

RESEARCH *Works*

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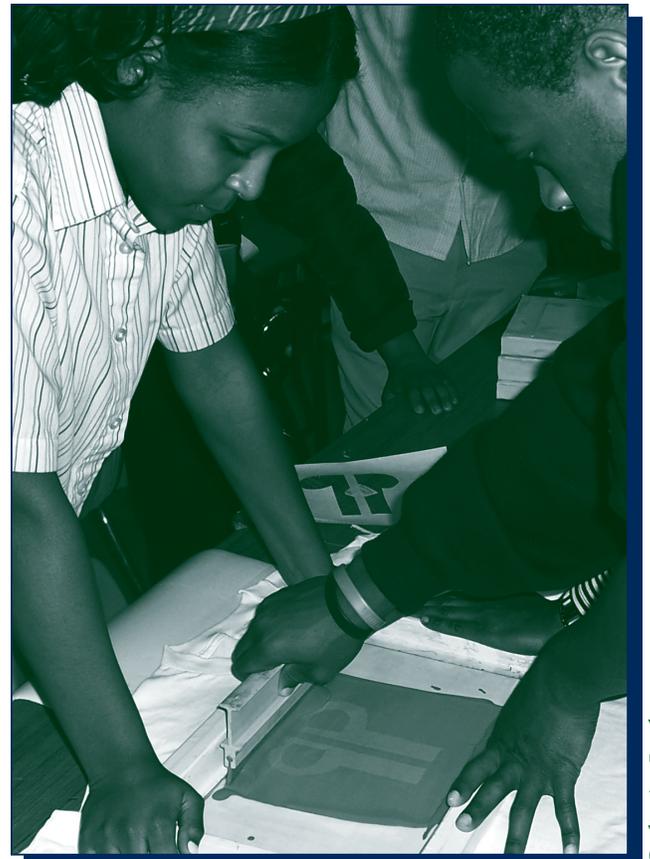
A Bridge Linking Housing Research and Practice

Local Partnerships Promote Long-Term Prosperity

In 1994, HUD awarded the city of Philadelphia \$79 million to invest in three disadvantaged neighborhoods designated as the Philadelphia Empowerment Zone. The investments were intended to bring about economic development, neighborhood change, and an improved quality of life. Because this federal support would last for only 10 years, the neighborhoods sought a way to use the funds to promote continued progress and sustainability.

The result was the Neighborhood Funding Stream (NFS), created in partnership with the city of Philadelphia and its community advisory boards (known as Community Trust Boards). Established in 2004, NFS began with \$8.75 million in seed money generated by the revolving loan fund developed from the city's Empowerment Zone grant. United Way of Southeastern Pennsylvania manages the NFS and helps make the fund's investment decisions. United Way administers the grant program with assistance from NeighborhoodsNow, a Philadelphia-based nonprofit that uses market-driven programs to improve local neighborhoods, and receives direction from each of the three neighborhoods' Community Trust Boards.

With loan repayments and the expert advice of Vanguard Asset Management Services, the original \$8.75 million investment has grown to more than \$14 million. Five percent of these funds are available for annual grants that support sustainable economic and community development. Since its inception, \$1.75 million in grants has been awarded to more than 65 nonprofit organizations. Ultimately, the grants are



Credit: Art-Reach

With an NSF grant, local youth designed t-shirts for an anti-violence campaign.

expected to “grow money, foster unique projects, and build community expertise and influence,” according to Katelyn Allen-Yoakum, director of the NFS.

