HUD'S OFFICE OF POLICY DEVELOPMENT & RESEARCH

BIENNIAL REPORT FY 2017-2018

PD&R

Contents

Message From the General Deputy Assistant Secretary

Forging Great Teams

The U.S. Department of Housing and Urban Development (HUD), Office of Policy Development and Research (PD&R), is pleased to present our fiscal years (FY) 2017 and 2018 Biennial Report. Our goal for this report is to tell the people who use the data and research we produce who we are, what we do, and a little bit of how we do it.

The report highlights some of PD&R's most notable and transformative accomplishments over the past 2 years, from October 1, 2016 through September 30, 2018. It focuses on everything that makes up PD&R: the mission, people, funding, projects, data, dissemination and outreach, and partner engagement.

As the General Deputy Assistant Secretary for PD&R, I have two jobs: (1) keeping the trains running on time (figuratively) and 2) solving problems. PD&R uses teams to accomplish both activities. In PD&R, our teams have clear goals and specific plans to achieve those goals. These plans provide the who, what, when—*who* is going to do *what* specific task and *when* they are going to have it done. With the support of the Secretary and Congress, the other managers in PD&R and I make sure the teams have clear direction, are empowered, and are resourced to do the work.

This biennial report features a few of those teams and the work they have done over the past couple of years. These are only examples; there are many, many more teams and individual efforts that continue to allow PD&R to be the national source for data, analysis, and research on federal housing and community development programs, as well as the broad data source on housing and housing markets both nationally and locally.

Make sure to visit HUDUser.gov often, where you can read our biweekly eMagazine, *The Edge*; catch up on the latest housing statistics with the monthly National Housing Market Indicators report and our regional and local housing market analyses; sign up for our listserv, which provides regular updates on what is new; and join our mailing list for our two free signature periodicals, *Cityscape* and *Evidence Matters*.

Todd M. Richardson

General Deputy Assistant Secretary
Office of Policy Development and Research
U.S. Department of Housing and Urban Development

Overview, Mission, and Core Functions

PD&R was established in 1973. The statutory authority for PD&R's research activities is in Title V of the Housing and Urban Development Act of 1970 (as amended in 1973), which authorizes programs of "research, studies, testing, and demonstrations relating to the missions and programs of the Department."

The mission of PD&R is to inform policy development and implementation to improve life in American communities through conducting, supporting, and sharing research, surveys, demonstrations, program evaluations, and best practices. This mission is achieved through three interrelated core functions:

- Collect and analyze national housing market data (including with Census Bureau).
- Conduct research, program evaluations, and demonstrations.
- Provide policy advice and support to the Secretary and program offices.

PD&R provides enterprisewide support for HUD and works to achieve the Department's vision of being the preeminent source of research on housing and communities in the United States.
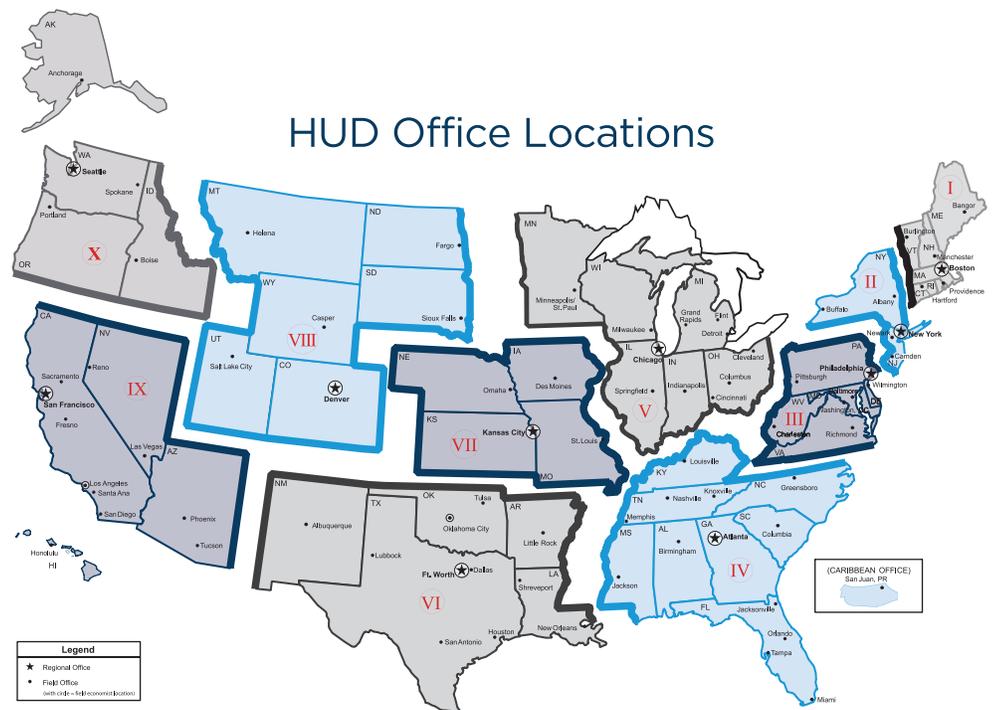
PD&R's People and Organization

PD&R's most important asset is its team of 134 employees, which includes 106 staff members in Headquarters working across seven offices and 12 divisions. One of the many strengths of this team is the diverse expertise of the staff, with backgrounds in economics, public policy, law, sociology, geography, anthropology, criminology, architecture, engineering, urban planning, business administration, and public administration.
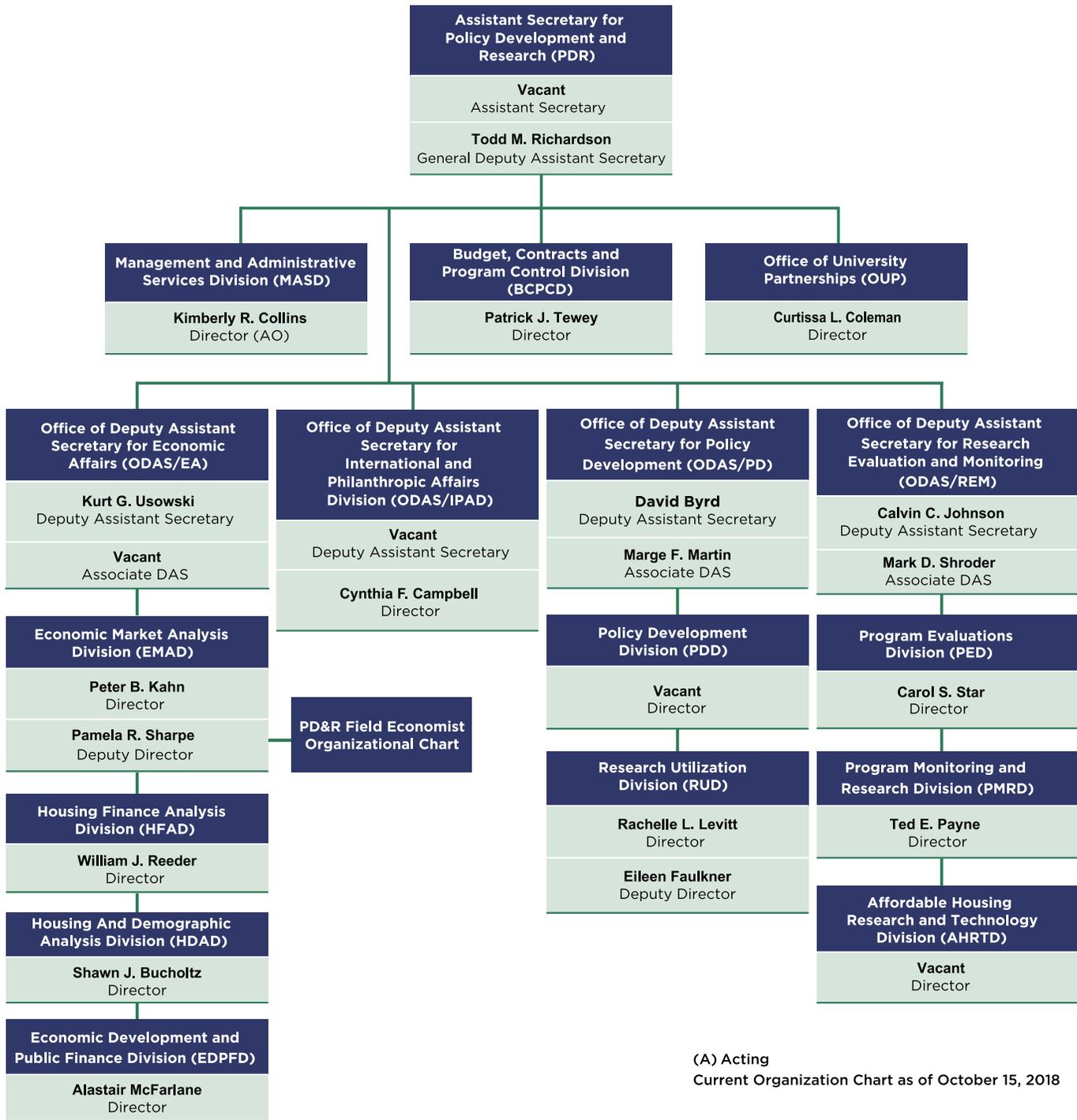
This team generates core program parameter data, including fair market rents and income limits; undertakes regulatory impact analysis for all HUD regulatory actions; designs and procures complex research and demonstrations; develops allocation funding formulas for various HUD programs; facilitates engagement with international and philanthropic peers; ensures that research and data are provided to inform policy conversations; designs and maintains HUD's departmentwide geographic information system (GIS) capability; provides administrative data on HUD programs for research and program monitoring; and much more.

In addition to staff members in headquarters, PD&R's 28 field economists work in the 10 HUD regional offices across the country. Field economists conduct comprehensive housing market analyses for publication; support Federal Housing Administration (FHA) reviews for multifamily mortgage insurance; collect and maintain data on demographic, economic, and housing market conditions; conduct special studies; fulfill data requests; and prepare regional summaries of housing market conditions and local housing market profiles for publication in U.S. Housing Market Conditions reports.
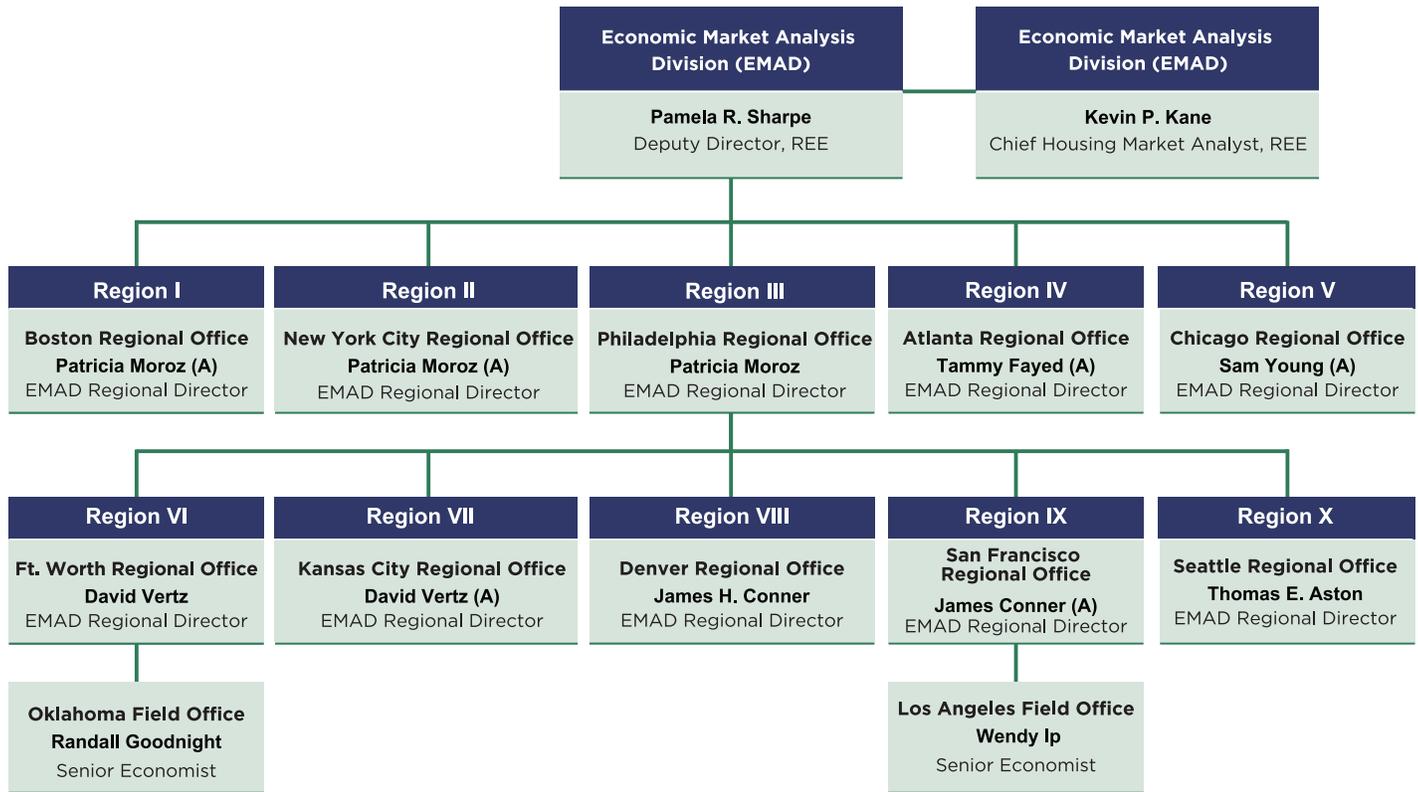
HUD Office Locations

PD&R Organizational Chart

Assistant Secretary for Policy Development and Research (PDR)

Vacant
Assistant Secretary

Todd M. Richardson
General Deputy Assistant Secretary

Management and Administrative Services Division (MASD)

Kimberly R. Collins
Director (AO)

Budget, Contracts and Program Control Division (BCPCD)

Patrick J. Tewey
Director

Office of University Partnerships (OUP)

Curtissa L. Coleman
Director

Office of Deputy Assistant Secretary for Economic Affairs (ODAS/EA)

Kurt G. Usowski
Deputy Assistant Secretary

Vacant
Associate DAS

Economic Market Analysis Division (EMAD)

Peter B. Kahn
Director

Pamela R. Sharpe
Deputy Director

Housing Finance Analysis Division (HFAD)

William J. Reeder
Director

Housing And Demographic Analysis Division (HDAD)

Shawn J. Bucholtz
Director

Economic Development and Public Finance Division (EDPFD)

Alastair McFarlane
Director

Office of Deputy Assistant Secretary for International and Philanthropic Affairs Division (ODAS/IPAD)

Vacant
Deputy Assistant Secretary

Cynthia F. Campbell
Director

PD&R Field Economist Organizational Chart

Office of Deputy Assistant Secretary for Policy Development (ODAS/PD)

David Byrd
Deputy Assistant Secretary

Marge F. Martin
Associate DAS

Policy Development Division (PDD)

Vacant
Director

Research Utilization Division (RUD)

Rachelle L. Levitt
Director

Eileen Faulkner
Deputy Director

Office of Deputy Assistant Secretary for Research Evaluation and Monitoring (ODAS/REM)

Calvin C. Johnson
Deputy Assistant Secretary

Mark D. Shroder
Associate DAS

Program Evaluations Division (PED)

Carol S. Star
Director

Program Monitoring and Research Division (PMRD)

Ted E. Payne
Director

Affordable Housing Research and Technology Division (AHRTD)

Vacant
Director

(A) Acting
Current Organization Chart as of October 15, 2018

PD&R Field Economist Organizational Chart

Economic Market Analysis Division (EMAD)	Economic Market Analysis Division (EMAD)
Pamela R. Sharpe Deputy Director, REE	**Kevin P. Kane** Chief Housing Market Analyst, REE

Region I	Region II	Region III	Region IV	Region V
Boston Regional Office **Patricia Moroz (A)** EMAD Regional Director	**New York City Regional Office** **Patricia Moroz (A)** EMAD Regional Director	**Philadelphia Regional Office** **Patricia Moroz** EMAD Regional Director	**Atlanta Regional Office** **Tammy Fayed (A)** EMAD Regional Director	**Chicago Regional Office** **Sam Young (A)** EMAD Regional Director

Region VI	Region VII	Region VIII	Region IX	Region X
Ft. Worth Regional Office **David Vertz** EMAD Regional Director	**Kansas City Regional Office** **David Vertz (A)** EMAD Regional Director	**Denver Regional Office** **James H. Conner** EMAD Regional Director	**San Francisco Regional Office** **James Conner (A)** EMAD Regional Director	**Seattle Regional Office** **Thomas E. Aston** EMAD Regional Director

Oklahoma Field Office **Randall Goodnight** Senior Economist			**Los Angeles Field Office** **Wendy Ip** Senior Economist	

(A) - Acting
Current Organization Chart as of September 28, 2018

PD&R's Funding and Budget

Research and Technology (R&T)

PD&R provides fundamental support for the Department's mission through national surveys, policy analysis, research, and program evaluations. Research and Technology (R&T) funding supports the conduct of a number of surveys through Interagency Agreement with the U.S. Census Bureau; complex research and evaluations as well as knowledge dissemination; unsolicited research proposals through research partnership grants; and technical assistance efforts for HUD's programs and initiatives.

PD&R's work enables Congress, the Secretary, principal HUD staff, state and local government officials, and the private sector to make informed decisions on housing and community development policy and program implementation. The graph below shows PD&R appropriated funding for core R&T, research and demonstrations, and technical assistance since FY 2015.

