

Methodology for Allocation of \$3.92 billion of Emergency Assistance for the Redevelopment of Abandoned and Foreclosed Homes

Section 2301 of the Housing and Economic Recovery Act of 2008 calls for allocating \$3.92 billion for state and local governments (as such terms are defined in section 102 of the Housing and Community Development Act of 1974 (42 U.S.C. 5302)) for emergency assistance with redeveloping abandoned and foreclosed homes. The statute calls for the funds to be used to:

- (A) “establish financing mechanisms for purchase and redevelopment of foreclosed upon homes and residential properties, including such mechanisms as soft-second, loan loss reserves, and shared-equity loans for low- and moderate-income homebuyers;
- (B) purchase and rehabilitate homes and residential properties that have been abandoned or foreclosed upon, in order to sell, rent, or redevelop such homes and properties;
- (C) establish land banks for homes that have been foreclosed upon; and
- (D) demolish blighted structures.” (2301(c)(3))

The statute directs that the funds be allocated to “States and units of general local government with the greatest need, as such need is determined in the discretion of the Secretary based on

- (A) the number and percentage of home foreclosures in each State or unit of general local government;
- (B) the number and percentage of homes financed by a subprime mortgage related loan in each State or unit of general local government; and
- (C) the number and percentage of homes in default or delinquency in each State or unit of general local government.” (2301(b)(3))

It further notes that the formula is to be developed within 60 days of enactment (2301(c)) and that no state shall receive less than 0.5 percent of the amount appropriated (2302).

The statute also provides direction to grantees that they should give priority emphasis in targeting the funds that they receive to “those metropolitan areas, metropolitan cities, urban areas, rural areas, low- and moderate-income areas, and other areas with the greatest need, including those--

- (A) with the greatest percentage of home foreclosures;
- (B) with the highest percentage of homes financed by a subprime mortgage related loan; and
- (C) identified by the State or unit of general local government as likely to face a significant rise in the rate of home foreclosures.” (2301(c)(2))

Allocation

- **Grantee Universe.** The statute calls for allocating the Neighborhood Stabilization Program (NSP) funds to state and local governments. The initial grantee universe is comprised of the 1,201 state and local governments funded in FY 2008 under the regular Community Development Block Grant formula. However, if a local government receives an allocation based on their relative need (as discussed below) of less than \$2 million, its allocation amount is rolled up into the state government grant. Of the 1,201 eligible state and local governments, 308 grants are made to states and local governments (including Puerto Rico, the District of Columbia, and the four insular areas).

Because this funding is one-time funding and the eligible activities under the program are different enough from the regular program, HUD believes that a grantee must receive a minimum amount of \$2 million to have adequate staffing to properly administer the program effectively. In addition, fewer grants will allow HUD staff to more effectively monitor grantees to ensure proper implementation of the program and reduce the risk for fraud, waste, and abuse.

- **Minimum Grant to States.** The statute calls for no state (including Puerto Rico) to receive less than 0.5 percent of the appropriation. This equates to \$19.6 million as a minimum grant for each state government. To meet this requirement, HUD first allocates funds based on relative need (see below) to each state as a whole (both entitled and non-entitled areas). If the state as a whole would receive less than \$19.6 million, the state total is increased to \$19.6 million. Sub allocations to the state government and local governments are then made as follows:
 - Each state government is allocated \$19.6 million.
 - If the statewide allocation is more than \$19.6 million, the remaining funds are allocated to state and local governments proportional to their relative need.
 - If a local government receives less than \$2 million under this sub-allocation, their grant is rolled up into the state government grant.

Note, this approach provides state governments with proportionally more funding than their estimated need under the assumption that state governments will serve both those areas not receiving a direct grant and those areas that do receive a direct grant, making sure that the total of all funds in the state are going proportionally more to those places (as prescribed by the statute):

- *“with the greatest percentage of home foreclosures;*
 - *with the highest percentage of homes financed by a subprime mortgage related loan; and*
 - *identified by the State or unit of general local government as likely to face a significant rise in the rate of home foreclosures.” (2301(c)(2))*
- **Two step allocation - statewide allocation.** The statute calls for allocating funds based on the number and percent of foreclosures, subprime loans, and loans delinquent or default. HUD staff experience is that the best source of data on those factors comes from the Mortgage Bankers Association National Delinquency Survey (MBA-NDS). This survey has been conducted for over 30 years and provides information on more than 70 percent of all active mortgages every quarter. The data are available at the state level. For the subprime and delinquency variables, HUD uses data from the second quarter of 2008. For foreclosures, HUD uses the sum of all foreclosure starts for all of 2007 and the first half of 2008.¹

