Impact of Oil and Gas Exploration on Affordable Housing

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Economic Market Analysis

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This working paper, prepared by the U.S. Department of Housing and Urban Development (HUD), Office of Policy Development and Research (PD&RR), Economic Market Analysis Division Gas/Oil Task Force (GOTF), examines the impact of oil and gas exploration on the affordable rental-housing market. The paper comprises three sections: the first provides a brief overview of affordable rental-housing programs, the second discusses the measurable impacts of oil and gas exploration on affordable housing, and the third reviews how HUD and state agencies are addressing these impacts. An appendix provides detailed definitions related to HUD and other affordable housing programs.

**Overview of Affordable Housing Programs**

Affordable rental-housing programs assist low-income households seeking affordable housing. The tenant-based Housing Choice Voucher Program (HCVP), Section 8 Project-Based Rental Assistance (PBRA) programs, Section 202 (Supportive Housing for the Elderly)/811 (Supportive Housing for Persons with Disabilities) programs, Low-Income Housing Tax Credit (LIHTC) Program, and U.S. Department of Agriculture (USDA)—Rural Development’s Rural Rental Housing Section 515 and 538 loan programs are designed to provide affordable rental housing for very low-, low-, and moderate-income families.

Public Housing and the HCVP, which are administered by public housing agencies (PHAs), and the Section 8 PBRA, which is administered directly by HUD, are programs that are allocated a set amount of funding (some with annual funding and others with multiyear funding) to serve the greatest number of eligible applicants based on operating costs. In the HCVP, emergency exception payment standards or exceptions to Fair Market Rents (FMRs) can be approved for an area in response to housing market disruptions; however, it is important to note that the exceptions do not increase the total allocation of subsidy dollars to the PHA. Emergency exception payment standards increase the amount a single applicant can receive but in turn may decrease the total number of applicants served.

**Section 8 Project-Based Rental Assistance programs**

(Hereafter Section 8 PBRA) provide rental assistance for eligible families who live in specific housing developments or units. The Section 8 PBRA Program was authorized by Congress in 1974 and developed by HUD to provide rental subsidies for eligible tenant families (including single people) residing in newly constructed, rehabilitated, or existing rental apartment projects. HUD subsidizes some residential unit rents using the Section 8 New Construction Program, the Substantial Rehabilitation Program, and the Loan Management Set-Aside Program. These subsidies are project based, which means HUD commits the subsidy for the assisted units of a particular property for a contractually determined period. Contract rents, plus utility allowances, initially may not exceed the FMRs for similarly situated units in newly constructed, substantially rehabilitated, or existing developments in the area, although, under special circumstances, HUD can approve initial contract rents (plus utility allowances) for particular assisted projects in an amount up to 120 percent of the applicable FMRs. Many Section 8 projects have reached the end of their original contract terms and, therefore, have the choice of opting out of the subsidy program if the project would be more profitable at market rents.

The goal of the Housing Choice Voucher Program, also known as the Section 8 Program (hereafter, the HCVP), is to make rental units in the private housing market affordable to low-income families, elderly people, and people with disabilities. Because assistance is tied to the family or individual and not a specific project, participants can choose their own housing, including single-family homes, townhomes, or apartments. The share of rent HUD pays is based on the payment standard and on the gross rent minus what the tenant pays, which is 30 percent of the tenant’s household income. The PHA determines a payment standard, typically set between 90 and 110 percent of the FMRs for the area. By law, during the initial lease-up period, the tenant may not pay more than 40 percent of his or her adjusted gross income for rent. This restriction can limit the use of housing choice vouchers (HCVs). In areas affected by steep rent increases, such as oil- and gas-impacted areas, the

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1 Section 8 voucher programs generally are associated with eligible tenant households and whatever units those households choose that pass inspection and in which the owners agree to accept the vouchers. PHAs may also tie a certain percentage of their Section 8 vouchers to projects through long-term contracts with project owners. These vouchers are referred to as project-based vouchers, or PBVs.

