



Newsletter From HUD USER

## An Analysis of the Effects of the GSE Affordable Goals on Low- and Moderate-Income Families

According to a new study released by HUD, Fannie Mae and Freddie Mac have helped to make homeownership more attainable for low- and moderate-income families by purchasing more loans originated to low-income families and increasing their overall market share in areas with higher concentrations

of target groups. The study, "An Analysis of the Effects of the GSE Affordable Goals on Low- and Moderate-Income Families," provides an empirical analysis of the lending activities of Government Sponsored Enterprises (GSEs) in response to goals mandated by the Federal Housing Enterprises Financial Safety and Soundness Act (FHEFSSA).

### Making Homeownership Accessible to All Who Qualify

Congress enacted the FHEFSSA in 1992 to encourage Fannie Mae and Freddie Mac to increase their purchases of mortgages on housing for low- and moderate-

## Assessing Housing Durability: A Pilot Study

"Assessing Housing Durability: A Pilot Study," a new report released by HUD, examines information about housing conditions and characteristics, and their relationship to durability. The study uses a site condition assessment and a homeowner survey to provide a framework for assessing the relationship between the affordability and durability of housing.

This study, the first of its kind, will serve as a foundation for future research gauging the durability of homes. Five three-inspector teams performed exterior site inspections on 208 houses – 105 of which were built

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# Updating the Low-Income Housing Tax Credit (LIHTC) Database: Projects Placed in Service Through 1999

The Low-Income Housing Tax Credit (LIHTC) enables states to issue Federal tax credits for the acquisition, rehabilitation, and new construction of affordable rental housing. Since its inception,

the LIHTC program has been the principal mechanism supporting the production of new and rehabilitated rental housing for low-income households. From 1995 to 1999, approximately 1,300 proj-

ects representing 86,000 units were placed into service each year. The LIHTC provides state and local housing agencies with the equivalent of nearly \$5 billion in

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## Durability

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in the 1990s and 103 of which were built in the 1970s. The analysis examines causal relationships among housing design, materials, and durability. The report includes color pictures to illustrate the variety of conditions encountered by the inspectors.

In addition, researchers were able to glean other valuable information including, for example:

- Vinyl frames are used in 65 percent of windows, making it the most widely used material in the 1990s. Wood and metal frames were the dominant materials in the 1970s.
- Rot occurred in 22 percent of homes built in the 1990s and 31 percent of homes built in the 1970s.
- Cracks were visible in 65 percent of block foundations compared to 10 percent of concrete foundations.

Researchers also queried 43 homeowners by telephone and through a site visit. The homeowner survey captures data on a large number of residential features. For example, homeowner responses indicate that the most common durability problems cited were related to water, including wet basements and leaky windows.

The report includes a discussion of the study methodology and recommendations to improve data quality. Based on the lessons from this study, researchers recommend that future studies include:

- A comprehensive set of inspector training documents and training materials.
- A simplified survey form focusing on the critical issues identified in this study.
- Techniques and procedures aimed at minimizing inspector error, including quality checks of completed survey forms and

prompt on-site follow-up, to address discrepancies.

The findings of this study demonstrate the feasibility of benchmarking and monitoring the durability of the nation's housing stock and reveal the importance of certain design, construction, maintenance, and environmental factors impacting durability. These findings, however, must be tempered with an understanding that they are associated with a relatively small sample in one locality in the United States. The results of this pilot study should not be interpreted beyond the limits of the sampled houses and occupants, yet should provide a starting point for future studies.

"Assessing Housing Durability: A Pilot Study" is available for \$5.00 from HUD USER. Please use the order form on the back of this newsletter. You can also download the form from the HUD USER Web site at [www.huduser.org](http://www.huduser.org). ❖

## Affordable Goals

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income families and neighborhoods. The legislation authorized HUD to set affordable housing goals (AHGs), including:

- Ensuring a certain proportion of units in properties mortgaged with loans purchased by the GSEs are owned or rented by families with incomes less than or equal to the area median.
- Requiring that a percentage of units in properties mortgaged with loans purchased by the GSEs are located in metropolitan-area census tracts with a family income less than or equal to 90 percent of the area median, or with a minority population proportion of at least 30 percent and a tract income less than or equal to 120 percent of the area median.
- Mandating that GSEs take a leading role in serving lower income and minority families by meeting a percentage of business targets and initiating demonstrations and partnerships to facilitate affordable lending.

The study focuses on two major areas: capital market outcomes, such as changes in GSE market shares and increased flows of capital to targeted areas resulting from the goals; and housing mar-

ket outcomes, as defined by homeownership rate changes among low- and moderate-income and minority families. The study was based on theoretical and empirical analyses, which considered such factors as decreasing interest rates, rising incomes, and the effects of the Community Reinvestment Act, which requires lenders to help meet the credit needs of the communities they serve.

