

### **Income Limits, Affordable Rents, and Fair Market Rents**

An inherent complication of both CHAS data and HUD’s income eligibility rules is the difficulty of translating HUD-adjusted area median family income (HAMFI) or affordability cutoffs into easy-to-understand current dollars (or vice versa). To do this for each Pennsylvania county, Table D.1 lists the 1999 median family incomes (MFI) calculated from 2000 census data that were used in preparing the CHAS tabulations, which varied from \$34,345 in Forest County to \$58,666 in Pike County.<sup>1</sup>

The four-person very low-income limits shown in the second column do not always equal 50 percent of the area MFI (as indicated in the third column) because of some of the adjustments required by law.<sup>2</sup> Specifically, in nonmetropolitan counties very low-income limits can be no less than 50 percent of the average median family income for all nonmetropolitan counties in the state: In 1999 this provision imposed a floor of \$20,850 for nonmetropolitan counties in PA. The official very low-income limit in Forest County, the county with the lowest income, for example, was actually 60.7 percent of that county’s median family income. Extremely low-income limits are not shown in the table because in almost all areas, they are three-fifths of the very low-income limits. As the fourth column of D.1 illustrates, for three-person families, poverty thresholds are close to 30 percent of HAMFI in most Pennsylvania counties.<sup>3</sup>

The fifth, six, and seventh columns indicate the two-bedroom rents affordable to each HAMFI income threshold (for ELI, VLI, and LI renter households). The eighth column of the table lists the official two-bedroom FMRs set by HUD for each county in 1999, while the ninth gives household income — expressed as a percentage of HAMFI — at which these two-bedroom FMRs equal 30 percent of income. A household whose income relative to HAMFI is at or above this percentage would not receive any benefit from a voucher; i.e., this is the point at which the rental subsidy a voucher provides is completely phased out.<sup>4</sup> In all but 13 Pennsylvania counties, this phase-out occurs at a point where income relative to HAMFI is less than 50 percent. This means that in the large majority of Pennsylvania

<sup>1</sup> See HUD’s website for additional information on MFI values and adjustments made in the CHAS data: <http://www.huduser.org/datasets/cp.html>.

<sup>2</sup> The very low-income limit is defined to apply to a family or household of four people. HUD’s household size adjustments define an income limit for a one-person household as 70 percent of this base. Expressed as a percentage of the base, the other household size adjustments are: for two persons, 80 percent; three persons, 90 percent; five persons, 106 percent; six persons, 112 percent; plus an additional 6 percent of base for every additional person.

<sup>3</sup> See <http://www.census.gov/prod/2003pubs/c2kbr-19.pdf> for additional information on the 1999 poverty thresholds.

<sup>4</sup> See the Glossary for the definitions of FMRs, rental subsidy, and vouchers.

counties, some VLI households, while statutorily eligible for the voucher program, would not be able to benefit from it.<sup>5</sup>

The rental subsidy phase-out income is also important for understanding the extent to which the lowest-income households might benefit from the low income housing tax credit (LIHTC) program and the HOME program, both of which are intended to add units affordable to lower-income renters. In particular, the income level relative to HAMFI at which the voucher subsidy phases out is a key indicator of whether units funded by LIHTCs are likely to have below-FMR rents.<sup>6</sup> Adding such units is desirable because it increases the number of units that can be used with a voucher without the voucher holder incurring a cost burden and, more fundamentally, increases the likelihood that a household with a newly issued voucher will be successful in finding a unit where the voucher can be used in the time period allotted for doing so.<sup>7</sup> However, there is no guarantee that LIHTC units will have rents below the FMR. If the rental subsidy from a voucher phases out at a point where income relative to HAMFI is less than 50 percent, this implies that the community's FMR is lower than the maximum rent that the owner of an LIHTC project is allowed to charge for a unit.<sup>8</sup> Then if project owners charge the maximum rent allowed, a household with a voucher will incur a cost burden if it lives in an LIHTC unit.<sup>9</sup> This situation has the potential to occur in the large majority of Pennsylvania counties where the rental subsidy phases out at an income level relative to HAMFI below 50 percent.<sup>10</sup> (See column 9.)

HOME units, for which rents are capped by statute at the FMR, will be affordable, without a subsidy, to any renter whose income is above the rental subsidy phase-out point. Because the phase-out point is in the 41 percent to 49 percent range for the large majority of Pennsylvania counties (see Column 9), HOME units should be affordable to at least some VLI renters in these counties.<sup>11</sup>

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<sup>5</sup> Pennsylvania counties mirror U.S. averages in 2002. As indicated by HUD in its Worst Case Needs series, almost half the U.S. population and three-fourths of the nonmetropolitan population lived in locations where FMRs were affordable to some households with incomes below 50 percent of HAMFI. See HUD (2003), p 73; <http://www.huduser.org/publications/affhsg/worstcase03.html>.

<sup>6</sup> See HUD (2003) pp. 70-72. The LIHTC program is by far the largest source of new subsidized housing in the country.

<sup>7</sup> 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 number of units with below-FMR rents, the harder it will be for the household to find an acceptable affordable unit when its current unit does not meet necessary standards. 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.

<sup>8</sup> By statute, the maximum rent that the owner of an LIHTC project may charge is the rent that is just affordable to a household whose income is 50 percent of HAMFI or the rent that is just affordable to a household whose income is 60 percent of HAMFI, depending on the particular LIHTC project. It can be shown that when the phase-out of the rental subsidy from a voucher occurs at a point where income relative to HAMFI is less than 50 percent, the FMR in that community is less than the rent that is just affordable to a household with an income that is 50 percent of HAMFI; i.e., the FMR is lower than either of the two "maximum allowable rents" that are possible for an LIHTC project.

<sup>9</sup> See the Glossary for an explanation of why a household with a voucher incurs a cost burden if it rents a unit whose rent is higher than the FMR.

<sup>10</sup> If this situation occurred, there would obviously be no gain in the number of units that rent below FMR. However, it is possible that the construction of LIHTC units could still ease the shortage of units affordable and available to the lowest-income households. If households with higher incomes were occupying part of the existing affordable stock but move to the new LIHTC units, some affordable but previously unavailable units may become available to the lowest-income renters.