2 HUD PIH (2013c).

3 HUD PIH (2013b).
difference between the charged rent and the subsidy may be so high that the HCVs cannot be used effectively. HUD’s Office of Public and Indian Housing (PIH) maintains utilization rates for HCVPs, which the GOTF is analyzing.

The Section 202 program, which began in 1959, and the Section 811 program, which began in 1991, are intended to encourage development of affordable housing for very low-income seniors and people with disabilities by providing nonprofit groups with interest-free capital advances. HUD permits funds to be used for building, purchasing, or rehabilitating a project and provides a minimum ongoing 3-year rental-assistance payment that covers the difference between the nonprofit’s operating costs and tenant rental payment amounts. The capital advances are forgiven if a property participates in the programs for 40 years.4, 5

The Section 515 and 538 Rural Rental Housing programs, administered by the USDA—Rural Development office, encourage commercial financing of rural rental housing and provide affordable housing for very low-, low- or moderate-income families. Income levels are defined as follows: very low income is less than 50 percent of the Area Median Income (AMI); low income is between 50 and 80 percent of AMI; and moderate income is capped at $5,500 more than the low-income limit.

The Section 515 Rural Rental Housing program provides direct, competitive mortgage loans to nonprofit or for-profit rural housing developers to provide affordable housing for very low-income, low-income, and moderate-income families; elderly people; and people with disabilities.6 A loan to a nonprofit organization or public body may be for up to 100 percent of loan to value (LTV), while a loan to a partnership, limited partnership, or for-profit corporation operating on a limited-profit basis cannot exceed 97 percent of LTV. Funds may be used to construct new housing or to purchase and rehabilitate existing structures for rental purposes; the maximum term is 30 years, with an amortization period not to exceed 50 years.7 Section 8 or state rental assistance may also be used in conjunction with the Section 515 loan. Tenants in properties financed with Section 515 loans may also receive Section 515 rental assistance, which pays the difference between 30 percent of the tenant’s income and the monthly rental rate. The Section 538 program focuses on partnerships between the USDA and qualified lenders to provide decent, affordable rental housing for low- and moderate-income rural households with incomes of up to 115 percent of AMI, which is higher than those served by the Section 515 program. Rents, including utilities paid by the tenant, cannot exceed 30 percent of 115 percent of AMI.

The Low-Income Housing Tax Credit (LIHTC) Program is an indirect subsidy program of Section 42 of the Internal Revenue Code.8 It is administered by state housing finance agencies and overseen by the Internal Revenue Service (IRS). The IRS issues credits to state agencies, which in turn allocate the credits to multifamily developers. The qualification process and standards vary by state, but states must adhere to a number of federal requirements. Developers can raise capital for their projects by selling equity stakes in the project to investors, enabling those investors to reduce the amount of federal taxes they owe. Investors receive the tax credits for 10 years provided the property continues to meet program requirements, which provides incentives for the investors to ensure the property is well managed over the life of the credits.

LIHTC projects must have at least 20 percent of their units available to households with incomes of less than 50 percent of AMI or at least 40 percent of their units available to households with incomes of less than 60 percent of AMI. Gross rents are restricted to a maximum of 30 percent of 60 percent of AMI, regardless of household income; maximum rent and income limits are adjusted for different unit and household sizes, respectively. These restrictions must remain in place at the property for at least 15 years, during which time investors may face tax penalties for noncompliance. If owners do not opt out of the program after 15 years, the affordability restrictions must remain in place for the federal minimum of 30 years. Many state agencies, however, require longer affordability periods.9

LIHTC properties may also accept HCVs, subject to the requirements of the HCVP program. This feature can be particularly important to low-income households that meet AMI requirements but are still unable to afford a unit without paying 40 percent of their income in rent. If gross rents were less than FMRs, households would have to make rent payments equal to only 30 percent of their income.

4 HUD MFH (2013a).
5 HUD MFH (2013b).
6 USDA Rural Development (2013a).
7 USDA Rural Development (2013b).
8 GPO (2013).
9 HUD (2013d).
What Impacts on Affordable Housing Can Be Measured?