Deciding how best to use this asset in light of competing needs within the community has been a challenge. To help prioritize these needs, the Community Trust Boards sought data from surveys and studies. For example, the American Street Empowerment Zone's board commissioned a survey of 400 households to look at critical community

- Storm Windows Can Make a Difference pg. 2
- Land Banks Help Stabilize Properties pg. 4
- The Status of America's Housing pg. 6



Local Partnerships Promote Long-Term Prosperity

(continued from pg. 1)

issues. They learned that many residents spent at least 30 percent of their income on housing. Although two-thirds of the respondents owned their homes, only 25 percent had homeowner's insurance to protect household assets from unforeseen emergencies. The board also learned that some areas within the neighborhood had recently experienced significant increases in residential sales prices. As a result, the board collaborated with the city of Philadelphia to underwrite revitalization efforts that would support increased access to housing-related services, information, and other resources within the community. Such efforts include stabilizing vacant land, offering tax incentives to businesses, and providing homeownership opportunities in the neighborhood.

Many grants have directly assisted residents of the neighborhoods. In 2006, the Campaign for Working Families provided free tax preparation services and helped qualifying residents of the North Central Empowerment Zone apply for the Earned Income Tax Credit (EITC). Participating families received nearly \$465,000 in federal and state refunds and saved \$47,000 in fees, penalties, and interest payments. After the current funding cycle, local families will have received more than \$1 million in refunds and EITC benefits from these services.

Another family service-oriented nonprofit, PathWaysPA, helped 60 individuals search for jobs and learn to manage personal finances. Maternity Care Coalition received grants in two neighborhoods. One grant funded North Central's MOMobile, which provided healthcare services to 90 pregnant or new mothers, along with other resources such as assistance in escaping domestic violence. The other grant funded

mobile healthcare services for 244 low-income pregnant women and new mothers in and around the American Street neighborhood.

Recognizing that half of Philadelphia's youth do not graduate from high school, NFS has awarded grants to youth-oriented activities centering on education and training, arts and culture, and improving health. Because research also shows that connecting at-risk youth to caring adult mentors helps children succeed in school, Big Brothers Big Sisters received a grant to develop and maintain mentoring relationships between local youths and mentors from Temple University and local faith-based communities. The Cardinal Bevilacqua Community Center helps youth aged 13–20 develop leadership skills by planning a weeklong fitness and health-awareness clinic for neighborhood teens and young adults. In the end, 80 children received fitness training and 15 youths learned new leadership skills. Through the Village of Arts and Humanities program, 90 teenagers participated in art workshops and later sold their products through a teen-led entrepreneurial initiative.

The success of NFS — the first community endowment to be funded with Empowerment Zone funds — is strengthened by an effective working relationship among residents, community leaders, and local government. These established relationships will undoubtedly help the West Philadelphia Empowerment Zone neighborhood, which joined the NFS in 2006 and has begun funding projects, to mirror the achievements made in the American Street and North Central neighborhoods. Information on NFS can be found at www.uwsepa.org/nfs. ■

Storm Windows Can Make a Difference

Windows provide daylight, ventilation, and solar heating to the inside of our homes, but they are also potential sources of energy loss that can lead to excessive air conditioning and heating costs. The National Association of Home Builders Research Center estimates that 43 percent of American homes have single-pane windows that would benefit from cost-effective improvements. Fortunately, advances in window technology offer far more solutions to energy loss than ever before. As evidence of the choices in window technologies



Credit: Kate Allen-Yoakum, NeighborhoodsNow

The three empowerment zone neighborhoods in Philadelphia.

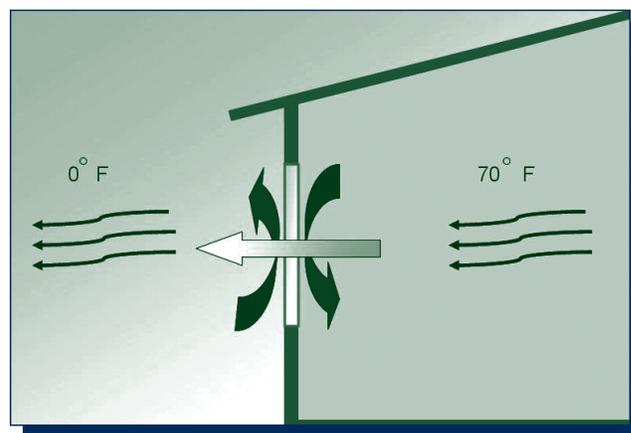
available to satisfy a range of climate demands, we need only note the 34 different generic window types — various glazing materials and designs combined with four frame types — that have been tested by the Center for Sustainable Building Research at the University of Minnesota in each of the four ENERGY STAR® climate zones.¹ Researchers evaluated window performance in these tests based on annual energy costs, peak demand, winter and summer thermal comfort, and condensation resistance.

