The Neighborhood Stabilization Program Tracking Panel:

OMB Clearance Package Part B

Draft

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Part B. Collection of Information Employing Statistical Methods

B1 Potential Respondent Universe

The potential respondent universe for the site visits is the 56 grantees throughout the country awarded an NSP2 grant. The 56 grantees cover 3,068 census tracts in 133 counties and 29 states. Of the $1.93 billion in NSP2 funding, approximately $947 million went to 24 grantees operating exclusively in states that were hit hardest by the national foreclosure crisis—California, Florida, Michigan, Nevada and Ohio.[1] This section describes the methods used for selecting a sample of these grantees for the baseline and follow-up site visits and focus of the analysis.

B2 Statistical Methods

B2.1 Sampling Plan

The sampling plan divided all 133 counties targeted by NSP2 into categories based on the performance of the housing and labor markets during the housing boom and bust periods; selected counties with the highest expected NSP2 investment per census tract within those categories; and then made some substitutions by hand to ensure the selected counties represented a large share of the NSP2 funding and represented the NSP2 program on other important grantee characteristics. The plan also defined a minimum expected NSP2 investment level for the county to be included in the sampling frame. Specifically, counties that were neither the primary community a grantee was investing in (defined as the county with the most census tracts targeted by the grantee) nor had an expected NSP2 investment level of at least $10 million were removed from the sampling frame. This step eliminated 78 of the 133 counties where NSP2 investments are occurring, leaving 55 counties eligible for the study.[2] These counties were removed because, after looking over the distribution of expected NSP2 investments, the researchers judged that the most valuable information on the NSP2 program would be in the communities the grantee was most focused on or that had a substantial amount of investment from grantees. Indeed, more than half of the ineligible counties are from primarily non-urban counties in Ohio and Colorado.

To finalize the study sample, we conducted three activities. First, HUD PD&R staff shared the sample list with the Program Office to get their input. This gave program staff an opportunity to identify whether NSP2 implementation activities at sites either made one of the selected sites a poor candidate for the study or made an unselected site a particularly good site for the study. Second, we reviewed the availability of property-sales records from private vendors for each county. A history of property sales in the study-sample counties is necessary for the analysis, and complete records are not available in every county.

Third, we conducted reconnaissance telephone calls with NSP2 grantees. The primary purpose of the reconnaissance telephone calls was to explore whether the grantees compile property-level data that may be used to supplement the data purchased from private vendors. The necessary property-level data for our analysis includes the address, property characteristics, NSP2 acquisition date, NSP2 activity and spending amount, and final disposition date.

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[1] See: www.hud.gov/offices/cpd/communitydevelopment/programs/neighborhoodspg/pdf/nsp2awardtotalAllocation.pdf

[2] All 56 grantees have at least one county in the sampling frame. There are only 55 counties, because some counties have multiple grantees.

Only counties with both adequate private vendor data on property sales and where grantees were considered to have adequate property-level data to supplement these vendor data were retained in the final sample. The reconnaissance phone calls and exploration of property-level and private vendor data resulted in two counties (Baltimore and Dallas) being replaced in the final sample (by Washington, D.C. and Denver) and one county being removed from the sample with no replacement (Genesee County, MI).

The sample is a purposive sample because the nature of the program makes the purposive sample more relevant to future policy than a representative sample specific to the NSP2 program. NSP2 grants were awarded competitively to communities that could demonstrate both need and effective implementation. This process differed from the formula-based award process for NSP1 and NSP3 grants. The objective of the sampling approach is, therefore, to allow assessment of the impact of NSP activities across housing markets that vary in their market conditions and in the intensity of NSP investment. This choice reflects the study's focus on understanding the impact of NSP activities in different housing market contexts, rather than defining the sample with respect to the NSP2 program's funding allocation.