As oil and gas exploration and drilling begin in an area, large numbers of workers temporarily move to the area and need access to housing. Many energy companies and energy-related employers provide a housing allowance for workers to use toward rent, and the influx of workers into relatively rural areas can rapidly absorb most vacant units. Property owners may raise rents and not renew existing leases in hopes of attracting well-paid energy workers, displacing current tenants and forcing them to look for other housing. Seniors and other residents on fixed incomes may be disproportionately affected by sharp increases in rent levels, because a greater share of their fixed income may need to be spent on housing.

Subjective and anecdotal information regarding the effects on affordable housing in oil-impacted areas is typically easy to obtain. It is important, however, to gather and analyze data that can be compared over time and across geographical areas. The GOTF found three primary variables to measure affordable housing market impacts across oil-impacted areas: (1) rental vacancy rates, (2) rent changes, and (3) HCV utilization rates.

Rental Vacancy Rates

The rental vacancy rate is one common variable for measuring rental-housing markets. A rental-housing market is considered to be balanced when the supply of vacant, available housing is sufficient to allow for adequate mobility of existing households. Large inflows of energy-sector workers can absorb any vacant units, leading to a tight rental market. Tight rental market conditions are very likely in rural, oil-impacted areas where the number of existing rental units is low. As the supply of available vacant rental units declines, rents typically rise. Figure 1 highlights the impact on housing market rents and rental vacancy rates in the Minot-Williston area of Mountrail, Ward, and Williams Counties in North Dakota. Because many of the oil-impacted areas are in rural counties, however, data on real-time rental market conditions are lagged or may not be readily available.

Rent Changes

The second common variable for measuring rental-housing markets is rent changes. If rents increase and vacancies decline enough, property owners who offer affordable rental options may discontinue program participation to take advantage of housing market conditions, further decreasing the supply of rental units available to low-income households. During 2011 and 2012, two Section 8 PBRA projects in North Dakota opted out of their rental assistance contracts. One is a 30-unit project in Williams County, and the other is a 96-unit project in Ward County. The Ward County project had been renting a two-bedroom unit for $485 a month; after the transition to conventional units, the rent for the same unit increased to $1,100 a

Figure 1. Minot-Williston, North Dakota: Market Rents Have Increased and Vacancy Rates Have Declined Sharply Since 2009

![Graph showing year-over-year percentage change in asking rent and vacancy rate over years from 2008 to 2013.](image)

Source: Analyst’s estimates
month. The combination of sharp rent increases and a decrease in the number of affordable units available will further constrain affordable housing markets in impacted areas.

As with the Section 8 PBRA programs and the Section 8 HCVP, certain aspects of the LIHTC Program can limit its effectiveness in providing affordable housing in oil- and gas-impacted areas. In housing markets with strong annual rent growth and tight vacancy rates, multifamily developers and investors have less incentive to accept 30 years of rent restrictions and be limited to income-qualified tenants by participating in the LIHTC Program. The equity advantage to participation may not be as critical in areas where the oil industry’s impact on employment and population growth is expected to continue for 10 to 25 years and where housing construction has not been able to keep pace with demand. If developers and private lenders believe that recent trends in rent growth will continue for the foreseeable future, higher LTV ratios could be seen as an acceptable risk.

**HCV Utilization Rates**

The third common variable for measuring rental-housing markets is HCV utilization rates. Because energy companies often provide housing allowances to cover housing costs, this subsidy can drive up housing market rents in oil-impacted areas. These rent changes can be measured by looking at the size and frequency of rent concessions and changes in gross rents over time. The short-term dislocation that strong rent growth causes can lead PHAs to ask for emergency exception payment standards. A recent example was Mountrail, Ward, and Williams Counties in North Dakota. The fiscal year (FY) 2013 two-bedroom FMRs for the three counties were $614, $641, and $605, respectively. These FMRs were based on the American Community Survey data collected through the end of 2010. After a request for emergency exception payment standards, HUD commissioned a local survey of gross rents. Based on the findings from the survey, the 2013 FMRs were revised to $1,041, $1,087, and $1,026. Adjusted FMRs enable PHAs to increase the amount a low-income family can receive for monthly rent expenses. While the amount received by an HCV holder increases, the total amount of funds provided to the PHA does not. Figure 2 details the relationship between the cost per HCV and the number of HCVs used in Minot, North Dakota. Despite the implementation of emergency exception payment standards in July 2011, HCV utilization continued to decline, resulting in fewer families being served.

