Kentucky Housing Needs Assessment: Phase II

A Report to the Kentucky Housing Corporation

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Executive Summary

Scope of Phase II

This *Phase II* report updates our earlier report, *Kentucky Housing Needs Assessment: Phase I* (*KHNA:I*). The main focus of *Phase II* is on data from the 2000 Census that were not available when *Phase I* was completed. In particular, long form data on individual and household characteristics and housing conditions and costs had not yet been released when the *Phase I* report was completed. We also update other data series if relevant new information is available.

We place particular emphasis on the calculation of low-income rates and of housing cost burdens for low-income renter and owner households. We rank counties according to rental cost burdens, both in terms of absolute numbers and percentages of renter households with unaffordable housing costs (that is, paying more than 30% of household income on housing). We also rank counties using an index of housing conditions based on adequacy of plumbing and kitchen facilities and crowding. As for the cost burden rankings, these rankings are with respect to both absolute numbers and percentages of dwellings in each county.

Income and Poverty Trends

In real terms, median household incomes in Kentucky were nearly stagnant over the 20-year period from 1979 to 1999. This masks a lot of variation across the state. The Big Sandy Area Development District (ADD) suffered a nearly 27% decline over the same period, while Lincoln Trail saw a 14% improvement. Poverty rates also vary considerably across the state. While Kentucky as a whole had a poverty rate of nearly 16% according to the 2000 census, the Kentucky River ADD had a 31% rate and Northern Kentucky had 9% poverty.

Based on 1999 incomes, about 42% of all households were classified as low-income (below 80% of area median income), using U.S. Department of Housing and Urban Development (HUD) standards. Nearly 26% were “very” low income (below 50% of area median) and 14% were “extremely” low income (below 30%). Some 58% of elderly households were low income, as were 60% of black households. Renters were about twice as likely as owners to be low income: 65% versus 33%.

Given the relationship between educational attainment and income and, in turn, between income and housing outcomes, we report educational attainment statistics from the census. Although the 2000

census showed continued gains for Kentucky, the state still lags well behind national figures.

Housing Trends

Mobile homes have continued to expand their share of the housing stock in Kentucky, rising from 12.3% in 1990 to 14.1% in 2000. Around 2000, however, new mobile home sales dropped off substantially, apparently due to large numbers of repossessions and a growing stock of pre-owned homes. Low downpayment requirements for mobile home purchase have been blamed for this situation.

Housing conditions have continued to improve in all of the areas tracked by the census: plumbing facilities, kitchen facilities, access to telephone services, and crowding. We averaged the numbers of units in each county with inadequate plumbing, kitchens, and overcrowding to create an index of housing conditions. The counties were ranked both in terms of absolute numbers of units with problems and the percentage of units with problems. In terms of absolute numbers, Jefferson and Fayette counties top the list; in terms of percentages, Elliott and Owsley counties are the worst cases.

Foreclosure rates in Kentucky have continued to worsen. As of the first quarter of 2003, the foreclosure rates for Veterans Administration-guaranteed loans and Federal Housing Administration-insured loans were 3.3% and 3.0%; the rate for conventional loans was 1.6%. The overall foreclosure rate in 2002 was more than four times higher than the rate in 1995. High mortgage debt-to-value ratios, expansion of consumer credit, predatory lending practices, and the poor economy have all been blamed for this trend.

Housing Cost Burdens

Using HUD criteria, some 55% of low-income renters experienced high housing cost burdens in 2000. These 130,000 households paid more than 30% of their income on housing costs. About half of those households, 27%, had extreme housing cost burdens, paying more than 50% of income on rent and utilities. In percentage terms, these numbers have remained fairly constant over the past two decades.

We rank counties with respect to affordability of rental housing, both in absolute numbers and percentage terms. In absolute numbers, Jefferson and Fayette counties are at the top of the list. In percentage terms, Boone and Fayette are the worst cases.

According to a census of assisted rental housing conducted by the Kentucky Housing Corporation in 2003, there are 102,400 subsidized units available. The largest subsidy programs are the Section 8 tenant-

based (Housing Choice Voucher) program, with 31,600 units, followed by the Section 8 project-based program, with 30,700 units. Other large programs are Public Housing (23,500 units), the Low Income Housing Tax Credit program (17,600 units), and the Section 515 program of the Rural Housing Service (12,200 units). Some 43,800 of these units rely upon multiple funding sources.

We compare the number of unassisted low-income renter households, which is about 133,400, with the number of households with unaffordable cost burdens, about 130,000. This comparison indicates that unassisted low-income households are not able to find affordable housing.

Perhaps the most striking and worrisome finding of this report is the fact that the number of low-income owner households with unaffordable cost burdens—up from 87,100 in 1990 to 126,700 in 2000—has now grown to nearly match the corresponding number of low-income renters—130,000. Many of the same factors that have been cited to account for the rise in the foreclosure rate probably also explain this phenomenon.

Special Needs

With respect to other special needs groups, we provide new information on the needs of the elderly, the disabled, the migrant Latino population, and small and large low-income households. Relatively little new information is available that is relevant to the needs of the population with HIV/AIDS or the homeless.

In regard to the elderly, we update the population projections for 2010 and 2020. We also calculate cost burdens for low-income elderly renters and owners and simulate the potential impacts of reverse mortgages on low-income rates among the elderly. We conclude that reverse mortgages could move about 14,000 low-income elderly households from below to above the low-income threshold. This represents about 7% of all elderly low-income households.

For low-income working age households with a disabled householder or spouse, we calculate cost burdens and compare those with cost burdens for comparable households without disabled persons. Although the cost burden differences are relatively small, it must be recognized that households with disabled persons are more likely to be in the low-income category to begin with.

For the migrant Latino population, we provide a range of population estimates for Kentucky—from 70,700 to 90,300—based on data from the *Census of Agriculture* and other sources. These estimates are also provided on a county-by-county basis. We also provide a more detailed discussion of the main housing issues facing the migrant

Latino population. As many of these workers are below the poverty level and most are low-income, they represent a sizable, although partly seasonal, need for affordable housing.

Survey data collected as part of the Kentucky Welfare Reform Evaluation Project are used to document the relationship between welfare reform and housing needs. Focusing on participants in the Kentucky Transitional Assistance Program (K-TAP), we look at housing satisfaction, housing subsidies, and cost burdens. With respect to cost burdens, we note that less than a quarter of K-TAP recipients also received housing subsidies. Those who did receive subsidies were less likely to experience excessive cost burdens than those who did not. Some 53% of those who were discontinued from K-TAP because they reached the 60-month time limit were experiencing excessive cost burdens.

Future Research

Future research on housing needs in Kentucky should benefit from the introduction of the American Community Survey, which will replace the long form of the decennial census. Statewide Public Use Microdata Samples (PUMS) will be available annually, as will data for cities, counties and metropolitan areas of 65,000 or more population. For smaller areas, data will be accumulated over three- to five-year periods. The annual data for the entire state will permit an annual update of some of the basic statistical indicators of housing need, such as our estimates of the low-income population and housing cost burdens. Analysis of the state's larger counties could also be updated annually.

Chapter 1
Introduction

The purpose of this *Phase II* report is to update and accompany our earlier report, *Kentucky Housing Needs Assessment: Phase I.* The main focus here is on data from the 2000 Census that were not available when *Phase I* was completed. In particular, long form data on individual and household characteristics and housing conditions and costs had not yet been released when the *Phase I* report was completed. We also update other data series where relevant new information is available.

We place particular emphasis on the calculation of low-income (that is, below 80% of area median income) rates and of housing cost burdens for low-income renter and owner households. We rank counties according to rental cost burdens, both in terms of absolute numbers and percentages of renter households with unaffordable housing costs (that is, paying more than 30% of household income on housing). We also document changes in the distribution of housing types and in housing conditions. We rank counties using an index of housing conditions based on adequacy of plumbing, kitchen facilities, and crowding. These rankings are also with respect to both absolute numbers and percentages of dwellings in each county. We also provide an update of data on past-due and foreclosure rates for home mortgages.

With respect to other special needs groups, we provide new information on the needs of the elderly, the disabled, the migrant Latino population, and small and large low-income households. Survey data collected as part of the Kentucky Welfare Reform Evaluation Project are used to document the relationship between welfare reform and housing needs. We focus on housing satisfaction, housing subsidies, and cost burdens. Among other things, we look at how the Earned Income Tax Credit affects housing cost burdens.

In regard to the elderly, we provide updated population projections for 2010 and 2020. We also calculate cost burdens for low-income elderly renters and owners and simulate the potential impacts of reverse mortgages on low-income rates among the elderly. For low-income households with a disabled householder or spouse, we calculate cost burdens and compare those with cost burdens for low-income households without disabled persons. For the migrant Latino population, we provide a range of population estimates based on data from the *Census of Agriculture* and other sources. These estimates are provided on a county-by-county basis. We also provide a more

detailed discussion of the main housing issues facing the migrant Latino population.

Throughout the report, we use Area Development Districts (ADDs) as a convenient geographical framework for summarizing data. Due to the geography of the Census Bureau's Public Use Microdata Areas, we combined Buffalo Trace and Gateway into one study area; all of the other study areas conform to ADD boundaries (Figure 1.1). Detailed data profiles for the state, ADDs, and counties are included in the appendix.

Figure 1.1. Study areas based on Area Development Districts

Chapter 2

Income and Poverty Trends

Introduction

This chapter brings the income and poverty data reported in *KHNA:I* up to date with information from the 2000 census that had not yet been released when the previous report was completed.[1] We focus on trends in household incomes, because households are the units that consume housing. We also explain the differences between poverty guidelines, which are defined by the U.S. Department of Health and Human Services, and low-income thresholds, which are defined by the U.S. Department of Housing and Urban Development. Although the cost burden analysis that appears later in this report is based on the low-income thresholds, we report some statistics on poverty for comparison purposes. Because the census gives poverty rates for individuals rather than households, the poverty data relate to persons. Finally, given the close link between educational levels and incomes, we report trends in educational attainment in Kentucky.

Household Incomes

In real terms, household incomes across Kentucky were about the same in 1999 as they were in 1979 (note that income data in the census refers to the year prior to the year of the census).

Table 2.1 shows median household incomes by ADD in constant 1999 dollars for the three most recent censuses, while Figure 2.1 shows county-by-county changes for the entire 20-year period. The median income in 1999 for all households was $33,700. This was only 80% of the national median for that year. While real median household incomes nationally grew by 8.6% between 1979 and 1999, they grew by only 1.6% in Kentucky during that period.

The median income for Kentucky's households with elderly householders in 1999 was about 64% of that for all households. Median household income for black households was only 72% of that for all households.

Between 1989 and 1999, median incomes increased in all Area Development Districts (ADDs) except FIVCO. Other Appalachian and western Kentucky ADDs that experienced drops in median income in the 1980s had gains during the 1990s. As shown in Figure 2.1, over

[1] Data on population and numbers of households for 2000 were reported in *KHNA:I*, pp. 5-10.

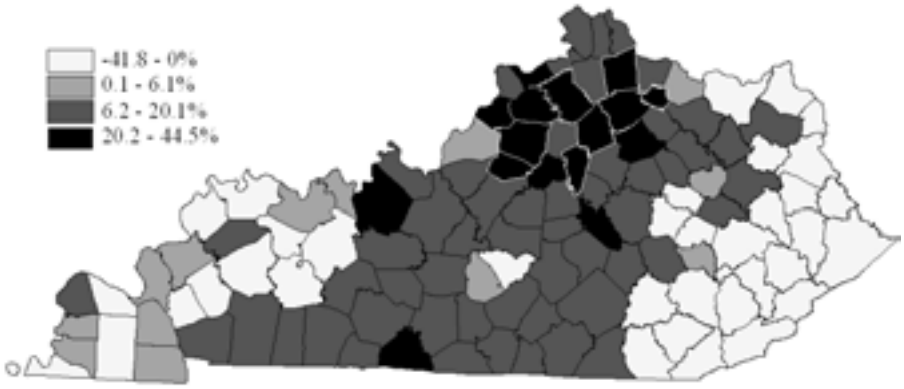
the 20-year period the largest drops in income were concentrated in Appalachian counties, while the largest gains were concentrated mainly in KIPDA, Northern Kentucky, and Bluegrass counties. Between 1989 and 1999, the pattern was mixed, with only a handful of counties showing declines.

Table 2.1. Real median household incomes, by Area Development District, 1979, 1989, and 1999 (in 1999 dollars)

Area Development District	1979	1989	1999	1979-1989 change (%)	1989-1999 change (%)	1979-1999 change (%)
Barren River	28,380	27,410	31,817	-3.4	16.1	12.1
Big Sandy	30,847	22,319	22,620	-27.6	1.3	-26.7
Bluegrass	33,484	34,848	37,881	4.1	8.7	13.1
Buffalo Trace/ Gateway	24,917	25,497	27,666	2.3	8.5	11.0
Cumberland Valley	23,743	19,978	21,245	-15.9	6.3	-10.5
FIVCO	33,674	30,135	29,596	-10.5	-1.8	-12.1
Green River	37,025	31,940	34,873	-13.7	9.2	-5.8
Kentucky River	24,691	19,996	20,161	-19.0	0.8	-18.3
KIPDA	39,639	37,495	41,005	-5.4	9.4	3.4
Lake Cumberland	21,909	22,125	24,076	1.0	8.8	9.9
Lincoln Trail	30,847	29,879	35,186	-3.1	17.8	14.1
Northern Kentucky	40,180	40,792	44,377	1.5	8.8	10.4
Pennyrile	30,858	27,774	30,611	-10.0	10.2	-0.8
Purchase	32,286	28,469	32,188	-11.8	13.1	-0.3
Kentucky	*33,147*	*31,107*	*33,672*	-6.2	*8.2*	*1.6*
United States	*38,646*	*40,382*	*41,994*	*4.5*	*4.0*	*8.6*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 1990, and Summary File 3, 2000.
Note: Median household incomes were adjusted by the Bureau of Labor Statistics' Consumer Price Index, US city average for all items, <http://stats.bls.gov/cpi/>.

Figure 2.1. Percentage change in real median household income, by county, 1979-1999



Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 1980 and 2000.

Definitions of Poverty and Low Income

The United States government calculates income deprivation in two different ways.[2] The Department of Health and Human Services (HHS) sets "poverty" guidelines, while the Department of Housing and Urban Development (HUD) determines "low-income" thresholds. The poverty guidelines were developed originally by the Social Security Administration (SSA) during the early 1960s and were based on data from the Department of Agriculture's 1955 Household Food Consumption Survey.[3] That survey showed that families of three or more persons spent about a third of their after-tax cash income on food. So SSA simply determined the cost of a nutritionally adequate diet and multiplied that by three and used the result as a basis for setting the threshold for poverty. Subsequently, the guidelines have been updated using the consumer price index. The guidelines vary for different family sizes but are otherwise uniform across the 48 contiguous states. The guidelines are used by HHS and other agencies as the basis for eligibility for programs like Food Stamps and School Lunches.

In contrast, the low-income thresholds are based on median family incomes and vary from place to place across the U.S. Households with

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[2] A third method is suggested by Diana Pearce and Jennifer Brooks, *The Self-Sufficiency Standard for Kentucky: Real Budgets, Real Families* (Frankfort: Kentucky Youth Advocates, 2001).

[3] Gordon M. Fisher, "The Development and History of the US Poverty Thresholds—A Brief Overview," *GSS/SSS Newsletter* [Newsletter of the Government Statistics Section/Social Statistics Section of the American Statistical Association] (Winter 1997), pp. 6-7, <http://aspe.hhs.gov/poverty/papers/hptgssiv.htm>.

incomes below 80% of their geographical area median, as adjusted for household size, are considered low-income. The area medians are updated each year and are used by HUD as the basis for determining eligibility for various housing programs such as Public Housing or Section 8.

For comparison purposes, Table 2.2 shows the poverty guidelines for a family of four, as well as the low-income thresholds for the same family size. There are three categories of low income, each with a threshold based on the relationship between household income and area median family income.[4] Low-income households are those below 80% of median family income as adjusted for household size and metropolitan/non-metropolitan location; very low-income households are below 50% of median family income; and extremely low-income households are below 30% of median family income. As the table shows, the poverty guidelines are significantly lower than the low-income thresholds. The poverty guidelines are not adjusted for geographic location (except for Alaska and Hawaii, which have separate guidelines).

Table 2.2. Poverty guidelines and low-income thresholds for a family of four, 1979, 1989, and 1999 (in current dollars)

Guideline/threshold	1979	1989	1999
US poverty guideline	6,700	12,100	16,700
Low-income thresholds:			
Kentucky metropolitan	15,048	24,800	37,680
Kentucky non-metropolitan	11,004	17,571	26,408
Very low-income thresholds:			
Kentucky metropolitan	9,405	15,500	23,550
Kentucky non-metropolitan	6,878	10,982	16,505
Extremely low-income thresholds:			
Kentucky metropolitan	5,643	9,300	14,130
Kentucky non-metropolitan	4,127	6,589	9,903

Source: Poverty guidelines: Social Security Administration, *Social Security Bulletin: Annual Statistical Supplement* (Washington, DC, 2002), Table 3.E8, p. 146, <http://www.ssa.gov/policy/docs/statcomps/supplement/2002/3e.pdf>. Low-income thresholds: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: Guidelines and thresholds are shown for the year prior to the census because the incomes reported from the census are for the prior year.

[4] See *KHNA:I,* Appendix 2, for details about how the low-income thresholds were defined and how the low-income rates were measured. For the current report, some improvements were made in the methods used to identify some low-income households, meaning that the numbers of low-income households and housing cost burden statistics reported for 1980 and 1990 differ from the statistics in *KHNA:I*.

Poverty Rates

Kentucky's poverty rate rose from 17.6% to 19.0% during the 1980s (Table 2.3), and then dropped back to 15.8% in 1999. In 1999, Kentucky's rate was several percentages higher than the national rate. Census survey data suggest that both the Kentucky and national poverty rates have increased since 1999 due to the softening of the economy.[5]

The lowest poverty rates in 1999 were in Northern Kentucky (9.0%), KIPDA (11.5%), Lincoln Trail (12.9%), and Bluegrass (13.1%), while the highest rates were in three Appalachian ADDs—Big Sandy (27.9%), Cumberland Valley (29.1%), and Kentucky River (31.0%).

Table 2.3. Poverty rates, by Area Development District, 1979, 1989, and 1999 (% of persons for whom poverty status was determined)

Area Development District	1979	1989	1999
Barren River	19.3	20.6	16.7
Big Sandy	22.4	29.5	27.9
Bluegrass	16.1	16.0	13.1
Buffalo Trace/Gateway	25.0	26.7	20.5
Cumberland Valley	30.2	33.5	29.1
FIVCO	18.2	21.8	18.8
Green River	14.2	17.0	13.7
Kentucky River	30.5	36.3	31.0
KIPDA	12.1	13.4	11.5
Lake Cumberland	28.7	28.0	23.0
Lincoln Trail	18.2	16.9	12.9
Northern Kentucky	10.6	11.0	9.0
Pennyrile	16.7	18.3	16.0
Purchase	14.1	17.0	15.0
Kentucky	*17.6*	*19.0*	*15.8*
United States	*12.4*	*13.1*	*12.4*

Source: US Census Bureau, *Census of Population and Housing*, Summary File 3, 1980, 1990, and 2000.

In 1999, the poverty rate for blacks in Kentucky remained much higher than that for whites (28.2% versus 14.7%). The poverty rate for children, 20.8%, exceeded the overall rate by five percentage points, while the rate for the elderly, 14.2%, was a bit lower than the overall rate.

[5] Bernadette D. Proctor and Joseph Dalaker, *Poverty in the United States: 2002*, Current Population Reports P60-222 (Washington, DC: US Census Bureau, 2003).

Low-Income Rates

Data for the state as a whole are listed by income and other categories in Tables 2.4 and 2.5.[6] During the 1980s, the number of low-income households in Kentucky increased by 9.0%, while the numbers of very and extremely low-income households increased by 12.9% and 11.6%, respectively. During the 1990s, these numbers increased by 13.6%, 11.1%, and 12.0%, respectively. The numbers of low-income households remained a relatively constant percentage of the total population at about 42%. Very and extremely low-income households also remained fairly constant in percentage terms over the 20-year period.

Table 2.4. Low-income households by income category and housing tenure, Kentucky, 1979, 1989, and 1999

	1979		1989		1999	
Income category	Number of house-holds	As a % of all house-holds	Number of house-holds	As a % of all house-holds	Number of house-holds	As a % of all house-holds
Low income:	*518,040*	*41.8*	*564,681*	*42.2*	*641,453*	*42.1*
Renters	217,980	17.6	248,040	18.5	277,591	18.2
Owners	300,060	24.2	316,641	23.7	363,862	23.9
Very low income:	*310,220*	*25.0*	*350,223*	*26.2*	*389,091*	*25.5*
Renters	143,520	11.6	172,723	12.9	189,349	12.4
Owners	166,700	13.5	177,500	13.3	199,742	13.1
Extremely low income:	*165,660*	*13.4*	*184,905*	*13.8*	*207,143*	*13.6*
Renters	83,460	6.7	102,537	7.7	112,765	7.4
Owners	82,200	6.6	82,368	6.2	94,378	6.2
Not low income:	*720,440*	*58.2*	*772,786*	*57.8*	*881,471*	*57.9*
Renters	137,200	11.1	145,880	10.9	147,839	9.7
Owners	583,240	47.1	626,906	46.9	733,632	48.2
All households:	*1,238,480*	*100.0*	*1,337,467*	*100.0*	*1,522,924*	*100.0*
Renters	355,180	28.7	393,920	29.5	425,430	27.9
Owners	883,300	71.3	943,547	70.5	1,097,494	72.1

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

[6] Note that the income categories are cumulative, with the low-income category including very low-income households, and the very low-income category including extremely low-income households.

The number of elderly low-income households declined in absolute terms in the 1990s and continued to decline as a percentage of all elderly households. The percentage of white households below the low-income threshold remained fairly constant across the three censuses. While the absolute number of low-income black households increased, the percentage of black households below the low-income threshold declined by about four percentage points during the 1990s.

Table 2.5. Low-income households by category, Kentucky, 1979, 1989, and 1999

	1979		1989		1999	
Category of household	Number	As a % of group total	Number	As a % of group total	Number	As a % of group total
Elderly	181,640	68.1	198,672	63.1	194,126	57.8
Race:						
White	464,540	40.3	504,269	40.6	564,661	40.7
Black	50,900	63.5	57,214	63.9	63,176	60.0
Other races	2,600	51.2	3,198	44.8	13,616	47.6
Ethnicity:						
Hispanic	4,120	53.2	1,731	38.9	7,580	55.7
Housing tenure:						
Owners	300,060	34.0	316,641	33.6	363,862	33.2
Renters	217,980	61.4	248,040	63.0	277,591	65.2

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: Categories refer to the household head. Races other than white and black are combined due to small sample sizes. For 2000, this category also includes households with heads listing more than one race. Households consisting only of multiple unrelated persons (that is, households that consisted of neither families nor single persons living alone) were excluded.

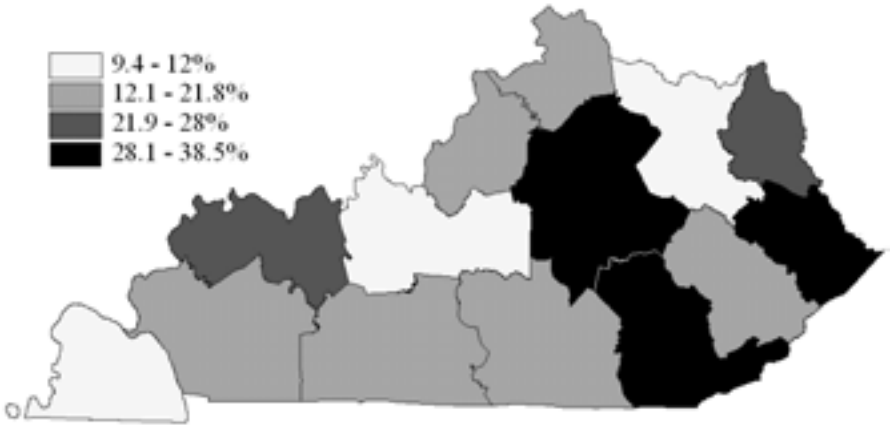
The incidence of low-income households in 1999 was distributed in a manner similar to that for poverty rates. The KIPDA and Bluegrass ADDs had by far the largest numbers of low-income households in all three census years (Table 2.6). In 1999 they together accounted for over 37% of all low-income households in Kentucky. The largest percentage increases between 1979 and 1999 were in Big Sandy, Bluegrass, and Cumberland Valley (Figure 2.2). Several Appalachian ADDs had the highest percentages of low-income households: Big Sandy, Cumberland Valley, FIVCO, and Kentucky River were all above 50% (Table 2.7). Lincoln Trail, Purchase, and Northern Kentucky were the only ADDs with low-income rates at about 35% or lower.

Table 2.6. Low-income households, by Area Development District, 1979, 1989, and 1999

Area Development District	1979 Number	1979 % of state total	1989 Number	1989 % of state total	1999 Number	1999 % of state total
Barren River	29,700	5.7	32,138	5.7	35,074	5.5
Big Sandy	23,380	4.5	27,705	4.9	31,326	4.9
Bluegrass	78,620	15.2	84,555	15.0	108,850	17.0
Buffalo Trace/ Gateway	18,320	3.5	18,220	3.2	20,525	3.2
Cumberland Valley	36,640	7.1	41,496	7.3	48,356	7.5
FIVCO	22,680	4.4	23,914	4.2	28,826	4.5
Green River	29,340	5.7	34,347	6.1	37,550	5.9
Kentucky River	20,760	4.0	22,850	4.0	24,917	3.9
KIPDA	108,920	21.0	115,599	20.5	130,624	20.4
Lake Cumberland	30,160	5.8	31,295	5.5	36,268	5.7
Lincoln Trail	24,720	4.8	26,508	4.7	27,212	4.2
Northern Kentucky	41,280	8.0	41,879	7.4	50,289	7.8
Pennyrile	29,800	5.8	38,164	6.8	35,680	5.6
Purchase	23,720	4.6	26,011	4.6	25,956	4.0
Kentucky	*518,040*	*100.0*	*564,681*	*100.0*	*641,453*	*100.0*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Figure 2.2. Percentage change in number of low-income households, by Area Development District, 1979-1999



Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 2000.

Table 2.7. Low-income households as a percentage of all households, by Area Development District, 1979, 1989, and 1999

Area Development District	1979 As a % of ADD total	Rank	1989 As a % of ADD total	Rank	1999 As a % of ADD total	Rank
Barren River	39.7	10	39.3	10	36.6	11
Big Sandy	40.0	9	47.6	6	50.6	4
Bluegrass	42.3	8	39.7	9	42.8	8
Buffalo Trace/ Gateway	45.4	5	44.0	8	42.1	9
Cumberland Valley	49.1	2	52.4	2	53.4	3
FIVCO	47.8	4	49.5	4	54.8	1
Green River	42.7	7	47.1	7	47.3	6
Kentucky River	48.7	3	52.8	1	53.9	2
KIPDA	39.0	11	39.0	11	39.4	10
Lake Cumberland	50.8	1	47.8	5	47.7	5
Lincoln Trail	37.5	13	35.5	13	31.0	14
Northern Kentucky	38.9	12	35.2	14	35.4	12
Pennyrile	43.9	6	52.0	3	44.9	7
Purchase	35.6	14	36.9	12	34.0	13
Kentucky	*41.8*		*42.2*		*42.1*	

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: ADDs are ranked from highest to lowest percentages.

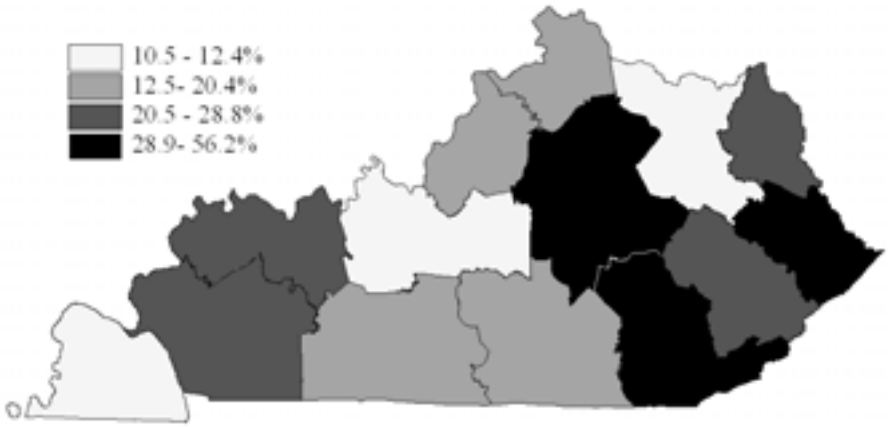
Data for very low-income and extremely low-income households are presented in Tables 2.8 through 2.11 and Figures 2.3 and 2.4. As for low-income households, Big Sandy, Bluegrass, and Cumberland Valley saw the biggest percentage increases in very low-income households between the 1980 and 2000 censuses. A similar pattern can be seen for extremely low-income households. According to the 2000 census, Kentucky River had the highest percentages of very and extremely low-income households (36.7% and 21.6%, respectively), while Lincoln Trail had the lowest percentages (16.9% and 8.3%, respectively).

Table 2.8. Very low-income households, by Area Development District, 1979, 1989, and 1999

Area Development District	1979 Number	1979 % of state total	1989 Number	1989 % of state total	1999 Number	1999 % of state total
Barren River	18,080	5.8	19,955	5.7	21,080	5.4
Big Sandy	13,460	4.3	17,908	5.1	21,018	5.4
Bluegrass	46,780	15.1	51,696	14.8	64,703	16.6
Buffalo Trace/ Gateway	11,300	3.6	11,752	3.4	12,703	3.3
Cumberland Valley	23,320	7.5	27,694	7.9	32,389	8.3
FIVCO	14,480	4.7	16,275	4.6	18,539	4.8
Green River	17,740	5.7	20,884	6.0	22,847	5.9
Kentucky River	13,200	4.3	15,955	4.6	16,970	4.4
KIPDA	63,900	20.6	68,780	19.6	76,916	19.8
Lake Cumberland	19,540	6.3	20,689	5.9	22,734	5.8
Lincoln Trail	13,340	4.3	15,181	4.3	14,839	3.8
Northern Kentucky	23,840	7.7	24,686	7.0	27,429	7.0
Pennyrile	17,340	5.6	23,495	6.7	21,566	5.5
Purchase	13,900	4.5	15,273	4.4	15,358	3.9
Kentucky	*310,220*	*100.0*	*350,223*	*100.0*	*389,091*	*100.0*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Figure 2.3. Percentage change in number of very low-income households, by Area Development District, 1979-1999



Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples, 1980 and 2000.

Table 2.9. Very low-income households as a percentage of all households, by Area Development District, 1979, 1989, and 1999

Area Development District	1979 As a % of ADD total	1979 Rank	1989 As a % of ADD total	1989 Rank	1999 As a % of ADD total	1999 Rank
Barren River	24.1	9	24.4	9	22.0	11
Big Sandy	23.0	10	30.8	6	33.9	4
Bluegrass	25.2	8	24.3	10	25.4	9
Buffalo Trace/ Gateway	28.0	5	28.4	8	26.1	8
Cumberland Valley	31.3	2	35.0	2	35.8	2
FIVCO	30.5	4	33.7	3	35.2	3
Green River	25.8	6	28.6	7	28.8	6
Kentucky River	31.0	3	36.9	1	36.7	1
KIPDA	22.9	11	23.2	11	23.2	10
Lake Cumberland	32.9	1	31.6	5	29.9	5
Lincoln Trail	20.2	14	20.3	14	16.9	14
Northern Kentucky	22.5	12	20.7	13	19.3	13
Pennyrile	25.5	7	32.0	4	27.1	7
Purchase	20.9	13	21.7	12	20.1	12
Kentucky	*20.5*		*26.2*		*25.5*	

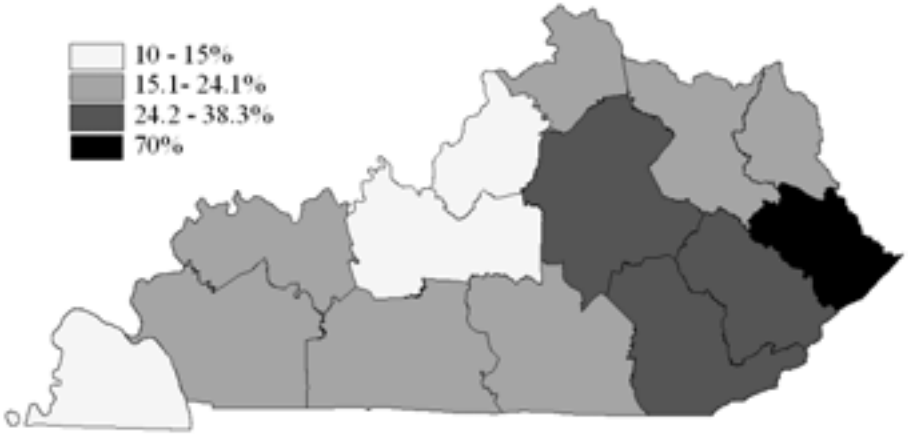
Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1979, 1989, and 1999.
Note: ADDs are ranked from highest to lowest percentages.

