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# Bluegrass-Lexington Metropatterns

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# **Bluegrass Metropatterns**

**An Agenda for Economic and Community Progress  
in Central Kentucky**

**Myron Orfield  
Thomas Luce**

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Bluegrass Tomorrow  
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## Overview

Analysis of demographic and fiscal trends in the Bluegrass Region shows how growth-related challenges, a constitutionally limited local tax system, dramatic fiscal disparities and competition for tax base are threatening the region's vitality.

Here are the report's main findings:

**The idea that all suburban areas are free of fiscal and social stresses is a myth.** In fact, large numbers of suburban and exurban residents live in communities that are struggling with social or fiscal strains. One group has very weak tax bases, high poverty and very few jobs. Another group of fully developed places also has weak tax bases, slow growth and growing social needs. Just a small share of the population lives in affluent communities with expensive housing, plentiful commercial development and strong tax bases.

**All types of communities are hurt by the way the region is growing.** The Bluegrass Region is segregated by income and race. Parts of Lexington and Frankfort remain troubled with high poverty and segregated neighborhoods and a group of communities is experiencing similar problems. Kentucky's local finance system has pitted the region's local governments against one another in a competition for tax base and created a confusing, inefficient system of local taxes. The region is consuming undeveloped land at much greater rates than its population is growing, creating a pattern of low-density development that threatens valuable open space and the region's famous equine industry.

Without changes to the policies shaping the region, there is reason to believe these patterns will continue, with a core of stressed communities growing larger, and a ring of sprawl consuming even more land around it.

**All types of places would benefit from regional reforms.** There are policies based on cooperation that can help change these destructive and wasteful patterns:

- **Tax reform** can stabilize fiscally stressed communities, help communities pay for needed public services and reduce the incentives generating the current pattern of inefficient development.
- **Cooperative land-use planning** can help communities coordinate development, revitalize stressed neighborhoods and conserve open space.
- **Metropolitan governance** can help address issues that cross municipal boundaries and ensure that all communities have a voice in regional decision-making.

**Change is possible.** Cooperative strategies like these offer a viable path for the region to meet its great challenges. They are already in place in various forms throughout the country, and have thoughtful advocates in Kentucky. They can help encourage environmentally sensitive development, reduce inequalities among communities, encourage cooperative regional economic-development efforts and expand the opportunities of the area's most vulnerable residents and preserve aspects of life in the Bluegrass that residents cherish and tourists spend money to experience.

## Metropatterns

The Bluegrass Region – defined in this report as Anderson, Boyle, Bourbon, Clark, Estill, Fayette, Franklin, Garrard, Harrison, Jessamine, Lincoln, Madison, Mercer, Montgomery, Nicholas, Powell, Scott and Woodford, counties<sup>1</sup> – is struggling with serious problems associated with unbalanced growth. Lexington effectively responded to one of the most serious problems facing American metropolitan areas – central city decline – by merging the City of Lexington with Fayette County in 1974. The merger not only created a more efficient governmental structure in the region’s core, it also created a municipality much more capable of dealing with the ills facing most large American cities – such as concentrated poverty and low and declining tax base.

However, there is more to do. The Bluegrass Region still faces challenges. Poverty and its ills are distributed very unevenly across the region. Significant differences in the ability of local governments to pay for services still exist and the revenue options available to local governments are inadequate to meet their diverse needs. As a result, many parts of the region still face relatively high social costs, associated with high or increasing poverty, or with low, declining or stagnant resources. The region is growing in a way that consumes undeveloped land at rates much greater than population is growing, threatening open space, air and water quality, natural habitats, agricultural land and horse farms.

This work describes these trends and highlights the policy alternatives available to counteract the negative and enhance the positive in the way the region is growing.

## Community Classifications

The fiscal health of local areas is determined by a variety of factors affecting both their ability to raise revenues and the costs associated with its social and physical needs. In order to account for a range of factors, this report relied on a statistical technique called cluster analysis to identify groups of communities sharing fiscal, social and physical characteristics (see page X for a description of the clustering process). The results show that, like virtually all metropolitan areas in the U.S., the Bluegrass region cannot be simply divided into two parts—a city and its suburbs. In fact, the clustering process revealed five types of communities in the Bluegrass Region, each with its own strengths and challenges (see Map 1 for the communities included in each group):

**Stressed:** Located mainly on the eastern and southern fringes of the Bluegrass Region, outside of the Lexington metropolitan area, stressed areas are a mix of outlying towns and unincorporated areas, representing 7 percent of regional households (and 12 percent of households outside of Lexington). As a group, they have very low property and payroll tax bases (less than 40 percent of the regional averages), high poverty, very few jobs, older than average housing stocks and they are growing very slowly. These places also show very high and increasing poverty in their schools (measured by free lunch eligibility rates). Examples of stressed communities in the Bluegrass Region are Burgin, Sadieville, Carlisle, Camargo and Jeffersonville.