**Figure 2. Decreasing HCV Utilization and Increasing Cost per Voucher**

HCV = housing choice voucher.

Source: HUD Office of Public and Indian Housing

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10 HUD (2013a).
HCVs enable very low-income tenants to rent any market-rate rental-housing unit, with a rent that is less than the payment standard, which meets the housing quality standards of the program. The tenant pays a portion of the rent, based on his or her income, directly to the landlord; the PHA pays the difference between the tenant’s portion and the charged rent. When market rents are relatively close to the FMRs, the program affords low-income households many rental-housing choices.

Energy exploration and drilling, and the influx of workers it creates, typically put strong upward pressure on housing market rents. As a consequence, either the market rents exceed the FMR or the amount that a PHA needs to subsidize a unit increases and fewer households can be assisted. When such upward pressure occurs, HCV utilization rates go down. For example, the HCV utilization rates for Minot and Williston, North Dakota, and Sydney, Montana, were all less than 50 percent in May 2013, down from 88, 98, and 97 percent, respectively, in May 2009. By comparison, during the same period, the national HCV utilization rate remained relatively constant at nearly 95 percent. HCV utilization rates are measured by dividing the number of unit months leased using HCVs by the total number of unit months available. Unit months available is the number of units a PHA is permitted to serve using its Annual Contributions Contract. PHAs can choose to lease more than that amount but will not receive housing assistance payments (HAPs) from HUD for those units, and the HAPs will not count toward their annual funding level rebenchmarking. Most PHAs stay well below the number of unit months available based on available funding. HUD’s Regional Public Housing Offices maintain the data and update it monthly.

HCV utilization rates declined in states with rural areas affected by shale oil and gas drilling activity (Figure 3). During May 2009, before much of the nationwide increased energy activity, HCV utilization rates in North Dakota and Montana were more than 85 percent. After the sharp increase in energy exploration in both states, HCV utilization rates in affected rural areas declined to less than 50 percent in May 2013. In energy-impacted areas near urban centers, however, the decline in utilization rates was

Figure 3. An Increasing Portion of PHAs With Low HCV Utilization Rates Are Located in Rural Areas in Oil- and Gas-Impacted States

<table>
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<th>Percentage Point Change</th>
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<tr>
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HCV = housing choice voucher, PHA = public housing agency. Source: HUD Office of Public and Indian Housing

1 HUD PIH (2013a). Note: HUD’s Office of Public and Indian Housing manages the SharePoint site; readers may require special privileges to access this site.
less pronounced. For instance, in Texas, the percentage-point change in HCV utilization rates increased slightly, by 1.1 percent, from May 2009 to May 2013. The proximity of the Eagle Ford Shale area to Houston allows for the relatively large supply of housing resources in the urban area to absorb some of the impact of net in-migration of energy workers. A similar experience is reported for the Niobrara Shale area in northeastern Colorado. The Fort Collins-Loveland and Greeley metropolitan areas are near the epicenter of oil activity in the Niobrara area. The supply of housing, hotels, and apartments in these metropolitan areas absorbs a portion of energy personnel, limiting impacts on the surrounding rural housing market areas. As a consequence, the percentage-point change in HCV utilization rates in Colorado declined by 2.3 percent from May 2009 to May 2013, only slightly more than the national average decline of 1.8 percent.

**How HUD and State Agencies Manage the Impact**

This section highlights the adjustments made to existing HUD programs and the new affordable housing resources made available from funds provided by state housing finance agencies. The response from HUD and state agencies focused on increasing program flexibility and providing additional resources and funding to areas impacted by natural resource exploration.