The sampling frame was first divided into five strata based on housing market and related labor market conditions. This was done to ensure the evaluation sample covered counties with different experiences during the boom and bust period over the past decade because housing market trends are expected to be an important mediating factor on the impact of NSP to stabilize neighborhoods in a community. The five mutually exclusive housing market categories are as follows:

- **Boom-Bust Market Counties**. These are counties within MSAs with high price appreciation during the pre-2007 housing bubble and a large decline in housing prices and increase in unemployment during the bust.[3] High growth during the bubble is defined as being in the top half of growth in housing prices for MSAs in the nation from the first quarter of 2000 to second quarter of 2007, and the post-bubble bust is defined as being in the top half of the decline in housing prices and increase in the unemployment rate from the third quarter of 2007 to the fourth quarter of 2009.[4] To account for geographic differences in the housing markets, we divided the boom-bust market counties into two strata.

    1. **Boom-Bust Market Counties: Sand States (18 Counties)**. Sand States are used in the literature to refer to states with significant coastal beaches or deserts and substantial recent population growth. These states are considered to be Arizona, California, Florida, and Nevada, but we also included other western states in this category. Most of the counties in this category are in either California or Florida. The NSP2 counties in the Sand States tend to have larger housing price appreciation during the boom and larger price depreciation during the bust compared to the other counties in the boom-bust category.

    2. **Boom-Bust Market Counties: East Coast States (9 Counties)**. All except one of the other boom-bust counties are on the East Coast, either in the New York-New Jersey area or in the

[3] The National Bureau of Economic Research (NBER) defined the economic recession as starting in December 2007 and ending in June 2009. However, the housing market peak occurred before the start of the recession. The Federal Home Finance Agency (FHFA) House Price Index that indicates the peak price appreciation rate for the nation occurred in the third quarter of 2005 and that negative price appreciation started two years later (the third quarter of 2007), though it started earlier in many areas.

[4] To be in the Boom-Bust Category, a county had to be in an MSA with housing price appreciation of 49.6 percent or higher during the boom, a housing appreciation of -3.3 percent or lower during the bust, and an unemployment rate increase of 4 percentage points or higher in the bust period.

Mid-Atlantic area. The one non-East Coast state in this category is Cook County, Illinois. NSP2 counties in these states did not see as extreme housing price appreciation or price depreciation rates as the counties in Sand States, but housing prices still increased by at least 65 percent in the boom. The counties in the East Coast also had modest to low levels of population growth in the first half of the 2000s, while the counties in the Sand States tended to have double-digit population growth rates during that period. The Sand States had correspondingly higher rates of housing growth, particularly in exurban locations. These differences in housing markets may affect housing market outcomes and the impact of NSP2, and thus the separation of the Boom-Bust group into two categories is warranted.

- **Boom-Stable Market Counties (9 counties).** Counties that had above average housing price growth during the boom, but either did not have an above average decline in housing prices during the bust or did not have an above average increase in unemployment rates during the bust. These counties usually had housing price rate growth rates lower than the Boom-Bust Sand States, but almost as high as the Boom-Bust East Coast States. However, their housing markets appear to be more stable during the bust period than the Boom-Bust East Coast state, as neither the housing price declines nor the unemployment rate increases tended to be as large.
- **Lagging/Declining Market Counties (16 counties).** For this category, we identify counties with housing markets that appear to be in a longer-term decline than defined by just the national housing market bust period. Operationally, we placed counties in this category if the MSA was in the bottom half of price appreciation during the boom period and had an unemployment rate above the median at the end of the boom period in 2007.[5] The NSP2 counties in this category are almost exclusively in Ohio and Michigan. Most of these counties had declining population during the first half of the 2000s.
- **Slow Growth Counties (3 counties).** This category consists of counties in MSAs that are similar to the Boom-Stable counties, except housing prices did not increase as much during the boom period. Operationally, the counties in this category were in the bottom half of housing price growth during the boom period, but on the lower half of unemployment rates at the end of the boom period.