**At-risk established:** Closer to the core of the region than stressed areas, this

group is comprised of 12 cities housing 16 percent of regional households (25 percent of households outside Lexington). As a group, they have lower than average property tax bases, very slow growth, higher than average poverty, higher than average jobs per household and older than average housing stocks. This group also shows the most rapidly growing poverty in schools. On the positive side, these communities show some of the highest job rates in the region. This eases fiscal stress by enhancing capacities to raise revenues (through the payroll tax) but it also increases costs (by increasing demands for local services). Overall, these areas now face many of the challenges traditionally associated with central cities. The at-risk developed group includes Frankfort, Paris, Winchester, Versailles and Mount Sterling.

**At-risk developing:** This group of communities is composed largely of unincorporated areas in the eastern and far western parts of the region and represents 19 percent of regional households (31 percent of households outside of Lexington). As a group, they have lower than average property and payroll tax bases, few jobs, lower than average poverty and are growing relatively rapidly. The most significant challenges facing this group of places involve dealing with the costs and social challenges of growth, such as investment in roads, sewers and schools, with very modest tax resources.

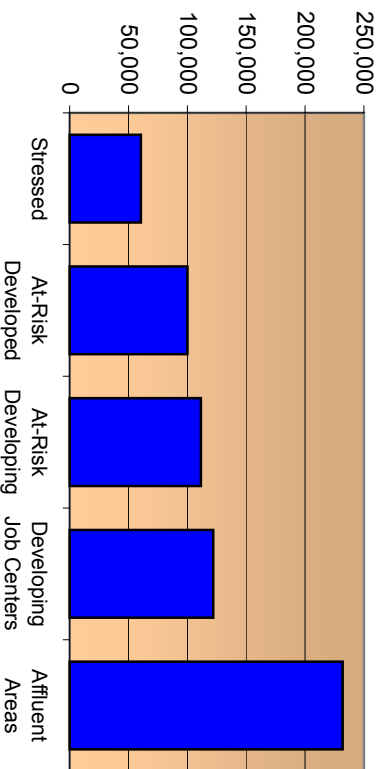
**Developing job centers:** While this category contains just a few cities, it accounts for half of the regional population and 21 percent of households outside of Lexington. It is the fastest-growing community type in the Bluegrass Region with a 36 percent

increase in households between 1994 and 2004. A great deal of the region's newer housing development has taken place in and around the Developing job centers. However, only Lexington shows a higher than average property tax base and only Lexington, Berea and Georgetown are above the average for payroll tax base. This means that most of the members of this group must cope with the costs of growth with very modest fiscal resources. In addition to Lexington/Fayette, Georgetown, Richmond, Berea, Nicholasville, Wilmore and Lawrenceburg are the communities in this category.

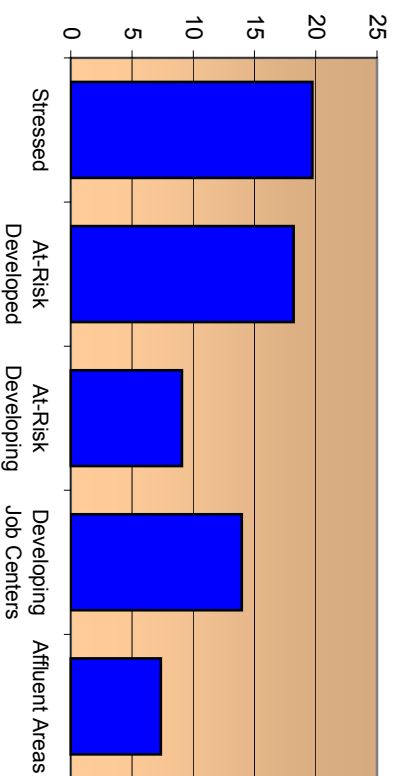
**Affluent areas:** The unincorporated areas of Mercer, Jessamine, Woodford and Scott Counties comprise the Affluent group and represent 7 percent of regional households (12 percent of households outside of Lexington). Although affluent communities have significant fiscal resources – as a group, their tax bases are 63 percent above the regional average – they also must deal with the costs associated with rapid, low-density growth, including diminished open spaces and increasingly congested roads. Much of the region's signature industry, horse farming, is in these areas, so how they manage future growth has important implications for the entire region.