PD&R Funding Appropriations

Legend:
- Core R&T
- Research, Evaluation, and Demonstrations
- Technical Assistance
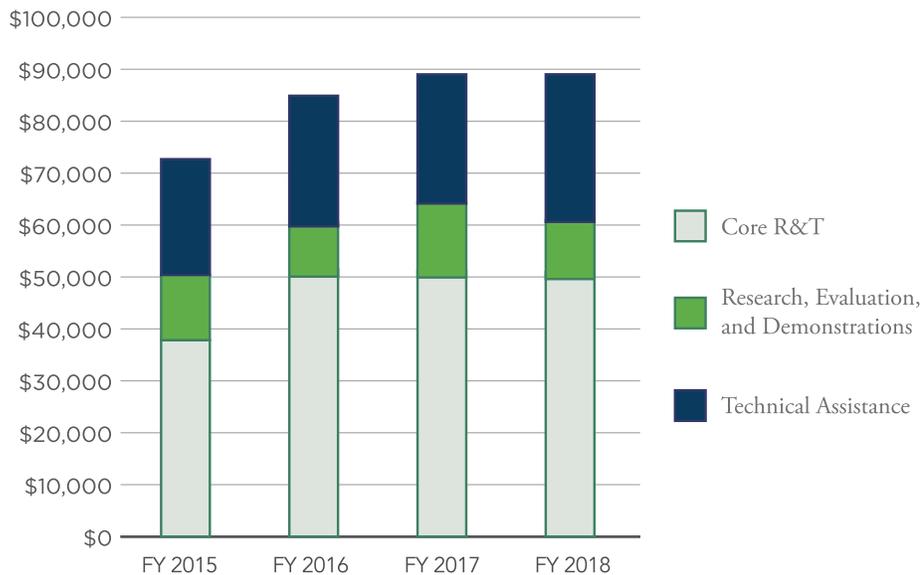
PD&R manages its R&T funding in three categories:

1. Core R&T. This has held steady at $50 million for FY 2017–2018. It funds the national housing data infrastructure, PD&R's efforts to disseminate knowledge, and housing technology innovation.

   a. Data Infrastructure: The largest component of Core R&T supports several national surveys that inform policymakers about homeowner and rental units, HUD-assisted and unassisted populations, and the nature of affordable housing problems. These data sources are used widely in the private sector and are essential for an efficient housing market, which in calendar year 2017 contributed $2.5 trillion to the U.S. gross domestic product.

   b. Knowledge Management, Dissemination, and Outreach: Through this category of funding, PD&R disseminates research to inform evidence-based policy and convenes stakeholders for shared learning opportunities. Key beneficiaries of knowledge management activities include policymakers, HUD grantees, program staff, builders and developers, external experts, and international entities.

   c. Housing Technology and Research Innovation: The third component of Core R&T includes the provision of technical, evidence-based guidance in the areas of building technologies, state and local land use practices, and disaster preparedness and mitigation. Research partnership grants support innovative research conceived and partially funded by academia, foundations, and nonprofits beyond HUD's walls.

2. Research, Evaluations, and Demonstrations. PD&R's discretionary research and evaluation, funded at $14 million in FY 2017 and $11 million in FY 2018, is guided by the HUD Research Roadmap, a learning agenda that PD&R develops through an iterative consulting process to ensure that the research is forward looking, systematic, and well structured. Using the roadmap as a guide, HUD recommends—and Congress specifies through the Appropriations Conference Reports—the specific research projects to be supported each year.

3. Technical Assistance. This funding supports HUD-wide technical assistance (TA)—$25 million in FY 2017 and $28 million in FY 2018. PD&R chairs a committee of Assistant Secretaries representing each of HUD's program offices to decide on how best to target TA funding in order to effectively support grantees and other entities in a nonsiloed manner. Once allocations are agreed on, PD&R allots the funding to the Office of Community Planning and Development to administer on behalf of the program offices.

Technical Assistance Teams

Community Compass Technical Assistance and Capacity Building Program

As HUD's integrated technical assistance and capacity building initiative, the Community Compass Technical Assistance and Capacity Building Program is designed to help HUD's customers navigate complex housing and community development challenges by equipping them with the knowledge, skills, tools, capacity, and systems to implement HUD programs and policies successfully and sustainably. The program also provides effective administrative and managerial oversight of HUD funding. Recognizing that HUD customers often interact with a variety of HUD programs as they deliver housing or community development services, Community Compass brings together TA investments from across HUD program offices, including the Offices of Public and Indian Housing (PIH), Community Planning and Development (CPD), Housing, Fair Housing and Equal Opportunity (FHEO), and Field Policy and Management. This cross-funding approach allows TA to address the needs of grantees and subgrantees across multiple HUD programs, often within the same engagement.

The Community Compass program is centrally managed by the Office of Community Planning and Development, with PD&R serving as the HUD-wide technical assistance coordinator. PD&R is responsible for working across HUD's programs to improve cross-program TA coordination, to effectively track TA investments, and to plan the best uses of HUD's limited TA funding.

Community Compass funds are awarded through competitive Notices of Funding Availability (NOFA). Through the FY 2017 Community Compass NOFA, HUD awarded over $52 million in FY 2017 TA funding to support TA and capacity building needs across the Department, including $22,250,000 in Departmental TA funds and $30,223,608 in other program-specific TA funds (for example, McKinney-Vento, NAHASDA). In FY 2018, PD&R and CPD switched to a 2-year NOFA model. The significantly revised FY 2018/2019 Community Compass NOFA will award 2 years of funding through one competition, including an estimated $73.5 million in FY 2018 TA funding and any additional TA funding that HUD may receive through FY 2019 appropriations. Switching to a 2-year NOFA cycle will ease administrative burdens on applicants and HUD staff and enable HUD to issue awards in FY 2019 more quickly.

Over the course of FY 2017 and 2018, PD&R and CPD also launched standardized processes for tracking TA outcomes and training learning objectives, along with implementing customer service surveys to track the effectiveness of HUD's TA engagements. Using the data gathered from these new processes, HUD will be able to strengthen its TA program and provide more effective support to its grantees.

"There are two teams that make technical assistance work seamlessly at HUD. The executive team with leadership from all parts of HUD agree on the highest priority investments, and they are supported by a staff-level team from the Offices of Public and Indian Housing, Community Planning and Development, Housing, Fair Housing and Equal Opportunity, PD&R, and others, who task the TA work to accomplish those priorities. The good working relationships within and between these teams facilitate in-depth engagements, cross-functional engagements, and efficient use of limited resources to accomplish HUD's mission."

—**Heidi Joseph**
PD&R Staff Level Team Lead

National Housing

Data Infrastructure

PD&R provides data on America's housing through several national surveys. These surveys have provided in-depth pictures of America's housing for decades and inform both public- and private-sector decisions in the $2.5 trillion U.S. housing sector.

American Housing Survey (AHS)

The American Housing Survey (AHS) is the richest source of information about the nation's housing stock and the characteristics of its occupants, and it has an important role in assessing the performance of government housing programs. PD&R provides funding, oversight, and leadership on the AHS, and the U.S. Census Bureau provides operational management and conducts data collection.

Fielded in odd-numbered years, the AHS is a sample of American Homes. A new representative national sample was drawn for the 2015 AHS and has generated data for both 2015 and 2017. It provides both national and metropolitan information on America's housing, as well as how those homes have changed over time. The data made available publicly to researchers is "microdata" for each respondent, thus allowing for in-depth research.

The 2017 AHS includes over 113,000 housing units in its sample. In addition to reporting national estimates, it provides estimates for 25 metropolitan areas. The AHS includes an oversample of HUD-assisted units to gain reliable statistics on HUD-assisted tenants' views of the condition of their housing. Four topical modules on various subjects of interest were also included in 2017; those modules addressed commuting costs, disaster preparedness, evictions, and whether households have difficulty paying mortgage, rent, and utility costs in a timely manner.

FY 2018 funding will enable PD&R to conduct the 2019 AHS, which will include 25 metropolitan surveys and topical modules on food insecurity, secondary education enrollment, housing accessibility for the elderly and disabled, and housing insecurity.

> "PD&R's four staff in the Housing and Demographic Analysis Division work with the more than 75 staff members at the Census Bureau to design and field these complex surveys. In addition, every day there are hundreds of Census Bureau staff in the field conducting these surveys across the country, providing regularly updated data critical to understanding U.S. housing, which represents 12 percent of the U.S. economic output."
>
> —Shawn Bucholtz
> *Director, Housing and Demographic Analysis Division*

Rental Housing Finance Survey

The Rental Housing Finance Survey (RHFS) is a national survey of owners or property managers of single-family and multiunit rental housing. The data are nationally representative of both properties and units, providing insight into the characteristics, financing, revenue, and capital expenses of America's rental inventory. The RHFS was first conducted in 2012 in partnership with the Census Bureau. Since then, PD&R supported the RHFS for new national estimates in 2015 and 2018. The 2015 RHFS data are available to the public both as a microdata Public Use File and through the RHFS Table Creator, which permits fast tabulations weighted by properties or units. The 2018 RHFS data will be available to the public in late 2019.

HUD uses the RHFS data to gain a better understanding of the financial health of single-family and multifamily rental housing, including debt-to-asset and cash flow metrics. Data from the 2015 RHFS were used extensively by the Joint Center for Housing Studies in their biennial State of America's Rental Housing report.

Housing Production Surveys

HUD funds three important surveys that paint the picture of new housing production in the United States. HUD uses the data from each of the three surveys to monitor total new housing production, market absorption, and affordability. HUD uses the data to monitor total new housing production and its affordability. The Bureau of Economic Analysis uses the data as an input to estimates of residential fixed investment. Trade associations use the data for housing market analysis. Manufacturers and their suppliers use the estimates to monitor trends in prices and characteristics (e.g., floor area, number of bedrooms). Trade publications cite estimates in articles.[1]

Survey of Construction

The Survey of Construction (SOC) is a joint effort between HUD and the Census Bureau. The purpose of the survey is to provide current national and regional statistics on starts, completions, and characteristics of new, privately owned single-family and multifamily housing units and on sales of new single-family houses. Its data on new residential sales is a Principal Federal Economic Indicator. The survey has been conducted monthly and annually for housing starts since 1959 and for new home sales since 1963.

Manufactured Homes Survey

The statutorily mandated Manufactured Homes Survey (MHS) provides estimates of manufactured home sales and inventory for all new manufactured homes that have received a federal inspection (i.e., HUD-code homes). The MHS produces monthly regional estimates of the average sales price for new manufactured homes and more detailed annual estimates including selected characteristics of new manufactured homes. In addition, MHS produces monthly estimates of homes shipped, by status. Data on shipments are available on a monthly and annual basis going back to 1959. Data on homes shipped, by status, are available on a monthly basis going back to January 2014.

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[1]   U.S. Census Bureau. "Primary Customers and Users," *Manufactured Housing Survey.* https://www.census.gov/programs-surveys/mhs/about.html.

Survey of Market Absorption

The Survey of Market Absorption of New Multifamily Units (SOMA) is a survey of newly constructed buildings with five or more units. The SOMA provides estimates of rent level and market uptake for apartments and sale price and market uptake for condominiums and cooperatives. The interviewer collects information on amenities, rent or sales price levels, number of units, type of building, and the number of units taken off the market. If necessary, interviews are also conducted at 6, 9, and 12 months after building completion. HUD and the Census Bureau release quarterly reports and an annual report with 12-month absorption data.

Housing Market Intelligence

Economists in Headquarters and the field offices generate up-to-date information on all facets of national and local housing markets. These data and reports are prominently featured on the HUDUser.gov website under "U.S. Housing Market Conditions."

Each month, PD&R provides an overview of changes in the national housing market with its *National Housing Market Indicators* report, which pulls together the data from public and private sources to summarize changes in the national housing market. This report provides the latest data and trends in the sale of new and previously owned homes, new construction for single-family and multifamily homes, rental and homeownership affordability, homeowner equity, and delinquencies and foreclosures, among other information.

Each quarter, the *National Housing Market Summary* and the *Regional Narratives* provide a more in-depth picture of national and regional housing market trends. The *Regional Narratives* provide data relevant to the states and metropolitan areas in each region.

PD&R's field economists have also prepared more than 90 *Comprehensive Housing Market Analysis* reports for selected metropolitan housing market areas during FY 2017–2018. These reports provide guidance for HUD in its operations and have proven to be useful to builders, mortgagees, and others concerned with local housing condition trends.

PD&R housing market reports in 2017 showed continued progress in the housing market recovery. New and existing home sales showed their strongest performance since 2006 and 2007, with respective annual increases of 9 and 1 percent. New home construction was up 2 percent over the previous year. Inventories rose for new homes but fell for previously owned homes, with the average months' supply of existing homes for sale falling to the lowest level since first recorded in 1999. With only moderate wage gains and house prices for both homes sold and rents appreciating in the 6 to 7 percent range, housing affordability declined in 2017. After falling since 2004, the national homeownership rate turned the corner, increasing to 63.9 in 2017 from 63.4 percent in 2016.

The housing market began to soften in 2018. New home sales improved from the previous year, but existing home sales fell by 3 percent. New home construction peaked in early 2018 and

has been trending down or flat since. Inventories of homes for sale rose in 2018, but the average months' supply of existing homes improved only slightly, from 3.9 months to 4.0 months. House prices for homes sold began to moderate toward the end of 2018, with annual gains falling in the 5 to 6 percent range; rental prices, however, continued to rise. Affordability weakened in 2018, with rising mortgage rates and higher house prices through most of 2018 and only moderate wage gains. National homeownership continued to improve, reaching a rate of 64.4 percent in the third quarter.

> "**For each** *Comprehensive Housing Market Analysis*, **we develop a factual framework based on information available, as of a particular date, from both local and national sources. Each analysis takes into consideration changes in the economic, demographic, and housing inventory characteristics of a specific housing market area during three periods: from 2000 to 2010, from 2010 to the as-of date of the analysis, and from the as-of date to a 3-year forecast date.**"
>
> —**Robert Stephens**
> *Field Economist*

Program Parameter Data

Many of HUD's programs are intended to serve low- and moderate-income households or to encourage investment in distressed places. The programs generally have rules that establish cost limits or targeting requirements intended to minimize the government cost or risk exposure. PD&R provides those limits and the data that conform to those targeting requirements, called "program parameter data."

The data PD&R develops are different for every area to account for the wide variation in cost of living in the United States. Most of the data PD&R produces are updated annually. PD&R endeavors to provide these data on a regular schedule, which is posted on the HUDUser website; for example, PD&R publishes income limits on or before April 1 each year and Fair Market Rents (FMRs) on or before September 1.

Fair Market Rent Data

PD&R annually updates FMRs for every metropolitan area and nonmetropolitan county in the United States, a total of—2,642 areas. FMRs are used to determine payment-standard amounts for the Housing Choice Voucher (HCV) Program—that is, the maximum amount of rent that HUD will subsidize; determine initial renewal rents for some expiring project-based Section 8 contracts; and determine initial rents for housing assistance payment contracts in the Moderate Rehabilitation Single Room Occupancy program. FMRs also serve as a rent ceiling in the HOME Investment Partnerships (HOME) rental assistance program.

Designed to provide a rent subsidy limit that allows households to access an adequate supply of modestly priced rental units in a housing market—that is, the lower cost 40 percent of the market—FMRs are gross rent estimates that include the shelter rent plus the

cost of all necessary utilities.[2] Using data from the Census Bureau, HUD annually estimates FMRs for each area.

FMRs experienced their most significant change in decades with the publication of the Small Area Fair Market Rents (SAFMR) Final Rule on November 16, 2016. SAFMRs are Fair Market Rents calculated at the ZIP Code rather than the metropolitan level. The SAFMR rule permits any public housing authority (PHA) to opt in to using ZIP Code FMRs instead of metropolitan FMRs. In response to significant voucher concentration challenges and market conditions, the rule also requires PHAs in 24 metropolitan areas to use SAFMRs. Approximately 200 PHAs were required to begin use of SAFMRs in 2018.

Although HUD had intended to allow PHAs until 2020 to meet the mandatory requirements of the rule, the courts disagreed and required implementation in 2018. In response, PD&R played a significant role in providing technical assistance to PHAs in 2018 to help them with implementation of this new requirement.

This rule greatly expands the number of FMR areas PD&R must calculate. In addition to continuing to calculate the metropolitan and nonmetropolitan county estimates, PD&R now also calculates FMR for 26,019 ZIP Code areas.

Up to 11 steps go into calculating each SAFMR, depending on the quality of the data available in that ZIP Code. To inform users on how an individual ZIP Code area's SAFMR limit was calculated, HUDUser.gov provides a page dedicated to SAFMRs, where users may select the ZIP Code of interest and receive detailed information on how the SAFMR was calculated for that ZIP Code.

Small Area Fair Market Rent Implementation Team

As a result of a court decision at the end of December 2017 that reversed HUD's plan to provide an additional 2 years for PHAs to implement SAFMRs, HUD had to immediately provide technical assistance so that PHAs could implement the requirements by April 1, 2018. Few, if any, of the approximately 200 PHAs required to implement SAFMR had begun the process when the court ruling was made.

A team of 12 staff from PD&R, PIH, and the Office of General Council (OGC) quickly provided clear guidance, technical assistance, and ongoing support to PHAs so that they could redefine their FMR areas from metropolitanwide areas to ZIP Codes.