<sup>11</sup> See the Glossary for information about the HOME program.

TABLE D.1  
Income Limits and Affordable Rents

	1999 Median Family Income	HUD Very Low- Income Limit, Four Person	VLI limit as actual % of Median Family Income	Three- Person Poverty Threshold (\$13,290) as % of HAMFI	Two-Bedroom Rent Affordable at HAMFI Income Thresholds*			Two- Bedroom FMR in 1999	% of HAMFI at Which FMR = 30% of Income
					ELI House- holds	VLI House- holds	LI House- holds		
Adams County	\$48,956	\$24,500	50.0%	27%	\$331	\$551	\$882	\$503	46%
Allegheny County	\$47,712	\$23,850	50.0%	28%	\$322	\$537	\$858	\$495	46%
Armstrong County	\$38,346	\$20,850	54.4%	32%	\$281	\$469	\$750	\$429	46%
Beaver County	\$47,712	\$23,850	50.0%	28%	\$322	\$537	\$858	\$495	46%
Bedford County	\$37,855	\$20,850	55.1%	32%	\$281	\$469	\$750	\$429	46%
Berks County	\$53,531	\$26,750	50.0%	25%	\$361	\$602	\$963	\$544	45%
Blair County	\$40,180	\$20,850	51.9%	32%	\$281	\$469	\$750	\$431	46%
Bradford County	\$40,780	\$20,850	51.1%	32%	\$281	\$469	\$750	\$442	47%
Bucks County	\$58,613	\$29,300	50.0%	23%	\$396	\$659	\$1,055	\$722	55%
Butler County	\$47,712	\$23,850	50.0%	28%	\$322	\$537	\$858	\$495	46%
Cambria County	\$37,610	\$20,850	55.4%	32%	\$281	\$469	\$750	\$439	47%
Cameron County	\$39,342	\$20,850	53.0%	32%	\$281	\$469	\$750	\$429	46%
Carbon County	\$52,462	\$26,250	50.0%	25%	\$354	\$591	\$945	\$669	57%
Centre County	\$50,697	\$25,350	50.0%	26%	\$342	\$570	\$912	\$624	55%
Chester County	\$58,613	\$29,300	50.0%	23%	\$396	\$659	\$1,055	\$722	55%
Clarion County	\$38,028	\$20,850	54.8%	32%	\$281	\$469	\$750	\$429	46%
Clearfield County	\$38,172	\$20,850	54.6%	32%	\$281	\$469	\$750	\$429	46%
Clinton County	\$38,190	\$20,850	54.6%	32%	\$281	\$469	\$750	\$429	46%
Columbia County	\$43,721	\$21,850	50.0%	30%	\$295	\$492	\$786	\$480	49%
Crawford County	\$40,846	\$20,850	51.0%	32%	\$281	\$469	\$750	\$429	46%
Cumberland County	\$52,348	\$26,150	50.0%	25%	\$353	\$588	\$942	\$559	48%
Dauphin County	\$52,348	\$26,150	50.0%	25%	\$353	\$588	\$942	\$559	48%
Delaware County	\$58,613	\$29,300	50.0%	23%	\$396	\$659	\$1,055	\$722	55%
Elk County	\$46,752	\$23,400	50.1%	28%	\$316	\$527	\$843	\$429	41%
Erie County	\$44,845	\$22,400	49.9%	30%	\$303	\$504	\$807	\$441	44%
Fayette County	\$47,712	\$23,850	50.0%	28%	\$322	\$537	\$858	\$495	46%
Forest County	\$34,345	\$20,850	60.7%	32%	\$281	\$469	\$750	\$429	46%
Franklin County	\$47,131	\$23,550	50.0%	28%	\$318	\$530	\$848	\$435	41%
Fulton County	\$40,354	\$20,850	51.7%	32%	\$281	\$469	\$750	\$429	46%
Greene County	\$37,390	\$20,850	55.8%	32%	\$281	\$469	\$750	\$429	46%

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TABLE D.1 CONTINUED

	1999 Median Family Income	HUD Very Low- Income Limit, Four Person	VLI limit as actual % of Median Family Income	Three- Person Poverty Threshold (\$13,290) as % of HAMFI	Two-Bedroom Rent Affordable at HAMFI Income Thresholds*			Two- Bedroom FMR in 1999	% of HAMFI at Which FMR = 30% of Income
					ELI House- holds	VLI House- holds	LI House- holds		
Huntingdon County	\$40,438	\$20,850	51.6%	32%	\$281	\$469	\$750	\$429	46%
Indiana County	\$38,412	\$20,850	54.3%	32%	\$281	\$469	\$750	\$429	46%
Jefferson County	\$37,495	\$20,850	55.6%	32%	\$281	\$469	\$750	\$429	46%
Juniata County	\$39,775	\$20,850	52.4%	32%	\$281	\$469	\$750	\$429	46%
Lackawanna County	\$43,721	\$21,850	50.0%	30%	\$295	\$492	\$786	\$480	49%
Lancaster County	\$52,877	\$26,450	50.0%	25%	\$357	\$595	\$952	\$576	48%
Lawrence County	\$41,644	\$20,850	50.1%	32%	\$281	\$469	\$750	\$429	46%
Lebanon County	\$52,348	\$26,150	50.0%	25%	\$353	\$588	\$942	\$559	48%
Lehigh County	\$52,462	\$26,250	50.0%	25%	\$354	\$591	\$945	\$669	57%
Luzerne County	\$43,721	\$21,850	50.0%	30%	\$295	\$492	\$786	\$480	49%
Lycoming County	\$41,188	\$20,850	50.6%	32%	\$281	\$469	\$750	\$441	47%
McKean County	\$41,044	\$20,850	50.8%	32%	\$281	\$469	\$750	\$429	46%
Mercer County	\$41,853	\$20,950	50.1%	32%	\$282	\$471	\$754	\$439	47%
Mifflin County	\$38,647	\$20,850	53.9%	32%	\$281	\$469	\$750	\$429	46%
Monroe County	\$52,471	\$26,250	50.0%	25%	\$354	\$591	\$945	\$664	56%
Montgomery County	\$58,613	\$29,300	50.0%	23%	\$396	\$659	\$1,055	\$722	55%
Montour County	\$45,261	\$22,650	50.0%	29%	\$306	\$510	\$816	\$451	44%
Northampton County	\$52,462	\$26,250	50.0%	25%	\$354	\$591	\$945	\$669	57%
Northumberland County	\$39,578	\$20,850	52.7%	32%	\$281	\$469	\$750	\$460	49%
Perry County	\$52,348	\$26,150	50.0%	25%	\$353	\$588	\$942	\$559	48%
Philadelphia County	\$58,613	\$29,300	50.0%	23%	\$396	\$659	\$1,055	\$722	55%
Pike County	\$58,666	\$29,350	50.0%	23%	\$396	\$660	\$1,056	\$712	54%
Potter County	\$38,065	\$20,850	54.8%	32%	\$281	\$469	\$750	\$429	46%
Schuylkill County	\$41,414	\$20,850	50.3%	32%	\$281	\$469	\$750	\$447	48%
Snyder County	\$41,986	\$21,000	50.0%	32%	\$284	\$473	\$756	\$430	46%
Somerset County	\$37,610	\$20,850	55.4%	32%	\$281	\$469	\$750	\$439	47%
Sullivan County	\$37,628	\$20,850	55.4%	32%	\$281	\$469	\$750	\$429	46%
Susquehanna County	\$39,601	\$20,850	52.7%	32%	\$281	\$469	\$750	\$429	46%