{Community classification chart here}

**Property Tax Base per Household**



**Percentage of Elem. Students Free or Reduced Lunch Eligible**



This chart will be inserted under the community classification discussion on the prior page.

## COMMUNITY CLASSIFICATION: HOW IT WORKS

This study relies on a statistical procedure called cluster analysis to assign municipalities to groups that are as internally homogeneous and as distinct from one another as possible, based on specified social, fiscal and physical characteristics.<sup>1</sup>

The characteristics used to cluster Bluegrass-area communities were:

- 2004 property tax base per household
- 2000 poverty rate
- 2000 jobs per household
- 1994-2004 growth in households
- 2000 median age of housing stock
- 2004 household density

These variables provide a snapshot of a community in two dimensions—its ability to raise revenues from its local tax base and the costs associated with its social and physical needs. Fiscal capabilities are measured by property tax base. Ideally, payroll tax base would also be included but this measure is available for only the 35 municipalities and unincorporated areas where the tax is used (out of 52 total municipalities and unincorporated areas in the region). However, in those 35 places, property tax base per household correlates relatively strongly with payroll tax base per household, implying that it is a relatively good proxy for overall tax base.<sup>2</sup> The jobs per household measure also serves as a good proxy for the payroll tax, as well as serving as a good measure of demand for local services from non-residents.

“Need” measures were selected to capture a range of local characteristics that affect costs. The poverty rate is a proxy for several factors that can affect public service costs. Low incomes are associated with greater needs for services and increased costs of reaching a given level of service. Density is another important predictor of cost. Very low densities can increase per-person costs for public services involving transportation—schools, police and fire protection—and for infrastructure—roads and sewers. Moderate to high densities, on the other hand, can help limit them.

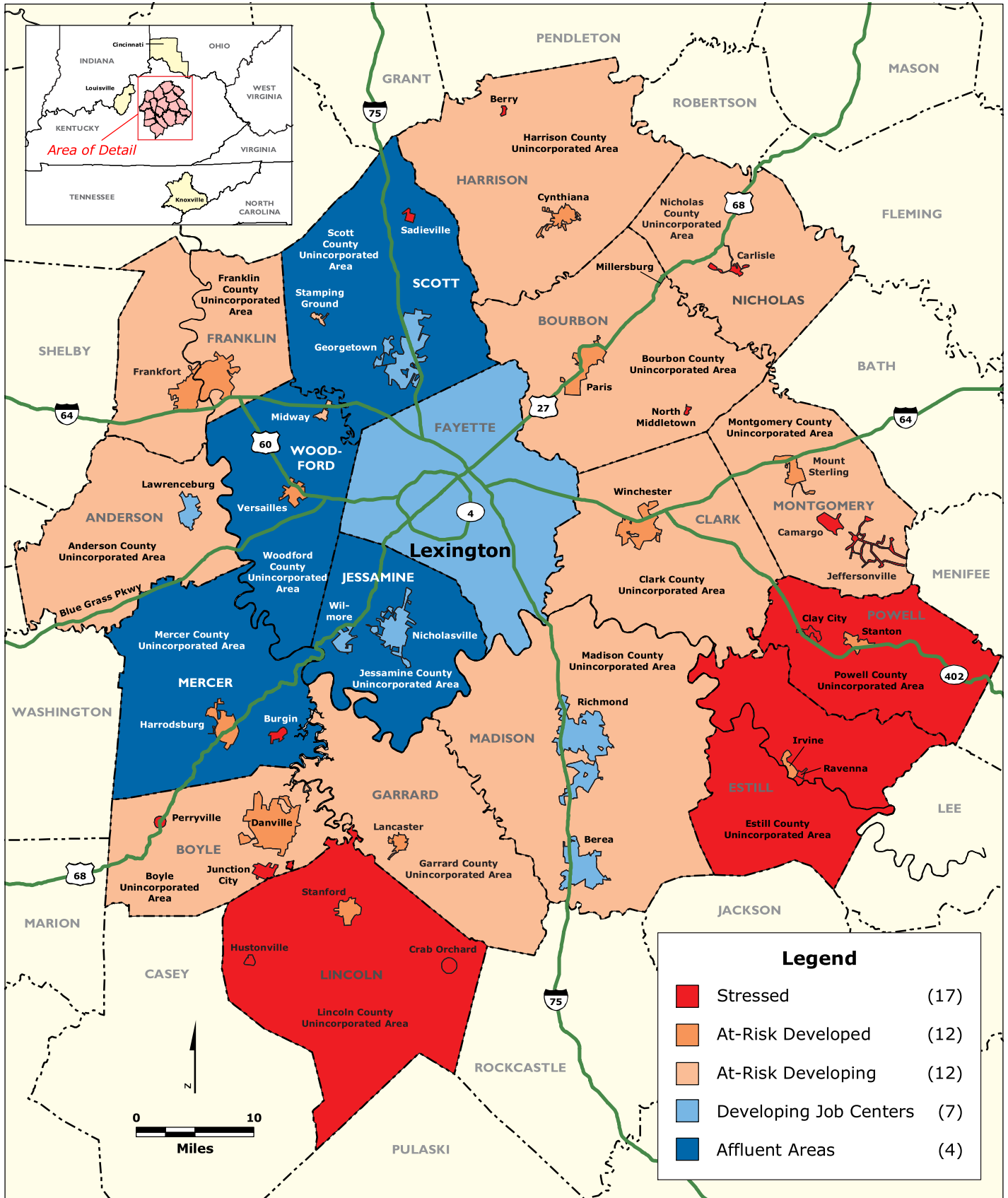
Similarly, population declines and large population increases tend to increase the per-person costs of long-lived assets like sewers, streets or buildings. When population declines the costs of these assets must be spread across fewer taxpayers. When population is growing rapidly, the costs of new infrastructure tend to fall disproportionately on current residents (compared to future residents) because of the difficulty of spreading the costs over the full lifetime of the assets. Finally, median age of the housing stock is a commonly used proxy for the age of infrastructure – older infrastructure is more expensive to maintain.

