



## CHAPTER 4

# A MID-DECADE UPDATE: HOUSING CONDITIONS IN 2005-06

### Overview

This chapter presents information on housing problems among Pennsylvania's lower-income renter households and on the extent to which these households faced shortages in affordable and available units at mid-decade. Findings are presented at both the state and sub-state levels.

Because CHAS tabulations are not available for years after 2000, we developed equivalent data from the American Community Survey (ACS). To double the ACS sample size, we used data for both 2005 and 2006. As Appendix E details, all the ACS indicators computed for 2005-06 should be comparable to their 2000 CHAS equivalents except for estimates of the incidence of cost burden. We adopted an approach developed by the NLIHC<sup>37</sup> because we judge that it provides more accurate and complete counts of renters with housing cost burdens in 2005-06 than the procedures used for past CHAS tabulations.<sup>38</sup>

The smaller ACS sample size also constrains the geographic units we can study, because ACS micro-data are not always available at the county level. Therefore, after presenting a summary for the state, the chapter discusses housing conditions

for the six relatively large regions used by the Pennsylvania Department of Community and Economic Development (DCED). It then examines conditions for aggregations of public use micro-data areas (PUMAs) that provide as much county-level detail as possible from the ACS micro-data for 2005 and 2006.<sup>39</sup>

### Rental Housing Conditions at the State Level in 2005-06

The 2005-06 ACS data show that shortages of affordable rental housing worsened in the first half of the previous decade, particularly for ELI renters (Table 15). By mid-decade, there were 88,000 fewer affordable units than ELI renters. Expressed as a ratio, the number of affordable units per 100 ELI renter households was only 77 in 2005-06 (or roughly three units for every four renters), whereas in 2000, the ratio of 96 meant that the number of units had almost equaled the number of renters.

The absolute shortage of units affordable and available to ELI renters also worsened by mid-decade, reaching 220,000. These data reflect only

<sup>37</sup> See Wardrip and Pelletiere (2008).

<sup>38</sup> See Appendix E for additional information on our use of ACS data in this study, key differences between the CHAS and ACS data sets, and their implications for rental housing comparisons over time, particularly for cost burden.

<sup>39</sup> As detailed in Appendix E, ACS micro-data files identify only PUMAs. In populous urban areas, most notably Philadelphia and Allegheny counties, several PUMAs are located within a single county. In these instances, we aggregated ACS data to the county level for easy comparison to 2000 CHAS data. In other instances, a single PUMA contains several counties with low population.

TABLE 15  
 Pennsylvania Housing Shortages in 2000 and 2005-06

	Affordable Units			Affordable and Available Units		
	0-30% AMI	0-50% AMI	0-80% AMI	0-30% AMI	0-50% AMI	0-80% AMI
<b>Per 100 Renter Households</b>						
2000	96	152	157	49	87	107
2005-06	77	135	150	43	84	110
<b>Actual Shortages/Surpluses</b>						
2000	(13,797)	302,316	503,212	(170,324)	(76,950)	64,300
2005-06	(88,316)	225,998	467,023	(220,369)	(99,912)	92,412

Sources: Federal Reserve Bank of Philadelphia calculations based on 2000 CHAS data, U.S. Census Bureau and HUD, and 2005-06 ACS Data, U.S. Census Bureau.

TABLE 16  
 Pennsylvania Cost Burden Incidence in 2000 and 2005-06

	% with Any Cost Burden				% with Severe Cost Burden			
	ELI Households	VLI Households	LI Households	Total Households	ELI Households	VLI Households	LI Households	Total Households
2000	69%	60%	23%	34%	53%	16%	3%	17%
2005-06	84%	67%	29%	44%	69%	21%	3%	24%

Sources: Federal Reserve Bank of Philadelphia calculations based on 2000 CHAS data, U.S. Census Bureau and HUD, and 2005-06 ACS Data, U.S. Census Bureau.

43 affordable and available units per 100 ELI renter households, down from 49 in 2000.

Within the broader income range of 0-50 percent of AMI, the number of affordable and available units per hundred renters dropped slightly (from 87 to 84) and the absolute deficit rose to almost 100,000. But the surplus of units affordable and available to 0-80 percent of AMI apparently increased more than renters, as the ratio rose to 110.

Cost burden pressures were also higher at mid-decade than in 2000. The differences appear most dramatic for ELI renter households, which experienced increases in cost burden and severe cost burden of 15 and 16 percentage points, respectively (Table 16). As Appendix E details, some of this apparent rise undoubtedly reflects our somewhat different methodology in 2005-06. Because the increases in cost burden are consistent with the

increasing shortages of affordable housing, however, we conclude that they are real rather than merely an artifact of our different procedure.<sup>40</sup>

The increases in both relative and absolute shortages of affordable housing and the higher incidence of cost burdens occurred despite a modest rise in rental vacancy rates between 2000 and 2005-06, which would tend to ease the shortage, all other things being equal. As the next sections discuss, both changes are likely due in part to more ELI renters competing for a relatively fixed stock

<sup>40</sup> Using its preferred methodology for both 2001 and 2005, the NLIHC found that the proportion of Pennsylvania renters with severe rent burden rose significantly among ELI renters (from 63 percent to 68 percent) and among VLI renters (from 22 percent to 27 percent). In that study, households were grouped into ELI, VLI, and LI categories by comparing household income to each state's median family income. See Pelletiere and Wardrip (2008), p. 24. Our estimates of income groups are different and closer to HUD's official definitions because each household's income is compared to its county's official HAMFI.

of rental housing units.<sup>41</sup> Statewide, the shares of ELI and VLI renter households increased; the percentage of ELI households rose by 4 percentage points compared to 2000 (Table 17).

## Findings at the Regional Level<sup>42</sup>

### DCED Regions

To examine housing conditions within Pennsylvania, this chapter first compares 2000 and

2005-06 data in the six regions in Pennsylvania defined by the DCED, which are shown in Map 3.<sup>43</sup> The DCED regions are particularly relevant to rental housing policy because the Pennsylvania Housing Finance Agency (PHFA) has a regional set-aside for the allocation of low income housing tax credits (LIHTCs) based on these DCED regions.<sup>44</sup> LIHTCs have been a major source of affordable rental housing over the last 15 years.