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TABLE D.1 CONTINUED

	1999 Median Family Income	HUD Very Low- Income Limit, Four Person	VLI limit as actual % of Median Family Income	Three- Person Poverty Threshold (\$13,290) as % of HAMFI	Two-Bedroom Rent Affordable at HAMFI Income Thresholds*			Two- Bedroom FMR in 1999	% of HAMFI at Which FMR = 30% of Income
					ELI House- holds	VLI House- holds	LI House- holds		
Tioga County	\$37,966	\$20,850	54.9%	32%	\$281	\$469	\$750	\$429	46%
Union County	\$47,660	\$23,850	50.0%	28%	\$322	\$537	\$858	\$564	53%
Venango County	\$39,420	\$20,850	52.9%	32%	\$281	\$469	\$750	\$429	46%
Warren County	\$42,907	\$21,450	50.0%	31%	\$289	\$483	\$772	\$429	44%
Washington County	\$47,712	\$23,850	50.0%	28%	\$322	\$537	\$858	\$495	46%
Wayne County	\$40,647	\$20,850	51.3%	32%	\$281	\$469	\$750	\$515	55%
Westmoreland County	\$47,712	\$23,850	50.0%	28%	\$322	\$537	\$858	\$495	46%
Wyoming County	\$43,721	\$21,850	50.0%	30%	\$295	\$492	\$786	\$480	49%
York County	\$52,715	\$26,350	50.0%	25%	\$356	\$593	\$948	\$544	46%

Source: Federal Reserve Bank of Philadelphia calculations based on income limits and FMRs provided on HUD USER: <http://www.huduser.org/datasets/pdrdatas.html>

\* To calculate the monthly dollar rent that is affordable at each HAMFI threshold requires assumptions about the number of people housed per bedroom: no bedrooms, 70 percent of base; one bedroom, 75 percent; two bedrooms, 90 percent; three bedrooms, 104 percent, etc. This formula assumes that an efficiency unit houses one person and a one-bedroom unit houses 1.5 persons, and that each additional bedroom houses another 1.5 persons. Therefore, the two-bedroom rents shown in the table as "affordable" to incomes at 30 percent, 50 percent, and 80 percent of HAMFI are calculated as if three-person families lived in those units.

## Income Distributions of Lower-Income Renter Households and Housing Problems

According to the CHAS data, there were 1,370,602 renter households in Pennsylvania in 2000, of which 24 percent were ELI, 18 percent were VLI, and 22 percent were LI.

At the county level, Philadelphia and Fayette had the highest shares of ELI households, 38 percent and 37 percent, respectively. The Philadelphia suburban counties of Bucks, Chester, and Montgomery, and Montour County had the lowest shares of ELI households.

The prevalence of housing problems varies by county. Over 80 percent of ELI renter households in Centre and Monroe counties had housing problems. Even in counties where the problems are least common, specifically Forest County (49 percent) and Juniata County (52 percent), approximately half of ELI renter households had problems.<sup>12</sup>

Among VLI households, the Philadelphia suburban counties of Bucks, Chester, Delaware, and Montgomery counties had the highest percentage of housing problems.

<sup>12</sup> Forest County has the fewest renter households so its results may well be skewed due to rounding.

