

RESEARCH *Works*

Volume 6, number 6

A Bridge Linking Housing Research and Practice

A Sustainability Framework Shapes the Future

With a new Housing and Urban Development Secretary, a new administration, and support from HUD's Office of Policy Development and Research (PD&R), "sustainability" has become a new framework for addressing the challenges facing metropolitan areas. HUD's original charter, as codified in the Housing and Urban Development Act of 1965, addressed the nation's housing needs, but also placed them in the context of a larger vision of "assisting communities in developing solutions... and encouraging effective regional cooperation in the planning and conduct of community and metropolitan development."¹

This larger vision is especially relevant today. The current mortgage crisis, while first and foremost a housing crisis, can also be viewed in a broader regional and metropolitan context where existing patterns of growth have become increasingly unsustainable, both economically and environmentally. The residential sector and the built environment are major contributors to energy consumption and global

You may have noticed...

We have a new look! We've redesigned *ResearchWorks* to improve both readability and overall enjoyment of the news that affects our readers' personal and professional lives. As always, we'll continue to explore current housing research and how it is put into practice. We hope you enjoy the new format, and will consider sharing this issue with a colleague or friend.



HUD and the U.S. Department of Energy will invest \$16 billion of economic recovery funds to accelerate adoption of green building technologies, such as these solar panels.

warming; residential buildings now account for 20 percent of U.S. carbon emissions. The transportation sector accounts for another one-third of carbon emissions, in part because current development patterns have created a mismatch of housing and jobs that, without adequate transit systems, lead to long commutes and increased dependence on car travel. In response, and in keeping with the intent of the Act, HUD is shaping its vision to broaden and integrate initiatives in support of energy efficiency, green building, and sustainable development.

Going Greener

With technical and policy support from the Office of Policy Development and Research, HUD is taking a number of new approaches, beginning with the economic stimulus package enacted by Congress earlier this year. HUD has formed a partnership with the Department of Energy (DOE) to coordinate investment of some \$16 billion in economic recovery funds allocated for energy efficiency and green building in housing. These funds provide a unique

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opportunity to accelerate deployment of energy-efficient and green building technologies, and at the same time, help create a highly qualified, highly trained, and high-performing workforce.

HUD's partnership with DOE is prompting the development of a common set of guidelines and specifications for retrofitting public housing, as well as privately owned, federally subsidized rental properties. These guidelines will assist the nation's 3,300 housing authorities in using Recovery Act funds to "go green" through sound energy-efficient building practices. The two agencies have also eliminated duplicative income verification requirements that will allow use of the DOE weatherization assistance funds in public and assisted housing.

In the broader housing market, HUD will work with DOE and the emerging home performance industry to establish a common baseline for measuring home energy use and the gains derived from efficiency improvements. HUD has also proposed a new Energy Innovation Fund in its Fiscal Year 2010 budget that will provide financing for energy efficiency in the residential sector. This will leverage private-sector (utility and other third-party) financing to stimulate the development of model residential energy-efficient retrofit initiatives in specific markets. The fund will support promising models initiated at the local level, and help expand them into additional markets. The fund will also support a variety of innovative financing programs being tested locally, such as utility bill financing or financing through local property tax bills.

In addition to supporting local energy funds, the Energy Innovation Fund will also re-engineer FHA's mortgage products, both in the single-family and multifamily sectors, to support energy-efficient and green lending. FHA has a current Energy Efficient Mortgage product that has had little traction in the marketplace, with no more than 1,000 such mortgages insured each year. By providing credit enhancements of various kinds, this product can be greatly expanded to enable homeowners to include energy-efficiency improvement as part of their purchase or refinancing transactions. HUD will also explore working with national home energy rating organizations to streamline energy audit procedures, and with an emerging home performance remodeling industry to

ensure quality installation of recommended energy conservation measures.

Coordinating Housing and Transportation

The second area where HUD is promoting sustainability is in the areas of housing and transportation. The unbalanced nature of metropolitan housing development has strained urban and suburban household budgets as commutes have lengthened, and the combination of housing and transportation costs take an average of 60 percent of working families' income in metropolitan areas. Many families found that although they moved out to the exurbs to find affordable housing, their savings in housing costs were outweighed by high transportation costs. While there were many contributing factors, there is some evidence that high gasoline costs have been a contributing factor to high foreclosure rates in suburban communities.

HUD has teamed with the U.S. Department of Transportation (DOT) to look at housing and transportation in a coordinated, integrated way. HUD is proposing to strengthen regional housing, transportation, and land use planning through \$100 million in regional planning grants that will enable metropolitan and rural areas to focus on regional housing and transportation solutions, develop a vision for growth, and use federal transportation, housing, and other investments in an integrated effort.