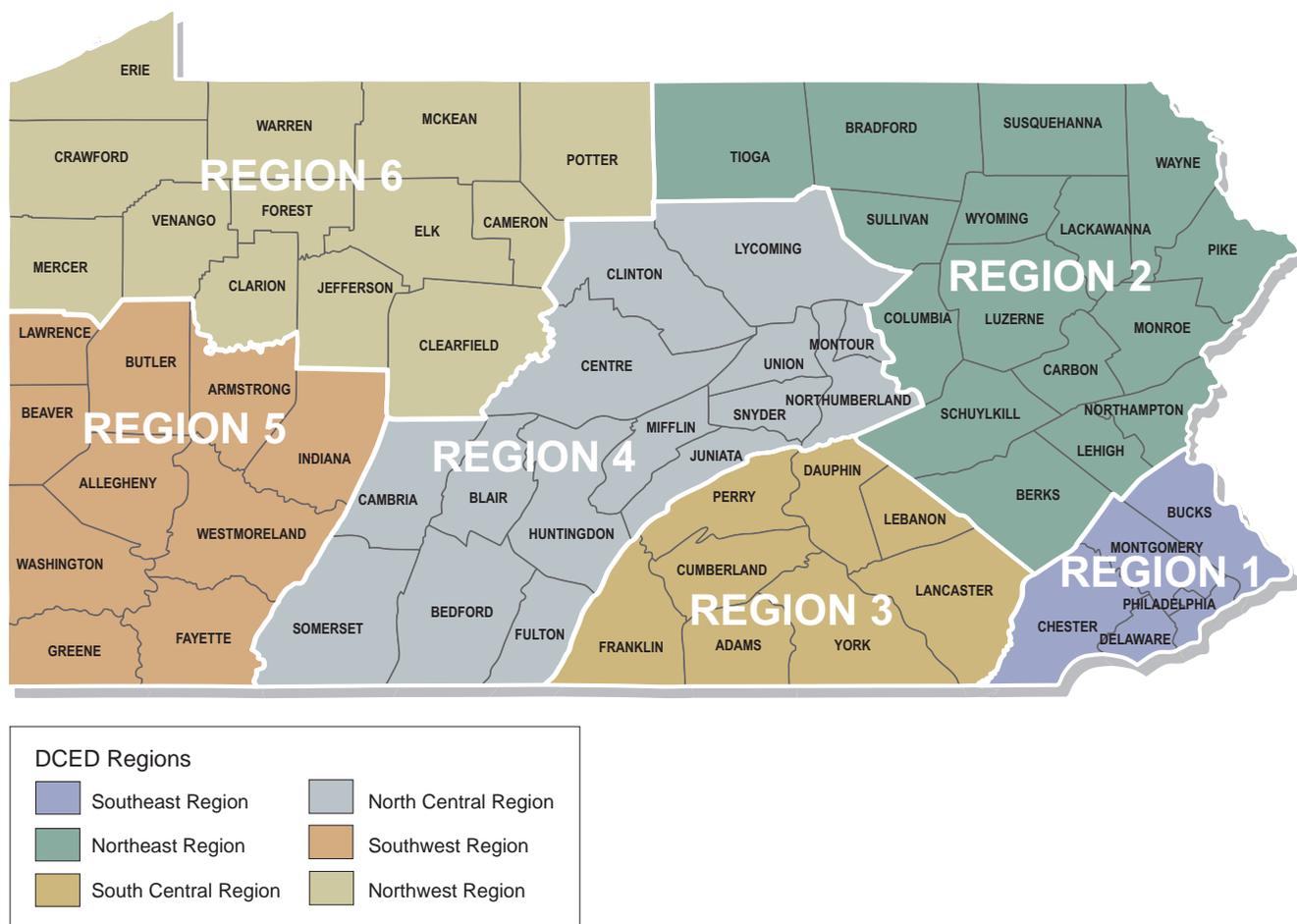
<sup>41</sup> See Table A.8 in Appendix A for changes in rental housing stock and Table G.1 in Appendix G for changes in the income distribution of renter households.

<sup>42</sup> See Appendix G for the detailed tables that support the commentary in this section.

<sup>43</sup> See Appendix F for a discussion of changes between 1990 and 2000 by DCED region.

<sup>44</sup> See “Pennsylvania Housing Finance Agency Amended Allocation Plan for Year 2009,” p. 4.

MAP 3  
DCED Regions in Pennsylvania\*



\* Columbia County is part of DCED Region 4 and Lawrence County is part of DCED Region 6. We have included these counties with DCED Regions 2 and 5, respectively. We modified the DCED boundaries so that our DCED regions could be aggregated from the ACS PUMAs. See Appendix E for additional details.

TABLE 17

## Income Distribution of Lower-Income Renter Households in 2005-06 and Percentage Changes from 2000

	2005-06			Change from 2000		
	Distribution of Lower-Income Renters (as % of Total Renters) by AMI Group			Distribution of Lower-Income Renters (as % of Total Renters) by AMI Group		
	ELI	VLI	LI	ELI	VLI	LI
<b>Pennsylvania</b>	<b>28%</b>	<b>19%</b>	<b>22%</b>	<b>4%*</b>	<b>1%*</b>	<b>0%</b>
Region 1: Southeast	32%	16%	20%	4%*	1%	0%
Region 2: Northeast	26%	21%	23%	3%*	2%*	0%
Region 3: South Central	21%	19%	24%	3%*	1%	-1%
Region 4: North Central	26%	21%	23%	2%	1%	1%
Region 5: Southwest	29%	20%	22%	3%*	1%	1%
Region 6: Northwest	28%	19%	21%	5%*	-1%	-2%
<b>Southeast Region: Philadelphia Metropolitan Division</b>						
Suburban Counties	21%	17%	21%	4%*	3%*	-1%
Philadelphia County	43%	16%	19%	5%*	-1%	0%

\* Changes between 2000 and 2005-06 are statistically significant at the 90 percent confidence level.

Sources: Federal Reserve Bank of Philadelphia calculations based on 2000 CHAS data, U.S. Census Bureau and HUD, and 2005-06 ACS Data, U.S. Census Bureau.

Because DCED regions are larger than the consolidated PUMAs analyzed in the next section, it is possible to estimate rental housing conditions at the DCED regional level more precisely. In turn, differences between 2000 and 2005-06 are more frequently statistically significant at the 90 percent confidence level. All commentary on changes in this chapter focuses on differences that were statistically significant at the 90 percent confidence level, unless otherwise noted.<sup>45</sup>

The data tables for DCED regions in Pennsylvania give additional detail for Region 1, the Philadelphia metropolitan division, because that region has the most renters and the greatest shortage of affordable and available housing units. The central county, Philadelphia, is distinguished from its suburbs: Bucks, Chester, Delaware, and Montgomery counties.

<sup>45</sup> This study uses the term significant to refer to changes that are statistically significant.

### ***Rental Housing Conditions in 2005-06 by DCED Region***

As noted above, statewide, the percentage of ELI renter households in Pennsylvania rose by 4 percentage points between 2000 and 2005-06. This represents an increase of approximately 50,000 ELI renter households, from 334,600 to 384,800. As Table 17 shows, each region experienced similar income shifts. The largest increases in ELI households occurred in Region 6, which includes Erie, and in the city of Philadelphia.