### GSE Purchase Activity

Researchers hypothesized that an increase in GSE purchase activity would decrease market shares of portfolio lenders in the conventional market. Researchers used Home Mortgage Disclosure Act (HMDA) data to identify mortgages originated by Metropolitan Statistical Area (MSA) and to determine their final disposition. The analysis of underserved markets, excluding the subprime loan market, found that GSE market share of mortgage dollar volume increased from 29 percent in 1995 to 39 percent in 1999, while the average market share, in terms of the number of loans, increased from 24 to 34 percent. This result is consistent with the theory that the AHGs would encourage GSEs to change their underwriting guidelines so that more loans would qualify for their purchase.

Researchers also examined whether GSE market shares have increased in areas with higher concentrations of target groups. This analysis was performed using a model that interacted the percentage of underserved borrower groups with a time trend to test whether GSE purchase activity shifted in response to AHG regulations. Researchers expected to find a positive relationship between GSE market shares and the percentage of underserved census tracts in an MSA. However, the results indicated small, if any, discernable pattern.

### GSE Market Share Effect on Interest Rates

Researchers also looked at the effect of GSE market share on interest rates by regressing average interest rates, reported in the Federal Housing Finance Board's Monthly Interest Rate Survey, against the loan-to-value ratios and GSE market share. The hypothesis was that if GSE purchase activity lowers interest rates in the primary market, then census tracts with higher market shares should have lower interest rates. The results of this test confirmed this hypothesis for borrowers in the 60 – 80 percent, 80 – 100 percent, and 100 – 120 percent area median income (AMI) categories. However, interest rates

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## Affordable Goals

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increased for borrowers with less than 60 percent of AMI. Overall, researchers concluded that AHGs had limited impact on mortgage interest rates.

A central question for HUD is whether AHGs have increased the supply of mortgage credit to geo-targeted areas. An empirical analysis of mortgage market supply and demand using MSA level data provides no definitive assessment of the AHG effect on mortgage supply. There is no direct link between total mortgage lending volume and the proportion of an MSA's census tracts that meet the definition of underserved. It does appear, however, that GSE purchases of seasoned loans to meet the goals are enabling primary lenders to recycle the proceeds into more mortgage lending in their areas.

In addition to capital market outcomes, researchers examined the effects of AHGs on homeownership rates. Researchers expected that if GSEs increased their purchasing activity in underserved markets, they would help to increase homeownership rates for low- and moderate-income families. Researchers used metropolitan American Housing Survey data for eight cities to compute homeownership rates for various

groups at two points in time during the 1990s and then compared the changes. Overall, homeownership rates increased faster for low- and moderate-income groups in MSAs with higher GSE market shares. An analysis of homeownership rates in 80 cities over a six-year timespan found that GSE purchase of loans originated to low-income families increased the liquidity of the market. Greater overall market liquidity enabled primary lenders to mount more targeted lending efforts, which helped make homeownership possible for a larger number of traditionally underserved groups.

The findings offer some evidence that GSEs have helped make it easier for low-income families to become homeowners by increasing market share and adding liquidity. However, the report concludes that further research using 2000 Census data would provide more definitive results.

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### *Recent Research Results*

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# Durability by Design: A Guide for Residential Builders and Designers

Heavy rain penetrating a building's exterior shell without an opportunity to drain or dry out rapidly causes wood framing to rot, steel to corrode, and creates favorable conditions for mold and mildew. This common – and potentially disastrous – housing durability problem can be prevented by using appropriate roof designs and moisture-resistant materials, such as housewraps and flashing.

Water damage is one of several housing durability issues dis-

cussed in "Durability by Design: A Guide for Residential Builders and Designers." The Partnership for Advancing Technology in Housing (PATH) published *Durability by Design* as a best-practice resource for designers, builders, and homeowners interested in learning about how to prevent or address the most common housing durability problems. The first two chapters introduce concepts related to durability and their importance. The last six chapters are devoted

to ground and surface water, rain and water vapor, sunlight, insects, decay and corrosion, natural hazards, and miscellaneous issues, such as finishes and air leakage.

## Why is Durability Important?

Durability is governed by a complex set of physical interactions that have a significant impact on long-term building performance. When durability is compromised, there can be sub-

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**LIHTC**

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annual budget authority for use in leveraging capital.