**Bluegrass Region  
Characteristics of the Community Types**

Community Type	Household Share (Region)	Household Share (excl. Lex.)	2004 Property Tax Base per H/Hold	2000 Poverty Rate	2000 Jobs per Household	1994-2004 Growth in Households	2000 Median Age of Housing	2004 Households per Sq. Mile
Stressed	7	12	55,699	20	0.1	2	36	377
At-Risk Developed	16	25	112,350	18	1.7	5	34	728
At-Risk Developing	19	31	116,580	9	0.5	22	25	103
Developing Job Centers	51	21	156,603	14	1.6	36	21	663
Affluent Areas	7	12	227,796	7	0.9	26	21	25
Total	100	100	139,924	15	0.8	14	30	406



# BLUEGRASS REGION: Community Classification



Data Source: Ameregis.



## How the Region is Growing

The Bluegrass Region has a rich history of innovation in urban growth planning. In 1958 the area adopted the first Urban Service Area in the United States. The service area was intended to limit growth to the parts of the region service by urban infrastructure such as sewers and roads. Since 1958, seven more cities and towns in the region have adopted their own Urban Service Areas.

However, in spite of this history, the Bluegrass Region is growing in ways that create many of the challenges it faces. Unmanaged growth threatens regional assets and intensifies social problems by isolating them in a few areas, making them more difficult and expensive to manage.

According to the U.S. Census, the population of the 18-county Bluegrass Region grew 21 percent from 1990 to 2004. While no counties within the region lost population, growth at the county level ranged from just 2 percent in Bourbon County to more than 59 percent in Scott County. Overall, the region's growth was nearly double the statewide average of 12 percent and a bit greater than the national rate of 18 percent.

Municipality growth rates varied even more, ranging from population declines in Ravenna and Stamping Ground of 16 and 14 percent to increases of 68 and 73 percent in Nicholasville and Georgetown. (Map 2) The region's largest municipality, Lexington, grew at a modest rate during the period – 18 percent overall. However, more detailed data than what is shown in Map 2 shows areas of significant population decline in the core. During the 1990s, for instance, population declined in most of the area

inside New Circle Road. Part of northern Woodford County also showed population losses during this period.<sup>4</sup>