TABLE D.2

## Income Distribution and Housing Problems by County in 2000

	Total Renter Households*	% Distribution of Renter Households			% with Any Problem (Housing Unit Problem or Cost Burden)		
		ELI Households	VLI Households	LI Households	ELI Households	VLI Households	LI Households
<b>Pennsylvania Total</b>	<b>1,370,602</b>	<b>24%</b>	<b>18%</b>	<b>22%</b>	<b>71%</b>	<b>63%</b>	<b>28%</b>
Adams County	7,843	16%	17%	26%	69%	64%	24%
Allegheny County	177,059	25%	17%	21%	70%	65%	32%
Armstrong County	6,597	21%	21%	25%	71%	49%	16%
Beaver County	18,177	24%	19%	22%	70%	51%	20%
Bedford County	3,914	21%	16%	27%	67%	49%	16%
Berks County	36,856	23%	18%	24%	71%	65%	27%
Blair County	13,971	25%	21%	20%	69%	56%	23%
Bradford County	5,973	20%	18%	23%	70%	57%	15%
Bucks County	49,495	15%	14%	23%	71%	79%	41%
Butler County	14,618	21%	18%	23%	74%	61%	26%
Cambria County	15,295	25%	22%	22%	63%	50%	12%
Cameron County	618	19%	20%	23%	68%	34%	13%
Carbon County	5,189	28%	20%	25%	69%	52%	13%
Centre County	19,615	29%	22%	21%	81%	75%	36%
Chester County	37,389	14%	13%	21%	76%	78%	43%
Clarion County	4,480	29%	21%	20%	76%	46%	20%
Clearfield County	6,837	24%	22%	23%	64%	44%	15%
Clinton County	3,991	28%	21%	24%	71%	48%	18%
Columbia County	6,952	23%	20%	22%	71%	56%	26%
Crawford County	8,516	22%	20%	24%	70%	58%	26%
Cumberland County	22,372	17%	16%	24%	73%	68%	25%
Dauphin County	35,522	20%	16%	24%	69%	66%	28%
Delaware County	58,019	23%	16%	23%	76%	78%	34%
Elk County	2,896	18%	22%	27%	63%	39%	12%
Erie County	32,728	24%	20%	22%	72%	60%	24%
Fayette County	16,132	37%	20%	21%	66%	39%	8%
Forest County	370	24%	29%	25%	49%	38%	13%
Franklin County	13,153	17%	16%	25%	68%	61%	17%
Fulton County	1,226	22%	18%	22%	61%	51%	11%
Greene County	3,923	28%	23%	22%	68%	44%	14%
Huntingdon County	3,802	21%	19%	22%	57%	41%	14%
Indiana County	9,653	29%	23%	19%	76%	58%	24%
Jefferson County	4,202	25%	23%	23%	62%	51%	13%
Juniata County	1,922	16%	17%	24%	52%	38%	15%
Lackawanna County	27,907	23%	19%	22%	66%	55%	23%
Lancaster County	50,267	17%	17%	25%	77%	70%	27%
Lawrence County	8,435	25%	23%	22%	70%	55%	25%

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TABLE D.2 CONTINUED

	Total Renter Households*	% Distribution of Renter Households			% with Any Problem (Housing Unit Problem or Cost Burden)		
		ELI Households	VLI Households	LI Households	ELI Households	VLI Households	LI Households
<b>Pennsylvania Total</b>	<b>1,370,602</b>	<b>24%</b>	<b>18%</b>	<b>22%</b>	<b>71%</b>	<b>63%</b>	<b>28%</b>
Lebanon County	12,670	21%	20%	25%	65%	51%	19%
Lehigh County	37,989	22%	19%	22%	73%	67%	32%
Luzerne County	38,758	23%	19%	22%	65%	57%	24%
Lycoming County	14,341	20%	19%	24%	71%	67%	31%
McKean County	4,544	23%	22%	21%	73%	55%	18%
Mercer County	11,088	22%	19%	23%	69%	56%	31%
Mifflin County	4,799	26%	20%	22%	66%	51%	17%
Monroe County	10,692	21%	17%	22%	81%	74%	37%
Montgomery County	75,832	14%	13%	21%	74%	77%	43%
Montour County	1,933	15%	18%	25%	78%	52%	26%
Northampton County	27,065	23%	17%	23%	70%	65%	28%
Northumberland County	10,275	21%	23%	23%	65%	51%	14%
Perry County	3,435	19%	21%	24%	64%	46%	12%
Philadelphia County	240,354	38%	17%	19%	72%	66%	30%
Pike County	2,639	22%	20%	28%	76%	68%	26%
Potter County	1,619	20%	23%	21%	65%	65%	24%
Schuylkill County	13,376	21%	22%	22%	57%	50%	18%
Snyder County	3,190	17%	19%	23%	63%	62%	26%
Somerset County	6,853	23%	22%	25%	67%	42%	13%
Sullivan County	556	19%	21%	25%	67%	52%	11%
Susquehanna County	3,430	20%	22%	23%	65%	60%	20%
Tioga County	3,789	24%	22%	23%	65%	51%	17%
Union County	3,527	25%	18%	24%	71%	53%	21%
Venango County	5,362	25%	21%	21%	67%	46%	14%
Warren County	3,835	17%	20%	26%	61%	50%	12%
Washington County	18,549	27%	20%	21%	70%	48%	14%
Wayne County	3,563	20%	21%	22%	73%	64%	24%
Westmoreland County	32,956	24%	20%	23%	65%	51%	13%
Wyoming County	2,271	20%	19%	21%	68%	58%	23%
York County	35,398	19%	18%	26%	74%	66%	18%

Source: Federal Reserve Bank of Philadelphia calculations based on CHAS data, U.S. Census Bureau and HUD, 2000, Tables F5C and F5D, <http://www.huduser.org/datasets/cp.html>

\* For special tabulations of census data, the Census Bureau institutes special rounding rules that cause some discrepancies between total data counts. The total renter-occupied household counts in this table are based on the summation of CHAS files F5C and F5D. These numbers do not match total renter-occupied household counts from the decennial census SF3 file or totals found in other CHAS tables, such as CHAS Table A10C. More information on rounding of special tabulations of the census data is available through HUD: <http://www.huduser.org/datasets/cp/CHAS/Rounding.htm>.

Statewide, 69 percent of the ELI renter households had a cost burden and 53 percent had a severe cost burden. Therefore, over three-fourths of ELI renter households with a cost burden actually had a severe cost burden. At the county level, the same pattern held in 2000. In every county, over 60 percent of the ELI renter households that had a cost burden were actually severely cost burdened.

ELI renters in three different areas of the state faced the greatest severe cost burden challenges. The first area was the Northeast section of the state bordering New Jersey. Monroe County faced the greatest challenge: 68 percent of ELI renter households had severe cost burdens. ELI renters in Pike and Wayne counties also faced high cost burdens. The second area was Centre County, likely because of the presence of Pennsylvania State University and the need to house both the student population and low-income workers, and the third area was the Philadelphia suburban counties, particularly Chester, Delaware, and Montgomery. VLI renters in Centre County and the Philadelphia suburban counties also had high cost burdens.