In areas experiencing significant shocks to the rental-housing market and with little or no market-based data on which to base revised FMRs, HUD/PD&R, in conjunction with the Department’s PIH, can authorize emergency exception payment standards for PHAs to use. Developed for use in disaster-impacted areas where annually published FMRs may not be able to capture rapidly changing conditions, emergency exception payment standards increase a PHA’s flexibility by permitting HCVs to be set up to 135 percent above FMRs. Without an approved exception rent, PHAs can set HCVs up to 110 percent above FMRs.

FMRs are set using the most recent data available, but the data lag real-time rental-housing market conditions. After emergency exception payment standards are approved, they remain in effect until (1) HUD is able to complete a thorough housing market analysis, (2) new data become available, or (3) new, higher FMRs are set. Areas impacted by natural resource exploration and development are eligible for emergency exception payment standards. In North Dakota, the areas approved for emergency exception payment standards include the city of Minot, Burleigh County, Foster County, McHenry/Pierce County, Mountrail County, and Stutsman County. In Pennsylvania, Susquehanna, Bradford, and Tioga Counties were approved for emergency exception payment standards. (The GOTF is currently collecting data and monitoring the impact of emergency exception payment standards in affected areas to analyze their effectiveness. The result of this analysis will be presented in a future working paper.)

State agencies are using new legislation and existing programs to provide additional funding and affordable housing resources to areas directly impacted by natural resource exploration, especially in rural counties. The Pennsylvania Act 13/Impact Fee legislation, signed into law in February 2012, enacted a fee on every unconventional natural gas well drilled in the Marcellus Shale formation in the state. The fee amount depends on the price of gas during the year of production; 60 percent of the funds collected are allocated to areas directly impacted by natural resource exploration activity. Projects eligible for funding through the Pennsylvania Act 13/Impact Fee legislation include infrastructure, environmental programs, delivery of social services, and affordable housing.12

The Pennsylvania Housing Finance Agency (PHFA) was allocated $2.5 million of impact fee funds that were collected in 2011, and in 2012 (and each year thereafter), $5.0 million will be collected for use in counties where active unconventional wells are present. Since December 2012, PHFA has awarded $16.05 million to fund 59 projects in 22 counties.13 Funded projects will provide new affordable housing units, rehabilitative home improvements to existing owner and renter units, or rental assistance.

Projects and programs funded during 2012 and 2013 in Pennsylvania include the 50-unit Wyalusing Meadows, an affordable townhome rental development for general occupancy in Bradford County. In Fayette County, in southwestern Pennsylvania, 36 new single-family homes for purchase by low- and moderate-income households will be constructed at the Glen at Three Oaks. Half of the new homes will be sold to low-income households and the remaining half to moderate-income households. A rental rehabilitation program, which offers money to current, past, and prospective landlords, will help stabilize the availability of affordable housing units for low- and moderate-income households available at the FMRs for a period of 7 years in Wyoming County. The six-unit Clinton Street Gardens Homeless Veterans

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12 PA PUC (2013).
13 PHFA (2013a).
Housing project will provide affordable units for homeless veterans in Indiana County. Proposals for FY 2013 funds were due in June 2013, and PHFA is expected to disburse $8.7 million. Proposals must ensure that at least 30 percent of the funds awarded will be used to help families with incomes equal to or less than 50 percent of the AMI. A comprehensive list of funded projects in 2012 and 2013 is available on the PHFA’s website.

