSP2 had a causal impact on these indicators. A few caveats should be kept in mind. The graphs combine tracts across several counties, which may obscure different patterns even among counties that shared broadly similar rates of housing price appreciation and construction prior to the Great Recession. As the box-plots show, there was considerable variation in rates of change within each group of tracts. Finally, this analysis does not take into account other factors at the tract level that may be correlated with both NSP2 activity and housing market indicators, such as other federal or local public efforts aimed at housing recovery, or the relative strength of the private housing market recovery.

Section 5) Discussion and future research agenda

During the years 2007 to 2009, the U.S. experienced its worst housing market since the Great Depression. Unprecedented levels of foreclosures threatened not only individual homeowners, but entire neighborhoods and communities, as well as the stability of major financial institutions. To combat the housing crisis, Congress and HUD developed a number of novel policies designed to intervene in hard-hit areas, including NSP. This paper presents evidence collected during a three-year evaluation of NSP2 on program production outcomes achieved, and discusses the housing market context under which the program operated.

The study finds that across 19 sample counties, grantees used NSP2 funds to invest in more than 6,300 properties. About half of these properties represent newly developed or renovated properties that will be available to low-income households. There were substantial differences in grantee approaches and outcomes across housing markets, with Declining market

counties using NSP2 funds to demolish blighted and abandoned properties, Sand State grantees focusing on acquisition and rehabilitation, and East Coast and Moderate grantees undertaking mixed approaches. Expenditures per property and spatial concentration also varied by geography. The scale of NSP2 investments at the census tract level were generally quite small. Spatial concentration was fairly high in Declining and East Coast markets, less so in the Sand States. Tracts receiving NSP2 investment had weaker initial housing markets than typical tracts in the same counties, but generally saw similar rates of improvement during the recovery period.

This paper presents the earliest evidence on NSP2, but we anticipate that, as more data become available, additional research will investigate the implementation, outcomes and impacts of the program. The complexity of NSP – especially the variation in strategies and outcomes across localities – creates both challenges and opportunities for such research. Based on our initial findings, we outline several topics of interest for further study and suggest some useful empirical approaches and caveats.

The diverse approaches and outcomes suggest several lines of inquiry focused on analyzing program implementation. Specific research questions of interest include: how did grantees develop initial strategies? How and why did strategies change over time? What were challenges to implementation, and how did grantees meet those challenges? What factors explain variations in outcomes and expenditures? In particular, it would be valuable to understand how much of the variation in strategies, outcomes and expenditures can be explained by economic factors, such as differences in housing prices or competition from investors, and how much is due to institutional or organizational factors, such as the grantees' expertise, staff capacity, or organizational structure. These questions lend themselves both to qualitative approaches, such as in-depth interviews with staff at grantee organizations, and statistical

analysis of the relationship between local housing markets and quantifiable production outcomes (units completed, expenditures, time to completion). Comparing strategies and outcomes across multiple sites for the large non-profit organizations that worked in several counties would be one useful approach to distinguish between locally varying and invariant factors.

Another set of questions could focus on the impacts on NSP2 on local economic and social conditions. Outcomes of interest include housing prices, property distress, vacancies, housing tenure, crime, and population characteristics. The main challenge to conducting large-scale statistical analysis of NSP2 impacts is that -- unlike previous federal housing programs such as Moving-to-Opportunity – there is no "average" NSP treatment; therefore, it will be hard to find an average treatment effect. Because of this, analyses of smaller local areas are more likely to yield informative results than pooling large numbers of counties together in regressions. Moreover, the analysis should attempt to measure the type and quantity of NSP2 investments completed in a local area. Two particular challenges arise: the appropriate geographic scale of the analysis and the time frame during which impacts might become apparent. Although NSP2 was conceived of as an intervention that could alter census tract-level housing markets, the scale of investment in the average NSP2 tract raises questions about whether tracts will be too large to observe any mitigating impact of NSP2 properties. One approach would be to focus on the subset of NSP2 tracts that received large scale investments, either large volumes of single-family properties or those tracts in which NSP2 was used to rehab/redevelop larger multifamily buildings. Alternatively, researchers could examine NSP2 impacts at smaller levels of geography, using event-history methods for individual property transactions near NSP2 properties. The latter approach is also complicated by thin volumes of arms-length sales during much of the implementation period, so may only be feasible for a few NSP2 counties.