TABLE D.3  
Cost Burden Incidence in 2000

	% with Any Cost Burden (Rent Greater Than 30% of Income, Moderate or Severe Cost Burden)			% with Severe Cost Burden (Rent Greater Than 50% of Income)		
	ELI Households	VLI Households	LI Households	ELI Households	VLI Households	LI Households
<b>Pennsylvania Total</b>	<b>69%</b>	<b>60%</b>	<b>23%</b>	<b>53%</b>	<b>16%</b>	<b>3%</b>
Adams County	67%	58%	14%	47%	15%	1%
Allegheny County	68%	63%	29%	53%	20%	4%
Armstrong County	69%	47%	14%	52%	11%	0%
Beaver County	69%	49%	17%	46%	12%	1%
Bedford County	65%	47%	11%	48%	8%	1%
Berks County	68%	60%	20%	50%	13%	2%
Blair County	68%	55%	19%	51%	12%	2%
Bradford County	68%	55%	13%	48%	14%	1%
Bucks County	69%	77%	36%	58%	32%	5%
Butler County	71%	58%	24%	56%	13%	4%
Cambria County	63%	48%	10%	42%	7%	1%
Cameron County	68%	31%	10%	44%	3%	0%
Carbon County	69%	50%	10%	48%	7%	0%
Centre County	79%	72%	30%	67%	28%	4%
Chester County	74%	75%	37%	61%	32%	5%
Clarion County	72%	45%	14%	56%	14%	3%
Clearfield County	63%	43%	12%	47%	8%	3%
Clinton County	69%	46%	16%	49%	13%	1%
Columbia County	69%	53%	21%	56%	15%	1%

TABLE CONTINUED ON PAGE 89 →

TABLE D.3 CONTINUED

	% with Any Cost Burden (Rent Greater Than 30% of Income, Moderate or Severe Cost Burden)			% with Severe Cost Burden (Rent Greater Than 50% of Income)		
	ELI Households	VLI Households	LI Households	ELI Households	VLI Households	LI Households
<b>Pennsylvania Total</b>	<b>69%</b>	<b>60%</b>	<b>23%</b>	<b>53%</b>	<b>16%</b>	<b>3%</b>
Crawford County	68%	54%	21%	44%	10%	3%
Cumberland County	72%	67%	23%	57%	16%	2%
Dauphin County	67%	62%	23%	52%	13%	1%
Delaware County	74%	75%	29%	63%	25%	4%
Elk County	63%	36%	10%	48%	8%	1%
Erie County	70%	58%	19%	53%	15%	2%
Fayette County	65%	37%	6%	46%	5%	1%
Forest County	49%	34%	9%	31%	15%	0%
Franklin County	66%	54%	14%	50%	11%	2%
Fulton County	58%	51%	8%	42%	7%	0%
Greene County	64%	43%	9%	44%	9%	3%
Huntingdon County	56%	38%	10%	38%	7%	0%
Indiana County	74%	55%	21%	57%	16%	3%
Jefferson County	60%	48%	11%	41%	8%	1%
Juniata County	47%	35%	10%	35%	8%	1%
Lackawanna County	65%	54%	22%	48%	14%	1%
Lancaster County	74%	65%	22%	58%	17%	3%
Lawrence County	67%	52%	22%	45%	14%	2%
Lebanon County	63%	45%	14%	40%	8%	1%
Lehigh County	70%	63%	27%	52%	18%	2%
Luzerne County	64%	56%	22%	47%	14%	1%
Lycoming County	70%	66%	26%	56%	19%	2%
McKean County	72%	55%	16%	58%	13%	2%
Mercer County	67%	55%	26%	51%	14%	2%
Mifflin County	63%	47%	15%	49%	7%	1%
Monroe County	80%	74%	33%	68%	19%	2%
Montgomery County	72%	74%	39%	61%	29%	6%
Montour County	75%	48%	21%	50%	26%	5%
Northampton County	69%	60%	25%	52%	17%	2%
Northumberland County	64%	49%	13%	44%	13%	1%
Perry County	61%	43%	8%	39%	9%	1%
Philadelphia County	69%	59%	21%	55%	14%	3%
Pike County	76%	68%	20%	61%	21%	1%
Potter County	64%	63%	18%	50%	17%	3%
Schuylkill County	56%	49%	14%	38%	9%	1%
Snyder County	59%	56%	21%	45%	12%	1%

TABLE CONTINUED ON PAGE 90 →

TABLE D.3 CONTINUED

	% with Any Cost Burden (Rent Greater Than 30% of Income, Moderate or Severe Cost Burden)			% with Severe Cost Burden (Rent Greater Than 50% of Income)		
	ELI Households	VLI Households	LI Households	ELI Households	VLI Households	LI Households
<b>Pennsylvania Total</b>	<b>69%</b>	<b>60%</b>	<b>23%</b>	<b>53%</b>	<b>16%</b>	<b>3%</b>
Somerset County	65%	40%	11%	48%	6%	2%
Sullivan County	59%	49%	6%	39%	14%	0%
Susquehanna County	64%	58%	14%	49%	14%	2%
Tioga County	65%	48%	12%	50%	12%	0%
Union County	68%	50%	18%	54%	16%	6%
Venango County	66%	43%	12%	46%	10%	1%
Warren County	59%	47%	10%	41%	6%	2%
Washington County	69%	45%	12%	45%	9%	0%
Wayne County	72%	63%	20%	63%	21%	1%
Westmoreland County	65%	49%	11%	44%	9%	1%
Wyoming County	66%	58%	20%	53%	16%	2%
York County	71%	62%	14%	53%	12%	1%

Source: Federal Reserve Bank of Philadelphia calculations based on CHAS data, U.S. Census Bureau and HUD, 2000, Tables F5C and F5D, <http://www.huduser.org/datasets/cp.html>

While severe cost burden afflicted over half of ELI renters statewide in 2000, housing unit problems were far less common. In every county, being cost burdened was far more prevalent for renter households than having a housing unit problem.

A few counties have a particularly high percentage of ELI renter households with at least one housing unit problem, but there do not appear to be any regional patterns to this occurrence. These counties include Berks, Centre, Clarion, Lancaster, and Philadelphia.