Region 1 had the highest share of ELI renter households (32 percent). Within this region, the city of Philadelphia had a much larger share of ELI renter households than its suburban counties did.<sup>46</sup>

**Cost burden.** Cost burden pressures worsened in each DCED region between 2000 and 2005-06,

<sup>46</sup> The city of Philadelphia and the county of Philadelphia constitute the same area.

particularly for ELI renters. But because part of the increase in cost burden shown by our data reflects procedural differences (as described in Appendix E), we focus on differences among regions in 2005-06.

As Map 4 illustrates, ELI renter households in the Philadelphia area faced the greatest cost burden pressure, with three-fourths having a severe cost burden. The incidence of severe cost burden was least common among ELI renters in the North Central, Southwest, and Northeast regions.

As Table 18 details, within the Philadelphia metropolitan division, ELI renters were more likely to have cost burdens in the suburbs. There, four of five ELI renter households had severe cost burdens. VLI

renters were also more likely to have cost burdens in Philadelphia’s suburbs than in other areas of the state, and almost a third had severe cost burdens there. In all regions of the state, LI renters very seldom had severe cost burdens.

**Shortages of affordable rental housing.** At the regional level as in the state, shortages of units affordable and available to ELI renters were greatest in every region. As Map 5 illustrates, Regions 1 and 3 had the greatest shortages of housing both affordable and available to ELI renter households. The shortage of affordable and available housing units per 100 ELI renter households was least pressing in Region 5, the

MAP 4  
Severe Cost Burden Incidence for ELI Renter Households by DCED Region in 2005-06

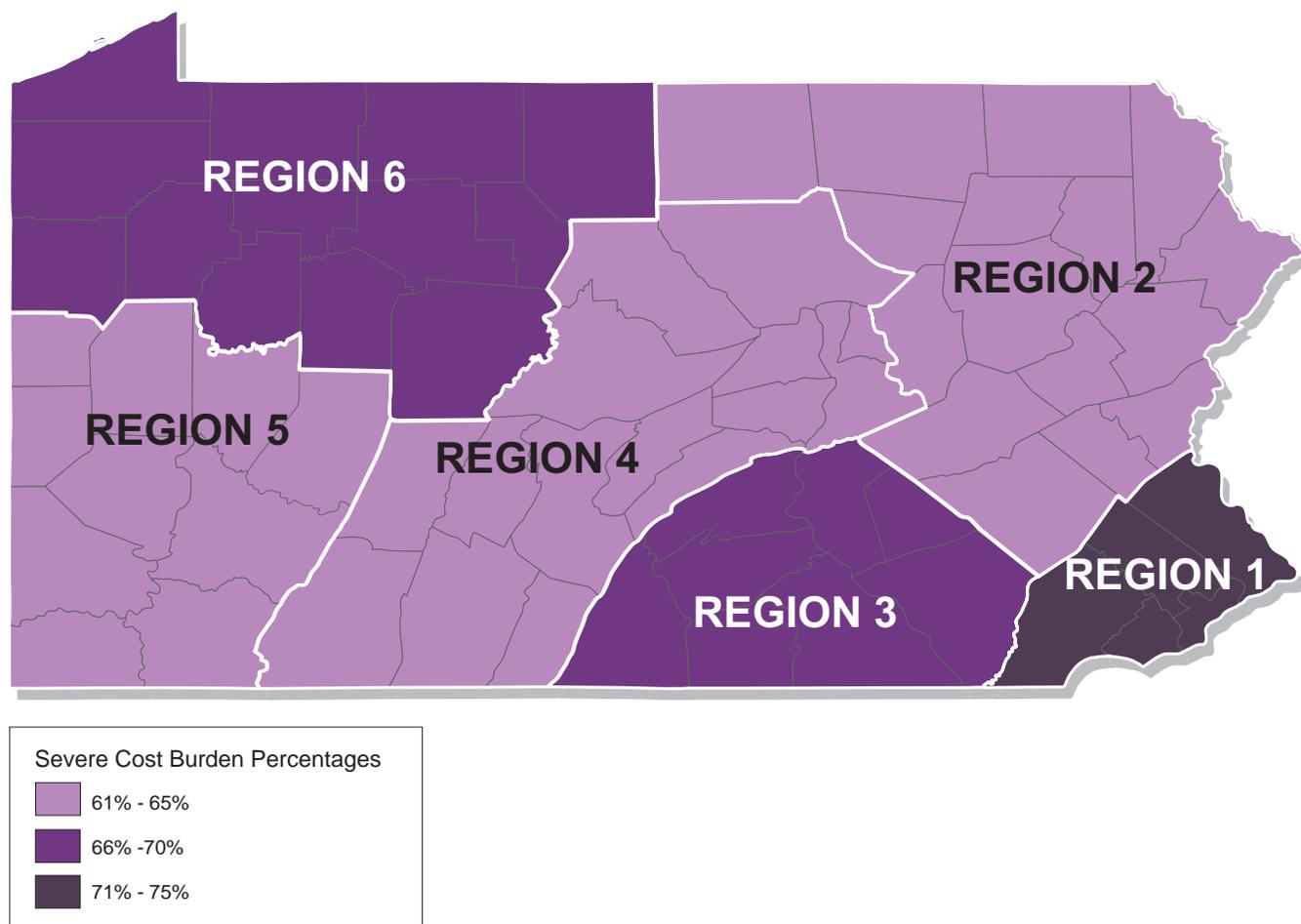


TABLE 18  
 Cost Burden Incidence in 2005-06

	2005-06					
	% of Renter Households with Any Cost Burden			% of Renter Households with a Severe Cost Burden		
	ELI	VLI	LI	ELI	VLI	LI
<b>Pennsylvania</b>	<b>84%</b>	<b>67%</b>	<b>29%</b>	<b>69%</b>	<b>21%</b>	<b>3%</b>
Region 1: Southeast	87%	74%	37%	75%	24%	4%
Region 2: Northeast	82%	64%	29%	65%	18%	4%
Region 3: South Central	82%	67%	20%	66%	16%	2%
Region 4: North Central	79%	62%	26%	64%	20%	3%
Region 5: Southwest	83%	64%	27%	65%	24%	4%
Region 6: Northwest	82%	61%	24%	67%	18%	2%
<b>Southeast Region: Philadelphia Metropolitan Division</b>						
Suburban Counties	89%	78%	41%	80%	31%	5%
Philadelphia County	86%	69%	33%	73%	18%	3%

Source: Federal Reserve Bank of Philadelphia calculations based on 2005-06 ACS data, U.S. Census Bureau.