The next step in the sampling plan allocated the sample to housing market categories in proportion to the share of counties in that category in the sampling frame. To select the sample counties within the housing market categories, the counties were ordered from the largest to smallest expected NSP2 investment per targeted census tract. Then research staff selected the counties with the largest expected investment per census tract until reaching the number of counties allocated to the sample from that housing market category. The reason for selecting the counties with the highest NSP2 dollars per census tract is the expectation that the study is more likely to be able to measure impacts of NSP2 in neighborhoods with large investments. In addition to the size of the NSP2 investment, research staff also selected counties to ensure the sample covered a large share of the NSP2 grant awards in total, was geographically diverse in terms of states and urban/exurban areas, and represented the various types of activities allowable under NSP2. To achieve these other objectives, the researchers replaced some of the initial sample counties. This sample was further refined using the review of vendor data and grantee property-level data described above. The final sample from this selection process is shown in Exhibit 5. The 20-county sample:

[5] To be in the Lagging/Declining Market Category, a county had to be in an MSA with housing price appreciation during the boom of 49.5 percent or lower and an unemployment rate of 4.7 percent or higher in 2007.

- includes counties where 29 of the 56 NSP2 grantees are implementing NSP2; and
- covers 1,362 census tracts or 44 percent of the 3,068 census tracts targeted by NSP2.

Exhibit 5: Final Sample of Counties by Market Category (N=20)

State	County	State	County
Sand State Boom-Bust Markets (n=8)		Boom-Stable Markets (n=2)	
AZ	Maricopa County	PA	Philadelphia County
CA	Los Angeles County	MN	Ramsey County
CA	Stanislaus County	Slow Growth Markets (n=2)	
CA	Riverside County	CO	Denver County
FL	Sarasota County	TN	Davidson County
FL	Miami-Dade County	Lagging/Declining Markets (n=5)	
FL	Palm Beach County	AR	Pulaski County
NV	Washoe County	MI	Ingham County
East Coast Boom-Bust Markets (n=3)		MI	Wayne County
DC	District of Columbia	OH	Cuyahoga County
IL	Cook County	OH	Montgomery County
NY	Kings County		

B2.2 Analysis Plan

The analysis plan is described briefly below for each of the key components of the evaluation of the NSP2 program related to this data collection: the implementation analysis, the impact analysis, and a cross-site analysis. These analyses are also described in Section A.16.

Implementation Analysis

The implementation analysis is designed to answer the general question of how NSP2 was implemented by grantees. More specifically, it will answer these research questions:

- What activities are grantees pursuing, what outcomes do they expect, what outcomes have been achieved, and who is benefiting from the program?
- Are other funds being successfully leveraged by NSP2 funds?
- How do pre-existing staff capacity, training, technical assistance, use of innovative technology tools, and partnerships (with other governments, non-profits, and for-profits) contribute to the likelihood of achieving intended outcomes?

We will analyze program implementation at two points, after the first round of site visits and at the end of the study. In each case, we will use the qualitative research software NVivo to help us sort and analyze interview findings. NVivo allows the analyst to import the interview write-ups into a central database and assign codes to each section of the write-up. Codes based on the interview topics, such as how NSP2 activities relate to other community development efforts in the neighborhood, can be assigned to the text automatically, allowing the user to quickly compare all interview responses on the same topic.

We will also develop codes based on emerging themes from the interviews. For example, one such theme might be the challenges associated with preventing vandalism to vacant properties. These codes will be assigned manually to all the interview write-ups following a consistent coding tree, allowing us to analyze

themes that cross interview topics and sites. Information that is readily quantifiable, such as grant amounts, leveraged funds, implementation timeframe, and activity types can be entered into NVivo as attributes, allowing us to sort and analyze interview responses by key grantee or project characteristics. This tool will assist us in integrating findings from DRGR and the file review into the interview findings.

Impact Analysis

A summary of the research questions being addressed in the impact analysis is provided in section A.16.