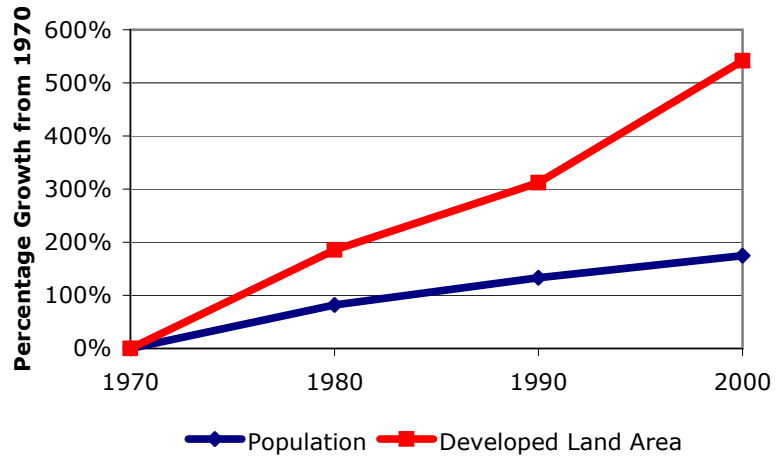
Although region-wide growth was relatively modest during this period, the way that the region is growing threatens its natural and built environment. Unmanaged growth threatens air and water quality, natural habitat and valuable farmland, as well as future economic development and the competitive nature of the region in the world marketplace.

Between 1970 and 2000, the region consumed undeveloped land at a rate three times the rate of population growth.<sup>5</sup> The amount of land settled densely enough to be considered “urban” grew by more than 540 percent while population increased by just 175 percent. The comparison is slightly better for the seven-county metropolitan area alone. There, urban land grew 420 percent compared to population growth of 170 percent – a ratio of 2.4. By comparison, this ratio was just over 2 on average for the 25 largest metropolitan areas (96 percent growth in urban land versus 45 percent population growth) in the country and exceeded three in none of these metros. Among the 50<sup>th</sup> to 100<sup>th</sup> largest metropolitan areas, a group that includes Lexington, the average ratio was just 1.4 and Lexington was ranked 30<sup>th</sup> out of 50.

{The chart from from the next page will be inserted about here.}

In addition to threatening the region's open spaces and agricultural assets, including the equine industry, this type of uncontrolled growth also creates unnecessary traffic congestion and longer commutes – median travel time to work increased from 18 minutes in 1990

### Growth in Developed Land Area and Population 1970-2000



This chart will be inserted in the text on the prior page.

to 25 minutes in 2000 in the seven-county metropolitan area. This, in turn, contributes to pollution of the Bluegrass Region's air and water. As homes, office parks and shopping centers rise in the Bluegrass Region, impervious surfaces increase. As a result, less rain is absorbed into the ground. By impeding the recharge of groundwater, the expansion of impervious surfaces increases runoff, which can cause local flooding and pollution in lakes and rivers. Increased lawn and garden areas also lead to increased – and often excessive – use of fertilizer and pesticides, which run off into groundwater and rivers, reducing water quality.

A major environmental concern unique to the Bluegrass Region is preservation of the area's horse farms. The equine industry in Kentucky produces goods and services valued at \$2.3 billion and provides nearly 52,000 full-time equivalent jobs. Taking into account spending by suppliers and other employees, both inside Kentucky and out-of-state, that number jumps to 96,000 jobs.<sup>6</sup> Nearly all of the industry is located in the Bluegrass Region.

The Bluegrass Region's overall agricultural industry is suffering as well. Total agricultural sales for the 18-county region increased less than 1 percent, which when adjusted for inflation is actually a loss. While Woodford County saw an increase of nearly 50 percent and Fayette County's total sales increased 28 percent, most remaining counties experienced drops of 10 to 31 percent in agricultural sales from 1997 to 2002. Between 1992 and 2002, the Bluegrass Region lost more than 200,000 acres of farmland – a decrease of nearly 9 percent. Losses in individual counties varied greatly. A few places essentially

remained the same and Powell County actually gained more than 4,300 acres of farmland, an increase of about 13 percent; however, Montgomery and Fayette counties lost more than 19 percent of total farmland.<sup>7</sup> The loss of farmland is important for many reasons. Farms are a valuable part of the region's tourism industry. This loss of farmland is happening at the same time that the Bluegrass Region is pushing to expand agricultural tourism.<sup>8</sup>