MAP 5  
 Affordable and Available Housing Units Per 100 ELI Renter Households by DCED Region in 2005-06

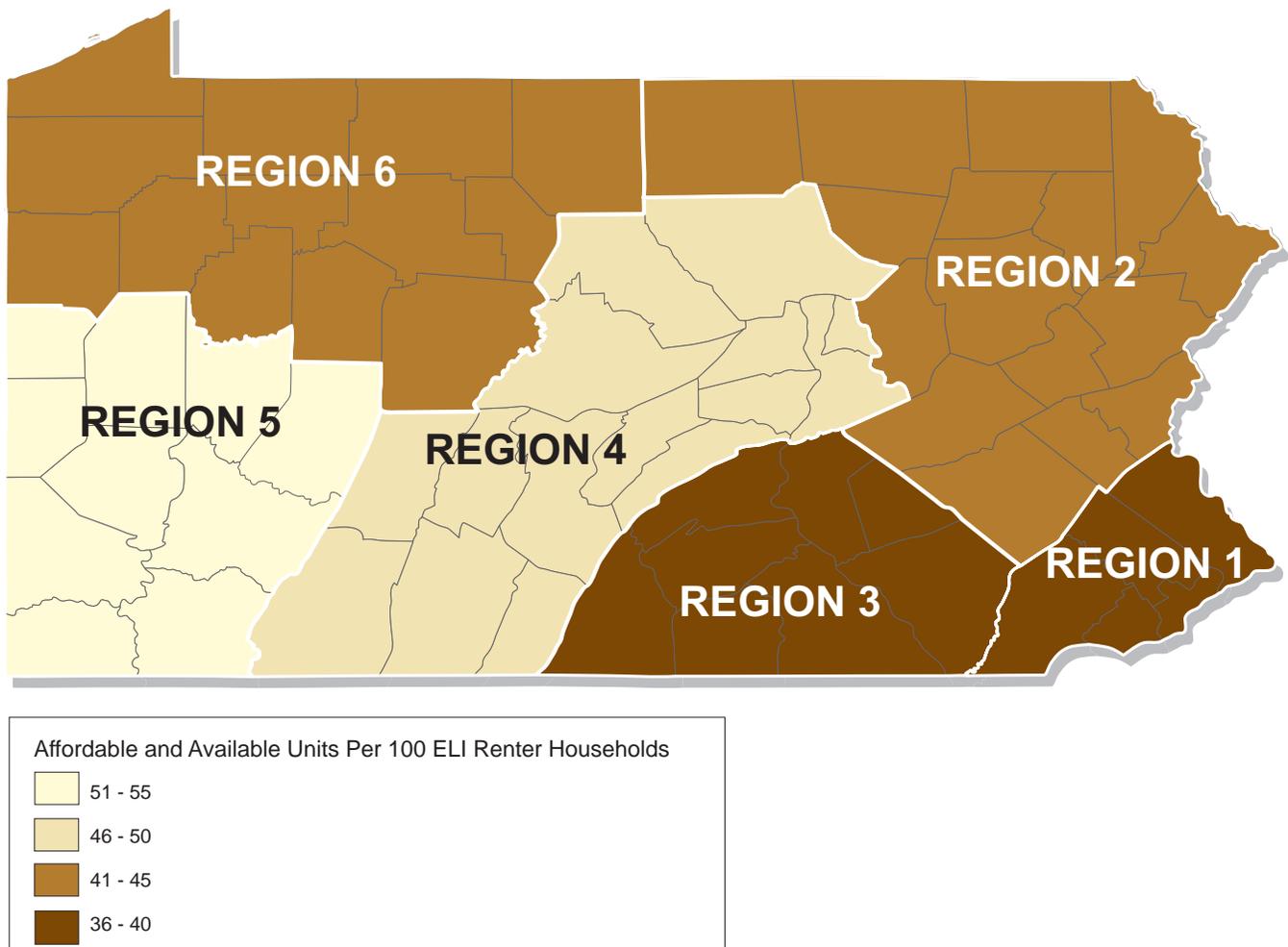


TABLE 19

## Affordable and Available Housing Units in 2005-06 and Changes from 2000

	2005-06						Change from 2000					
	Affordable Units per 100 Renter Households with Household Incomes:			Affordable and Available Units per 100 Renter Households with Household Incomes:			Affordable Units per 100 Renter Households with Household Incomes:			Affordable and Available Units per 100 Renter Households with Household Incomes:		
	0-30% AMI	0-50% AMI	0-80% AMI	0-30% AMI	0-50% AMI	0-80% AMI	0-30% AMI	0-50% AMI	0-80% AMI	0-30% AMI	0-50% AMI	0-80% AMI
<b>Pennsylvania</b>	77	135	150	43	84	110	-19*	-17*	-8*	-6*	-2	2
Region 1: Southeast	56	113	147	38	78	111	-11*	-11*	-4	-4*	0	7*
Region 2: Northeast	86	138	146	43	84	105	-24*	-25*	-17*	-9*	-6	-4
Region 3: South Central	80	161	163	40	84	108	-28*	-28*	-8	-9*	-7	-1
Region 4: North Central	104	149	146	48	86	106	-20*	-19	-8	-6	-4	-1
Region 5: Southwest	91	143	149	51	93	114	-18*	-13*	-8	-5	1	4
Region 6: Northwest	90	154	154	43	90	110	-44*	-24*	-3	-15*	-6	1
<b>Southeast Region: Philadelphia Metropolitan Division</b>												
Suburban Counties	55	102	160	25	60	106	-15*	-20*	-13	-8*	-3	6
Philadelphia County	57	120	138	43	89	114	-10*	-6	2	-2	4	9

\* Changes between 2000 and 2005-06 are statistically significant at the 90 percent confidence level.

Sources: Federal Reserve Bank of Philadelphia calculations based on 2000 CHAS data, U.S. Census Bureau and HUD, and 2005-06 ACS data, U.S. Census Bureau.

Southwest, but there were still only 51 affordable and available units for every 100 ELI renter households there.

Between 2000 and 2005-06, the number of units affordable to ELI households fell sharply and significantly in each region, and the number of units affordable to renters with incomes between 0-50 percent of AMI also fell significantly<sup>47</sup> (Table 19). Significant drops in units affordable and available to ELI renter households also occurred in Regions 6, 3, 2, and 1. (Within Region 1, the drop

was larger and significant only in the Philadelphia suburbs.)

Region 1 remained the region with the greatest shortages of affordable and available housing for both ELI renters and renters with income below 50 percent of AMI. Within the region, the Philadelphia suburban counties had much less affordable and available housing than the city itself. The suburbs had only 25 affordable and available units per 100 ELI renters and 60 affordable and available units per 100 renters at 0-50 percent AMI.

Region 6, which experienced the greatest increase in the percentage of ELI renter households between 2000 and 2005-06, also experienced the

<sup>47</sup> The one exception is Region 4, in which the decrease in units affordable to renters with incomes between 0-50 percent of AMI is not significant.

largest reduction in the number of affordable and available housing units, from 58 to 43 units per 100 ELI renter households.

Looking more broadly at the experience of all lower-income renters by region in both 2000 and 2005-06, the total number of units affordable and available to renters with incomes at or below 80 percent of AMI slightly exceeded the number of such renters in all regions. Said differently, the regional supply and demand were roughly in balance for renters with incomes at or below 80 percent of AMI.

