Guest Editor's Introduction

Building a Research Agenda for Creating Sustainable and Inclusive Communities for All

Regina C. Gray

U.S. Department of Housing and Urban Development

The views expressed in this article are those of the author and do not represent the official positions or policies of the Office of Policy Development and Research, the U.S. Department of Housing and Urban Development, or the U.S. government.

This symposium represents an attempt to aggregate the lessons learned from the U.S. Department of Housing and Urban Development (HUD), Office of Policy Development Research's (PD&R's) sponsored research program, the Sustainable Communities Research Grant Program (SCRGP). In fiscal year (FY) 2010, six SCRGP grants were awarded, two of which were sponsored by the HUD Office of Economic Resilience (OER; formerly the Office of Sustainable Housing and Communities, or OSHC). The research program was also funded in FY 2013, but funding has not since been renewed.

The term "sustainable communities" has become controversial in recent years. With the sensitive nature of this topic in mind, I first discuss the sorts of activities performed under related rubrics before the Obama Administration. I then discuss the coordinated efforts within the Obama Administration's interagency partnership between HUD, the U.S. Department of Transportation (DOT), and the U.S. Environmental Protection Agency (EPA) to promote integrated housing, transportation, and infrastructure planning to achieve more livable, sustainable communities. Finally, I briefly describe the symposium articles submitted by five of the SCRGP recipients and conclude with some thoughts on the future of sustainability research.

HUD's Sustainable Communities Agenda Prior to the Obama Administration

All PD&R's work in the growth management area has been to contribute to the knowledge base on growth management issues and, when appropriate, offer guidance and support to communities that pursue such initiatives. Local and regional governmental entities have historically been most active in this domain—utilizing practices such as growth containment strategies, zoning, and regulatory standards or implementing smart growth policies. Since its inception, PD&R has sponsored research activities on planning and development from a perspective that we would now call "sustainable." In 1974, PD&R joined with the Council on Environmental Quality and the EPA Office of Planning and Management to cosponsor the seminal *Costs of Sprawl* report (RERB, 1974), which warned of the potentially negative consequences of unplanned, uncoordinated land development on families, the local economy, housing choices for low-income communities, and the environment. Among the human costs the report cited were long commutes to work and other destinations; more time spent in traffic and less time spent with families; and costlier housing situated in the urban core, which often forces lower income families to drive further out in search of neighborhoods that offer less expensive housing choices, suitable job opportunities, quality schools, and other valuable amenities.

Throughout the 1980s and the following decades, PD&R helped to develop and improve cleanup standards for its Brownfields Redevelopment Program. PD&R's Regulatory Barriers to Affordable Housing initiative marked the beginning of efforts to demonstrate how outdated or burdensome zoning and land use standards contribute to the high cost of housing and might also place restrictions on certain housing types or development projects, such as mixed-use or mixed-income housing in walkable neighborhoods. By the late 1990s and early 2000s, concerned about how to meet the demands generated by a rapidly growing and aging population, PD&R supported important research efforts on smart growth and regional land use planning that resulted in the landmark reports, *Growing Smart* (APA, 2002) and *Regional Approaches to Affordable Housing* (APA, 2003). Both reports, published by the American Planning Association, have been disseminated widely and served as the framework for coordinated planning.

The U.S. General Accounting Office (now the Government Accountability Office), in its 2003 report, *Transportation-Disadvantaged Populations* (GAO, 2003), identified common barriers faced by lowincome families, aging Americans, and people with disabilities who lack adequate access to reliable transportation. The report concluded that long distances between place of residence and service provider pose a major challenge faced by these underserved populations; however, uncoordinated activities among the U.S. Departments of Health and Human Services, Education, Housing and Urban Development, and Labor and the various DOT operating administrations were doing too little to address this burden. Discussions began between the Federal Transit Administration (FTA) and HUD on expanding quality transportation services to aging Americans, people with disabilities, and low-income families through select HUD programs and possible collaborative research efforts.