HUD also intends to "redefine housing affordability" with the development of affordability measures that will incorporate housing, transportation, and other costs that affect location choices. Although the cost of transportation now approaches or exceeds housing costs for many families, federal definitions of housing affordability fail to recognize the impact of transportation costs on homeowners and renters who live in areas isolated from work opportunities and transportation choices. HUD and DOT will engage in joint research, data collection, and outreach efforts with stakeholders to develop information platforms and analytic tools to track housing and transportation options and expenditures, establish standardized and efficient performance measures, and identify best practices.

With support from PD&R, HUD will explore ways to expand the availability of affordable housing near transit. In many communities, housing near transit tends to be costly, due to growing demand for housing that is accessible to public transportation. HUD will test a variety of strategies to reward the location of housing near transit facilities, both through its

grant programs and through financing tools such as location-efficient mortgages.

HUD plans to implement this with a new Office of Sustainability; a set aside for research, evaluation, and demonstrations requested in the FY 2010 budget; and unprecedented testing of models that work. While land use issues must ultimately be managed locally, federal resources can play an important role in helping to shape local decisions. The toolkit of federal enterprises discussed in this article will provide a set of new resources with which communities can address climate change and other challenges at the local level.

HUD

¹ Housing and Urban Development Act, Part XII, Organization and Administration of Department of Housing and Urban Development.

Service Coordination Helps Low-Income Elderly Age in Place

When elderly people experience difficulty making everyday decisions and performing chores such as cooking and grocery shopping, it threatens their ability to live independently. In privately owned HUD-assisted multifamily properties, service coordinators help provide supportive services to low-income elderly residents and nonelderly residents with disabilities to facilitate aging in place. Recently, HUD's Office of Policy Development & Research released *Multifamily Property Managers' Satisfaction with Service Coordination*, a report that explores the role of the service coordinator, how the position is funded, a service coordinator's impact on resident quality of life, and the property manager's level of satisfaction with service coordination.

Service coordination in HUD-assisted housing was first authorized under the 1990 Cranston-Gonzalez National Affordable Housing Act. The program's goals include facilitating services to "prevent premature and inappropriate institutionalization" and improving property managers' ability to assess and meet the needs of eligible residents.

During 2007, in cooperation with HUD's Office of Housing, the Office of Policy Development and Research interviewed a random sample of 363 property managers at HUD-assisted multifamily housing developments serving low-income elderly



Service coordination helps elderly residents to age in place, remaining in familiar environments and communities.

and nonelderly residents. The survey included properties with (54%) and without (46%) service coordination programs to gauge program outcomes. Survey data were supplemented with an analysis of HUD's Tenant Rental Assistance Certification System, which tracks numbers of residents and vacant or occupied units at all multifamily developments with rental subsidy contracts.

Research Findings

HUD-funded service coordinators assist more than 348,000 low-income elderly and nonelderly people with disabilities at nearly 3,750 multifamily housing developments across the country. Service coordinators perform a range of functions to create an environment in which residents can live independently. Among their many duties, service coordinators assess resident needs, identify appropriate services in the community, link residents with needed services, and monitor the effectiveness of support services. Residents living in properties with a service coordination program receive approximately 30 minutes of service coordination per week.

The property managers surveyed are highly satisfied with service coordination and perceive it as positively affecting residents' quality of life. Ninety-five percent of managers with HUD-funded service

Service Coordination Helps Low-Income Elderly Age in Place

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coordination programs and 86 percent of managers with non-HUD-funded programs believe that service coordination helps residents obtain needed services. Many property managers responded that service coordinators either enhance their job or make it easier, citing benefits such as reducing vacancies, helping with annual recertification of residents, and assisting with discharge of residents when higher levels of care become necessary. Some managers reported that they could better focus on property management because the service coordinator helps meet residents' needs for supportive services. Property managers also noted that program success depends on employing a knowledgeable service coordinator who actively engages residents, the property staff, and the community at large.

Properties with HUD-funded service coordination most often use their operating budgets to hire or contract with a social service staffer, who then organizes all necessary services. This approach allows for consistent year-to-year funding of the program. Other properties with HUD-funded programs use HUD's Service Coordinator Program or residual receipts from excess Section 8 rental subsidy or Section 236 developments to hire program staff. For the small number of properties (8%) providing service coordination that is not HUD-funded, resident programming is offered through another state or local government program, volunteers, or residents paying for service coordination independently.