TABLE D.4  
Housing Unit Problems in 2000

	% with At Least One Housing Unit Problem		
	ELI Households	VLI Households	LI Households
<b>Pennsylvania Total</b>	<b>7%</b>	<b>6%</b>	<b>5%</b>
Adams County	7%	7%	10%
Allegheny County	4%	4%	3%
Armstrong County	5%	3%	2%
Beaver County	4%	3%	3%
Bedford County	5%	3%	4%
Berks County	12%	9%	8%
Blair County	3%	3%	4%
Bradford County	2%	6%	2%
Bucks County	9%	5%	7%
Butler County	4%	5%	4%
Cambria County	2%	3%	2%
Cameron County	3%	3%	3%
Carbon County	3%	2%	4%
Centre County	11%	12%	9%
Chester County	7%	6%	8%
Clarion County	12%	2%	7%
Clearfield County	3%	3%	5%
Clinton County	3%	4%	2%
Columbia County	4%	6%	5%
Crawford County	6%	5%	7%
Cumberland County	5%	3%	4%
Dauphin County	10%	7%	6%
Delaware County	8%	8%	6%
Elk County	2%	3%	2%
Erie County	7%	4%	5%
Fayette County	4%	3%	3%
Forest County	4%	4%	4%
Franklin County	5%	9%	3%
Fulton County	5%	2%	4%
Greene County	8%	4%	6%
Huntingdon County	5%	3%	5%
Indiana County	5%	6%	4%
Jefferson County	3%	4%	2%
Juniata County	7%	4%	5%
Lackawanna County	2%	2%	2%
Lancaster County	11%	8%	5%
Lawrence County	4%	6%	3%

	% with At Least One Housing Unit Problem		
	ELI Households	VLI Households	LI Households
<b>Pennsylvania Total</b>	<b>7%</b>	<b>6%</b>	<b>5%</b>
Lebanon County	7%	7%	5%
Lehigh County	10%	7%	6%
Luzerne County	3%	3%	2%
Lycoming County	5%	3%	5%
McKean County	3%	3%	2%
Mercer County	4%	3%	5%
Mifflin County	4%	7%	2%
Monroe County	6%	3%	6%
Montgomery County	7%	6%	5%
Montour County	8%	8%	6%
Northampton County	7%	7%	5%
Northumberland County	2%	3%	2%
Perry County	5%	5%	4%
Philadelphia County	11%	12%	9%
Pike County	2%	2%	7%
Potter County	6%	8%	7%
Schuylkill County	3%	2%	3%
Snyder County	10%	7%	5%
Somerset County	6%	3%	3%
Sullivan County	7%	3%	6%
Susquehanna County	6%	3%	6%
Tioga County	1%	4%	5%
Union County	4%	4%	6%
Venango County	2%	4%	3%
Warren County	4%	3%	2%
Washington County	5%	4%	3%
Wayne County	2%	7%	5%
Westmoreland County	3%	2%	2%
Wyoming County	4%	1%	3%
York County	8%	6%	5%

Source: Federal Reserve Bank of Philadelphia calculations based on CHAS data, U.S. Census Bureau and HUD, 2000, Tables F5C and F5D, <http://www.huduser.org/datasets/cp.html>

## Shortages of Affordable Rental Housing

Table D.5 lists both the affordable and the affordable and available units per 100 renter households by county for Pennsylvania. The Philadelphia metropolitan division<sup>13</sup> and Centre County had the fewest units affordable to ELI renters. At the county level, Centre and Delaware counties had the fewest units affordable to ELI renters, with 54 and 56 units per 100 renter households, respectively. They were followed by three other counties within the Philadelphia metropolitan division: Philadelphia, Montgomery, and Bucks.

There did not appear to be shortages of affordable rental units for VLI or LI renters across the state. Centre County is the only county with a very modest shortage for renter households with incomes between 0-50 percent of AMI (95 units per 100 renter households).

While these ratios appear to show adequate supplies of affordable housing units in many areas of Pennsylvania, closer analysis shows that many units were not actually available to the lowest income renters. The second half of the table details the actual shortage of rental housing units to renters at each threshold.

The previous section identified three areas within the state in which ELI renters faced severe cost burdens (the Northeast section bordering New Jersey, Centre County, and the Philadelphia suburban counties). These areas were also the areas with the greatest shortage of affordable and available housing units per 100 renter households. In addition, the Lancaster area had a notable shortage of affordable rental housing.

Cambria, Elk, and Juniata counties had the greatest supply of affordable and available housing units per 100 ELI renter households. In each of these counties, there were over 80 units of affordable and available housing per 100 renter households.

<sup>13</sup> The Philadelphia metropolitan division includes the county of Philadelphia and the four suburban counties of Bucks, Chester, Delaware, and Montgomery. Also, the city and county of Philadelphia constitute the same area. For a list of all metropolitan statistical areas and metropolitan divisions in the United States, see: <http://www.whitehouse.gov/omb/assets/omb/bulletins/fy2009/09-01.pdf>.

TABLE D.5  
Affordable and Affordable and Available Housing Units Per 100 Renter Households in 2000

	Affordable Units per 100 Renter Households			Affordable and Available Units per 100 Renter Households		
	0-30% AMI	0-50% AMI	0-80% AMI	0-30% AMI	0-50% AMI	0-80% AMI
<b>Pennsylvania Total</b>	<b>96</b>	<b>152</b>	<b>157</b>	<b>49</b>	<b>87</b>	<b>107</b>
Adams County	123	210	175	42	86	105
Allegheny County	90	140	161	51	85	109
Armstrong County	157	197	158	56	97	109
Beaver County	140	180	162	64	99	111
Bedford County	183	228	165	59	99	110
Berks County	96	165	160	52	92	108