The U.S. Department of Energy (DOE) advises consumers that the best way to improve a home's energy efficiency is with new, energy-efficient windows, but if one is on a tight budget, storm windows are a less expensive option.² Storm windows are typically mounted on the inside or outside of single-pane windows to improve thermal efficiency. One benefit of a storm window is the creation of dead air space between it and the prime window, which reduces the heat conduction that normally leads to heat loss in winter and to solar heat gain in the summer. A second advantage is a decrease in the air



The storm window retrofit on this Chicago home reduced energy use and cost.

infiltration, or leakage, common to older windows. For these reasons, DOE states that homeowners can



Storm windows reduce heat loss in winter and solar heat gain in summer.

reduce heat loss by 25 to 50 percent by installing interior or exterior storm windows.³

In 2002, the Lawrence Berkeley National Laboratory compared the efficiency of different prime/storm window combinations with that of a replacement window treated with a low-emissivity (low-E) coating of metal or metallic oxide to reduce heat loss or gain. This transparent coating not only reduces heat emissivity but also blocks out the ultraviolet light that fades and damages home furnishings. Under simulated conditions, net heat flow comparisons were made based on various prime/storm combinations (prime alone, prime/low-E external storm, prime/low-E internal storm, prime/regular external storm) with the low-E replacement window. The research team found that the “addition of low-E storm windows to the prime window provided performance very similar to that of the replacement window, and expected differences in performance were only detectable through a sensitive fitting procedure (essentially, a long-term averaging)” (p.14).⁴

In 2006, HUD's Partnership for Advancing Technology in Housing (PATH), the National Association of Home Builders Research Center, and DOE completed a field investigation under actual conditions.⁵ This study focused on the difference that

During 2009 and 2010, homeowners who install new storm windows may qualify for a tax credit equal to 30 percent of the materials cost, up to a maximum of \$1,500. To be eligible for federal tax credits for energy efficiency, the storm and prime exterior windows combined must meet International Energy Conservation Code standards for the applicable climate zone. Taxpayers must keep a copy of the Manufacturer's Certification Statement that lists classes of exterior windows (single pane, clear glass, double pane, low-E coating, etc.) that a storm window may be combined with to be eligible in a particular climate zone. See www.energystar.gov/index.cfm?c=products.pr_tax_credits for details.



Storm Windows Can Make a Difference

(continued from pg. 3)

low-E storm windows made in reducing residential heating requirements for six Chicago homes that were eligible for the city's low-income weatherization program. These single-family detached homes featured the original single-pane windows typical of construction from the 1920s through the 1960s. The bungalow style homes had brick facades over concrete block exterior walls and no insulation in the walls.

Over the period of one heating season, researchers monitored each home under two conditions — without storm windows and with new storm windows fitted with screens to provide ventilation in spring and summer. Four of the homes with storm window retrofits used windows with a low-E coating, and the other two were fitted with clear glass storm windows. Occupants maintained the same thermostat settings and heating patterns throughout the test, allowing energy use comparisons before and after the storm window installation.