Do Managers Agree that Residents Received Needed Services?

	HUD-Funded Service Coordination (N=168)
Strongly Agree	79.8%
Agree	15.5
Neither Agree nor Disagree	2.4
Disagree	0.6
Strongly Disagree	1.2

Source: *Multifamily Property Managers' Satisfaction with Service Coordination*, Table 12, p. 14.

Some locations do not provide service coordination. Properties that do not make this benefit available cite various reasons for this, including the fact that outside

agencies fulfill this role so that residents have no need for service coordination. Based on open-ended responses, researchers observe that the lack of service coordination at some properties may result from managers not understanding how it helps facilitate aging in place.

Through targeted evaluation, assistance, and monitoring, service coordinators enhance the lives of those they serve and appear to lengthen the time residents are able to live independently in a familiar environment and community. Analysis shows that residents with access to service coordination reside at properties more than six months longer than do residents residing in properties without a service coordinator.

The report notes that aging in place reduces rates of premature institutionalization for low-income elderly residents, thus reducing the costs borne by taxpayers. The researchers caution that additional analysis would be necessary to quantify the program's costs and benefits more fully, including the potential cost savings.

Multifamily Property Managers' Satisfaction with Service Coordination can be downloaded free at www.huduser.org/publications/hsgspec/serv_coord.html or ordered in print at a nominal cost by calling HUD USER at 800.245.2691, option 1. **HU**

Community Replicates Affordable Homes

Schenectady, New York hopes to reverse an outflow of jobs, money, and residents resulting from a decades-long decline in business and economic prosperity. Its two major employers have left the area, and between 1990 and 2000, nearly six percent of its residents moved away from the city. During that period, the city's median household income fell 10 percent.¹ Home to 5 historic districts and 14 national or state historic sites, Schenectady is involving the community in implementing its 2020 Comprehensive Plan, which seeks to expand growth while maintaining the city's character.

To help determine citywide and neighborhood goals, the city held three development workshops in each of its nine neighborhoods. Through these meetings,



This home, in Schenectady's Vale neighborhood, received a LEED Gold Certification for its energy-efficient features.

residents of two Schenectady communities — the Mont Pleasant neighborhood and the combined Hamilton Hill and Vale neighborhoods — made expanding their affordable housing stock a top priority. The median household income in Mont Pleasant in 2000 was \$27,824, slightly less than the city's \$29,378. Mont Pleasant is split nearly evenly between renter- and owner-occupied households, and approximately 40 percent faced a housing cost burden. In the combined Hamilton Hill and Vale neighborhoods, the 2000 median household income was only \$16,645. Seventy-six percent of households were renters, many of whom (40%) faced a housing cost burden (as did more than one-fourth of the homeowners).

As an initial step to improve their affordable housing supply, these neighborhoods each feature a new home that was constructed on a city-owned lot where a blighted or abandoned home once stood. Developed by Better Neighborhoods, Inc., in conjunction with the city of Schenectady, the first home is an affordable, accessible, and green single-family unit in the Mont Pleasant neighborhood. This unit served as a prototype for two additional homes in the Hamilton Hill and Vale neighborhoods. These three infill homes — each 1,650 square feet with four bedrooms and two bathrooms — blend in with the surrounding historic architecture and are affordable to first-time homebuyers with incomes below 80 percent of the area median income.

In addition to being affordable, the houses feature various green components, including sustainable building materials (bamboo floors, recycled carpets, and recycled composite lumber). The Mont Pleasant house is fitted with solar panels and solar thermal collectors that produce heat and hot water. The solar panels are expected to reduce utility costs by generating 40 to 60 percent of the home's electric and hot water needs. Other components include a grey water system that uses wastewater to preheat cold water going into the hot water heater, PEX (cross-linked polyethylene) pipes, and water-saving plumbing fixtures (dual flush toilets and low-flow aerators). These features, in conjunction with ENERGY STAR® appliances, helped the homes achieve ENERGY STAR ratings and will reduce their overall energy requirements. The green components also won the Mont Pleasant home a Leadership in Energy and Environmental Design (LEED) platinum certification — a first for a residential home in the state of New York. The two other homes received LEED gold certifications.

The three units are universally designed, in that they feature fully accessible kitchens and bathrooms, wide doors and hallways, and extra space to move around. The kitchens include a wall-mounted oven, lower countertops, cabinets that pull down, an electric range with controls in front, and a side-by-side refrigerator. An adjustable mirror, a side-mounted medicine cabinet, grab bars, a roll-in shower, an accessible toilet, and a roll-under vanity complete each bathroom. A laundry chute from the second to first floor; color contrasting outlet faceplates; and outlets, light switches, and thermostat controls at accessible levels are also included in the three houses.

