

CASCADE FOCUS

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Affordability and Availability of Rental Housing in the Third Federal Reserve District: 2012¹

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In recent years, the Community Development Studies and Education Department at the Federal Reserve Bank of Philadelphia has released several studies analyzing the status of the rental housing market in Pennsylvania.² Using the latest data available, this installment provides updated rental housing affordability and availability statistics for the entire Third Federal Reserve District, which includes the eastern two-thirds of Pennsylvania, southern New Jersey, and Delaware. By using data through 2010 and providing local-level estimates, this report offers timely insights into rental housing in the Third District that cannot be found elsewhere.

Given both historical and recent trends in the U.S. housing market, it is more important than ever to monitor the relationship between housing costs and incomes in the rental sector. For decades, rental units have housed roughly one-third of all households in the

Highlights

- There was a shortage of roughly 266,000 rental units affordable and available to extremely low-income (ELI) renter households in the Third Federal Reserve District in 2010.
- The number of affordable and available rental units for every 100 ELI renter households in the Third District fell from 40 in 2005 to 34 in 2010.
- In 2010, nearly three in four ELI renter households in the Third District spent more than half of their income on gross rent (including utilities).
- Although conditions were most challenging for ELI renters overall, increases in housing cost burden levels were greatest for very low- and low-income renters between 2005 and 2010.

United States, but demand has grown considerably in recent years. Between 2005 and 2011, there was little change in the number of owner-occupied households nationally, but during this period, the number of renter households rose by more than 4 million.³

Although rental housing is fre-

quently a less expensive tenure choice than homeownership, it is not necessarily affordable for its occupants. Historically, for a considerable number of renters – and particularly for those with lower incomes – rental housing costs have consumed a substantial and growing share of household income.⁴ A misalignment of housing costs and income can

¹Special thanks to Mitchell Berlin, Paul Joice, and Danilo Pelletiere for providing invaluable feedback on this report.

²Estimates presented here should not be compared to those from previous studies. For earlier reports, see Erin Mierzwa, Kathryn P. Nelson, and Harriet Newburger, *Affordability and Availability of Rental Housing in Pennsylvania* (Philadelphia: Federal Reserve Bank of Philadelphia, Community Development Studies and Education Department, March 2010); and Federal Reserve Bank of Philadelphia, Community Development Studies and Education Department, *New Rental Housing Data Based on the 2005-07 American Community Survey (ACS)* (Philadelphia: Federal Reserve Bank of Philadelphia, 2011).

³U.S. Census Bureau, Housing and Household Economic Statistics Division, *Current Population Survey/Housing Vacancy Survey, Table 7a. Estimates of the Total Housing Inventory for the United States: 2000 to Present* (Washington, DC: U.S. Census Bureau, 2012).

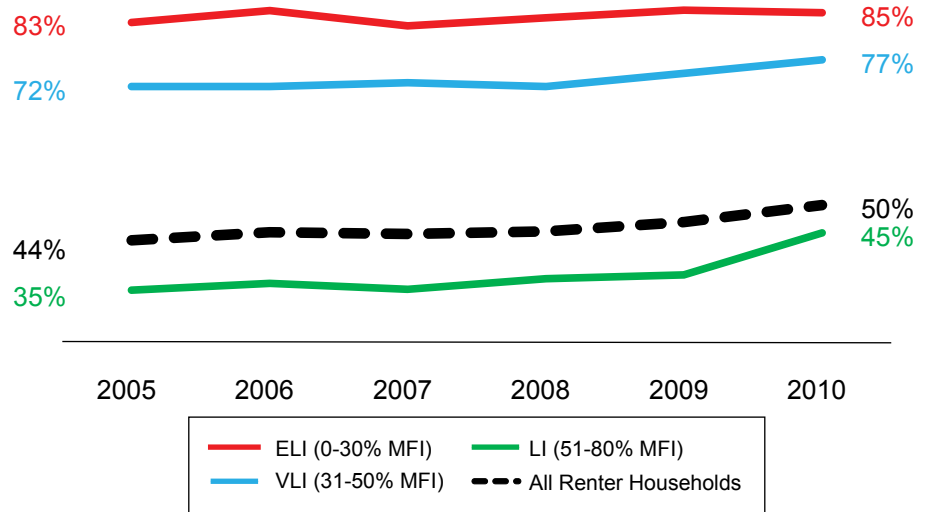
⁴John M. Quigley and Steven Raphael, "Is Housing Unaffordable? Why Isn't It More Affordable?" *Journal of Economic Perspectives* 18 (Winter 2004), pp. 191-214.