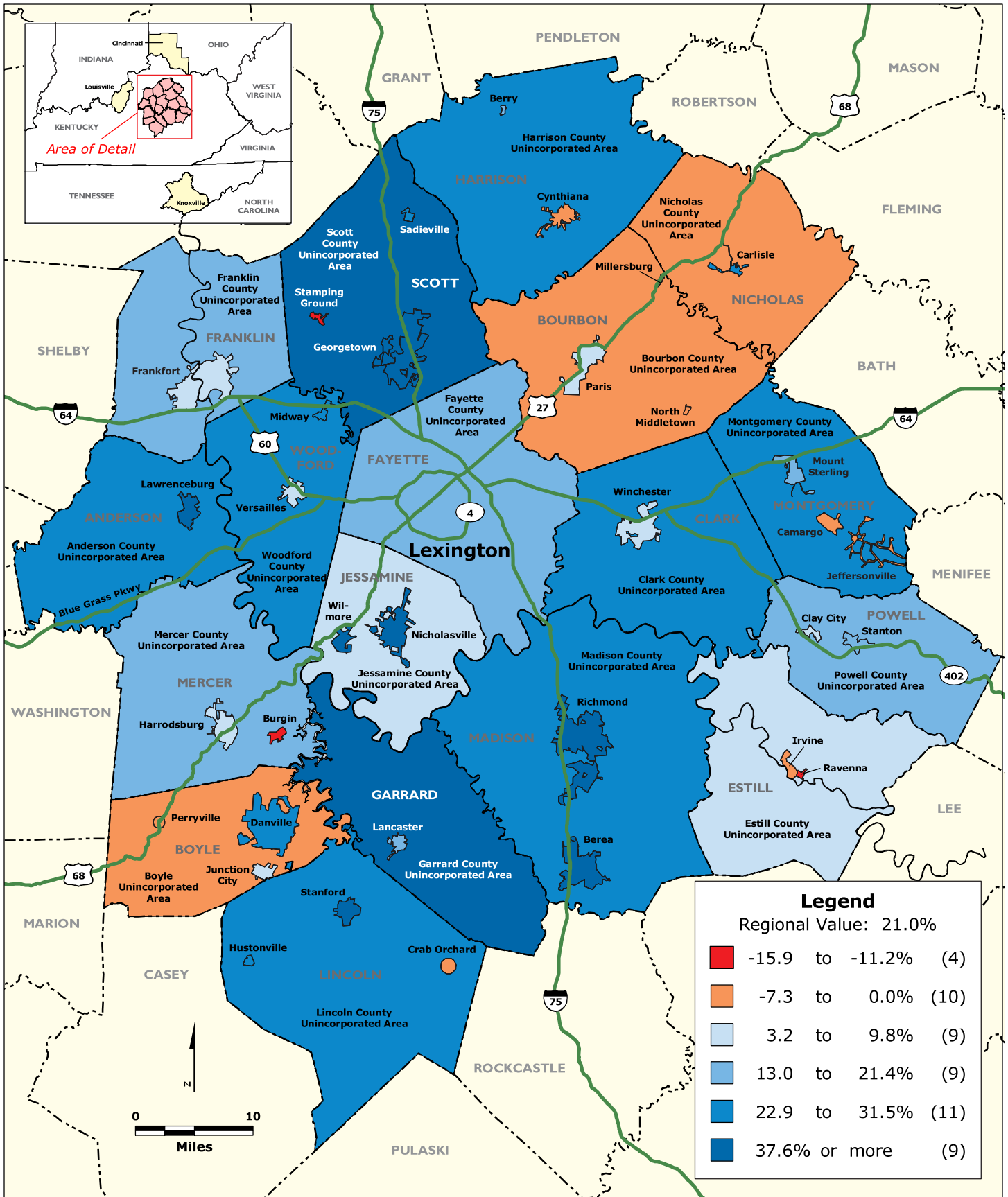
The degree to which economic activity is spreading across the region is also evident in the distribution of jobs and job growth. Map 4 (jobs per household) highlights where workers commute to and where they commute from in the region. Areas with higher than average job per household rates (blue on the map) are the commuting centers while those below the average are the residential areas. The map shows a relatively small number of commuting centers in the region – Lexington and a set of towns in the middle and outer suburbs – that contain the bulk of regional jobs.

However, Map 5 (job change) shows this pattern is changing. Lexington and a number of other commuting centers, including Frankfort, showed lower than average job growth rates during the 1990's. Although many of the suburban areas, especially those outside the Lexington metropolitan area, show only moderate growth or decline, the fastest growing areas also tend to be in the outer parts of the region. It is not only population which is spreading out across the region; it is also jobs.