The following year, President George W. Bush issued Executive Order 1330 on Human Service Transportation Coordination.¹ The Order mandated that select federal agencies, including HUD, address and reduce program regulations that prevent coordinated activities; leverage funding mechanisms; and engage in research and other related activities to expand supportive services to low-income communities, aging Americans, and people living with disabilities. In response, through its competitive grant awards, HUD encouraged communities to undertake coordinated planning and identify programs, such as the Community Development Block Grant, or CDBG, that allow for the flexible use of departmental funds to support transportation services that support low-income and underserved communities.

¹ 69 CFR 9185, February 26, 2004. http://www.gpo.gov/fdsys/pkg/FR-2004-02-26/pdf/04-4451.pdf.

Congress codified these efforts effectively into law by directing FTA and HUD to address new and improved approaches to coordinated housing and transportation planning, recognizing that housing policies typically emanate from local housing authorities, whereas transportation decisions are often made at the regional or state level. In a 2007 House of Representatives Report, the Subcommittee on Transportation and Housing and Urban Development (T-HUD) emphasized that "transportation, housing and energy can no longer be viewed as completely separate spheres with little or no coordination throughout the different levels of government…better planning and coordination on the federal, state, and local level can ensure that affordable housing is located closer to public transportation and employment centers…and federal policies be instituted to reduce the amount of energy consumed by the transportation and housing sectors." To that end, the Committee urged the Department "to incorporate stronger sustainability standards into HUD's housing programs."²

HUD and FTA entered into an Interagency Agreement (IAA) later that year to pursue additional opportunities for joint collaboration on housing and transportation issues. The IAA provided support for a study, completed in April 2007 and entitled, *Realizing the Potential: Expanding Housing Opportunities Near Transit* (Center for Transit Oriented Development, 2007), which included case studies of potential transit-oriented developments (TODs) in select cities and recommendations for greater interagency and intergovernmental cooperation. PD&R initiated a five-city effort to assess the feasibility of TOD practices at the local level that would provide affordable housing choices near accessible transit stops.

In 2008, the joint HUD-FTA Action Plan responded to the congressional mandate with a report entitled *Better Coordination of Transportation and Housing Programs: To Promote Affordable Housing near Transit* (DOT FTA and HUD, 2008). The report outlines interagency strategies that encourage coordination between housing and transportation agencies to promote compact, mixed-income development and affordable housing near transit.

Congress earmarked \$500,000 for PD&R to support the implementation of the report's recommendations.³ Two major reports—Transportation I and Transportation II—were competitively awarded in 2009. *Transportation I: Coordinated Housing and Transportation: A Model Housing Transportation Plan* established a TOD plan for the Miami-Dade region that provides a prototype for integrated housing and transportation planning at an underused subway station (Newport Partners and Kimley-Horn, 2012). The resulting plan emphasizes the importance of a strong partnership among the Miami-Dade Metropolitan Planning Organization, the local housing authority, private investors, and various nonprofit organizations—all involved in the development of the Consolidated Plan. *Strategies for Expanding Affordable Housing Near Transit* (Newport Partners, 2012) involved further implementation of additional action items identified in the 2008 Action Plan, including an outreach and dissemination plan and further knowledge development.

² H.R. Doc. No. 110-238, 110th Cong., 1st Sess. (2008). http://www.gpo.gov/fdsys/pkg/CRPT-110hrpt238/html/CRPT-110hrpt238.htm.

³ We treat this action as pre-Obama Administration because the funding was initially proposed by the Bush Administration.

The Obama Administration's Sustainable Communities Initiatives

While FTA and HUD continued to implement the HUD-FTA Action Plan, the Obama Administration spearheaded further interagency efforts to help communities better coordinate housing and transportation planning at the local and regional levels. The HUD-DOT-EPA Partnership for Sustainable Communities ("The Partnership") set out to ensure that affordable housing and transportation needs were achieved within the context of promoting more inclusive neighborhoods. The Partnership also established clear goals for reducing energy consumption and protecting the environment.