Table 2.10. Extremely low-income households, by Area Development District, 1979, 1989, and 1999

Area Development District	1979 Number	1979 % of state total	1989 Number	1989 % of state total	1999 Number	1999 % of state total
Barren River	9,340	5.6	9,666	5.2	10,949	5.3
Big Sandy	7,200	4.3	9,442	5.1	12,240	5.9
Bluegrass	24,720	14.9	27,138	14.7	34,190	16.5
Buffalo Trace/ Gateway	5,820	3.5	5,501	3.0	6,987	3.4
Cumberland Valley	13,260	8.0	15,303	8.3	17,716	8.6
FIVCO	8,280	5.0	9,555	5.2	9,803	4.7
Green River	9,560	5.8	11,872	6.4	11,868	5.7
Kentucky River	7,300	4.4	9,572	5.2	9,991	4.8
KIPDA	35,720	21.6	38,064	20.6	41,071	19.8
Lake Cumberland	10,280	6.2	9,425	5.1	12,201	5.9
Lincoln Trail	6,620	4.0	7,503	4.1	7,281	3.5
Northern Kentucky	12,000	7.2	13,063	7.1	14,680	7.1
Pennyrile	9,020	5.4	12,082	6.5	10,836	5.2
Purchase	6,540	3.9	6,719	3.6	7,330	3.5
Kentucky	*165,660*	*100.0*	*184,905*	*100.0*	*207,143*	*100.0*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Figure 2.4. Percentage change in number of extremely low-income households, by Area Development District, 1979-1999



Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% sample), 1980 and 2000.

Table 2.11. Extremely low-income households as a percentage of all households, by Area Development District, 1979, 1989, and 1999

	1979		1989		1999	
Area Development District	As a % of ADD total	Rank	As a % of ADD total	Rank	As a % of ADD total	Rank
Barren River	12.5	10	11.8	11	11.4	11
Big Sandy	12.3	11	16.2	6	19.8	2
Bluegrass	13.3	7	12.8	9	13.4	9
Buffalo Trace/ Gateway	14.4	5	13.3	8	14.3	7
Cumberland Valley	17.8	1	19.3	3	19.6	3
FIVCO	17.4	2	19.8	2	18.6	4
Green River	13.9	6	16.3	5	14.9	6
Kentucky River	17.1	4	22.1	1	21.6	1
KIPDA	12.8	9	12.8	9	12.4	10
Lake Cumberland	17.3	3	14.4	7	16.0	5
Lincoln Trail	10.0	13	10.1	13	8.3	14
Northern Kentucky	11.3	12	11.0	12	10.3	12
Pennyrile	13.3	7	16.5	4	13.6	8
Purchase	9.8	14	9.5	14	9.6	13
Kentucky	*13.4*		*13.8*		*13.6*	

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: ADDs are ranked from highest to lowest percentages.

Education

Tables 2.12, 2.13, and 2.14 show a notable improvement in the percentages of Kentuckians completing high school and higher levels of education during the 1980s and 1990s. In particular, the percentage of the 25 and over population with high school diplomas increased from only 53.1% to 74.1% between 1980 and 2000.[7] Nevertheless, educational attainment in Kentucky continued to lag far behind that for the United States as a whole.

Comparison of Tables 2.14 and 2.15 reveals the relationship between educational level and household income. While 25.9% of the Kentucky population 25 years and older did not complete high school, some 44.9% of low-income householders did not complete high school. In contrast, 17.1% of the 25 and older population completed four or more years of college, compared to only 6.4% of low-income householders. Given the close link between education and income and between income and housing circumstances, education policy is clearly an important, if indirect, means for achieving desired housing policy objectives.

Table 2.12. Educational attainment of population 25 years and older, by Area Development District, 1980 (%)

Area Development District	Did not complete high school	Completed high school only	Some college	Completed four or more years of college
Barren River	53.2	27.5	9.9	9.4
Big Sandy	61.5	24.9	7.4	6.2
Bluegrass	40.1	30.0	12.8	17.1
Buffalo Trace/Gateway	58.1	26.4	7.2	8.3
Cumberland Valley	63.2	23.3	6.7	6.8
FIVCO	48.6	33.3	9.8	8.3
Green River	43.9	36.2	11.0	8.9
Kentucky River	64.5	21.9	6.9	6.7
KIPDA	37.4	34.6	13.5	14.5
Lake Cumberland	62.8	24.3	6.7	6.2
Lincoln Trail	45.0	36.2	9.9	9.0
Northern Kentucky	43.0	35.8	10.6	10.6
Pennyrile	48.6	34.1	9.8	7.4
Purchase	43.0	34.4	12.0	10.6
Kentucky	*46.9*	*31.3*	*10.7*	*11.1*
United States	***33.5***	***34.6***	***15.7***	***16.2***

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 1980.

[7] Between 1990 and 2000, the percentage of those aged 25 to 34 with high school diplomas rose from 79.2% to 84.2%, which was the largest increase of any state; see *Kentucky State Data Center News*, vol. 20, no. 2 (Winter 2002), pp. 1-2.

Table 2.13. Educational attainment of population 25 years and older, by Area Development District, 1990 (%)

Area Development District	Did not complete high school	Completed high school only	Some college	Completed four or more years of college
Barren River	41.8	32.0	15.3	10.9
Big Sandy	50.3	28.8	13.4	7.5
Bluegrass	29.4	29.1	21.1	20.4
Buffalo Trace/Gateway	47.0	30.2	13.6	9.3
Cumberland Valley	52.0	27.8	12.1	8.1
FIVCO	38.7	32.9	18.3	10.1
Green River	32.6	36.9	19.6	11.0
Kentucky River	55.0	26.5	11.2	7.3
KIPDA	26.7	31.2	23.8	18.2
Lake Cumberland	50.3	30.0	12.2	7.5
Lincoln Trail	33.4	37.2	19.5	9.9
Northern Kentucky	28.4	34.7	22.1	14.8
Pennyrile	36.8	35.2	19.3	8.7
Purchase	32.6	33.7	21.2	12.5
Kentucky	*35.4*	*31.8*	*19.2*	*13.6*
United States	***24.8***	***30.0***	***24.9***	***20.3***

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 1990.

Table 2.14. Educational attainment of population 25 years and older, by Area Development District, 2000 (%)

Area Development District	Did not complete high school	Completed high school only	Some college	Completed four or more years of college
Barren River	29.7	36.4	19.6	14.4
Big Sandy	39.5	32.4	18.6	9.4
Bluegrass	21.0	30.2	24.6	24.2
Buffalo Trace/Gateway	34.3	35.6	18.0	12.0
Cumberland Valley	42.0	33.2	15.1	9.7
FIVCO	28.8	35.9	24.0	11.3
Green River	22.9	39.2	24.5	13.3
Kentucky River	43.4	31.3	16.7	8.6
KIPDA	18.7	30.5	27.5	23.2
Lake Cumberland	38.7	34.5	17.4	9.4
Lincoln Trail	23.9	38.6	25.1	12.4
Northern Kentucky	19.4	34.9	25.6	20.0
Pennyrile	28.3	37.4	23.9	10.4
Purchase	23.2	35.5	25.0	16.2
Kentucky	*25.9*	*33.6*	*23.4*	*17.1*
United States	***19.6***	***28.6***	***27.4***	***24.4***

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 2000.

Table 2.15. Educational attainment of low-income householders 25 years and older, by Area Development District, 2000 (%)

Area Development District	Did not complete high school	Completed high school only	Some college	Completed four or more years of college
Barren River	54.8	29.9	11.8	3.5
Big Sandy	58.3	26.5	12.0	3.3
Bluegrass	38.3	30.5	19.7	11.5
Buffalo Trace/Gateway	57.6	28.7	9.8	3.9
Cumberland Valley	61.3	25.2	10.5	2.9
FIVCO	47.9	32.0	15.9	4.2
Green River	37.3	39.0	17.9	5.9
Kentucky River	63.1	24.8	10.2	1.9
KIPDA	33.3	33.7	23.6	9.4
Lake Cumberland	61.9	25.3	10.2	2.6
Lincoln Trail	46.9	31.9	17.5	3.7
Northern Kentucky	36.2	35.8	20.0	8.0
Pennyrile	42.5	36.1	17.9	3.5
Purchase	41.3	36.3	18.4	4.0
Kentucky	*44.9*	*31.5*	*17.2*	*6.4*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 2000.
Note: The householder is in most cases the person (or one of the persons) in whose name the dwelling is owned or rented.

Chapter 3
Housing Trends

Introduction

As in the previous chapter, this one provides new data from the 2000 census that were not available when *KHNA:I* was completed.[8] We do update information on types of structures (single-family, multi-family, or mobile home), building permits (single- and multi-family), placement of new manufactured and mobile homes, and housing conditions. With respect to the latter, we provide data describing the housing conditions of low-income households and we also rank counties according to a housing conditions index.

Housing Stock

Distribution by Type of Structure

The census categorizes housing units into three types: single-family, multi-family, and mobile homes. These terms do not have particularly clear definitions, and some dwellings will be more difficult to categorize than others. For example, it would seem that the term "mobile home" would generally apply to units that are not attached to the ground with a permanent foundation, while manufactured houses that are fixed to the ground and classified as real estate should usually be listed in the "single-family" category. But the terms are not defined on the questionnaire, and as a consequence there is considerable ambiguity.

According to the 1980 census, 8.3% of all dwellings in Kentucky were mobile homes (Table 3.1). By 1990, this percentage had increased to 12.3% (Table 3.2) and, by 2000, it had increased to 14.1% (Table 3.3). In 2000, the percentage of mobile homes ranged from as low as 3.1% in the KIPDA ADD to as high as 34.8% in the Big Sandy ADD. County percentages ranged from 1.4% in Fayette County and 1.6% in Jefferson County to 44.2% in Magoffin County. Between 1980 and 2000, the percentage of multi-family units has hovered around 18%, meaning that the proportion of single-family homes dropped by about the same amount as the increase in the proportion of mobile homes.

[8] Thus we do not repeat the material provided in *KHNA:I* on the numbers of housing units and homeownership rate; see *KHNA:I*, pp. 25-26 and 37.

Table 3.1. Dwelling units by structure type, by Area Development District, 1980

Area Development District	Mobile homes Number	Mobile homes % of ADD total	Single-family units Number	Single-family units % of ADD total	Multi-family units Number	Multi-family units % of ADD total
Barren River	8,123	9.6	65,734	77.3	11,173	13.1
Big Sandy	12,732	20.1	46,435	73.4	4,122	6.5
Bluegrass	11,107	5.3	143,145	68.6	54,544	26.1
Buffalo Trace/ Gateway	4,841	11.0	35,081	79.5	4,188	9.5
Cumberland Valley	10,499	13.0	62,560	77.2	7,968	9.8
FIVCO	5,568	10.8	40,845	78.9	5,372	10.4
Green River	6,174	8.4	56,655	77.2	10,556	14.4
Kentucky River	7,526	16.5	34,744	76.2	3,334	7.3
KIPDA	6,761	2.2	218,797	71.4	81,063	26.4
Lake Cumberland	8,452	12.1	55,849	79.9	5,567	8.0
Lincoln Trail	9,978	13.3	54,211	72.2	10,877	14.5
Northern Kentucky	5,895	5.1	79,697	68.3	31,107	26.7
Pennyrile	8,512	11.4	57,228	76.3	9,232	12.3
Purchase	6,801	9.3	57,093	78.3	8,979	12.3
Kentucky	*112,969*	*8.3*	*1,008,074*	*73.6*	*248,082*	*18.1*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 1980.

Table 3.2. Dwelling units by structure type, by Area Development District, 1990

Area Development District	Mobile homes Number	Mobile homes % of ADD total	Single-family units Number	Single-family units % of ADD total	Multi-family units Number	Multi-family units % of ADD total
Barren River	14,007	15.1	66,205	71.2	12,794	13.8
Big Sandy	18,501	28.5	41,102	63.4	5,204	8.0
Bluegrass	18,049	7.5	159,584	65.9	64,455	26.6
Buffalo Trace/ Gateway	9,362	19.6	33,511	70.0	4,966	10.4
Cumberland Valley	19,375	22.0	59,633	67.7	9,131	10.4
FIVCO	8,979	16.7	39,336	73.3	5,320	9.9
Green River	9,824	12.2	57,798	71.5	13,158	16.3
Kentucky River	12,681	26.3	32,198	66.8	3,318	6.9
KIPDA	9,680	2.9	227,985	69.0	92,958	28.1
Lake Cumberland	14,935	19.5	54,973	71.8	6,666	8.7
Lincoln Trail	15,089	17.5	58,811	68.4	12,115	14.1
Northern Kentucky	10,231	7.7	87,975	66.3	34,474	26.0
Pennyrile	13,489	16.3	58,970	71.3	10,218	12.4
Purchase	11,134	14.0	58,064	72.8	10,587	13.3
Kentucky	*185,336*	*12.3*	*1,036,145*	*68.8*	*285,364*	*18.9*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 1990.

Table 3.3. Dwelling units by structure type, by Area Development District, 2000

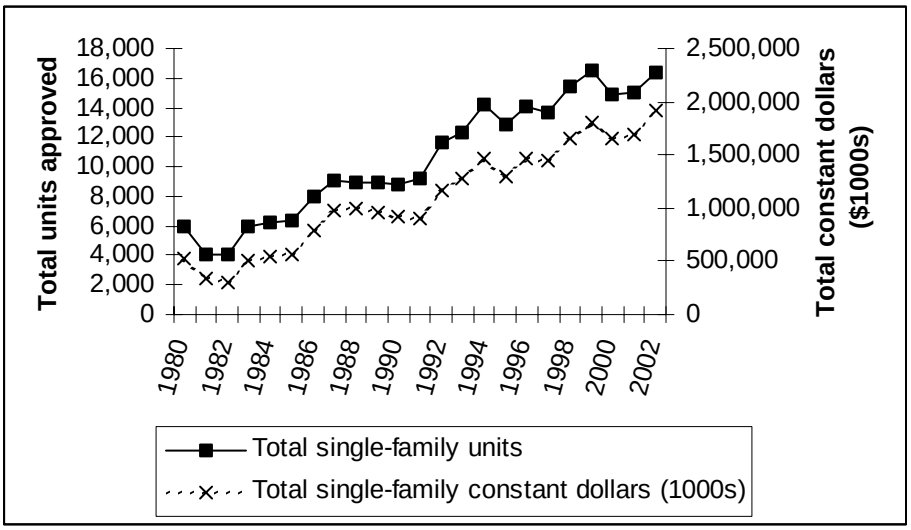
Area Development District	Mobile homes Number	Mobile homes % of ADD total	Single-family units Number	Single-family units % of ADD total	Multi-family units Number	Multi-family units % of ADD total
Barren River	18,949	16.9	77,524	69.1	15,764	14.0
Big Sandy	24,573	34.8	40,989	58.0	5,146	7.3
Bluegrass	22,314	7.6	197,982	67.3	74,031	25.2
Buffalo Trace/ Gateway	14,221	24.7	37,941	65.8	5,492	9.5
Cumberland Valley	29,210	28.4	63,759	62.0	9,850	9.6
FIVCO	12,690	21.3	41,689	69.9	5,255	8.8
Green River	12,207	13.8	62,386	70.7	13,690	15.5
Kentucky River	17,619	33.3	32,190	60.9	3,062	5.8
KIPDA	11,602	3.1	264,099	71.0	96,065	25.8
Lake Cumberland	21,442	23.2	62,988	68.1	8,098	8.8
Lincoln Trail	18,317	17.7	71,521	69.3	13,433	13.0
Northern Kentucky	13,044	8.1	108,845	67.2	40,139	24.8
Pennyrile	16,430	17.7	65,812	70.9	10,599	11.4
Purchase	13,825	15.4	64,402	71.6	11,733	13.0
Kentucky	*246,443*	*14.1*	*1,192,127*	*68.1*	*312,357*	*17.8*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 2000.

Construction of New Housing

Figure 3.1 shows the number and value (in constant 2002 dollars) of building permits approved for single-family residences for 1980 to 2002. For single-family homes, the number of permits increased from about 5,900 in 1980 to 16,300 in 2002. These numbers represent an increasing proportion of all residential units (single- and multi-family) for which permits were approved. In 1980, single-family units constituted 58% of all residential permits; by 2002 the percentage had increased to 84%.

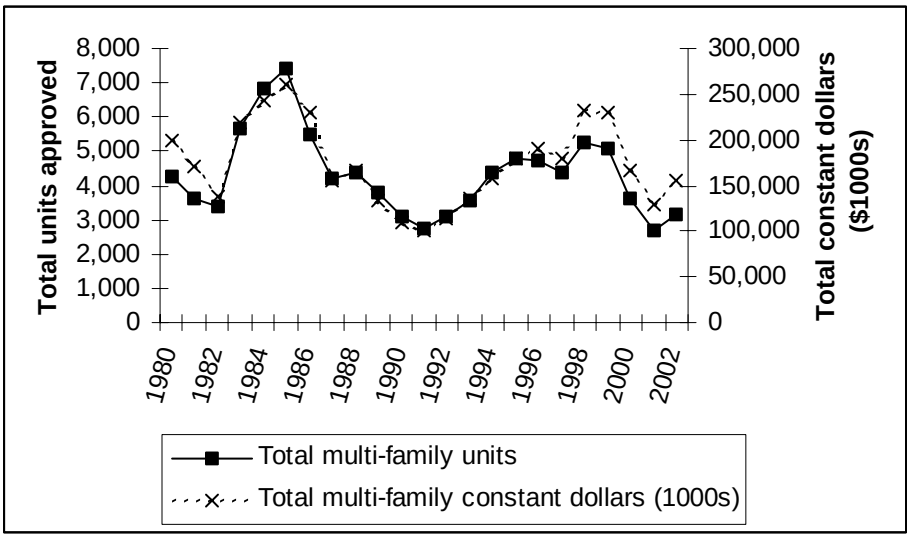
Figure 3.1. Single-family residential building permits approved, in numbers of units and real construction costs, Kentucky, 1980-2002



Source: Authors' calculations based on US Census Bureau, Building Permit Statistics, Tables 2au and 2av, <http://www.census.gov/const/C40/Table2/>.
Note: Construction costs were adjusted to 2002 values using the Bureau of Labor Statistics' Consumer Price Index, US city average for all items less shelter, <http://www.bls.gov/cpi/>.

Figure 3.2 shows the number of units and total value of building permits approved for multi-family housing. The numbers of units and construction costs vacillated dramatically during the two decades shown, reaching a maximum of about 7,400 units in 1985 and a minimum of about 2,700 units in 2001. The number for 2002 (3,100) was not far above the minimum.

Figure 3.2. Multi-family residential building permits approved, in numbers of units and real construction costs, Kentucky, 1980-2002



Source: Authors' calculations based on US Census Bureau, Building Permit Statistics, Tables 2au and 2av, <http://www.census.gov/const/C40/Table2/>.
Note: Construction costs were adjusted to 2002 values using the Bureau of Labor Statistics' Consumer Price Index, US city average for all items less shelter, <http://www.bls.gov/cpi/>.

Manufactured Housing and Mobile Homes

Manufactured housing ranges from single-wide "mobile homes" placed on leased sites without permanent foundations to dwellings consisting of multiple factory-built sections placed on masonry foundations and virtually indistinguishable from site-built housing. The data shown in Table 3.4 suggest that up until 2000 the majority of units placed in Kentucky were at the mobile home end of the spectrum. However, mobile home sales dropped off dramatically around 2000. From 1999 to 2000, single-wide units went from the majority to the minority, and double-wide units did the opposite. Low down payment requirements for the purchase of mobile homes in the late 1990s led to large numbers of repossessions and, consequently, a large stock of second-hand mobile homes. Fannie Mae recently announced new down payment requirements for mobile homes in response to this problem.[9]

[9] Genaro C. Armas, "Fannie Mae tightens loan rules: manufactured homes affected; defaults cited," *Courier-Journal* (September 12, 2003).

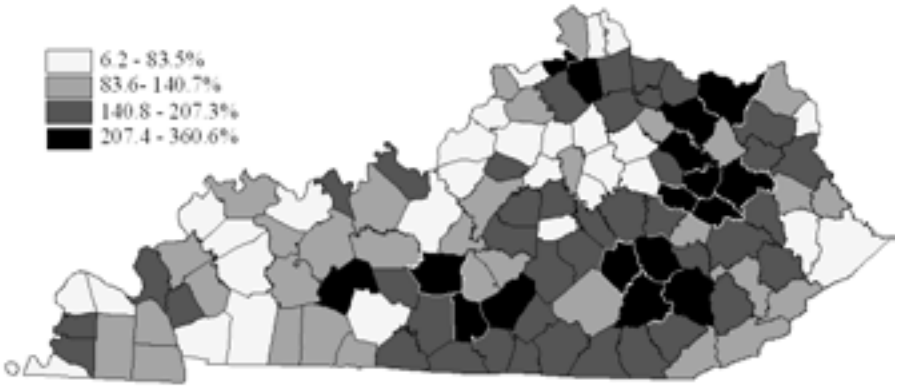
Table 3.4. New manufactured homes placed and average real sales price, by size of home, Kentucky, 1994-2002

	New homes placed (1,000s)			Average sales price (2002 dollars)		
Year	All	Singles	Doubles	All	Singles	Doubles
1994	9.9	6.2	3.6	32,792	25,125	45,885
1995	11.6	7.6	4.0	33,792	26,666	47,125
1996	10.8	6.4	4.3	35,546	28,057	46,501
1997	10.0	5.5	4.4	37,469	29,361	47,438
1998	11.3	6.5	4.7	37,919	29,227	49,545
1999	10.5	5.7	4.8	39,661	30,599	50,216
2000	10.5	4.8	5.7	40,510	28,243	51,230
2001	6.3	2.4	3.9	42,373	26,571	51,431
2002	5.6	2.0	3.6	43,600	27,500	52,600

Source: US Census Bureau, *Manufactured Homes Survey*, <http://www.census.gov/const/www/mhsindex.html>.
Note: "All" includes manufactured homes with more than two sections as well as single- and double-wide units. Average sales prices were adjusted by the Bureau of Labor Statistics' Consumer Price Index, US city average for all items less shelter, <http://www.bls.gov/cpi/>.

As shown in Figures 3.3 and 3.4, the percentage increase in mobile homes was most dramatic in parts of central and eastern Kentucky. Between 1980 and 2000, the largest percentage increase, 360.6%, was in Menifee County (the absolute number grew from 193 to 889), while the smallest increase, 6.2%, was in Jessamine County. Between 1990 and 2000, the largest increase, 80.3%, was also in Menifee, while some counties actually experienced declines; Oldham County registered the largest decline, -14.3%.

Figure 3.3. Percentage change in number of mobile homes, by county, 1980-2000



Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 1980 and 2000.

As we noted in *KHNA:I*, purchasing a mobile home is in many ways more like renting a dwelling than buying one. The site is often leased rather than owned, and the home itself depreciates relatively rapidly, precluding the possibility of building up an investment asset. Although they may represent the only affordable opportunity for homeownership for many Kentuckians, they tend to be poor investments.

Housing Conditions

Data Limitations and Uses

Statewide data on housing conditions in Kentucky are unfortunately limited to the few characteristics reported in the 2000 census. These characteristics include information about the adequacy of bathroom plumbing and kitchen facilities, availability of telephone service, and crowding. Earlier censuses also included information about water supply and sewage disposal, but questions about these two characteristics were excluded from the 2000 census.

In spite of the limitations of the data, they are useful as indicators of housing quality. Here we combine information about bathroom plumbing, kitchen facilities, and crowding into an index that we use to rank counties by absolute number and percentage of dwellings with problems. These rankings are a useful tool for helping to decide where to target limited housing resources.

Plumbing and Kitchen Facilities

The proportions of dwellings without complete plumbing and kitchen facilities continued to drop during the 1990s, although at a lower rate than in the 1980s (Tables 3.5 and 3.6). Most, but not all, ADDs showed improvements in these statistics. With respect to complete plumbing facilities, only Purchase showed no improvement in its already low rate of 1%. With respect to kitchen facilities, FIVCO, Green River, Pennyrile, and Purchase showed deteriorating conditions, although Green River and Purchase remained below the Kentucky average in 2000. In percentage terms, Kentucky River was the worst off in 2000 at 4.9% and 3.9%, although both of these statistics represent significant improvements over 1990. KIPDA has the lowest percentages with respect to plumbing and kitchen facilities. Despite these low percentages, over 30,000 housing units in Kentucky still lack adequate plumbing and/or kitchen facilities.

Table 3.5. Dwellings without complete plumbing facilities, by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 %	1990 Number	1990 %	2000 Number	2000 %
Barren River	8,420	10.1	3,341	3.6	2,289	2.0
Big Sandy	6,735	10.7	2,625	4.1	1,951	2.8
Bluegrass	11,208	5.4	5,063	2.1	3,163	1.1
Buffalo Trace/Gateway	6,847	15.7	3,587	7.5	2,091	3.6
Cumberland Valley	14,299	17.7	6,259	7.1	3,489	3.4
FIVCO	4,193	8.1	1,981	3.7	1,769	3.0
Green River	2,838	3.9	1,081	1.3	1,063	1.2
Kentucky River	10,009	22.0	4,958	10.3	2,609	4.9
KIPDA	3,992	1.3	2,370	0.7	2,337	0.6
Lake Cumberland	11,344	17.1	5,215	6.8	3,397	3.7
Lincoln Trail	5,824	8.0	3,033	3.5	2,628	2.5
Northern Kentucky	3,676	3.2	2,078	1.6	1,545	1.0
Pennyrile	4,531	6.1	1,802	2.2	1,824	2.0
Purchase	1,984	2.8	829	1.0	856	1.0
Kentucky	*95,900*	*7.1*	*44,222*	*2.9*	*31,011*	*1.8*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 1980, 1990, and 2000.
Note: Complete plumbing facilities include all of the following: hot and cold piped water; a flush toilet; and a bathtub or shower. The facilities need not be for the exclusive use of the residents of a given dwelling unit. The universe for this table includes vacant as well as occupied units.

Table 3.6. Dwellings without complete kitchen facilities, by Area Development District, 1980, 1990, and 2000.

Area Development District	1980 Number	1980 %	1990 Number	1990 %	2000 Number	2000 %
Barren River	7,043	8.4	2,510	2.7	2,260	2.0
Big Sandy	5,538	8.8	1,890	2.9	2,001	2.8
Bluegrass	9,456	4.5	3,641	1.5	3,242	1.1
Buffalo Trace/Gateway	5,344	12.2	2,511	5.2	1,857	3.2
Cumberland Valley	9,789	12.1	3,477	3.9	3,086	3.0
FIVCO	3,456	6.7	1,367	2.5	1,694	2.8
Green River	2,286	3.1	860	1.1	1,170	1.3
Kentucky River	7,200	15.9	2,460	5.1	2,076	3.9
KIPDA	5,713	1.9	2,893	0.9	2,678	0.7
Lake Cumberland	9,126	13.8	3,499	4.6	3,210	3.5
Lincoln Trail	4,805	6.6	2,232	2.6	2,514	2.4
Northern Kentucky	3,348	2.9	1,790	1.3	1,556	1.0
Pennyrile	3,721	5.0	1,262	1.5	1,682	1.8
Purchase	1,781	2.5	769	1.0	1,000	1.1
Kentucky	*78,606*	*5.8*	*31,161*	*2.1*	*30,026*	*1.7*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 1980, 1990, and 2000.
Note: Complete kitchen facilities include all of the following: a sink with piped water; a range or stove; and a refrigerator. The universe for this table includes vacant as well as occupied units.

Telephones

Some 4.7% of dwellings lacked telephone service in 2000, compared to 9.3% without telephones in 1990 (Table 3.7). Cumberland Valley and Kentucky River had the highest proportions of dwellings without telephone service in 2000, 10.1%, and the largest absolute numbers were in Bluegrass, Cumberland Valley, and KIPDA.

Table 3.7. Dwellings without telephone service, by Area Development District, 1980, 1990, and 2000

Area Development District	1980		1990		2000	
	Number	%	Number	%	Number	%
Barren River	10,645	12.7	10,744	11.6	5,144	5.2
Big Sandy	12,264	19.4	9,542	14.7	5,166	8.1
Bluegrass	21,329	10.3	22,538	9.3	11,095	4.1
Buffalo Trace/Gateway	6,847	15.7	7,117	14.9	3,395	6.8
Cumberland Valley	18,348	22.7	16,117	18.3	9,363	10.1
FIVCO	5,442	10.6	5,143	9.6	2,787	5.2
Green River	5,900	8.1	7,047	8.7	3,635	4.5
Kentucky River	11,673	25.7	8,704	18.1	4,737	10.1
KIPDA	17,380	5.7	16,386	5.0	8,715	2.5
Lake Cumberland	11,772	17.8	11,017	14.4	5,725	7.3
Lincoln Trail	9,062	12.5	8,061	9.4	3,691	4.1
Northern Kentucky	6,852	5.9	6,155	4.6	4,135	2.8
Pennyrile	7,627	10.3	6,990	8.5	3,808	4.6
Purchase	4,700	6.6	5,320	6.7	3,216	4.0
Kentucky	*149,841*	*11.1*	*140,881*	*9.3*	*74,612*	*4.7*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 1980, 1990, and 2000.
Note: The 2000 questionnaire asks if there is telephone service available in the unit, from which residents can both make and receive calls, while the previous census asked whether there was a telephone in the unit. The universe for this table includes occupied units only.

Crowding

While crowding is classified here as a housing condition, it should be viewed as a symptom of an affordability problem than as a characteristic of the dwelling itself. Overcrowding, defined as more than one person per room, continued to decline in Kentucky from 2.6% to 2.1% during the 1990s. Although five counties had crowding rates in excess of 5% in 1990, none exceeded 4% in 2000, and only nine—Christian, Clay, Grant, Hart, McCreary, Meade, Monroe, Powell, and Russell—exceeded 3%.

Table 3.8. Crowding, by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	%	1990 Number	%	2000 Number	%
Barren River	3,693	4.3	2,113	2.3	2,440	2.4
Big Sandy	4,875	7.7	1,889	2.9	1,146	1.8
Bluegrass	8,246	3.9	5,615	2.3	5,271	1.9
Buffalo Trace/Gateway	2,765	6.3	1,727	3.6	971	1.9
Cumberland Valley	6,451	8.0	3,097	3.5	2,232	2.4
FIVCO	2,445	4.7	1,094	2.0	830	1.6
Green River	2,892	3.9	1,953	2.4	1,565	1.9
Kentucky River	4,264	9.3	1,863	3.9	1,008	2.1
KIPDA	10,381	3.4	6,842	2.1	7,607	2.2
Lake Cumberland	3,763	5.4	1,942	2.5	1,683	2.2
Lincoln Trail	3,838	5.1	2,315	2.7	2,223	2.4
Northern Kentucky	4,551	3.9	3,748	2.8	2,646	1.8
Pennyrile	2,891	3.9	2,000	2.4	1,714	2.1
Purchase	1,639	2.2	1,345	1.7	1,333	1.7
Kentucky	*64,349*	*4.7*	*39,178*	*2.6*	*32,669*	*2.1*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 1980, 1990, and 2000.
Note: Overcrowding is defined by the Census Bureau as more than one person per room. Rooms are defined to be whole, separate rooms used for living purposes. Bathrooms, laundry rooms, utility rooms, and pantries are not counted. The universe for this table includes occupied units only.

Housing Conditions of Low-Income Households

Table 3.9 gives housing conditions for low-income households for 2000. The data in Table 3.9 can be compared to the 2000 data in Tables 3.5 through 3.8. The percentages of low-income households with inadequate bathroom plumbing or kitchen facilities are the same or slightly lower than for the population as a whole. This is likely due to the impact of subsidy programs in the rental sector, such as Section 8 and Public Housing, which require adequate plumbing and kitchens. The 2001 American Housing Survey found that, nationwide, only 2% of all occupied units had severe physical problems, defined as one or more problems with plumbing, heating, electricity, hallways, or upkeep. Some 4% of households below the poverty level occupied units with severe physical problems.[10]

In contrast, low-income households are much less likely to have access to telephone service in their homes than is the population of all households (8.6% of low-income households in Kentucky lack access,

[10] US Census Bureau, *American Housing Survey for the United States: 2001*, Current Housing Reports Series H150/01 (Washington, DC: US Government Printing Office, 2001), Table 2-12; a more detailed definition of "severe" physical problems can be found in Appendix A of that report, p. A-19.

compared to 4.7% of all households). Crowding among low-income households (3.3%) is also somewhat more prevalent than crowding among all households (2.1%).