Similarly, future research should attempt to measure both short-term and longer-term impacts of NSP2. It is not obvious a priori when positive spillovers from NSP2 are likely to begin. If the negative effects of foreclosure are only mitigated once the vacant property has been completely rehabbed (redeveloped) and reoccupied, then impact analysis will need to occur after a sufficient window of time has passed after the completion of NSP2 properties. On the other hand, if NSP2 begins to improve neighborhood perceptions at early stages, for instance with the acquisition of a foreclosed property, or the beginning of rehabilitation, there will be more likelihood of observing spillovers to nearby property markets concurrent to program implementation. The time frame of the current analysis may be too early to detect the effects of NSP2: the most recent outcomes described in the study were measured when nearly 27 percent of the property investments were not complete or had just been completed. Moreover, many grantees viewed NSP2 as a complement to their longer-term neighborhood revitalization strategies. Approximately half of the study grantees reported purposely targeting areas with long-standing distress, and almost all grantees reported that they chose areas to coordinate with other community development activities (including NSP1 and NSP3 and CDBG). Viewed through this lens, it is likely too early to draw conclusions about the impact of NSP2 investments on neighborhood revitalization outcomes. Indeed, the literature on neighborhood revitalization suggests that altering the outcomes of distressed neighborhoods requires concentrated investment over a multiyear time frame (Pooley, 2014; Galster et al., 2006; Galster et al., 2004). Examining neighborhoods that received not only NSP2 funding, but other investments such as CDBG, either before or after NSP2, would allow researchers to test for longer-term impacts of neighborhood revitalization.

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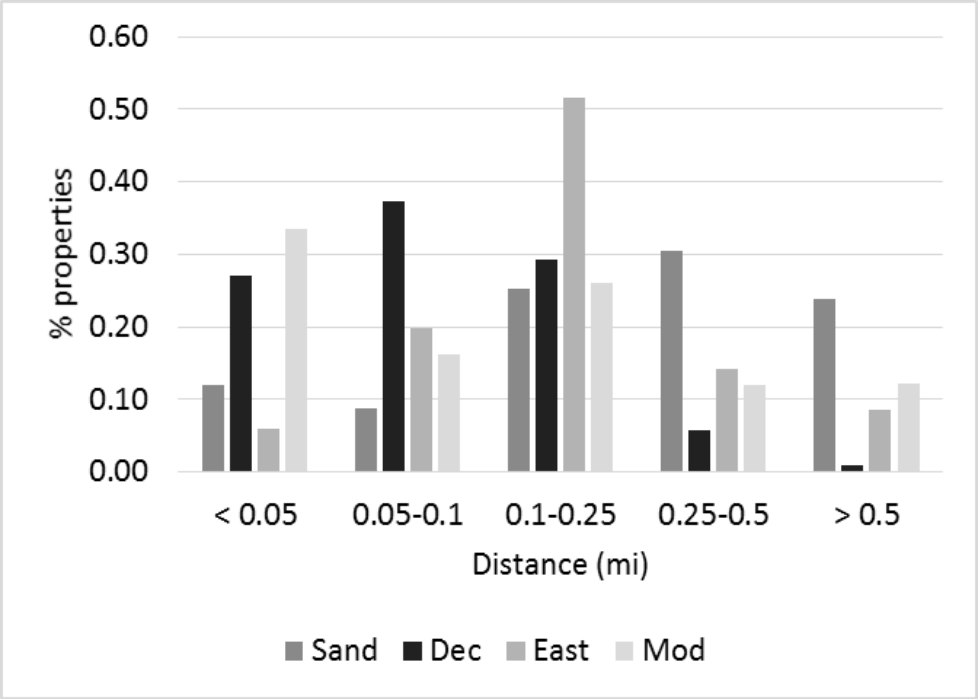
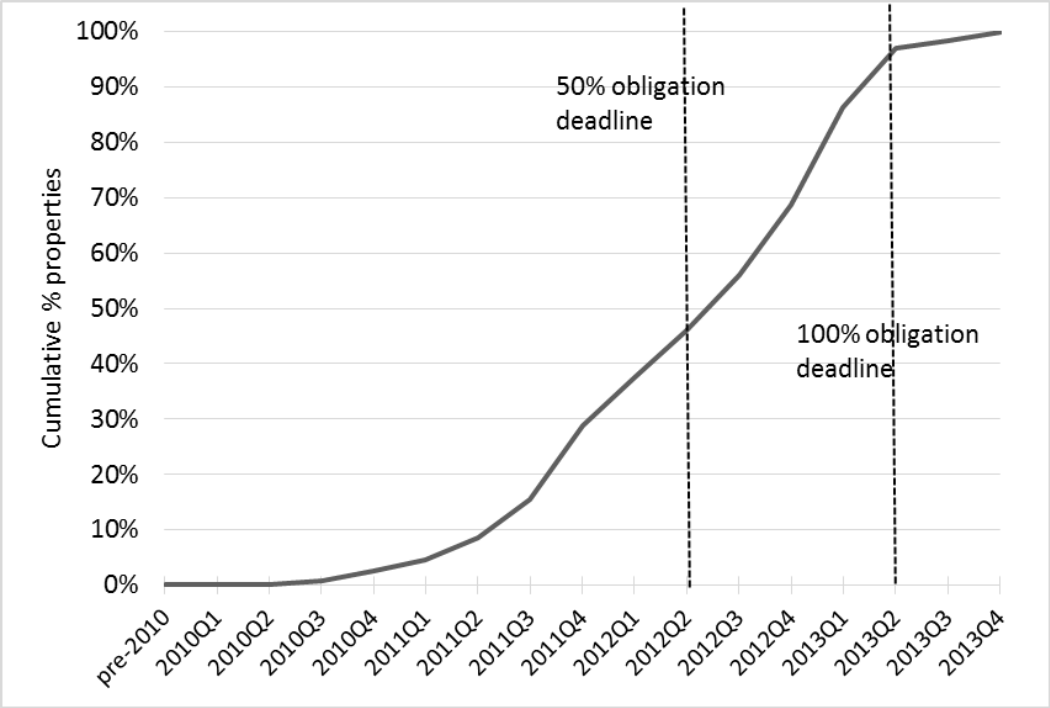
Figure 1: Spatial concentration of NSP2 properties