The Partnership introduced six guiding principles⁴ that form the basis for creating a sustainable community or neighborhood. These six principles also provide the conceptual framework for HUD's sustainability agenda, for OSHC's Sustainable Communities Initiative (SCI) and for this sponsored research program. They are—

- 1. **Provide more transportation choices.** Develop safe, reliable, and physically accessible transportation choices to decrease combined household and transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.
- 2. **Promote equitable, affordable housing.** Expand location and energy-efficient housing choices for people of all ages, incomes, and racial and ethnic groups that expand mobility and lower the combined costs of housing and transportation, while providing housing options for people with disabilities in the most integrated setting appropriate to improve access to jobs and expand educational opportunities.
- 3. **Increase economic competitiveness.** Enhance economic competitiveness through reliable and timely access to employment centers, educational opportunities, services, and other basic needs by workers and expanded business access to markets.
- 4. **Support existing communities.** Target federal funding toward existing communities to increase community revitalization and the efficiency of public works investments and to safeguard rural landscapes.
- 5. Leverage federal investments. Cooperatively align federal policies and funding to remove barriers, leverage funding and increase the accountability and cost effectiveness of all levels of government to plan for future growth.
- 6. **Value communities and neighborhoods.** Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods—rural, urban, or suburban.

Congress created OSHC in 2010. OSHC's primary mission was to facilitate HUD activities related to the Administration's sustainability agenda. SCI sought to encourage communities to adopt a

⁴ These six livability principles were first introduced at the June 16, 2009 Committee on Appropriations hearing and lifted from testimony given by HUD Secretary Shaun Donovan, DOT Secretary Ray LaHood, and EPA Administrator Lisa Jackson.

more integrated approach to planning—one emphasizing coordinated housing and transportation efforts at both the regional and local levels. SCI awarded \$100 million in competitive grants in FY 2010 to promote regional planning. Many more than 400 applications were received from communities all across the country, and 74 of these applicants were selected.

Another \$40 million in Community Challenge Grants were awarded to communities seeking to reform zoning standards and planning regulations that might prevent coordinated housing and transportation efforts at the local level. DOT provided another \$35 million in TIGER II planning grants for winning communities to leverage HUD and DOT dollars to help facilitate joint planning projects. These funds may be used by a state, local, or municipality government, for instance, to direct investments for various downtown revitalization projects or for infill development, for Brownfields reuse or vacant property redevelopment, for TOD, or for small towns or rural community efforts to preserve historic buildings or protect farmland. The winners of HUD's Community Challenge Grants and DOT's TIGER II planning grants were announced alongside the winners of OSHC's Regional Planning Grants in October 2010. Thus, by the close of President Obama's first term, \$175 million in awards had been made to support SCI.

The Research Community's Response to the Sustainable Communities Agenda

SCI reserved \$10 million in FY 2010 to support major research activities, including program evaluation and demonstration projects developed jointly by the three partner agencies. HUD identified areas in which improvements in data sharing and technological capacity could occur and in which information exchange platforms and mapping and analytic tools could serve the needs of each agency and the research community at large. Strong emphasis was placed on more efficient ways to track housing and transportation expenditures by geographic location, to establish broader measures of affordability and location accessibility, and to develop standardized performance measures for sustainable communities-related programs and activities. HUD and its federal partners also worked to identify best practices or exemplary models of sustainable communities.

Two main research initiatives resulted from this exercise. First, the Location Affordability Portal⁵ allows for the end user to utilize the information provided to make better informed decisions about the type of neighborhood that offers the greatest value, and it provides expanded access to desired community amenities.

The other research initiative is the FY 2010 SCRGP. PD&R requested proposals in three specific research categories and a fourth general category. The three specific areas were (1) affordable housing development and preservation, (2) coordinated housing and transportation planning, and (3) healthy community design. The fourth category allowed for a wide range of projects related to sustainability, including energy-related issues or green building practices.