"Between January and March of 2018, this team was able to engage with industry; set up a web page and FAQs; issue guidance; [and] hire a technical assistance provider to develop and provide training at five venues across the U.S. Our work was essential to give PHAs a chance to successfully implement this new complex program requirement."

—Peter Kahn, Director
Program Parameter Research Division

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[2]   Telephone, cable or satellite television, and Internet services are excluded.

Income Limits Data

Federal law requires HUD to set income limits that determine the eligibility of applicants for HUD's assisted housing programs. One of the major active assisted housing programs is the Section 8 HCV program. HUD's Section 8 Income Limits begin with the production of Median Family Income (MFI) estimates. HUD uses the Section 8 program's FMR area definitions in developing MFI estimates; therefore, HUD develops income estimates for each metropolitan area, parts of some metropolitan areas, and each nonmetropolitan county. HUD calculates Section 8 income limits for every FMR area, with adjustments for family size and for areas that have unusually high or low income-to-housing-cost relationships.

In addition to being used by all of HUD's housing assistance programs, the income limit data are used by the Community Development Block Grant (CDBG), HOME, Housing Trust Fund, and Low Income Housing Tax Credit (LIHTC) programs, among others.

Comprehensive Housing Affordability Strategy (CHAS) Data and Community Development Block Grant (CDBG) Low and Moderate Income Benefit Areas

HUD periodically receives custom tabulations of census data from the Census Bureau that are largely unavailable through standard Census Bureau products. These data, known as the Comprehensive Housing Affordability Strategy (CHAS) data, demonstrate the extent of housing problems and housing needs, particularly for low-income households. The primary purpose of the CHAS data is to support over 1,000 state

and local governments with preparing their consolidated plans. PD&R supports these plans by providing the data in the Geographic Information System (GIS) Consolidated Planning tool.

The data also are also used by researchers nationwide to look at housing problems in a local economic context by showing housing problems by locally adjusted income breaks (primarily 30, 50, and 80 percent of Area Median Income [AMI]).

The CHAS data also are used to update the Census Tracts and nonmetropolitan places that meet the CDBG low-mod "area benefit" requirement—that is, areas with places where more than 51 percent of the population are less than 80 percent of median income. These data are updated every 5 years using the special tabulation data. The low-mod benefit areas will be updated in FY 2019 with the CHAS data.

HOME and Housing Trust Fund Sales Price Limits

Both the HOME program and the Housing Trust Fund limit the initial purchase price or after-rehabilitation value of homeownership units assisted with HOME funds to 95 percent of the area median purchase price for single-family housing, as determined by HUD. PD&R annually estimates these limits using data from the Federal Housing Administration (FHA) and the Federal Housing Finance Agency, which regulates Fannie Mae and Freddie Mac. These data are updated each spring.

FHA Loan Limits Data

PD&R calculates for FHA forward mortgage limits based on median house prices in accordance with the National Housing Act. FHA's Single-Family forward mortgage limits are set by

Metropolitan Statistical Area (MSA) and county and are published periodically. FHA publishes updated limits effective for each calendar year. The limits are at or between the low-cost area and high-cost area limits based on the median house prices for the area.

LIHTC Qualified Census Tract (QCTs) and Difficult Development Areas (DDAs)

Investors in LIHTC properties in QCTs or DDAs can receive a boost in the value of their tax credits relative to investments outside these areas. PD&R is tasked with identifying these areas consistent with statutory requirements.

LIHTC QCTs must have 50 percent of households with incomes below 60 percent of the Area Median Gross Income (AMGI) or have a poverty rate of 25 percent or more. DDAs are areas with high land, construction, and utility costs relative to the AMI and are based on FMRs, income limits, the 2010 Census counts, and 5-year American Community Survey (ACS) data.

In addition to the items noted above, PD&R calculates Annual Adjustment Factors, Renewal Funding Inflation Factors, and a Utility Schedule Model to support program operations.

Allocation Formulas

For HUD's appropriated program funds, only 6 percent is awarded each year to grantees competitively—that is, by a Notice of Funding Availability (NOFA) or a Request for Proposal (RFP), with most of that being the Continuum of Care (CoC) NOFA that is a hybrid of a formula and a competition.

The remainder is allocated by block grant formulas (CDBG, HOME, Indian Housing Block Grant [IHBG], Operating Fund, Capital Fund, Housing Opportunities for Persons With AIDS [HOPWA], Emergency Solutions Grants [ESG], Fair Housing Assistance Program [FHAP]—27 percent) or housing assistance contracts with various formula-like components (HCV Housing Assistance Payments [HAP] and Administrative Fee, Project Based Rental Assistance, 202/811 Programs for the Elderly or Persons with Disabilities—67 percent). When HUD receives funding for new housing vouchers, such as HUD Veterans Affairs Supportive Housing (HUD-VASH), the funds also are often allocated through formulas.

The primary reason for this approach is that the bulk of HUD's funding either supports existing tenants or needs to have long-term planning to have a sustained impact. Formulas are very good for achieving both of those goals. Formulas also get money into the hands of grantees quickly. Competitions take 6 to 18 months from appropriation to allocation and require a great deal of HUD staff resources to manage. Formula allocations, on the other hand, generally take 1 to 3 months from appropriation to allocation and require very few HUD staff resources.

PD&R has been an important contributor to the design and maintenance of all these formulas and housing assistance contracts—about $43 billion in funding allocations each year. The CDBG, HOME, IHBG, and PIH Capital Fund formulas, among others, were all developed by current or former PD&R staff.

In 2017 and 2018, PD&R staff were responsible for implementing two

formulas, the HUD-VASH formula for allocating new special purpose housing vouchers to serve veterans and the CDBG Disaster Recovery formula, which targets funds to support recovery from America's most severe disasters.

Community Development Block Grant—Disaster Recovery (CDBG-DR)

The history of allocating CDBG-DR by formula begins in 1993, when Congress made several appropriations to assist with the long-term recovery of communities suffering from a number of disasters. The Secretary asked PD&R to develop a formula to get the funds into the hands of affected communities quickly. PD&R identified and obtained data from the Federal Emergency Management Agency (FEMA) and the Small Business Administration (SBA) to inform those allocations. Over the years, and particularly for Hurricane Katrina in 2005 and the years following, CDBG-DR has grown from a small part of community recovery to a major part, and when Congress appropriates the funds, PD&R develops the allocation formula.

More than $38 billion was appropriated (mostly in FY 2017 and FY 2018) to address disaster recovery needs for disasters in 2015, 2016, and 2017. PD&R staff developed the formulas to allocate those funds to 16 state and local governments, including nearly $20 billion to support Puerto Rico's recovery from Hurricane Maria.

HUD-VASH Vouchers

Ending veteran homelessness is a top priority in the Federal Strategic Plan to Prevent and End Homelessness. The HUD-VASH program combines Housing Choice Voucher (HCV) rental assistance for homeless veterans with case management and clinical services provided by the Department of Veterans Affairs (VA). Every year since 2008, HUD and VA have awarded HUD-VASH vouchers based on geographic need and public housing agency (PHA) administrative performance. PD&R informs allocation formula strategies using data from HUD's point-in-time (PIT) counts of sheltered and unsheltered veterans submitted by CoCs and VA data on the number of contacts with homeless veterans and available permanent supportive housing assets. From time to time, PD&R has also developed scoring methodologies for competitively awarding project-based HUD-VASH vouchers based on need and rental market factors using ACS and CHAS data. Since 2008, more than 97,000 vouchers have been awarded, and the number of veterans experiencing homelessness has declined by nearly one-half.

PD&R Support for HUD's Disaster Missions

During FY 2017–2018, PD&R played an active role in supporting HUD's engagement in community-level response and recovery. As part of the HUD team developing the Housing Recovery Support Function plans for community recovery, PD&R conducted an analysis of data to identify the most affected areas and devised strategies for housing and community recovery. PD&R performed those tasks for North Carolina after Hurricane Matthew, Texas after the flooding from Hurricane Harvey, Florida after Hurricane Irma, and Puerto Rico and the U.S. Virgin Islands after Hurricanes Irma and Maria. Because of the significant impact of Hurricane Maria on Puerto Rico, PD&R staff provided support by working with

disaster survivors in Disaster Recovery Centers and as part of the FEMA Mitigation Assessment Team, which assessed the integrity of buildings and homes. PD&R field economists conducted economic studies in Houston, Puerto Rico, and the U.S. Virgin Islands that resulted in the publication of Baseline Comprehensive Housing Market Analyses that will help to assess the recovery of housing and the housing market.

PD&R continued to lead the analytical process of determining unmet need as a result of disasters to equitably allocate appropriations under the CDBG-DR program. This program is the largest source of federal recovery funds in almost every disaster, with more than $38 billion distributed in FY 2018 alone.

> **"PD&R supports America's communities by helping them understand the issues and opportunities when planning their recovery following a disaster. As a piece of the broader HUD team, we bring experts in economics, GIS, social science, and planning into the recovery planning process."**
>
> **—Dana Bres**
> *PD&R Team Lead for Disaster Response*

Data for Research and Monitoring

HUD receives an enormous amount of information from grantees and lenders to support program operations. Those data are not only a needed source of information to ensure that an individual or project meets program requirements, but they are also valuable information for understanding the bigger picture of who is served, where they are served, and how well the programs are meeting their overall objectives.

For the big picture, PD&R aggregates data from multiple HUD systems for housing assistance and community development programs, and makes those data available to the public and researchers to support research and monitoring activities.

A Picture of Subsidized Households

A Picture of Subsidized Households is a master compilation of information on subsidized housing from HUD's major data-collection systems. The report is useful for answering public policy and program questions without revealing the identity of individual assisted families. It presents statistics on the number and characteristics of households that receive assistance through federal housing programs, including socioeconomic and demographic information, such as family income, race, ethnicity, age of head of household, number of household members, disability, and location and type of neighborhood. For the report, PD&R aggregates household data by program and at various geographic levels—national, state, city, county, congressional district, and census tract. It includes the public housing program, housing choice vouchers, moderate rehabilitation, and the collection of multifamily programs.

Various versions of *Picture* data are available on HUDUser.gov, with extracts dating back to 1970. Since 2004, PD&R has generated the data annually. *Picture* is based on data extracted as of December 31 and posted by the end of the following January.

Low-Income Housing Tax Credit Data

PD&R collects data annually on properties placed in service through the LIHTC program. The data are provided to PD&R by the state and local housing finance agencies (HFAs) that administer the program. The database currently includes all properties placed in service through 2016. Data on properties placed in service through 2017 were collected in late 2018. The next update, including the 2017 properties, is expected in the spring of 2019. This database includes data on all properties placed into service since the beginning of the program, but the most reliable information begins in 1995, when PD&R began collecting the data.

In 2008, the Housing and Economic Recovery Act (HERA) required the state and local housing finance agencies to submit LIHTC tenant data to HUD. PD&R releases a report annually summarizing that information. The report summarizes tenant demographic information, household income, and rent levels.

Geo-Enabled Data and Tools

PD&R plays the principal role in maintaining and developing HUD's geospatial capabilities. PD&R designed and developed HUD's Enterprise Geographic Information System (eGIS) platform, a common geospatial infrastructure shared agencywide. The eGIS platform supports several HUD program functions and serves as the Department's primary source for geospatial data, services, and applications. PD&R designed and developed the geodatabase and service-oriented architecture that forms the backbone of the eGIS platform, and PD&R continues to oversee the operation, maintenance, and further development of the platform. To support this effort, PD&R and the Office of the Chief Information Officer (OCIO) collaborate to manage a contract that the entire Department is leveraging to create and manage GIS solutions.

Since 2015, the HUD Resource Locator (HRL) has had nearly 1 million unique user sessions; the Community Assessment Reporting Tool (CART) has provided a clear picture of nearly all of HUD's investments in individual communities; several new tools were introduced in 2017 and 2018 to ease compliance with fair housing requirements for the Rental Assistance Demonstration and transfer-of-assistance requirements for the Project-Based Rental Assistance programs; the eGIS data has permitted easily accessed knowledge of HUD's investments that were at risk from various disasters of 2017 and 2018 and has supported CDBG-DR formula allocations; the eGIS team spearheaded the work of improving HUD's addresses for properties in Puerto Rico to support post-Hurricane Maria recovery; and the eGIS storefront continued to have its data refreshed for nearly 100 publicly available geospatial datasets.

"Over the last 2 years, our eGIS team of three staff and limited contract support have successfully maintained platform operations, including six business applications, while collaborating with staff throughout HUD to expand the availability of open data, provide support for important research and demonstrations, prepare for a migration to the cloud, and introduce new capabilities to the portfolio."

—Robert Renner
GIS Team Lead, PD&R

Data Linkages

Linking administrative data, such as tenant characteristics, with survey data and other research datasets is an increasingly important and cost-effective way to address key research and policy questions for the assisted-housing population. PD&R is partnering with federal agencies and using administrative linkages to leverage the value of public investments in survey data.[3]

During FY 2017, HUD and the U.S. Department of Education extended their partnership to link data on assisted tenants with Federal Student Aid data and experimentally test interventions through behavioral science to promote application for and receipt of federal student aid by college-age tenants. During FY 2018, this team began evaluating the efficacy of education navigators funded by Resident Opportunity and Self-Sufficiency (ROSS) grants, also known as Project SOAR, to support young adults who reside in public housing.

PD&R continues to advance tenant health research through a data linkage partnership with the National Center for Health Statistics (NCHS) to identify HUD-assisted tenants in health survey data from 1999 through 2016. This collaboration is enabling researchers for the first time to study outcomes for HUD populations related to health status, chronic disease, healthcare utilization, morbidity, and mortality. Previously linked data files enabled researchers to publish several studies of the relationship between assisted housing and health during FY 2017–2018. The NCHS research center provides

the infrastructure for linking data, maintaining data confidentiality, and receiving external proposals for research using the linked data.

HUD has entered into interagency agreements with the Census Bureau to expand access to HUD data, identify HUD-assisted tenants in national surveys, and support matching with non-HUD data by approved internal and external researchers at secured Federal Statistical Research Data Centers. The Bureau's Economic Reimbursable Surveys Division manages the infrastructure for linking HUD's tenant data and datasets from major randomized control trials with the Census' survey data and other administrative datasets. Researchers now have access to data from the Moving to Opportunity (MTO) demonstration and the Family Options demonstration. During FY 2018, proposals were approved for one MTO research project and two Family Options projects, as data linkage creates opportunities to generate new evidence from prior investments in program demonstrations. Planning efforts are underway to expand such low-cost research collaborations.

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[3]   All such data linkage initiatives and research activities integrate strong privacy protection policies, procedures, and legal penalties to prevent any disclosure of confidential information.

Research and Demonstrations

PD&R research and demonstrations align with HUD's strategic goals and cover a range of topics. This work is directed by PD&R's learning agenda known as the Research Roadmap. Many of PD&R's research and demonstration efforts take from 3 to 10 years from the time they are initiated until results are released; however, whenever possible, interim data, findings, and reports are made available.

PD&R funds research in a variety of ways:

• Contracts. PD&R annually issues solicitations for research on specific topics, most of which were identified through the Research Roadmap process or specified by Congress that HUD undertake.

• Research NOFA grants. The Research and Evaluation, Demonstrations, and Data Analysis and Utilization program (referred to as "HUDRD" Notice of Funding Availability (NOFA) is an annual competitive solicitation of applications under designated research topics for cooperative agreement awards.

• Research partnership grants. PD&R may enter into unsolicited research partnerships with academic institutions, philanthropic entities, state governments, units of local governments, and non-profit and for-profit institutions in the United States through noncompetitive cooperative agreements. On a rolling basis, PD&R staff reviews unsolicited proposals to assess their relevancy to supporting HUD's research, the extent to which they meet the 50-percent matching requirement, and the rigor of the research design. If they meet those standards and funding is available, PD&R will fund those proposals. In FY 2017–2018, eight research partnership projects were completed.

• The Multidisciplinary Research Team (MDRT) is a contract, initiated in 2014, to manage a team of qualified researchers to expand the ability of PD&R to obtain high-quality, short-turnaround research to support HUD's priority policies and goals.

The following text outlines PD&R's process for selecting projects, a compilation of recent PD&R research, the status of current work, and projects that are currently underway.

Research Roadmap

Developing PD&R's Learning Agenda

PD&R's research program is essential to helping HUD achieve its mission to create strong, sustainable, inclusive communities and quality, affordable homes for all. To support HUD's mission, PD&R engages stakeholders to identify research questions to support a multiyear learning agenda. PD&R uses its Research Roadmap as a strategic, 5-year plan to guide research investments and congressional budget requests.

In 2017, PD&R released the Research Roadmap 2017 Update to refresh the FY 2014–2018 plan. The update drew on new stakeholder input related to specific focus areas and other research priorities to create a new list of research

opportunities for a new, overlapping, 5-year period. The update established a precedent for more iterative and ongoing assessment of emerging research needs to ensure that the research function is forward looking, systematic, and well structured. As HUD implements its new 2018–2022 Strategic Plan, the Department's new strategic goals highlight the need for again soliciting stakeholder input and refreshing PD&R's Research Roadmap to keep learning and evidence at the heart of housing and urban development policy and programs. Planning is underway for new stakeholder outreach and research roadmapping.

Completed and Ongoing Projects

The following sections highlight PD&R's recently completed projects and efforts that are currently underway. The projects are organized into eight topical categories: landlord participation, health, energy and building technology, homeownership, special needs and homelessness, rental housing, housing needs, and community development. This is followed by ongoing research. A complete list of projects in the pipeline and interim reports for long-term efforts can be found on HUDUser.gov.