However, because the MBA-NDS only covers about 70 percent of all active mortgages, and the distribution in coverage could be different from state-to-state, HUD adjusts the MBA-NDS data using (a) statewide data from the 2006 American Community Survey on number of owner-occupied dwelling with a mortgage and (b) increases that number by the fraction of mortgages made between 2004 and 2006 that were investor-owned in the Home Mortgage Disclosure Act (HMDA) data². Since approximately 44 percent of single-family rental units have a mortgage (2001 Residential Finance Survey) and the investor owned properties are a significant contributor

¹ HUD elected to use this measure of “foreclosure starts” over a period of time rather than “currently in foreclosure” because we wanted to capture the volume of foreclosures independent of state laws and other actions locally that may affect how long a property is in the foreclosure process.

to the inventory of foreclosed homes, HUD staff believe it is important that loans made to investors be included in estimating the statewide total of mortgages in place, particularly since homeownership rates vary from state to state.

The statewide allocation is calculated using the following formula:

Statewide Allocation = Appropriation *

$$\left\{ \begin{aligned} & \left[\frac{0.7 * (\text{State's foreclosure starts in last 6 quarters}) * (\text{State foreclosure rate})}{\text{National foreclosure starts in last 6 quarters} \quad \text{National foreclosure rate}} \right. \\ & + \frac{0.15 * (\text{State's Number of subprime loans}) * (\text{State subprime rate})}{\text{National number of subprime loans} \quad \text{National subprime rate}} \\ & + \frac{0.10 * (\text{State's number of loans in default}) * (\text{State default rate})}{\text{National number of loans in default} \quad \text{National default rate}} \\ & + \left. \frac{0.05 * (\text{State's loans 60 to 89 days delinquent}) * (\text{State 60 to 89 day delinq rate})}{\text{National loans 60 to 89 days delinquent} \quad \text{National 60 to 89 day delinq rate}} \right\} \\ & * \frac{(\text{State vacancy rate in Census Tracts with more than 40\% of the loans High-cost}^3)}{\text{National vacancy rate in Census Tracts with more than 40\% of the loans High-cost}} \end{aligned} \right.$$

Where the rate of a foreclosures, subprime loans, defaults, or delinquencies in a state relative to the national rate of that problem cannot increase or reduce a state's share of the problem by more than 30 percent and a state's vacancy rate difference relative to the national average cannot increase or decrease a state's proportional share of the problems by more than 10 percent.⁴ If a statewide allocation is less than \$19.6 million, the statewide grant is increased to \$19.6 million. Because this approach will result in a total allocation in excess of appropriation, all grants above \$19.6 million are reduced pro-rata to make the total allocation equal to the total appropriation.

Note that 70 percent of the funds are allocated based on the number and percent of foreclosures, 15 percent for subprime loans, 10 percent for loans in default, and 5 percent for delinquent loans. The higher weight on foreclosures is based on the emphasis the statute places on targeting foreclosed homes.⁵

The statute specifies that funds be targeted toward the places most likely to need assistance with addressing the problems associated with abandoned homes due to foreclosure. To ensure that the funds not only target to foreclosure, but also to abandonment caused by foreclosure, HUD adjusts a

² This is calculated as total mortgages = ACS Owner Occupied with mortgage *[1+(HMDA investor mortgages/HMDA renter mortgages)].

³ Vacancy data are from a June 2008 extract of USPS data on addresses vacant for 90 days or longer in urban areas. Data on high cost loans are based on the sum of HMDA data for 2004 to 2006 on loans being made at 3 basis points or more above prime. The vacancy rate is calculated as the sum of vacant addresses in areas with high cost loans divided by all addresses in the state. The national rate is 1.1 percent.

⁴ HUD was unable to identify reliable data on foreclosures, subprime loans, or delinquencies for the Insular areas. As such, HUD estimated insular area rates using the same model as it uses for the substate allocations. Only unemployment rate is used because there are not OFHEO or HMDA data available for insular areas.