In absolute terms in 2005-06, Region 1 had the greatest shortage of affordable and available housing units for ELI renter households (over 90,000 units, 41 percent of the state’s total) and also for renters with incomes between 0-50 percent of AMI (48 percent of the state’s total). Shortages were also substantial in the Southwest and Northeast (Regions 5 and 2) (Table 20).

Within Region 1, the city of Philadelphia had a much larger shortage of affordable units available to ELI renter households than its four suburban counties. Notably, however, the suburban shortage of affordable units available to renters with incomes between 0-50 percent of AMI was more than double that of the city (32,800 vs. 14,950). The difference between the two locations suggests that, in the suburbs, the number of renters with incomes between 30-50 percent of AMI roughly equaled the number of units with rents affordable to that income range. Philadelphia city, by contrast, apparently had many more units affordable to incomes between 30-50 percent of AMI than renters in that income range.

***Rental vacancy rates by unit affordability to lower-income households.*** Vacancy rates are often used as indicators of housing supply, but they can be difficult to interpret, particularly when drawn

TABLE 20  
Actual Shortages/Surpluses in Affordable and Available Housing Units in 2005-06 and Changes from 2000

	2005-06			Change from 2000		
	Affordable and Available Units with Household Incomes:			Affordable and Available Units with Household Incomes:		
	0-30% AMI	0-50% AMI	0-80% AMI	0-30% AMI	0-50% AMI	0-80% AMI
<b>Pennsylvania</b>	<b>(220,369)</b>	<b>(99,912)</b>	<b>92,412</b>	<b>(50,045)*</b>	<b>(22,962)*</b>	<b>28,112*</b>
Region 1: Southeast	(90,308)	(47,766)	34,082	(15,878)*	(3,386)	23,552*
Region 2: Northeast	(34,720)	(17,643)	8,434	(10,093)*	(8,295)	(5,327)
Region 3: South Central	(24,270)	(12,192)	10,143	(7,551)*	(6,529)	207
Region 4: North Central	(15,237)	(7,602)	4,786	(3,318)	(2,528)	(192)
Region 5: Southwest	(41,236)	(10,570)	28,673	(7,006)*	428	8,886
Region 6: Northwest	(14,599)	(4,140)	6,296	(6,200)*	(2,653)	987
<b>Southeast Region: Philadelphia Metropolitan Division</b>						
Suburban Counties	(33,414)	(32,816)	8,186	(8,794)*	(7,701)*	7,446
Philadelphia County	(56,894)	(14,950)	25,896	(7,084)*	4,316	16,106*

\* Changes between 2000 and 2005-06 are statistically significant at the 90 percent confidence level. Data for the state of Pennsylvania and each DCED region have been rounded in this table. Adding the DCED regions together will yield slightly different statewide results.

Sources: Federal Reserve Bank of Philadelphia calculations based on 2000 CHAS data, U.S. Census Bureau and HUD, and 2005-06 ACS data, U.S. Census Bureau.

from small samples such as the ACS. For example, a high vacancy rate could signal an adequate supply of rental housing, but it could also reflect too many units of poor quality or units in locations with declining demand. But this indicator can help distinguish tight markets with growing demand from loose markets with less demand. Furthermore, having sufficient vacancies among units with below fair market rents (FMRs) is important to the successful use of vouchers.<sup>48</sup> Table 21 shows how vacancy rates differ across regions and how they have changed since 2000. The fact that several of the recent changes are statistically significant suggests that the ACS sample size is sufficient to provide meaningful data on vacancy rates at this level of geographic aggregation.

Overall, the statewide vacancy rates of 10 percent and above and the significant increases since 2000 among units affordable to most income ranges imply that most rental markets in Pennsylvania are relatively loose and loosening

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<sup>48</sup> The FMR for any market area, determined annually by HUD, is typically the 40th percentile rent for nonluxury units that were recently rented to a new tenant, although adjustments to this level are sometimes made. See HUD User for additional information: <http://www.huduser.org/datasets/fmr.html>. The FMR helps determine the subsidy that a household using a voucher receives. Specifically, the household pays 30 percent of its income in gross rent and HUD provides a rental subsidy to the household for the difference between the tenant payment and the FMR or gross rent, whichever is less. If this subsidy is not sufficient to cover the full rent of the unit, the household may pay the additional amount out of its own pocket, in which case the household will pay more than 30 percent of its income in rent, incurring a cost burden. Vacancies among below-FMR units are important for voucher success because in order to use a newly issued voucher, a potential user must search in the private market to find a unit that passes HUD's housing quality standards within 120 days of receipt (or must already live in such a unit). The lower the vacancy rate among below-FMR units, the harder it will be for the household to find an acceptable affordable unit when it is not already living in a unit that meets these standards. In this case, some households may not find a unit in the permitted time and will lose their vouchers, while others may rent a unit whose rent is above the FMR and will have at least some cost burden. See the Glossary for the definitions of FMR, rental subsidy, and voucher. In addition, Appendix D provides county-level FMRs and discusses the implications of their affordability to different income ranges.

further. But there is considerable variation in the vacancy rates among DCED regions. Region 5, which includes Pittsburgh, had the highest vacancy rates among DCED regions for each affordability range.

The Philadelphia region also had high and increasing vacancy rates in each affordability range, and it experienced the greatest increase in the vacancy rates for units affordable to ELI renters from 2000 to 2005-06. The city of Philadelphia had particularly high vacancy rates among units affordable to ELI, VLI, and LI households, and vacancy rates increased for each range between 2000 and 2005-06. The high vacancy rates in Philadelphia are not surprising, since Philadelphia has struggled with its vacant housing stock, both because of the quality of the stock and also because of the city's declining population.<sup>49</sup> Among units affordable to ELI renter households, the suburban counties had markedly lower vacancy rates than either Philadelphia city or the state average for Pennsylvania.

Low vacancy rates can reflect needs for additional affordable rental housing. Region 2, the Northeast, had the lowest vacancy rate for ELI-affordable units in 2005-06 and also the lowest rate overall. Furthermore, it was the only region where vacancy rates dropped significantly, both overall and in the ELI income range. Region 2 contains areas such as Monroe and Pike counties that have some of Pennsylvania's greatest shortages of units affordable and available to ELI and VLI renters.

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<sup>49</sup> See Appendix A, Table A.7 for population changes.