Table 3.9. Housing conditions of low-income households, by Area Development District, 2000

Area Development District	Inadequate plumbing facilities		Inadequate kitchen facilities		No telephone service		Crowding	
	No.	%	No.	%	No.	%	No.	%
Barren River	823	2.3	529	1.5	3,654	10.4	1,699	4.8
Big Sandy	626	2.0	438	1.4	3,870	12.4	803	2.6
Bluegrass	1,401	1.3	1,250	1.1	8,308	7.6	3,633	3.3
Buffalo Trace/ Gateway	646	3.1	448	2.2	2,410	11.7	552	2.7
Cumberland Valley	1,664	3.4	1,065	2.2	7,122	14.7	1,431	3.0
FIVCO	572	2.0	352	1.2	2,204	7.6	631	2.2
Green River	616	1.6	448	1.2	2,863	7.6	1,302	3.5
Kentucky River	1,300	5.2	568	2.3	4,137	16.6	591	2.4
KIPDA	1,053	0.8	931	0.7	6,201	4.7	4,713	3.6
Lake Cumberland	1,140	3.1	838	2.3	4,220	11.6	1,445	4.0
Lincoln Trail	642	2.4	396	1.5	2,658	9.8	1,062	3.9
Northern Kentucky	561	1.1	444	0.9	2,859	5.7	1,645	3.3
Pennyrile	513	1.4	306	0.9	2,465	6.9	1,067	3.0
Purchase	161	0.6	134	0.5	2,317	8.9	700	2.7
Kentucky	*11,718*	*1.8*	*8,147*	*1.3*	*55,288*	*8.6*	*21,274*	*3.3*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Sample (5% sample), 2000.

Housing Conditions Index

To create an index of housing conditions across ADDs and counties, we averaged three measures from the 2000 census: incomplete plumbing facilities, incomplete kitchen facilities, and overcrowding. These averages were calculated both for the absolute numbers of units and the percentages of units for each geographical area. The absolute numbers provide an indication of the scale of the problem, while the percentages reflect the intensity of the problem. The ADDs are ranked in Table 3.10, while the top 30 worst case counties are ranked in Table 3.11.

KIPDA ranks first in terms of absolute numbers, but last in terms of percentages. Appalachian ADDs tend to be near the top of the percentage list, but are spread out across the absolute number list.

On the county list, Jefferson ranks first in absolute number terms, but does not appear in the top 30 in percentage terms. Elliott and Owsley

are tied at the top of the list in the percentage rankings. Only nine counties appear in the top 30 in both the absolute number and percentage rankings. Complete lists of all counties can be found in Appendix 1 (Table A1.1 lists the counties in rank order, while Table A1.2 lists them in alphabetical order).

Table 3.10. Housing conditions index, by Area Development District, 2000

By absolute number of housing units		By percentage of housing units	
ADD	Rank	ADD	Rank
KIPDA	1	Kentucky River	1
Bluegrass	2	Lake Cumberland	2
Cumberland Valley	3	Cumberland Valley	3
Lake Cumberland	4	Buffalo Trace/Gateway	4
Lincoln Trail	5	Lincoln Trail	5
Barren River	6	Big Sandy	6
Northern Kentucky	7	FIVCO	7
Kentucky River	8	Barren River	8
Pennyrile	9	Pennyrile	9
Big Sandy	10	Green River	10
Buffalo Trace/Gateway	11	Bluegrass	11
FIVCO	12	Purchase	12
Green River	13	Northern Kentucky	13
Purchase	14	KIPDA	14

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 2000.
Note: ADDs are ranked from worst to best based on the averages of the absolute numbers or percentages of dwelling units with inadequate plumbing, inadequate kitchen facilities, and crowding.

Table 3.11. Housing conditions, worst cases ranked by county, 2000

By absolute number of housing units		By percentage of housing units	
County (ADD)	Rank	County (ADD)	Rank
Jefferson	1	Elliott	1
Fayette	2	Owsley	1
Pike	3	Lee	3
Pulaski	4	**Jackson**	4
Hardin	5	**Breckinridge**	5
Kenton	6	**Lewis**	6
Christian	7	Menifee	6
Breckinridge	8	Wolfe	8
Warren	9	**Wayne**	9
Wayne	10	Robertson	10
Harlan	11	**Lawrence**	10
Whitley	12	**Casey**	10
Daviess	13	**Estill**	13
Clay	14	Metcalfe	14
Carter	15	Butler	14
Knox	16	Martin	14
Floyd	16	**Clay**	17
Laurel	18	Leslie	18
Perry	19	Breathitt	19
Grayson	20	Morgan	19
Greenup	21	Rockcastle	21
Hopkins	22	Cumberland	22
Boone	23	Clinton	22
Marshall	24	Owen	22
Letcher	24	McCreary	25
Casey	26	Bracken	26
Jackson	27	**Carter**	26
Lawrence	27	Powell	28
Lewis	29	Pendleton	28
Estill	30	Fleming	30

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 2000.
Note: Counties are ranked from worst to best based on the averages of the absolute numbers or percentages of dwelling units with inadequate plumbing, inadequate kitchen facilities, and crowding. Counties listed in boldface appear on both lists. Complete lists of all counties in rank and alphabetical order are in Appendix 1.

Homeownership

Values of Owner-Occupied Homes

Real (inflation-adjusted) median values for owner-occupied homes increased dramatically from $65,300 to $86,700 between 1990 and 2000 after dropping slightly in the 1980s (Table 3.12). No ADDs experienced drops in real values during the 1990s.

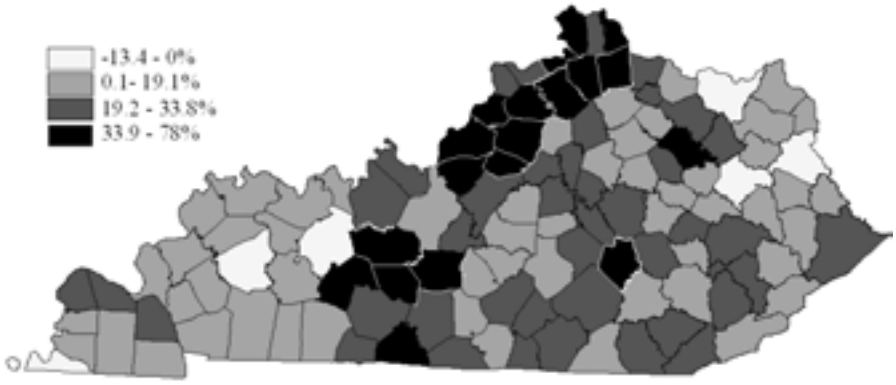
Table 3.12. Median single-family house values, by Area Development District, 1980, 1990, and 2000 (in 2000 dollars)

Area Development District	1980	1990	2000
Barren River	64,961	48,469	74,509
Big Sandy	52,468	35,544	46,402
Bluegrass	84,949	74,319	93,778
Buffalo Trace/Gateway	57,465	42,007	60,023
Cumberland Valley	42,474	35,544	46,181
FIVCO	64,961	48,469	57,103
Green River	64,961	54,932	69,016
Kentucky River	37,477	22,619	36,356
KIPDA	74,955	54,932	103,249
Lake Cumberland	52,468	42,007	55,638
Lincoln Trail	64,961	54,932	77,782
Northern Kentucky	84,949	80,782	101,034
Pennyrile	57,465	42,007	59,873
Purchase	64,961	48,469	70,356
Kentucky	*68,359*	*65,272*	*86,700*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 1990, and Summary File 3, 2000.
Note: The real values (in 2000 dollars) have been adjusted by the Bureau of Labor Statistics' Consumer Price Index, US city average for all items less shelter, <http://www.bls.gov/cpi/>.

Six counties experienced declines in real values between 1980 and 2000—Fulton, Hopkins, Lawrence, Lewis, Morgan, and Ohio (see Figure 3.4). Only one of those, Fulton, experienced a decline between 1990 and 2000.

Figure 3.4. Percentage change in real median single-family house values, by county, 1980-2000



Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 1980 and 2000.

Homeownership Costs

Median monthly total owner costs for single-family houses, mobile homes, and condominiums with mortgages or other secured debt were $816 in 2000, compared to $693 in 1990 (in 2000 values), an 18% increase. These costs include mortgage principal and interest payments, property taxes, insurance, and utilities. Owner-occupied costs for homes without mortgages were $214 in 2000 and $194 in 1990 (Table 3.13), a 10% increase. Real median monthly utility costs for owner-occupied single-family dwellings were $151 in 1990 and $138 in 2000, representing a 9% decrease (Table 3.14).

Table 3.13. Median selected monthly ownership costs, by mortgage status and Area Development District, 1990 and 2000 (in 2000 dollars)

Area Development	With mortgage			Without mortgage		
District	1990	2000	% change	1990	2000	% change
Barren River	635	759	19.5	193	213	10.4
Big Sandy	682	690	1.2	167	197	18.0
Bluegrass	769	858	11.6	199	221	11.1
Buffalo Trace/Gateway	533	667	25.1	177	190	7.3
Cumberland Valley	582	629	8.1	159	180	13.2
FIVCO	631	674	6.8	199	211	6.0
Green River	641	722	12.6	187	211	12.8
Kentucky River	575	588	2.3	147	172	17.0
KIPDA	723	919	27.1	229	244	6.6
Lake Cumberland	522	589	12.8	158	178	12.7
Lincoln Trail	654	744	13.8	182	200	9.9
Northern Kentucky	803	974	21.3	226	255	12.8
Pennyrile	606	660	8.9	182	196	7.7
Purchase	633	735	16.1	196	214	9.2
Kentucky	*693*	*816*	*17.7*	*194*	*214*	*10.3*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 1990 and 2000.
Note: Costs without mortgages include property taxes, insurance, and utilities. Costs with mortgages also include principal and interest payments. The values were converted to real terms using the Bureau of Labor Statistics' Consumer Price Index, US city average for all items less shelter, <http://www.bls.gov/cpi/>. Statistics for 1980 are not reported because they are not directly comparable to the data for 1990 and 2000 (see *KHNA:I*, p. 40, Table 3.14).

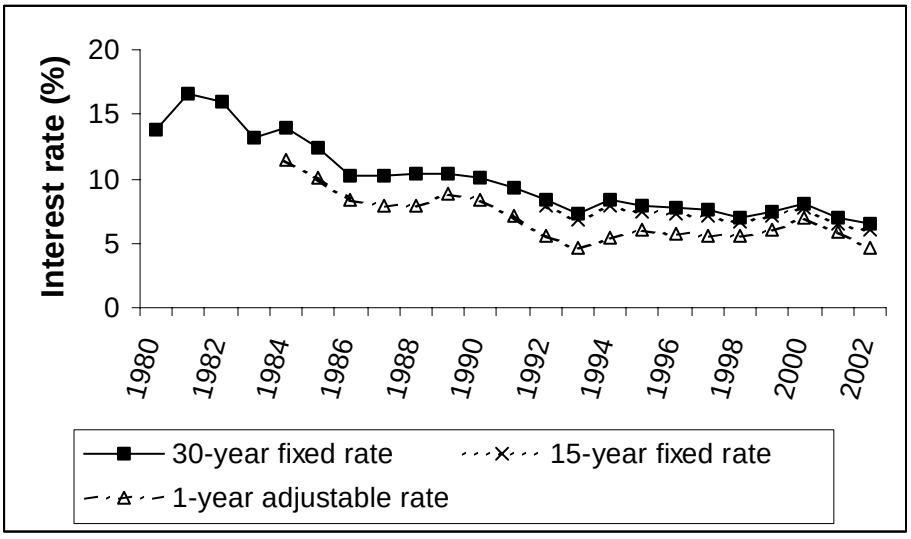
Table 3.14. Median homeowner monthly utility costs, by Area Development District, 1990 and 2000 (in 2000 dollars)

Area Development District	1990	2000	1990-2000 % change
Barren River	148	147	-0.7
Big Sandy	140	125	-10.7
Bluegrass	149	136	-8.7
Buffalo Trace/Gateway	141	130	-7.8
Cumberland Valley	130	118	-9.2
FIVCO	150	142	-5.3
Green River	151	142	-6.0
Kentucky River	128	109	-14.8
KIPDA	166	147	-11.4
Lake Cumberland	128	120	-6.3
Lincoln Trail	145	130	-10.3
Northern Kentucky	167	155	-7.2
Pennyrile	150	136	-9.3
Purchase	158	150	-5.1
Kentucky	*151*	*138*	*-8.6*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1990 and 2000.
Note: The median values were converted to real terms using the Bureau of Labor Statistics' Consumer Price Index, US city average for all items less shelter, <http://www.bls.gov/cpi/>. Statistics for 1980 are not reported because they are not directly comparable to the data for 1990 and 2000 (see *KHNA:I*, p. 41, Table 3.15).

Mortgage interest rates are an important component of the cost of owner-occupied housing. Figure 3.5 shows interest rates for conventional mortgages that meet the underwriting guidelines of the secondary mortgage market (Freddie Mac and Fannie Mae). Interest rates were very high in the early 1980s, dropping steadily into the early 1990s, and then fluctuating slightly in more recent years. Interest rates dropped in 2001 and 2002.

Figure 3.5. Conventional mortgage interest rates, 1980-2002



Source: Federal Home Loan Corporation, <http://www.freddiemac.com/>.

Lending for Homeownership

Home mortgages are classified according to size of the loan and type of mortgage insurance. *Conventional* loans are either uninsured or involve private mortgage insurance; the requirement for insurance typically depends on the percentage of the down payment. Conventional *jumbo* loans are for amounts that exceed the Freddie Mac and Fannie Mae loan limits.[11] Other than conventional loans, the most common types of loans are those guaranteed or insured by the Federal Housing Administration (FHA), Veterans Administration (VA), or the U.S. Department of Agriculture's Rural Housing Service (RHS).

Tables 3.15 and 3.16 provide a summary of home mortgage originations in Kentucky for the two most recent years available, 2001 and 2002. The most common loan purpose in both years was to refinance an existing mortgage. With 111,500 loans for refinancing purposes in 2002, this represents an 88% increase in volume over the number reported for 1999 in *KHNA:I*.[12] Total loan volume in 2002 was only 36% greater than the total in 1999, reflecting the fact that the number of loans for home purchase has remained fairly constant. Once the market for refinancing is exhausted, total loan volume will drop back to levels more like those in 1999 or earlier years.

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[11] See, for example, <http://www.fanniemae.com/aboutfm/loanlimits.jhtml>.

[12] See *KHNA:I*, p. 42, Table 3.16.

Table 3.15. Home mortgage originations, Kentucky, 2001

Purpose	Type	Number	%	Total value ($1,000s)	%	Average value ($)
Purchase	Conventional jumbo	795	1.5	332,114	6.6	417,753
	Other conventional	39,837	76.7	3,633,176	71.7	91,201
	FHA insured	8,140	15.7	786,315,000	15.5	96,599
	VA guaranteed	2,175	4.2	240,713	4.7	110,673
	RHS insured	971	1.9	77,495	1.5	79,809
	Total	*51,918*	*31.5*	*5,069,813*	*34.1*	*97,650*
Improvement	Conventional jumbo	32	0.3	15,841,000	5.9	495,031
	Other conventional	12,638	99.7	250,761,000	93.9	19,842
	FHA insured	8	0.1	326,000	0.1	40,750
	VA guaranteed	3	0.0	220,000	0.1	73,333
	RHS insured	0	0.0	0	0.0	0
	Total	*12,681*	*7.7*	*267,148*	*1.8*	*21,067*
Refinancing	Conventional jumbo	1,543	1.5	699,102	7.3	453,080
	Other conventional	94,430	94.3	8,400,010	88.1	88,955
	FHA insured	2,587	2.6	254,253	2.7	98,281
	VA guaranteed	1,611	1.6	180,529	1.9	112,060
	RHS insured	16	0.0	1,355	0.0	84,688
	Total	*100,187*	*60.8*	*9,535,249*	*64.1*	*95,175*
All purposes	Conventional jumbo	2,370	1.4	1,047,057	7.0	441,796
	Other conventional	146,905	89.1	12,283,947	82.6	83,618
	FHA insured	10,735	6.5	1,040,894	7.0	96,963
	VA guaranteed	3,789	2.3	423,462	2.8	111,233
	RHS insured	987	0.6	78,850	0.5	79,889
	Total	*164,786*	*100.0*	*14,872,210*	*100.0*	*90,252*

Source: Mortgage Bankers Association of America, unpublished data.
Note: These data are for loans issued by institutions subject to the Home Mortgage Disclosure Act.

Table 3.16. Home mortgage originations, Kentucky, 2002

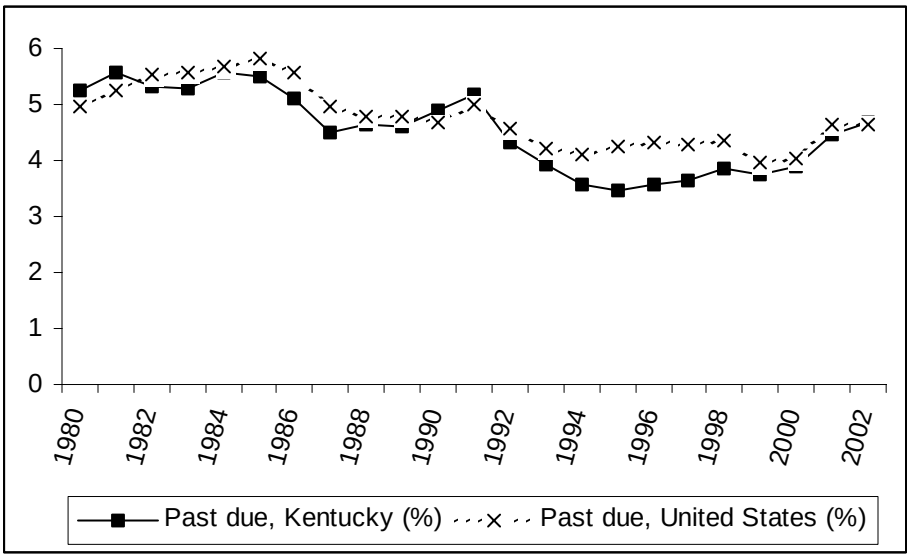
Purpose	Type	Number	%	Total value ($1,000s)	%	Average value ($)
Purchase	Conventional jumbo	653	1.3	301,026	5.7	460,989
	Other conventional	40,544	78.7	3,955,712	74.5	97,566
	FHA insured	7,615	14.8	759,655	14.3	99,758
	VA guaranteed	1,785	3.5	216,303	4.1	121,178
	RHS insured	941	1.8	78,652	1.5	83,583
	Total	*51,538*	*29.7*	*5,311,348*	*30.6*	*103,057*
Improvement	Conventional jumbo	12	0.1	4,725	2.2	393,750
	Other conventional	10,499	99.8	209,481	97.7	19,952
	FHA insured	5	0.0	117	0.1	23,400
	VA guaranteed	1	0.0	7	0.0	7,000
	RHS insured	0	0.0	0	0.0	0
	Total	*10,517*	*6.1*	*214,330*	*1.2*	*20,379*
Refinancing	Conventional jumbo	1,821	1.6	884,477	7.5	485,710
	Other conventional	105,558	94.7	10,542,832	89.0	99,877
	FHA insured	2,249	2.0	223,671	1.9	99,454
	VA guaranteed	1,803	1.6	185,932	1.6	103,124
	RHS insured	53	0.0	4,699	0.0	88,660
	Total	*111,484*	*64.2*	*11,841,611*	*68.2*	*106,218*
All purposes	Conventional jumbo	2,486	1.4	1,190,228	6.9	478,772
	Other conventional	156,601	90.2	14,708,025	84.7	93,920
	FHA insured	9,869	5.7	983,443	5.7	99,650
	VA guaranteed	3,589	2.1	402,242	2.3	112,076
	RHS insured	994	0.6	83,351	0.5	83,854
	Total	*173,539*	*100.0*	*17,367,289*	*100.0*	*100,077*

Source: Mortgage Bankers Association of America, unpublished data.
Note: These data are for loans issued by institutions subject to the Home Mortgage Disclosure Act.

Home Loan Delinquencies and Foreclosures

Past-due rates for home mortgage loans in Kentucky have generally followed trends for the United States as a whole, averaging slightly more than 5% in the 1980s and about 4% in the 1990s (Figure 3.6). Past-due rates for both Kentucky and the U.S. increased in recent years, to about 4.7% in 2002.

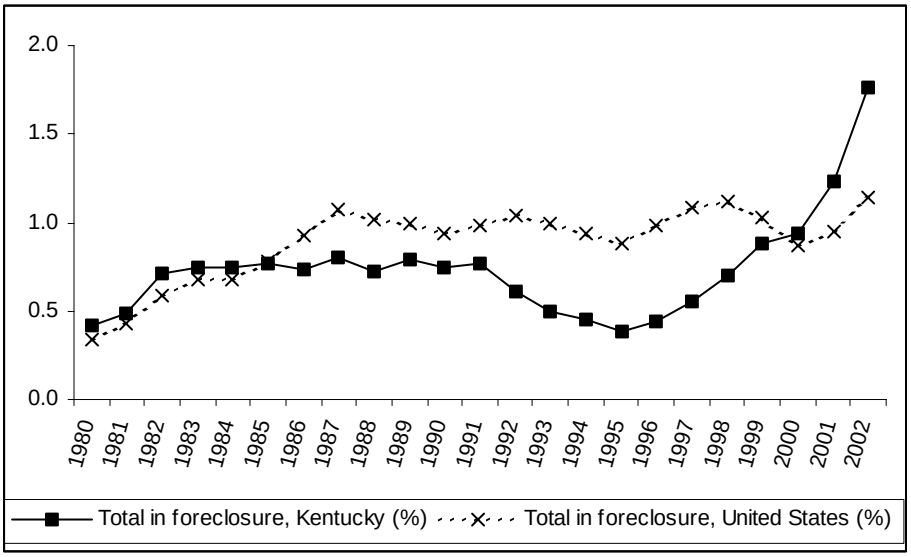
Figure 3.6. Past-due rates for home mortgages, Kentucky and the United States, 1980-2002



Source: Mortgage Bankers Association of America, unpublished data.
Note: Figure shows weighted averages for conventional, FHA, and VA mortgages.

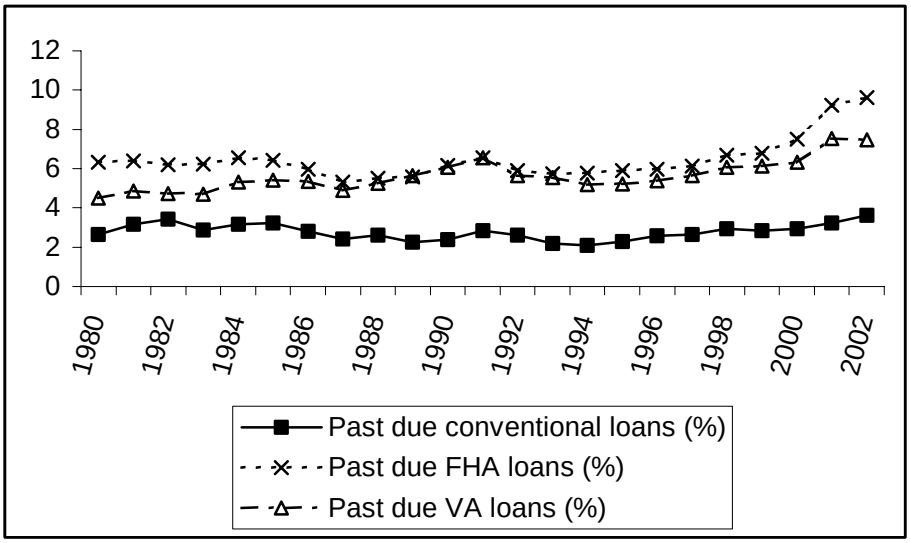
Kentucky and U.S. trends in foreclosure rates have differed during much of the 1980s and throughout the 1990s, with Kentucky having lower rates than the U.S. as a whole between 1986 and 1999 (Figure 3.7). Both the U.S. and Kentucky have seen increases in foreclosure rates since 2000. Figures 3.8 and 3.9 give separate past due and foreclosure rates for conventional, FHA, and VA loans. Historically, FHA and VA loans have higher past-due and foreclosure rates. This may be a result of their more relaxed underwriting criteria, including low down payment requirements. However, the rate of growth in the foreclosure rates for FHA and VA loans has been particularly high over the past couple of years. As of the first quarter 2003, the FHA and VA foreclosure rates were 3.3% and 3.0%, respectively, compared to 1.6% for conventional loans.

Figure 3.7. Foreclosure rates for home mortgages, Kentucky and the United States, 1980-2002



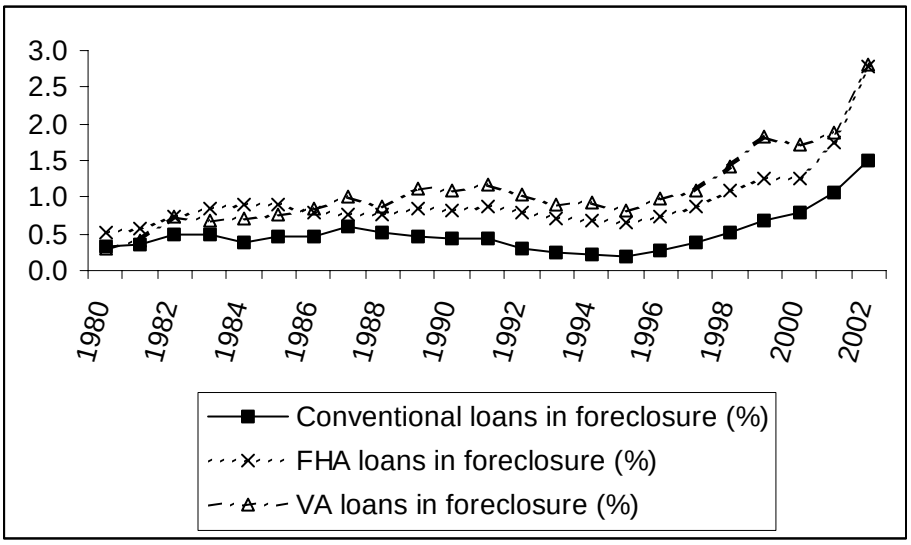
Source: Mortgage Bankers Association of America, unpublished data.
Note: Figure shows weighted averages for conventional, FHA, and VA mortgages.

Figure 3.8. Past-due rates for conventional, FHA, and VA home mortgages, Kentucky, 1980-2002



Source: Mortgage Bankers Association of America, unpublished data.

Figure 3.9. Foreclosure rates for conventional, FHA, and VA home mortgages, Kentucky, 1980-2002



Source: Mortgage Bankers Association of America, unpublished data.

Rental Housing

Rental Costs

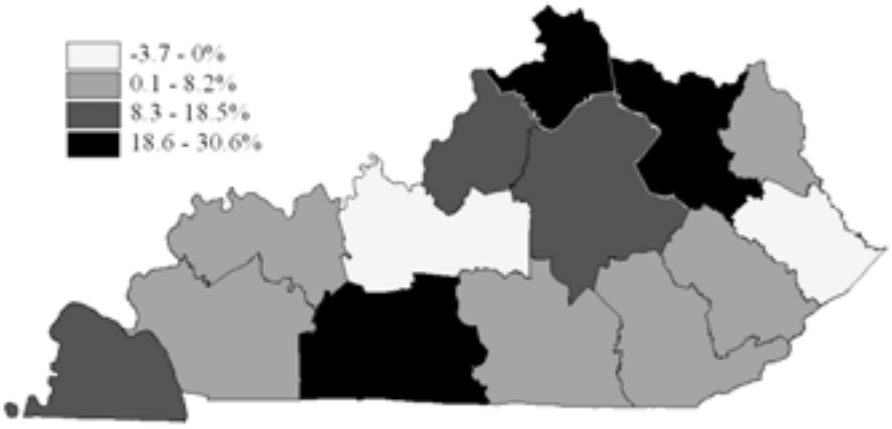
Median monthly gross rents (including utilities) increased from $405 to $445 (about 10%) in real terms during the 1990s (Table 3.17). During the 20-year period from 1980 to 2000, the largest gains were in Barren River (30.6%), Buffalo Trace/Gateway (22.1%), and Northern Kentucky (22.4%) (Figure 3.10). Big Sandy and Lincoln Trail experienced drops of -3.7% and -2.8%, respectively. The largest percentage gains during the 1990s were in Barren River (22.1%) and Buffalo Trace/Gateway (22.6%). Only Big Sandy experienced a drop (-6.9%). The most expensive rental markets in 2000 were Northern Kentucky, KIPDA, and Bluegrass, in that order, while the least expensive market was Kentucky River.

Table 3.17. Median monthly gross rents, by Area Development District, 1980, 1990, and 2000 (in 2000 dollars)

Area Development District	1980	1990	2000	1980-2000 % change
Barren River	330	353	431	30.6
Big Sandy	350	362	337	-3.7
Bluegrass	424	447	486	14.6
Buffalo Trace/Gateway	298	297	364	22.1
Cumberland Valley	310	311	330	6.5
FIVCO	374	368	393	5.1
Green River	380	375	397	4.5
Kentucky River	290	253	291	0.3
KIPDA	416	439	493	18.5
Lake Cumberland	304	299	329	8.2
Lincoln Trail	424	405	412	-2.8
Northern Kentucky	424	474	519	22.4
Pennyrile	390	370	399	2.3
Purchase	348	358	398	14.4
Kentucky	*392*	*405*	*445*	*13.5*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 1990, and Summary File 3, 2000.
Note: Gross rents include utility payments, whether paid by the landlord or tenant. The median values were converted to real terms using the Bureau of Labor Statistics' Consumer Price Index, US city average for all items less shelter, <http://www.bls.gov/cpi/>.

Figure 3.10. Percentage change in real median monthly gross rents, by Area Development District, 1980-2000



Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, and Summary File 3, 2000.

Rents by Number of Bedrooms

Looking at the rent data while controlling for the number of bedrooms, Northern Kentucky, Bluegrass, and KIPDA were the most expensive markets in 2000 for both two- and three-bedroom units (Tables 3.18 and 3.19). Kentucky River is again the least expensive location for each category.

Table 3.18. Median monthly gross rents for two-bedroom units, by Area Development District, 1980, 1990, and 2000 (in 2000 dollars)

Area Development District	1980	1990	2000	1980-2000 % change
Barren River	362	362	445	22.9
Big Sandy	352	350	330	-6.3
Bluegrass	474	487	502	5.9
Buffalo Trace/Gateway	310	321	375	21.0
Cumberland Valley	316	310	354	12.0
FIVCO	400	372	426	6.5
Green River	424	407	430	1.4
Kentucky River	292	226	277	-5.1
KIPDA	450	468	513	14.0
Lake Cumberland	322	306	335	4.0
Lincoln Trail	410	402	403	-1.7
Northern Kentucky	494	533	553	11.9
Pennyrile	398	383	406	2.0
Purchase	386	392	410	6.2
Kentucky	*424*	*427*	*461*	*8.7*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: Gross rents include utility payments, whether paid by the landlord or tenant. The median values were converted to real terms using the Bureau of Labor Statistics' Consumer Price Index, US city average for all items less shelter, <http://www.bls.gov/cpi/>.

Table 3.19. Median monthly gross rents for three-bedroom units, by Area Development District, 1980, 1990, and 2000 (in 2000 dollars)

Area Development District	1980	1990	2000	1980-2000 % change
Barren River	430	439	500	16.3
Big Sandy	410	406	397	-3.2
Bluegrass	524	570	613	17.0
Buffalo Trace/Gateway	384	343	418	8.9
Cumberland Valley	380	379	380	0.0
FIVCO	420	459	466	11.0
Green River	510	463	492	-3.5
Kentucky River	308	306	333	8.1
KIPDA	574	592	655	14.1
Lake Cumberland	330	362	380	15.2
Lincoln Trail	474	527	520	9.7
Northern Kentucky	524	601	650	24.0
Pennyrile	430	427	475	10.5
Purchase	452	436	480	6.2
Kentucky	*474*	*482*	*521*	*9.9*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Chapter 4
Housing Cost Burdens and Rent Gaps

Measuring Cost Burdens and Rent Gaps

We follow HUD guidelines and define unaffordable housing cost burdens as a fixed percentage of household gross income for low-income households.[13] Low-income households are those with incomes less than 80% of the relevant median family income. Other households are assumed to have sufficient income to afford adequate housing. Low-income households paying more than 30% of gross income on housing costs are considered to have a high cost burden, while those paying more than 50% of gross income have an extreme cost burden.[14]

Standard mortgage underwriting criteria allow housing payment (including mortgage principal, interest, real estate taxes, and insurance premiums) to gross income ratios of about 30%. In measuring whether housing costs are affordable for homeowners we include utilities along with PITI, which means that some low-income households might have acceptable loan-to-income ratios from a mortgage underwriting point of view, but unacceptable housing costs from our point of view. We maintain that our test is appropriate because ratios that may be acceptable for moderate- and higher-income households are probably not acceptable for low-income households, who are the focus of the analysis that follows.