force householders to make difficult choices regarding other necessities such as food, health care, childcare, and education. A lack of affordable, good-quality rental housing is not only detrimental to individual households but also to communities, where the presence of such housing can attract local workers and its construction can represent a much-needed investment in distressed neighborhoods.

Despite falling prices and increasing affordability in the for-sale market since 2006, housing affordability has worsened nationally for renters. A report issued by the Department of Housing and Urban Development (HUD) concludes that between 2007 and 2009, rental housing affordability and quality problems “rose more sharply...both in absolute and percentage terms, than in any previous 2-year period since at least 1985.”⁵ HUD attributes this increase to greater competition for low-cost units, which can lead to higher rents, lower incomes caused by rising and persistent unemployment, and the fact that rental assistance has not grown with demand. The Third Federal Reserve District has not been insulated from these macroeconomic trends.

Figure 1

Percent of Renter Households Spending More Than 30 Percent of Income on Gross Rent (including utilities)



The following report summarizes our analysis of the Third District’s rental housing market from 2005 to 2010. Comparable statistics for counties, metropolitan statistical areas (MSAs), and the portions of states within the Third District can be found on the department’s website.⁶

Gross Rent as a Percentage of Household Income

Of the 1.4 million renter households in the Third District⁷ in 2010, half spent more than 30 percent of their income on gross rent (including utilities), a level typically referred to as a housing cost burden. As Figure 1 illustrates, this share drifted up

⁵The report investigates housing problems for unsubsidized very low-income renters living in substandard housing or spending more than 50 percent of their income on housing. See Barry L. Steffen, et al., *Worst Case Housing Needs 2009: Report to Congress* (Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research, February 2011), p. vii.

⁶Estimates for these geographies and an exhaustive documentation of the methodology used in this analysis are available at <http://philadelphiafed.org/cascade-focus/1>. The findings presented in this report draw from an analysis of American Community Survey Public Use Microdata Sample housing files from 2005 through 2010.

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gradually from 44 percent in 2005.⁸ The level was highest for extremely low-income (ELI) renters earning no more than 30 percent of the local median family income (MFI). However, the rates for very low-income (VLI) and low-income (LI) renters grew by 5 and 10 percentage points, respectively, during the period.

Households that spend more than 50 percent of their income on housing costs are said to have a severe housing cost burden. As Figure 2 illustrates, this describes the vast majority – and a growing share – of ELI renters in the Third District. Over this five-year period, the share of VLI renters with a severe housing cost burden rose from 23 percent to 33 percent, with most of the increase occurring in 2010. In total, 29 percent of renter households in the Third District had a severe housing cost burden in 2010, an increase of 5 percentage points in five years.

Trends in Gross Rent and Household Income

At least partly explaining the rising level of housing cost burden in the Third District are the rates at which gross rents and household incomes grew during this five-year period (see Figure 3). Between 2005 and 2008, responses to the American Community Survey suggest that the median gross rent for occupied units and the median income for all households were increasing at roughly the same rates, and renter incomes were nearly keeping up. Rents continued their upward climb in 2009 and 2010, while incomes began to decline, with the median renter income ending the period only 2 percent higher than in 2005.