TABLE 21

## Vacancy Rates by Rental Affordability in 2005-06 and Percentage Changes from 2000

	2005-06				Change from 2000			
	ELI	VLI	LI	Total Vacancy	ELI	VLI	LI	Total
<b>Pennsylvania</b>	<b>11%</b>	<b>12%</b>	<b>7%</b>	<b>10%</b>	<b>1%</b>	<b>3%*</b>	<b>3%*</b>	<b>2%*</b>
Region 1: Southeast	13%	15%	8%	11%	3%*	7%*	5%*	5%*
Region 2: Northeast	6%	10%	3%	6%	-3%*	0%	-1%	-1%*
Region 3: South Central	10%	7%	6%	7%	-1%	-1%	2%*	0%
Region 4: North Central	10%	9%	5%	8%	0%	2%	2%	1%
Region 5: Southwest	14%	16%	8%	12%	2%	6%*	3%*	4%*
Region 6: Northwest	12%	11%	3%	9%	2%	2%	0%	1%
<b>Southeast Region: Philadelphia Metropolitan Division</b>								
Suburban Counties	3%	16%	8%	9%	-2%	7%*	4%*	4%*
Philadelphia County	18%	15%	9%	13%	5%*	7%*	5%*	6%*

\* Changes between 2000 and 2005-06 are statistically significant at the 90 percent confidence level.

Sources: Federal Reserve Bank of Philadelphia calculations based on 2000 CHAS data, U.S. Census Bureau and HUD, and 2005-06 ACS data, U.S. Census Bureau.

### Additional Analysis at the Local Level: Consolidated PUMAs

The data for “consolidated” PUMAs discussed and mapped in this section provide the closest look at rental housing conditions and shortages at the local level that is possible from ACS micro-data. As Appendix E details, we aggregated the PUMAs identified in the 2005 and 2006 ACS to match the county-level CHAS data provided in Chapter 3 and Appendix D as closely as possible. In many instances in this section, we are able to analyze the ACS data by county and compare it to 2000 county-level data.<sup>50</sup>

Appendix G provides the 2005-06 data for consolidated PUMAs and includes changes since 2000.

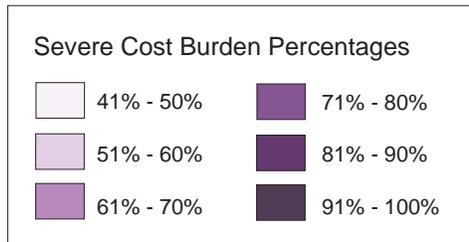
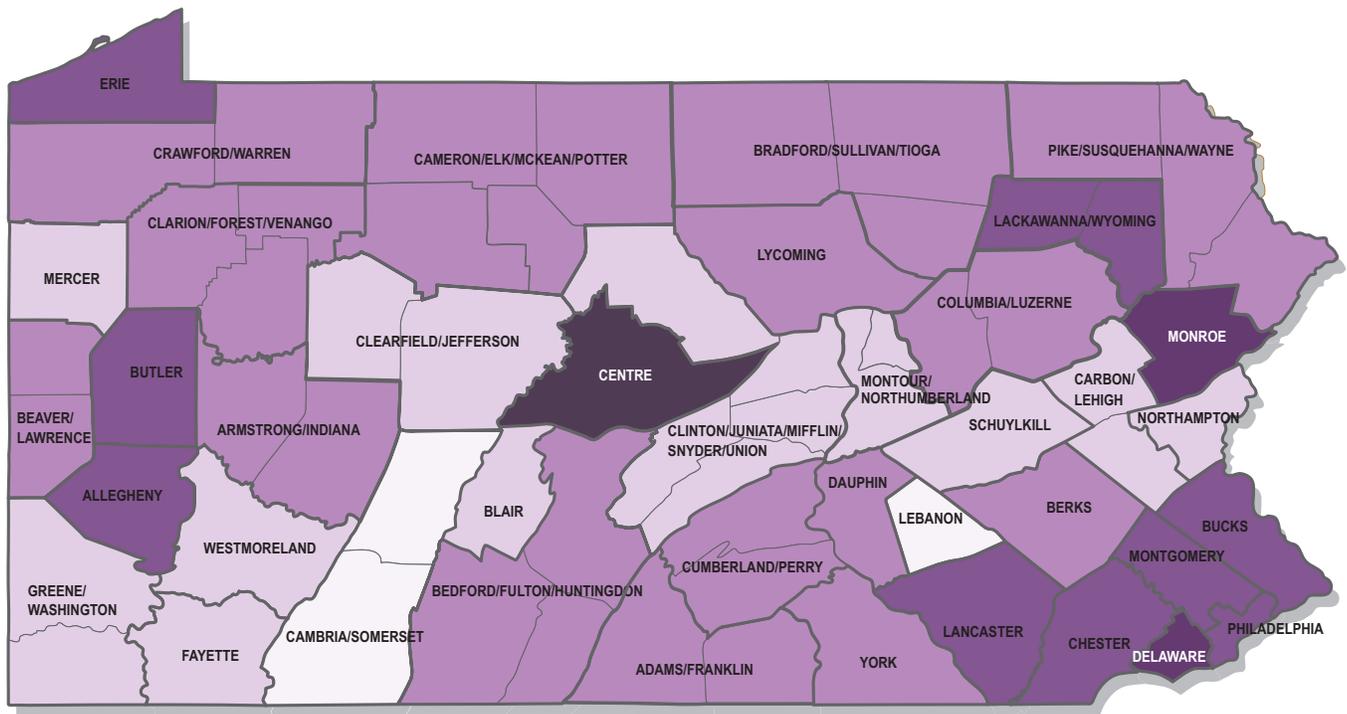
<sup>50</sup> As discussed in Appendix E, the ACS data are not as accurate for smaller geographic areas because the sample size for ACS data is much smaller than that of the decennial census.

### Rental Housing Conditions in 2005-06 by Consolidated PUMAs

Overall, the three areas identified in 2000 as having the greatest incidence of severe cost (the Northeast section of the state bordering New Jersey, Centre County, and the Philadelphia area) continued to face this challenge at mid-decade. As Map 6 illustrates, severe cost burdens were most common among ELI renter households in the following three counties: Centre (91 percent), Monroe (85 percent), and Delaware (82 percent). Severe cost burdens were least common among ELI renters in the Cambria/Somerset area (44 percent) followed by Lebanon County (46 percent).

Table 22 provides more detail for the areas in which ELI renters were most and least likely to have severe cost burdens. In Bucks, Centre, Delaware, and Monroe counties, over 90 percent of ELI renter households had cost burdens. Furthermore, in each of these counties, over three-

Severe Cost Burden Incidence for ELI Renter Households by Consolidated PUMAs in 2005-06



quarters of all ELI renter households had a severe cost burden. The extreme is Centre County, in which 91 percent of ELI renters actually had severe cost burdens.

Even in the areas with the lowest incidence of cost burdens, at least two-thirds of ELI renter households had a cost burden.<sup>51</sup> Furthermore, in all areas except Cambria/Somerset and Lebanon, at least 50 percent of ELI renter households had a severe cost burden. This means that in each area, at least 60 percent of the ELI renter households

that had any cost burden actually had a severe cost burden.

Table 22 also illustrates that throughout the state, LI and VLI renters remain much less likely to face severe cost burdens in 2005-06 than ELI renters, as occurred in 2000. Monroe County had the highest percentage of LI renters with a severe cost burden statewide, but even there, only 11 percent of LI households had a severe cost burden. VLI renters were most often cost burdened in Montgomery County, but there, only 35 percent had severe cost burdens.