The Census Bureau's Public Use Microdata Sample (PUMS) were used to calculate cost burdens for low-income owner and renter households for the entire state and for each ADD. Excluded from the calculations were households consisting only of unrelated individuals. It is difficult to interpret household income for such households and they would not qualify for housing assistance in most cases.[15]

We also use the PUMS data to calculate rent gaps for low-income renters. Rent gaps are defined as the difference between the actual rent paid and the rent that would be considered affordable using

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[13] As noted earlier, we have incorporated some improvements in our method for capturing the numbers of households below the low-income threshold and, consequently, we have revised our cost burden estimates for 1980 and 1990.

[14] We use the terms "high" and "extreme" to refer to cost burdens that HUD labels "moderate" and "severe." We believe that "moderate" is misleading because it suggests that such cost burdens are not excessive.

[15] Additional households were excluded from the sample if zero or negative incomes or zero housing costs were reported.

HUD's criteria. A positive rent gap for a particular ADD indicates that, on average, low-income renter households are paying more for rent than they can afford, according to HUD.

Affordability of Rental Housing

Housing Cost Burdens for Low-Income Renters

Table 4.1 gives the numbers of low-income renter households for whom cost burdens were calculated.

Table 4.1. Number of low-income renter households for whom cost burdens were calculated, by income level and Area Development District, 1980, 1990, and 2000

Area Development District	Low-income			Very low-income			Extremely low-income		
	1980	1990	2000	1980	1990	2000	1980	1990	2000
Barren River	8,400	10,783	11,908	5,520	7,511	7,549	2,780	3,550	4,149
Big Sandy	4,120	6,236	6,625	2,600	4,727	5,014	1,400	2,874	3,248
Bluegrass	33,080	41,230	50,845	21,160	27,401	33,137	11,460	15,508	18,389
Buffalo Trace/ Gateway	3,940	5,532	5,743	2,620	3,937	3,912	1,460	2,199	2,484
Cumberland Valley	8,560	11,351	12,502	5,720	8,339	9,352	3,280	5,056	5,600
FIVCO	5,400	6,047	7,150	3,640	4,884	5,369	2,320	3,479	3,309
Green River	9,160	12,258	13,534	5,900	8,394	9,762	3,160	5,312	5,370
Kentucky River	3,540	4,728	4,861	2,520	3,561	3,735	1,560	2,185	2,336
KIPDA	47,580	54,782	61,170	30,820	37,079	40,291	18,720	21,833	22,830
Lake Cumberland	5,100	7,980	9,575	3,820	5,818	6,988	2,020	3,058	3,992
Lincoln Trail	6,360	8,325	8,964	3,300	5,440	5,245	1,760	2,705	2,805
Northern Kentucky	16,180	18,285	22,627	10,180	11,899	14,307	5,480	7,245	8,456
Pennyrile	8,460	12,173	10,656	5,180	8,409	7,100	2,840	4,739	3,869
Purchase	6,100	9,828	9,627	4,120	6,508	6,345	2,200	2,820	3,155
Kentucky	*165,980*	*209,538*	*235,787*	*107,100*	*143,907*	*158,106*	*60,440*	*82,563*	*89,992*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: Cost burdens were not calculated for non-family multi-person households or for households were zero or negative income or housing costs. Low income, very low income, and extremely low income are defined as below 80%, 50%, and 30% of median family income, respectively, adjusted for metropolitan/non-metropolitan Public Use Microdata Area and household size.

Although the numbers of low-income renter households increased over time, the percentages facing high cost burdens (30% or more of income) or extreme cost burdens (50% or more of income) remained

fairly constant (Table 4.2). About 55% of low-income renters experienced high cost burdens and 27% experienced extreme cost burdens in 2000. Over two-thirds of very low-income renter households and over three-quarters of extremely low-income renter households experienced high cost burdens in that year. At the same time, some 39% of very low-income households and 56% of extremely low-income households had extreme cost burdens. It is clear that most low-income renters experience affordability problems. Although various housing assistance programs are available, funding levels have not been sufficient to serve all those eligible to receive benefits.

Table 4.2. Renter households with unaffordable cost burdens, Kentucky, 1980, 1990, and 2000

	1980		1990		2000	
Income group	Number of households	% of group total	Number of households	% of group total	Number of households	% of group total
Low-income renters:						
50% or more	45,560	27.4	61,202	29.2	63,555	27.0
30% or more	93,180	56.1	123,410	58.9	130,007	55.1
Very low-income renters:						
50% or more	43,780	40.9	59,327	41.2	61,764	39.1
30% or more	74,480	69.5	101,908	70.8	109,846	69.5
Extremely low-income renters:						
50% or more	34,760	57.5	48,382	58.6	50,782	56.4
30% or more	46,160	76.4	63,985	77.5	68,664	76.3

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: The cost burden calculations involved dividing gross rent (including utilities) by gross household income.

Table 4.3 expands on Table 4.2 by showing how the numbers of low-income households experiencing unaffordable cost burdens have increased over time. Comparison of the percentage increases for 1980-1990 and 1990-2000 indicates that growth in the 1980s was much larger than in the 1990s, reflecting relative economic conditions during the two decades.

Table 4.3. Percentage change in number of renter households with unaffordable cost burdens, Kentucky, 1980-2000

Income group	1980-1990	1990-2000	1980-2000
Low-income renters:			
50% or more	34.3	3.8	39.5
30% or more	32.4	5.3	39.5
Very low-income renters:			
50% or more	35.5	4.1	41.1
30% or more	36.8	7.8	47.5
Extremely low-income renters:			
50% or more	39.2	5.0	46.1
30% or more	38.6	7.3	48.8

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

The greatest percentages experiencing high cost burdens in 2000 were in Big Sandy and Cumberland Valley (Table 4.4). Big Sandy had the highest percentage of extreme cost burden in 2000.

Table 4.4. Percent of low-income renter households with unaffordable cost burdens, by Area Development District, 1980, 1990, and 2000

Area Development	50% or more			30% or more		
District	1980	1990	2000	1980	1990	2000
Barren River	29.5	32.4	28.5	58.1	61.5	59.6
Big Sandy	36.9	37.7	32.4	64.6	69.0	61.8
Bluegrass	28.8	29.7	27.1	59.9	60.3	54.9
Buffalo Trace/ Gateway	29.9	30.8	24.3	53.8	54.6	51.1
Cumberland Valley	28.0	41.9	29.0	59.8	64.7	60.7
FIVCO	25.9	26.0	27.6	55.6	54.0	50.9
Green River	22.7	25.8	21.5	48.5	52.4	46.6
Kentucky River	36.7	27.3	25.8	57.1	57.6	53.3
KIPDA	27.0	27.9	27.8	53.9	59.1	54.7
Lake Cumberland	27.1	28.9	26.6	56.1	55.0	52.5
Lincoln Trail	27.4	28.6	26.1	61.9	60.0	57.6
Northern Kentucky	24.6	27.2	26.4	53.6	59.8	57.3
Pennyrile	23.2	22.2	23.1	51.3	44.7	53.8
Purchase	28.9	30.4	29.1	60.0	68.0	57.3
Kentucky	*27.4*	*29.2*	*27.0*	*56.1*	*58.9*	*55.1*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

As Table 4.5 shows, in 1980 about 58% of the low-income households with extreme cost burdens were located in Bluegrass, KIPDA, or

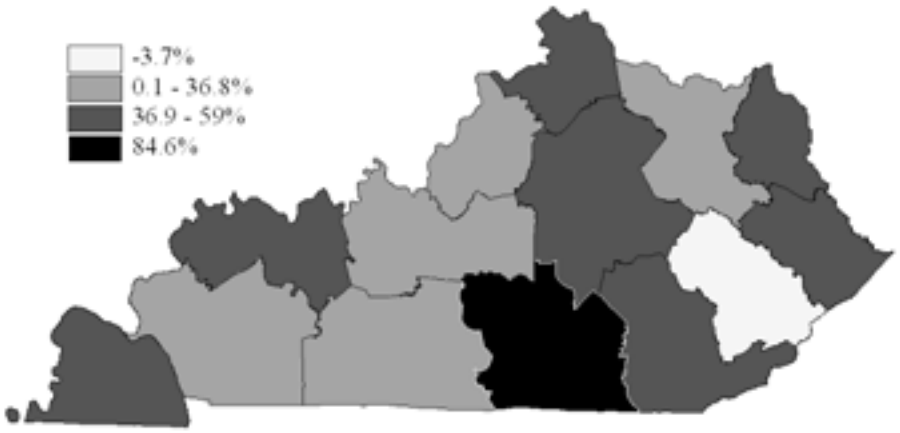
Northern Kentucky. This dropped to about 53% by 1990, but rose again to about 58% by 2000. In percentage terms, the numbers of low-income renters with extreme cost burdens rose the most over the 1980-2000 period in Cumberland Valley, Lake Cumberland, and Purchase (the increase in each exceeded 50%; see Figure 4.1). Table 4.6 and Figure 4.2 show similar patterns for low-income households with high cost burdens.

Table 4.5. Low-income renter households with extreme cost burdens (50% or more), by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 % of state total	1990 Number	1990 % of state total	2000 Number	2000 % of state total
Barren River	2,480	5.4	3,496	5.7	3,392	5.3
Big Sandy	1,520	3.3	2,348	3.8	2,146	3.4
Bluegrass	9,520	20.9	12,242	20.0	13,760	21.7
Buffalo Trace/ Gateway	1,180	2.6	1,704	2.8	1,398	2.2
Cumberland Valley	2,400	5.3	4,756	7.8	3,623	5.7
FIVCO	1,400	3.1	1,571	2.6	1,974	3.1
Green River	2,080	4.6	3,159	5.2	2,905	4.6
Kentucky River	1,300	2.9	1,292	2.1	1,252	2.0
KIPDA	12,860	28.2	15,280	25.0	16,988	26.7
Lake Cumberland	1,380	3.0	2,307	3.8	2,548	4.0
Lincoln Trail	1,740	3.8	2,380	3.9	2,339	3.7
Northern Kentucky	3,980	8.7	4,977	8.1	5,967	9.4
Pennyrile	1,960	4.3	2,706	4.4	2,465	3.9
Purchase	1,760	3.9	2,984	4.9	2,798	4.4
Kentucky	*45,560*	*100.0*	*61,202*	*100.0*	*63,555*	*100.0*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Figure 4.1. Percentage change in number of low-income renter households with extreme cost burdens, by Area Development District, 1980-2000



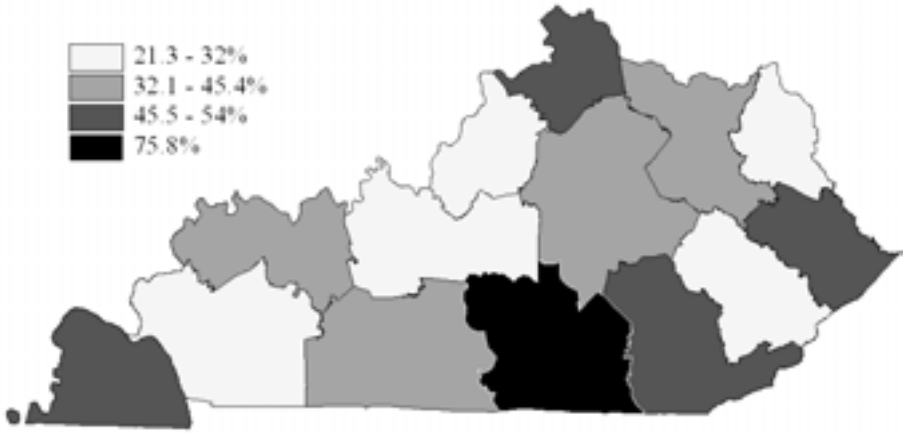
Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 2000.

Table 4.6. Low-income renter households with high cost burdens (30% or more), by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 % of state total	1990 Number	1990 % of state total	2000 Number	2000 % of state total
Barren River	4,880	5.2	6,633	5.4	7,095	5.5
Big Sandy	2,660	2.9	4,303	3.5	4,096	3.2
Bluegrass	19,800	21.2	24,864	20.1	27,909	21.5
Buffalo Trace /Gateway	2,120	2.3	3,023	2.4	2,933	2.3
Cumberland Valley	5,120	5.5	7,349	6.0	7,592	5.8
FIVCO	3,000	3.2	3,263	2.6	3,639	2.8
Green River	4,440	4.8	6,421	5.2	6,307	4.9
Kentucky River	2,020	2.2	2,721	2.2	2,593	2.0
KIPDA	25,660	27.5	32,399	26.3	33,454	25.7
Lake Cumberland	2,860	3.1	4,387	3.6	5,028	3.9
Lincoln Trail	3,940	4.2	4,992	4.0	5,160	4.0
Northern Kentucky	8,680	9.3	10,927	8.9	12,961	10.0
Pennyrile	4,340	4.7	5,445	4.4	5,728	4.4
Purchase	3,660	3.9	6,683	5.4	5,512	4.2
Kentucky	*93,180*	*100.0*	*123,410*	*100.0*	*130,007*	*100.0*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Figure 4.2. Percentage change in number of low-income renter households with high cost burdens, by Area Development District, 1980-2000



Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 2000.

Housing Cost Burdens for Very Low- and Extremely Low-Income Renters

The distribution of very low-income renter households with unaffordable cost burdens is profiled in Tables 4.7, 4.8, and 4.9. Percentage changes for very low-income households with extreme and high cost burdens are depicted in Figures 4.3 and 4.4. In 2000, more than 40% of very low-income households had extreme cost burdens in five ADDs: the worst was Barren River (44%), followed by Big Sandy, Purchase, KIPDA, and Bluegrass. The number of very low-income households with extreme cost burdens in the three largest metropolitan ADDs made up 58% of the state total in 1980, 53% in 1990, and 58% again in 2000 (Table 4.8).

Table 4.7. Percent of very low-income renter households with unaffordable cost burdens, by Area Development District, 1980, 1990, and 2000

Area Development	50% or more			30% or more		
District	1980	1990	2000	1980	1990	2000
Barren River	42.0	44.5	44.0	70.3	71.3	70.4
Big Sandy	50.8	48.6	42.8	76.9	75.9	70.5
Bluegrass	43.0	43.3	40.6	73.0	72.3	71.7
Buffalo Trace/ Gateway	41.2	42.2	34.4	67.9	62.8	62.3
Cumberland Valley	39.2	55.4	38.5	74.1	75.1	71.8
FIVCO	37.4	32.2	36.8	67.6	63.0	65.5
Green River	34.2	37.6	29.8	62.0	69.5	60.3
Kentucky River	50.8	36.0	32.9	69.8	66.3	62.2
KIPDA	40.8	39.8	41.0	68.1	72.3	71.1
Lake Cumberland	36.1	39.3	36.0	64.4	64.8	61.2
Lincoln Trail	47.9	42.6	39.4	74.5	71.8	72.9
Northern Kentucky	38.3	40.3	39.9	69.0	74.5	72.7
Pennyrile	37.5	32.2	33.7	70.7	58.2	69.9
Purchase	40.8	41.3	41.1	65.0	74.8	67.3
Kentucky	*40.9*	*41.2*	*39.1*	*69.5*	*70.8*	*69.5*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

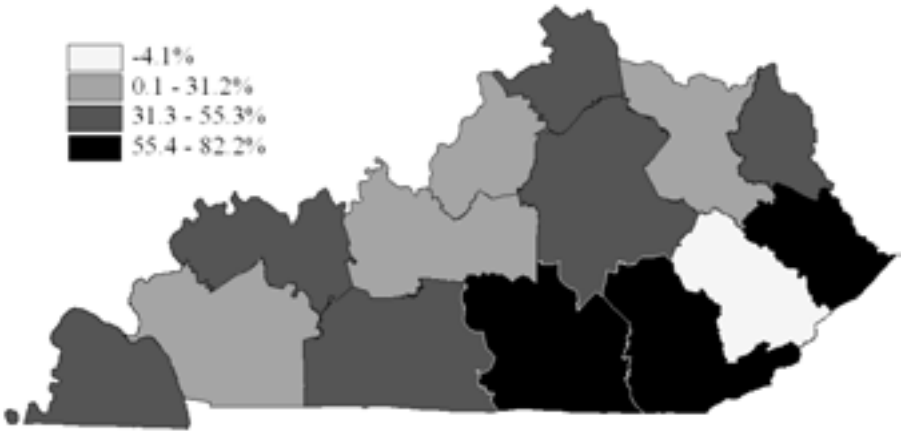
With respect to high cost burdens among very low-income households, Lincoln Trail had the largest percentage in 2000, at nearly 73%, followed closely behind by Northern Kentucky, Cumberland Valley, and Bluegrass (Table 4.7). About 58% of very low-income households with high cost burdens were in the three largest metropolitan ADDs in 1980, compared with about 54% in 1990 (Table 4.9). By 2000, the percentage in those ADDs was up to about 57%.

Table 4.8. Very low-income renter households with extreme cost burdens (50% or more), by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 % of state total	1990 Number	1990 % of state total	2000 Number	2000 % of state total
Barren River	2,320	5.3	3,340	5.6	3,325	5.4
Big Sandy	1,320	3.0	2,298	3.9	2,146	3.5
Bluegrass	9,100	20.8	11,856	20.0	13,453	21.8
Buffalo Trace/ Gateway	1,080	2.5	1,661	2.8	1,345	2.2
Cumberland Valley	2,240	5.1	4,623	7.8	3,597	5.8
FIVCO	1,360	3.1	1,571	2.6	1,974	3.2
Green River	2,020	4.6	3,159	5.3	2,905	4.7
Kentucky River	1,280	2.9	1,281	2.2	1,228	2.0
KIPDA	12,580	28.7	14,752	24.9	16,508	26.7
Lake Cumberland	1,380	3.2	2,289	3.9	2,514	4.1
Lincoln Trail	1,580	3.6	2,315	3.9	2,066	3.3
Northern Kentucky	3,900	8.9	4,791	8.1	5,703	9.2
Pennyrile	1,940	4.4	2,706	4.6	2,391	3.9
Purchase	1,680	3.8	2,685	4.5	2,609	4.2
Kentucky	*43,780*	*100.0*	*59,327*	*100.0*	*61,764*	*100.0*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Figure 4.3. Percentage change in number of very low-income renter households with extreme cost burdens, by Area Development District, 1980-2000



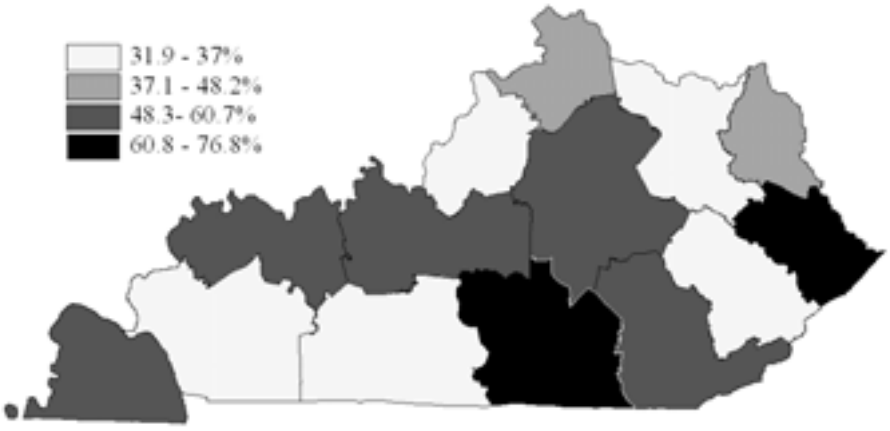
Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 2000.

Table 4.9. Very low-income renter households with high cost burdens (30% or more), by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 % of state total	1990 Number	1990 % of state total	2000 Number	2000 % of state total
Barren River	3,880	5.2	5,358	5.3	5,315	4.8
Big Sandy	2,000	2.7	3,588	3.5	3,536	3.2
Bluegrass	15,440	20.7	19,822	19.5	23,743	21.6
Buffalo Trace/ Gateway	1,780	2.4	2,472	2.4	2,438	2.2
Cumberland Valley	4,240	5.7	6,260	6.1	6,712	6.1
FIVCO	2,460	3.3	3,079	3.0	3,519	3.2
Green River	3,660	4.9	5,838	5.7	5,882	5.4
Kentucky River	1,760	2.4	2,361	2.3	2,322	2.1
KIPDA	20,980	28.2	26,823	26.3	28,638	26.1
Lake Cumberland	2,460	3.3	3,769	3.7	4,276	3.9
Lincoln Trail	2,460	3.3	3,905	3.8	3,823	3.5
Northern Kentucky	7,020	9.4	8,865	8.7	10,407	9.5
Pennyrile	3,660	4.9	4,898	4.8	4,966	4.5
Purchase	2,680	3.6	4,870	4.8	4,269	3.9
Kentucky	*74,480*	*100.0*	*101,908*	*100.0*	*109,846*	*100.0*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Figure 4.4. Percentage change in number of very low-income renter households with high cost burdens, by Area Development District, 1980-2000



Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 2000.

The distribution of extremely low-income renter households with unaffordable cost burdens is profiled in Tables 4.10, 4.11, and 4.12, with percentage changes mapped in Figures 4.5 and 4.6. In all three years shown, around 57% or 58% of all extremely low-income renter households faced extreme cost burdens, and about 77% faced high cost burdens. In 2000, the incidence of extreme cost burdens was slightly greater than 60% in two ADDs: Big Sandy and Bluegrass. The incidence of high cost burdens was 80% or greater in two ADDs: Big Sandy and Pennyrile.

Table 4.10. Percent of extremely low-income renter households with unaffordable cost burdens, by Area Development District, 1980, 1990, and 2000

Area Development	50% or more			30% or more		
District	1980	1990	2000	1980	1990	2000
Barren River	56.8	63.3	55.7	79.9	83.5	75.6
Big Sandy	72.9	64.6	60.3	92.9	84.7	81.7
Bluegrass	60.4	60.9	60.4	78.0	77.0	78.3
Buffalo Trace/ Gateway	56.2	60.9	44.3	82.2	77.6	68.9
Cumberland Valley	55.5	73.7	53.8	85.4	88.1	79.0
FIVCO	51.7	41.3	56.7	75.9	66.6	77.5
Green River	50.0	54.4	48.5	70.9	75.7	70.3
Kentucky River	69.2	55.3	46.7	85.9	82.8	70.6
KIPDA	56.5	56.4	59.1	71.3	75.0	76.1
Lake Cumberland	55.4	60.1	51.8	76.2	80.7	68.0
Lincoln Trail	60.2	63.3	55.9	79.5	81.0	75.0
Northern Kentucky	58.4	57.7	57.8	78.5	76.1	79.7
Pennyrile	54.9	52.2	53.1	75.4	73.8	80.0
Purchase	55.5	61.2	52.9	74.5	81.2	72.9
Kentucky	*57.5*	*58.6*	*56.4*	*76.4*	*77.5*	*76.3*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

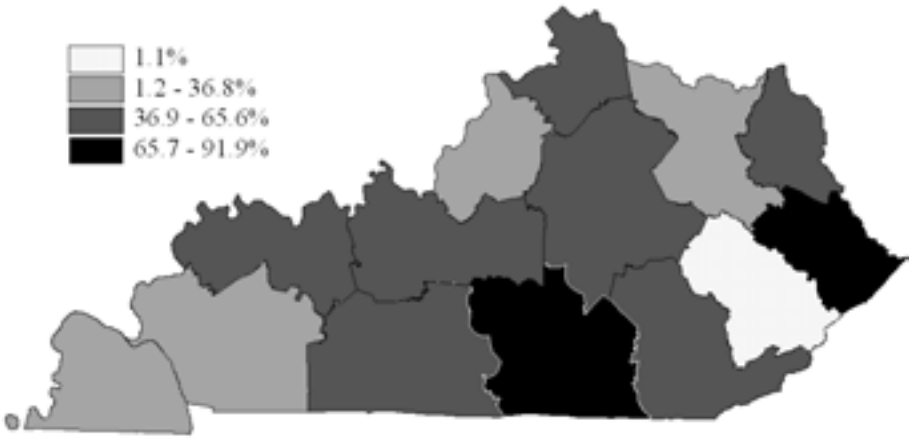
Although about 60% of the extremely low-income renter households with extreme cost burdens were located in the three largest metropolitan ADDs in 1980, that was true for about 54% in 1990. By 2000, 58% were in those three ADDs. Similar shifts occurred for extremely low-income renters with high cost burdens.

Table 4.11. Extremely low-income renter households with extreme cost burdens (50% or more), by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 % of state total	1990 Number	1990 % of state total	2000 Number	2000 % of state total
Barren River	1,580	4.5	2,248	4.6	2,311	4.6
Big Sandy	1,020	2.9	1,856	3.8	1,957	3.9
Bluegrass	6,920	19.9	9,439	19.5	11,098	21.9
Buffalo Trace /Gateway	820	2.4	1,339	2.8	1,101	2.2
Cumberland Valley	1,820	5.2	3,728	7.7	3,014	5.9
FIVCO	1,200	3.5	1,436	3.0	1,877	3.7
Green River	1,580	4.5	2,892	6.0	2,602	5.1
Kentucky River	1,080	3.1	1,209	2.5	1,092	2.2
KIPDA	10,580	30.4	12,309	25.4	13,484	26.6
Lake Cumberland	1,120	3.2	1,837	3.8	2,068	4.1
Lincoln Trail	1,060	3.0	1,711	3.5	1,568	3.1
Northern Kentucky	3,200	9.2	4,177	8.6	4,888	9.6
Pennyrile	1,560	4.5	2,475	5.1	2,053	4.0
Purchase	1,220	3.5	1,726	3.6	1,669	3.3
Kentucky	*34,760*	*100.0*	*48,382*	*100.0*	*50,782*	*100.0*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Figure 4.5. Percentage change in number of extremely low-income renter households with extreme cost burdens, by Area Development District, 1980-2000



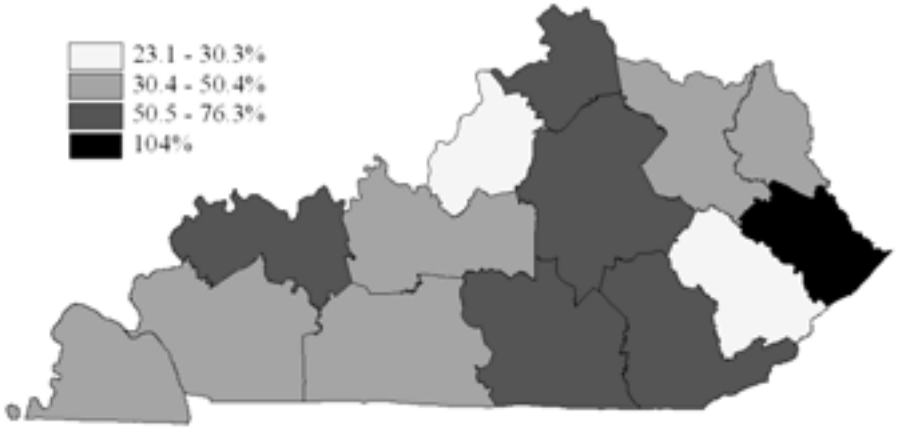
Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 2000.

Table 4.12. Extremely low-income renter households with high cost burdens (30% or more), by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 % of state total	1990 Number	1990 % of state total	2000 Number	2000 % of state total
Barren River	2,220	4.8	2,966	4.6	3,138	4.6
Big Sandy	1,300	2.8	2,435	3.8	2,652	3.9
Bluegrass	8,940	19.4	11,937	18.7	14,404	21.0
Buffalo Trace /Gateway	1,200	2.6	1,706	2.7	1,712	2.5
Cumberland Valley	2,800	6.1	4,456	7.0	4,426	6.4
FIVCO	1,760	3.8	2,318	3.6	2,566	3.7
Green River	2,240	4.9	4,023	6.3	3,777	5.5
Kentucky River	1,340	2.9	1,810	2.8	1,650	2.4
KIPDA	13,340	28.9	16,377	25.6	17,381	25.3
Lake Cumberland	1,540	3.3	2,469	3.9	2,715	4.0
Lincoln Trail	1,400	3.0	2,191	3.4	2,105	3.1
Northern Kentucky	4,300	9.3	5,510	8.6	6,742	9.8
Pennyrile	2,140	4.6	3,498	5.5	3,096	4.5
Purchase	1,640	3.6	2,289	3.6	2,300	3.3
Kentucky	*46,160*	*100.0*	*63,985*	*100.0*	*68,664*	*100.0*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Figure 4.6. Percentage change in number of extremely low-income renter households with high cost burdens, by Area Development District, 1980-2000



Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 2000.

Rent Gaps for Low-Income Renters

Table 4.13 gives average rent gaps for all low-income renter households (that is, not just those households with unaffordable cost burdens). Rent gaps are the differences between gross rent and 30% of household income. In real (2000) dollars, the average monthly gap increased from zero in 1980 to $46 in 1990, but then decreased to $36 in 2000. The largest gaps in 2000 were in Barren River, Big Sandy, Cumberland Valley, and Purchase (all above $50), while the smallest gaps were in Green River ($-15) and Pennyrile ($4).

Table 4.13. Average rent gaps for low-income renter households, by Area Development District, 1980, 1990, and 2000 (per month in 2000 dollars)

	1980			1990			2000		
Area Development District	Mean gross rent	30% of mean income	Mean rent gap	Mean gross rent	30% of mean income	Mean rent gap	Mean gross rent	30% of mean income	Mean rent gap
Barren River	301	288	12	313	248	64	369	315	54
Big Sandy	321	282	38	307	222	85	311	253	58
Bluegrass	380	365	15	399	341	58	451	413	38
Buffalo Trace/ Gateway	280	274	6	272	241	31	324	304	19
Cumberland Valley	284	276	8	291	226	65	321	270	51
FIVCO	343	358	-15	315	293	22	378	364	15
Green River	355	386	-31	347	335	12	373	389	-15
Kentucky River	256	261	-5	242	228	14	273	249	24
KIPDA	361	366	-6	394	346	47	454	414	39
Lake Cumberland	262	269	-7	264	239	25	292	278	14
Lincoln Trail	358	346	12	339	281	58	382	332	50
Northern Kentucky	374	382	-7	417	364	53	473	424	50
Pennyrile	347	370	-24	338	354	-16	380	376	4
Purchase	288	262	26	321	245	76	344	287	57
Kentucky	*346*	*346*	*0*	*359*	*313*	*46*	*409*	*373*	*36*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: Incomes were adjusted by the Bureau of Labor Statistics' Consumer Price Index, US city average; rents were adjusted by the CPI, US city average for all items less shelter; see <http://www.bls/gov/cpi/>.

Rent gaps for very low-income and extremely low-income renter households are given in Tables 4.14 and 4.15. Not surprisingly, these groups face much larger gaps than do all low-income renter

households. Their gaps increased slightly between 1990 and 2000, but there was a substantial increase between 1980 and 2000.

Table 4.14. Average rent gaps for very low-income renter households, by Area Development District, 1980, 1990, and 2000 (per month in 2000 dollars)

	1980			1990			2000		
Area Development District	Mean gross rent	30% of mean income	Mean rent gap	Mean gross rent	30% of mean income	Mean rent gap	Mean gross rent	30% of mean income	Mean rent gap
Barren River	276	204	72	282	177	105	322	211	111
Big Sandy	292	197	95	291	165	125	296	193	102
Bluegrass	348	253	95	362	237	125	420	290	130
Buffalo Trace/ Gateway	250	185	65	251	170	81	284	220	64
Cumberland Valley	259	192	67	277	160	118	304	205	99
FIVCO	303	244	59	294	221	73	357	267	89
Green River	320	267	53	320	229	91	355	290	65
Kentucky River	232	176	56	220	172	48	252	190	62
KIPDA	325	244	81	355	245	109	418	296	122
Lake Cumberland	248	213	35	242	176	66	264	198	66
Lincoln Trail	313	221	92	305	196	109	342	226	116
Northern Kentucky	342	264	79	382	245	137	419	291	128
Pennyrile	326	258	68	305	256	50	344	261	83
Purchase	251	188	64	285	177	108	313	203	109
Kentucky	*313*	*237*	*77*	*325*	*220*	*106*	*373*	*264*	*109*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: Incomes were adjusted by the Bureau of Labor Statistics' Consumer Price Index, US city average; rents were adjusted by the CPI, US city average for all items less shelter; see <http://www.bls/gov/cpi/>.