Figure 2
Percent of Renter Households Spending More Than 50 Percent of Income on Gross Rent (including utilities)

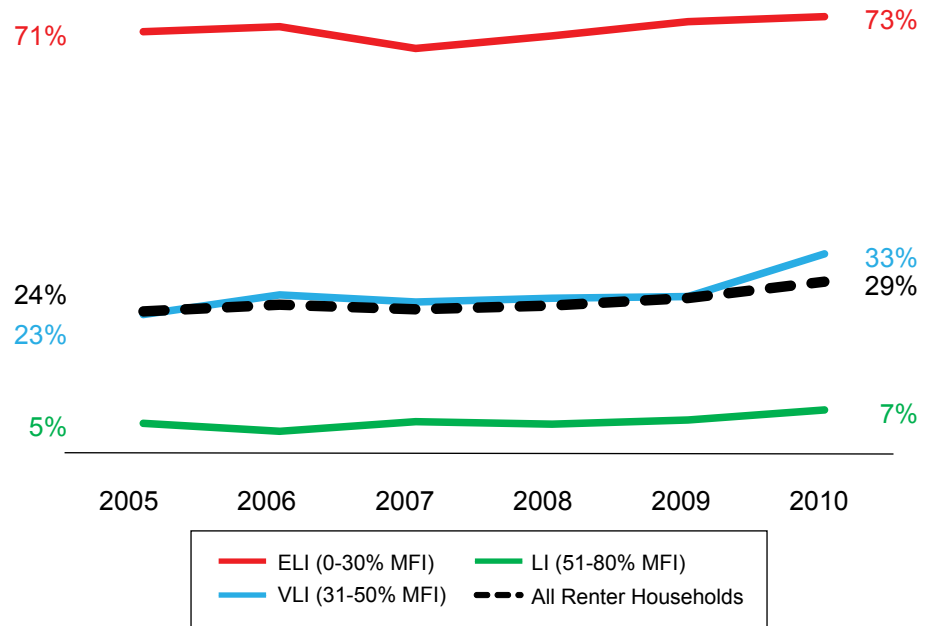
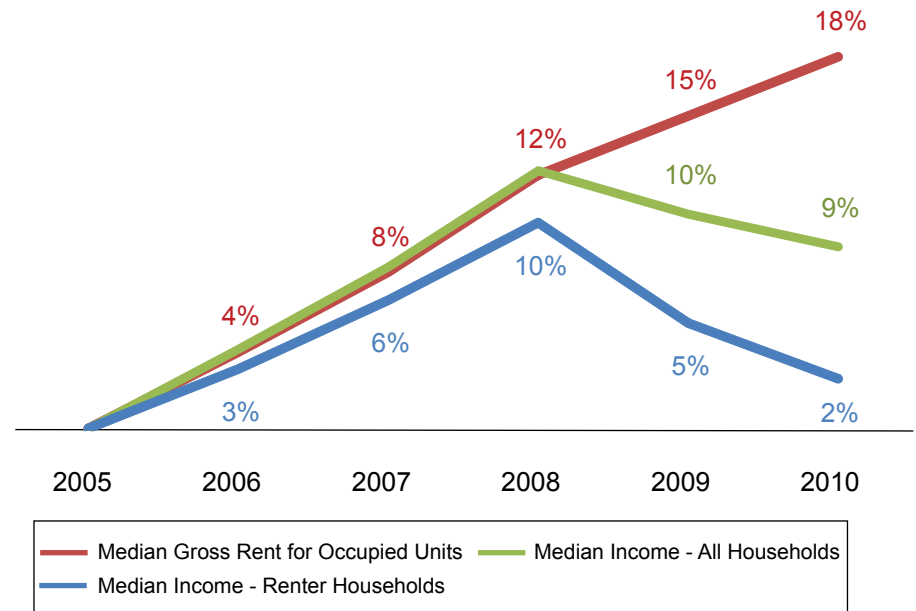


Figure 3
Growth in Gross Rent and Household Income Relative to 2005 Levels



⁷Because of the way in which two Public Use Microdata Areas (PUMAs) in Pennsylvania were constructed, estimates for the Third District deviate from its standard geographic definition in two instances. Jefferson County, Pennsylvania, is not part of the District but is included in this analysis because it is part of a PUMA that lies primarily within the District. In addition, a small part of Cambria County, Pennsylvania, is not included in the analysis because the PUMA that includes a portion of the county lies primarily outside the District.

⁸Statistical changes that are highlighted in the text related to housing cost burden levels and the affordability and availability of rental units are significantly different with a 90 percent level of confidence.