The funding process for these homes was somewhat complex. They were sold at a fair market value of \$110,000, but subsidies reduced the mortgages to \$85,000. In addition, multiple partners were needed to make them affordable, accessible, and green. Project partners included:

- Nonprofit developer Better Neighborhoods, Inc.;
- The city of Schenectady, which provided \$553,715 in HOME funds;
- The Community Land Trust of Schenectady, Inc., which holds the land in trust in perpetuity to ensure that the units remain affordable;
- Architect and designer David Sadowsky and builder J. Luk Construction Company, LLC; and

Community Replicates Affordable Homes

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- Technical consultants Michael P. Stangl (home energy ratings) and Community Development Resources, LLC (grant writing).

In-kind services from nonprofit, for-profit, and governmental organizations were also needed to complete the Mont Pleasant prototype. A number of donors provided services worth \$34,600, including the New York State Energy Research and Development Authority, Re-Tree Schenectady, Schenectady County Cornell Cooperative Extension, Capital/Saratoga Energy Smart Communities, a local senator, other area service providers and businesses, and youth and student volunteers.

This combination of a cohesive group of partners and in-kind donations produced a replicable, affordable, accessible, and green housing model in the Mont Pleasant home, as demonstrated by the two additional homes in the Hamilton Hill and Vale neighborhoods and the 10 additional units currently planned in Schenectady. The green features, affordability, and accessibility of this prototype won it the HUD Secretary's 2008 Best in American Living Award.

Additional details on these homes are available at www.cityofscheneectady.com/press%20releases/HUDAwardRelease.pdf. Interested readers can find information on the HUD Secretary's Awards program by clicking on the following link: www.huduser.org/research/secaward.html. **HU**

¹ *Citywide Plan: City of Schenectady Comprehensive Plan 2020*, www.cityofscheneectady.com/pdf/development/citywideplan_feb08.pdf.

Advancing Technology in Colonia Housing

Rural communities located within 150 miles of the U.S.-Mexican border often lack the necessities most Americans take for granted, such as running water and electricity. Mostly unincorporated, these Colonias first appeared in the 1950s, when developers sold small lots without any infrastructure to low-income individuals seeking affordable housing. Colonia neighborhoods today still lack safe, sanitary, and affordable housing and infrastructure, similar to the living conditions found

in the developing world. Public services (such as paved roads, sewer and garbage services, water drainage, fire and police protection, streetlights, and transportation) are generally unavailable. Geographic isolation, lack of building codes, limited access to credit, and poverty all contribute to the substandard living conditions found in the Colonias.

Colonia residents also lack access to technology, the capital with which to purchase it, and information on how to use it to their best advantage. The Center for Environmental Resource Management's Energy Center at the University of Texas at El Paso is using its long history of community outreach to improve this situation. In 2004, with funds from a Hispanic-Serving Institutions Assisting Communities (HSIAC) grant administered by HUD's Office of University Partnerships, the Energy Center launched the Partnership for Advancing Technology in Colonia Housing (PATCH). PATCH seeks to accelerate the development and use of technologies that will radically improve the quality, durability, energy efficiency, environmental performance, and affordability of housing in Colonia neighborhoods.

Access to Energy-Efficient Housing Technology

Energy Center researchers believe that a home cannot be affordable unless it is energy efficient, and to achieve that goal is easier and less expensive than people tend to think. This research-based conclusion drives the Energy Center's outreach to Colonia residents with homes costing \$60,000 or less, for whom cutting energy use is important. According to the Energy Center, the average U.S. family spends 3.5 percent of its budget on heating, cooling, lighting, and appliance energy, whereas low-income households spend about 14 percent. The PATCH program works to alleviate this burden for Colonia populations.

Under the auspices of PATCH, the Energy Center partners with nonprofit organizations in the Paso del Norte region of west Texas and southern New Mexico to help local residents acquire the best housing technology possible, build ENERGY STAR®-rated homes, and make small loans available for residents to purchase energy-efficient appliances. The program includes revolving loans, hardship grants, materials for new homes, and public information materials.