For each category, we felt that more work needed to be done to close research gaps dating as far back as the *Costs of Sprawl* report and as recent as the HUD-FTA Action Plan. For example, for

⁵ Downloadable housing and transportation data tool focused at the neighborhood level is available at http://www. locationaffordability.info.

the first research category, affordable housing development and preservation, HUD was primarily interested in how communities have adopted policies that not only expand the supply of affordable housing but preserve affordable housing stock the in long run. For the second research category, coordinated housing and transportation planning, HUD wanted to know what the challenges are to coordinated planning and, if those challenges could be met and overcome, what are the best approaches or tools available? Under healthy community design, we looked for rigorous analyses of the relationship between the built environment and the socioeconomic and health impacts on a community.

The Articles in This Symposium

Researchers from Arizona State University, Julia Koschinsky and Emily Talen, with assistance from scholars at the University of North Carolina at Chapel Hill, conducted an assessment of the supply of HUD-subsidized housing stock situated in neighborhoods with walkable access to amenities, such as grocery stores, retail, restaurants, banks, schools, and parks. The purpose of this research project was to take stock of the walkable neighborhood context of HUD-subsidized housing in all U.S. metropolitan areas. The issue was to assess the degree to which access to these community amenities is hindered by unfavorable local socioeconomic conditions, such as weak market strength, crime, race and income segregation, or poor school quality. Although the demand for walkable neighborhoods has increased in recent years, Koschinsky and Talen (2015) find that such neighborhoods remain in short supply. HUD-subsidized units are more likely to be located in accessible neighborhoods, varying by program. Multivariate regression results demonstrate that public and multifamily housing, for instance, are more likely to be located in accessible areas with average or stronger markets than in inaccessible areas in all regions except the Northeast. Crime, they find, is on the minds of most low- and moderate-income families. When considering how these families make tradeoffs on the benefits of sustainable elements versus the costs, concerns about crime-real or perceived-may take precedence.

The second and third articles in this symposium, authored by the Urban Institute, building on the discussion of the tradeoffs families make when deciding about the quality of neighborhoods and expanded opportunities provided by them. In a very ambitious and multilayered effort, Rolf Pendall, Christopher Hayes, Arthur (Taz) George, and their collaborators from the University of Maryland's National Center for Smart Growth, the University of California, Los Angeles' Luskin School of Public Affairs, and Rutgers University's Voorhees Transportation Center submitted complementary articles addressing the social and economic mobility of Moving to Opportunity and Welfare to Work voucher recipients as they search for quality neighborhoods, housing, schools, jobs, and other community amenities (Blumenberg, Pierce, and Smart, 2015; Pendall et al., 2015). The authors argue that these important family decisions are largely shaped by access to working cars. That is, choices about where to live, the availability of affordable housing, high-performing schools, and sustainable jobs are limited if families do not have access to a working automobile. Those with cars, they conclude, have greater discretion in selecting neighborhoods with lower crime rates, better schools, higher environmental quality, and access to higher paying jobs-and these families report higher satisfaction with the neighborhoods they have chosen. In addition to the articles, project activities also included the development of a National Sustainability Database,

or NSD, where researchers can download valuable information on communities, housing, and transportation infrastructure and presentations at various national meetings. OSHC supported the articles by Koschinsky and Talen (2015); Blumenberg, Pierce, and Smart (2015); and Pendall et al. (2015).

In an effort to build on previous research on preserving affordable housing near transit, Todd Nedwick, Tracy Kaufman, and Mike Bodaken from the National Housing Trust, working with colleagues from Abt Associates Inc., set out to determine how committed states are to preservation efforts. They investigated incentive-based strategies designated in a highly competitive qualified allocation process for the Low-Income Housing Tax Credit Program. According to the authors, the key strategies for strengthening the incentives for expanding and preserving affordable housing near transit are to (1) prioritize gap financing for use in developments near transit, (2) address land use restrictions that impede housing development near transit and add to the cost of TOD projects, and (3) enable cross-collaboration between housing and transportation entities (Nedwick and Burnett, 2015).