Distance measure is the average distance from each NSP2 property to the five nearest other NSP2 properties.

Figure 2: Timing of completed NSP2 investments



Note: Data collection from grantees ended in 8/2013, so completions through Q4 2013 are estimated. 146 properties were missing data on year of completion or had projected completion after 2013Q4.

Figure 3: Median Housing Prices, by Market Type

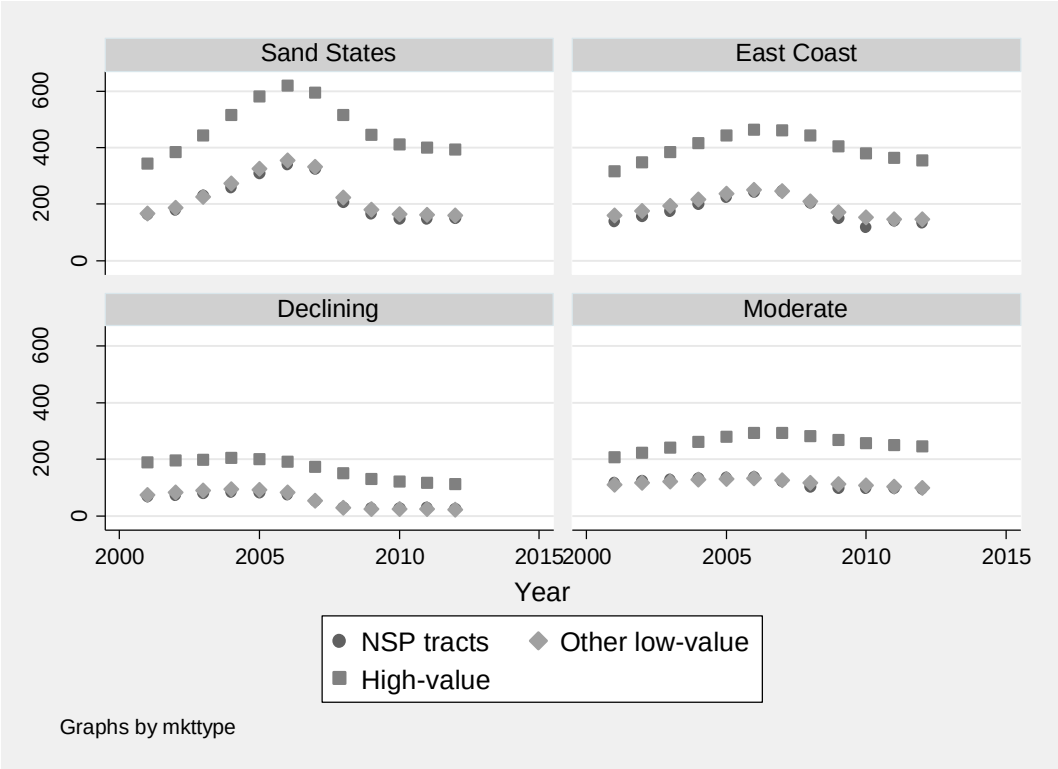
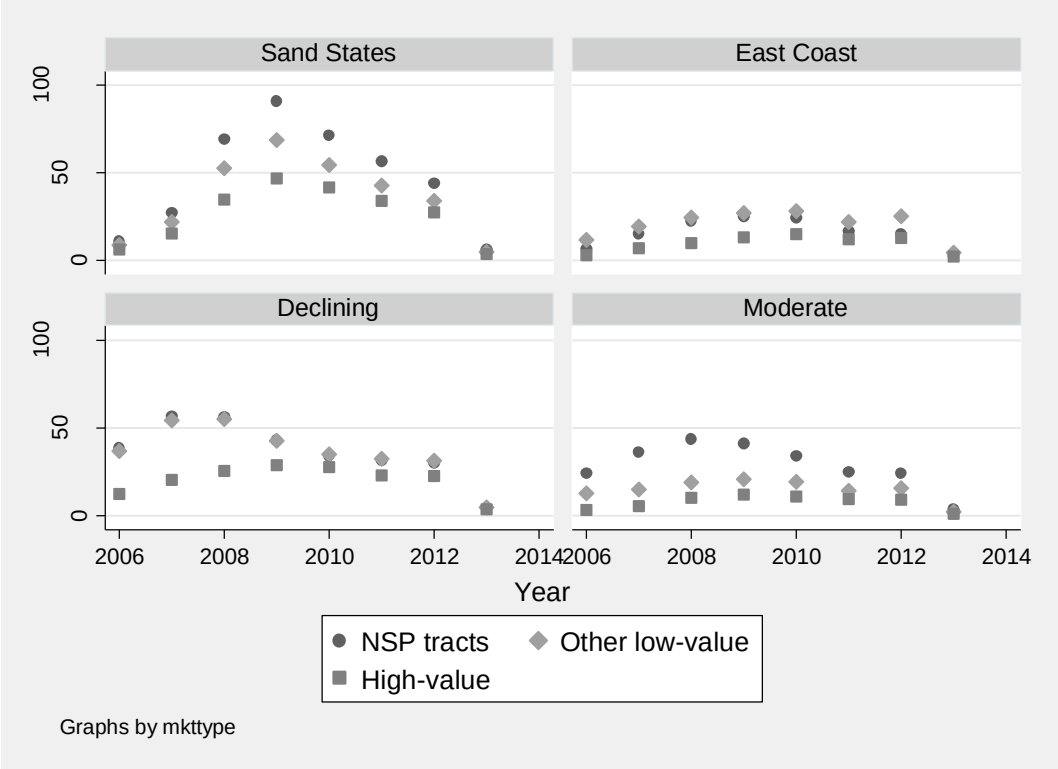