The Energy Center confronted the challenge of convincing builders to adopt energy-efficiency guidelines, which represented an additional cost of about \$350 per home. The Energy Center estimated that \$500 worth of energy-efficient features would

Credit: UTEP Energy Center



Compliance with Energy Center green housing guidelines adds an additional cost of \$350 per home in the Colonias.

add only \$4 to a homeowner's monthly payment on a 30-year mortgage, but subtract as much as \$20 to \$30 a month from utility bills. For-profit builders were usually less interested in future savings for homeowners. For example, although a 3' x 5' low-E coated window cost only \$11 more than a standard window, for-profit builders who were constructing 200 homes a year and installing 2,000 windows viewed the additional \$22,000 in costs as significant.

Spreading the word about energy-efficient, affordable technology was easier among nonprofit builders. The Energy Center successfully used HSIAC funds to pay \$500 to the El Paso Collaborative for Community and Economic Development (EPC) for every home that three nonprofit housing developers built to Energy Center specifications. This incentive offset the incremental costs of additional insulation, improved windows, and other upgrades, while allowing the nonprofit builders to try out new techniques and materials. By working closely with the builders, the Energy Center has played a leading role in building 22 ENERGY STAR-rated homes. A similar arrangement has also worked with another 15 nonprofit builders in the area, who between them have built 500 energy-efficient homes.

Access to Capital

To help Colonia residents gain access to the capital needed to take advantage of improved housing technology, the Energy Center also used HSIAC funds to underwrite a loan fund for housing technology, a revolving layaway loan fund for small purchases (such as home improvements and energy-efficient appliances), hardship grants for household purchases, and revolving loans for larger infrastructure improvements such as septic systems or water tanks. Grassroots organizations, including AYUDA Inc.

of San Elizario, Texas and Colonias Development Council of Las Cruces, New Mexico promoted the loans to local residents, steering them away from rent-to-own stores, payday loans, and other predatory sources. The loans were administered by the EPC, providing Colonia families with a positive experience in doing business with a reliable lender. Each family successfully completing the loan program was given a letter to help with future credit applications.

Access to Information

The Energy Center also used HSIAC funds to inform local residents of the benefits of energy-efficient technologies and how to access them. Distributed through clinics, community groups, and faith-based organizations, fact sheets, flip charts, and a CD-ROM in both Spanish and English help familiarize residents with how to maximize energy efficiency. These resources explain how energy can be saved by using an evaporative cooling system with a low-voltage thermostat instead of refrigerated air conditioning, compact fluorescent bulbs (CFLs), altered laundry habits, and low-flow bathroom fixtures. For example, residents who wash clothes in cold water and install both low-flow showerheads and faucet aerators can reduce their hot water consumption by 50 percent, saving \$117 each year. Residents also learn that replacing traditional light bulbs with CFLs will reduce lighting costs by 50 percent and save \$47 annually.

The underlying purpose of the PATCH project has been to improve the living conditions of Colonia families through technology, capital, and knowledge, giving residents the tools they need to help themselves. An overview of the PATCH program is online at www.oup.org/conferences/presentations/hsiac/nasir_042106.pdf. To read more about HUD initiatives on behalf of Colonia communities, go to www.hud.gov/offices/cpd/communitydevelopment/programs/colonias/index.cfm. **HJ**

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In the next issue of ... **RESEARCH** *Works*

- The Helping Families Save Their Homes Act of 2009 was passed by Congress and signed into law by President Obama on May 20. We'll review how the law expands the reach of the Making Home Affordable programs, improves the Federal Housing Administration's Hope for Homeowners program, and streamlines how HUD supports thousands of homeless programs across America.
- We've just celebrated the 41st anniversary of the Fair Housing Act, which has prompted American communities to re-examine the progress that has been made in ensuring equal housing opportunity for everyone. We'll look at significant milestones, achievements, and persistent problems in the four-decade history of fair housing initiatives.
- By providing scattered-site, affordable housing with neighborhood-wide impact, Bridgeton Neighborhood Revitalization (BNR) has won a 2009 HUD Secretary's Award for housing and community design. For this HOPE VI project in a historic, low-income area of the small city of Bridgeton, New Jersey, BNR carefully chose where — and where not — to build. We'll explore how BNR designed Victorian- and Craftsman-style affordable homes, placing many on former industrial sites; removed dysfunctional, unsightly public housing buildings; and established park space, reconnecting the neighborhood with the Cohansy River.
- Home sharing is an affordable housing alternative in greater demand during this period of economic downturn, mortgage payment challenges, and high rates of foreclosure. Home sharing appeared as a formal component of social service programs in the 1970s, offering matching services for unrelated individuals wishing to share a home. Today, there are about 100 housemate match programs in the U.S. We'll look at what the Shared Housing Center of Dallas learned when it surveyed these programs and assessed its own Homeshare program performance of 20 years.