In North Dakota, the state legislature in 2013 reauthorized the Housing Incentive Fund (HIF) with $35.4 million to create 1,000 new affordable rental-housing units for essential service workers (ESW) and low- and moderate-income households. The units must remain affordable for a minimum of 15 years. An ESW is an individual employed by a city, county, or school district; a medical or long-term care facility; the state of North Dakota; or others determined by the North Dakota Housing Finance Agency (NDHFA) to fulfill an essential public service. In August 2013, the NDHFA committed more than $20 million from the HIF to fund 18 projects with nearly 500 rental units. Examples of projects funded include 43 units that are reserved for ESW within the 74-unit Williston State College Housing Phase II and 23 units that are reserved for ESW within the 43-unit Renaissance on Main, both of which are in Williston, North Dakota. In Minot, the 48-unit Rolling Ridge Estates, with 24 ESW units, was funded. The conversion of the former Williston Junior High School into 44 LIHTC units for elderly people started renovations in 2012 and opened in 2013. The project was supported with funds from the HIF and the Neighborhood Stabilization Program.

Appendix. Glossary of Terms

For the convenience of the reader, we provide the following definitions of terms (in alphabetical order) related to HUD and other affordable housing programs.

emergency exception payment standards. HUD regulations enable public housing agencies to request emergency exception payment standards outside the “basic range” of 90 to 110 percent of the Fair Market Rent (FMR). These emergency exception payment standards are typically used to accommodate cases in which the prevailing rents in part of the FMR area are significantly more or less than the FMRs for the entire area. In 2012, HUD created a methodology to adjust rental assistance payment standards for housing market areas that experience significant shocks from increased natural resource exploration.15

Fair Market Rents (FMRs). Section 8 of the United States Housing Act authorizes housing assistance to aid lower income families in renting safe and decent housing. Housing assistance payments are limited by FMRs established by the U.S. Department of Housing and Urban Development for different geographic areas. In general, the FMR is the amount needed to pay the gross rent (shelter rent plus utilities) of privately owned, decent, and safe rental housing of a modest (nonluxury) nature with suitable amenities. The FMR is generally set at the 40th percentile gross rent level for units in a housing market area. A public housing agency may establish a payment standard for its jurisdiction that falls between 90 and 110 percent of the FMR.

income limits. Income limits are used to determine the income eligibility of applicants for public housing, Section 8, and other programs subject to Section 3(b)(2) of the United States Housing Act of 1937, as amended. The most important definitions relating to income limits are—(1) low income is defined as 80 percent of Median Family Income (MFI), (2) very low income is defined as 50 percent of MFI, and (3) 30 percent of Area Median Income is defined as an income targeting standard in the 1998 Amendments to the Housing Act of 1937. Income limits are adjusted based on family size; larger families have higher income limits.16

Median Family Income (MFI). MFI estimates use 5-year data collected by the American Community Survey (ACS), augmented by the most recent 1-year ACS information, and updated with Consumer Price Index data. The Census Bureau defines a family as “a group of two or more people (one of whom is the householder) related by birth, marriage, or adoption and residing together,” and defines a household all people who occupy a housing unit. One-half of families have incomes greater than the estimated MFI, and one-half have incomes that are less than the MFI.

14 NDHFA (2013).
15 HUD PD&R (2013a).
16 HUD PD&R (2013b).
17 HUD (2013b).
18 United States Census Bureau (2013).
public housing agency (PHA). A PHA is an entity tasked with managing housing for low-income residents at rents they can afford. HUD administers federal aid to PHAs and provides technical and professional assistance. PHAs determine eligibility for low-income housing based on income, age, disability status, and citizenship. PHAs are also charged with administering the Housing Choice Voucher Program. An individual PHA may manage public housing units, a voucher program, or both.

tax credit. A tax credit is a subtraction from the amount an individual or a business entity owes in taxes. Federal housing tax credits derived from Section 42 of the Internal Revenue Code are awarded to developers of qualified projects by state and local entities. Developers then sell equity interest in these projects to investors to raise capital for their projects, reducing the amount of debt the developer would otherwise have to borrow. Because the debt is less, a tax credit property can, in turn, offer lower, more affordable rents. Provided the property maintains compliance with the statutory requirements, investors receive a dollar-for-dollar credit against their federal tax liability each year over a period of 10 years, creating a return on their capital investment. The annual credit amount is based on the amount invested in the affordable housing.

References


19 HUD (2013c).

20 HUD CPD (2013).