Table 4.15. Average rent gaps for extremely low-income renter households, by Area Development District, 1980, 1990, and 2000 (per month in 2000 dollars)

Area Development District	1980 Mean gross rent	1980 30% of mean income	1980 Mean rent gap	1990 Mean gross rent	1990 30% of mean income	1990 Mean rent gap	2000 Mean gross rent	2000 30% of mean income	2000 Mean rent gap
Barren River	252	140	112	264	115	149	297	149	148
Big Sandy	281	120	162	291	118	173	295	144	151
Bluegrass	313	161	152	339	163	175	391	206	186
Buffalo Trace/ Gateway	233	128	105	254	121	133	268	177	91
Cumberland Valley	245	130	115	273	105	168	288	154	135
FIVCO	276	178	98	268	170	98	330	180	150
Green River	275	165	110	292	157	135	319	196	123
Kentucky River	223	117	106	216	118	98	242	142	99
KIPDA	295	167	129	320	166	154	374	194	180
Lake Cumberland	239	155	84	238	124	114	249	142	107
Lincoln Trail	286	144	142	307	133	174	322	162	159
Northern Kentucky	328	178	150	363	169	195	388	205	184
Pennyrile	278	168	111	277	161	116	325	177	148
Purchase	244	132	112	272	114	158	282	142	140
Kentucky	*287*	*158*	*128*	*305*	*151*	*154*	*343*	*183*	*161*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: Incomes were adjusted by the Bureau of Labor Statistics' Consumer Price Index, US city average; rents were adjusted by the CPI, US city average for all items less shelter; see <http://www.bls/gov/cpi/>.

Assisted Rental Housing Supply and Demand

The Kentucky Housing Corporation undertook a census of all assisted rental housing in 2003. Details about funding sources and characteristics of the units were collected. Table 4.16 focuses on the numbers of units funded by various sources. In total, there were about 102,400 assisted units in 2003. Over 60% of all assisted housing involves the Section 8 rental assistance program funded by the U.S. Department of Housing and Urban Development. The next largest program is Public Housing, which accounts for about 23% of all units.

Table 4.16. Assisted rental units in Kentucky, 2003

Program	Number of units
Units funded by the U.S. Department of Housing and Urban Development:	
Section 8 Vouchers (tenant-based)	31,584
Section 8 Project-Based	30,671
Public Housing	23,477
Section 202 Housing for the Elderly	4,758
Section 236 Below Market Interest Rate	4,470
HOME Investment Partnership Act	855
Section 811 Housing for the Disabled	345
Other units funded by the U.S. government:	
Low Income Housing Tax Credit	17,569
Section 515 (U.S. Department of Agriculture)	12,192
Units funded by the Commonwealth of Kentucky:	
Affordable Housing Trust Fund	236
Other programs not listed separately above	*20,075*
Double-counted units:	
Involving Section 8 Vouchers	(5,095)
Other double-counted units	(38,715)
Net number of assisted rental units	*102,422*

Source: Authors' calculations based on census of assisted rental housing conducted by Kentucky Housing Corporation.

For comparison purposes, there were about 235,800 low-income households in the rental sector in 2000 (see Table 4.1).[16] Focusing just on low-income households, this means that there are about 133,400 low-income households in the rental sector who are not receiving assistance (Table 4.17). As noted above (in Table 4.2), some 130,000 low-income renter households had high cost burdens in 2000.

[16] In addition, many homeless individuals and families were homeless because they could not afford suitable rental housing.

Table 4.17. Unassisted low-income renter households, by Area Development District, 2003

Area Development District	Unassisted low-income renter households	As a % of all low-income renter households in ADD
Barren River	6,449	54.2
Big Sandy	2,513	37.9
Bluegrass	32,152	63.2
Buffalo Trace/Gateway	2,960	51.5
Cumberland Valley	5,064	40.5
FIVCO	3,535	49.4
Green River	8,119	60.0
Kentucky River	2,947	60.6
KIPDA	34,389	56.2
Lake Cumberland	4,879	51.0
Lincoln Trail	4,851	54.1
Northern Kentucky	14,562	64.4
Pennyrile	6,534	61.3
Purchase	4,411	45.8
Kentucky	*133,365*	*56.6*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 2000, and census of assisted rental housing conducted by Kentucky Housing Corporation.

Worst-case counties are listed in Table 4.18, by absolute number of renter households and by percentage of all households (details for all counties can be found in Appendix 2, Tables A2.1 and A2.2). This table focuses on all households with incomes below $20,000 as tabulated in the 2000 Census Summary File 3. We use this source of data because the PUMS data generally do not allow us to do calculations for areas as small as counties. Note that this income maximum is closer to the poverty level and the very low-income threshold than to the low-income threshold.[17]

[17] County rankings based on a combination of the housing conditions index reported earlier and the cost burden index are reported in Appendix 3. In these rankings, the housing conditions and cost burden indexes are given equal weight.

Table 4.18. Rental housing affordability, worst cases ranked by county, 2000

Rank by absolute number of renter households with incomes below $20,000 and high (30% or more) cost burdens		Rank by percentage of renter households with incomes below $20,000 and high (30% or more) cost burdens	
County	Rank	County	Rank
Jefferson	1	**Boone**	1
Fayette	2	**Fayette**	2
Kenton	3	**Jessamine**	3
Warren	4	**Franklin**	4
Marshall	5	**Kenton**	5
Daviess	6	**Marshall**	6
Campbell	7	Anderson	7
Madison	8	**Jefferson**	7
Christian	9	**Warren**	9
Hardin	10	**Campbell**	10
Franklin	11	Simpson	11
Boone	12	Grant	12
Pike	13	**Clark**	13
Pulaski	14	Shelby	14
Henderson	15	**Calloway**	15
Boyd	16	Woodford	16
Calloway	17	Livingston	16
Laurel	18	Bullitt	18
Whitley	19	**Madison**	19
Knox	20	Garrard	20
Floyd	21	**Daviess**	21
Hopkins	21	**Nelson**	22
Bell	23	Logan	23
Jessamine	24	**Hardin**	23
Barren	25	**Christian**	25
Harlan	26	Lyon	26
Graves	27	**Boyd**	27
Clark	28	**Henderson**	28
Nelson	29	**Barren**	29
Boyle	30	Montgomery	30

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 2000.
Note: Counties are ranked from worst to best. Counties listed in boldface appear on both lists. Complete lists of all counties in rank and alphabetical order are in Appendix 2.

Affordability of Owner-Occupied Housing

Housing Cost Burdens for Low-Income Owners

The numbers of low-income owner households increased by 20% during the 1990s (Table 4.19), while the numbers of low-income owner households with unaffordable cost burdens increased by over 45% (Table 4.20). During the same period, the percentage of low-income owner households with unaffordable cost burdens increased from 35.8% to 43.2% of all low-income owner households. The

percentage with extreme cost burdens increased from 16.0% to 21.3%. By 2000, the number of owner households with unaffordable cost burdens (126,700) was nearly as high as the number of low-income renter households with unaffordable cost burdens (130,000; see Table 4.2). In 1990, the number of low-income owner households with unaffordable burdens was only about 71% of the number of low-income renter households with unaffordable cost burdens.

Table 4.19. Low-income owner households for whom cost burdens were calculated, by Area Development District, 1980, 1990, and 2000

Area Development District	Low-income			Very low-income			Extremely low-income		
	1980	1990	2000	1980	1990	2000	1980	1990	2000
Barren River	9,000	12,492	15,085	4,860	6,905	8,081	2,260	2,731	3,187
Big Sandy	7,320	13,848	17,166	3,640	7,879	10,373	1,700	3,297	4,762
Bluegrass	23,060	30,328	43,205	12,120	16,139	21,473	5,420	6,533	9,062
Buffalo Trace/ Gateway	5,180	7,473	9,734	3,040	4,463	5,476	1,220	1,630	2,511
Cumberland Valley	12,220	19,178	25,443	6,720	11,725	15,300	3,340	5,376	6,967
FIVCO	8,560	11,873	15,835	4,900	6,891	9,147	2,220	3,278	4,262
Green River	11,380	16,204	18,738	6,640	8,470	9,550	3,440	3,896	4,278
Kentucky River	5,960	10,587	13,294	3,160	6,837	8,285	1,440	3,769	4,307
KIPDA	43,060	49,142	55,664	21,460	23,547	26,698	9,840	10,646	11,274
Lake Cumberland	9,460	14,473	17,621	5,620	8,741	9,698	2,760	3,282	4,482
Lincoln Trail	7,200	11,178	12,328	3,820	5,427	6,200	1,660	2,503	2,429
Northern Kentucky	14,720	17,312	20,506	7,360	8,627	8,448	3,080	3,342	3,347
Pennyrile	11,160	18,223	16,754	5,980	10,225	9,056	2,880	4,914	3,885
Purchase	9,280	11,191	11,768	4,880	5,618	5,932	1,900	1,946	2,211
Kentucky	*177,560*	*243,502*	*293,141*	*94,200*	*131,494*	*153,717*	*43,160*	*57,143*	*66,964*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: Cost burdens were not calculated for non-family multi-person households or for households with zero or negative income or housing costs. Low-income, very low-income, and extremely low-income are defined as below 80%, 50%, and 30% of median family income, respectively, adjusted for metropolitan/non-metropolitan Public Use Microdata Area and household size.

Table 4.20. Owner households with unaffordable cost burdens, Kentucky, 1980, 1990, and 2000

Income group	1980 Number of households	1980 % of group total	1990 Number of households	1990 % of group total	2000 Number of households	2000 % of group total
Low-income owners:						
50% or more	34,620	19.5	38,995	16.0	62,454	21.3
30% or more	72,360	40.8	87,090	35.8	126,686	43.2
Very low-income owners:						
50% or more	29,240	31.0	34,441	26.2	50,857	33.1
30% or more	53,400	56.7	65,383	49.7	85,274	55.5
Extremely low-income owners:						
50% or more	20,820	48.5	25,211	44.1	33,029	49.3
30% or more	32,420	75.1	39,744	69.6	48,298	72.1

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: The cost burden calculations involved dividing the sum of mortgage principal and interest payments, real estate taxes, insurance, and utilities by gross household income.

In 2000, the highest and lowest percentages with high cost burdens were in Barren River, with 51.4%, and FIVCO and Green River, with 36.6% and 36.8%, respectively (Table 4.21). The same ADDs also had the highest and lowest percentages of households with extreme cost burdens in 2000.

Table 4.21. Percent of low-income owner households with unaffordable cost burdens, by Area Development District, 1980, 1990, and 2000

Area Development	50% or more			30% or more		
District	1980	1990	2000	1980	1990	2000
Barren River	21.6	18.9	30.4	40.4	39.0	51.4
Big Sandy	19.9	18.7	27.2	34.7	38.4	46.9
Bluegrass	18.6	16.1	19.5	42.7	37.6	43.0
Buffalo Trace/ Gateway	22.8	13.6	26.6	40.9	34.6	47.7
Cumberland Valley	20.0	19.1	23.7	39.0	37.5	44.0
FIVCO	18.5	14.1	16.8	35.3	31.4	36.6
Green River	16.9	13.5	15.8	38.1	31.2	36.8
Kentucky River	19.5	19.2	19.1	31.9	36.0	40.3
KIPDA	18.7	15.5	21.4	40.9	38.1	43.4
Lake Cumberland	23.0	15.5	20.7	43.1	32.7	40.6
Lincoln Trail	25.8	16.1	23.0	51.7	37.9	48.7
Northern Kentucky	17.3	15.1	19.0	41.3	34.8	44.0
Pennyrile	18.6	12.9	18.2	38.4	27.3	39.8
Purchase	20.9	17.5	22.5	47.6	39.7	45.9
Kentucky	*19.5*	*16.0*	*21.3*	*40.8*	*35.8*	*43.2*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

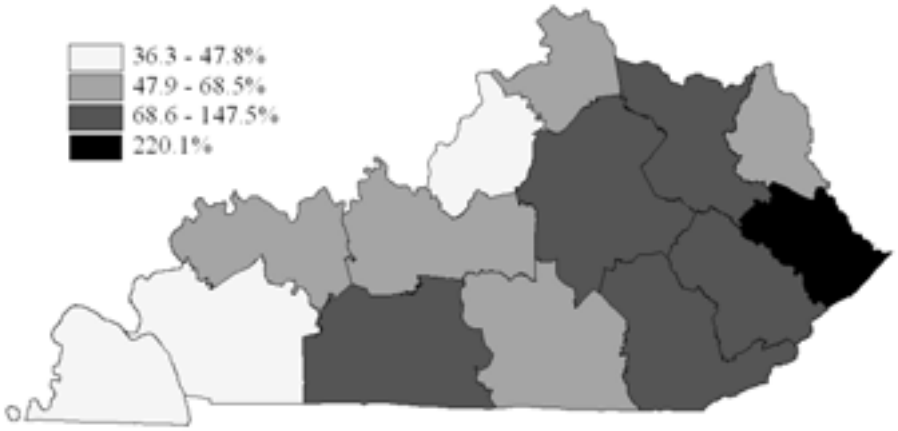
Tables 4.22 and 4.23 show that the heaviest concentrations of low-income owner households with extreme and high cost burdens are in the KIPDA and Bluegrass ADDs. While the degree of concentration in KIPDA has tended to decline over time, there is a slight increase in concentration in the Bluegrass ADD. The percentage increases between 1980 and 2000 were greatest in Big Sandy.

Table 4.22. Low-income owner households with extreme cost burdens (50% or more), by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 % of state total	1990 Number	1990 % of state total	2000 Number	2000 % of state total
Barren River	1,940	5.6	2,356	6.0	4,581	7.3
Big Sandy	1,460	4.2	2,596	6.7	4,673	7.5
Bluegrass	4,280	12.4	4,887	12.5	8,417	13.5
Buffalo Trace/ Gateway	1,180	3.4	1,020	2.6	2,594	4.2
Cumberland Valley	2,440	7.0	3,667	9.4	6,039	9.7
FIVCO	1,580	4.6	1,680	4.3	2,663	4.3
Green River	1,920	5.5	2,185	5.6	2,956	4.7
Kentucky River	1,160	3.4	2,029	5.2	2,545	4.1
KIPDA	8,060	23.3	7,609	19.5	11,911	19.1
Lake Cumberland	2,180	6.3	2,239	5.7	3,646	5.8
Lincoln Trail	1,860	5.4	1,798	4.6	2,835	4.5
Northern Kentucky	2,540	7.3	2,619	6.7	3,900	6.2
Pennyrile	2,080	6.0	2,353	6.0	3,050	4.9
Purchase	1,940	5.6	1,957	5.0	2,644	4.2
Kentucky	*34,620*	*100.0*	*38,995*	*100.0*	*62,454*	*100.0*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Figure 4.7. Percentage change in number of low-income owner households with extreme cost burdens, by Area Development District, 1980-2000



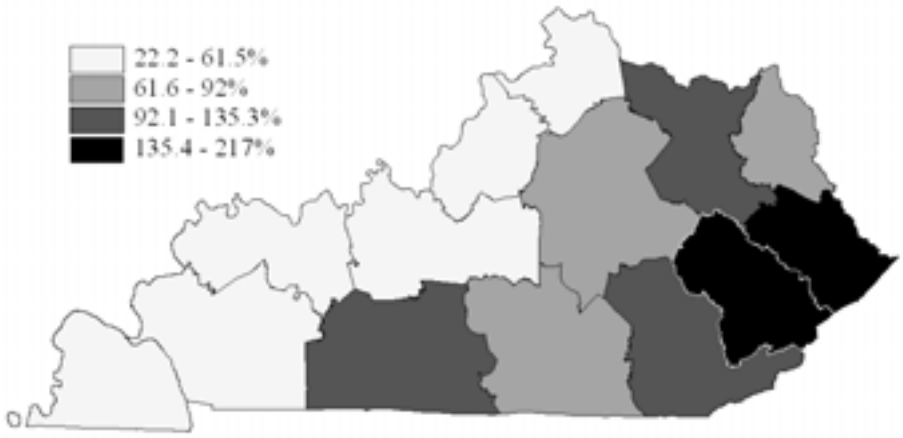
Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 2000.

Table 4.23. Low-income owner households with high cost burdens (30% or more), by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 % of state total	1990 Number	1990 % of state total	2000 Number	2000 % of state total
Barren River	3,640	5.0	4,874	5.6	7,749	6.1
Big Sandy	2,540	3.5	5,312	6.1	8,052	6.4
Bluegrass	9,840	13.6	11,396	13.1	18,574	14.7
Buffalo Trace/ Gateway	2,120	2.9	2,586	3.0	4,640	3.7
Cumberland Valley	4,760	6.6	7,189	8.3	11,198	8.8
FIVCO	3,020	4.2	3,729	4.3	5,799	4.6
Green River	4,340	6.0	5,054	5.8	6,891	5.4
Kentucky River	1,900	2.6	3,811	4.4	5,363	4.2
KIPDA	17,620	24.4	18,731	21.5	24,163	19.1
Lake Cumberland	4,080	5.6	4,729	5.4	7,154	5.6
Lincoln Trail	3,720	5.1	4,234	4.9	6,009	4.7
Northern Kentucky	6,080	8.4	6,031	6.9	9,020	7.1
Pennyrile	4,280	5.9	4,966	5.7	6,671	5.3
Purchase	4,420	6.1	4,448	5.1	5,403	4.3
Kentucky	*72,360*	*100.0*	*87,090*	*100.0*	*126,686*	*100.0*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Figure 4.8. Percentage change in number of low-income owner households with high cost burdens, by Area Development District, 1980-2000



Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 2000.

Housing Cost Burdens for Very Low- and Extremely Low-Income Owners

Tables 4.24 to 4.29 and Figures 4.9 to 4.12 reveal patterns for very low-income owners and extremely low-income owners similar to those for low-income owners overall. Barren River had the highest percentages of very low-income and extremely low-income owner households with high and extreme cost burdens in 2000. In Barren River, some 65.2% of very low-income and 82.2% of extremely low-income owner households had unaffordable (high) housing cost burdens. Kentucky River was at the low end of the range, with 48.4% of very low-income and 61.9% of extremely low-income owner households having unaffordable cost burdens. In percentage terms, the largest increases were in Big Sandy.

Table 4.24. Percent of very low-income owner households with unaffordable cost burdens, by Area Development District, 1980, 1990, and 2000

Area Development	50% or more			30% or more		
District	1980	1990	2000	1980	1990	2000
Barren River	30.5	29.6	42.3	50.6	53.3	65.2
Big Sandy	34.6	29.9	37.1	51.1	52.1	57.0
Bluegrass	29.7	25.5	32.4	58.1	48.6	56.1
Buffalo Trace/ Gateway	34.9	20.6	38.7	55.9	45.0	60.4
Cumberland Valley	31.0	27.9	33.7	53.3	47.6	55.0
FIVCO	26.9	23.5	25.4	47.8	44.0	49.8
Green River	26.2	22.9	27.4	53.0	45.1	49.5
Kentucky River	27.2	28.3	26.3	46.8	48.6	48.4
KIPDA	33.5	28.8	35.2	60.2	58.6	55.1
Lake Cumberland	31.0	22.2	32.4	54.1	41.3	53.4
Lincoln Trail	33.0	26.8	33.8	63.4	50.9	58.2
Northern Kentucky	30.4	26.5	33.1	59.8	52.2	59.2
Pennyrile	30.8	21.4	30.0	55.2	39.8	54.4
Purchase	32.4	28.4	35.0	68.4	58.1	61.0
Kentucky	*31.0*	*26.2*	*33.1*	*56.7*	*49.7*	*55.5*

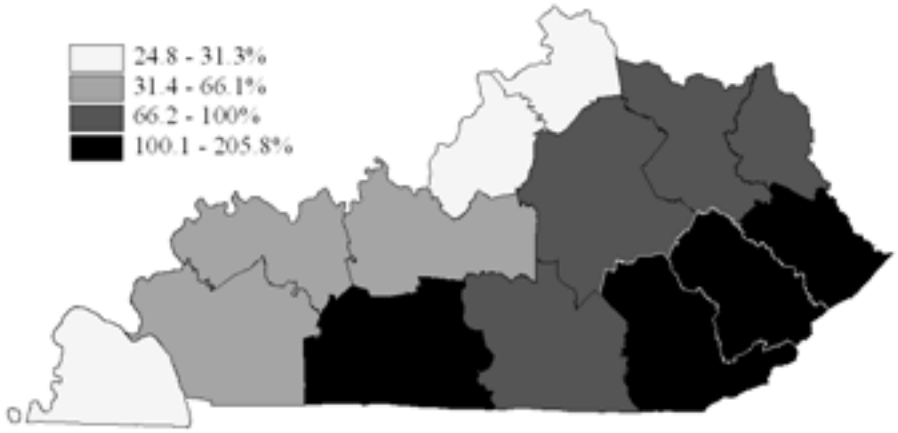
Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Table 4.25. Very low-income owner households with extreme cost burdens (50% or more), by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 % of state total	1990 Number	1990 % of state total	2000 Number	2000 % of state total
Barren River	1,480	5.1	2,046	5.9	3,418	6.7
Big Sandy	1,260	4.3	2,357	6.8	3,853	7.6
Bluegrass	3,600	12.3	4,119	12.0	6,965	13.7
Buffalo Trace/ Gateway	1,060	3.6	918	2.7	2,120	4.2
Cumberland Valley	2,080	7.1	3,267	9.5	5,156	10.1
FIVCO	1,320	4.5	1,616	4.7	2,323	4.6
Green River	1,740	6.0	1,940	5.6	2,620	5.2
Kentucky River	860	2.9	1,933	5.6	2,182	4.3
KIPDA	7,180	24.6	6,787	19.7	9,401	18.5
Lake Cumberland	1,740	6.0	1,941	5.6	3,141	6.2
Lincoln Trail	1,260	4.3	1,453	4.2	2,093	4.1
Northern Kentucky	2,240	7.7	2,282	6.6	2,796	5.5
Pennyrile	1,840	6.3	2,185	6.3	2,714	5.3
Purchase	1,580	5.4	1,597	4.6	2,075	4.1
Kentucky	*29,240*	*100.0*	*34,441*	*100.0*	*50,857*	*100.0*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Figure 4.9. Percentage change in number of very low-income owner households with extreme cost burdens, by Area Development District, 1980-2000



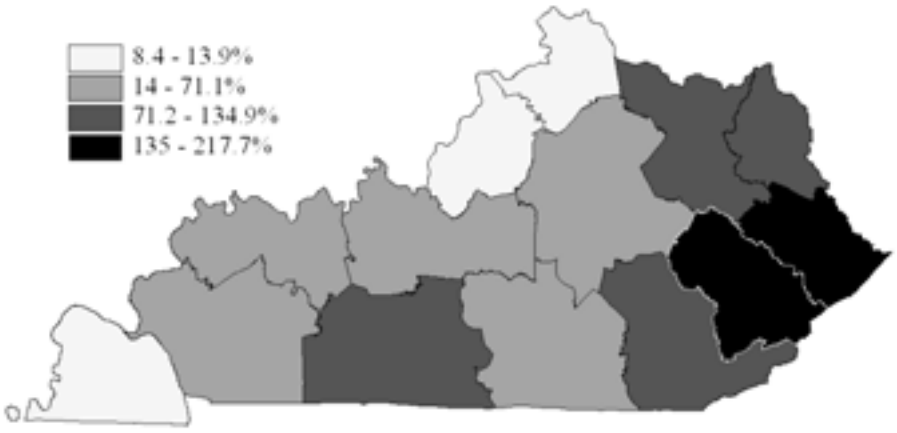
Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 2000.

Table 4.26. Very low-income owner households with high cost burdens (30% or more), by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 % of state total	1990 Number	1990 % of state total	2000 Number	2000 % of state total
Barren River	2,460	4.6	3,681	5.6	5,269	6.2
Big Sandy	1,860	3.5	4,108	6.3	5,909	6.9
Bluegrass	7,040	13.2	7,839	12.0	12,046	14.1
Buffalo Trace/ Gateway	1,700	3.2	2,008	3.1	3,306	3.9
Cumberland Valley	3,580	6.7	5,578	8.5	8,411	9.9
FIVCO	2,340	4.4	3,029	4.6	4,554	5.3
Green River	3,520	6.6	3,817	5.8	4,727	5.5
Kentucky River	1,480	2.8	3,326	5.1	4,011	4.7
KIPDA	12,920	24.2	13,787	21.1	14,712	17.3
Lake Cumberland	3,040	5.7	3,610	5.5	5,176	6.1
Lincoln Trail	2,420	4.5	2,765	4.2	3,611	4.2
Northern Kentucky	4,400	8.2	4,501	6.9	4,999	5.9
Pennyrile	3,300	6.2	4,072	6.2	4,924	5.8
Purchase	3,340	6.3	3,262	5.0	3,619	4.2
Kentucky	*53,400*	*100.0*	*65,383*	*100.0*	*85,274*	*100.0*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Figure 4.10. Percentage change in number of very low-income owner households with high cost burdens, by Area Development District, 1980-2000



Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 2000.

Table 4.27. Percent of extremely low-income owner households with unaffordable cost burdens, by Area Development District, 1980, 1990, and 2000

Area Development District	50% or more			30% or more		
	1980	1990	2000	1980	1990	2000
Barren River	45.1	57.7	57.8	66.4	79.5	82.2
Big Sandy	54.1	49.1	54.5	76.5	69.8	77.3
Bluegrass	45.0	38.6	45.3	74.2	66.9	69.7
Buffalo Trace/ Gateway	55.7	34.9	55.6	70.5	64.8	80.3
Cumberland Valley	43.7	47.3	50.8	70.7	67.2	74.3
FIVCO	44.1	36.3	41.2	64.9	55.4	65.9
Green River	40.1	41.1	43.7	70.9	67.4	66.7
Kentucky River	45.8	42.5	38.8	72.2	66.6	61.9
KIPDA	54.5	47.1	55.2	79.9	78.5	73.0
Lake Cumberland	42.0	41.3	44.1	67.4	69.7	68.0
Lincoln Trail	51.8	46.1	48.5	81.9	71.3	70.8
Northern Kentucky	53.2	46.9	52.5	84.4	70.8	77.0
Pennyrile	41.0	36.7	48.7	69.4	57.3	72.6
Purchase	56.8	56.7	55.4	93.7	85.6	79.5
Kentucky	*48.2*	*44.1*	*49.3*	*75.1*	*69.6*	*72.1*

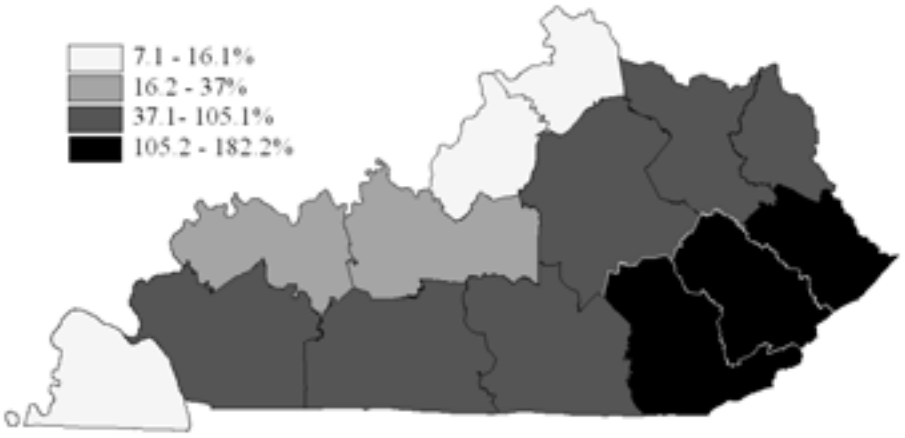
Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Table 4.28. Extremely low-income owner households with extreme cost burdens (50% or more), by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 % of state total	1990 Number	1990 % of state total	2000 Number	2000 % of state total
Barren River	1,020	4.9	1,577	6.3	1,841	5.6
Big Sandy	920	4.4	1,618	6.4	2,596	7.9
Bluegrass	2,440	11.7	2,521	10.0	4,107	12.4
Buffalo Trace/ Gateway	680	3.3	569	2.3	1,395	4.2
Cumberland Valley	1,460	7.0	2,542	10.1	3,536	10.7
FIVCO	980	4.7	1,189	4.7	1,758	5.3
Green River	1,380	6.6	1,600	6.3	1,870	5.7
Kentucky River	660	3.2	1,603	6.4	1,672	5.1
KIPDA	5,360	25.7	5,010	19.9	6,225	18.8
Lake Cumberland	1,160	5.6	1,354	5.4	1,977	6.0
Lincoln Trail	860	4.1	1,155	4.6	1,178	3.6
Northern Kentucky	1,640	7.9	1,568	6.2	1,757	5.3
Pennyrile	1,180	5.7	1,802	7.1	1,893	5.7
Purchase	1,080	5.2	1,103	4.4	1,224	3.7
Kentucky	*20,820*	*100.0*	*25,211*	*100.0*	*33,029*	*100.0*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% sample), 1980, 1990, and 2000.

Figure 4.11. Percentage change in number of extremely low-income owner households with extreme cost burdens, by Area Development District, 1980-2000



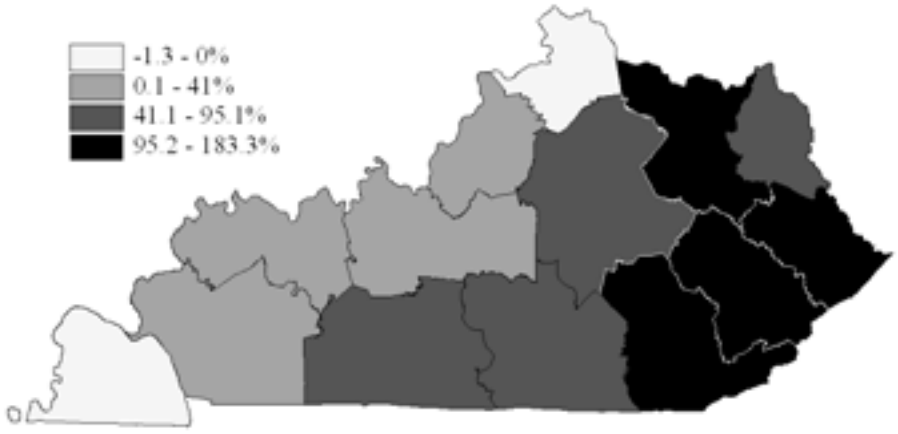
Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 2000.

Table 4.29. Extremely low-income owner households with high cost burdens (30% or more), by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 % of state total	1990 Number	1990 % of state total	2000 Number	2000 % of state total
Barren River	1,500	4.6	2,171	5.5	2,619	5.4
Big Sandy	1,300	4.0	2,302	5.8	3,683	7.6
Bluegrass	4,020	12.4	4,368	11.0	6,315	13.1
Buffalo Trace/ Gateway	860	2.7	1,056	2.7	2,016	4.2
Cumberland Valley	2,360	7.3	3,612	9.1	5,178	10.7
FIVCO	1,440	4.4	1,817	4.6	2,809	5.8
Green River	2,440	7.5	2,625	6.6	2,852	5.9
Kentucky River	1,040	3.2	2,510	6.3	2,668	5.5
KIPDA	7,860	24.2	8,361	21.0	8,234	17.0
Lake Cumberland	1,860	5.7	2,287	5.8	3,050	6.3
Lincoln Trail	1,360	4.2	1,785	4.5	1,720	3.6
Northern Kentucky	2,600	8.0	2,367	6.0	2,577	5.3
Pennyrile	2,000	6.2	2,817	7.1	2,820	5.8
Purchase	1,780	5.5	1,666	4.2	1,757	3.6
Kentucky	*32,420*	*100.0*	*39,744*	*100.0*	*48,298*	*100.0*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Figure 4.12. Percentage change in number of extremely low-income owner households with high cost burdens, by Area Development District, 1980-2000



Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 2000.

Chapter 5
Special Needs

Elderly Persons

Introduction

This section provides updated population projections for the elderly for 2010 and 2020, as well as new information from the 2000 census PUMS data on the incidence of low income and disability among the elderly. We also use the PUMS data to determine the possible impact of reverse mortgages on the low-income rate for the elderly.

Population and Income Trends

Tables 5.1, 5.2, and 5.3 repeat the 1980, 1990, and 2000 population data from *KHNA:I* and provide revised projections for 2010 and 2020.

Table 5.1. Population aged 65 and older, by Area Development District, 1980, 1990, and 2000, with projections for 2010 and 2020

Area Development District	1980	1990	% change	2000	% change	2010 projection	% change	2020 projection	% change
Barren River	27,539	30,811	11.9	33,892	10.0	36,480	7.6	47,278	29.6
Big Sandy	16,582	17,893	7.9	18,218	1.8	21,921	20.3	29,187	33.1
Bluegrass	55,672	67,183	20.7	74,317	10.6	86,242	16.0	119,102	38.1
Buffalo Trace/ Gateway	14,625	16,024	9.6	17,302	8.0	18,679	8.0	24,905	33.3
Cumberland Valley	25,947	27,864	7.4	29,343	5.3	34,344	17.0	46,223	34.6
FIVCO	15,445	17,769	15.0	17,892	0.7	21,395	19.6	25,877	20.9
Green River	23,584	26,620	12.9	27,508	3.3	29,858	8.5	37,180	24.5
Kentucky River	13,716	13,828	0.8	14,128	2.2	16,761	18.6	22,433	33.8
KIPDA	85,414	101,606	19.0	103,378	1.7	113,176	9.5	147,713	30.5
Lake Cumberland	22,623	25,650	13.4	27,890	8.7	32,623	17.0	41,970	28.7
Lincoln Trail	19,698	23,165	17.6	25,256	9.0	31,865	26.2	44,425	39.4
Northern Kentucky	34,577	38,509	11.4	43,610	13.2	45,592	4.5	62,757	37.6
Pennyrile	26,039	28,786	10.5	30,098	4.6	31,089	3.3	38,492	23.8
Purchase	28,201	31,108	10.3	32,021	2.9	31,434	-1.8	38,557	22.7
Kentucky	*409,662*	*466,816*	*14.0*	*494,853*	*6.0*	*551,459*	*11.4*	*726,099*	*31.7*

Source: Data for 1980, 1990, and 2000: US Census Bureau, *Census of Population and Housing*, Summary File 1. Projections for 2010 and 2020: unpublished data provided by Kentucky Population Research, Urban Studies Institute, University of Louisville.