This section provides an overview of the statistical analysis that will be included in the impact analysis. The discussion includes a description of a base model of foreclosures' effect on neighboring property values; a model of the impact of NSP2 on neighboring property values; base model of the effect of foreclosures on crime; and a model of the impact of NSP2 on crime.

Base Model: Impact of Foreclosures on Neighboring Property Values

The preferred method of estimating the impacts of NSP2 on home prices is a property-level analysis, which begins with the estimation of the impact of foreclosures. Following the existing literature (Schuetz et al. 2008; Harding, Rosenblatt, and Yao 2009), we will estimate the effect of foreclosures on the price of surrounding properties using a hedonic model. Hedonic models decompose the sales price of a home into implicit prices paid for the home's attributes (e.g., number of rooms, size, year of construction) as well as attributes associated with the home's surroundings (e.g., quality of public services, proximity to neighborhood amenities, and the condition of nearby properties) Accordingly, the model can be specified as follows:

(1) $Price_{ijt} = \beta_0 + \beta_1 * Foreclosures_{ijt} + \beta_2 * Prop\ Chars_{ijt} + \beta_3 * Nhood_j + \beta_4 * Time_t + \varepsilon_{ijt}$

Where,

- $Price_{iit}$ is the sales price of property i in neighborhood j at time t,
- $Foreclosures_{ijt}$ is an indicator of the presence (number) of foreclosures within a given distance of the subject property i during a specified time before and/or after the property sale;
- Prop $chars_{ijt}$ is a vector of physical characteristics of property i at time t;
- $Nhood_j$ is a set of fixed effects for neighborhood j (most likely census tract, Zip Code Tabulation Area or Public Use Microdata Area (PUMA)), to capture time-invariant neighborhood characteristics;
- $Time_t$ is a set of fixed effects for the time period of the sale (year or quarter-year), to control for time-varying market characteristics that are consistent across all geographies, such as interest rates or underwriting criteria; and
- ε_{ijt} is an error term that is specific to the property.

Equation (1) is the standard hedonic approach to measuring the spillover effects of foreclosures. By including indicators of the presence (number) of foreclosures within the vicinity of a property, both before and after the observed sale of the property, we can identify the extent to which foreclosures cause a drop in prices, controlling for the probability that foreclosures are more likely to occur in neighborhoods in which prices are already decreasing.

Impact Analysis: Impact of NSP2 Activities on Neighboring Property Values

To determine whether NSP2 mitigates any negative impacts of foreclosures in helping to stabilize nearby property values, we modify the baseline model to include an indicator of the presence (type or amount) or

NSP2 activity near subject properties. In equation (1) above, the model measures whether properties' sales prices are significantly lower if there are foreclosures nearby. Equation (2) separately measures this effect for NSP2 properties and non-NSP foreclosures:

(2) $\text{Price}_{ijt} = \beta_0 + \beta_1 * \text{NSP2}_{ijt} + \beta_2 * \text{Foreclosures}_{ijt} + \beta_3 * \text{Prop Chars}_{ijt} + \beta_4 * \text{Nhood}_j + \beta_5 * \text{Time}_t + \varepsilon_{ijt}$

Where NSP2_{ijt} is a variable measuring NSP2 intervention within a designated time/distance from property i in neighborhood j at time t and all other variables are the same as described in the base model.

Depending on the distribution of the data, NSP2 may be a simple dummy variable indicating whether any NSP2 activity has taken place, it might be a continuous variable indicating the amount of NSP2 activity (for instance, number of properties purchased/rehabbed or dollars spent), or it may be a series of variables indicating various types of activity. The exact specification cannot be determined until the distribution of NSP2 activity within spatial-time bounds has been observed. Ideally, the format of the NSP2 variable can be chosen to test for differential effects of the concentration of NSP2 activity (i.e., a larger volume of activity within a given time-distance band is expected to have a larger mitigating impact).