After researchers installed the storm windows, air infiltration measures declined by an average of 15 cubic feet/minute per window. Glass surface temperatures varied significantly between the clear and low-E storm fitted windows. The U-factors, or measures of thermal transmittance, for the single-panel/clear storm window combinations were 0.49 and 0.42, whereas the single-pane/low-E storm combinations had U-factors ranging from 0.36 to 0.30. To put this in context, a lower U-factor means greater efficiency; the prescribed standard for the Northern ENERGY STAR climate zone, in which Chicago is located, is a U-factor of ≤ 0.35 .⁶ In terms of tangible outcomes, reductions were realized in air infiltration, energy usage, and expenditure, as shown below for four of the homes.⁷

House	Storm Window	Leakage Reduction	Energy Savings	Annual Savings
2	low-E	6.3%	19%	\$490
3	clear	8.2	8	111
4	clear	6.8	18	317
5	low-E	6.4	23	341

Overall, energy use declined by 13 percent in the homes with clear glass storm windows and by 21 percent in those retrofitted with low-E storm windows. The cost per window was estimated at \$45. Installed costs for the clear storm windows in Houses

3 and 4 ranged from \$1,344 to \$2,661; for the two houses installed with low-E storm windows, the cost was \$1,738. The average time for Houses 3 and 4 to recoup the costs was projected at 10 years, whereas the projected payback period for Houses 2 and 5 was less than 5 years.

Although the referenced studies were small, they demonstrate that storm windows can offer a cost-saving alternative to new windows. In addition to the information sources provided at the end of this article, readers might also be interested in *Windows & Doors*, volume 4 of *The Rehab Guide* published by HUD's Office of Policy Development and Research, available at no cost by visiting www.huduser.org/publications/destech/rehabgds.html or in print for a nominal fee from HUD USER at 800.245.2691, option 1. **HU**

¹ Efficient Windows Collaborative/Alliance to Save Energy, "The Efficient Windows Collaborative Multiple Benefits Fact Sheet," September 2009, www.efficientwindows.org/factsheets/MultiBenefits/Factsheet.pdf.

² U.S. Department of Energy, "A Consumer's Guide to Energy Efficiency and Renewable Energy: Storm Windows," December 2008, http://apps1.eere.energy.gov/consumer/your_home/windows_doors_skylights/index.cfm/mytopic=13490.

³ U.S. Department of Energy, "Energy Savers Tips on Saving Energy & Money at Home," January 2009, www.eere.energy.gov/consumer/tips/windows.html.

⁴ Joseph H. Klems, "Measured Winter Performance of Storm Windows," Lawrence Berkeley National Laboratory, University of California, 2002, <http://repositories.cdlib.org/lbnl/LBNL-51453/>.

⁵ C. Craig Drumheller, Christian Köhler, and Stefanie Minen, "Field Evaluation of Low-E Storm Windows," 2007, www.toolbase.org/PDF/FieldEvaluations/existinghomes_fieldeval_low-e-stormwindows.pdf.

⁶ The National Fenestration Rating Council (NFRC) operates a uniform national rating system for energy performance of windows, doors, skylights, and similar products. The U-factor is the linchpin of the rating system.

⁷ Houses 1 and 6 had to be removed from the final energy data analysis.

Land Banks Help Stabilize Properties

Created by Congress through the Housing and Economic Recovery Act of 2008, the Neighborhood Stabilization Program (NSP) is helping communities address the costs of the current foreclosure crisis. The program provides nearly \$4 billion to every state and some localities with high foreclosure rates to acquire property,



The main objective of land banks is to return vacant, abandoned, and tax-delinquent properties to productive reuse.

demolish or rehabilitate abandoned properties, or offer downpayment and closing cost assistance to low- and moderate-income buyers. Land bank development is another authorized — and increasingly popular — use of NSP funds. Land banks can be a valuable tool for mitigating the negative effects of vacant and tax-foreclosed properties, in that they provide a means of assembling, managing, and promoting reinvestment in delinquent properties and neighborhoods.

Overview

The main objective of land banks is to return vacant, abandoned, and tax-delinquent properties to productive reuse. The methods used vary by jurisdiction and are based on state authorizing legislation. Some land banks, such as the one in Cleveland, Ohio, are located within a city or county government, whereas others, such as the Fulton County/City of Atlanta Land Bank Authority (LBA) and the Genesee County Land Bank in Flint, Michigan, operate as nonprofit entities.