The largest growth in the elderly population will be between 2010 and 2020, when the 65 and older group is expected to grow by 31.7%, or nearly 175,000 persons. As the 65 to 74 age group continues to age and becomes increasingly frail in later decades, the demand for specialized housing for the elderly will increase dramatically.[18]

Table 5.2. Population aged 75 and older, by Area Development District, 1980, 1990, and 2000, with projections for 2010 and 2020

Area Development District	1980	1990	% change	2000	% change	2010 projection	% change	2020 projection	% change
Barren River	10,596	13,465	27.1	15,126	12.3	15,584	3.0	17,823	14.4
Big Sandy	5,733	7,146	24.6	8,268	15.7	9,450	14.3	10,749	13.7
Bluegrass	22,296	28,623	28.4	34,847	21.7	38,039	9.2	43,915	15.4
Buffalo Trace/ Gateway	5,632	7,010	24.5	7,702	9.9	8,074	4.8	9,059	12.2
Cumberland Valley	9,849	11,886	20.7	13,494	13.5	14,260	5.7	16,932	18.7
FIVCO	5,613	7,312	30.3	8,388	14.7	9,477	13.0	10,344	9.1
Green River	9,507	11,507	21.0	13,225	14.9	13,727	3.8	14,466	5.4
Kentucky River	5,292	5,916	11.8	6,369	7.7	6,935	8.9	8,178	17.9
KIPDA	33,317	42,257	26.8	50,432	19.3	53,672	6.4	54,719	2.0
Lake Cumberland	8,378	10,925	30.4	12,756	16.8	13,815	8.3	15,963	15.5
Lincoln Trail	7,514	9,699	29.1	11,778	21.4	13,392	13.7	15,896	18.7
Northern Kentucky	13,254	15,953	20.4	18,995	19.1	20,522	8.0	22,358	8.9
Pennyrile	9,954	12,855	29.1	13,813	7.5	13,591	-1.6	14,806	8.9
Purchase	11,455	14,065	22.8	15,657	11.3	14,426	-7.9	14,906	3.3
Kentucky	*158,390*	*198,619*	*25.4*	*230,850*	*16.2*	*244,964*	*6.1*	*270,114*	*10.3*

Source: Data for 1980, 1990, and 2000: US Census Bureau, *Census of Population and Housing*, Summary File 1. Projections for 2010 and 2020: unpublished data provided by Kentucky Population Research, Urban Studies Institute, University of Louisville.

[18] There is a detailed discussion of elderly housing options and issues in *KHNA:I*, pp. 92-103.

Table 5.3. Population aged 85 and older, by Area Development District, 1980, 1990, and 2000, with projections for 2010 and 2020

Area Development District	1980	1990	% change	2000	% change	2010 projection	% change	2020 projection	% change
Barren River	2,239	3,010	34.4	3,972	32.0	4,379	10.2	4,436	1.3
Big Sandy	1,172	1,512	29.0	1,885	24.7	2,386	26.6	2,637	10.5
Bluegrass	5,033	6,894	37.0	8,908	29.2	10,579	18.8	11,217	6.0
Buffalo Trace/ Gateway	1,267	1,675	32.2	1,965	17.3	2,172	10.5	2,260	4.1
Cumberland Valley	1,832	2,747	49.9	3,475	26.5	3,795	9.2	3,940	3.8
FIVCO	1,229	1,601	30.3	1,942	21.3	2,397	23.4	2,612	9.0
Green River	1,949	2,720	39.6	3,382	24.3	3,830	13.2	3,848	0.5
Kentucky River	1,072	1,343	25.3	1,659	23.5	1,782	7.4	1,929	8.2
KIPDA	7,064	10,212	44.6	12,414	21.6	14,780	19.1	15,042	1.8
Lake Cumberland	1,713	2,407	40.5	3,198	32.9	3,639	13.8	3,878	6.6
Lincoln Trail	1,549	2,167	39.9	2,950	36.1	3,457	17.2	3,887	12.4
Northern Kentucky	2,942	3,656	24.3	4,607	26.0	5,502	19.4	5,706	3.7
Pennyrile	2,190	3,076	40.5	3,619	17.7	3,820	5.6	3,689	-3.4
Purchase	2,413	3,347	38.7	4,285	28.0	4,348	1.5	3,880	-10.8
Kentucky	*33,664*	*46,367*	*37.7*	*58,261*	*25.7*	*66,866*	*14.8*	*68,961*	*3.1*

Source: Data for 1980, 1990, and 2000: US Census Bureau, *Census of Population and Housing*, Summary File 1. Projections for 2010 and 2020: unpublished data provided by Kentucky Population Research, Urban Studies Institute, University of Louisville.

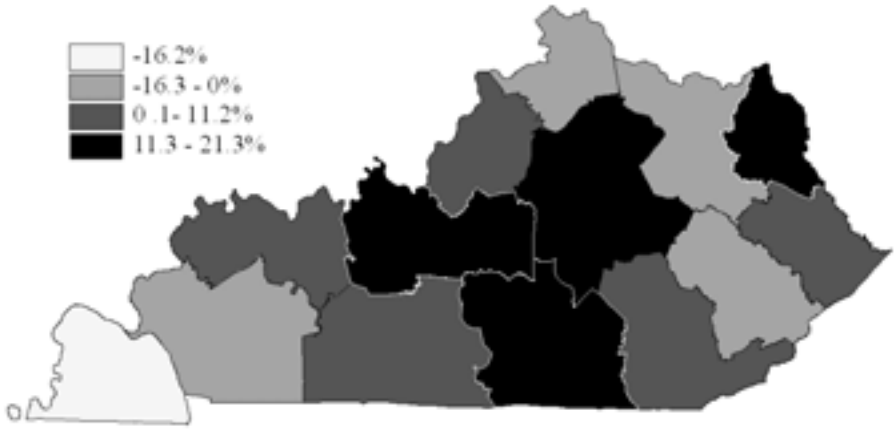
The absolute number of low-income elderly households in Kentucky decreased between 1990 and 2000, both in absolute terms and as a percentage of all elderly households (Table 5.4). The percentage decline was a continuation of the trend in the 1980s. Between 1980 and 2000, the greatest decline was in Purchase; other ADDs experiencing declines were Buffalo Trace/Gateway, Kentucky River, Northern Kentucky, and Pennyrile (Figure 5.1). Between 1990 and 2000, all ADDs experienced declines except for Big Sandy, Bluegrass, Buffalo Trace/Gateway, Cumberland Valley, and Lake Cumberland.

Table 5.4. Low-income elderly households, by Area Development District, 1979, 1989, and 1999

Area Development District	1979 Number	1979 % of state total	1989 Number	1989 % of state total	1999 Number	1999 % of state total
Barren River	12,060	66.8	12,715	60.8	12,078	55.0
Big Sandy	7,340	68.2	7,819	62.4	8,163	61.8
Bluegrass	24,660	66.5	27,536	61.7	29,223	58.4
Buffalo Trace /Gateway	6,920	69.9	6,512	63.4	6,562	55.6
Cumberland Valley	12,480	69.8	12,487	65.4	13,558	67.8
FIVCO	7,660	76.9	9,032	73.1	8,905	67.4
Green River	11,640	74.0	12,519	69.0	12,484	66.0
Kentucky River	6,580	70.9	6,567	69.9	6,330	63.7
KIPDA	35,660	66.8	39,146	58.0	38,921	54.1
Lake Cumberland	10,660	72.8	12,178	70.6	12,425	61.7
Lincoln Trail	7,360	62.3	9,259	57.9	8,925	50.6
Northern Kentucky	15,640	68.4	16,764	63.9	15,537	56.2
Pennyrile	11,080	66.4	14,329	73.9	11,044	58.2
Purchase	11,900	63.1	11,809	56.2	9,971	48.5
Kentucky	*181,640*	*68.1*	*198,672*	*63.1*	*194,126*	*57.8*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Figure 5.1. Percentage change in number of low-income elderly households, by Area Development District, 1979-1999



Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980 and 2000.

Among elderly low-income renter households in Kentucky, there were small overall increases between 1990 and 2000 in the percentages with

high and extreme cost burdens (Tables 5.5 and 5.6). In 2000, the percentage with high cost burdens ranged from a low of 43.7% in Big Sandy to a high of 62.6% in Lincoln Trail.

Table 5.5. Elderly low-income renter households with extreme cost burdens (50% or more), by Area Development District, 1980, 1990, and 2000

	1980		1990		2000	
Area Development District	Number	% of ADD total	Number	% of ADD total	Number	% of ADD total
Barren River	520	24.3	567	21.1	548	25.7
Big Sandy	340	37.0	235	23.3	107	9.9
Bluegrass	1,260	19.5	1,718	21.6	2,146	28.0
Buffalo Trace/ Gateway	300	25.0	198	15.7	318	23.0
Cumberland Valley	360	16.8	616	25.7	577	27.6
FIVCO	260	21.0	184	12.4	221	19.7
Green River	600	27.0	420	14.7	647	24.8
Kentucky River	120	19.4	77	7.6	199	27.8
KIPDA	2,800	25.4	3,131	26.3	2,181	23.5
Lake Cumberland	180	17.3	464	22.1	457	22.7
Lincoln Trail	300	30.6	328	18.3	390	25.7
Northern Kentucky	1,180	24.6	1,310	24.1	1,380	29.3
Pennyrile	480	24.2	594	23.6	305	17.5
Purchase	520	23.2	555	17.7	457	19.7
Kentucky	*9,220*	*23.6*	*10,397*	*21.9*	*9,933*	*24.6*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: The calculations were of gross rent (including utilities) as a proportion of gross household income. Households consisting only of multiple unrelated persons (that is, households that consisted of neither families nor single persons living alone) were excluded from the calculations.

Table 5.6. Elderly low-income renter households with high cost burdens (30% or more), by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 % of ADD total	1990 Number	1990 % of ADD total	2000 Number	2000 % of ADD total
Barren River	1,160	54.2	1,443	53.8	1,249	58.6
Big Sandy	600	65.2	596	59.0	472	43.7
Bluegrass	3,320	51.4	4,079	51.3	4,581	59.8
Buffalo Trace/ Gateway	640	53.3	551	43.7	704	50.8
Cumberland Valley	1,140	53.3	1,268	52.9	1,233	59.1
FIVCO	660	53.2	776	52.3	585	52.2
Green River	1,020	45.9	1,316	46.2	1,455	55.8
Kentucky River	300	48.4	399	39.2	393	54.9
KIPDA	5,780	52.4	7,136	60.0	4,947	53.3
Lake Cumberland	480	46.2	983	46.8	985	48.8
Lincoln Trail	660	67.3	797	44.4	950	62.6
Northern Kentucky	2,620	54.6	3,037	55.9	2,803	59.5
Pennyrile	1,080	54.5	1,297	51.5	914	52.4
Purchase	1,180	52.7	1,729	55.2	1,049	45.3
Kentucky	*20,640*	*52.9*	*25,407*	*53.5*	*22,320*	*55.3*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

The percentages of elderly homeowners with high and extreme cost burdens also increased during the 1990s (Tables 5.7 and 5.8), although the percentages were much lower than for renters. The percentage with high cost burdens ranged from a low of 21.1% in FIVCO to a high of 39.8% in Barren River. The percentage with extreme cost burdens ranged from a low of 8.5% in FIVCO to a high of 19.7% in Barren River.

Table 5.7. Elderly low-income owner households with extreme cost burdens (50% or more), by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 % of ADD total	1990 Number	1990 % of ADD total	2000 Number	2000 % of ADD total
Barren River	740	15.5	845	13.6	1,317	19.7
Big Sandy	380	15.3	573	12.5	707	14.1
Bluegrass	1,480	13.2	1,484	10.2	2,393	14.1
Buffalo Trace/ Gateway	440	17.7	271	8.8	571	17.4
Cumberland Valley	680	12.6	761	11.5	1,147	14.2
FIVCO	360	10.2	326	6.4	466	8.5
Green River	920	15.5	691	9.3	984	12.9
Kentucky River	280	11.6	266	8.5	580	15.7
KIPDA	2,340	13.0	2,278	9.8	3,603	14.7
Lake Cumberland	680	16.7	804	13.9	781	11.6
Lincoln Trail	480	14.9	524	10.4	579	11.8
Northern Kentucky	740	10.8	749	8.6	870	10.8
Pennyrile	640	11.9	778	9.3	748	11.3
Purchase	900	16.3	623	10.2	756	13.6
Kentucky	*11,060*	*13.6*	*10,973*	*10.2*	*15,502*	*13.7*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: The homeownership costs include mortgage principal and interest payments, property taxes, insurance, and utilities.

Table 5.8. Elderly low-income owner households with high cost burdens (30% or more), by Area Development District, 1980, 1990, and 2000

Area Development District	1980 Number	1980 % of ADD total	1990 Number	1990 % of ADD total	2000 Number	2000 % of ADD total
Barren River	1,600	33.6	2,010	32.4	2,668	39.8
Big Sandy	740	29.8	1,313	28.5	1,784	35.7
Bluegrass	3,580	32.0	4,016	27.7	5,227	30.9
Buffalo Trace/ Gateway	840	33.9	815	26.5	1,093	33.3
Cumberland Valley	1,620	30.0	1,699	25.6	2,555	31.6
FIVCO	800	22.7	975	19.1	1,163	21.1
Green River	2,020	34.1	1,622	21.8	2,061	27.1
Kentucky River	560	23.1	718	23.0	1,244	33.7
KIPDA	5,760	32.1	6,416	27.7	7,202	29.4
Lake Cumberland	1,520	37.4	1,694	29.2	1,869	27.8
Lincoln Trail	1,300	40.4	1,234	24.5	1,637	33.3
Northern Kentucky	2,220	32.5	2,264	26.1	2,491	30.9
Pennyrile	1,680	31.1	1,558	18.5	1,880	28.3
Purchase	2,240	40.6	1,915	31.5	1,867	33.7
Kentucky	*26,480*	*32.6*	*28,249*	*26.2*	*34,741*	*30.7*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

Reverse Mortgages

One possible source of assistance to some elderly homeowners is the reverse, or home equity conversion, mortgage. Many elderly homeowners have the bulk of their wealth concentrated in housing equity. For seniors who are "house rich but cash poor," unlocking some of that equity provides liquid assets to pay for monthly household expenses, home repair or maintenance, or medical care. Before home equity conversion programs became available, the major option was to sell the home in order to obtain cash. The availability and expansion of home equity conversion programs since the 1980s offers access to liquid assets without having to sell the family home or move. Various home equity conversion programs are available, including first or second mortgages, home equity lines of credit or loans, and reverse mortgages. Reverse mortgages offer the greatest potential liquid assets for retired persons on limited incomes because they do not need to be paid back until the recipient moves or dies.

The Home Equity Conversion Mortgage (HECM) is an FHA-insured reverse mortgage that can be used by elderly homeowners to convert

the equity in their homes into monthly streams of income and/or a line of credit to be repaid when they cease to occupy the home. We simulate the potential impact of HECM loans on low-income elderly households by determining how many would qualify for such a loan and how their incomes would change due to the loan proceeds. For this purpose, we assume a "tenure" type of loan, which means that the payments would continue until the recipient moves or passes away. At that time, the home is sold and the proceeds are used to pay off the mortgage balance. If the mortgage balance exceeds the value of the home, the difference is paid by FHA rather than the borrower or the borrower's estate.[19]

Of the 194,100 elderly low-income households listed in Table 5.4, 80,100 are homeowners who would clearly qualify for a HECM loan. These households would receive an average monthly payment of $250, or $3,000 per year. This additional income would move about 14,000 of these households from below to above the low-income threshold. This represents about 7% of elderly low-income households. Although there is no total count of the number of reverse mortgages in Kentucky, the number is likely to be relatively small and to include many households who are not low-income.

Elderly Persons with Disabilities

Nearly half (49.3%) of elderly Kentuckians reported disabilities in the 2000 census (Table 5.9). Percentages ranged from a low of 42.7% in the KIPDA ADD to a high of 64.0% in Kentucky River. Moreover, 12.4% have self-care limitations, including difficulties with activities such as bathing, dressing, and eating. In most cases, self-care limitations are combined with at least one other type of disability. Some 21.5% reported one type of disability, while 27.8% reported two or more disabilities. Of the group reporting one disability, about half had physical disabilities.

[19] Details about the assumptions and calculations used to simulate the potential impact of reverse mortgages are given in Appendix 4.

Table 5.9. Elderly persons with disabilities, by Area Development District, 2000 (as a % of all elderly persons)

Area Development District	One type of disability					Two or more types of disability		*One or more types of disability*
	Sensory	Physical	Mental	Self-care	Go-outside-home	Includes self-care	Excludes self-care	
Barren River	3.8	10.9	1.0	0.1	5.0	13.5	16.6	*50.9*
Big Sandy	3.8	11.7	1.1	0.1	3.7	19.7	23.6	*63.8*
Bluegrass	4.1	10.4	1.2	0.3	4.5	12.0	15.0	*47.4*
Buffalo Trace/Gateway	4.0	11.5	1.3	0.2	6.0	13.5	16.2	*52.7*
Cumberland Valley	3.7	12.6	1.6	0.2	4.7	17.7	21.2	*61.7*
FIVCO	4.1	11.7	1.3	0.1	5.3	13.8	16.7	*46.9*
Green River	4.7	11.9	1.4	0.1	5.3	9.7	15.7	*48.7*
Kentucky River	3.7	10.6	1.7	0.2	5.1	19.1	23.6	*64.0*
KIPDA	3.6	10.6	1.1	0.2	5.1	9.4	12.7	*42.7*
Lake Cumberland	4.3	11.4	1.5	0.2	5.1	14.9	17.1	*54.5*
Lincoln Trail	4.3	12.4	1.1	0.1	4.8	11.3	14.8	*48.8*
Northern Kentucky	4.3	10.6	1.1	0.1	4.6	9.9	12.9	*43.6*
Pennyrile	4.7	12.4	1.1	0.2	5.1	11.6	15.5	*50.7*
Purchase	4.2	11.3	1.0	0.1	4.5	10.7	14.6	*46.5*
Kentucky	*4.0*	*11.2*	*1.2*	*0.2*	*4.9*	*12.2*	*15.6*	*49.3*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 2000.

Persons with Disabilities

Census Data on Disabilities

We focus in this section on the numbers of persons with disabilities as reported by the 2000 Census. The questions on disability asked by the Census Bureau are not particularly precise nor are they exhaustive, and the questions change from one census to the next. A somewhat expanded set of questions was asked in 2000 relative to previous censuses (see Appendix 5 for a detailed comparison of the questions on disability in the 1990 and 2000 censuses). The inconsistencies in questions mean that it is not particularly useful to try to compare disability data from the 1990 and 2000 censuses. Consequently, we focus on the 2000 statistics in the data reported in Table 5.10.

Table 5.10. Persons aged 16 to 64 with disabilities, by Area Development District, 2000 (% of total population aged 16 to 64)

Area Development District	One type of disability						Two or more types of disability			
	Sensory only	Physical only	Mental only	Self-care only	Go-outside-home only	Employ-ment only	Includes self-care and at least one other	Go-outside and employ-ment only	Other combin-ation	*One or more types of disability*
Barren River	1.3	2.5	1.0	0.0	0.7	5.2	2.4	2.3	6.3	*21.7*
Big Sandy	1.4	4.0	1.4	0.1	1.2	4.7	6.0	2.0	13.5	*34.2*
Bluegrass	1.2	2.6	1.0	0.0	0.6	5.3	1.9	1.9	5.1	*19.7*
Buffalo Trace/Gateway	1.2	2.8	1.1	0.0	1.1	5.9	3.2	2.6	8.1	*26.0*
Cumberland Valley	1.4	3.9	1.2	0.0	1.3	5.9	4.6	2.0	12.8	*33.2*
FIVCO	1.4	3.0	1.0	0.0	0.9	5.1	3.8	1.9	9.2	*26.3*
Green River	1.2	2.5	1.1	0.0	0.8	5.8	2.2	2.1	6.0	*21.7*
Kentucky River	1.5	3.6	1.6	0.1	1.6	5.5	5.1	2.0	14.2	*35.2*
KIPDA	1.2	2.3	1.1	0.0	0.7	5.2	1.8	2.1	4.7	*19.1*
Lake Cumberland	1.4	3.6	1.2	0.1	1.2	6.5	3.6	2.4	10.2	*30.1*
Lincoln Trail	1.4	2.9	0.9	0.0	0.7	5.3	2.2	2.2	6.6	*22.2*
Northern Kentucky	1.2	2.2	1.0	0.0	0.6	5.1	1.9	2.1	4.8	*18.9*
Pennyrile	1.2	2.9	0.9	0.0	0.9	6.7	2.6	2.2	6.9	*24.3*
Purchase	1.4	2.6	1.0	0.0	0.6	5.3	2.1	1.7	6.2	*21.0*
Kentucky	*1.3*	*2.7*	*1.1*	*0.0*	*0.8*	*5.4*	*2.6*	*2.1*	*6.9*	*22.9*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 2000.

Nearly 23% of working age Kentuckians reported disabilities. This percentage varied widely, from around 19% in KIPDA and Northern Kentucky to over 35% in Kentucky River. In general, the Appalachian ADDs had higher rates than the rest of the state. Of the 11.3% who reported one type of disability, 5.4% said they had an employment disability. A majority of those reporting at least one disability claimed more than one disability.

Disabilities and Housing Cost Burdens

Disabled persons are both more likely to be low-income and, if low-income, to have unaffordable housing cost burdens. Tables 5.11 and 5.12 focus on a comparison of cost burdens for low-income households where the householder or spouse is disabled to households where neither is disabled. Among renters, the disabled group is 4 percentage points more likely to have a high cost burden and 4.5 percentage points more likely to have an extreme cost burden. However, very and extremely low-income disabled renters were less likely than their non-disabled counterparts to have unaffordable cost burdens. This is probably because these groups are more likely to receive housing subsidies.

Table 5.11. Renter households with unaffordable cost burdens, by disability status, householder aged 16-64, Kentucky, 2000

	Householder or spouse is disabled		Neither householder nor spouse is disabled	
Income group	Number of households	% of group total	Number of households	% of group total
Low-income renters:				
50% or more	23,298	30.2	30,324	25.7
30% or more	44,376	57.5	63,277	53.5
Very low-income renters:				
50% or more	22,941	41.0	29,721	42.0
30% or more	39,797	71.2	51,189	72.3
Extremely low-income renters:				
50% or more	19,773	56.3	24,283	64.9
30% or more	27,185	77.4	30,250	80.9

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: The cost burden calculations involved dividing gross rent (including utilities) by gross household income.

Among owners, the disabled group is 1.6 percentage points more likely to have a high cost burden and 2.4 percentage points more likely to have an extreme cost burden. This relationship is reversed for very and extremely low-income owners, as is the case for renters.

Table 5.12. Owner households with unaffordable cost burdens, by disability status, householder aged 16-64, Kentucky, 2000

Income group	Householder or spouse is disabled		Neither householder nor spouse is disabled	
	Number of households	% of group total	Number of households	% of group total
Low-income owners:				
50% or more	22,564	27.4	24,375	25.0
30% or more	42,808	52.0	49,124	50.4
Very low-income owners:				
50% or more	19,344	40.4	18,305	44.1
30% or more	30,420	63.5	27,573	66.5
Extremely low-income owners:				
50% or more	13,577	55.0	10,672	63.4
30% or more	18,762	76.1	13,445	79.8

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: The cost burden calculations involved dividing the sum of mortgage interest and principal payments, real estate taxes, insurance, and utilities by gross household income.

Persons with HIV/AIDS

About 56% of the diagnosed cases of persons living with AIDS continue to be located in Jefferson and Fayette counties (Table 5.13). The number of cases continues to rise each year in Kentucky.

Table 5.13. Persons living with AIDS, Kentucky, 1998-2002

	1998	1999	2000	2001	2002
Jefferson County:					
Number of cases	532	616	663	736	824
Percent of total	41.3	41.9	41.2	39.9	40.0
Fayette County:					
Number of cases	193	214	239	295	324
Percent of total	15.0	14.5	14.8	16.0	15.7
All other counties:					
Number of cases	564	622	709	813	913
Percent of total	43.7	43.6	44.0	44.1	44.3

Source: Kentucky Department for Public Health, HIV/AIDS Branch.

As noted in *KHNA:I*, HUD's Housing Opportunities for Persons with AIDS (HOPWA) program is the largest housing program targeted to persons with HIV or AIDS. The funds are provided through the Kentucky Housing Corporation to nonprofit organizations and local

governments. Recipients must be low-income, although most are in the extremely low-income category. Although funding for the (HOPWA) program has dropped in some years, it has grown over time (Table 5.14).

Table 5.14. HOPWA funds allocated to Kentucky, 1996-2003

Fiscal Year	Amount ($)
1996	413,000
1997	494,000
1998	485,000
1999	561,000
2000	603,000
2001	687,000
2002	671,000
2003	823,000

Source: HUD, <http://www.hud.gov/cpd/hopwahom.html>.
Note: The amount for 2003 is an estimate.

The Migrant Latino Population

Measuring Kentucky's Migrant Latino Population

Kentucky's "official" Hispanic population nearly tripled during the 1990s, growing from 22,000 to 59,900. According to the U.S. Census Bureau, the Hispanic population increased in all 120 Kentucky counties with the exception of Meade, which had a decrease of 1.9%. Hispanic numbers doubled, tripled, quadrupled, and more in several Kentucky counties. For example, the number of Hispanic persons increased by 183% in Jefferson County, 235% in Fayette County, 475% in Barren County, and 1,572% in Shelby County.

In mid-2003, the Census Bureau released new population estimates for the United States, indicating that the Hispanic population continues to grow at a rate higher than the total population. The number of Hispanic persons grew 9.8% to 38.8 million between April 1, 2000, and July 1, 2002, compared to a 2.5% overall growth rate. The Census figures are remarkable taken at face value, and are even more notable when one considers that the count of Hispanics is perceived by many experts to be an underestimate.

Migrant Latino workers are one component of the Hispanic population in the United States. They are employed mostly in agriculture. The Census Bureau data likely miss a considerable portion of this group because migrant and seasonal workers have home bases all across the United States and in various Latin American nations. Workers travel from their home bases to short-term work throughout the Midwest, the

South, and the Pacific Coast. They may work for a few weeks in one state, and then migrate to another state to help with another crop.

As tighter controls have been placed on immigration following the September 11, 2001 tragedy, experts at government agencies and social service organizations serving migrant workers are seeing the population become more settled. In Kentucky, alternative job opportunities at chicken-processing plants, automotive plants and suppliers, and other year-round operations are also allowing migrant workers to stay in Kentucky.[20]

Agriculture remains an important industry for Kentucky. The total value of agricultural sector production for 2001 was estimated at over $4.2 billion, with net farm income of $1.3 billion.[21] Migrant and seasonal Latino workers have become important to Kentucky's agriculture industry. The Kentucky Department of Agriculture estimates, for example, that Hispanics comprise 80% of the tobacco labor force. The Kentucky tobacco crop was valued at over $500 million in 2001.[22]

Kentucky farmers have come to rely on migrant labor. In some cases, farmers hire documented workers through the U.S. Department of Labor's H-2A visa program. The H-2A program allows U.S. employers to hire foreign migrant and seasonal farmworkers after they demonstrate a lack of willing U.S. workers. H-2A workers have temporary visas and their earnings are subject to special minimum wage regulations. Among other requirements, employers must provide housing that passes Occupational Safety and Health Administration standards and includes food storage and preparation facilities, laundry facilities, bathing and toilet facilities, sleeping areas and beds, and storage for personal items.

The problem of lack of documentation for workers arises as communities try to find ways to provide social services for the farmworker population. Data from the National Agricultural Worker Study (NAWS) shows that farmworkers, of whom a large majority is thought to be migrant workers, have very low income and are very likely to live in poverty. In the mid-1990s, median income for farmworker

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[20] Based on interviews with: Jody Hughes and George W. Scott, Migrant and Seasonal Farmworker Programs, Kentucky Department for Employment Services, Frankfort, June 19, 2003; Sister Larraine Lauter, Migrant/Immigrant Shelter and Support, Owensboro, June 18, 2003; Ron Ramsey and Ben Gieske, Kentucky Farmworker Programs, Inc., Bowling Green, June 17, 2003; and Adam Ruiz, Centro Latino, Shelbyville, June 10, 2003.

[21] Kentucky Agricultural Statistics Service, *Kentucky Agricultural Statistics 2001-2002* (Louisville: KASS, 2003).

[22] KASS, *Kentucky Agricultural Statistics 2001-2002*.

households was between $7,500 and $10,000, and over three-fifths of farmworker households were in poverty.[23]

Many social service funding sources will not allow assistance to be provided to undocumented workers. Data from the H-2A program provide essentially the only means of measuring the documented migrant Latino worker population. The Kentucky Department for Employment Services, the state agency that oversees the H-2A program in Kentucky, estimates that approximately 3,500 migrant workers will come into Kentucky with these temporary visas in 2003 to work on contracts serving 550 farmers. About two-thirds of those workers are or will be employed in the western half of the state.[24]

State agricultural and employment officials, farmers and other employers, and social service providers alike acknowledge that there are many more Hispanic migrant and seasonal workers in Kentucky than H-2A data represent. Estimates range from "tens of thousands" to "possibly 100,000 to 150,000," but there is a lack of empirical study to provide a basis for those numbers.

The only systematic enumeration study of Kentucky's migrant and seasonal farmworkers is by Susan Fister and Gil Rosenberg for the Bluegrass Farmworker Health Center.[25] Fister and Rosenberg are using NAWS data as a basis for comparison with their interviews with 80 key informants and 400 primary informants in a 12-county study area in central Kentucky. They determined that tobacco is the leading crop in the region and calculated a demand for labor based on acreage and production. Their estimates indicate approximately 12,800 migrant and seasonal farmworkers worked in tobacco production in central Kentucky in 2001. About 92%, or 11,800, of these workers were Latino.

Although tobacco is Kentucky's leading crop, hay, corn, and soybeans represented 61% of Kentucky crop values in 2001.[26] General agricultural production employment statistics, rather than crop-specific employment data, could provide an overall picture of Kentucky's Hispanic migrant and seasonal farmworkers. The National Agri-

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[23] U.S. Department of Labor, *A Profile of U.S. Farmworkers: Demographics, Household Composition, Income, and Use of Services*, Research Report No. 6 (Washington, DC: Office of Program Economics, U.S. Department of Labor, April 1997).

[24] Estimates supplied by Jody Hughes and George W. Scott of the Kentucky Department for Employment Services.

[25] Susan Fister and Gil Rosenberg, "Enumeration study of migrant and seasonal farmworkers in Central Kentucky" (Richmond, KY: Bluegrass Farmworkers Health Center, Eastern Kentucky University, 2003).

[26] KASS, *Kentucky Agricultural Statistics 2001-2002*.

cultural Statistics Service (NASS) of the USDA conducts the Census of Agriculture every five years. The Census of Agriculture enumerates hired farm workers, which can include family members, by number of days worked – either 150 or more or fewer than 150 days. According to the Census of Agriculture, there were 153,600 hired farmworkers in Kentucky in 1997 of whom 139,000 worked less than 150 days.[27]

The USDA-NASS Census of Agriculture data on hired farmworkers can be employed to provide an estimate of the number of migrant Latino farmworkers in Kentucky. For practical considerations, we will make two estimates based on assumptions from two sources:

1) The USDA Economic Research Service (ERS) has estimated that, nationally, about 46% of hired farmworkers are Hispanic.[28]

2) In Kentucky, the Kentucky Farm Bureau (KFB) estimates that 70% of farm labor comes from migrant workers.[29] Based on national data, we can assume that at least 84% of those migrant workers are Latino. This assumption is based on data from the 1997-1998 NAWS indicating that Spanish was the native language of 84% of U.S. farmworkers.[30]

Table 5.15 presents migrant Latino farmworker estimates for Kentucky and the ADDs based on each of those two assumptions. (Appendix 6 lists estimates for counties.) Notably, Fister and Rosenberg's estimate of 11,800 workers for the 12 central Kentucky counties is very close to the lower end of the range of results for the two estimation methods employed in this study: about 12,000 with the ERS assumption and 15,400 with the KFB/NAWS assumption. Our statewide estimates of 70,700 to 90,300 compare with only 3,500 workers documented through the H-2A program.