One possible extension to the property-level analysis is to make it more flexible. The base model described above can serve as a starting point. But there is growing evidence that "standard" hedonics provide highly unstable results in the presence of spatial externalities. In the case of foreclosure contagion, the essential mechanism is spatial in nature, and specifying a fixed model going into the analysis is premature. All the models will have the standard functional form, but rather than a global regression with neighborhood fixed effects and fixed implicit prices, we anticipate estimating more flexible models as well. This supposition is based on recent published research that demonstrates that the often-untested assumption of fixed implicit prices is inappropriate and causes significant bias in parameters of interest.[6]

Providing flexibility in the model is accomplished through locally-weighted regression techniques. Using the standard model described above, we will apply the model in different settings—by market, by home type, by price level—to test whether the coefficients are constant across samples. If so, then the standard models are appropriate for use; if not, introduce locally-weighted regression. This approach is outlined in detail in Redfearn (2009) and McMillen and Redfearn (2010). It is important to note that the standard hedonic approach is nested in the locally-weighed regression approach—if coefficients are constant, the data will reveal this: it will not be imposed a priori.

Base Model: The Impact of Foreclosures on Crime

The base model for the analysis estimates whether crime incidence is higher in proximity to foreclosed and vacant homes. The location of each property and crime can be mapped using GIS software to determine the number of crimes in proximity to each property during any period in time. For each property, we will determine the number of crimes that occur on the same street as the property within a set distance in either direction. This stretch of the street near the property of interest is referred to hereafter as the *proximate* area. We may follow the existing literature on defining this area. However, the distance may vary depending on the density of residential units in the sampled county (i.e., the relevant distance is likely to be smaller in Manhattan than in suburbs of Phoenix or Las Vegas). The data will determine this.

[6] A technical discussion of these issues is provided by Redfearn (2009) and McMillen and Redfearn (2010).

The counterfactual for comparison is a similar-length stretch of the street that is outside the proximate area but in the same neighborhood. There are two (potentially conflicting) objectives for the counterfactual:(a) it should be close enough to the property to share all of the unobserved attributes of the neighborhood and (b) it should be far enough from the property that it will not be affected by the foreclosure. In order to satisfy the first criteria, our approach selects counterfactuals that are in the same neighborhood.

Unfortunately, the appropriate distance for the second criteria is not established by previous studies and may vary depending on the density of residential units. We will therefore define two counterfactual areas: one that contains the stretch of the street just beyond the proximate area (for example, 250 to 500 feet from the property) and one that contains the stretch of the street that may be 1000 to 1250 feet from the property. Comparison of the estimates across these two counterfactuals will be used to determine whether either requirement of the counterfactual is violated.

This approach seeks to minimize any underlying differences in neighborhood characteristics between the proximate and counterfactual areas. However, a key consideration will be to ensure that the counterfactual areas reflect sections of the neighborhood that are similar in residential density, property characteristics, and other factors.

The base estimation equation for this analysis is:

(3) $Crime_{itc} = \alpha + \beta_1 P_i + \beta_2 T_t + \beta_3 FC_{it-1} + \beta_4 R_i + \beta_5 R_i * FC_{it-1} + \varepsilon_{itc}$

In this equation there is an observation for each property i in each period t for the treatment and control areas c. The outcome is the number of crimes observed in period t in the treatment/control area c associated with property i. We will separately estimate equation (1) when the outcome is defined with respect to violent crime, property crime, public order crime, and total crime. Estimation will be performed using OLS regression methods.[7] This approach is similar to that undertaken by Cui (2010).

The model identifies the impact of changes in the foreclosure status of a property across time on the amount of crime in the proximate area relative to the counterfactual area. Put another way, the model determines whether crime is more likely to appear in the proximate area (relative to the counterfactual area) during the period following a foreclosure.[8] The difference-in-differences model defined by equation (3) includes property fixed effects Pi (where possible) and period fixed effects T_t. The key measures are whether the property is in foreclosure FC_{it-1} and whether the observation measures the number of crimes in the closest distance ring R_i (versus the counterfactual area). The measure of foreclosure is defined with respect to the period prior to the measurement of crime in order to minimize the threat of reverse causality. The interaction of the foreclosure indicator with the distance ring indicator identifies whether crime incidence is higher in proximity to foreclosed homes. The estimate for this interaction term is therefore the key coefficient in equation (3).