State foreclosure laws and land bank governance determine how a land bank takes ownership of properties. Generally, land banks acquire tax-foreclosed properties through a sheriff sale or other judicial foreclosure process. Atlanta and Genesee County also receive properties through donation. Because they have limited resources, land banks must set priorities for property acquisition and disposition. Land banks evaluate acquisitions based on property location within a targeted area or on revitalization goals. Subsequent dispositions may be linked to a larger revitalization strategy, affordable housing goals, or other considerations. For-profit and nonprofit developers or individuals may purchase banked

properties. Potential buyers generally must meet specific requirements to ensure a property's productive reuse and redevelopment. Land banks also have the ability to abate property taxes and clear outstanding liens; these are powerful tools that can be used to enhance property marketability and reuse.

Dealing With the Rise in Residential Foreclosures

Established land banks in Atlanta, Cleveland, and Genesee County are adapting their business models to better address the rapid escalation in residential foreclosures and to prevent further neighborhood decline. "The rise in foreclosures has accelerated our activity," comments Evelyn Sternad, land bank manager for the city of Cleveland. Established in the early 1970s as one of the country's first land banks, Cleveland's model concentrates on acquiring vacant and abandoned industrial, commercial, and residential land. The land bank takes ownership of foreclosed properties that are clear of structures. This requires close coordination with city inspectors to identify properties with structures slated for demolition, city planners to identify potential reuse, and the city's finance office to acquire a property and then clear taxes and liens from the parcel. "Currently, we are seeing increased demand for side- and adjacent-lot acquisition," says Sternad. Driving much of this demand are homeowners located in older neighborhoods with small lots who want to expand their property by purchasing an adjoining lot.

Before the rise in foreclosures, the main focus of Atlanta's LBA was helping to facilitate affordable housing by removing property encumbrances and selling lien-cleared properties to community development corporations. "Now we're developing partnerships with banks to help us predict how future interest rate resets and foreclosures in Alt-A and no-doc loans will affect our inventory and costs," says Barry Jones, interim director for LBA. He expects that current foreclosure activity will increase the authority's inventory from 125 to 500 parcels. Banks are increasingly looking to the authority to take ownership of real estate owned (REO) assets. By donating the property to the authority, a bank can move a foreclosed property off its books, thereby reducing its tax liability. Once in the land bank's inventory, REO assets can more easily be tracked and maintained to prevent further decline. "Our involvement with REOs also helps prevent predatory investors from flipping properties, and ensures that properties are returned to the tax rolls as the market improves," notes Jones.

Land Banks Help Stabilize Properties

(continued from pg. 5)

Michigan law enables the Genesee County Land Bank to play an active role in neighborhood revitalization. In addition to acquisition and disposition duties, the land bank undertakes redevelopment of commercial, residential, and vacant properties. "Our method is intended to reverse the downward trajectory of a particular property," says Dan Kildee, Genesee County treasurer and chairperson for the Genesee County Land Bank Board. Stemming decline starts with removing the property from the market and securing it through board-up or demolition. Deliberate investment then guides planning for property reuse, possible improvement, and, ultimately, disposition.

Arresting the Slide

Land banking serves as an interim or stopgap strategy in managing residential foreclosures and their effects on neighborhoods. Successful use of the tool often depends on coordination with local planning efforts. When developing a land bank, Kildee suggests that it's important for a community to have reasonable expectations for what a land bank can achieve, develop a predictable and transparent acquisition and disposition process, and link any land use decisions to "a rational and publicly approved plan."