TABLE CONTINUED ON PAGE 93 →

TABLE D.5 CONTINUED

	Affordable Units per 100 Renter Households			Affordable and Available Units per 100 Renter Households		
	0-30% AMI	0-50% AMI	0-80% AMI	0-30% AMI	0-50% AMI	0-80% AMI
<b>Pennsylvania Total</b>	<b>96</b>	<b>152</b>	<b>157</b>	<b>49</b>	<b>87</b>	<b>107</b>
Blair County	109	159	156	54	93	109
Bradford County	160	211	172	65	102	111
Bucks County	75	114	173	37	56	98
Butler County	114	172	157	47	89	105
Cambria County	170	196	158	82	108	113
Cameron County	201	240	181	70	123	120
Carbon County	125	196	151	65	111	115
Centre County	54	95	128	24	55	94
Chester County	98	132	181	39	64	100
Clarion County	127	166	150	53	90	108
Clearfield County	159	188	151	63	101	108
Clinton County	121	153	141	56	88	105
Columbia County	111	177	160	45	95	108
Crawford County	143	188	161	59	98	110
Cumberland County	103	171	180	42	83	110
Dauphin County	102	168	174	56	93	114
Delaware County	56	121	158	30	69	104
Elk County	215	236	160	83	116	113
Erie County	112	165	157	54	94	109
Fayette County	138	175	140	72	109	112
Forest County	237	189	137	70	103	108
Franklin County	154	236	182	63	104	111
Fulton County	200	236	177	66	107	112
Greene County	167	173	146	69	98	109
Huntingdon County	195	218	171	73	103	110
Indiana County	102	138	143	40	82	105
Jefferson County	158	182	147	65	99	108
Juniata County	263	267	181	86	108	108
Lackawanna County	122	172	166	57	95	112
Lancaster County	88	179	169	38	82	104
Lawrence County	133	150	147	63	90	108
Lebanon County	122	206	159	56	103	109
Lehigh County	80	127	161	43	76	108
Luzerne County	127	180	164	58	99	112
Lycoming County	104	164	164	46	86	109
McKean County	131	178	157	55	96	110
Mercer County	132	163	164	61	88	108

TABLE CONTINUED ON PAGE 94 →

TABLE D.5 CONTINUED

	Affordable Units per 100 Renter Households			Affordable and Available Units per 100 Renter Households		
	0-30% AMI	0-50% AMI	0-80% AMI	0-30% AMI	0-50% AMI	0-80% AMI
<b>Pennsylvania Total</b>	<b>96</b>	<b>152</b>	<b>157</b>	<b>49</b>	<b>87</b>	<b>107</b>
Mifflin County	123	191	155	57	107	112
Monroe County	76	126	167	29	67	106
Montgomery County	71	123	181	32	62	100
Montour County	153	221	181	54	98	109
Northampton County	85	142	161	46	80	106
Northumberland County	164	197	162	70	103	113
Perry County	182	226	167	69	109	112
Philadelphia County	67	126	136	45	85	106
Pike County	86	134	146	33	72	105
Potter County	143	180	164	53	88	108
Schuylkill County	177	207	168	76	110	115
Snyder County	167	200	172	56	88	106
Somerset County	172	206	151	65	106	108
Sullivan County	240	248	171	73	112	115
Susquehanna County	162	187	163	59	94	110
Tioga County	137	165	151	54	89	107
Union County	107	180	150	44	90	104
Venango County	144	191	156	61	101	110
Warren County	172	235	173	62	112	115
Washington County	131	183	157	67	107	114
Wayne County	133	151	167	41	74	109
Westmoreland County	139	195	160	65	105	113
Wyoming County	135	176	171	46	83	107
York County	108	201	169	52	96	110

Source: Federal Reserve Bank of Philadelphia calculations based on CHAS data, U.S. Census Bureau and HUD, 2000, Tables A10C and A12, <http://www.huduser.org/datasets/cp.html>

In absolute terms, there is a shortage of 170,324 affordable and available housing units for ELI renter households in the state of Pennsylvania. From this measure, the five counties with the greatest shortages of affordable and available housing units for ELI renter households are Allegheny, Delaware, Lancaster, Montgomery, and Philadelphia. Furthermore, 55 percent of the state's overall shortage of 170,324 rental housing units for ELI households can be attributed to these five counties.

TABLE D.6

## Absolute Shortages/Surpluses of Affordable and Available Housing Units in 2000

	Affordable and Available Units		
	0-30% AMI	0-50% AMI	0-80% AMI
<b>Pennsylvania Total</b>	<b>(170,324)</b>	<b>(76,950)</b>	<b>64,300</b>
Adams County	(729)	(353)	238
Allegheny County	(21,545)	(11,200)	10,330
Armstrong County	(590)	(94)	386
Beaver County	(1,580)	(44)	1,347
Bedford County	(339)	(13)	252
Berks County	(4,085)	(1,140)	1,790
Blair County	(1,605)	(433)	847
Bradford County	(422)	44	401
Bucks County	(4,825)	(6,440)	(510)
Butler County	(1,650)	(620)	460
Cambria County	(684)	551	1,397
Cameron County	(35)	55	77
Carbon County	(525)	266	586
Centre County	(4,345)	(4,500)	(855)
Chester County	(3,255)	(3,710)	(5)
Clarion County	(618)	(228)	234
Clearfield County	(608)	17	357
Clinton County	(489)	(229)	137
Columbia County	(885)	(160)	382
Crawford County	(755)	(75)	560
Cumberland County	(2,168)	(1,252)	1,223
Dauphin County	(3,195)	(874)	3,067
Delaware County	(9,195)	(6,965)	1,360
Elk County	(87)	190	255
Erie County	(3,585)	(925)	1,930
Fayette County	(1,629)	852	1,527
Forest County	(25)	6	22
Franklin County	(845)	156	827
Fulton County	(86)	30	83
Greene County	(338)	(31)	254
Huntingdon County	(213)	42	239
Indiana County	(1,685)	(924)	360
Jefferson County	(360)	(13)	238
Juniata County	(42)	50	92
Lackawanna County	(2,725)	(560)	2,220
Lancaster County	(5,275)	(3,095)	1,295

	Affordable and Available Units		
	0-30% AMI	0-50% AMI	0-80% AMI
<b>Pennsylvania Total</b>	<b>(170,324)</b>	<b>(76,950)</b>	<b>64,300</b>
Lawrence County	(804)	(389)	462
Lebanon County	(1,160)	166	776
Lehigh County	(4,750)	(3,655)	1,840
Luzerne County	(3,765)	(155)	2,920
Lycoming County	(1,515)	(780)	825
McKean County	(463)	(77)	287
Mercer County	(950)	(555)	570
Mifflin County	(529)	152	391
Monroe County	(1,570)	(1,354)	391
Montgomery County	(7,345)	(8,000)	(105)
Montour County	(132)	(10)	101
Northampton County	(3,420)	(2,135)	1,100
Northumberland County	(658)	153	877
Perry County	(202)	129	260
Philadelphia County	(49,810)	(19,265)	9,790
Pike County	(389)	(314)	91
Potter County	(150)	(80)	77
Schuylkill County	(690)	601	1,282
Snyder County	(245)	(138)	112
Somerset County	(538)	194	392
Sullivan County	(27)	25	49
Susquehanna County	(278)	(90)	222
Tioga County	(424)	(187)	189
Union County	(499)	(143)	87
Venango County	(519)	26	350
Warren County	(244)	172	352
Washington County	(1,674)	652	1,792
Wayne County	(423)	(382)	200
Westmoreland County	(2,735)	800	2,869
Wyoming County	(249)	(152)	98
York County	(3,145)	(540)	2,250