Given the 18 percent increase in median gross rent, it is perhaps unsurprising that the share of renters burdened by their housing costs increased during this period.

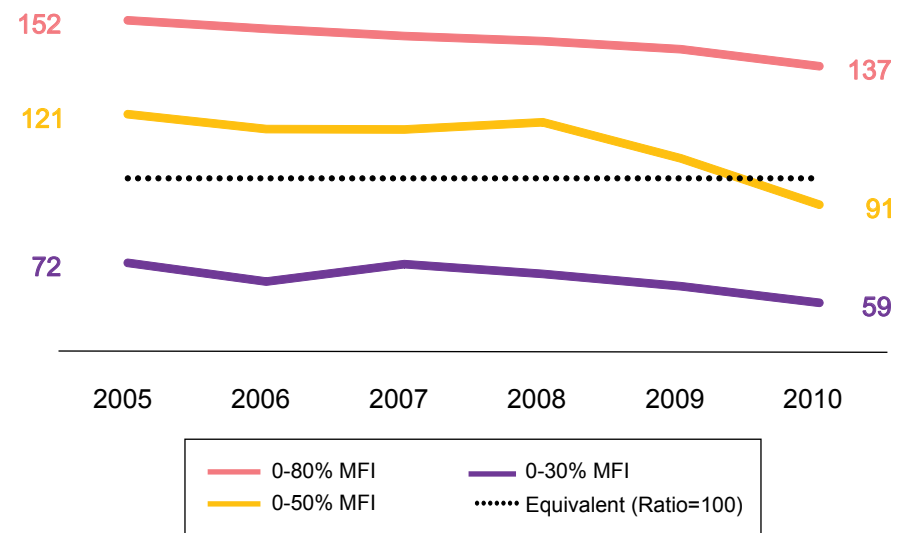
Another consequence of declining renter incomes in the second half of this period was a shift in the distribution of renters among the income categories. Compared to 2005, the median income for all households was 9 percent higher in 2010, a rate of growth that far outpaced the trend for renters. Because the median income for all households led to an increase in the ELI income threshold, one consequence of lagging renter incomes was a rising share of renter households classified as ELI in 2010 (28 percent compared to 26 percent in 2005). Over this period, the number of ELI renter households grew by 17 percent, nearly three times the rate of overall renter household growth.

Affordability and Availability of Rental Units⁹

The impact of these cost and income trends is also reflected in Figure 4, which illustrates the number of affordable rental units for every 100 renter households in each income category. For every 100 renter households earning 0-30 percent of MFI, there were only 59 affordable units in 2010, down from 72 in 2005.

Figure 4

Ratio of Affordable Rental Units for Every 100 Renter Households in Income Category



Also of note is that during this period, the surplus of affordable units for renters earning 0-50 percent of MFI turned into a deficit in 2010, indicated by the ratio's dip below 100. Despite a reduction in the number, the ratio for renters earning 0-80 percent of MFI remained well above 100 in 2010.¹⁰

An alternative measurement of whether the rental housing stock is meeting demand takes into consideration the extent to which affordable units are available to households in each income category.

A unit is considered "affordable and available" to a household in a particular income category if it is affordable at that income and is either occupied by a household in the same category or vacant. By excluding affordable units that are occupied by higher-income households, some believe that this statistic is a better representation of the gap between the supply of and demand for affordable units in specific income strata.

With the addition of the "availability" criterion, the ratios presented in

⁹Ratios and deficits/surpluses of affordable and affordable and available units are based on the number of households and rental units that fall within income and affordability ranges relative to the median family income and are a good approximation of affordability when households and units are similarly distributed within these ranges. In instances in which household incomes and rents are unevenly distributed within these ranges, these ratios are less instructive. For example, when renter households are clustered at the bottom of the 0-30 percent income range and units are largely affordable only to households at the top end of the range, the stated ratio of affordable rental units for every 100 ELI households overestimates the degree of alignment between the supply and demand of affordable rental housing. Likewise, when units are affordable to households with incomes at the bottom end of the 0-30 percent income range and the majority of ELI households have incomes at the upper end of the category, the ratio does not adequately capture the deep affordability of the rental stock.