Figure 4: Financially Distressed Properties, by Market Type



Figures 5: Vacancy Rates by Market Type

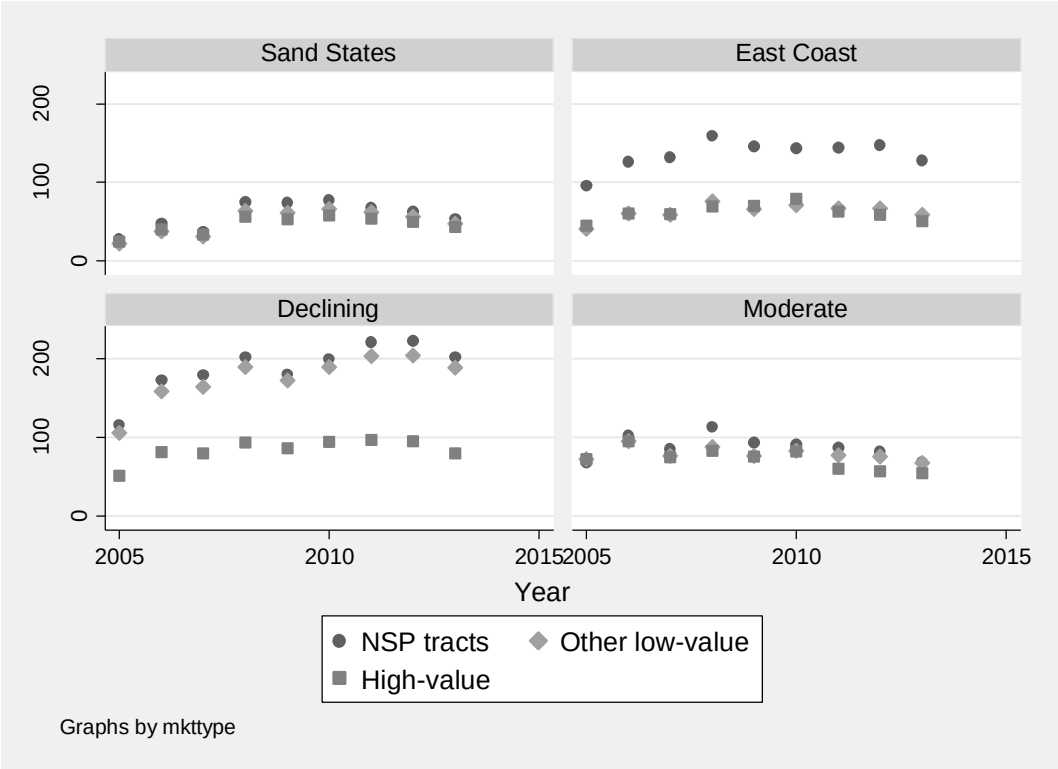