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[27] U.S. Department of Agriculture, National Agricultural Statistics Service, *1997 Census of Agriculture, Vol. 1*, Part 51, Chapter 2, Table 5: Hired Farm Labor—Workers and Payroll: 1997. Data for 1997 are the most recent at the time of writing.

[28] U.S. Department of Agriculture, Economic Research Service, "Farm labor," available at <http://www.ers.usda.gov/Briefing/FarmLabor/>.

[29] *Kentucky Farm Bureau News*, April 2002.

[30] U.S. Department of Labor, Office of Program Economics, *Findings from the National Agricultural Workers Survey (NAWS) 1997-1998*, Research Report No. 8 (Washington, DC, 2000).

Table 5.15. Estimates of migrant Latino farmworker population, by Area Development District, 1997

Area Development District	Hired farmworkers	Migrant Latino farmworkers based on KFB/NAWS assumption	Migrant Latino farmworkers based on ERS assumption
Barren River	16,088	9,460	7,400
Big Sandy	811	477	373
Bluegrass	35,762	21,028	16,451
Buffalo Trace/ Gateway	17,830	10,484	8,202
Cumberland Valley	5,290	3,111	2,433
FIVCO	4,182	2,459	1,924
Green River	7,229	4,251	3,325
Kentucky River	2,057	1,210	946
KIPDA	9,840	5,786	4,526
Lake Cumberland	16,359	9,619	7,525
Lincoln Trail	15,399	9,055	7,084
Northern Kentucky	9,231	5,428	4,246
Pennyrile	7,083	4,165	3,258
Purchase	6,441	3,787	2,963
Kentucky	*153,602*	*90,318*	*70,657*

Source: Authors' calculations based on U.S. Department of Agriculture, *Census of Agriculture*, 1997.

Another indicator that there is a sizable migrant population in Kentucky is the number of migrant children enrolled in Kentucky schools. According to the Kentucky Department of Education, 15,950 migrant children ages 3 to 21 were enrolled in the federally-funded Migrant Education program over the period September 1, 2001, to August 31, 2002.[31]

Housing Needs and Resources for the Migrant Latino Community

For new Hispanic immigrants, regardless of whether they are permanent settlers or migrant workers, language and cultural barriers present significant obstacles to acquiring adequate, affordable housing. Further complicating the challenge is the issue of documentation, or lack thereof, for many workers. Poor language skills and cultural knowledge and the threat of possible repercussions make immigrants and migrants vulnerable to discrimination and predatory landlords who charge high prices for substandard housing.

[31] Data provided by Ken Ison of the Kentucky Department of Education. For a description of the federal program, see <http://www.ed.gov/about/offices/list/oese/ome/index.html>.

Furthermore, the lack of documentation keeps many migrant workers out of the "daylight" economy, using only cash and lacking access to credit. Banks need identification, such as a social security card or even a driver's license, but in Kentucky migrant workers cannot get a driver's license. Many banks will not accept the *matricula consular*, the national identification of migrant workers from Mexico. Even with documentation, barriers remain. Many Latino immigrants and migrants do not use banks because they do not understand that U.S. banks are insured, and are typically more stable, secure, and accessible than banks in their native countries. Persons without bank accounts lack access to credit that can help them along the path to becoming homeowners.

Specifically in regard to *migrant* Latino workers in Kentucky, the basic need is for affordable, adequate housing on a fairly temporary basis. Unless they are seasonal workers with permanent residences near their place of employment, these workers typically migrate from home bases in other states or countries. It is not possible, given the available data, to systematically determine how many migrant workers are paying more than they can afford for shelter. Anecdotal evidence suggests crowding, unaffordable and excessive rents, and lack of appropriate facilities such as food storage and cooking areas are common problems.

Studies of migrants' housing situations have been conducted in a few Kentucky counties. For example, surveys of migrant and seasonal farmworkers conducted by the Kentucky Farmworker Programs, Inc., in Daviess, Ohio, and Webster counties revealed that nearly half of the migrant workers (230 of 468) and over one-third of seasonal workers (20 of 55) indicated inadequate housing, with the major problems being overcrowded conditions and lack of kitchen facilities. The vast majority (313 of 364 responding) rented their housing, and motels were the most common type of housing, followed by trailers.[32]

The estimated number of migrant Latino workers could be used as a basis for a very rough estimate of the housing needs of the migrant Latino population. Our lower estimate of 70,700 is the more conservative figure. National data on farmworkers have shown that at least 60% live in poverty. As discussed in Chapter 2, the poverty line is significantly below the low-income threshold used by the U.S. Department of Housing and Urban Development. Using 60% as a conservative basis for an estimate, however, means that over 42,400 migrant Latino workers may lack affordable, safe, decent housing.

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[32] Information provided by Ron Ramsey and Ben Gieske of Kentucky Farmworker Programs, Inc.

Lack of documentation means that many workers cannot access tenant-based rental assistance. For example, the U.S. Department of Labor's Employment & Training Administration offers emergency and temporary assistance with shelter needs in addition to its ongoing job skills development programs, but clients must be documented U.S. residents.[33] Even with documentation, the waiting period for assisted housing may be several weeks or months at the least, spanning the entire work period for many migrant farmworkers.

Service providers or farmers seeking to acquire or develop migrant housing have few sources of assistance. The Rural Housing Service of USDA's Rural Development division has funds available through Section 514 and Section 516 low-interest loan and grant programs for the development of migrant housing. However, according to the Kentucky office, there have been no awards and no applicants in Kentucky because of the guidelines that applicants demonstrate need with a market study of documented workers. The federally-funded program must benefit documented workers only, and H-2A workers, although documented, are excluded. In Kentucky, it is difficult to count documented workers other than those in the H-2A program.[34]

Another source of funding for migrant housing development is the Farm Income Improvement Foundation (FIIF) administered by the KFB. The labor housing program provides grants of up to $2,000 to farmers seeking to provide or improve housing for farmworkers. Since 2000, a total of $217,300 has been awarded to 116 farmers. Much of the housing acquired or developed with the funds has been mobile homes. However, this is the last year for the program, which has been funded largely by a grant from Philip Morris USA.[35]

Farm employers participating in the H-2A program are required to provide housing that passes quality standards. The employer could lease housing for workers, but the work season is less than the terms of most leases. Many employers have purchased mobile homes for their workers. Housing that has been constructed has been mostly barracks or dorm-style housing, but even this is expensive and is not affordable to farmers with small operations. Staff of the Kentucky Department of Employment Services note that Kentucky still has many more "small" than large farms, which means that many farmers who depend on migrant labor cannot afford to adequately house workers.[36] In 2001,

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[33] See the U.S. Department of Labor, Employment & Training Administration website: <http://wdsc.doleta.gov/msfw/>.

[34] Interview with Paul Higgins and Russ Thomason, U.S. Department of Agricultural, Rural Housing Service, Kentucky State Office, June 19, 2003.

[35] Data provided by Carol Finney, KFB Federation.

[36] Interview with Hughes and Scott.

there were 88,000 farms in Kentucky, of which 51,000 had less than $10,000 in sales and another 31,000 were in the $10,000 to less than $100,000 sales class.[37]

Small and Large Low-Income Renter Households

Introduction

We focus here on single-person and large low-income households who may be disadvantaged due to priorities for allocating Section 8 vouchers and Public Housing units or the lack of appropriately sized units.

Single Persons

In 2000, about 59% of low-income single renters had high cost burdens and 30% had extreme cost burdens (Table 5.16). These percentages are a few percentage points higher than those for all low-income renter households (see Table 4.2). Thus, low-income single-person renters as a group appear to be only slightly worse off than low-income renters in general.

Table 5.16. Percent of single-person low-income renter households with unaffordable cost burdens, by Area Development District, 1980, 1990, and 2000

Area Development	50% or more			30% or more		
District	1980	1990	2000	1980	1990	2000
Barren River	37.6	37.3	36.0	64.8	65.0	65.6
Big Sandy	42.9	37.8	27.2	69.8	70.3	58.3
Bluegrass	34.2	33.1	32.2	65.9	63.9	61.8
Buffalo Trace/ Gateway	36.8	27.6	24.4	63.2	57.1	49.2
Cumberland Valley	31.2	37.0	29.9	68.8	61.3	64.1
FIVCO	30.3	18.9	30.3	61.6	58.2	56.4
Green River	26.2	26.0	24.9	47.6	52.7	51.8
Kentucky River	40.9	17.3	28.8	65.9	53.7	57.6
KIPDA	30.3	29.3	30.8	58.1	62.7	58.6
Lake Cumberland	34.2	28.0	28.3	59.2	55.6	56.2
Lincoln Trail	41.6	27.7	22.3	72.7	58.6	57.8
Northern Kentucky	25.8	26.1	28.2	56.7	62.1	59.7
Pennyrile	26.2	25.8	28.3	61.5	54.6	60.3
Purchase	33.5	26.8	29.8	62.6	65.8	57.9
Kentucky	*31.7*	*29.6*	*29.9*	*61.0*	*61.6*	*59.3*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.

[37] KASS, *Kentucky Agricultural Statistics 2001-2002*.

Large Households

We define *large* to include households with five or more members. The proportion of large low-income renter households facing unaffordable cost burdens declined during the 1990s, and the statewide percentages remained below the percentages for all low-income renter families in 1990 (Table 5.17).

Table 5.17. Percent of five-or-more-person low-income renter households with unaffordable cost burdens, by Area Development District, 1980, 1990, and 2000

Area Development	50% or more			30% or more		
District	1980	1990	2000	1980	1990	2000
Barren River	*	29.6	20.7	42.0	62.4	54.0
Big Sandy	*	*	*	42.9	49.5	65.4
Bluegrass	23.8	23.6	24.2	49.2	54.3	41.4
Buffalo Trace/ Gateway	*	24.5	*	40.7	42.8	45.7
Cumberland Valley	21.7	41.0	25.2	46.4	57.1	55.6
FIVCO	36.8	*	*	57.9	54.3	35.9
Green River	*	28.8	14.7	43.1	56.6	48.2
Kentucky River	36.7	*	*	50.0	53.8	44.1
KIPDA	16.7	30.8	23.0	44.5	57.1	49.6
Lake Cumberland	*	27.1	*	35.1	49.2	34.8
Lincoln Trail	*	36.5	*	30.9	65.8	58.8
Northern Kentucky	19.0	27.3	13.9	41.8	51.8	58.2
Pennyrile	21.7	16.0	20.6	40.0	27.3	44.4
Purchase	*	33.6	*	59.1	79.9	*
Kentucky	*19.8*	*28.1*	*21.1*	*44.6*	*53.7*	*48.1*

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Public Use Microdata Samples (5% samples), 1980, 1990, and 2000.
Note: An asterisk indicates that the sample was too small to allow for an accurate estimate.

The Homeless Population

Although the Census Bureau initially stated that it did not plan to release any state or local counts of the homeless from the 2000 census, it later did release state-by-state counts of the emergency and transitional shelter population on census night. According to that list, there were 1,626 persons in shelters in Kentucky on the date of the census.[38] The Census Bureau's report warns that this figure cannot be used as an estimate of the homeless population. If instead one uses national survey data as a basis for estimates, then some 36,400 to

[38] Annetta C. Smith and Denise I. Smith, *Emergency and Transitional Shelter Population: 2000*, Special Report No. CENSR/01-2 (Washington, DC: US Census Bureau, 2001), Table 5.

52,500 persons (0.9% to 1.3% of the population) experienced homelessness during the year in Kentucky.[39]

As we noted in *KHNA:I*, research suggests that the primary cause of homelessness nationally is the lack of affordable housing. This assessment is supported by the results of the Kentucky Homeless Survey commissioned by Kentucky Housing Corporation.[40] Many homeless persons need a strategy for finding long-term solutions to their income and housing problems, while much of the assistance provided to the homeless is in the form of short-term shelter.

Welfare Reform and Housing Needs

The Kentucky Transitional Assistance Program

In 1996, the federal government changed the Aid to Families with Dependent Children (AFDC) welfare program into the Temporary Assistance to Needy Families (TANF) block grant program. In Kentucky this is called the Kentucky Transitional Assistance Program (K-TAP). Welfare recipients must participate in mandatory work programs or activities to remove barriers to employment, and they are subject to a five-year time limit for receiving benefits. Thus, recipients are under pressure to get off welfare (K-TAP) and secure long-term support, preferably from earnings.

This section explores the housing issues experienced by Kentucky residents who participated in K-TAP. First, it discusses some important impacts of welfare policy changes in Kentucky. Second, it reports on welfare recipients' type of housing and housing subsidies, how satisfied they are with their current housing arrangements, and what problems they are having with their current housing. The last section reports on housing cost burdens and the role the Earned Income Tax Credit (EITC) has played in lessening that burden.

Data for this analysis comes from three sources. The first source is an integrated administrative database containing information about all clients who have participated in K-TAP (with the exception of child-only cases) since October 1996. The second data source is a panel survey of randomly selected K-TAP clients who were followed over four years, from 1998 through 2001. The last data source is a cross-sectional survey of clients who voluntarily left K-TAP before 60

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[39] See *KHNA:I*, pp. 149-150.

[40] Robert A. Bylund, David R. Rudy, and Steven Parkansky, *2001 Kentucky Homeless Survey Report* (Morehead: Institute for Regional Analysis and Public Policy, Morehead State University, 2001).

months or reached the 60-month time limit and were either extended or discontinued.[41]

During the period from October 1996 to October 2001, 114,438 cases were served by K-TAP. In that time, K-TAP served 10.9% of households in Appalachia (Kentucky counties that are within the boundaries of the Appalachian Regional Commission), 5.9% of non-metropolitan households outside Appalachia and 5.7% of metropolitan households outside Appalachia. While Appalachia includes only 27.4% of all Kentucky households, it represented 41.4% of all 114,438 K-TAP cases. Non-Appalachian metropolitan counties include 43.7% of Kentucky households, but only 34.7% of K-TAP cases, and non-metropolitan counties outside Appalachia included 28.9% of households in Kentucky and 23.9% of K-TAP cases. Relatively few welfare recipients remain on K-TAP very long. Almost 69% of recipients were off cash assistance within 24 months. About 19% received assistance for 25 to 48 months and only 12% required more than 48 months of assistance.[42]

Increasingly, attention has been focused on cash assistance clients who continue in the program for 48 months or more, especially those who reach the 60-month time limit. To get a better understanding of this group, the Welfare Reform Evaluation Project (WREP) conducted a special survey of clients who reached the 60-month time limit.[43] The survey was stratified for cases that reached the 60-month time limit and were discontinued and cases that were extended beyond 60 months due to extenuating circumstance. As of October 2001 only 1,219 clients had reached their 60-month lifetime limit for K-TAP. When compared to the number of clients who had the potential to use 60 months of K-TAP eligibility, only 2% reached the full 60-month time limit. Of those who reached their time limit, 75% were discontinued from K-TAP. About 18% were *cases extended* beyond the 60 months due to personal health issues, care-giving responsibilities, or insufficient employment opportunities. An additional 7% were extended, but subsequently discontinued. Survey results indicate that only 12% of the extended cases were employed. In addition, 71% reported their health status as fair or poor and 54% said they had a chronic condition. *Discontinued cases* reported similar patterns but

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[41] Evaluation reports drawing upon these data sources can be found at the Kentucky Welfare Reform Evaluation Project website: <http://kwre.usi.louisville.edu>.

[42] D. McAdam, R. Stone, G. Barber, and R. Daugherty, *Welfare Reform: Program Participation and Time Limits* (Louisville: Kent School of Social Work and Urban Studies Institute, University of Louisville, 2002).

[43] G. Barber, R. Stone, S. Deck Shade, and B. Shiels, *Welfare Reform: Impact of Time Limits on Clients* (Louisville: University of Louisville, Kent School of Social Work and Urban Studies Institute, University of Louisville, 2002).

not as severe. About 31% of discontinued clients reported being employed at the time of the survey. Of the discontinued clients, 58% reported that their health was fair or poor and 37% reported a chronic health condition. In contrast, 68% of *panel study leavers* that reported employment. The panel study leavers had much better health status, with 28% reporting fair or poor health status and 23% with a chronic health condition.

Thus, welfare clients who are vulnerable to or already have reached the 60-month time limit are less likely to be employed. They are also more likely to report poorer health status or chronic conditions, which likely serve as a barrier to employment for many of these cases. However, this group makes up a small proportion (2%) of all cash assistance clients.

Housing Satisfaction

To analyze type of housing and housing satisfaction the WREP referred to the sample of 1,172 K-TAP cases who participated in the fourth year (2001) survey of the four-year panel study. Table 5.18 shows the geographical location and housing satisfaction of the weighted sample by type of housing. Most families (48%) live in single-family homes and 23% lived in mobile or modular homes. About 13% live in buildings with two to four units and 16% in buildings with five or more units. Approximately 42% were from Appalachian counties, and 38% from metropolitan counties and 20% from non-metropolitan counties outside of Appalachia. Some 88% of Kentucky welfare recipients' reported satisfaction with their housing and only 12% felt dissatisfied.

Table 5.18. Type of housing for K-TAP clients by region and satisfaction with housing, 2001 (%)

	By region				By satisfaction with housing				
Type of housing	Ken-tucky	Appa-lachia	Metro	Non-metro	Very satis.	Some-what satis.	Some-what dissat.	Very dissat.	*Total*
Mobile home	23	41	4	20	54	36	5	4	*100*
Single-family home	48	41	50	59	57	34	6	3	*100*
2 to 4 unit building	13	7	21	11	48	40	3	4	*100*
5+ unit building	16	11	25	10	32	40	17	11	*100*
All housing	*100*	*100*	*100*	*100*	*51*	*37*	*7*	*5*	*100*

Source: Authors' calculations based on fourth year panel study weighted sample (*n* = 1,172).

Table 5.19 shows differences in housing satisfaction based on selected variables. These include experience on K-TAP, financial conditions,

demographic characteristics, housing circumstances, and mobility. The length of time persons were on K-TAP was also related to satisfaction. Families on K-TAP the shortest length of time—1 to 24 months—recorded 90% satisfaction with their housing, while families on K-TAP the longest—48 months or more—were somewhat less satisfied (83%). As the table shows, housing satisfaction is related to changes in financial and housing conditions, the size of the unit, whether the unit is public housing, and the frequency of moves.

Table 5.19. K-TAP recipient satisfaction with housing by selected characteristics, 2001

Selected characteristics	Satisfied		Dissatisfied	
	Number	%	Number	%
Duration				
1–24 months	723	90	84	10
25–47 months	190	86	31	14
48+ months	119	83	25	17
Poverty status				
Above poverty	683	90	78	10
Below poverty	349	85	62	15
Employment status				
Employed	513	89	62	11
Unemployed	519	87	78	13
Current financial condition relative to 12 months ago				
Better	555	92	45	8
Same	336	84	62	16
Worse	144	81	34	19
Race				
White	799	90	89	10
Minority	232	82	51	18
Number of children				
No children	76	89	9	11
1 child	412	92	36	8
2+ children	545	85	95	15
Current housing conditions relative to 12 months ago				
Better	682	95	33	5
Same	288	85	51	15
Worse	31	36	56	64
Type of housing				
Modular/mobile home	244	91	25	9
Single family/attached home	512	91	52	9
2– 4unit building	145	93	11	7
5+ unit building	134	72	53	28

Table 5.19. K-TAP recipient satisfaction with housing by selected characteristics, 2001 (continued)

Selected characteristics	Satisfied		Dissatisfied	
	Number	%	Number	%
Number of rooms				
1–4 rooms	387	85	70	15
5 rooms	349	97	52	13
6+ rooms	294	94	18	6
Housing payment				
Pay rent	594	86	101	15
Pay mortgage	139	98	3	2
No payment	293	90	34	10
Ownership				
Owned by self or someone in house	342	92	31	8
Owned by someone else or a company	560	88	74	12
Public housing	119	77	35	23
Other	11	0	0	0
Number of moves in the last 3 years				
No moves	370	90	39	10
1 move	241	88	33	12
2–4 moves	354	88	50	12
5+ moves	67	81	16	19

Source: Authors' calculations based on fourth-year panel study weighted sample (*n* = 1,172).
Note: Differences in total counts are due to missing values for specific variables.

The fourth-year panel study survey data provide two ways to identify why clients were dissatisfied and what problems they had with their housing. One question asked dissatisfied respondents to explain why they were dissatisfied. The second question asked every participant in the panel study to identify the biggest problem or problems with their housing. In the study, 140 clients or 12% of the weighted sample were dissatisfied. Their responses indicated that needs for repairs or for more space were the most frequent reasons respondents were dissatisfied with their housing; these characteristics were each listed by 30% of those who responded.

When all participants were asked to list their biggest problem or problems with housing regardless of their satisfaction with their housing, approximately half of the sample listed something. Focusing on the dissatisfied group, the main problem listed was that they could not afford to move. The second most prevalent response for those dissatisfied was that their housing was in bad condition and needed repairs. A bigger apartment was desired by 23% of respondents.

Some 16% of the dissatisfied group reported living in a violent or bad neighborhood.

With respect to regional differences, Appalachia had 59% of respondents citing no problems with housing compared to 44% of metropolitan and 41% of non-metropolitan respondents who reported no problems. It is interesting that more non-metropolitan respondents (19%) than people from Appalachia (12%) or metropolitan (10%) areas said they wanted a bigger apartment. A violent or bad neighborhood was listed by 12% of the metropolitan respondents as a big problem but only 6% of non-metropolitan and 3% of Appalachian respondents.

Some 24% of K-TAP respondents reported that they were receiving housing subsidies. The type of subsidy was categorized as Section 8, public housing, or other. Among K-TAP recipients who also received housing subsidies, the largest proportion, 59%, received Section 8 subsidies. Another 29% lived in public housing followed by almost 12% who received some "other" type of housing subsidy.

Regional differences were apparent for those receiving housing subsidies. Metropolitan counties represented 59% of those on subsidies but only 38% of the K-TAP population. Only 26% of Appalachian residents received subsidies, whereas Appalachia represented 42% of K-TAP recipients. K-TAP recipients from non-metropolitan counties, who represented 20% of all recipients, were also underrepresented with only 15% on subsidy.

Some 59% of short-term K-TAP users (those on K-TAP for one to two years) received housing subsidies; however, short-term K-TAP users represented 72% of the K-TAP population. Intermediate term users (those who used K-TAP two to four years) represented 18% of the K-TAP population, but accounted for 21% of recipients receiving housing subsidies. Long-term users of K-TAP (those who exceeded four years on K-TAP) accounted for 20% of recipients of housing subsidies but only 12% of the K-TAP population.

It is important to look at K-TAP cases that have reached their 60-month maximum time limit. As reported earlier, they likely will lose cash assistance and many experience poor health. About 33% of extended cases received housing subsidies and almost 42% of discontinued cases received such subsidies. Since these are the most vulnerable K-TAP cases and tend to have health problems or a family member who requires in-home care-giving, housing subsidies would be a very important source of support for these families.

The type of housing subsidy also produced significant differences in satisfaction. K-TAP families receiving Section 8 subsidies were significantly more satisfied than those in public housing. Some 89% of those receiving Section 8 housing subsidies reported satisfaction with

their housing compared to only 76% for those in public housing. Families receiving "other types of subsidy" had an 81% satisfaction rate.

When comparing housing problems for those receiving housing subsidies versus those not getting a housing subsidy, very significant differences are found. Over half of those not on subsidy had no problems with housing, whereas only 43% of the housing subsidy group had no problems. Of those with housing subsidies, 17% listed neighborhood safety as the main problem. Almost twice the percentage of families with housing subsidies listed conditions of their housing as bad and needing repairs (13% versus 7% for non-housing subsidy respondents).

There were fewer differences among respondents when grouped by the type of housing subsidy received. Families who live in Section 8 housing listed condition of their housing (15% of respondents), need for a bigger apartment (14%), and the high cost of moving (14%) as their biggest problems. Public housing residents, on the other hand, listed neighborhood safety as the most common problem (30%) followed by dislike of public housing (14%). Of those who live in Section 8 and "other" subsidized housing, 45% and 47%, respectively, reported no problems with their housing. This compares to 37% of public housing residents.

Housing Cost Burdens

In this section we focus on the housing cost burdens experienced by various categories of K-TAP recipients. For the purposes of these calculations, the household income measure excluded in-kind subsidies and essentially included just employment and K-TAP cash income in most cases. We also paid particular attention to the impacts of including Earned Income Tax Credit (EITC) income in the calculation.

Of K-TAP clients, 58% received the EITC in 2001 with an average credit of $1,763 (Table 5.20). When reported by region, non-metropolitan counties had the highest percentage (62%) who received the EITC with an average credit of $1,881. Appalachia recorded the lowest percentage (55%) of K-TAP families receiving the EITC.

Table 5.20. K-TAP recipients, by EITC status and region, 2001

Earned Income Tax Credit status	Kentucky (*n* = 1,149)		Appalachia (*n* = 485)		Metro (*n* = 430)		Non-metro (*n* = 234)	
	Number	%	Number	%	Number	%	Number	%
K-TAP families receiving EITC:	*663*	*58*	*266*	*55*	*253*	*59*	*144*	*62*
Amount received (mean)	$1,763		$1,819		$1,641		$1,881	
K-TAP families not claiming EITC:	*486*	*42*	*219*	*45*	*177*	*41*	*90*	*38*
Reasons for not claiming EITC								
Did not know about it or how to get it	25	5	8	4	15	9	2	2
Did not work	277	59	148	71	90	52	39	45
Did not file taxes	100	21	39	19	39	23	22	25
Earned too much to qualify	21	5	4	2	4	2	13	15
Other	46	10	10	5	25	15	11	13

Source: Authors' calculations based on fourth year panel study weighted sample (*n* = 1,149; excludes cases with missing data).

Reasons for not receiving the EITC are shown in the bottom panel of Table 5.20 for the entire state and by region. The most frequent reason given was that the respondent did not work; the next most important reason was that the respondent did not file tax returns. Only 5% of the sample did not know about the EITC or how to claim it. Approximately 71% of the Appalachian group did not work compared to 45% of non-metropolitan K-TAP recipients; 15% of non-metropolitan recipients earned too much to qualify compared to 2% of metropolitan and Appalachian recipients.

Table 5.21 reports housing cost burdens for K-TAP recipients in the fourth year sample of the panel survey. Excluding in-kind supports and the EITC from income, some 45% of households experienced high housing cost burdens (30% or more of income) and 23% experienced extreme cost burdens (50% or more of income). When the EITC is included in income, these percentages drop slightly. Households in metropolitan counties are more likely to experience high cost burdens.

Table 5.21. Percent of K-TAP recipients with unaffordable housing cost burdens, by EITC status and region, 2001

Percent of income spent on housing	Kentucky (*n* = 1,172)	Appalachia (*n* = 494)	Metro (*n* = 442)	Non-metro (*n* = 236)
Excluding in-kind supports and EITC:				
30% or more of income	45	40	51	43
50% or more of income	23	22	23	25
Excluding in-kind supports, but including EITC:				
30% or more of income	43	39	50	40
50% or more of income	22	22	22	21

Source: Authors' calculations based on fourth-year panel study weighted sample (*n* = 1,172).

We also compared K-TAP recipients based on whether they were receiving housing subsidies. Recipients not receiving subsidies were much more likely to experience high and extreme cost burdens. Public housing tenants were least likely to have unaffordable cost burdens (Table 5.22). Surprisingly, significant percentages of Section 8 and Public Housing tenants reported unaffordable cost burdens although those programs are designed to prevent that from happening.

Table 5.22. Percent of K-TAP recipients with unaffordable housing cost burdens, by EITC and housing subsidy status, 2001

Percent of income spent on housing	No subsidy (*n* = 896)	Section 8 (*n* = 163)	Public Housing (*n* = 80)	Other subsidy (*n* = 31)
Excluding in-kind supports and EITC:				
30% or more of income	50	37	20	26
50% or more of income	26	15	5	13
Excluding in-kind supports, but including EITC:				
30% or more of income	48	33	19	16
50% or more of income	25	12	5	13

Source: Authors' calculations based on fourth-year panel study weighted sample (*n* = 1,170; excludes cases with missing data).

Focusing on discontinued recipients, cost burdens differ substantially based on whether the recipient left K-TAP voluntarily or because the 60-month time limit was reached (Table 5.23). Those who left voluntarily are less likely to have high or extreme cost burdens. Public Housing tenants are also less likely to have unaffordable cost burdens. In general, it appears that housing subsidies are important in helping former K-TAP recipients to cope with the loss of income subsidies and/or the high cost of housing.

Table 5.23. Percent of discontinued K-TAP recipients with unaffordable housing cost burdens, by reason for leaving K-TAP and subsidy status, 2001

Percent of income spent on housing	No subsidy	Section 8	Public Housing	Other subsidy
Left K-TAP voluntarily prior to time limit:	(*n* = 212)	(*n* = 47)	(*n* = 26)	(*n* = 26)
30% or more of income	38	23	12	14
50% or more of income	17	10	8	14
Reached time limit:	(*n* = 246)	(*n* = 85)	(*n* = 46)	(*n* = 13)
30% or more of income	53	43	35	54
50% or more of income	25	22	11	23

Source: Authors' calculations based on discontinued recipient sample (*n* = 682).

Chapter 6
Conclusions

Key Findings

The key findings of this report are as follows:

- *Education and incomes:* In spite of continued and dramatic improvement in educational levels in Kentucky, the state continues to lag well behind the nation as a whole. Reflecting the low educational levels in the state, median household incomes rose by only 1.6% after adjusting for inflation between 1979 and 1999. In contrast, median household incomes rose by 8.6% across the U.S. Although poverty rates dropped in Kentucky between 1979 and 1999, they continued to be several percentage points higher than the national rates.
- *Affordability of rental housing:* As pointed out in the *Phase I* report, the primary housing need in Kentucky is affordable rental housing. The new data presented here do not change that assessment. Basing our calculations on HUD criteria, some 130,000 low-income households in the rental sector faced excessive housing cost burdens in 2000. Moreover, much of the homeless population is homeless because they cannot afford to pay rent. The 102,400 subsidized rental units are simply not enough to address the needs of 235,800 low-income households in the rental sector plus the homeless.
- *Affordability of owner-occupied housing:* Low-income owner households are also increasingly facing affordability problems. Perhaps the most striking and worrisome finding of this report is the fact that the number of low-income owner households with unaffordable cost burdens—up from 87,100 in 1990 to 126,700 in 2000—has now grown to nearly match the corresponding number of low-income renters. Many of the same factors that have been cited to account for the dramatic rise in the home mortgage foreclosure rate probably also explain this phenomenon: loose mortgage underwriting criteria, excessive expansion of consumer credit, predatory lending, and the poor economy.
- *Housing stock:* Over time, the housing stock in Kentucky has been gaining a larger percentage of mobile homes and smaller percentages of single- and multi-family homes, although the numbers of each type have continued to grow. Given the fact that mobile homes are generally a poor investment that

depreciates rapidly, this is probably not a desirable trend. However, the placement of new mobile homes has dropped off dramatically in recent years. Low-cost single-family homes for homeowners and multi-family homes for renters would be more durable solutions to the need for more affordable housing.

- *Housing conditions:* Based on the limited data available from the decennial census, it appears that housing conditions improved considerably between 1980 and 2000. Using the adequacy of bathroom plumbing and kitchen facilities as rough indicators of housing conditions, less than 2% of dwellings had unsatisfactory conditions in 2000. This is consistent with national survey data that examined housing conditions in much more detail and found that only 2% of units in 2001 had severe physical problems. Moreover, based on the available indicators, the physical housing conditions of the low-income population in Kentucky appear to be no worse than those for the population as a whole.

- *Elderly housing needs:* A large portion of the Baby Boom generation is going to become elderly during the 2010s. As this population continues to age and becomes frail and less self-sufficient, it is going to require more specialized housing options. This will be a particular problem for low-income elderly persons who do not have the resources to pay for such housing.

- *Reverse mortgages for the elderly:* We conclude that reverse mortgages could move about 14,000 low-income elderly households from below to above the low-income threshold. This represents about 7% of all elderly low-income households.

- *Migrant Latino farmworker housing needs:* We estimate that the migrant Latino farmworker population in Kentucky is somewhere in the range of 70,700 to 90,300 persons. We expect that a majority of this group faces affordability and other housing problems. Given the undocumented status of most migrant Latino farmworkers, this is a particularly intractable problem.

- *Homelessness:* We estimate that some 36,400 to 52,500 persons experience homelessness in Kentucky at some point in the course of a year. Research indicates that the main cause of homelessness is the lack of affordable housing. Many homeless persons need a strategy for finding long-term solutions to their income and housing problems, while much of the assistance provided is in the form of short-term shelter.

- *Welfare reform and housing needs:* Not surprisingly, welfare reform would be more effective if income subsidies and housing subsidies were coordinated. Both current and discontinued recipients of income subsidies report better outcomes if they also receive housing benefits. Surprisingly, many income subsidy recipients and former recipients report excessive housing cost burdens even when they are receiving Section 8 or Public Housing subsidies. The Earned Income Tax Credit appears to have a small impact on the incidence of excessive housing cost burdens for these groups.