Landlord Participation in the Housing Choice Voucher Program

A Pilot Study of Landlord Acceptance of Housing Choice Vouchers

A Pilot Study of Landlord Acceptance of Housing Choice Vouchers

U.S. Department of Housing and Urban Development | Office of Policy Development and Research
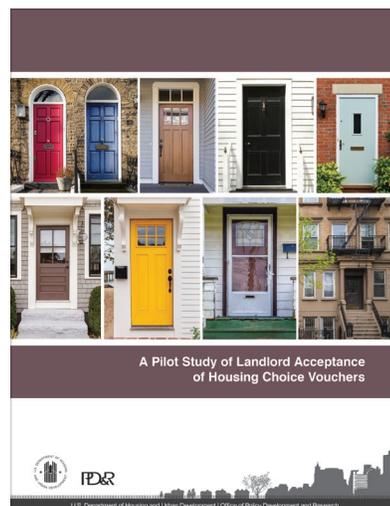
This pilot study used rigorous paired testing methodology to explore landlord treatment of Housing Choice Voucher (HCV) holders during the initial stages of the housing search process. It is the first study to use paired testing methods across multiple sites to examine landlord treatment of HCV holders. The study finds that landlords often refuse to rent to HCV holders. In most cases, the landlord refusal takes place early in the search process, when a tester calls the landlord and asks whether Housing Choice Vouchers are accepted. In other cases, the landlord may suggest that vouchers are accepted but subsequently fail to show up for a scheduled appointment. Landlord denial rates vary across the five study sites and may be influenced by factors such as state or local laws that prohibit discrimination by source of income (particularly local source of income laws that include protections for Section 8 voucher holders), housing market conditions, and voucher payment standards.

https://www.huduser.gov/portal/pilot-study-landlord-acceptance-hcv.html.

Urban Landlords and the Housing Choice Voucher Program (A Research Partnership with Johns Hopkins University)
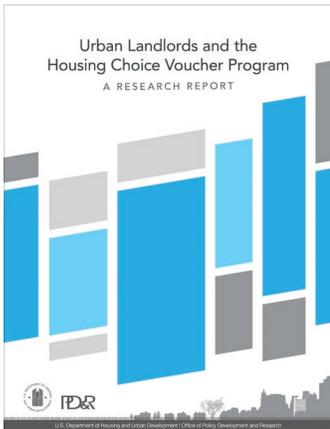
This study investigates the role of landlords in low-rent housing markets in Baltimore, Cleveland, and Dallas and the role that landlords play in shaping the residential experience of low- and moderate-income renters, especially households in the HCV program. The study is based on interviews and observations of a sample of 127 landlords and property managers, 73 percent of whom accept housing choice vouchers. The report shows how local rental markets influence landlords' interest to participate in the HCV program, including (1) financial motivations (reliable payments); (2) attitudes about housing voucher tenants; and (3) interactions with the PHA. Among landlords who chose not to participate in the HCV program, the primary reasons stated were negative experiences with the program itself, including frustration with the inspection process, general bureaucracy, and disappointment when the PHA did not take the landlord's side in conflicts between landlord and tenant. The study suggests that opportunities exist to recruit landlords into the HCV program by focusing on the things that matter most to them—reliable rent payments and tenants who stay awhile, help care for the property, and do not cause damage.

https://www.huduser.gov/portal/publications/UrbanLandlords.html.

> "The Landlord Acceptance and Urban Landlord studies prompted Secretary Carson to create a new task force at HUD comprising staff from across the Department to find solutions for the problems identified. The task force held listening sessions across the country with landlords to find ways to increase their willingness to accept housing choice vouchers. Solving this pressing problem will be a major effort for PD&R in FY 2019."
>
> —**Meena Bavan**
> *Co-Team Lead for Housing Choice Voucher Task Force, PD&R*

Health

Health Picture of HUD-Assisted Children: 2006–2012

HUD and the National Center for Health Statistics agreed in 2011 to link administrative records for individuals receiving housing assistance from HUD with records from the National Health Interview Survey. This report uses the linked data for 2006 throug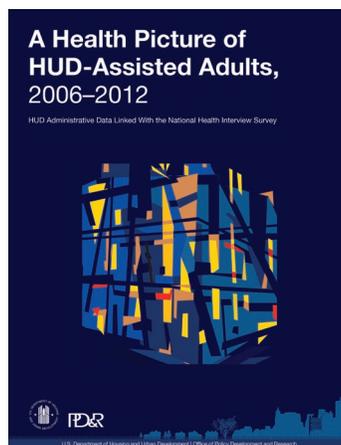h 2012 to present nationally representative estimates of demographic characteristics, health diagnoses and conditions, and healthcare access and utilization for HUD-assisted children from birth through age 17. To provide context, similar estimates are provided for two other relevant subgroups: (1) children residing in unassisted renter households with incomes below the federal poverty line and (2) all children in the U.S. population. The report presents raw prevalence estimates to reflect actual

conditions for each subgroup; it does not make statistical adjustments for age or other factors to support cross-group comparison of health conditions for similar individuals. Results demonstrate that assisted children suffer disproportionately from serious health conditions.

https://www.huduser.gov/portal/publications/Health-Picture-of-HUD-Assisted-Children.html.
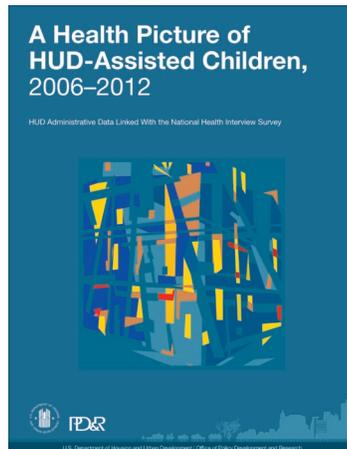
Health Picture of HUD-Assisted Adults, 2006–2012

This report uses the linked data for 2006 through 2012 to present a broad statistical summary of demographic characteristics, health diagnoses and conditions, and healthcare access and utilization for HUD-assisted adults.

Similar estimates are provided for two other relevant subgroups to support contextual understanding: (1) unassisted adult renters with incomes below the federal poverty line and (2) all adults in the U.S. population. All estimates use linkage-eligible survey respondents weighted to national totals. The data do not include statistical adjustments for age that would be needed for valid cross-group comparison of health conditions for similar individuals. Relative to unassisted low-income renters, HUD-assisted adults are shown, by numerous measures, to be an older population with more disabilities and more prevalent health problems.

https://www.huduser.gov/portal/publications/Health-Picture-of-HUD.html.

Energy and Building Technology

Residential Structural Design Guide: A State-of-the-Art Engineering Resource for Light Frame Homes, Apartments, and Townhouses
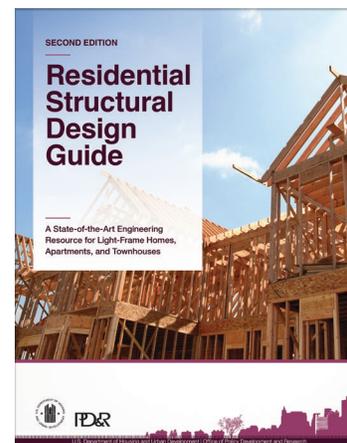

The complexity of homes, the use of innovative materials and technologies, and the increased population in high-hazard areas of the United States have introduced many challenges to the building industry and the building design profession. These challenges

call for the development and continual improvement of efficient engineering methods for housing applications and for the education of designers in addressing structural design issues in homes. This text helps to document and improve the structural engineering issues related to housing design and performance. It complements current design practices and building code requirements with technical information and guidance. In doing so, it supplements fundamental engineering principles with various technical resources and insights that focus on improving the understanding of conventional and engineered housing construction. The guide may be viewed as a living document subject to further improvement as the art and science of housing design evolve.

https://www.huduser.gov/portal/publications/RSDG.html.

A Best Practices Manual for Using Compressed Earth Blocks in Sustainable Home Construction in Indian Country

A Best Practices Manual for Using Compressed Earth Blocks in Sustainable Home Construction in Indian Country

U.S. Department of Housing and Urban Development / Office of Policy Development and Research
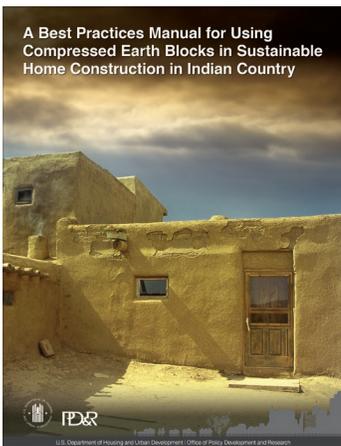
Compressed earth blocks are molded adobe blocks produced using mechanical compaction methods. Compressed earth blocks represent a locally sourced and manufactured building technology for producing quality, healthy, and affordable housing that is consistent with traditional practices and values of tribal

communities. The technology supports goals of self-sufficiency, sustainability, and energy independence. This report provides technical and practical guidance for the production and use of compressed earth blocks to address housing needs in Native American reservations, along with planning and business considerations consistent with tribal values and organization.

https://www.huduser.gov/portal/publications/Compressed-Earth-Blocks.html.

Homeownership

Insights from HUD's First-Time Homebuyer Education and Counseling Demonstration

The First-Time Homebuyer Education and Counseling Demonstration

Baseline Report: Study Design and Implementation

U.S. Department of Housing and Urban Development ∎ Office of Policy Development and Research
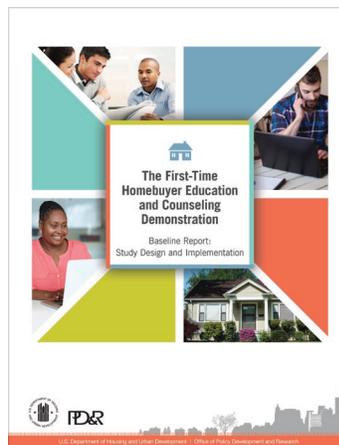
Congress and many researchers and practitioners in the field of housing counseling have asked whether prepurchase homeownership counseling for first-time borrowers leads to better borrower outcomes and reduced lender risk relative to no counseling. HUD designed The First-Time Homebuyer Education and Counseling Demonstration as a large-scale randomized experiment to answer the question about the relative efficacy of homebuyer education and counseling for first-time borrowers. The richness of the data collected on study participants at baseline and during

the service participation period of the demonstration made possible a detailed analysis of the study participants' personal characteristics that are associated with program participation in initiation and completion of homebuyer education and counseling services, both in-person and remote.

Key findings from *Who Participates in Homebuyer Education and Counseling Services and Why? Insights from HUD's First-Time Homebuyer Education and Counseling Demonstration* indicate that women and homebuyers with greater education were more likely to participate in homebuyer education and counseling services in general. Those at an early stage of the homebuying process, those who reported being "pretty good at math," and those who planned to purchase a home without a co-borrower were more likely to participate in *in-person* services. Those who planned to spend more years living in their purchased home, who scored better on a baseline mortgage literacy quiz, or who had a higher credit score were more likely to participate in *remote* services. This paper provides data that can inform how HUD's Housing Counseling Program and service providers market and deliver homebuyer education and counseling services. The report serves as a useful basis for readers to assess the ultimate findings of the demonstration, which will be forthcoming in future reports.

https://www.huduser.gov/portal/publications/First-Time-Homebuyer-Education-and-Counseling-Services.html.

Research Report for the Importance of Mortgage Downpayment as a Deterrent to Delinquency and Default

This study was contracted to examine the effectiveness of mortgage downpayment as a deterrent to delinquency and default. The analysis utilized Black Knight (LPS/McDash) Financial Services loan-level mortgage origination and performance data of major mortgage servicers across a wide range of mortgage markets. The study objectives were to (a) construct a database that expedites future empirical examination, and (b) empirically examine the effect of mortgage downpayment on the probability of mortgage delinquency and default, holding other relevant loan-level and macroeconomic factors constant. The study found that higher downpayments (in proportion to home value) reduced delinquency and default risk. The study also quantified compensating factors that could make up for smaller downpayments without increased risk. The magnitude of macroeconomic effects on delinquency and default risk—such as unemployment, home price appreciation, and mortgage rates and effects of their interaction with loan-level factors—were also reported.

https://www.huduser.gov/portal/publications/Downpayment-FinalReport.html.

Aging in Place: Managing the Use of Reverse Mortgages to Enable Housing Stability (A Research Partnership with Ohio State University)

This study seeks to better understand the demand for and takeup of reverse mortgages. It describes the characteristics of more than 1,700 households that sought counseling for a reverse mortgage

between 2006 and 2011; of those households, 74 percent obtained a reverse mortgage. Using data collected at the time of counseling and followup survey data collected in 2014, the study summarizes self-reported motivations for seeking a reverse mortgage, including reasons for not getting a reverse mortgage, if applicable. The study also compares the characteristics of households that seek reverse mortgages with the general population of senior homeowners using the 2008, 2010, and 2014 waves of the Health and Retirement Study. The article also compares selected outcomes of reverse mortgage borrowers with outcomes in the general population of senior homeowners.

The research finds that reverse mortgage borrowers tend to have lower incomes, have very low (or no) nonhousing assets, and have substantial equity in their homes. Reverse mortgage borrowers are less likely to have bequest motives than are senior homeowners in the general population. Compared with the latter group, reverse mortgage borrowers are more likely to exhibit financial planning behaviors (such as the creation of a will). They also tend to be more risk averse and score higher on indicators of financial literacy. The study finds that 4 to 7 years after receiving a reverse mortgage, most counseled homeowners were generally satisfied with their reverse mortgage decision, and borrowers—including terminated borrowers—thought that it improved their quality of life. Findings on health are nuanced. In general, reverse mortgage borrowers do not rate their overall health to be any lower than senior homeowners in the general population;

however, a slightly higher proportion of reverse mortgage borrowers report difficulty with particular Activities of Daily Living (ADLs).

Published in *Cityscape*: https://www. huduser.gov/portal/periodicals/cityscpe/ vol19num1/ch4.pdf.

Reverse Mortgage Collateral: Undermaintenance or Overappraisal? (In-house research)

Using information on mortgages insured by the Federal Housing Administration, this article examines the disproportionate decline in collateral values associated with reverse mortgages. Properties securing reverse mortgages sell at a sharp discount in foreclosure relative to similar properties securing forward purchase loans. This discount, however, does not increase over time, as is expected of depreciation related to property under maintenance. Further, forward refinance loans show a similar discount. An overestimate of the collateral value at origination, rather than subsequent level of property maintenance, may be responsible for greater-than-expected loss severities.

Published in *Cityscape*: https://www. huduser.gov/portal/periodicals/cityscpe/ vol19num1/article1.html.

Home Equity Conversion Mortgages Reform Team

FHA's insurance program for Home Equity Conversion Mortgages, also known as reverse mortgages, continues to suffer losses. The FY 2017 actuarial review found that the net worth of the program was –$14.5 billion, with a capital ratio of –19.8 percent. Consequently, several policy changes have been implemented over the past several years to reform the program.

In January 2017, HUD published a final rule, "Strengthening the Home Equity Conversion Mortgage Program," in the Federal Register (Vol. 82, No. 12). This rule codified several earlier policy changes, including Life Expectancy Set Asides (LESA) after a financial assessment, deferred due and payable status for eligible nonborrowing spouses, and limitations on initial disbursements. In addition, the final rule implemented new servicing requirements, including those governing due and payable status after a borrower fails to make required property tax and insurance payments. These changes went into effect in September 2017 (Mortgagee Letter 2017-11).

The insurance premium structure was changed, and principal limit factors, which govern how much equity borrowers can extract, were lowered in October 2017 (Mortgagee Letter 2017-12). In addition, research from PD&R published in *Cityscape* found that unexpected losses in the reverse mortgage program may be due to inflated appraisals at origination (Park, 2017). In October 2018, FHA began undertaking a collateral risk assessment on new HECM appraisals and potentially requiring a second appraisal based on the results of that assessment (Mortgagee Letter 2018-06).

> "Working closely with the Office of Housing, the Office of General Counsel, and PD&R, we were able to craft a policy that we expect will reduce the risk of property overappraisal in the HECM program."
>
> —**Kevin Park**
> *Economist and HECM Reform Team Member, PD&R*

Housing Discrimination

Rental Housing Discrimination on the Basis of Mental Disabilities: Results of Pilot Testing
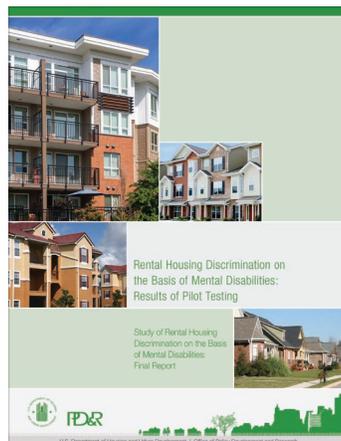
More than 15 million people in the United States have some type of mental disability. Many of these individuals seek community-based housing in the rental market. As a result of the U.S. Supreme Court's *Olmstead* decision, an increasing number of individuals with disabilities are moving from nursing homes and other institutional settings into community-based settings. In addition, most housing discrimination complaints received in the United States involve discrimination based on a disability. This pilot study represents the first comprehensive examination of discrimination in the rental housing

market against people with mental disabilities (MD). The study specifically focuses on persons with mental illness (MI) and those with intellectual or developmental disabilities (I/DD). The goals of the study were to (a) increase understanding of the prevalence and forms of housing discrimination against this population as they seek market-rate housing and (b) to evaluate the utility of different approaches to paired testing when conducting research on housing discrimination on the basis of mental disability.