Figure 6: Purchases by Non-Owner Occupants by Market Type

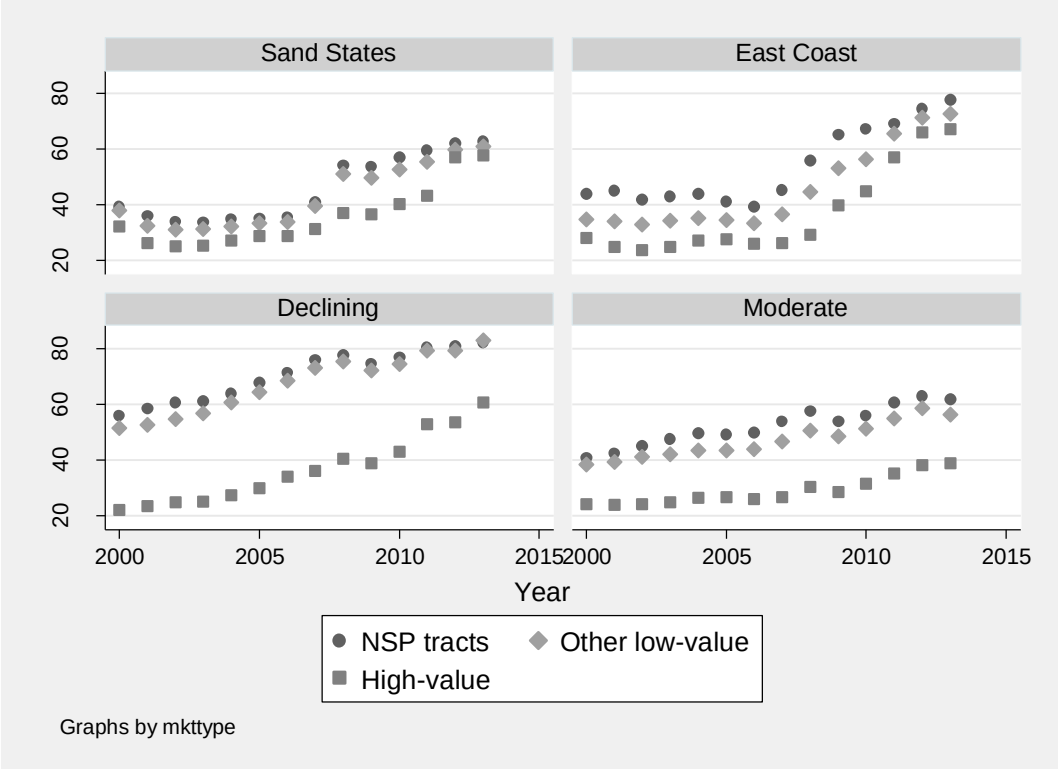


Figure 7:

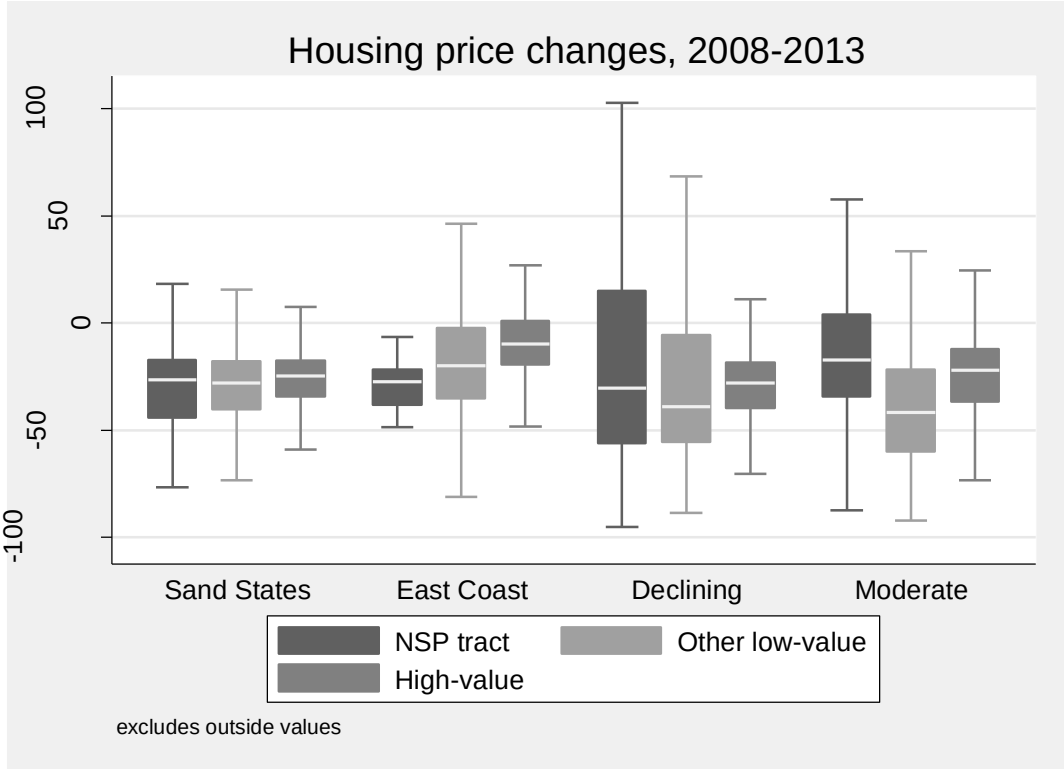


Figure 8:

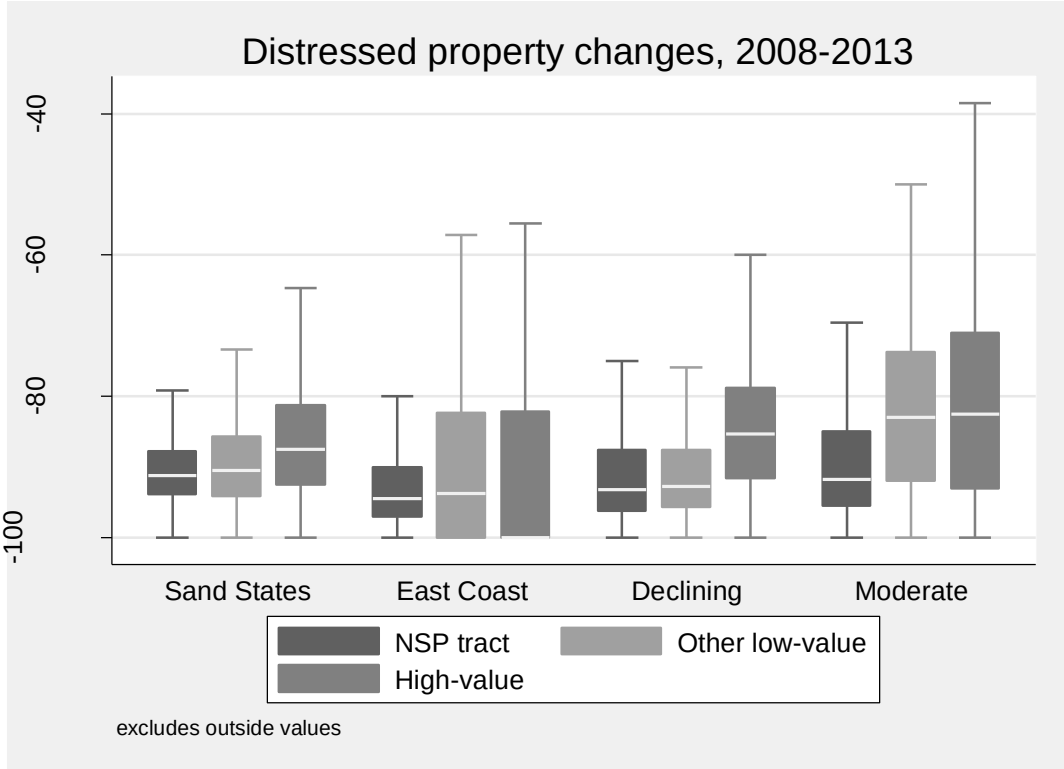


Figure 9:

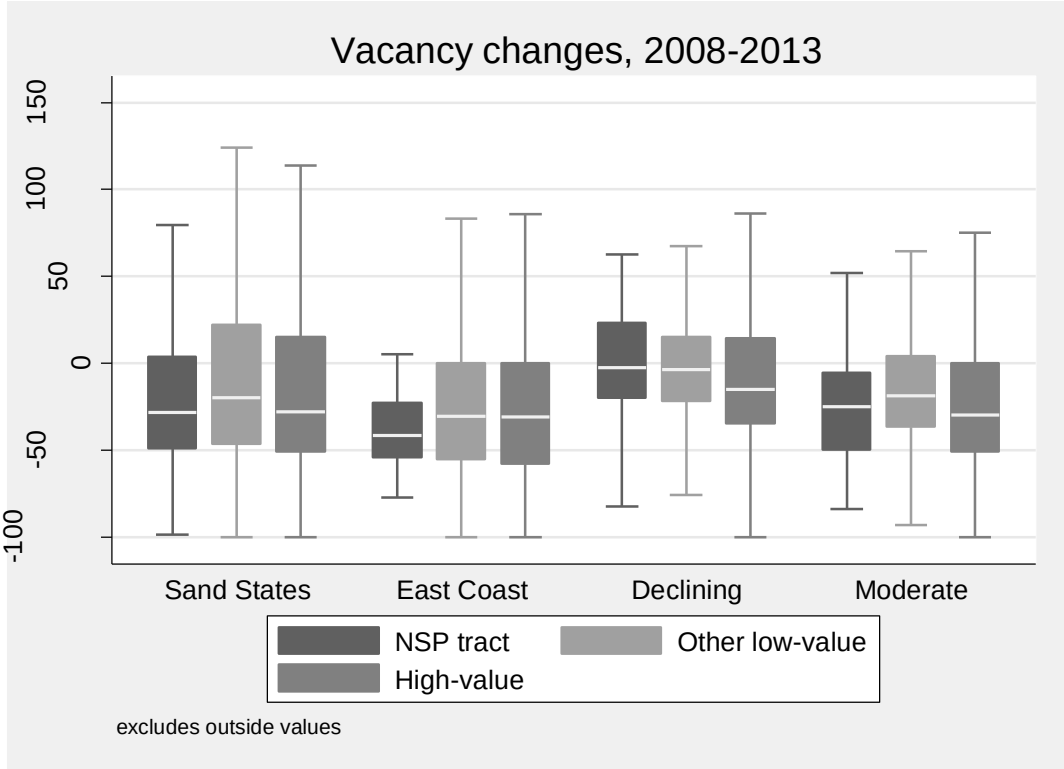


Figure 10:

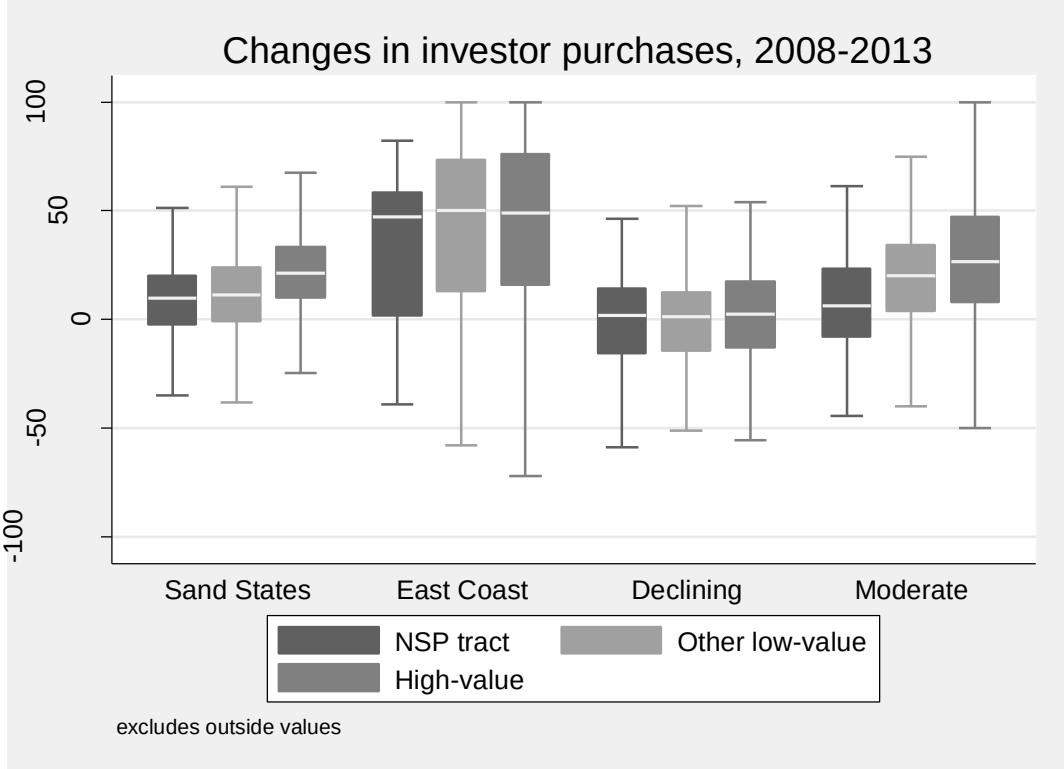


Table 1: Summary of NSP counties studied

County	Market type	NSP spent (mi)	Properties	$/property
Cook IL	East Coast	132.0	262	503,817
Cuyahoga OH	Declining	25.9	758	34,169
Davidson TN	Moderate	31.0	116	267,241
Denver CO	Moderate	35.5	119	298,319
Ingham MI	Declining	18.6	215	86,512
Kings NY	East Coast	35.5	46	771,739
Los Angeles CA	Sand States	220.0	558	394,265
Maricopa AZ	Sand States	115.0	494	232,794
Miami-Dade FL	Sand States	90.0	296	304,054
Palm Beach FL	Sand States	66.5	235	282,979
Philadelphia PA	Moderate	58.6	494	118,623
Pulaski AR	Declining	16.2	236	68,644
Ramsey MN	Moderate	17.7	149	118,792
Riverside CA	Sand States	8.9	54	164,284
Sarasota FL	Sand States	21.5	71	302,817
Stanislaus CA	Sand States	23.3	94	247,872
Washington	East Coast	21.7	66	328,788
Washoe NV	Sand States	22.4	146	153,425
Wayne MI	Declining	75.6	1,947	38,829
Total		1,035.9	6,356	
Average		54.5	335	162,975

Table 2: NSP2 investments, by activity type

Activity	Properties	Expenditures	$/property
Acq/Rehab	35.9%	64.2%	291.3
Demo	44.1%	2.9%	10.6
Financing	4.1%	5.1%	203.1
Land bank	1.8%	0.5%	42.7
Multi	5.9%	8.3%	228.9
Redev	8.3%	19.1%	375.1
Total	6356	1,034.9	162.8

Note: expenditures shown in millions of dollars, expenditures per property shown in thousands of dollars.