The key element of this approach is to ensure that the counterfactual areas are comparable to the proximate areas. By choosing counterfactual areas that are near to the proximate area, this approach

[7] Depending on the distribution of each outcome measure, negative binomial regression may better accommodate the distribution of the error term. We will consider negative binomial models if sensitivity tests suggest that the coefficients produced by OLS methods contain bias.

[8] This approach relies on changes in foreclosure across time. We can also modify the approach to rely on cross-sectional variation in the presence of foreclosures, if the extent of crime in NSP2 neighborhoods is too small to provide a sufficient sample size for the analysis.

minimizes the underlying differences in neighborhood characteristics. A second step is to ensure that the counterfactual areas contain similar residential structures. We will use the GIS map of the local street grid to identify any parks, schools, industrial blocks, and other non-residential features of the neighborhood. We will also use the vendor data to conduct balancing tests with respect to residential density and property characteristics.

Impact Analysis: The Impact of NSP2 Activities on Crime Rates

Two modifications of the base model produce information about whether NSP2 activities mitigate the impact of foreclosures on crime.

1. Separate properties with NSP activities from other foreclosures.

(4) $Crime_{itc} = \alpha + \beta_1 P_i + \beta_2 T_t + \beta_{3a} FC_{it-1} + \beta_{3b} NSP_{it-1} + \beta_4 R_i + \beta_{5a} R_i * FC_{it-1} + \beta_{5b} R_i * NSP_{it-1} + \varepsilon_{itc}$

The model defined by equation (4) removes foreclosures with NSP activities (NSP) from the measure of foreclosures (FC). Therefore, estimation separately identifies whether non-NSP foreclosures impact nearby crime and whether NSP properties also result in increased crime. The latter estimate tests whether a statistically significant increase in crime occurs in areas surrounding NSP properties. If the impact of NSP properties on nearby crime is positive and significant, then the implication is that NSP activities do not eliminate the impact of foreclosures on crime.

The magnitude of the estimates for NSP foreclosures and non-NSP foreclosures can also be compared. A small magnitude on the NSP measure would be suggestive that NSP activities mitigate the impact of foreclosures. However, the model does not test whether the size of this impact is significantly different than the impact of non-NSP foreclosures. The model defined by equation (5) is necessary to determine whether the estimates are statistically different.

2. Interact the presence of NSP2 activities with the foreclosure term.

(5) $Crime_{itc} = \alpha + \beta_1 P_i + \beta_2 T_t + \beta_{3a} FC_{it-1} + \beta_{3b} FC_{it-1} * NSP_{it-1} + \beta_4 R_i + \beta_{5a} R_i * FC_{it-1} + \beta_{5b} R_i * FC_{it-1} * NSP_{it-1} + \varepsilon_{itc}$

Equation (5) is very similar to equation (4) with the exception of how the NSP measure is interpreted. Where equation (4) identifies the impact of NSP foreclosures relative to non-foreclosed properties, equation (5) identifies the impact of NSP foreclosures relative to foreclosed properties with no NSP activity. As a result, β_{5b} is an estimate of whether NSP activities result in a smaller impact on nearby crime than non-NSP foreclosures. This estimate directly tests whether NSP activities reduce crime.

A final dimension of neighborhood stability is the extent to which foreclosures result in periods of vacancy or changes in the overall homeownership rate of the neighborhood. The direct impact of foreclosures is to remove the current resident, increasing the likelihood that the property will undergo a period of vacancy or a change in tenure status. The indirect impact of foreclosures is to alter the attractiveness of the neighborhood to potential home buyers, which may increase the likelihood that non-foreclosed properties undergo a period of vacancy or a change in tenure status.