Future Research

Future research on housing needs in Kentucky should benefit from the introduction of the American Community Survey (ACS), which will replace the long form of the decennial census.[44] The ACS questionnaire is nearly identical to the long form census questionnaire.[45] Statewide Public Use Microdata Samples (PUMS) will be available annually, as will data for cities, counties and metropolitan areas of 65,000 or more population. For smaller areas, data will be accumulated over three- to five-year periods. The annual data for the state as a whole will permit an annual update of some of the basic statistical indicators of housing need, such as estimates of the low-income population and housing cost burdens. Analysis of the state's larger counties could also be updated annually.

The timing of collection and release of ACS data will depend on Congressional funding. However, the statewide data is already being released on an annual basis, with the 2002 PUMS state-by-state data having been released in late November 2003. This data would allow for an immediate update of the statewide statistics in the current report.

In addition, 2002 data profiles for the entire state, Fayette County, Jefferson County, the former City of Louisville, the Lexington MSA, and Congressional District 3 have been released.[46] One interesting feature of these profiles is information on the percentages of owners and renters paying more than 30% of household income on housing

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[44] See "What is the American Community Survey?" at the US Census Bureau's web site: <http://www.census.gov/acs/www/Sbasics/What/What1.htm>, and Joann Kuchak *et al.*, *The American Community Survey: Challenges and Opportunities for HUD* (Calverton, MD: ORCMacro, 2002).

[45] One notable difference is that the census questionnaire asked whether household members moved within the previous five years, while the ACS questionnaire asks whether members moved within the previous year.

[46] See <http://www.census.gov/acs/www/Products/Profiles/Single/2002/ACS/KY.htm>.

costs. For example, the Kentucky profile states that 41% of renters spent more than 30% of income on housing. This percentage is lower than the percentage we report because our calculations are limited to low-income households. Although not a substitute for more detailed analysis using PUMS data, the profiles provide a quick snapshot of useful information.

Appendixes

Appendix 1: Housing Conditions Indexes for Counties

Table A1.1. Housing conditions indexes, by county in rank order, 2000

Rank	By absolute number of housing units	By percentage of housing units
1	Jefferson	Elliott
2	Fayette	Owsley*
3	Pike	Lee
4	Pulaski	Jackson
5	Hardin	Breckinridge
6	Kenton	Lewis
7	Christian	Menifee*
8	Breckinridge	Wolfe
9	Warren	Wayne
10	Wayne	Robertson
11	Harlan	Lawrence*
12	Whitley	Casey*
13	Daviess	Estill
14	Clay	Metcalfe
15	Carter	Butler*
16	Knox	Martin*
17	Floyd*	Clay
18	Laurel	Leslie
19	Perry	Breathitt
20	Grayson	Morgan*
21	Greenup	Rockcastle
22	Hopkins	Cumberland
23	Boone	Clinton*
24	Marshall	Owen*
25	Letcher*	McCreary
26	Casey	Bracken
27	Jackson	Carter*
28	Lawrence*	Powell
29	Lewis	Pendleton*
30	Estill	Fleming
31	Campbell	Livingston
32	Barren	Allen*
33	Madison	Crittenden
34	Bell	Adair*
35	Rockcastle	Hart*
36	Breathitt	Washington
37	Lincoln	Perry*
38	Bullitt	Webster*
39	Meade	Letcher*
40	Magoffin	Harlan

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Table A1.1. Housing conditions indexes, by county in rank order, 2000 (continued)

Rank	By absolute number of housing units	By percentage of housing units
41	Johnson	Grayson*
42	Butler	Monroe*
43	Allen	Knox*
44	Ohio*	Whitley*
45	Nelson	Marion
46	McCreary	Lincoln*
47	Graves	Carroll
48	Hart	Knott*
49	Adair	Edmonson*
50	Leslie	Meade
51	Franklin	Magoffin*
52	Morgan	Ohio*
53	Calloway	Johnson*
54	Fleming	Trimble
55	Metcalfe	Pulaski*
56	Muhlenberg	Todd*
57	Logan*	Green
58	Mason	Henry
59	Jessamine	Russell*
60	Knott	Garrard*
61	Henderson*	Mason*
62	Pendleton	Larue*
63	Owen	Bath*
64	Taylor	Greenup
65	Russell	Bell*
66	Elliott	Pike*
67	Lee*	Gallatin*
68	Powell	Floyd*
69	Clinton	Nicholas
70	Menifee	Christian*
71	Webster*	McLean*
72	Shelby	Harrison
73	McLean	Taylor
74	Boyd	Spencer*
75	Boyle	Carlisle
76	Wolfe*	Barren*
77	Edmonson	Laurel*
78	Livingston	Logan*
79	Grant	Trigg*
80	Harrison	Grant*

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Table A1.1. Housing conditions indexes, by county in rank order, 2000 (continued)

Rank	By absolute number of housing units	By percentage of housing units
81	Monroe	Nelson
82	Montgomery	Hardin*
83	Henry	Hopkins*
84	McCracken	Caldwell*
85	Garrard	Hancock*
86	Scott*	Montgomery
87	Martin	Fulton*
88	Crittenden	Graves*
89	Owsley	Muhlenberg
90	Washington	Anderson*
91	Cumberland	Boyle
92	Bracken	Simpson*
93	Clark*	Jessamine*
94	Larue	Shelby*
95	Green	Calloway*
96	Todd	Ballard*
97	Carroll	Rowan
98	Rowan	Warren*
99	Trigg	Mercer
100	Anderson*	Bullitt*
101	Bath	Union*
102	Mercer	Hickman*
103	Woodford	Bourbon*
104	Caldwell	Madison
105	Simpson	Jefferson*
106	Bourbon	Scott*
107	Marion	Daviess*
108	Oldham	Woodford*
109	Trimble	Franklin*
110	Spencer*	Fayette
111	Union	Henderson*
112	Gallatin	Marshall*
113	Nicholas	Boone*
114	Hancock	McCracken*
115	Fulton	Lyon*
116	Ballard	Clark*
117	Robertson	Kenton
118	Carlisle	Campbell
119	Lyon	Boyd*
120	Hickman	Oldham

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 2000.

Note: Counties are ranked from worst (1) to best (120) based on the averages of the absolute numbers or percentages of dwelling units with inadequate plumbing, inadequate kitchen facilities, and crowding. An * indicates that the county's rank is tied with that of the previously listed county.

Table A1.2. Housing conditions indexes, by county in alphabetical order, 2000

County	Rank by absolute number of housing units	Rank by percentage of housing units
Adair	49	33
Allen	43	31
Anderson	99	89
Ballard	116	91
Barren	32	75
Bath	101	58
Bell	34	64
Boone	23	110
Bourbon	106	99
Boyd	74	118
Boyle	75	91
Bracken	92	26
Breathitt	36	19
Breckinridge	8	5
Bullitt	38	99
Butler	42	14
Caldwell	104	81
Calloway	53	91
Campbell	31	118
Carlisle	118	75
Carroll	97	47
Carter	15	26
Casey	26	10
Christian	7	69
Clark	92	110
Clay	14	17
Clinton	69	22
Crittenden	88	33
Cumberland	91	22
Daviess	13	104
Edmonson	77	47
Elliott	66	1
Estill	30	13
Fayette	2	110
Fleming	54	30
Floyd	16	64
Franklin	51	104
Fulton	115	86
Gallatin	112	64
Garrard	85	58

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Table A1.2. Housing conditions indexes, by county in alphabetical order, 2000 (continued)

County	Rank by absolute number of housing units	Rank by percentage of housing units
Grant	79	75
Graves	47	86
Grayson	20	40
Green	95	57
Greenup	21	64
Hancock	114	81
Hardin	5	81
Harlan	11	40
Harrison	80	72
Hart	48	33
Henderson	60	110
Henry	83	58
Hickman	120	99
Hopkins	22	81
Jackson	27	4
Jefferson	1	104
Jessamine	59	91
Johnson	41	50
Kenton	6	117
Knott	60	47
Knox	16	40
Larue	94	58
Laurel	18	75
Lawrence	27	10
Lee	66	3
Leslie	50	18
Letcher	24	36
Lewis	29	6
Lincoln	37	45
Livingston	78	31
Logan	56	75
Lyon	119	110
Madison	33	104
Magoffin	40	50
Marion	107	45
Marshall	24	110
Martin	87	14
Mason	58	58
McCracken	84	110
McCreary	46	25

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Table A1.2. Housing conditions indexes, by county in alphabetical order, 2000 (continued)

County	Rank by absolute number of housing units	Rank by percentage of housing units
McLean	73	69
Meade	39	50
Menifee	70	6
Mercer	102	99
Metcalfe	55	14
Monroe	81	40
Montgomery	82	86
Morgan	52	19
Muhlenberg	56	89
Nelson	45	81
Nicholas	113	69
Ohio	43	50
Oldham	108	120
Owen	63	22
Owsley	89	1
Pendleton	62	28
Perry	19	36
Pike	3	64
Powell	68	28
Pulaski	4	54
Robertson	117	10
Rockcastle	35	21
Rowan	98	97
Russell	65	58
Scott	85	104
Shelby	72	91
Simpson	105	91
Spencer	109	73
Taylor	64	73
Todd	96	54
Trigg	99	75
Trimble	109	54
Union	111	99
Warren	9	97
Washington	90	36
Wayne	10	9
Webster	70	36
Whitley	12	40
Wolfe	75	8
Woodford	103	104

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 2000.
Note: Counties are ranked from worst (1) to best (120) based on the averages of the absolute numbers or percentages of dwelling units with inadequate plumbing, inadequate kitchen facilities, and crowding.

Appendix 2: Rental Housing Cost Burden Indexes for Counties

Table A2.1. Rental housing cost burden indexes, by county in rank order, 2000

Rank	By absolute number of housing units	By percentage of housing units
1	Jefferson	Boone
2	Fayette	Fayette
3	Kenton	Jessamine
4	Warren	Franklin
5	Marshall	Kenton
6	Daviess	Marshall
7	Campbell	Anderson
8	Madison	Jefferson*
9	Christian	Warren
10	Hardin	Campbell
11	Franklin	Simpson
12	Boone	Grant
13	Pike	Clark
14	Pulaski	Shelby
15	Henderson	Calloway
16	Boyd	Woodford
17	Calloway	Livingston*
18	Laurel	Bullitt
19	Whitley	Madison
20	Knox	Garrard
21	Floyd	Daviess
22	Hopkins*	Nelson
23	Bell	Logan
24	Jessamine	Hardin*
25	Barren	Christian
26	Harlan	Lyon
27	Graves	Boyd
28	Clark	Henderson
29	Nelson	Barren
30	Boyle	Montgomery
31	Bullitt	Scott
32	Taylor	Trigg
33	Scott	Fulton
34	Shelby	Bourbon*
35	Greenup	Pulaski
36	Perry	Laurel
37	Rowan	Oldham
38	Logan	Powell
39	Montgomery	Pendleton*
40	Bourbon	Boyle

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Table A2.1. Rental housing cost burden indexes, by county in rank order, 2000 (continued)

Rank	By absolute number of housing units	By percentage of housing units
41	Clay	Carroll
42	Johnson	Mercer
43	Wayne	Mason
44	McLean	Meade
45	Carter*	Greenup*
46	Muhlenberg	Harrison
47	McCracken	Whitley
48	Grayson	Knox
49	Mercer	Martin
50	Woodford	Gallatin
51	Magoffin	Graves
52	Estill	Crittenden
53	Ohio	Todd
54	Grant	Rowan
55	Lincoln	Hopkins
56	Letcher	Taylor
57	Breathitt	McLean*
58	Harrison	Breckinridge
59	Mason	Larue*
60	Russell	Ohio
61	Lawrence	Lawrence
62	Meade	Webster
63	Fulton	Henry
64	Powell	Johnson
65	Garrard	Trimble
66	Hart	Pike*
67	Allen	Russell
68	Breckinridge	Monroe
69	Adair	Green
70	Monroe	Allen*
71	Knott	Clinton
72	Carroll	Carter
73	Oldham*	Estill
74	Simpson	Elliott
75	Rockcastle	McCracken*
76	Jackson	Wayne
77	Anderson	Grayson
78	Martin	Jackson
79	Green	Washington
80	Webster	Lincoln

Continued on next page

Table A2.1. Rental housing cost burden indexes, by county in rank order, 2000 (continued)

Rank	By absolute number of housing units	By percentage of housing units
81	Clinton	Spencer*
82	Union*	Owsley
83	Larue	Bath
84	McCreary	Union
85	Casey	Floyd
86	Henry	Bell
87	Caldwell	Hart
88	Pendleton	Magoffin
89	Todd	Breathitt
90	Lewis	Hancock
91	Fleming	Muhlenberg*
92	Bath	Marion
93	Morgan*	Ballard
94	Butler	Harlan
95	Crittenden	Wolfe
96	Marion	Metcalfe*
97	Trigg	Clay
98	Leslie	Adair
99	Wolfe	Owen
100	Lee	Butler*
101	Washington	Menifee*
102	Metcalfe	McCreary
103	Owen	Knott
104	Gallatin	Lee
105	Elliott	Caldwell
106	Owsley	Morgan
107	Edmonson	Perry
108	Lyon	Edmonson
109	Spencer	Fleming
110	Ballard	Hickman
111	Cumberland	Bracken
112	Nicholas	Casey
113	Bracken	Lewis*
114	Livingston	Rockcastle
115	Trimble	Carlisle
116	Menifee	Nicholas
117	Hancock	Letcher
118	Hickman	Leslie
119	Carlisle	Cumberland
120	Robertson	Robertson

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 2000.

Note: Counties are ranked from worst (1) to best (120) based on the absolute number or percentage of renter households with incomes below $20,000 and paying more than 30% of income on gross rent (including utilities). An * indicates that the county's rank is tied with that of the previously listed county.

Table A2.2. Rental housing cost burden indexes, by county in alphabetical order, 2000

County	Rank by absolute number of housing units	Rank by percentage of housing units
Adair	69	98
Allen	67	69
Anderson	77	7
Ballard	110	93
Barren	25	29
Bath	92	83
Bell	23	86
Boone	12	1
Bourbon	40	33
Boyd	16	27
Boyle	30	40
Bracken	113	111
Breathitt	57	89
Breckinridge	68	58
Bullitt	31	18
Butler	94	99
Caldwell	87	105
Calloway	17	15
Campbell	7	10
Carlisle	119	115
Carroll	72	41
Carter	44	72
Casey	85	112
Christian	9	25
Clark	28	13
Clay	41	97
Clinton	81	71
Crittenden	95	52
Cumberland	111	119
Daviess	6	21
Edmonson	107	108
Elliott	105	74
Estill	52	73
Fayette	2	2
Fleming	91	109
Floyd	21	85
Franklin	11	4
Fulton	63	33
Gallatin	104	50
Garrard	65	20

Continued on next page

Table A2.2. Rental housing cost burden indexes, by county in alphabetical order, 2000 (continued)

County	Rank by absolute number of housing units	Rank by percentage of housing units
Grant	54	12
Graves	27	51
Grayson	48	77
Green	79	69
Greenup	35	44
Hancock	117	90
Hardin	10	23
Harlan	26	94
Harrison	58	46
Hart	66	87
Henderson	15	28
Henry	86	63
Hickman	118	110
Hopkins	21	55
Jackson	76	78
Jefferson	1	7
Jessamine	24	3
Johnson	42	64
Kenton	3	5
Knott	71	103
Knox	20	48
Larue	83	58
Laurel	18	36
Lawrence	61	61
Lee	100	104
Leslie	98	118
Letcher	56	117
Lewis	90	112
Lincoln	55	80
Livingston	114	16
Logan	38	23
Lyon	108	26
Madison	8	19
Magoffin	51	88
Marion	96	92
Marshall	5	6
Martin	78	49
Mason	59	43
McCracken	47	74
McCreary	84	102

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Table A2.2. Rental housing cost burden indexes, by county in alphabetical order, 2000 (continued)

County	Rank by absolute number of housing units	Rank by percentage of housing units
McLean	44	56
Meade	62	44
Menifee	116	100
Mercer	49	42
Metcalfe	102	95
Monroe	70	68
Montgomery	39	30
Morgan	92	106
Muhlenberg	46	90
Nelson	29	22
Nicholas	112	116
Ohio	53	60
Oldham	72	37
Owen	103	99
Owsley	106	82
Pendleton	88	38
Perry	36	107
Pike	13	65
Powell	64	38
Pulaski	14	35
Robertson	120	120
Rockcastle	75	114
Rowan	37	54
Russell	60	67
Scott	33	31
Shelby	34	14
Simpson	74	11
Spencer	109	80
Taylor	32	56
Todd	89	53
Trigg	97	32
Trimble	115	65
Union	81	84
Warren	4	9
Washington	101	79
Wayne	43	76
Webster	80	62
Whitley	19	47
Wolfe	99	95
Woodford	50	16

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 2000.
Note: Counties are ranked from worst (1) to best (120) based on the absolute number or percentage of renter households with incomes below $20,000 and paying more than 30% of income on gross rent (including utilities).

Appendix 3: Housing Needs Indexes for Counties

Table A3.1. Housing needs indexes, by county in rank order, 2000

Rank	By absolute number of housing units	By percentage of housing units
1	Jefferson	Livingston
2	Fayette	Breckinridge
3	Kenton	Martin
4	Warren	Powell
5	Hardin	Pendleton
6	Christian	Lawrence
7	Pike*	Elliott
8	Pulaski	Garrard
9	Daviess	Jackson
10	Marshall	Owsley
11	Whitley	Wayne
12	Boone	Crittenden*
13	Knox	Estill
14	Laurel*	Carroll
15	Harlan	Pulaski
16	Campbell	Whitley
17	Floyd*	Knox*
18	Madison	Grant
19	Hopkins	Meade
20	Wayne	Clinton*
21	Clay	Christian
22	Perry*	Jessamine
23	Greenup	Anderson
24	Barren	Carter
25	Bell*	Webster
26	Carter	Logan
27	Franklin	Allen
28	Grayson	Nelson
29	Bullitt	Wolfe*
30	Calloway	Simpson*
31	Graves*	Mason
32	Nelson	Barren
33	Breckinridge	Hardin
34	Henderson*	Warren
35	Letcher	Lee*
36	Estill	Breathitt
37	Jessamine	Shelby*
38	Johnson*	Menifee*
39	Lawrence	Greenup
40	Boyd	Todd*

Continued on next page

Table A3.1. Housing needs indexes, by county in rank order, 2000 (continued)

Rank	By absolute number of housing units	By percentage of housing units
41	Magoffin	Calloway
42	Lincoln	Monroe*
43	Breathitt	Metcalfe*
44	Logan	Trigg
45	Taylor	Fayette
46	Ohio	Ohio*
47	Meade	Jefferson
48	Muhlenberg	Laurel*
49	Jackson	Franklin*
50	Boyle	Boone
51	Shelby	Clay*
52	Allen	Butler
53	Rockcastle*	Washington*
54	Casey	Montgomery
55	Hart	Johnson
56	Mason	Gallatin*
57	McLean*	Marshall
58	Adair	Grayson*
59	Lewis	Bullitt*
60	Scott*	Harrison*
61	Clark	Lewis
62	Montgomery*	Trimble*
63	Russell	Fulton
64	McCreary	Henry
65	Knott	Larue*
66	McCracken*	Kenton
67	Powell	Hart*
68	Grant	Madison
69	Rowan	Owen*
70	Butler	Casey
71	Harrison	Woodford*
72	Fleming	Lincoln
73	Morgan*	Russell*
74	Bourbon	Morgan*
75	Leslie	Green*
76	Clinton	McCreary
77	Garrard*	Daviess
78	Pendleton*	Campbell*
79	Mercer	McLean*
80	Monroe*	Taylor

Continued on next page

Table A3.1. Housing needs indexes, by county in rank order, 2000 (continued)

Rank	By absolute number of housing units	By percentage of housing units
81	Webster*	Clark*
82	Woodford	Robertson
83	Metcalfe	Boyle
84	Martin	Pike
85	Owen	Adair*
86	Lee	Harlan
87	Carroll	Rockcastle
88	Henry*	Leslie
89	Elliott	Scott
90	Green	Bourbon*
91	Wolfe	Marion*
92	Anderson	Bracken*
93	Larue*	Hopkins
94	Fulton	Graves
95	Simpson	Henderson*
96	Oldham	Magoffin*
97	Crittenden	Fleming*
98	Edmonson	Mercer
99	Todd	Cumberland*
100	Menifee	Lyon*
101	Caldwell	Perry
102	Washington*	Boyd
103	Livingston	Bath*
104	Bath	Bell
105	Union*	Knott*
106	Owsley	Rowan*
107	Trigg	Floyd
108	Cumberland	Spencer
109	Marion	Letcher
110	Bracken	Oldham
111	Gallatin	Edmonson*
112	Spencer	Hancock
113	Trimble	Muhlenberg
114	Nicholas	Union
115	Ballard	Nicholas*
116	Lyon	McCracken
117	Hancock	Caldwell*
118	Carlisle	Ballard*
119	Robertson*	Carlisle
120	Hickman	Hickman

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 2000.

Note: Counties are ranked from worst (1) to best (120) based on the averages of housing conditions index (Appendix 1) and the rental housing cost burden index (Appendix 2). An * indicates that the county's rank is tied with that of the previously listed county.

Table A3.2. Housing needs indexes, by county in alphabetical order, 2000

County	Rank by absolute number of housing units	Rank by percentage of housing units
Adair	58	84
Allen	52	27
Anderson	92	23
Ballard	115	116
Barren	24	32
Bath	104	102
Bell	24	104
Boone	12	50
Bourbon	74	89
Boyd	40	102
Boyle	50	83
Bracken	110	89
Breathitt	43	36
Breckinridge	33	2
Bullitt	29	57
Butler	70	52
Caldwell	101	116
Calloway	30	41
Campbell	16	77
Carlisle	118	119
Carroll	87	14
Carter	26	24
Casey	54	70
Christian	6	21
Clark	61	80
Clay	21	50
Clinton	76	19
Crittenden	97	11
Cumberland	108	98
Daviess	9	77
Edmonson	98	110
Elliott	89	7
Estill	36	13
Fayette	2	45
Fleming	72	94
Floyd	16	107
Franklin	27	47
Fulton	94	63
Gallatin	111	55
Garrard	76	8

Continued on next page

Table A3.2. Housing needs indexes, by county in alphabetical order, 2000 (continued)

County	Rank by absolute number of housing units	Rank by percentage of housing units
Grant	68	18
Graves	31	94
Grayson	28	57
Green	90	72
Greenup	23	39
Hancock	117	112
Hardin	5	33
Harlan	15	86
Harrison	71	57
Hart	55	66
Henderson	33	94
Henry	87	64
Hickman	120	120
Hopkins	19	93
Jackson	49	9
Jefferson	1	47
Jessamine	37	22
Johnson	37	55
Kenton	3	66
Knott	65	104
Knox	13	16
Larue	92	64
Laurel	13	47
Lawrence	39	6
Lee	86	34
Leslie	75	88
Letcher	35	109
Lewis	59	61
Lincoln	42	72
Livingston	103	1
Logan	44	26
Lyon	116	98
Madison	18	68
Magoffin	41	94
Marion	109	89
Marshall	10	57
Martin	84	3
Mason	56	31
McCracken	65	116
McCreary	64	76

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Table A3.2. Housing needs indexes, by county in alphabetical order, 2000 (continued)

County	Rank by absolute number of housing units	Rank by percentage of housing units
McLean	56	77
Meade	47	19
Menifee	100	36
Mercer	79	98
Metcalfe	83	41
Monroe	79	41
Montgomery	61	54
Morgan	72	72
Muhlenberg	48	113
Nelson	31	28
Nicholas	114	114
Ohio	46	45
Oldham	96	110
Owen	85	68
Owsley	106	10
Pendleton	76	5
Perry	21	101
Pike	6	84
Powell	67	4
Pulaski	8	15
Robertson	118	82
Rockcastle	52	87
Rowan	69	104
Russell	63	72
Scott	59	89
Shelby	51	36
Simpson	95	28
Spencer	112	108
Taylor	45	80
Todd	99	39
Trigg	107	44
Trimble	113	61
Union	104	114
Warren	4	34
Washington	101	52
Wayne	20	11
Webster	79	25
Whitley	11	16
Wolfe	91	28
Woodford	82	70

Source: Authors' calculations based on US Census Bureau, *Census of Population and Housing*, Summary File 3, 2000.
Note: Counties are ranked from worst (1) to best (120) based on the averages of housing conditions index (Appendix 1) and the rental housing cost burden index (Appendix 2).

Appendix 4: Simulation of Impacts of Reverse Mortgages on Elderly Low-Income Households

We started with low-income elderly households from the 2000 census as reported in Table 5.4. We then selected only those owner households with no mortgage debt and for which the spouse was at least 62 years old (the householders in the sample were by definition at least 65). Although mortgage debt does not necessarily disqualify a household from participating in the HECM program, the information in the PUMS did not allow us to determine the amount of debt for those with mortgages. An FHA mortgage limit was imposed equal to the minimum of the value of the house or: $180,405 in KIPDA, $160,550 in Northern Kentucky, or $154,896 in the rest of the state. Owners of mobile homes were excluded.[47]

The HECM program uses what is called a principal limit factor to relate the age of the youngest borrower and the interest rate to what is referred to as the principal limit.[48] Closing costs and an insurance fee are subtracted from the principal limit to equal the lump sum, which is the maximum amount of the loan. To simplify this calculation, we estimated a regression equation that relates age and the interest rate to a lump sum factor as follows:

$$LSF = 0.047459 + (0.012746a) - (0.06695i)$$

where *LSF* is the lump sum factor, *a* is the age of the youngest borrower and *i* is the interest rate. Current rates for HECM loans are about 6.5%.

We then multiplied the lump sum factor by the FHA Mortgage Limit to obtain the lump sum. A 0.5% insurance fee was added to the annual interest rate, which was then converted to a monthly compounding rate by dividing by 12. The monthly payment was calculated as follows:

$$MP = (1/r) - \left(1/\left(r\left((1+r)^t\right)\right)\right) - 25$$

where *MP* is the monthly payment, *r* is the monthly compounding rate, *t* is the assumed loan term, and $25 is an estimate of the monthly servicing fee. The assumed loan term is the difference between 100

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[47] The simulation was based largely on the HECM regulations contained in U.S. Department of Housing and Urban Development, *Home Equity Conversion Mortgages*, Handbook No. 4235.1, Rev. 1, available at <http://www.hudclips.org/>.

[48] A technical discussion of the principal limit factor may be found in Edward J. Syzmanoski, Jr., "Risk and the Home Equity Conversion Mortgage," *Journal of the American Real Estate and Urban Economics Association*, vol. 22 (1994), pp. 347-366.

and the youngest borrower's age in months. Households with negative or zero monthly payments were excluded.

The monthly payment was converted to an annual payment and added to household income. We then recalculate the number of elderly households falling below the low-income threshold.

Appendix 5. Comparison of Questions on Disabilities in 1990 and 2000 Censuses

For the 1990 census, the following two questions were asked regarding disabilities (these questions were asked on the long form only, which is distributed to about one in six households):

18. Does this person have a physical, mental, or other health condition that has lasted for 6 or more months and which:
    a. Limits the kind or amount of work this person can do at a job?
    b. Prevents this person from working at a job?
19. Because of a health condition that has lasted for 6 or more months, does this person have any difficulty:
    a. Going outside the home alone, for example, to shop or visit a doctor's office?
    b. Taking care of his or her own personal needs, such as bathing, dressing, or getting around inside the home?

For 2000, the following questions were asked (again on the long form only):

16. Does this person have any of the following long-lasting conditions:
    a. Blindness, deafness, or a severe vision or hearing impairment?
    b. A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying?
17. Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have any difficulty in doing any of the following activities:
    a. Learning, remembering, or concentrating?
    b. Dressing, bathing, or getting around inside the home?
    c. Going outside the home alone to shop or visit a doctor's office (only for persons 16 years old or over)?
    d. Working at a job or business (only for persons 16 years old or over)?

Question 18b (work prevention) from the 1990 questionnaire applies to a subset of the group that responded affirmatively to question 18a (work limitation) from that questionnaire. It is not clear which of

these questions corresponds most directly to question 17d (employment disability) from the 2000 questionnaire; however, analysis of the data suggests that question 18a (regarding work limitation rather than work prevention) in 1990 is most closely related to question 17d in 2000. Question 19a clearly corresponds to question 17c (go-outside-home or mobility disability), and question 19b clearly corresponds to question 17b (self-care disability). Questions 16a, 16b, and 17a (sensory, physical, and mental disabilities, respectively) were new to the census in 2000, and significantly expanded the number of persons who were identified as disabled.

Appendix 6: Estimates of Migrant Latino Population for Counties

Table A6.1. Estimates of Migrant Latino population, by county, 1997

County	Hired farm workers	Estimates based on KFB/NAWS assumption	Estimates based on ERS assumption
Adair	2,209	1,299	1,016
Allen	1,107	651	509
Anderson	921	542	424
Ballard	769	452	354
Barren	3,853	2,266	1,772
Bath	2,263	1,331	1,041
Bell	43	25	20
Boone	1,024	602	471
Bourbon	2,768	1,628	1,273
Boyd	217	128	100
Boyle	1,291	759	594
Bracken	2,337	1,374	1,075
Breathitt	154	91	71
Breckinridge	1,835	1,079	844
Bullitt	639	376	294
Butler	413	243	190
Caldwell	684	402	315
Calloway	1,623	954	747
Campbell	457	269	210
Carlisle	438	258	201
Carroll	881	518	405
Carter	1,599	940	736
Casey	2,697	1,586	1,241
Christian	1,995	1,173	918
Clark	1,811	1,065	833
Clay	640	376	294
Clinton	611	359	281
Crittenden	308	181	142
Cumberland	1,220	717	561
Daviess	2,866	1,685	1,318
Edmonson	1,029	605	473
Elliott	826	486	380
Estill	630	370	290
Fayette	3,566	2,097	1,640
Fleming	2,688	1,581	1,236
Floyd	127	75	58
Franklin	1,494	878	687
Fulton	220	129	101
Gallatin	671	395	309
Garrard	1,863	1,095	857

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Table A6.1. Estimates of Migrant Latino population, by county, 1997 (continued)

County	Hired farm workers	Estimates based on KFB/NAWS assumption	Estimates based on ERS assumption
Grant	1,361	800	626
Graves	2,120	1,247	975
Grayson	1,548	910	712
Green	1,752	1,030	806
Greenup	1,225	720	564
Hancock	1,057	622	486
Hardin	2,261	1,329	1,040
Harlan	26	15	12
Harrison	2,569	1,511	1,182
Hart	2,030	1,194	934
Henderson	798	469	367
Henry	1,880	1,105	865
Hickman	286	168	132
Hopkins	622	366	286
Jackson	1,353	796	622
Jefferson	659	387	303
Jessamine	2,378	1,398	1,094
Johnson	208	122	96
Kenton	513	302	236
Knott	7	4	3
Knox	358	211	165
Larue	1,361	800	626
Laurel	1,297	763	597
Lawrence	315	185	145
Lee	175	103	81
Leslie	22	13	10
Letcher	6	4	3
Lewis	1,666	980	766
Lincoln	2,945	1,732	1,355
Livingston	166	98	76
Logan	1,619	952	745
Lyon	253	149	116
Madison	3,303	1,942	1,519
Magoffin	446	262	205
Marion	2,382	1,401	1,096
Marshall	506	298	233
Martin	8	5	4
Mason	1,947	1,145	896
McCracken	479	282	220
McCreary	54	32	25

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Table A6.1. Estimates of Migrant Latino population, by county, 1997 (continued)

County	Hired farm workers	Estimates based on KFB/NAWS assumption	Estimates based on ERS assumption
McLean	841	495	387
Meade	1,102	648	507
Menifee	966	568	444
Mercer	1,671	983	769
Metcalfe	1,509	887	694
Monroe	1,170	688	538
Montgomery	2,230	1,311	1,026
Morgan	2,067	1,215	951
Muhlenberg	891	524	410
Nelson	2,282	1,342	1,050
Nicholas	2,078	1,222	956
Ohio	757	445	348
Oldham	651	383	299
Owen	2,529	1,487	1,163
Owsley	620	365	285
Pendleton	1,795	1,055	826
Perry	32	19	15
Pike	22	13	10
Powell	459	270	211
Pulaski	2,655	1,561	1,221
Robertson	779	458	358
Rockcastle	1,239	729	570
Rowan	887	522	408
Russell	1,942	1,142	893
Scott	2,783	1,636	1,280
Shelby	3,547	2,086	1,632
Simpson	1,065	626	490
Spencer	1,198	704	551
Taylor	1,822	1,071	838
Todd	1,336	786	615
Trigg	828	487	381
Trimble	1,266	744	582
Union	419	246	193
Warren	2,293	1,348	1,055
Washington	2,628	1,545	1,209
Wayne	1,397	821	643
Webster	491	289	226
Whitley	334	196	154
Wolfe	1,041	612	479
Woodford	3,232	1,900	1,487

Source: See Table 5.15 and related discussion in Chapter 5.