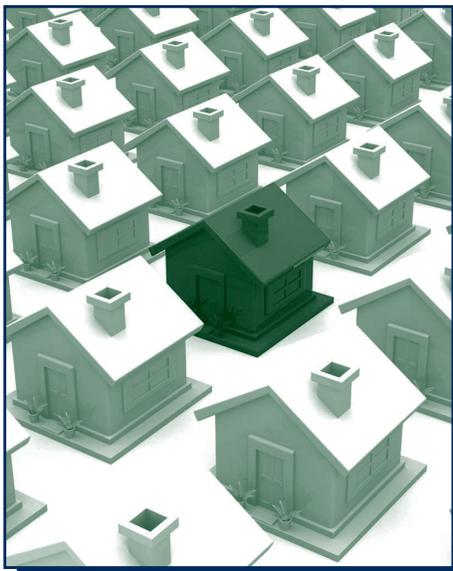
More information on land bank development can be found in the report, *Land Bank Authorities: A Guide for the Creation and Operation of Land Banks* by Frank Alexander, at www.lisc.org/content/publications/detail/793/. Additional information on Genesee

County's Land Bank is available at www.thelandbank.org. HUD provides an overview of eligible uses under the Neighborhood Stabilization Program at www.hud.gov/offices/cpd/communitydevelopment/programs/neighborhoodspg/. **HU**

The Status of America's Housing

With the recent release of the 2007 American Housing Survey (AHS), the national profile of America's housing has once more been updated and refined. This rich source of information about the characteristics of the nation's housing and its occupants is the largest regular national housing sample survey in the United States. It contains data on apartments, single-family homes, mobile homes, vacant homes, family composition, income, housing and neighborhood quality, housing costs, equipment, fuels, housing unit size, and recent movers. The data are used by professionals in nearly every field for planning, decision making, and market research, as well as in various types of federal, state, and local program development.

The U.S. Census Bureau conducts the AHS to obtain up-to-date housing statistics for the Department of Housing and Urban Development (HUD). National data are collected every other year from a fixed sample of about 50,000 homes, plus new construction each



Making Home Affordable

The Departments of the Treasury and Housing and Urban Development (HUD) are jointly offering assistance to as many as 7 to 9 million homeowners to mitigate the destructive impact of the housing crisis on their families and communities. The Departments recently launched **MakingHomeAffordable.gov** — a website for consumers seeking information about the Making Home Affordable loan modification and refinancing program. Visitors to the site will find detailed information about the program and interactive self-assessment tools they can use to determine if they are eligible to participate, and to calculate the monthly mortgage payment reductions they could realize under the program. HUD Secretary Shaun Donovan describes the program as "a tremendous, coordinated effort between major government and regulatory agencies to help bring relief to America's housing market and homeowners...[and] to stop the damaging impact that declining home prices have on all Americans."

Composition of the U.S. Housing Stock

Housing Type	Number of Units	%
All	128,203,000	100.0
Year-round	123,811,000	96.6
Total occupied	110,719,000	86.4
Owner occupied	75,665,000	59.0
Renter occupied	35,054,000	27.3
Vacant	13,092,000	10.2
Seasonal	4,392,000	3.4

Source: *U.S. Housing Market Conditions, Third Quarter 2008*, www.huduser.org/periodicals/ushmc/fall08/index.html, p. 5.

year. The survey started in 1973 and has had the same sample since 1985, allowing readers to see how homes and households change over time. In some metropolitan areas, additional samples are surveyed every 4 to 6 years to measure local conditions.

The 2007 survey estimates that America's housing stock totals 128 million housing units; 110.7 million are occupied and another 17.4 million are vacant or seasonal homes. A brief overview of what can be learned about the nation's housing from the AHS follows.

What types of homes do Americans occupy?

By global standards, homes in the United States are relatively new. The median construction date is 1970, meaning that half of the housing units were less than 37 years old in 2007. About one-third were built after 1980 and a few (7.6%) have met an impressive test of durability, dating from 1919 or before.

The predominant type of home in the United States is the single-family unit, which accounts for 75.1 percent of the nation's homes. These single-family units come detached, attached, or as manufactured (mobile) homes. Multifamily units ranging in size from 2 to 50 units (or more) account for the other 25 percent.