<sup>51</sup> The one exception is Blair County, in which 60 percent of ELI renters had a cost burden.

TABLE 22

## Cost Burden Incidence in 2005-06

	% with Any Cost Burden			% with Severe Cost Burden		
	ELI Households	VLI Households	LI Households	ELI Households	VLI Households	LI Households
<b>Pennsylvania Total</b>	<b>84%</b>	<b>67%</b>	<b>29%</b>	<b>69%</b>	<b>21%</b>	<b>3%</b>
<b>Counties with the Largest Percentage of ELI Renters Who Had Severe Cost Burdens</b>						
Centre County	97%	80%	38%	91%	25%	3%
Monroe County	92%	58%	30%	85%	24%	11%
Delaware County	93%	74%	33%	82%	26%	3%
Bucks County	90%	76%	48%	79%	33%	6%
Montgomery County	85%	84%	42%	78%	35%	6%
Chester County	87%	73%	41%	76%	26%	4%
Erie County	83%	68%	22%	74%	28%	2%
<b>Counties with the Smallest Percentage of ELI Renters Who Had Severe Cost Burdens</b>						
Montour/Northumberland Counties	68%	57%	10%	54%	20%	0%
Clearfield/Jefferson Counties	79%	47%	32%	54%	8%	0%
Clinton/Juniata/Mifflin/Snyder/Union Counties	78%	47%	21%	54%	10%	0%
Westmoreland County	74%	59%	17%	52%	22%	0%
Blair County	60%	59%	29%	51%	15%	2%
Fayette County	78%	37%	4%	51%	6%	0%
Lebanon County	78%	54%	31%	46%	6%	4%
Cambria/Somerset Counties	68%	53%	21%	44%	19%	3%

Source: Federal Reserve Bank of Philadelphia calculations based on 2005 and 2006 ACS data, U.S. Census Bureau.

**Shortages of affordable rental housing.** Shortages of affordable housing continued to be most pressing for ELI renters in 2005-06 and have also grown since 2000. Map 7 indicates the areas of Pennsylvania with the most severe affordable housing shortages mid-decade. The five counties identified in the previous section as having the greatest cost burden incidence for ELI renter households (Centre, Monroe, Delaware, Bucks, and Montgomery) also had the greatest shortages in affordable and available rental housing stock mid-decade. Likewise, the Cambria/Somerset area had the lowest severe cost burden incidence for ELI renter households and also had less of a shortage of affordable and available housing units for this

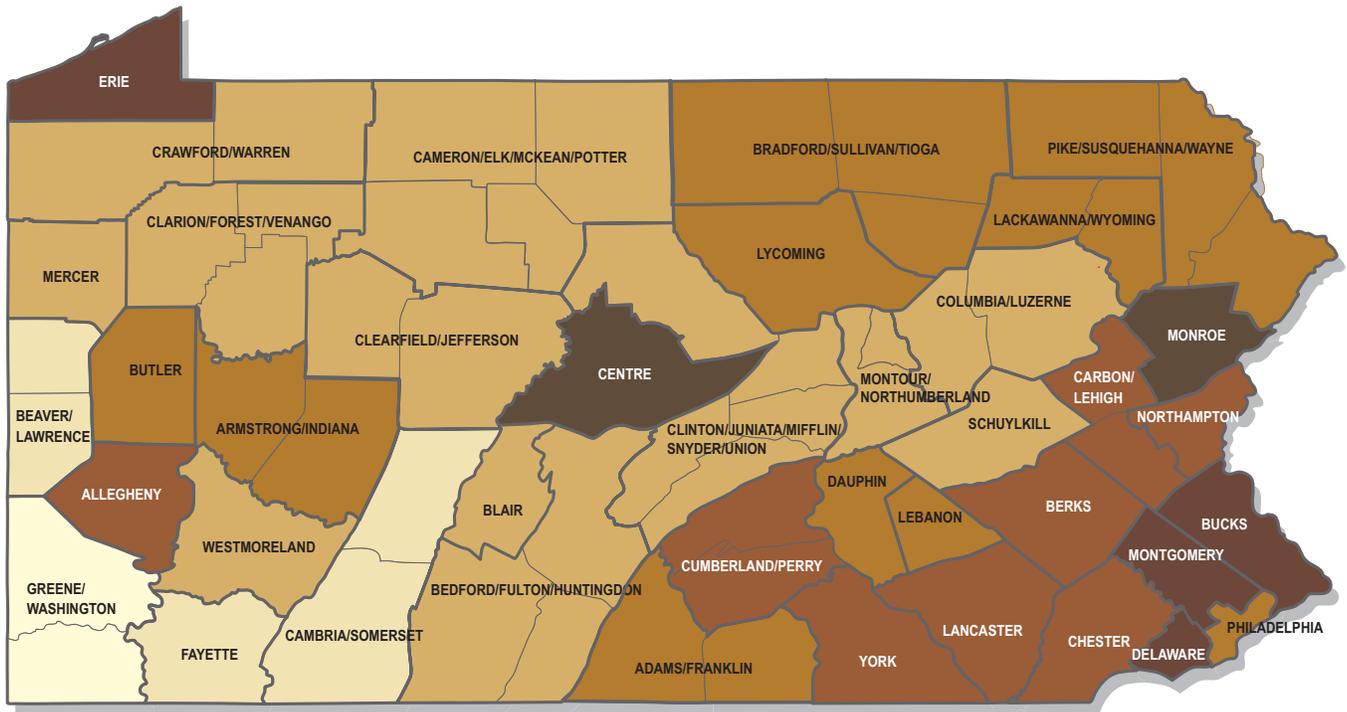
income group than most areas of the state.<sup>52</sup> There is a strong negative correlation between the ratios of affordable and available units and the incidence of severe cost burden.<sup>53</sup> In other words, where there are fewer units per 100 ELI renter households, and thus more severe shortages, more ELI renters have severe cost burdens.

Consistent with 2000 results, Centre County had the greatest shortage of affordable

<sup>52</sup> Fayette County (in the Southwest region) also had a lower incidence of ELI renter households who had severe cost burdens and a smaller shortage of affordable and available housing units.

<sup>53</sup> The correlation coefficient of the number of affordable and available housing units per 100 ELI renters and the incidence of severe cost burden for this income group is -0.87. This coefficient is statistically significant at the 99 percent confidence level.

Affordable and Available Housing Units per 100 ELI Renter Households by Consolidated PUMAs in 2005-06



81 - 90	41 - 50
71 - 80	31 - 40
61 - 70*	21 - 30
51 - 60	11 - 20

and available housing units per 100 ELI renter households and for households with income between 0-50 percent of AMI, with only 15 units and 43 units, respectively. Other counties that had severe shortages of affordable and available housing for ELI renter households in both 2000 and 2005-06 include Monroe and Lancaster counties, as well as the Philadelphia suburban counties of Bucks, Delaware, and Montgomery (Table 23).