Cross-Site Analysis

After the outcome and impact analyses are completed, we will perform a cross-site analysis to buttress the results found across different market and grantee types. The cross-site analysis will utilize a combination of descriptive statistics and qualitative discussion, working from and incorporating results from the implementation and impact analyses. The object of this analysis is to discover broader conclusions of how NSP2 worked in a variety of housing market settings, methods of intervention, and grantee types.

More specifics of each dimension are discussed below. Moreover, careful pairing of data – such as grantees, neighborhoods, or treatments – may afford an additional source of identification of the influence of NSP2. We start with several broad questions before discussing the "pairs" analysis.

- What conclusions can be drawn about the impacts of NSP2 in different types of housing markets?

The underlying housing market conditions vary considerably across areas covered by NSP2 grantees, including older, declining central cities in the Midwest and Northeast (Detroit, Cleveland), rapidly growing Sunbelt cities (Las Vegas), small or midsize cities (Little Rock, Sarasota). The reasons behind the foreclosure rates may vary by geographic region, city size and market conditions. For example, any of these dynamics – overbuilding followed by collapse in prices, "stretching" by households in high-priced markets, targeting by subprime lenders, sharp decrease employment and household income – may be consistent with observed outcomes. But, understanding which, if any, are at work will be key for understanding the results of different interventions. Given these underlying differences in markets prior to and during the foreclosure crisis, it seems plausible that NSP2 will have different impacts on resulting outcomes. We will examine commonalities in outcomes across various stratifications of housing market types.

- One of HUD's primary interests is whether implementing a highly concentrated strategy of spending under NSP2 has increased the program's success. Did concentrating NSP2 activity result in different outcomes?

We will seek to measure the degree of NSP2 concentration at the neighborhood and county level and examine whether there is a correlation between concentration of spending and outcomes, across or within grantees.

- Similarly, can we draw conclusions about the relative effectiveness of different methods of intervention?

If grantees use NSP2 for different types of intervention (rehab and sale, land banking, demolition, etc.) in similar neighborhoods within a county, we will attempt to compare outcomes across sites by single grantee. This may not be feasible, so we may need to group similar strategies across grantees and counties to assess outcomes by intervention type. For this analysis, it will be important to understand why grantees have chosen the methods used for each site, and to determine whether there are common constraints or enabling factors that lend themselves to particular strategies. If we can identify multiple grantees working in the same general market area, we can use these observations to assess impact by strategy (for instance, both Habitat for Humanity and NYC's Department of Housing and Community Development are working in Brooklyn, and may have chosen different methods of intervention).

- Does the implementation strategy or effectiveness vary by grantee type, size or capacity?

All grantees were selected based on proven effectiveness at carrying out interventions, but there is considerable variation in the institutional characteristics of grantees. Grantees can be governments, nonprofit organizations, and consortiums of public agencies and nonprofit organizations, may be based at the state, local or national level. Each of these organizational types will have different sources of funding and organizational capacities to support NSP2 efforts. NSP2 grantees will also differ in their planned use of funds, and we expect grantees to have different approaches to acquiring properties and returning them to productive use. We will attempt to compare strategies for intervention and housing market outcomes across grantees types, either within the same market or across markets.

In addition to these broad questions, the cross-site analysis is another opportunity to investigate the impact of NSP2 activities on a variety of outcome variables. As conditions warrant, we will make use of clean quasi-natural experiments to augment the results of the impact analyses. That is, for example, where one grantee uses two distinct interventions within the same submarket and time frame, we may be able to hold constant covariates that we may have a difficult time controlling for in the statistical approaches taken in the impact analyses. These sorts of opportunities cannot be planned for, but we feel strongly that when possible, we will use these types of tests to buttress our statistical results.

B2.3 Justification of Level of Accuracy

The study sample is not intended to be statistically representative of all the NSP2 counties or even all the counties in the sampling frame; however, the sample is intended to have representation of the diverse counties receiving NSP2 investments and to oversample the counties that are expected to be most informative about the outcomes and impacts of NSP2—counties with the largest or most concentrated NSP2 investments. Exhibit 6 shows the characteristics of the 20 counties in the study sample compared to the 55 counties in the sampling frame and all 133 NSP2 counties.