The floor plan of the median housing unit covers 1,807 square feet. Six out of 10 homes have from 4 to 6 rooms. Three out of five have three or more bedrooms. Virtually every unit has at least one bathroom. Most (98%) have a complete kitchen with a sink, refrigerator, and oven or burners. As for other, more common amenities, 99.5 percent of occupied units have heat and 63.5 percent are equipped with central air conditioning; 65 percent have a garage or carport; and 85 percent have a porch, deck, balcony, or patio.

American homes — especially owner-occupied units — have few deficiencies, such as holes in the floors,

open cracks or holes, broken plaster or peeling paint, no electrical wiring, exposed wiring, or a lack of electrical outlets. One or more of these problems are present in 1 out of every 10 units. Troublesome signs of rodents exist in 6.5 percent of the homes. Nearly 62.9 percent of householders reported having no exterior structural problems. Roofing issues (sagging, missing material, holes) were reported by 6.3 percent. Other difficulties encountered by small percentages of residents included broken windows, missing bricks or other outside wall material, and crumbling foundations.

Do Americans own or rent? There are twice as many homeowners as renters, with a homeownership rate of 68.3 percent. Overall, the median housing cost burden is 23 percent, but renters pay more — a median of 29.8 percent of their income compared with 20.3 percent for owners. Housing costs for renters include contract rent, property insurance, and utilities. For owners, these costs include mortgage (or installment loan) payments, property insurance, real estate taxes, fees (association, condominium, or cooperative), park fees for manufactured (mobile) homes, land rents, routine maintenance, and utilities.

In dollars, the median monthly housing cost is \$847 per month. Median housing costs vary significantly among regions. The South has the lowest median monthly housing cost (\$754), the Midwest has the second lowest (\$767), the Northeast has the second highest (\$948), and the West has the highest (\$1,050). Owners have a median cost of \$971, and for renters it is \$750.

Where do Americans live? Three-fourths of the nation's housing units are located in central cities (28.5%) and suburbs (47%). The rest are outside of metropolitan statistical areas. Most homes are within 15 minutes of grocery and drug stores, and a little less than half are located within 29 minutes of a bus stop, train station, or subway stop. Most workers, however, travel to work by automobile, with a median travel time of 22 minutes and a median distance from home to work of 11 miles.

American Housing Survey results are available at www.huduser.org/datasets/ahs.html. An introductory booklet created by the Census Bureau provides an overview of housing data and explains where to find these data. You may download the PDF version at www.census.gov/prod/2004pubs/ahsr04-1.pdf. ■

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

- Service coordinators organize the provision of supportive services to low-income elderly and nonelderly residents with disabilities who reside in HUD-assisted multifamily housing. *Multifamily Property Managers' Satisfaction with Service Coordination* is a new report that examines property managers' level of satisfaction with service coordination at their sites. We'll look at the services available, how they can be funded, and how they are helping residents to live independently and to age in place rather than face institutionalization.
- The city of Schenectady, New York plans to beautify and green its community, and to enhance its supply of affordable housing. The city — in partnership with multiple organizations — relied on multiple funding sources to build a LEED-certified prototype unit that is affordable to area households. The result is a green, affordable home recently honored with the 2008 HUD Secretary's Best in American Living Award. This prototype is generating additional units in Schenectady, two of which are completed. We'll examine the features of this prototype, the neighborhoods in which the completed units are located, and the partnerships and funding resources utilized in the development process.
- The University of Texas at El Paso is using its Hispanic-Serving Institutions Assisting Communities (HSIAC) grant to accelerate development and use of technologies that will improve the quality, durability, energy efficiency, environmental performance, and affordability of housing for colonia residents. The program also includes revolving loans, hardship grants, materials for new homes, and educational materials targeted to colonia residents. We'll highlight the history and accomplishments of this project.
- At HUD, sustainability has become a new framework for addressing the challenges facing metropolitan areas. The Office of Policy Development and Research is helping to develop a toolkit of HUD initiatives that will provide new resources to communities in addressing the challenges resulting from climate change and growth patterns at the local level. We'll see how the priorities of energy efficiency, green building, and coordination of housing and transportation will shape the activity of the new Office of Sustainability at HUD.