This study represents the first time that individuals with MI and I/DD have been enlisted to serve as in-person testers in a comprehensive, multicity housing discrimination study. The pilot testing conducted through this study documented significant levels of adverse differential treatment toward individuals with MD compared with treatment toward testers without MD, and people with MI experienced higher rates of adverse treatment than did individuals with I/DD.

In addition to this pilot study are four supplemental short papers to complement and further illustrate the complex issues surrounding both housing discrimination against people with MD and the involvement of people with MD in testing for housing discrimination.

https://www.huduser.gov/portal/publications/MentalDisabilities-FinalPaper.html.

Racial and Ethnic Differences in Housing Search
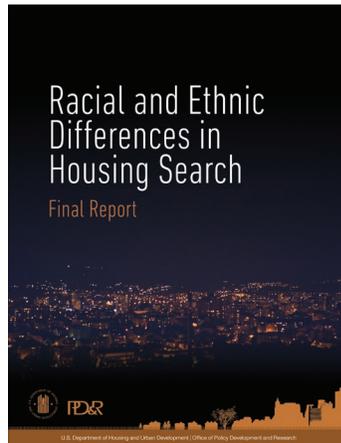
This research adds new insights about the housing search process that renters undertake and how that process differs by race and ethnicity. By combining robust survey data from the Panel Study of Income Dynamics (PSID), the American Housing Survey (AHS), the Chicago Area Study (CAS), and an original data collection from a convenience sample of 135 recent movers and 351 current searchers from the Washington, D.C. metropolitan area, the study provides the most comprehensive picture to date about the rental housing search process.

The report outlines a conceptual framework of five dimensions for understanding the complexity of the housing search process and structuring the research questions: Context, Decision Making, Information Gathering, Evaluating Options, and Final Outcome. Within this framework, the study sought to understand how racial and ethnic minorities differ in their search for rental housing and answers four key questions: (1) How do people search for rental housing? (2) How do housing searches differ by race and ethnicity? (3) What are the consequences of these differences for

relative housing outcomes? and (4) What are the implications for future research?

The report provides an overview of the complexity of the housing search process, describes racial and ethnic differences in the housing search process, outlines five factors that highlight the unique experiences of racial and ethnic minorities in this process, and provides typologies of different housing searchers. Key findings from the secondary data analysis include the following: Black and Latino renters are more likely than White renters to use social networks to identify rental units, may settle on a unit that does not satisfy their criteria, and often stay in the same neighborhood. Analysis of original data collection in the D.C. area found that many Black renters reported that they do not enjoy equal access to housing in the area, and a large share report having personally experienced what they perceived to be housing discrimination. A large portion of Black renters also attempted to avoid housing discrimination by relying on social networks to help them find amenable landlords.

https://www.huduser.gov/portal/publications/HousingSearch.html.

Special Needs and Homelessness

Understanding Rapid Re-housing: Systematic Literature Review and Supplemental Analysis of Data from the Family Options Study

The Understanding Rapid Re-housing study is a detailed examination of Rapid Re-housing (RRH), a short-term rental assistance and services program model designed to help people experiencing homelessness obtain and maintain permanent housing and increase self-sufficiency. Two working papers posted in 2018 provide (a) a systematic

review of existing research on rapid re-housing programs, documenting what is known about outcomes from RRH programs and highlighting the gaps in knowledge around this intervention; and (b) a supplementary analysis of the data collected for the Family Options Study, a multisite, random assignment experiment designed to determine the impact of various interventions for homeless families. The latter is a nonexperimental analysis of outcomes for families who were assigned to RRH and those who were not assigned to the RRH group but who accessed RRH assistance during the 37-month course of the study.

https://www.huduser.gov/portal/publications/Supplemental-Analysis-Rapid-Re-housing.html.

Rental Housing

### Length of Stay in Assisted Housing
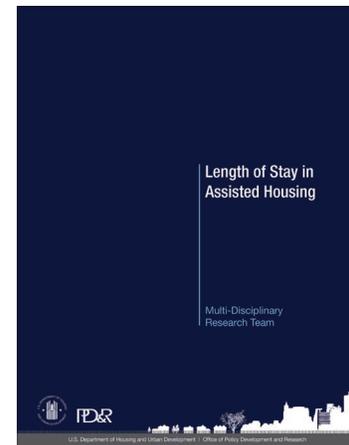
This study examines the length of time that households participate in assisted housing programs administered by HUD. The research uses HUD administrative data from 1995 through 2015 to examine program and household variations, trends in length of stay, and factors affecting length of program participation. The typical household in assisted housing stays for about 6 years,

but the average length of stay varies by household type. Elderly households stay about 9 years, and nonelderly families with children stay about 4 years. The average length of stay in assisted housing is generally increasing for most cohorts of assisted households, influenced by factors such as household characteristics and market conditions. This was a Multidisciplinary Research Team (MDRT) report.

https://www.huduser.gov/portal/publications/length-of-stay.html.

Reducing Work Disincentives in the Housing Choice Voucher Program: Rent Reform Demonstration Baseline Report
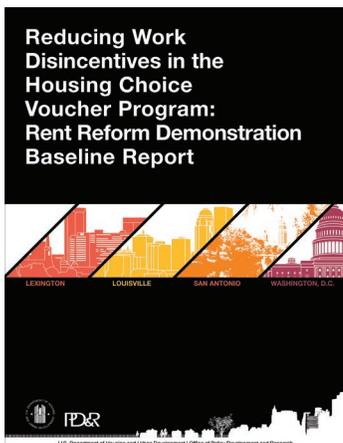
The purpose of the Rent Reform Demonstration is to test an alternative to the current rent-setting system for families using HCV. The goals of the alternative rent-setting model now being tested are to incentivize employment and reduce the complexity and burden (and thus, the cost) of administering the rent policy while not causing unnecessary hardship for HCV households. The study team, PHAs, and HUD collaboratively designed the alternative rent model that is being tested at four local Moving to Work (MTW) PHA sites with 6,600 participating HCV assisted households using a rigorous

random assignment design. The four participating PHAs are the District of Columbia Housing Authority, Lexington Housing Authority, Louisville Metropolitan Housing Authority, and San Antonio Housing Authority. This report provides a detailed explanation of the alternative rent model, a description of the demonstration implementation, and an outline of the preliminary baseline information and survey data that have already been gathered from the assisted families participating in the study. Future reports will assess the impact of the alternative rent model at 12 and 36 months after random assignment on employment, earnings, and hardship for the study sample and on administrative efficiencies for the PHA, provide a process evaluation of the demonstration implementation, and analyze the cost effectiveness of the new rent policy compared to the existing rent policy.

https://www.huduser.gov/portal/publications/Reducing-Work-Disincentives-Housing-Choice.html.

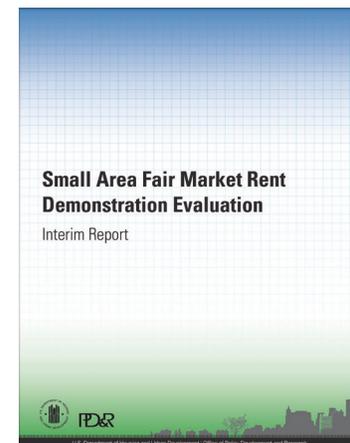**Section 811 Project Rental Assistance Program – Phase I**
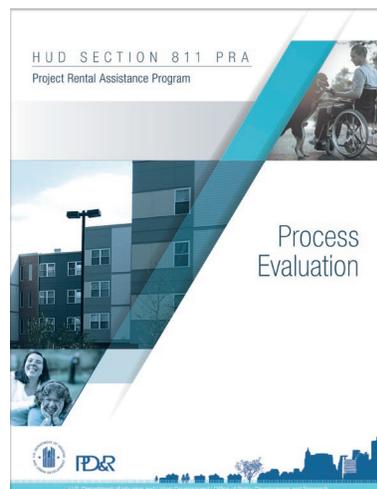
The Frank Melville Supportive Housing

Investment Act of 2010 introduced significant reforms to the Section 811 supportive housing for nonelderly adults with disabilities, including the new Section 811 Project Rental Assistance (PRA) Program and a mandated evaluation of its implementation and effectiveness. The Phase I report is an implementation evaluation focused on the initial 18 months (January 2015– June 2016) of program implementation by the first 12 grantees funded through the FY 2012 grant competition. The report provides an overall picture of how the demonstration was implemented in the initial states and analyzes differences in program design, target population, and housing and service strategies. The overarching research questions include an assessment of the following aspects of program implementation: partnerships between state housing and health and human services or Medicaid agencies; property and unit selection strategies; target population outreach and referral approaches; supportive services availability; and major challenges and successes. Grantees spent much of the period covered by Phase I of the evaluation solidifying partner roles and responsibilities and developing the systems and procedures needed to accommodate this new and complex approach to providing affordable housing for people with disabilities. The pace of attracting properties and units to the program and leasing units has been slower than HUD and grantees expected for a variety of reasons, such as tight housing market conditions (high-price and low-vacancy), difficulty aligning housing and services, program requirements, and location mismatch.

https://www.huduser.gov/portal/section-811-process-evaluation.html.

Small Area Fair Market Rent Demonstration

Small Area Fair Market Rent
Demonstration Evaluation
Interim Report

PD&R

U.S. Department of Housing and Urban Development | Office of Policy Development and Research

This groundbreaking report evaluates the impact of implementing Small Area Fair Market Rents (SAFMRs) in seven PHAs in a variety of geographic and market types. This report examines whether and to what extent the shift from metropolitanwide Fair Market Rents (FMRs) to ZIP Code-based SAFMRs provides better access to areas of higher opportunity for HCV families. The report also examines how the use of SAFMRs affects HCV families and landlords and the impact of SAFMRS on housing assistance payments (HAP) paid by HUD and the tenant portion of rent paid by SAFMR families. This report also reviews the PHA administrative procedures imposed and costs incurred in implementing SAFMRs.

The report contains major findings of potential consequence for the HCV program—HUD's largest subsidy program. One such finding is that SAFMR families are more likely to live in higher rent ZIP Codes and higher opportunity areas than are HCV holders using areawide FMRs. The increase in SAFMR families living in higher opportunity areas is driven mainly by those SAFMR families with children.

Another, less positive finding was a 3.4-percent net loss of units potentially available to SAFMR families. The variation in the number of units renting below the applicable FMR depends on how the rent levels within a PHA's jurisdiction differ from rent levels within the broader metropolitan area where each individual PHA is located. This loss was attributed to one of the seven PHAs in the evaluation that did not have enough higher rent units to compensate for the loss of lower rent units. The study also showed a decrease in HAP payments in the SAFMR areas coupled with an increased contribution to rent by SAFMR families. This consequence was driven by HCV holders who remained in SAFMR areas that were below the areawide FMR. As will be discussed later in this biennial report, this troubling result may be mitigated by the new payment standard protections imposed by the Housing Opportunity Through Modernization Act (HOTMA) and by provisions of the SAFMR Final Rule.

https://www.huduser.gov/portal/publications/SAFMR-Interim-Report.html.

Housing Needs

Worst Case Housing Needs: 2017 Report to Congress
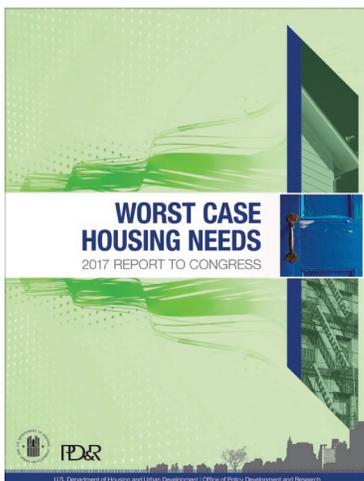
This Worst Case Housing Needs report is the 16th in a longstanding series providing national data and analysis of the critical problems facing very low-income renting families. Households with worst case needs are defined as very low-income renters who do not receive government housing assistance and who paid more than one-half of their income for rent, lived in severely inadequate conditions, or both. The report draws on data from the 2015 American Housing Survey (AHS), which debuted a major redesign that included a new national and metropolitan area longitudinal sample. Findings of the report indicate that benefits of the strengthening national economy are not adequately flowing to renter households at the lowest income levels, and severe housing problems are on the rise.

https://www.huduser.gov/portal/publications/Worst-Case-Housing-Needs.html.

**Assessment of American Indian and Alaska Native Housing Needs**
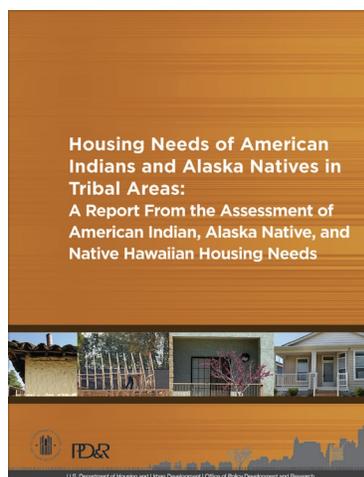
The centerpiece of the assessment of American Indian and Alaska Native (AIAN) housing conditions is the first-ever national survey of American Indian and Alaska Native households

in tribal areas. This survey sampled 1,340 AIAN households from 38 tribal areas and achieved a response rate of 60 percent. The survey offers information not available in existing census data sources, including estimates of electrical and heating problems, physical conditions problems, and the extent of "doubling up" among AIAN households in tribal areas. The report contextualizes data from the household survey with information on demographic, social, and economic conditions and regional and historical comparisons based on the 2000 and 2010 decennial censuses and the 2006–2010 American Community Survey (ACS). Analyses show that housing conditions are substantially worse among AIAN households than among all U.S. households, and overcrowding in tribal areas is especially severe. Findings from a survey of 110 tribally designated housing entities, site visits to 22 tribal areas, and data on housing production before and after enactment of the Native American Housing Assistance and Self-Determination Act of 1996 (NAHASDA) show that tribes have produced and maintained low-income housing much more effectively since the passage of NAHASDA. Nominal dollars for the Indian Housing Block Grant have not been increased since 1996, however, leading to a substantial decrease in buying power. Limited funding is a key constraint for many tribes, who could increase their rate of housing production if they had more funding.

https://www.huduser.gov/portal/publications/HNAIHousingNeeds.html.

Community Development

Strong Cities National Resource Network (NRN) Evaluation
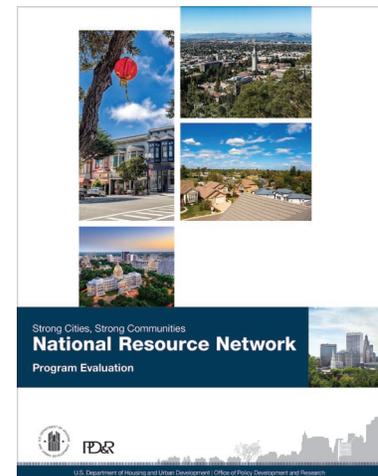
Initially funded with $10 million from HUD, the NRN provided direct technical assistance (TA) through five organizations: Enterprise Community Partners (lead organization); Public Financial Management, Inc. (PFM); HR&A Advisors; the International City County Management Association (ICMA); and the NYU Robert F. Wagner School of Public Services. Generally, the quality of the TA delivered was high and well received in the target communities; however, the evaluation's overall assessment of the effectiveness of the program is inconclusive. The evaluation was unable to determine whether the TA was successful in addressing the overarching goal of the NRN—to "provide the most distressed U.S. cities with the capacity to address their own underlying economic and fiscal plight in a workable manner." NRN TA engagements were viewed as a success, and local representatives indicated that they thought their city would not have been able to accomplish the same tasks without the NRN assistance. In some cases, respondents indicated that the outcomes of those engagements will

take a long time to be apparent, and some sites expressed concerns about the sustainability of the changes due to issues with capacity and priority setting in their community.

https://www.huduser.gov/portal/publications/SC2-NRN-Evaluation-Report.html.

Ongoing Research

Evaluation of the Section 811 Project Rental Assistance (PRA) Program, Phase II

The second phase of the evaluation will assess the effectiveness of the PRA rental assistance model and the program's impact on participants, focusing on a subset of six states selected from grantees in the first and second rounds of funding. The evaluation has three core components: (1) an implementation analysis based on interviews with key program administrators; (2) a descriptive analysis of the 29 grantees and impact analysis of program effects on participants' quality of life, housing, and health compared with two matched comparison groups; and (3) an economic analysis to measure the costs of housing and supportive services provided by the Section 811 PRA program, and to compare costs to benefits. The study will have a final report expected in 2019.

Retrospective Evaluation of Moving to Work (MTW)

This evaluation is guided by the following questions: What can we learn from already existing MTW initiatives about how to deliver federal housing assistance to achieve goals of cost efficiency, client self-sufficiency, and increasing housing choice? What are the risks and opportunities inherent in providing MTW flexibilities to PHAs (i.e., the specific exceptions

from the U.S. Housing Act of 1937 Act that allow MTW innovations)? The evaluation, which is expected to be completed in July 2019, will increase knowledge of selected MTW initiatives in terms of broader applicability, costs and benefits, and positive and negative effects on target populations, clients, and communities and describe the demonstration overall, including documenting how housing assistance at MTW agencies has changed over time, who is being served, at what level of affordability, for how long, and at what cost.