Due to the decentralized nature of the LIHTC program's administration, information about the characteristics of completed projects are not automatically catalogued and must be collected from the 58 independent organizations, typically state housing finance agencies, that administer the program. To facilitate the analysis of these data, HUD created the LIHTC database. A new report, titled "Updating the Low-Income Housing Tax Credit (LIHTC) Database: Projects Placed in Service Through 1999," presents the results of the most recent update to the database of LIHTC properties placed in service through 1999 and provides more complete coverage of properties placed in service in 1998.

The report is divided into five chapters. Chapters one and two provide an overview of the LIHTC program and a description of the data collection process, respectively. Chapter three presents the characteristics of tax credit projects placed in service from 1995 through 1999. Chapter four presents information about the location of tax credit properties placed in service from 1995 through 1999. Chapter five summarizes key findings. The appendices present findings by state, the data collection form, and a detailed description of the data-

base. Findings from the report include:

- Thirty-nine percent of LIHTC projects have more than 50 units, compared to two percent of typical apartment complexes.
- Nearly 24 percent of LIHTC project units have three or more bedrooms, compared to 11 percent of apartment units nationally, and 16 percent of all apartments built between 1990 and 1997.
- The number of LIHTC projects placed in service remained constant over the study period, yet the number of units increased, reflecting a larger average project size.

The database enables regional development patterns to be analyzed with geo-coded LIHTC data. This analysis shows that the distribution of LIHTC projects mirrors that of rental housing units in general. For example, the South accounts for both the largest percentage of the U.S. population and the largest share of LIHTC projects. Geographical placements were also similar. The locations of tax credit units placed in service between 1995 and 1999 mirror the location of all rental units, as shown in the table below.

Location	LIHTC Units	All Rental Units
Central City	46%	46%
Suburb	41%	38%
Non-metro	14%	15%

In 1989, as part of the Omnibus Reconciliation Act, Congress added provisions to the LIHTC program to increase the production of LIHTC units in hard-to-serve areas. Specifically, the Act permits projects located in Difficult Development Areas (DDAs) or Qualified Census Tracts (QCTs) to claim greater eligibility for the tax credits. The characteristics of projects in DDAs and QCTs can be analyzed using the geo-coded LIHTC data.

According to the report, projects in DDAs and QCTs are more likely to include rehabilitation, whereas projects outside of these designated areas are more likely to include new construction. The percentage of projects in QCTs that have a nonprofit sponsor is nearly twice that of projects not in QCTs or DDAs.

The creation and maintenance of the LIHTC database is part of an effort by HUD to enable the entire research and policy community to participate in the analysis of Federal programs by making specific data available. A complete copy of "Updating the Low-Income Housing Tax Credit (LIHTC) Database: Projects Placed in Service Through 1999" is available for \$5.00 from HUD USER. Please use the order form on the back of this newsletter. You can also download the form from the HUD USER Web site at [www.huduser.org/datasets/lihtc/report9599.pdf](http://www.huduser.org/datasets/lihtc/report9599.pdf). ❖

## Design

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stantial economic consequences, which can be further compounded by concerns relating to occupant health. In either event, poor durability is costly for builders and homeowners alike. Builder callbacks to fix durability problems have a negative impact on the builders' bottom lines and reputations. Even when health issues are not a concern, durability failures often increase homeowners' operating and maintenance costs.

### A Different Kind of Natural Disaster

Rooms bathed in sunlight are generally desirable, but the combination of visible light and non-visible radiation can cause substantial wear on housing structures. The sun produces both chemical and physical reactions

that attack materials and shorten their life expectancy. These reactions can cause interior and exterior paint color to fade, premature asphalt roof shingle failure, and warping and discoloration of vinyl siding. *Durability by Design* discusses types of solar radiation damage and describes options for preventing it. For example, properly sized roof overhangs can minimize solar exposure on interior and exterior walls.

Natural elements like sun and water are not the only potential threats to housing durability.

Pests such as termites, carpenter ants, wood-boring beetles, and carpenter bees also pose a threat to wood structures. *Durability by Design* reviews practices for controlling pest damage and describes the advantages and limitations of each. For example,

builders can use termite-resistant materials (such as concrete and masonry building materials) instead of wood. Chemical treatments are also effective, but must be periodically reapplied.

For each factor that hinders structural durability, *Durability by Design* offers several solutions, while taking into account the fact that cost effectiveness is a priority for both builders and consumers. *PATH's* latest offering concludes with appendices containing helpful durability checklists for builders and homeowners.

A complete copy of "Durability by Design" is available for \$5.00 from HUD USER. Please use the order form on the back of this newsletter. You can also download the form from the HUD USER Web site at [www.huduser.org/publications/destech/durdesign.html](http://www.huduser.org/publications/destech/durdesign.html).

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