⁵ Delinquency rates and subprime rates correlate very highly with the foreclosure rate. As such, changing the weights has only a small impact on actual allocations.

state's proportional share of need associated with foreclosures, subprime loans, and defaults and delinquencies upward for states with relatively higher rates of vacancies of 90 days or more when those vacancies are in neighborhoods with high concentrations of high-cost loans. States with lower rates of vacancies have their share of need adjusted downward. Because high rates of high cost loans are a good predictor of foreclosures, HUD uses the 90-day vacancy information from the United States Postal Service as of June 2008 in those neighborhoods with a high rate of high cost loans as a proxy to predict abandonment risk. As noted above, a state's share of overall need can only be adjusted up or down by 10 percent using this factor.

- **Two step allocation - sub-state allocation.** Substate allocations work like a mini-formula. The appropriation amount is the amount calculated for the statewide allocation. A new formula is then applied to divide that “pie” up among the CDBG eligible grantees within that state.

Data on foreclosures, subprime loans, and delinquencies are available from various private sources at county, zip code, and metropolitan levels. Those sources, however, have varying levels of coverage and transparency as to how the data are collected and aggregated. In addition, the short time frames needed to make this allocation made it unlikely that access to these private data could be negotiated with the vendors in a timely manner to meet the deadlines for this allocation. There are no public data sources collected evenly across the United States on most foreclosures, delinquencies, and subprime loans. Nonetheless, there are data from public data sources that can reliably predict where the foreclosure crisis is occurring or may occur. HUD analysis shows that 75 percent of the variance between states on foreclosure rates can be explained by three variables available from public data:

- Office of Federal Housing Enterprise Oversight (OFHEO) data on decline in home values as of June 2008 compared to peak home value since 2000.
- Federal Reserve Home Mortgage Disclosure Act (HMDA) data on percent of all loans made between 2004 and 2006 that are high cost.
- Labor Department data on unemployment rates in places and counties as of June 2008.

Because these three variables are publicly available for all CDBG eligible communities and they are good predictors of foreclosure risk, HUD used them to estimate foreclosure rates in each jurisdiction within a state.

Using a simple linear regression, we created a model to estimate the foreclosure rate for each entitlement community, using the following formula:⁶

$$\begin{aligned} \text{Model Foreclosure Rate} = & -2.211 \\ & - (0.131 * \text{Percent change in MSA OFHEO current price (June 2008) relative to the maximum in past 8 years}) \\ & + (0.152 * \text{Percent of total loans made between 2004 and 2006 that are high cost}^7) \\ & + (0.392 * \text{Percent unemployed in the place our county in June 2008}^8). \end{aligned}$$

⁶ This regression has an R-square of 0.750 (correlation 0.866).

⁷ A high cost loans is one with a rate spread is 3 percentage points above the Treasury security of comparable maturity.

⁸ Unemployment rate is capped at 10 percent to correct for anomalies in the estimated foreclosure rate created by extremely high unemployment rates.

This model foreclosure rate can then be multiplied times the estimated number of mortgages within a jurisdiction (number of HMDA loans made between 2004 and 2006 times the ratio of ACS 2006 data on total mortgages in state / HMDA loans in state) to calculate the number of foreclosures in a jurisdiction. This estimated number of foreclosures in the jurisdiction is further adjusted such that when summed for all jurisdictions within the state it equals the total foreclosure starts in the state used for the statewide allocations.⁹

Each jurisdiction's allocation is thus calculated as follows:

Local Allocation = (Statewide allocation - \$19,600,000) *

[(Local estimated foreclosure starts in last 6 quarters) *

State total foreclosure starts in last 6 quarters

(Local vacancy rate in Census Tracts with more than 40% of the loans High-cost)]

State vacancy rate in Census Tracts with more than 40% of the loans High-cost

Where the vacancy rate adjustment can't increase or reduced a local jurisdiction's allocation by more than 30 percent.

Local governments with an allocation of less than \$2 million have their grants rolled into the state government grant allocation.

⁹ This model also has high predictive value relative to other sources of data on foreclosures and subprime loans. Relative to the rate of statewide foreclosures from the private vendor RealtyTrac, this model has a correlation of 0.784. Relative to the rate of problems for subprime and Alt-A loans available from First American Core Logic, the correlation is 0.846. Relative to the 90 day delinquency rate from Equifax data, the correlation is 0.893. In general, all of these measures correlate well with each other, but the correlation of the model against each of these measures is often higher than they are with one another.