Erie County, which fared better than the state average in 2000, faced a severe shortage of 29 units per 100 ELI renter households at mid-decade.<sup>54</sup>

<sup>54</sup> Community leaders in this area noted that the severe and growing

Erie also experienced the most significant decrease in the number of affordable and available units per 100 ELI renter households between 2000 and 2005-06 ( 25 units), which suggests that rental housing affordability was deteriorating in the first half of the previous decade.<sup>55</sup>

Several counties surrounding Allegheny

shortage of rental housing units for ELI households in Erie may also reflect significant job loss and an increase in the number of blighted buildings.

<sup>55</sup> The affordable and available rental housing shortages were also becoming more severe in Berks County between 2000 and 2005-06. There, the number of affordable and available units per 100 ELI renter households fell significantly by 16 units. See Appendix G, Table G.4.

TABLE 23

## Affordable and Available Housing Units in 2005-06 and Changes from 2000

	2005-06			Change from 2000		
	Affordable and Available Units per 100 Renter Households with Household Incomes:			Affordable and Available Units per 100 Renter Households with Household Incomes:		
	0-30% AMI	0-50% AMI	0-80% AMI	0-30% AMI	0-50% AMI	0-80% AMI
<b>Pennsylvania</b>	<b>43</b>	<b>84</b>	<b>110</b>	<b>-6*</b>	<b>-2</b>	<b>2</b>
<b>Areas with the Largest Shortages of Affordable and Available Units Per 100 ELI Households</b>						
Centre County	15	43	94	-9	-12	0
Monroe County	20	55	99	-9	-11	-7
Delaware County	21	72	112	-9*	3	8
Bucks County	25	56	104	-12*	0	6
Montgomery County	27	51	106	-5	-11	6
Erie County	29	79	108	-25*	-14	0
Lancaster County	31	73	104	-7	-8	0
<b>Areas with the Smallest Shortages of Affordable and Available Units Per 100 ELI Households</b>						
Clarion/Forest/ Venango Counties	57	87	112	0	-9	4
Schuylkill County	58	95	103	-18	-16	-12
Blair County	60	107	112	5	13	3
Cambria/Somerset Counties	77	107	112	0	0	0
Beaver/Lawrence Counties	79	100	112	15	4	2
Fayette County	80	113	114	8	4	2
Greene/Washington Counties	82	120	122	14	14	9

\* Changes between 2000 and 2005-06 are statistically significant at the 90 percent confidence level.

Sources: Federal Reserve Bank of Philadelphia calculations based on 2000 CHAS data, U.S. Census Bureau and HUD, and 2005-06 ACS data, U.S. Census Bureau.

County (the Pittsburgh region) in the Southwest corner of Pennsylvania (particularly the areas of Greene/Washington, Fayette, and Beaver/Lawrence) had the greatest number of affordable and available units for ELI renter households. Even though these counties had the highest supply ratios within the state, they still faced shortages of nearly 20 units per 100 ELI renter households. Allegheny County, however, had markedly less affordable and available housing for ELI renters than most of its surrounding counties and was below the state average.<sup>56</sup>

<sup>56</sup> In Allegheny County, there were only 40 affordable and available units per 100 ELI renter households. See Appendix G, Table G.4.

In addition, vacancy rates for a number of these counties in the Southwest region, particularly Washington/Green, were quite high for units affordable to ELI renters (Appendix G, Table G.2).<sup>57</sup> The DCED section detailed that a high vacancy rate could signal an adequate supply of rental housing, but it could also signal too many units of poor quality or units in locations with declining demand. Additional analysis is needed

<sup>57</sup> Although the affordable and available rental shortages were less severe in the Southwest region, community leaders noted that much of the available rental housing stock was of poor quality and that there were many vacant and abandoned units. High vacancy rates in several of the areas in the Southwest region further indicate that the quality of affordable rental housing is likely an issue.

at the local level to determine the cause of high vacancies in this area.

Following the counties in the southwestern corner of the state, another area near the southwestern region, Cambria/Somerset, had a high number of affordable and available units per 100 ELI renter households (77 units). There were fewer than two affordable and available units for every three ELI renter households in all other areas of the state.

In absolute terms, the statewide shortage of housing units affordable and available to ELI renter households grew to over 220,000 by mid-decade. The seven areas with the greatest absolute shortages of rental units affordable and available to ELI renter households were Allegheny, Bucks, Delaware, Carbon/Lehigh, Erie, Montgomery, and Philadelphia. Nearly 60 percent of the state's overall shortage of rental housing units

for ELI households was attributable to these seven counties. As found in 2000, 39 percent of the state's shortage came from Allegheny and Philadelphia counties (Table 24).

Again as in 2000, Table 24 illustrates that in most counties with the largest absolute shortages of units affordable and available to ELI renter households, the shortage of units affordable and available to renters in the wider 0-50 percent income range was absolutely smaller. These data confirm that, at mid-decade, ELI renters had not only the most pressing needs for additional affordable and available units but also that needs had grown significantly since 2000. By contrast, the surplus of units affordable and available to renters with incomes at or below 80 percent of AMI widened statewide after 2000, largely because of a significant rise in Philadelphia County.

TABLE 24  
Actual Shortages/Surpluses in Affordable and Available Housing Units in 2005-06  
and Changes from 2000

	2005-06			Change from 2000		
	Affordable and Available Units with Household Incomes:			Affordable and Available Units with Household Incomes:		
	0-30% AMI	0-50% AMI	0-80% AMI	0-30% AMI	0-50% AMI	0-80% AMI
<b>Pennsylvania</b>	<b>(220,369)</b>	<b>(99,912)</b>	<b>92,412</b>	<b>(50,045)*</b>	<b>(22,962)*</b>	<b>28,112*</b>
<b>Area with the Largest Shortages of Units Affordable and Available to ELI Renter Households</b>						
Philadelphia County	(56,894)	(14,950)	25,896	(7,084)*	4,316	16,106*
Allegheny County	(27,955)	(12,170)	16,788	(6,410)*	(970)	6,458
Delaware County	(11,076)	(7,177)	4,534	(1,881)	(212)	3,174
Bucks County	(9,240)	(8,866)	1,172	(4,415)*	(2,426)	1,682
Montgomery County	(8,629)	(11,896)	2,351	(1,284)	(3,896)*	2,455
Carbon/Lehigh Counties	(8,166)	(6,278)	904	(2,891)*	(2,889)	(1,523)
Erie County	(7,929)	(3,454)	1,946	(4,344)*	(2,529)	16

\* Changes between 2000 and 2005-2006 are statistically significant at the 90 percent confidence level.

Federal Reserve Bank of Philadelphia calculations based on 2000 CHAS data, U.S. Census Bureau and HUD, and 2005-06 ACS data, U.S. Census Bureau.