The article by James Svara, Tanya Watt, and Katherine Takai presents the results of a joint effort by analysts at the International City/County Management Association (ICMA) and the University of North Carolina at Chapel Hill to update ICMA's 2009 survey on the sustainability policies and practices carried out by local governments. The updated 2012 survey results demonstrate that, on average, state and local government entities have made neither a strong commitment to equitable development nor a concerted effort to encourage citizen participation in the planning process. The researchers conclude that it is far easier for decisionmakers to adopt or implement policies or programs of a noncontroversial nature, such as energy conservation (Svara, Watt, and Takai, 2015). More complex or politically sensitive proposals, such as including affordable housing units in moderate- or high-income developments or pursuing strategies that have the effect of reducing race or income disparities, are less likely to be considered. The authors are optimistic, however, that local governments can encourage the acceptance of certain initiatives (for example, affordable housing or housing that is universally accessible, green jobs, or an increased number of healthy food outlets in the community) by well-designed incentives that avoid unintended barriers to desired projects.

In the final article, research engineers from Virginia Tech tell us how to promote more sustainable and affordable housing through the adoption and diffusion of green building practices (McCoy et al., 2015). They ask: What green products and product clusters have higher diffusion trajectories (that is, time to takeoff, rate of takeoff, and projected market penetration level)? The research team shows how understanding the diffusion process for innovations is essential for institutionalizing change in the homebuilding industry and for accomplishing HUD's broader policy goals related to sustainability. Their work involved the development of a series of published articles that explore the process of how innovative green and energy-efficient technologies transform the housing construction market. They find that innovation stems from a willingness to assume greater risk, often resulting in trial and error, in promoting a new and innovative product.

Harriet Tregoning, the former Director of OER, concludes the symposium with her thoughts on these articles, on the status of HUD's sustainability agenda, and finally on the broader role of the federal government as envisioned by The Partnership (Tregoning, 2015).

Forthcoming Research

I anticipate that this symposium will offer scholars and practitioners in the sustainable development community an opportunity to reflect on a number of issues raised by the authors. I also want to alert the research community about additional work that PD&R expects to publish in the next few years.

In FY 2013, another round of SCRGP grants were awarded to four recipients. HUD placed renewed emphasis on sponsoring cutting-edge research in affordable housing development and preservation; investments in transportation and infrastructure planning; and green, energy-efficient building practices. The awarded proposals seek to advance evidence-based research on the effectiveness of federal programs in these three areas. The specific topics chosen range from measuring the influence of anchor institutions in affordable housing siting decisions, a cost-benefit impact assessment of streetcar investments in selected communities, and the development of a benchmarking tool for measuring energy consumption and cost savings for HUD-assisted housing stock.

Recently, PD&R has sponsored two guidebooks focused on sustainable efforts in small and midsized cities or towns. The first (HUD PD&R, 2014), published in FY 2013, provided prescriptive recommendations for creating connected communities through effective transportation options. The most recent document, funded in FY 2014 and in progress, offers guidance for creating walkable and bike-friendly communities for populations of 250,000 or less.

Acknowledgments

The sustainable communities research program consumed a huge amount of work, research, and dedication. Implementation would not have been possible without the support of many individuals and organizations. I therefore extend sincere gratitude to all of them and especially a warm thanks to the researchers and authors who contributed to this symposium.

First, I acknowledge the Office of Economic Resilience for providing necessary guidance concerning the research proposals chosen for this initiative. I am particularly grateful to Shelley Poticha and Mariia Zimmerman for their pearls of wisdom and guidance throughout the course of this project.

I am also grateful to all the staff from the Federal Transit Administration, the U.S. Environmental Protection Agency, and the U.S. Departments of Energy, Health and Human Services, and Agriculture who volunteered their time, expertise, and technical support during the review. Without their superior knowledge and experience, this project would not have been successful.