Table 3: NSP2 investments by activity and market type

	Sand States			Declining			East Coast			Moderate		
Activity	% prop	% expend	$/prop	% prop	% expend	$/prop	% prop	% expend	$/prop	% prop	% expend	$/prop
Acq/Rehab	76.0	72.5	277.7	8.0	28.1	151.2	46.5	73.0	793.6	42.6	54.3	207.1
Demo	0.4	0.1	38.0	77.0	16.8	9.4	22.2	1.3	29.8	32.1	2.8	14.2
Financing	7.5	4.8	185.9	0.3	3.2	395.4	21.7	9.3	216.8	2.4	2.5	169.0
Redev	11.6	12.3	307.9	4.4	38.0	375.6	6.1	15.7	1,293.5	15.9	32.6	331.9
Total	1,948	567,127	291	3,156	136,342	43	374	189,079	507	878	142,726	163

Excludes properties treated by land banking or multiple activities.

Table 4: Distribution of NSP2 property types, for rehabbed/redevelopment properties

	All	Sand State	Declining	East Coast	Moderate
1-4 family	75.1%	87.5%	48.6%	34.0%	69.6%
Condo/coop	2.9%	1.5%	3.6%	18.8%	1.0%
MF 5+	5.8%	4.6%	0.5%	27.9%	5.4%
Other	5.0%	5.9%	5.4%	4.1%	2.3%
Unknown	11.2%	0.6%	41.9%	15.2%	21.6%
Total	2809	1707	391	197	514

Note: 1-4 family properties include single-family detached, townhouse, duplex, triplex and quadriplex. Totals only include properties that were purchased and rehabilitated or redeveloped. Structure type corresponds to post-NSP2 investment status.

Table 5: Scale of NSP2 tract-level investments

	All	Sand States	East Coast	Declining	Moderate
NSP prop/1000 hsg units					
	5.44	2.32	2.58	13.25	5.25
	(10.28)	(3.73)	(3.19)	(15.79)	(10.34)
NSP $/median price					
	24.89	11.08	7.79	62.89	21.48
	(120.30)	(26.06)	(12.32)	(242.87)	(32.33)
# tracts =	862	454	37	198	173

Top row shows mean value, standard deviation below in parentheses. NSP2 properties divided by 1000 housing units in tract (ACS 2005-2009). NSP2 expenditures divided by tract median housing price in 2009 (Core Logic).

Table 6: Comparison of NSP2 and Non-NSP2 tracts (2008)

	NSP tracts	Non-NSP tracts	NSP - non-NSP
Housing markets			
Price	150,048	310,869	-160,821 ***
% change in price, 2000-06	76.14	72.78	3.36
Distressed props/1000 hsg units	57.88	31.56	26.32 ***
Vacancies/1000 hsg units	118.83	75.90	42.93 ***
Investor purchases (%)	57.44	40.57	16.87 ***
Population chars			
Income	43,690	64,050	-20,360 ***
Pop w/ less than 12 yrs educ (%)	30.56	19.63	10.92 ***
Hispanic (%)	34.96	25.59	9.37 ***
Black (%)	39.63	20.99	18.64 ***
Central city	0.80	0.62	0.18 ***
Pop density	11,347	13,221	-1,874 ***
n =	862	7443	-6581.00

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 1: Variable definitions and sources

Variable	Definition	Source
NSP activity/treatment status		
NSP treat	=1 if at least one NSP2 property in tract, = 0 otherwise	Grantee data
NSP props	total # NSP properties in tract	Grantee data
NSP units	total units in NSP treated properties in tract, post-treatment	Grantee data
NSP spent	total $ value of NSP spent in tract (not avg/property)	Grantee data
Housing market outcomes		
Price	median sales price of arms' length housing sales (3-yr avg)	Core Logic
Distress	properties in any stage of mortgage distress per 1000 housing units	Core Logic, ACS
Vacancy	vacancies per 1000 housing units	USPS, ACS
Investor	investor purchases/total purchases	Core Logic
Population and housing market characteristics		
Central city	= 1 if tract belongs to designated central city, = 0 otherwise	OMB
Pop density	population density (per square mile)	ACS 2005-2009
Hispanic	% Hispanic	ACS 2005-2009
Black	% African American	ACS 2005-2009
Income	median household income	ACS 2005-2009
No HS grad	% population age 24+ with HS degree or less	ACS 2005-2009
Housing 1-4 fam	% housing units in 1-4 family properties	ACS 2005-2009
ΔPrice, 00-06	% change in median housing price, 2000-2006	Core Logic