Graphic Detail

Geographic Information Systems organize and clarify the patterns of human activities on the earth's surface and their interaction with each other. GIS data, in the form of maps, can quickly and powerfully convey relationships to policymakers and the public. This department of Cityscape includes maps that convey important housing or community development policy issues or solutions. If you have made such a map and are willing to share it in a future issue of Cityscape, please contact david.e.chase@hud.gov.

Combining Data on Residential Vacancy Rates and Mortgage Foreclosures Provides a Picture of Neighborhood Change

Robert N. Renner

U.S. Department of Housing and Urban Development

Jamie W. Wolf KBM Group, Inc.

The U.S. Department of Housing and Urban Development's (HUD's) Office of Policy Development and Research recently acquired a product from Lender Processing Services Applied Analytics¹, which contains proprietary individual-loan—level data covering approximately 75 percent of the entire mortgage loan market. This product is a robust data source of 40 million mortgage loans² with ZIP Code geographic detail. It includes more than 70 loan attributes, credit scores, and foreclosure status. The ability to identify and track loans in foreclosure and calculate foreclosure rates at various geographic levels can lead to powerful knowledge for all parties involved in community development and housing policy. To illustrate the geographic concentration and extent of social and economic distress resulting from the current housing crisis in the map of the Las Vegas, Nevada metropolitan area in exhibit 1, we connect this mortgage data with U.S. Postal Service (USPS)³ data on vacant addresses.

The ZIP Codes on the map are shaded from light to dark based on the foreclosure rate as of August 2009. One-half of the ZIP Codes in the area have a foreclosure rate of 10 percent or higher, with

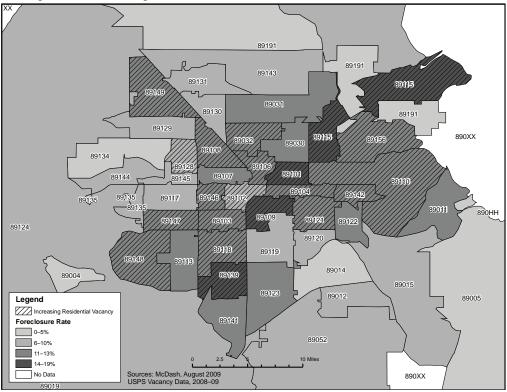
¹ Formerly McDash Analytics.

² Includes first and second mortgages.

³ USPS vacancy data are available through HUD USER (http://www.huduser.org/datasets/usps.html).

Exhibit 1

Foreclosures and Increasing Residential Vacancy Las Vegas and Surrounding Communities



USPS = U.S. Postal Service.

ZIP Code 89109, located in the center of the map, approaching 20 percent. The hatched areas on the map are ZIP Codes that have had increases in residential vacancy above the mean change for all ZIP Codes in Las Vegas and its surrounding communities from September 2008 to September 2009. The mean change in ZIP Code residential vacancy rate during this period is 1.25 percent. The average increase in residential vacancy rate in the hatched ZIP Codes is 2.66 percent, which is more than twice the mean. The average residential vacancy rate for these ZIP Codes has increased from 3.8 to 6.5 percent during this period.

In general, increasing vacancy rates occur where home foreclosure rates are high. Some exceptions occur, most notably in Las Vegas, North Las Vegas, and Whitney, where the foreclosure rate is high but the residential vacancy rate is still comparatively low. Also of interest and warranting further examination are the concentrations of vacancies and foreclosures around Nellis Air Force Base. A military base is often a source of both employment and housing for a community (be it on-base or off-base housing). Any changes to or fluctuations in that military installation can have compounding effects on a community's housing stock and exacerbate a housing crisis in terms of foreclosures and vacancies, as is occurring in Las Vegas.

The mapping of foreclosure rates and vacancy rates can provide a starting point for studying the interrelationship between vacancy and foreclosure. More in-depth analysis is needed to understand the direct relationship between foreclosure rates and vacancy rates, which leads or lags the other, and the unique determinants of distress in Las Vegas.