Source: Federal Reserve Bank of Philadelphia calculations based on CHAS data, U.S. Census Bureau and HUD, 2000, Tables A10C and A12, <http://www.huduser.org/datasets/cp.html>

## 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. For example, a high vacancy rate could signal an adequate supply of rental housing, but it could also result from too many units of poor quality and/or units in locations with declining demand.

At the county level, there is a moderate positive correlation between vacancy rates and the number of affordable and available units per 100 ELI renter households.<sup>14</sup> Indeed, low vacancy rates can indicate a need for additional affordable rental housing units. For example, Pike and Monroe counties have two of the lowest vacancy rates in the state for units affordable to ELI renters (2 percent and 4 percent, respectively) and also have some of the most severe rental housing shortages per 100 ELI renters (see Table D.5). But other counties with very low vacancy rates —Forest, Montour, and Snyder — do not have such severe shortages of affordable and available rental housing.

Two of the three counties with the lowest shortage of affordable housing units per 100 renter households, Cambria and Elk, also have the two highest vacancy rates among units affordable to ELI renter households.

<sup>14</sup> The correlation coefficient of the ratios of affordable and available housing units per 100 ELI renters and vacancy rates for this income group is 0.52 and is statistically significant at the 99 percent confidence level.

TABLE D.7  
Vacancy Rates by Rental Affordability in 2000

	Vacancy Rates			
	ELI Households	VLI Households	LI Households	Total Vacancy
<b>Pennsylvania Total</b>	<b>10%</b>	<b>9%</b>	<b>4%</b>	<b>7%</b>
Adams County	7%	4%	2%	4%
Allegheny County	13%	12%	5%	9%
Armstrong County	8%	7%	3%	6%
Beaver County	10%	9%	4%	8%
Bedford County	8%	8%	2%	7%
Berks County	10%	8%	3%	7%
Blair County	9%	9%	2%	7%
Bradford County	10%	9%	1%	7%
Bucks County	3%	7%	4%	4%
Butler County	9%	7%	2%	7%
Cambria County	15%	6%	4%	9%
Cameron County	10%	16%	4%	12%
Carbon County	15%	9%	7%	11%
Centre County	7%	3%	2%	4%
Chester County	5%	9%	3%	5%
Clarion County	9%	4%	8%	6%
Clearfield County	7%	7%	2%	6%

TABLE CONTINUED ON PAGE 97 →

TABLE D.7 CONTINUED

	Vacancy Rates			
	ELI Households	VLI Households	LI Households	Total Vacancy
<b>Pennsylvania Total</b>	<b>10%</b>	<b>9%</b>	<b>4%</b>	<b>7%</b>
Clinton County	8%	5%	2%	5%
Columbia County	14%	7%	1%	7%
Crawford County	10%	9%	3%	8%
Cumberland County	7%	7%	6%	7%
Dauphin County	13%	11%	6%	9%
Delaware County	7%	10%	4%	6%
Elk County	16%	6%	3%	9%
Erie County	12%	9%	4%	8%
Fayette County	12%	8%	4%	9%
Forest County	4%	11%	9%	8%
Franklin County	9%	9%	1%	7%
Fulton County	10%	6%	2%	7%
Greene County	9%	8%	3%	7%
Huntingdon County	9%	6%	5%	7%
Indiana County	9%	9%	5%	7%
Jefferson County	8%	7%	1%	6%
Juniata County	7%	6%	1%	5%
Lackawanna County	9%	12%	4%	8%
Lancaster County	8%	6%	3%	5%
Lawrence County	8%	10%	2%	7%
Lebanon County	9%	7%	4%	7%
Lehigh County	7%	10%	5%	7%
Luzerne County	8%	12%	4%	9%
Lycoming County	7%	11%	4%	7%
McKean County	10%	8%	3%	7%
Mercer County	9%	9%	2%	7%
Mifflin County	12%	10%	0%	9%
Monroe County	4%	10%	4%	6%
Montgomery County	5%	11%	4%	6%
Montour County	4%	13%	2%	8%
Northampton County	4%	10%	4%	6%
Northumberland County	11%	10%	3%	9%
Perry County	12%	7%	2%	8%
Philadelphia County	12%	7%	4%	7%
Pike County	2%	9%	3%	5%
Potter County	9%	7%	5%	7%
Schuylkill County	12%	11%	3%	10%
Snyder County	4%	8%	3%	5%
Somerset County	10%	6%	1%	7%

TABLE CONTINUED ON PAGE 98 →

TABLE D.7 CONTINUED

	Vacancy Rates			
	ELI Households	VLI Households	LI Households	Total Vacancy
<b>Pennsylvania Total</b>	<b>10%</b>	<b>9%</b>	<b>4%</b>	<b>7%</b>
Sullivan County	8%	14%	0%	10%
Susquehanna County	8%	9%	3%	7%
Tioga County	7%	8%	3%	6%
Union County	4%	6%	10%	6%
Venango County	10%	6%	1%	6%
Warren County	12%	12%	1%	10%
Washington County	14%	10%	3%	10%
Wayne County	4%	14%	4%	7%
Westmoreland County	11%	10%	4%	9%
Wyoming County	7%	7%	2%	5%
York County	14%	7%	4%	7%

Source: Federal Reserve Bank of Philadelphia calculations based on CHAS data, U.S. Census Bureau and HUD, 2000, Table A12, <http://www.huduser.org/datasets/cp.html>