¹⁰Unlike the estimates represented in Figures 1 and 2 that use mutually exclusive income categories (0-30, 31-50, 51-80 percent of MFI), the calculation of affordable (Figure 4) and affordable and available (Figure 5) ratios depends on income categories that are cumulative, from 0-50 and 0-80 percent of MFI. In other words, the categories used in Figures 4 and 5 include all renter households earning up to 50 and 80 percent of MFI, respectively, as well as all units affordable below these thresholds. For the affordable ratio reported in Figure 4, one consequence of this methodology is that if renters are concentrated in the 0-30 percent range but units are largely affordable to renters earning 31-50 percent of MFI, the ratio for the 0-50 percent category can suggest a supply/demand balance that does not exist for those with the lowest incomes. Similarly, a unit affordable at 50 percent of MFI but occupied by a renter earning up to 30 percent of MFI is considered affordable and available within the 0-50 percent range in Figure 5, even though that particular renter is cost burdened. Thus, both ratios can overestimate the degree to which supply is meeting demand within the 0-50 and 0-80 percent ranges, thereby potentially underestimating the difficulties renters face finding affordable housing.

Figure 5 are much lower than those in Figure 4. In the context of rising rents and falling incomes, the number of affordable and available rental units for every 100 renter households earning 0-30 percent of MFI fell from 40 in 2005 to 34 in 2010. A greater decline occurred for households earning 0-50 percent of MFI (from 75 in 2005 to 60 in 2010). Despite trending down during this period, the number of units affordable and available to every 100 renter households earning 0-80 percent of MFI remained slightly above 100 in 2010.

Shortage of Affordable and Available Rental Units

The ratios presented in Figures 4 and 5 convey the notion of surpluses and deficits for every 100 households but are calculated from Third District-wide totals of renter households and rental housing units. This analysis suggests that in the Third District, the deficit of affordable units for households earning 0-30 percent of MFI was roughly 164,000 units in 2010 (see Figure 6). When the income category is expanded to 50 percent of MFI, this shortage shrinks to 57,000 but does not disappear.

It is noteworthy that the shortages of affordable and available units at the 0-30 and 0-50 percent of MFI thresholds were so similar in 2010: 266,000 for the former and 263,000 for the latter. Based on the cumulative nature of the measurement, it may appear that 266,000 new rental units affordable to – and occupied by – households earning 31-50 percent of MFI could hypothetically address the shortfall for all renters earning up to 50 percent of MFI. Further analysis of these data indicates that because the value is roughly the same at both thresholds, the real demand for units is likely within the 0-30 percent of MFI range. Therefore, if new units were affordable for renters at the top of the income threshold (50 percent of MFI), a deficit would persist for

Figure 5
Ratio of Affordable and Available Rental Units for Every 100 Renter Households in Income Category