Finally, I thank my Office of Policy Development and Research colleagues for their cooperation and encouragement, which was critical in the successful administration of this work.

Author

Regina C. Gray is a social science analyst with the U.S. Department of Housing and Urban Development.

References

American Planning Association. 2003. *Regional Approaches to Affordable Housing*. Washington, DC: American Planning Association.

------. 2002. Growing Smart Legislative Guidebook: Model Statutes for Planning and the Management of Change. Washington, DC: American Planning Association.

Blumenberg, Evelyn, Gregory Pierce, and Michael Smart. 2015. "Transportation Access, Residential Location, and Economic Opportunity: Evidence From Two Housing Voucher Experiments," *Cityscape* 17 (2): 89–111.

Center for Transit Oriented Development. 2007. *Realizing the Potential: Expanding Housing Opportunities Near Transit.* Washington, DC: U.S. Government Printing Office.

Koschinsky, Julia, and Emily Talen. 2015. "Affordable Housing and Walkable Neighborhoods: A National Urban Analysis," *Cityscape* 17 (2): 13–56.

McCoy, Andrew P., C. Theodore Koebel, Andrew R. Sanderford, Christopher T. Franck, and Matthew J. Keefe. 2015. "Adoption of High-Performance Housing Technologies Among U.S. Homebuilding Firms, 2000 Through 2010," *Cityscape* 17 (2): 167–187.

Nedwick, Todd, and Kimberly Burnett. 2015. "How Can the LIHTC Program Most Effectively Be Used To Provide Affordable Rental Housing Near Transit?" *Cityscape* 17 (2): 113–137.

Newport Partners, LLC (Newport Partners). 2012. Strategies for Expanding Affordable Housing Near Transit. Unpublished paper prepared for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research.

Newport Partners, LLC, and Kimley-Horn and Associates, Inc. (Newport Partners and Kimley-Horn). 2012. *A Model Housing Transportation Plan: Coordinated Housing and Transportation*. Prepared for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research. Washington, DC: U.S. Government Printing Office.

Pendall, Rolf, Christopher Hayes, Arthur (Taz) George, Casey Dawkins, Jae Sik Jeon, Elijah Knaap, Evelyn Blumenberg, Gregory Pierce, and Michael Smart. 2015. "Driving to Opportunities: Voucher Users, Cars, and Movement to Sustainable Neighborhoods," *Cityscape* 17 (2): 57–87.

Real Estate Research Board (RERB). 1974. *The Costs of Sprawl: Environmental and Economic Costs of Alternative Residential Development Patterns at the Urban Fringe*. Washington, DC: U.S. Government Printing Office.

Svara, James, Tanya Watt, and Katherine Takai. 2015. "Advancing Social Equity as an Integral Dimension of Sustainability in Local Communities," *Cityscape* 17 (2): 139–166.

Tregoning, Harriet. 2015. "Coming Full Circle: The Innovation of HUD's Sustainable Communities Initiative," *Cityscape* 17 (2): 189–195.

U.S. General Accounting Office (GAO). 2003. *Transportation-Disadvantaged Populations: Some Coordination Efforts Among Programs Providing Transportation Services, but Obstacles Persist.* GAO-03-697. Washington, DC: Government Printing Office.

U.S. Department of Housing and Urban Development, Office of Policy Development and Research (HUD PD&R). 2014. *Creating Connected Communities: A Guidebook for Improving Transportation Connections for Low- and Moderate-Income Households in Small and Mid-Sized Cities*. Prepared for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research. Washington, DC: Government Printing Office. http://www.huduser.gov/portal/publications/pdf/Creating_Cnnted_Comm.pdf.

U.S. Department of Transportation, Federal Transit Administration (DOT FTA), and U.S. Department of Housing and Urban Development (HUD). 2008. *Better Coordination of Transportation and Housing Programs: To Promote Affordable Housing Near Transit.* Report to Congress. Washington, DC: Government Printing Office. http://www.huduser.gov/Publications/pdf/better_coordination.pdf.