Evaluation of Cohort #1 of the Moving to Work Demonstration Program Expansion: Understanding the Effects of Moving to Work Flexibility for Small Public Housing Agencies

FY 2016 Appropriations language directed HUD to expand the MTW Demonstration program by adding 100 PHAs to the program over a 7-year period. PHAs will be added to the MTW program in cohorts, with each cohort subject to rigorous evaluation by HUD. HUD PD&R awarded a contract to Abt Associates to conduct the evaluation of the first cohort of MTW expansion PHAs. The first cohort of MTW expansion agencies will explore how small PHAs use the flexibility offered by their new MTW designation to achieve the statutory objectives of the MTW program and what the consequences of that flexibility are for housing authority operations and tenants. The project will also support the development of a set of performance outcome measures using administrative data that will allow HUD to monitor the progress of MTW agencies toward the statutory objectives of the program over time. The contract will be in operation from September 2018 through September 2023.

Evaluation of Cohort #2 of the Moving to Work Demonstration Program Expansion: Rent Reform Demonstration

HUD PD&R has awarded a contract to Manpower Demonstration Research Corporation (MDRC) to conduct the evaluation of the second cohort of MTW expansion PHAs. For this evaluation, HUD and MDRC will work with PHAs to implement and test alternatives to the standard income-based rent structure. These alternative rent policies could include stepped rents and tiered rents. This study will examine how these rent policies affect outcomes, including PHA administrative burden and the income of assisted residents.

Moving to Work Expansion Team

The FY 2016 Appropriations Bill directed HUD to expand the MTW program by 100 agencies from its current 39 PHAs. Unlike the agencies in the existing program, the directive was to include mostly smaller PHAs and to have regional diversity. Most important for PD&R was that the expansion be done in support of rigorous research that tested new policies. To identify the policies and help define the research, the law called for HUD to create a Research Advisory Committee. Subsequent to this directive, Congress provided substantial resources to PD&R to conduct the rigorous research.

A team of seven PD&R staff and four PIH staff have worked together very closely to implement the recommendations of the MTW Research Advisory Committee on how to expand MTW in conjunction with rigorous research.

> **"In the last year, we have defined the four MTW cohorts to be studied in consultation with the MTW Research Advisory Committee; provided support to the program office in the creation of the Operations Notice with the general waivers and through the public comment period; scoped out the research and procured contractors for the evaluation of the first two cohorts; and supported the program office in the launch phase for the first cohort. We expect to see significant progress in 2019 as HUD selects the agencies to receive MTW designation under the first two expansion cohorts."**
>
> **—Anne Fletcher**
> *MTW Expansion Rigorous Research Co-Team Lead, PD&R*

Evaluation of the Supportive Services Demonstration: Integrated Wellness in Supportive Housing

HUD's Supportive Services Demonstration, also known as Integrated Wellness in Supportive Housing (IWISH), is a 3-year demonstration to test a model of housing and supportive services for HUD-assisted elderly residents. IWISH aims to promote aging in place and improve housing stability, well-being, and health outcomes and reduce unnecessary or avoidable healthcare utilization associated with high healthcare costs. IWISH consists of a housing-based team of a full-time Resident Wellness Director and a half-time Wellness Nurse, who will adopt a standard and formal strategy to assess residents' needs and coordinate health and social services. IWISH is being implemented in forty multifamily housing sites across seven states.

HUD has designed a cluster-randomized controlled trial (cRCT) to rigorously evaluate IWISH. Eligible elderly-restricted or elderly-designated multifamily properties were randomly assigned to a treatment group that will implement the IWISH model or to a control group that will continue business-as-usual, which includes varying degrees of ongoing service coordination. The evaluation includes process and impact studies. The process study will assess fidelity to the IWISH model, document successes and challenges to implementation, and answer important questions related to resident health, well-being, and housing. The impact study will link HUD and Medicare/Medicaid claims data to measure the effects of IWISH on healthcare utilization and housing stability. The evaluation will be completed in September 2021.

Rent Reform Demonstration: Interim Report

The HUD Rent Reform Demonstration project is designed to test alternatives to a solely income-based rent structure. Rent reform may affect assisted housing residents in terms of the rents they pay and the amounts they earn and save, as well as the income stream to the housing agency that administers the subsidy. The demonstration will be undertaken at select Moving to Work (MTW) sites because those sites provide a natural laboratory for experimentation and observation of rent reform strategies. The research team and MTW sites will work with HUD to decide on an intervention that can be implemented at all sites in substantially the same manner.

Rental Assistance Demonstration (RAD) Evaluation
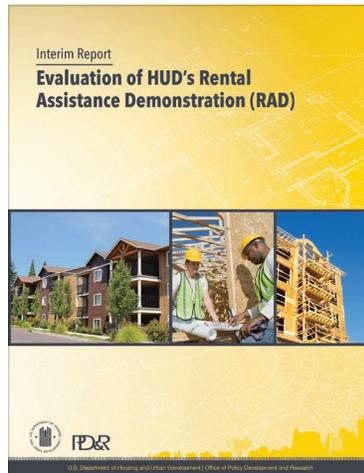
The Rental Assistance Demonstration (RAD) is a central part of HUD's strategy to preserve and improve affordable rental housing. RAD is designed to provide stable public funding to assisted housing projects, increase the ability of those projects to access private capital, and enhance the long-term viability of converted projects. In September 2016, HUD published an interim report documenting the types of projects that participate in RAD and associated activities, such as the reliance on various financing sources. The evaluation will also measure outcomes for RAD projects related to the physical and financial condition of converted projects and seek to compare those outcomes to similar projects that do not participate in RAD. Additionally, the final report will document the impact RAD has on residents. A final report will be released by the summer of 2019.

Multidisciplinary Research Team (MDRT) Continuing Research

As noted previously, MDRT is a single contract that PD&R tasks for fast-turnaround research. The following are fast-turnaround projects currently underway:
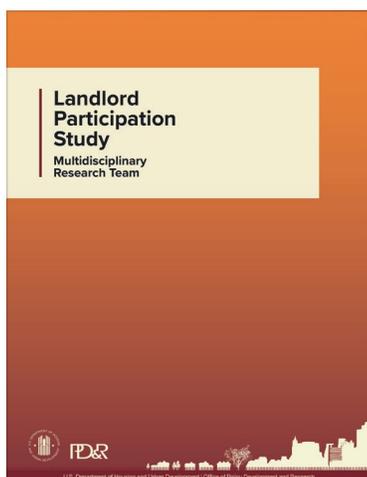
- Landlord Participation Study. To increase the availability of quality affordable rental housing, HUD is examining innovative strategies used by various PHAs to increase the participation of landlords in the HCV program in low- (or lower) poverty neighborhoods. Specifically, HUD is considering options under its Moving to Work (MTW) expansion that would increase PHAs' flexibility to use innovative local strategies to incentivize landlord participation in low-poverty neighborhoods. Expanding housing mobility not only helps PHAs meet their obligation to Affirmatively Furthering Fair Housing (HUD Office of Policy Development and Research [PD&R], n.d.) but may also contribute to positive outcomes for residents who have access to housing in low-poverty neighborhoods. Recent Moving to Opportunity (MTO) studies show the positive long-term effects of the program on the children of those participants who moved to low-poverty neighborhoods (Chetty, Hendren, and Katz, 2016[4]). However, there are barriers for HCV families to finding housing in low-poverty neighborhoods, sometimes due to resistance from landlords to participate in the HCV program. Common barriers cited by property managers and landlords include programmatic, regulatory, and administrative concerns, such as late payments, delays in leasing to tenants due to timing of inspections, and a general frustration with the bureaucratic aspects of participating in the HCV program (Edin, DeLuca, and Owens, 2012).[5] The purpose of this study is to produce an informative report that describes promising ways to increase landlord participation in the HCV program, especially in these low-poverty/high-opportunity neighborhoods.

- Economic Opportunity Metric for HUD-Assisted Renters Study. HUD is interested in evaluating metrics used in assessing the status of and progress in achieving economic opportunity, self-sufficiency, and financial stability for work-able individuals receiving various housing benefits. The need for this research is derived from HUD's *Strategic Plan 2018–2022*, which outlines the Agency Priority Goal (APG) of "[promoting] economic opportunity for HUD-assisted residents by encouraging self-sufficiency and financial stability, as measured by increasing the proportion of households who exit HUD-assisted housing for positive reasons" (p. 8). At

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[4] Raj Chetty, Nathaniel Hendren, and Lawrence F. Katz. 2016. "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment," *American Economic Review* 106 (4): 855–902. http://dx.doi.org/10.1257/aer.20150572.

[5] Kathryn Edin, Stefanie DeLuca, and Ann Owens. 2012. "Constrained Compliance: Solving the Puzzle of MTO's Lease-Up Rates and Why Mobility Matters," *Cityscape*: *A Journal of Policy Development and Research* 14 (2): 163–178. https://huduser.gov/portal/periodicals/cityscpe/vol14num2/Cityscape_July2012_constrained_compliance.pdf.

present, HUD does not consistently collect data on the reasons program participants exit HUD programs. The analysis of such data can shed light on the extent to which HUD programs provide program participants and their families a path to self-sufficiency and financial stability. HUD is actively seeking to improve the economic opportunities of program participants by supporting local services that improve education and training, workforce development, and financial literacy. The Strategic Plan outlines three tracking indicators to measure success toward meeting this APG of individuals and households exiting the program from a financially stable position.

• Homeless Predictor Study. More than 500,000 people in communities across the United States experience homelessness each year, and the homeless population increased from 2016 to 2017 (AHAR, 2017).[6] Minimizing the incidence and duration of homelessness involves understanding the factors that are associated with homelessness. The U.S. Department of Housing and Urban Development (HUD) is interested in evaluating these factors. The need for such research stems from HUD's *Strategic Plan 2018–2022*, which presents the Agency Priority Goal of reducing the "average length of homelessness in communities by an average of 3 days by FY 2019" (p. 8).

A greater understanding of how local and market conditions affect homelessness is critical to developing and implementing strategies and policies to effectively address the issue of increasing homelessness. Recent increases in homelessness have been attributed to increases in homelessness in the 50 largest metropolitan areas

(AHAR, 2017). The emergence and persistence of homelessness has been noted specifically in large rental markets in the West with low vacancy rates, high and rising rents, and low construction of new housing, including Los Angeles, San Diego, Portland, and Oakland. On the other hand, rental burdens are lower in some cities with similar conditions (such as Seattle and the San Francisco Bay area), perhaps because of their expanding employment and income opportunities. Greater knowledge of these topics requires further research on the complex ways in which conditions in local housing and labor markets, the population demographic, and local policies affect levels of homelessness.

• Fair Market Rent (FMR) Study. Currently, HUD calculates FMRs using the latest data on gross rents paid captured by the Census Bureau through the ACS, augmented by the change in gross rents as measured through the Consumer Price Index (CPI). One of the last steps of calculating FMRs is to inflate estimates using a trend factor based on the forecast of gross rent changes through the applicable fiscal year. For example, estimates from the 2016 ACS, and inflated to 2017 by the CPI would need to be trended forward to the 3rd quarter of 2019, to represent FMRs for FY 2019. HUD applies a national estimate of the trend factor to all geographic areas. Because local rents may trend at different rates compared to the nation, some local areas are assigned a trend factor that significantly over- or underestimate their FMRs. This problem is a result of the temporal mismatch between available data and the need for current, local FMRs; Therefore, the goal of this research is to explore and provide

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6   U.S. Department of Housing and Urban Development (HUD). 2018. *The 2017 Annual Homeless Assessment Report (AHAR) to Congress.* Washington, DC: HUD. https://www.hudexchange.info/resources/documents/2017-AHAR-Part-2.pdf.

a set of alternative methodologies for calculating local trend factors, analyze the strengths and weaknesses of each, and recommend a methodology that is more in line with current local market conditions and can improve accuracy of trend forecasting for FMR calculations. In keeping with this objective, this research addresses two central questions:

1. Can forecasting gross rents locally to derive a local trend factor—using a similar model as that used in forecasting gross rents nationally—provide more accurate FMRs than forecasting gross rents nationally?

2. Are there approaches, other than forecasting gross rents, that derive a local trend factor that results in a more accurate FMR calculation?

Research Partnerships Continuing Research

As noted previously, research partnerships represent a funding partnership in which researchers outside HUD can propose projects that PD&R may fund if they fall within HUD's mission and HUD staff agree with the need for the research, have 50 percent or more in matching funds, and have adequate rigor to have a reasonable chance of answering the research question. Ongoing research partnership projects[7] and the partner for each are listed in the following table.

Project	Partner
Housing Tenure, Disaster, Damage and Housing Turnover: An Analysis of the New Orleans American Housing Survey 2004–2009	Brown University
Housing Outcomes, Tenant Satisfaction, and Community Integration in Single-site and Scattered-site Housing First Models: A Randomized Trial	DePaul University
Expanding Equity and Inclusion in Urban Development Through Transatlantic Exchange—Resilient and Inclusive Communities	German Marshall Fund of the USA
Housing and Children's Health Study	Johns Hopkins University
Moving to Opportunity: Platform to Improve Health	Johns Hopkins University
Aging Gracefully in Place: An Evaluation of the Capability of the CAPABLE Approach	National Center for Healthy Housing
To Conduct an Independent Study of Savings Associated with Public and Private Mitigation	National Institute of Building Sciences
Evaluation of Tacoma Housing Authority's College Housing Assistance Program	Temple University
Rental Payment Data: Improving Renters' Financial Security Through Credit Reporting Payment Data	The Policy & Economic Research Council (PERC)
HUD-Assisted Residents with Disabilities	University of New Hampshire

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[7]   Completed research partnership studies that PD&R has not published but may be available from the researchers are an Evaluation of Innovative Family Self-Sufficiency (FSS) Programs Administered by the Nonprofit Compass Working Capital in Partnership with Massachusetts Public Housing Authorities, conducted by Abt Associates; The Housing Opportunity and Services Together (HOST) Demonstration II, conducted by the Urban Institute; and Understanding the Market for Reverse Mortgages, by the University of Texas at San Antonio.

Project	Partner
Evaluating the Impact of a Work Requirement in Public Housing	University of North Carolina at Chapel Hill
Washington, D.C.'s Flexible Rent Subsidy Pilot Program	Urban Institute
Stabilized Rammed Earth (SRE) Building: Monitoring the Energy Efficiency and Thermal Comfort	West Virginia University

Continuing Research under the HUDRD Research NOFA

The Research and Evaluation, Demonstrations, and Data Analysis and Utilization program (referred to as "HUDRD") Notice of Funding Availability (NOFA) is used as a funding vehicle when HUD has a good sense of the research question but not how to best answer it. In those situations, PD&R provides a lot of flexibility to the research teams selected to conduct the research. Ongoing projects funded under the HUDRD Research NOFA are listed in the following table:

Title	Research Awardee
The Social and Economic Impacts of the CDBG Program	The University of Idaho
The Social and Economic Impacts of the CDBG Program	Woodstock Institute
Understanding Child Trajectories in HUD-Assisted Housing	University of North Carolina at Chapel Hill
Affordable, Accessible Housing Solutions for Aging in Place and People with Disabilities	Auburn University
Prototype Testing and Evaluation of Accessible Design Retrofit for Semi-Detached and Non-Detached Houses	Home Innovations Research Labs
The Re-Purpose Project	University of Florida
Technical Assistance Assessment	Urban Institute
Improving the Speed of Housing Recovery Program Launch After a Severe Disaster	Urban Institute

PD&R's Outreach and Dissemination

PD&R continues to improve the way it disseminates research and reaches out to its stakeholders. Over the past 2 years, PD&R has greatly expanded outreach and dissemination efforts with an eye toward achieving four goals: (1) sharing information, research findings, and best practices; (2) translating housing policy and research to improve practice; (3) increasing the availability of high-quality research on issues of housing and community developments; and (4) ensuring that stakeholders have quick access to information on a variety of platforms.

Internally, one of the ways PD&R meets these goals is by operating the HUD Library. The HUD Library facilitates research and analysis for all the Department. It assists members of HUD staff in developing thorough, well-informed policies that improve the quality of life for every American. The HUD Library provides access to electronic and print research materials to help employees further the mission of HUD.

> "The HUD Library serves as PD&R's research library and is available to the entire Department. The library provides electronic and print research materials and reference services. It also maintains historic federal housing records. Thus far, the HUD Library has digitized over 300 historic records and made them available to HUD researchers via www.HUDUser.gov. The library is staffed by a full-time librarian and contracted support staff. The staff continues to upgrade the library's collections by subscribing to housing journals and adding hundreds of new print titles to its collection each year."
>
> —Eric Erickson
> *HUD Librarian*

Externally, PD&R meets its outreach and dissemination goals through HUDUser.gov, PD&R mobile and social media, convenings, periodicals, and awards.

At the core of PD&R's dissemination work is HUDUser.gov, through which all PD&R's research and communication flow. HUDUser.gov is updated regularly with the latest publication and data releases.

HUDUser Usage FY 2017–2018

	FY 2017	FY 2018
Total Number of Downloads	14,500,000	14,500,000
Average Downloads per Month	1,203,898	1,210,469
Number of Visits per Month	657,299	671,197
Orders Processed	787	679
Publications Disseminated	88,361	72,353

PD&R has a social media presence on *Facebook* and *Twitter*. In FY 2018, HUDUser had 4,736 Facebook "likes" and 6,896 Twitter followers.

PD&R Sponsored Events

In 2017 and 2018, PD&R hosted three events that were open to the public and that highlighted PD&R's research and data. The events also provided an opportunity for a conversation between researchers, practitioners, and policy leaders on an important policy topic. The three events in 2017 and 2018 were the following:

- A New Era of Homeownership—June 1, 2017
- Quarterly Update: Regulatory Barriers and Affordable Housing—June 21, 2018
- Quarterly Update: Landlord Participation in the HCV Program—September 20, 2018
- To make the events even more accessible, the events were webcast live, then archived and made available for viewing later on HUDUser.gov.