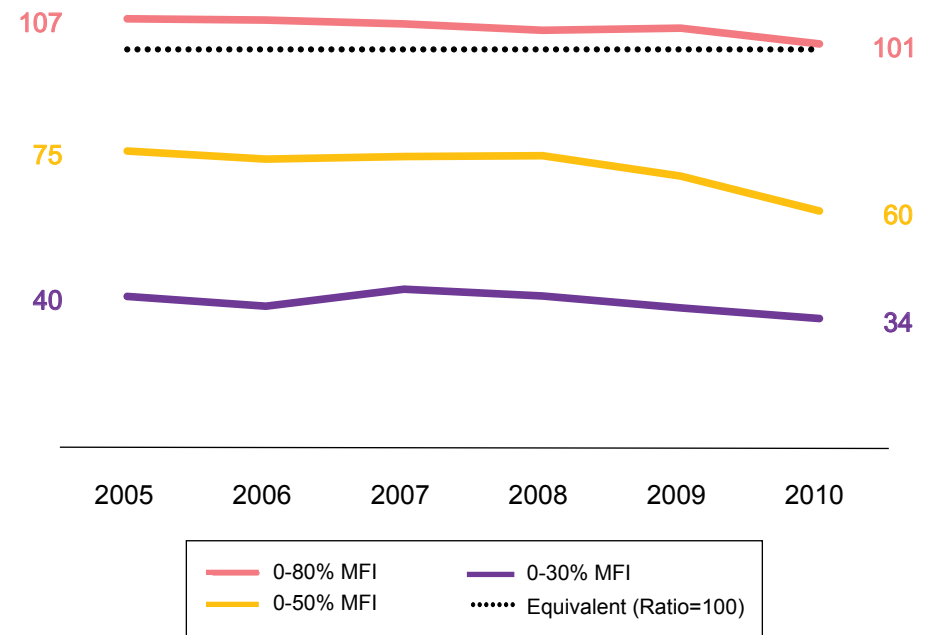
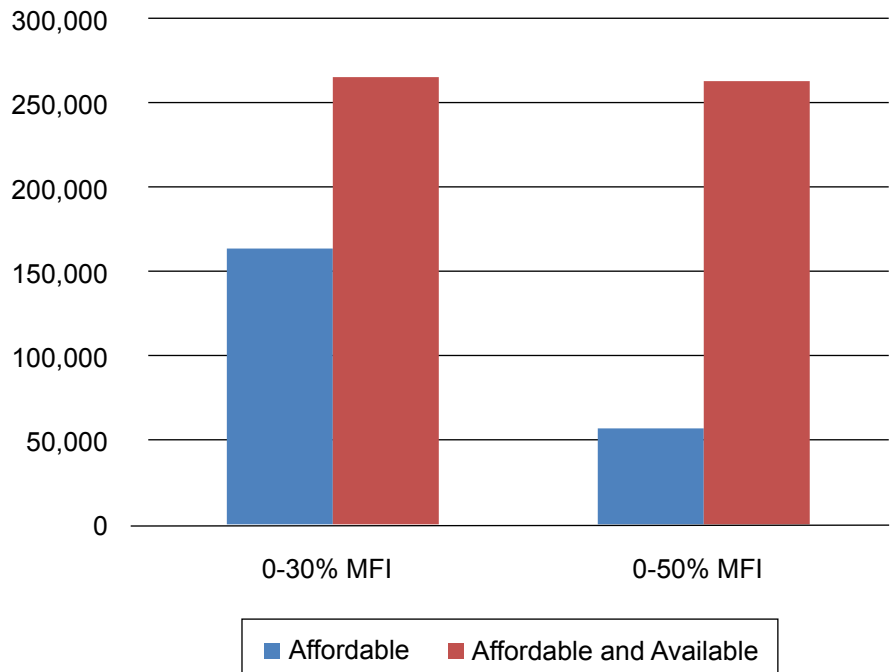


Figure 6
Deficit of Rental Units in 2010



those renters at the lower threshold. Instead, if new units were affordable to – and occupied by – households at 30 percent of MFI, the deficit at both

thresholds would disappear because they would be considered affordable and available to renters in both income categories.

Unit Quality and Crowding

Finally, this report also explores recent trends in rental housing quality and crowding in the Third District. Questions regarding housing unit quality in the American Community Survey are limited, but respondents are asked whether their kitchen has a sink with a faucet, a stove/range, and a refrigerator, and whether the

unit has hot and cold running water, a flush toilet, and a bathtub/shower. The percentage of renters living in a unit that was crowded (i.e., more persons than rooms) or that had incomplete kitchen or plumbing facilities was relatively low, ranging from 6 to 8 percent for the various low-income categories in 2010. The slight but significant increase

between 2008 and 2010, from 5 to 6 percent for all renters in the Third District, was associated more with unit quality than with crowding.¹¹ During this period in the Third District, the number of households with a housing cost burden was significantly greater than the number with a housing unit problem. ❖

¹¹ For detailed information on housing quality and crowding trends in the Third District, see Table 6 at <http://philadelphiafed.org/cascade-focus/1>. Estimates are limited to the 2008-10 time period because according to the Census Bureau, changes to the American Community Survey questionnaire in 2008 directly led to increases in the reported level of incomplete kitchen and plumbing facilities when compared with pre-2008 estimates. See "Comparing 2010 American Community Survey Data" at http://www.census.gov/acs/www/guidance_for_data_users/comparing_2010/.



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