The primary differences between the sample counties and the other NSP2 counties are related to the oversampling of boom-bust counties. The sample also focuses on counties with the largest and most concentrated NSP2 investments.

Exhibit 6: Characteristics of Sampled NSP2 Counties Compared to Sampling Frame and All NSP2 Counties

Characteristic	Sampled Counties (n=20)	Counties in Sampling Frame (n=55)	All NSP2 Counties (=133)
Housing Market Characteristics of MSA in Which County is Located			
Housing Market Category			
Boom-Bust Market: Sand States	40.0%	32.7%	21.8%
Boom-Bust Market: East Coast	15.0%	16.4%	10.5%
Boom-Stable Markets	10.0%	16.4%	15.0%
Slow Growth Markets	10.0%	5.5%	6.0%
Lagging/Declining Markets	25.0%	29.0%	46.6%

Notes: Characteristics of the county are based on the MSA in which they are located. The boom period is defined as first quarter of 2006 through the second quarter of 2007; the bust period is defined as the third quarter of 2007 through the fourth quarter of 2009

The planned analysis includes a number of comparisons between NSP2 grantees across housing market categories and several grantee-level characteristics.

B3 Maximizing Response Rates

All grantees in our site visit sample have already cooperated with a baseline site visit. Having developed working relationships with grantees during our on-site interviews, we do not expect any to drop out for the follow-up site visit. We will build on these established working relationships by sending the same team of researchers to conduct the follow-up site visit that conducted the baseline site visit in each county. Personnel substitutions will be made only if absolutely necessary (e.g., the departure of a researcher from Abt Associates, Concentrance, or the University of Southern California).

The initial grantee site visit recruitment process emphasized the evaluators' respect for any burdens placed on the grantee and the importance of the study in determining future community stabilization

policies. HUD sent an advance letter to the sample grantees to inform them of the importance of the study to both the NSP program and future community stabilization efforts, encouraged them to participate, and specified what participation entails. The letter was also intended to mitigate any potential fears that the study is an audit or contract monitoring activity and emphasize that the participation burden is minimal. An additional key point that was emphasized during the recruitment effort is that the evaluators are gathering all the information they can from pre-existing sources to keep grantees' participation burden low. These points will all be reiterated with grantees when we contact them to schedule follow-up site visits. The response rate to the baseline interviews was 100 percent, and we expect the response rate to the follow-up interviews to be the same.

In addition, researchers have discussed the property-level data collection with grantees in some detail, so they are prepared for this process and have demonstrated a willingness to cooperate.

B4 Tests of Procedures or Methods

Drafts of the instrument have been reviewed by HUD personnel, Abt Associates staff, and University of Southern California staff in order to ensure that the instrument is clear, flows well, and is as concise as possible. In addition, the instruments were developed building on the experience gained while conducting the baseline site visits, and they reflect improvements identified during that process. Specifically, the follow-up interview instruments are closely related to the baseline instruments, which have now been extensively field tested, but include changes that improve the flow and clarity of the questions. The baseline interviews also identified improvements to the data collection process, and the number of site visit instruments was reduced from three to two. This is a result of the understanding gained during the baseline interviews of the relative roles of lead grantees and their partners in designing and conducting NSP2 activities.

B5 Statistical Consultation and Information Collection Agents

HUD has contracted with Abt Associates, the University of Southern California, and the Concentrance Consulting Group to design the study, conduct the data collection, and perform the analysis activities. The HUD Government Technical Representative (GTR) reviewed all the proposed procedures and had them reviewed by other subject matter experts at HUD. If there are any questions about this submission, please call the HUD GTR, Judson James (202-402-5707), or the Abt Associates Project Director, Dr. Alvaro Cortes (301-634-1857).