Dissemination to Housing and Community Development Professionals Through Conferences

Housing and community development professionals are members of several associations. It is at events held by those associations that many folks become aware of the research and data produced by PD&R. In 2017 and 2018, PD&R had an exhibit at 23 of these conferences, highlighting the research and data available from HUDUser.

The following table lists conferences at which HUDUser exhibited in FY 2017–2018:

Event	Date	Location
2016 National Association of Housing and Redevelopment Officials: Conference & Exhibition	October 14–16, 2016	New Orleans, LA
2016 National League of Cities: City Summit	November 16–19, 2016	Pittsburgh, PA
2016 Housing Assistance Council: Rural Housing Conference	November 29–December 2, 2016	Washington, DC
2016 How Housing Matters: Conference	December 13, 2016	Washington, DC
2017 Allied Social Science Association: Annual Meeting	January 6–8, 2017	Chicago, IL
2017 National Low Income Housing Coalition: Policy Forum	April 2–4, 2017	Washington, DC
2017 Urban Land Institute: Washington Real Estate Trends Conference	April 25, 2017	Washington, DC
2017 Affordable Housing Conference of Montgomery County, Maryland: Annual Summit	May 5, 2017	North Bethesda, MD

Event	Date	Location
2017 American Planning Association: National Planning Conference	May 6–9, 2017	New York City, NY
2017 National Alliance to End Homelessness: National Conference on Ending Homelessness	July 17–19, 2017	Washington, DC
2017 National Association of Counties: Annual Conference and Exposition	July 21–24, 2017	Columbus, OH
2017 International City/County Managers Association: Annual Conference	October 22–24, 2017	San Antonio, TX
2017 National Association of Housing and Redevelopment Officials: Conference & Exhibition	October 27–28, 2017	Pittsburgh, PA
2017 National League of Cities: City Summit	November 15–18, 2017	Charlotte, NC
2017 National Housing Conference: Policy Convening: Solutions for Affordable Housing	November 29, 2017	Washington, DC
2018 Allied Social Science Association: Annual Meeting	January 4–6, 2018	Philadelphia, PA
2018 National Alliance to End Homelessness: National Conference on Ending Youth and Family Homelessness	March 1–2, 2018	Los Angeles, CA
2018 National Low Income Housing Coalition: Policy Forum	March 19–21, 2018	Washington, DC
2018 Urban Land Institute: Washington Real Estate Trends Conference	April 17, 2018	Washington, DC
2018 American Planning Association: National Planning Conference	April 22–24, 2018	New Orleans, LA
2018 Affordable Housing Conference of Montgomery County, Maryland: Annual Summit	May 11, 2018	North Bethesda, MD
2018 National Association of Counties: Annual Conference and Exposition	July 13–15, 2018	Nashville, TN
2018 National Alliance to End Homelessness: National Conference on Ending Homelessness	July 23–25, 2018	Washington, DC

Periodicals

PD&R produces several periodicals as part of its outreach efforts to different audiences.

The Edge. *The Edge* is PD&R's biweekly online magazine which provides news, a message from PD&R leadership, and a wide range of information about housing and community development issues, research, and best practices. In 2018, *The Edge* had approximately 92,000 viewers per month.

The Edge: Most Viewed Articles, FY 2017–2018

Article Title	Date Posted
Rent-to-Own Program Rehabilitates Abandoned and Foreclosed Properties	Oct. 20, 2014
Rental Burdens: Rethinking Affordability Measures	Sep. 22, 2014
Permanent Supportive Housing for Women Recovering from Substance Abuse in Charleston, West Virginia	Sep. 10, 2018
Designing Better Supportive Housing	Sep. 24, 2018
Connecting Housing and Health	Sep. 24, 2018
Defining Housing Affordability	Aug. 14, 2017
Bridge Meadows Beaverton Provides a Supportive Community for Foster Families and Seniors	Sep. 24, 2018
Designing Affordable and Equitable Housing	Aug. 13, 2018
What Happens to Low Income Housing Tax Credit Properties After Affordability Requirements Expire?	Aug. 17, 2012
Regulatory Barriers and Affordable Housing Quarterly Update	July 23, 2018

Evidence Matters. *Evidence Matters* is designed to highlight topics that connect policymakers at all levels, as well as researchers, advocates, and industry members, with clear, accessible, and timely information. Since it was first published in 2011, *Evidence Matters* has been released 23 times, and the subscriber base is more than 25,000 in addition to those that read it online. The following issues of *Evidence Matters* were published during FY 2017–18:

Spring 2017: Building Technology

- Feature: Leveraging Building Innovations for Housing Affordability
- Research Spotlight: Combining Energy Efficiency and Disaster Mitigation Efforts in Residential Properties
- In Practice: Retrofits Improve Affordability and Resilience

Summer 2017: Housing for Seniors

- Feature: Housing for Seniors: Challenges and Solutions
- In Practice: Communities Support Seniors with Aging-Friendly Policies
- Commentary: Housing Challenges of Rural Seniors

Spring 2018: Regulatory Barriers and Affordable Housing

- Feature: Regulatory Barriers and Affordable Housing: Problems and Solutions
- Research Spotlight: Exploring the Current State of Knowledge on the Impact of Regulations on Housing Supply
- In Practice: States Reduce Regulatory Barriers for Affordable Housing
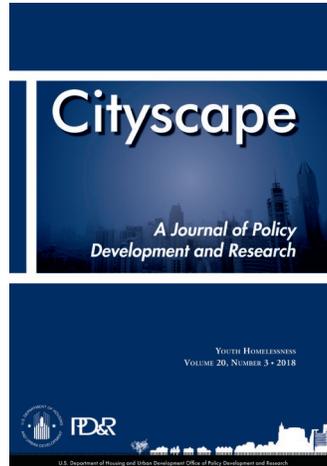
Summer/Fall 2018: Housing and Employment

- Feature: Housing Assistance, Employment, and Self-Sufficiency
- Research Spotlight: Jobs Plus: Self-Sufficiency in Public Housing
- In Practice: Programs Integrate Workforce and Housing Service

Cityscape. *Cityscape* is a multidisciplinary scholarly journal that PD&R publishes three times a year to advance the state of knowledge, policy, and practice in the areas of HUD's mission. Each issue includes at least one Symposium of scholarly papers on a common theme. Each Symposium has a guest editor. In FY 2017 and 2018, the topics covered and the guest editors of *Cityscape* Symposia were the following:

- Gentrification, edited by Ingrid Gould Ellen and Lei Ding
- Home Equity Conversion Mortgages, edited by William Reid
- Transforming Communities, edited by William Lambe, Theresa Singleton, and Susan Wachter
- Habitat III, edited by Katrina Durbak
- The Community Revitalization Act, edited by Carolina Reid
- Planning Livable Communities, edited by Denise Fairchild and Patrick Revord
- The Family Options Study, edited by Anne Fletcher and Michelle Wood

- Selected Outcomes of Housing Assistance, edited by Meena Bavan and David Hardiman
- The Housing-Health Connection, edited by Veronica Helms Garrison and Craig Pollack

In addition to the Symposium articles, each issue includes these components:

- The Point of Contention, a high-level debate on areas in which scholars do not agree;
- Refereed research papers submitted to *Cityscape*; and
- Departments, which contain short papers to help scholars and new students explore the areas of HUD's mission in the following areas:

  - Impact, which details and explains the benefit and cost calculations for new HUD regulations;
  - Policy Briefs summarize a change or trend in national policy that may have escaped the attention of researchers;
  - Graphic Detail, which illustrates the power of maps to inform public policy and social science;
  - Foreign Exchange, which describes policy innovations in housing and urban development in other countries that may be of interest to U.S. readers;
  - Industrial Revolution, which illustrates the potential of technological innovation in residential construction to affect society;

- Spatial Analysis and Methods (SpAM), which takes the reader step by step through pioneer techniques in the analysis of geographic information;

- Evaluation Tradecraft, which shares innovations in the techniques of program evaluation;

- Affordable Design, which describes the winning entries in HUD-sponsored design competitions; and

- Data Shop, which introduces the reader to new datasets and new procedures for using the data in familiar sources.

The *Cityscape* Advisory Board is comprised of Richard Green, University of Southern California; Carolina K. Reid, University of California, Berkeley; Dolores Acevedo Garcia, Brandeis University; Ira Goldstein, The Reinvestment Fund; Jens O. Ludwig, University of Chicago; Mark Joseph, Case Western University; Mary E. Pattillo, Northwestern University; Patrick T. Sharkey, New York University; Ted Koebel, Virginia Polytechnic Institute; and Matthew Kahn, University of California Los Angeles.

Awards

Innovation in Affordable Housing Student Design and Planning Competition

The fourth and fifth years of the annual Innovation in Affordable Housing (IAH) Student Design and Planning Competition were held. The competition encourages innovation in affordable housing and raises future practitioner capacity while fostering teamwork across disciplines—design, finance, public policy, and planning, for example. It also raises awareness of affordable housing at the graduate level. Interdisciplinary teams of three to five graduate students work to solve problems and craft solutions in response to a project encountered by a public housing authority. A jury of five academics, practitioners, planners, and architects narrow the field to four finalists. The finalists are invited to the project site, walk the grounds, and hear from the community. The competition culminates in a final presentation at HUD Headquarters in early April. The jury hears each team's final presentation and asks questions before it leaves for deliberation.

In FY 2017, the project was Woodhill Homes, a 478-unit multifamily property in Cleveland, Ohio that is owned and operated by the Cuyahoga Metropolitan Housing Authority (CMHA). The winner was Rutgers University, which received $20,000, and the runner-up was the University of Michigan, which received $10,000. The remaining two finalist teams were Yale University and a joint team from New York University/ Columbia University.

In 2018, HUD PD&R partnered with Whittier Falls, the Dover Housing Authority in New Hampshire. Whittier Falls plans to construct 154 new dwellings for seniors and persons with disabilities, to be built between two existing Whittier Falls projects, both of which serve a similar population. The competition focused on strong community services, challenging students to design and apply innovative development strategies and innovative community engagement strategies emphasizing social needs and connectivity. This aspect of the project cannot be overstated, as quality of life for seniors and persons with disabilities goes beyond the physical structure to the creation of a neighborhood and access to a wide range of supportive services.

The first-place team, from the University of Maryland, College Park, received $20,000; and the second-place team, from the University of Colorado Denver, received $10,000. The remaining two finalists, from the University of Texas at Austin and Pratt Institute, each received $5,000.

Moving to Opportunity Demonstration (MTO) and Family Options Study Data Competition

Last fall, HUD announced a second competition to support access to the data from two of HUD's most important randomized social experiments, the MTO demonstration and the Family Options Study. HUD has partnered with the U.S. Census Bureau to make the experimental data more available to qualified researchers and more readily matched with additional administrative data. Proposal review for winning selection began in December 2018.

> **"It is a great joy to see the high caliber work of the teams who compete. We hope this competition will help seed the next generation of affordable housing innovators."**
>
> **—Regina Gray**
> *Team Lead on the Student Design Competition, PD&R*

HUD Secretary's Awards

The HUD Secretary's awards, managed by PD&R, honor projects that exemplify excellence in four categories: community planning, historic preservation, affordable design, and cooperative public efforts. HUD presents the awards in partnership with several leading housing and community development organizations.

ACHP/HUD Secretary's Award for Excellence in Historic Preservation

The Advisory Council on Historic Preservation (ACHP), in partnership with the U.S. Department of Housing and Urban Development (HUD), recognizes developers, organizations, and agencies for their success in advancing the goals of historic preservation while providing affordable housing or expanded economic opportunities for low- and moderate-income families and individuals.

Until 2015, the HUD Secretary's Award for Excellence in Historic Preservation was presented in partnership with the National Trust for Historic Preservation.

> **2017 Winner:** East Baltimore Historic II, Baltimore, Maryland
>
> **2018 Winner:** Rosenwald Courts Apartments, Chicago, Illinois

American Institute of Architects—Housing and Community Design Awards 2017/2018

Excellence in Affordable Housing Design Award

This award recognizes architecture that demonstrates overall excellence in terms of design in response to both the needs and the constraints of affordable housing.

> **2017 Winner:** Monteverde Senior Apartments, Orinda, California
>
> **2018 Winner:** Five 88, San Francisco, California

Housing Accessibility—Alan J. Rothman Award

The purpose of this award is to recognize exemplary projects that demonstrate excellence in improving housing accessibility for people with disabilities.

> **2018 Winner:** Station 162 Apartments, Portland, Oregon

Creating Community Connection Award

This award recognizes projects that incorporate housing within other community amenities for either revitalization or planned growth.

> **2017 Winner:** Plaza Roberto Maestas, Seattle, Washington

Community-Informed Design Award

The Community-Informed Design award recognizes design that supports physical communities as they rebuild inner-city social structures and relationships that may have been weakened by outmigration, disinvestment, and the isolation of inner-city areas.

> **2017 Winner:** Flance Early Learning Center, St. Louis, Missouri

American Planning Association—Opportunity and Empowerment

The HUD Secretary's Opportunity & Empowerment Award honors excellence in community planning that has led to measurable benefits in increased economic development, employment, education, or housing choice and mobility for low- and moderate-income residents. The award stresses tangible results and recognizes the planning discipline as an important community resource. It emphasizes how creative housing, economic development, and private investments are used in—or in tandem with—a comprehensive community development plan.

2018 Winner: Westlawn Gardens, Milwaukee, Wisconsin

The Secretary's Award for Public-Philanthropic Partnerships—Housing and Community Development in Action

The Secretary's Awards for Public-Philanthropic Partnerships recognize excellence in partnerships that have both transformed the relationships between the sectors and led to measurable benefits in housing and community development, including increased economic development, health, safety, education, workforce development, disaster resilience, inclusivity and cultural opportunities, innovative regional approaches, or housing access for low- and moderate-income families.

2017 Winners:

- The Anne and Henry Zarrow Foundation/ Zarrow Families Foundation
- The Bill & Melinda Gates Foundation
- Capital One Foundation
- Community Foundation of the Lowcountry
- The JPMorgan Chase Foundation

- The Kresge Foundation
- The Mayor's Fund for Los Angeles
- New Hampshire Charitable Foundation
- Nusenda Foundation
- The Skillman Foundation

2018 Winners:

- Anthem Foundation
- Bon Secours of Maryland Foundation
- Conrad N. Hilton Foundation
- Charles Stewart Mott Foundation
- Greater Cedar Rapids Community Foundation
- U.S. Endowment for Forestry and Communities

- Rasmuson Foundation
- Michael Reese Health Trust (MHRT) and Polk Bros. Foundation (PBF)
- The Spartanburg County Foundation
- The Harry & Jeanette Weinberg Foundation and the Leonard & Helen R. Stulman Foundation

Excellence in Public-Philanthropic Partnerships Exchange: The Exchange brings together all the former winners (foundations and their government partners) of the Secretary's Awards for Public-Philanthropic Partnerships in a community of practice. It is a partnership between HUD and the Council on Foundations.

International and Philanthropic Engagement

P D&R also focuses on information sharing on housing and community development issues with other nations and with the philanthropic community.

Notable international engagements in 2017 and 2018 included the following:

- Sharing best practices with other members of the Organization for Economic Co-operation and Development (OECD).

- Providing liaison and support on issues on housing and urban development the U.S. Mission at the United Nations.

- Serving as subject matter expert for the United Nations Habitat, including supporting U.S. participation in the 2018 World Urban Forum in Kuala Lumpur, Malaysia.

- Supporting information and research exchanges with the United States Mission to the United Nations Economic Commission for Europe (UNECE).

- Hosting foreign delegations to discuss housing and community development issues, including delegations from Argentina, Australia, Bahrain, China, Japan, Kazakhstan, Korea, Saudi Arabia, and the United Kingdom.

- Supporting research to measure outcomes of the German Marshall Fund of the United States (GMF) Dialogue for Change Program, which has six cities participating: Baltimore, MD; Charlotte, NC; Pittsburgh, PA; and Bottrop, Karlsruhe, and Leipzig, Germany. City planners from each city participate in workshops held every six months (in the United States, then in Germany).

- Supporting a Memorandum of Cooperation between Japan and the United States to share best practices and research on aging in place.

- Supporting a Memorandum of Cooperation between Israel and the United States in association with the Israel Joint Economic Development Group (JEDG) annual economic policy dialogue between the two countries.

The following were philanthropic engagements in 2017 and 2018:

- PD&R staff provided a philanthropic toolkit and training workshops for HUD field office staff to train them on how to develop robust partnerships between HUD and foundations. These workshops empower HUD staff to work with foundations in their communities to maximize the potential of partnerships. More than 200 HUD employees have attended the workshops.

- HUD and AARP signed a Memorandum of Understanding (MOU) in 2018 to share best practices on Aging in Place.

- PD&R staff provided continued support for a Pay for Success demonstration to test the effectiveness and financial feasibility of the permanent supportive housing model. PD&R staff also co-chair the Pay for Success Interagency Learning Network, a structure for federal agency staff to share information and collaborate on PFS.

EnVision Centers

EnVision Centers' goal is to reform government services and expand opportunities for more Americans to become self-sufficient. The EnVision Center demonstration will offer HUD-assisted families access to support services that can help them achieve self-sufficiency, thereby making scarce federal resources more readily available to a greater number of households currently waiting to receive HUD assistance.

The premise of the EnVision Centers demonstration is that financial support alone is insufficient to solve the problem of poverty. Intentional and collective efforts across a diverse set of organizations are needed to implement a holistic approach to foster long-lasting self-sufficiency. EnVision Centers will provide communities with a centralized hub for support in the following four pillars: (1) Economic Empowerment, (2) Educational Advancement, (3) Health and Wellness, and (4) Character and Leadership. The Economic Empowerment pillar is designed to improve the economic sustainability of individuals residing in HUD-assisted housing by empowering them with opportunities to improve their economic outlook. The Education pillar seeks to bring educational opportunities directly to HUD-assisted housing and includes partnering with public and private organizations that approach education in nontraditional ways on nontraditional platforms. The Health and Wellness pillar is designed to improve access to health outcomes by individuals and families living in HUD-assisted housing. The Character and Leadership pillar is designed to enable all individuals and families residing in HUD-assisted housing—especially young people—to reach their full potential as productive, caring, responsible citizens by encouraging participation in volunteering and mentoring opportunities.

Looking Ahead

As evidenced by the work featured in this report and plans taking shape for the next 2 years, this is an exciting time for HUD and for PD&R. Here are a few highlights of what's ahead:

- The next Research Roadmap planning and stakeholder engagement process will launch in 2019.

- *Evidence Matters*, *Cityscape*, and *The Edge* will continue to feature issues that are timely and relevant for practitioners and researchers.

- The Student Design Competition will continue—and keep an eye out for new prize competitions in 2019 and 2020.

- We expect to increase our investment in building technology research.

- The new Office of Innovation will launch in PD&R and focus on transferring the research and data knowledge to implementing new initiatives, such as EnVision Centers.

- The Rental Housing Finance Survey 2018 data will be released, as will the American Housing Survey 2019 data, with topical modules on food insecurity, secondary education enrollment, housing accessibility for the elderly and disabled, and housing insecurity.

- Be on the lookout for the following studies that will be published in 2019:
  - Evaluation of the Section 811 Project Rental Assistance Program
  - Retrospective Evaluation of Moving to Work
  - Rent Reform Demonstration: Interim Report
  - Rental Assistance Demonstration
  - MDRT Landlord Participation Study
  - MDRT Economic Opportunity Metric for HUD-Assisted Renters
  - MDRT Homeless Predictor Study
  - MDRT Fair Market Rent Study

PD&R will continue to host thought-provoking convenings and ensure that HUDUser.gov remains a go-to resource for research, data, and best practices.

Finally, expect an exciting pipeline of new research, data, demonstrations, policy translation, and outreach designed to serve our mission of improving life in American communities.

Appendix: Publications and Datasets

During the past 2 years, PD&R has released 56 reports and 32 datasets. All reports and datasets listed can be accessed through HUDUser.gov.

Note: This list does not include historical reports posted on HUDUser.gov during this timeframe.

Andersson, Fredrik, John C. Haltiwanger, Mark J. Kutzbach, Giordano Palloni, Henry O. Pollakowski, and Daniel H. Weinberg. October 2016. *Childhood Housing and Adult Earnings: A Between-Siblings Analysis of Housing Vouchers and Public Housing.*

Aron, Laudan, Claudia Aranda, Douglas Wissoker, Brent Howell, Robert Santos, Molly Scott, Margery Austin Turner, and Urban Institute. December 2016. *Discrimination Against Families with Children in Rental Housing Markets: Findings of the Pilot Study.*

Bowen, Thomas, and University of Colorado Boulder. May 2017. *A Best Practices Manual for Using Compressed Earth Blocks in Sustainable Home Construction in Indian Country.*

Carter, III, George R. and Brian Shaffer. August 2017. *Utility Cost Estimation Model Development and Decisions for the 2015 American Housing Survey and Beyond.*

Corey, Kristen, Jennifer Biess, Nancy Pindus, and Doray Sitko. May 2017. *Housing Needs of Native Hawaiians: A Report from the Assessment of American Indian, Alaska Native, and Native Hawaiian Housing Needs.*

Coulbourne Consulting. October 2017. *Residential Structural Design Guide—Second Edition.*

Cunningham, Mary K., Martha Galvez, Claudia L. Aranda, Robert Santos, Doug Wissoker, Alyse Oneto, Rob Pitingolo, James Crawford, and Urban Institute. August 2018. *A Pilot Study of Landlord Acceptance of Housing Choice Vouchers: Executive Summary.*

———. September 2018. *A Pilot Study of Landlord Acceptance of Housing Choice Vouchers.*

Dawkins, Casey J., Jae Sik Jeon, and University of Maryland. October 2017. *Rent Burden in the Housing Choice Voucher Program.*

DeMarco, Donna, Nichole Fiore, Shawn Moulton, Debbie Gruenstein Bocian, Laura Peck, Sarah Ballinger, Karen Cuenca, Louise Rothschild, Stephen Whitlow, and Abt Associates, Inc. January 2017. *The First-Time Homebuyer Education and Counseling Demonstration: Baseline Report.*

Early, Michael J., Michael D. Blanford, Will R. Zachmann, and Barry L. Steffen. June 2017. *Energy Performance Contracting in HUD's Public Housing Stock: A Brief Overview.*

Eggers, Frederick J., and Econometrica, Inc. December 2017a. *Characteristics of HUD-Assisted Renters and Their Units in 2009.*

———. December 2017b. *Characteristics of HUD-Assisted Renters and Their Units in 2011.*

———. July 2017. *Characteristics of HUD-Assisted Renters and Their Units in 2013.*

Finkel, Meryl, Samuel Dastrup, Kimberly Burnett, Thyria Alvarez, Carissa Climaco, and Tanya de Sousa. August 2017. *Small Area Fair Market Rent Demonstration Evaluation: Interim Report.*

Gubits, Daniel, Marybeth Shinn, Michelle Wood, Stephen Bell, Samuel Dastrup, Claudia D. Solari, Scott R. Brown, Debi Mclnnis, Tom McCall, Utsav Kattel, Abt Associates, Inc., and Vanderbilt University. October 2016. *Family Options Study: 3-Year Impacts of Housing and Services Interventions for Homeless Families.*

Hammel, Joy, Janet Smith, University of Illinois at Chicago, Susan Scovill, Consultant, Ron Campbell, and M. Davis and Company, Inc., Rui Duan, and HDR, Inc. August 2017. *Rental Housing Discrimination on the Basis of Mental Disabilities: Results of Pilot Testing.*

Hedrick, James, Lee Higgins, Richard Hilton, Doray Sitko, and Econometrica, Inc. January 2017. *Evaluation of the Rural Innovation Fund.*

Helms, Veronica E., Jon Sperling, and Barry L. Steffen. March 2017. *A Health Picture of HUD-Assisted Adults, 2006–2012.*

Helms, Veronica E., Barry L. Steffen, Elizabeth C. Rudd, and Jon Sperling. March 2018. *A Health Picture of HUD-Assisted Children, 2006–2012.*

ICF International. December 2017. *Improper Payment for Quality Control for Rental Subsidy Determination Study: FY 2015 Final Report.*

Insight Policy Research. May 2018. *ConnectHome Initiative: Final Report.* Washington, DC: U.S. Department of Housing and Urban Development.

Krysan, Maria, Kyle Crowder, Molly M. Scott, Carl Hedman, Sade Adeeyo, Somala Diby, and Sierra Latham. May 2018. *Racial and Ethnic Differences in Housing Search: Final Report.*

Levy, Diane K., Jennifer Biess, Abby Baum, Nancy Pindus, and Brittany Murray. January 2017. *Housing Needs of American Indians and Alaska Natives in Urban Areas: A Report from the Assessment of American Indian, Alaska Native, and Native Hawaiian Housing Needs.*

Listokin, David, Kenneth Temkin, Nancy Pindus, David Stanek, and Urban Institute. January 2017. *Mortgage Lending on Tribal Land: A Report from the Assessment of American Indian, Alaska Native, and Native Hawaiian Housing Needs.*

Lloyd, Patricia C., Veronica E. Helms, Alan E. Simon, Cordell Golden, James Brittain, Eileen Call, Lisa B. Mirel, Barry L. Steffen, Jon Sperling, Elizabeth C. Rudd, Jennifer D. Parker, and Carol S. Star. November 2017. *Linkage of 1999–2012 National Health Interview Survey and National Health and Nutrition Examination Survey Data to U.S. Department of Housing and Urban Development Administrative Records.*

McClure, Kirk, and University of Kansas. October 2017. *Length of Stay in Assisted Housing.*

Mitchell, Maxine V., CRE, Robert E. Miller, Deborah Brett, Ralph Kinser, Ann Moroney, Peter A. Tatian, Martha Galvez, Braydon Meixell, and Rebecca Daniels. July 24, 2017. *Interface of Mobility and Sustainability: Thompson v. HUD Volume 1: Findings Final Report.*

Montgomery, Ann Elizabeth, and Meagan Cusack. September 2017. *HUD-VASH Exit Study—Final Report.*

Myhre, Marina L., and Nicole Elsasser Watson. September 2017. *Housing Counseling Works.*

Newman, Sandra, and Scott C. Holupka. March 2017. T*he Quality of America's Assisted Housing Stock: Analysis of the 2011 and 2013 American Housing Surveys.*

Newport Partners. October 2017. *Innovative Building Technology Guide: Selecting the Best Solutions for Your Project.*

Northrop, Rebecca, Christopher Jones, Dalton Laluces, La Tonya Green, Kenya Crumel, BCT Partners, Melissa Vandawalker, Meghan Henry, Claudia D. Solari, Gretchen Locke, Jill Khadduri, and Abt Associates. January 2018. *HUD Section 811 PRA Program Case Studies.*

Office of Policy Development and Research (PD&R), Office of Economic Affairs, and U.S. Department of Housing and Urban Development (HUD). May 2018. *Assessment of Small Area Median Family Income Estimates.*

Office of Policy Development and Research (PD&R), and U.S. Department of Housing and Urban Development (HUD). March 2018. *Understanding Whom the LIHTC Serves: Data on Tenants in LIHTC Units as of December 31, 2015.*

———. December 2016. *Understanding Whom the LIHTC Program Serves: Data on Tenants in LIHTC Units as of December 31, 2014.*

Pindus, Nancy, G., Thomas Kingsley, Jennifer Biess, Diane Levy, Jasmine Simington, Christopher Hayes, and Urban Institute. January 2017. *Housing Needs of American Indians and Alaska Natives in Tribal Areas: A Report from the Assessment of American Indian, Alaska Native, and Native Hawaiian Housing Needs.*

Pindus, Nancy, G., Thomas Kingsley, Jennifer Biess, Diane Levy, Jasmine Simington, Christopher Hayes, and Urban Institute. January 2017. *Housing Needs of American Indians and Alaska Natives in Tribal Areas: A Report from the Assessment of American Indian, Alaska Native, and Native Hawaiian Housing Needs: Executive Summary.*

Pinkett, Randal, Christopher Jones, Kenya Crumel, Jie Dong, BCT Partners, Melissa Vandawalker, Gretchen Locke, Jill Khadduri, and Abt Associates. January 2018. *HUD Section 811 PRA Project Rental Assistance Program Process Evaluation.*

Poverty and Inequality Research Lab, Johns Hopkins University, Philip Garboden, Eva Rosen, Meredith Greif, Stefanie DeLuca, and Kathryn Edin. May 2018. Urban Landlords and the Housing Choice Voucher Program: A Research Report.

Riccio, James, Victoria Deitch, Nandita Verma, and MDRC. October 2017. *Reducing Work Disincentives in the Housing Choice Voucher Program: Rent Reform Demonstration Baseline Report.*

Santos, Robert, Margery Austin Turner, Laudan Aron, Brent Howell, and Urban Institute. December 2016. *Future Directions for Research on Discrimination Against Families with Children in Rental Housing Markets.*

Smith, Lionel, John Bae, Margaret diZerega, Ryan Shanahan, Ram Subramanian, and Jacob Kang-Brown. September 2017. *An Evaluation of the New York City Housing Authority's Family Reentry Pilot Program: Final Report to the U.S. Department of Housing and Urban Development.*

Tessler, Betsy L., Nandita Verma, Jonathan Bigelow, Victoria Quiroz-Becerra, MDRC, Kirstin P. Frescoln, William M. Rohe, Michael D. Webb, University of North Carolina at Chapel Hill, Amy T. Khare, Mark L. Joseph, Emily K. Miller, and Case Western Reserve University. September 2017. *Scaling Up a Place-Based Employment Program: Highlights from the Jobs Plus Pilot Program Evaluation.*

Theodos, Brett, Thomas G. Kingsley, Eric Burnstein, Sara McTarnaghan, Christina Plerhoples Stacy, and Ruth Gourevitch. September 2018. *Strong Cities, Strong Communities National Resource Network Program Evaluation.*

U.S. Department of Housing and Urban Development (HUD). December 2016. *Creating Walkable and Bikeable Communities.*

———. April 2017a. *Literature Review: The Credit-Enhancing Functions of Downpayment and Downpayment Substitutes.*

———. September 2018. *Programs of HUD.*

———. April 2017b. *Research Report for Importance of Mortgage Downpayment as a Deterrent to Delinquency and Default as Observed in Black Knight (McDash) Servicing History.*

———. October 2016. *The U.S. 20/20 Habitat III Report.*

U.S. Department of Housing and Urban Development, Office of Economic Affairs, and Office of Policy Development and Research (PD&R). August 2018. *Proposals to Update the Fair Market Rent Formula.*

U.S. Department of Housing and Urban Development (HUD), and Office of Policy Development and Research (PD&R). May 2018a. *Displacement of Lower-Income Families in Urban Areas Report*

———. June 2017. *Assessment of ARRA Green and Energy Retrofits in HUD-Subsidized Housing.*

———. May 2018b. *Displacement of Lower-Income Families in Urban Areas Report.*

———. January 2017a. *Office of Policy Development & Research Biennial Report FY 2015–2016.*

———. January 2017b. *Preview of 2015 Worst Case Housing Needs.*

Watson, Nicole Elsasser, Barry L. Steffen, Marge Martin, and David A. Vandenbroucke. August 2017. *Worst Case Housing Needs 2017 Report to Congress.*

U.S. Housing Market Conditions Reports

- December 2016. *3rd Quarter National Housing Market Summary.* Washington, DC: U.S. Department of Housing and Urban Development.

- March 2017. *4th Quarter National Housing Market Summary.* Washington, DC: U.S. Department of Housing and Urban Development.

- June 2017. *1st Quarter 2017 National Housing Market Summary.* Washington, DC: U.S. Department of Housing and Urban Development.

- September 2017. *2nd Quarter 2017 National Housing Market Summary.* Washington, DC: U.S. Department of Housing and Urban Development.

- December 2017. *3rd Quarter 2017 National Housing Market Summary Report.* Washington, DC: U.S. Department of Housing and Urban Development.

- March 2018. *4th Quarter 2017 National Housing Market Summary.* Washington, DC: U.S. Department of Housing and Urban Development.

- June 2018. 1*st Quarter 2018 National Housing Market Summary.* Washington, DC: U.S. Department of Housing and Urban Development.

Monthly National Housing Market Indicators (20 reports: 12 in 2017 and 8 in 2018).

Datasets

October 2016	Qualified Census Tracts and Difficult Development Areas: Data for 2017
	HUD USPS ZIP Code Crosswalk Files 3rd Quarter 2016
	USPS Vacancy Data for 3rd Quarter 2016 is now available
January 2017	HUD Public Use Microdata Sample (PUMS) Data for 2016
	HUD USPS ZIP Code Crosswalk Files 4th Quarter 2016
	USPS Vacancy Data for 4th Quarter 2016 is now available
February 2017	A Picture of Subsidized Households—2016 Data Based on 2010 Census
March 2017	FY 2017 Income Limits
	Special Tabulations of Households: 2015 Data
April 2017	HUD USPS ZIP Code Crosswalk Files: Quarter 1, 2017
	USPS Vacancy Data for 1st Quarter 2017 is now available
May 2017	Consolidated Planning/ CHAS Data: 2010–2014
	Fair Market Rents: Hypothetical FY 2017 FMRs
June 2017	2017 Renewal Funding Inflation Factors

July 2017	HUD USPS ZIP Code Crosswalk Files: Quarter 2, 2017
	USPS Vacancy Data for 2nd Quarter 2017 is now available
September 2017	Fair Market Rents: FY 2018 FMRs
	Qualified Census Tracts and Difficult Development Areas: Data for 2018
October 2017	HUD USPS ZIP Code Crosswalk Files: Quarter 3, 2017
	USPS Vacancy Data for 3rd Quarter 2017 is now available
January 2018	HUD Public Use Microdata Sample (PUMS) Data for 2017
	A Picture of Subsidized Households—2017 Data
	HUD USPS ZIP Code Crosswalk Files: Quarter 4, 2017
	USPS Vacancy Data for 4th Quarter 2017 is now available
March 2018	FY 2018 Income Limits
April 2018	HUD USPS ZIP Code Crosswalk Files: Quarter 1, 2018
	USPS Vacancy Data for 1st Quarter 2018 is now available
June 2018	2018 Renewal Funding Inflation Factors
July 2018	Consolidated Planning/CHAS Data: 2011–2015
	HUD USPS ZIP Code Crosswalk Files: Quarter 2, 2018
	USPS Vacancy Data for 2nd Quarter 2018 is now available
August 2018	Fair Market Rents: FY 2019 FMRs

June 2019