In sum, the Bluegrass Region is growing in ways that threaten many of the region's most valued resources. It has been consuming previously undeveloped

land much more quickly than population has been growing, threatening the area's open spaces, agricultural lands and horse farms as well as economic development, tourism, commute time, competitive nature of the region, ability to sustain growth patterns and provide services, schools, etc.

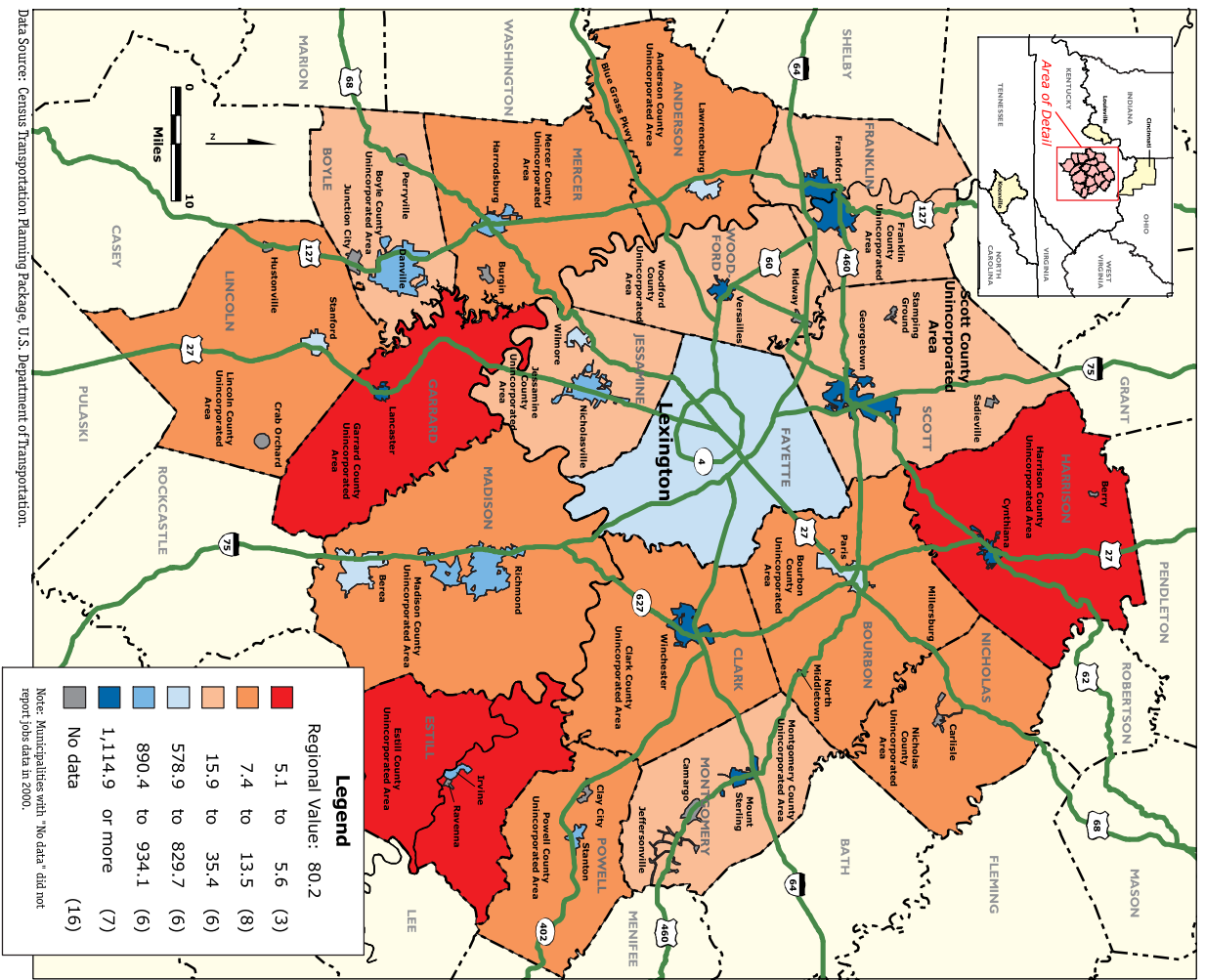
# BLUEGRASS REGION: Percentage Change in Population by Municipality and County Unincorporated Area, 1990-2004



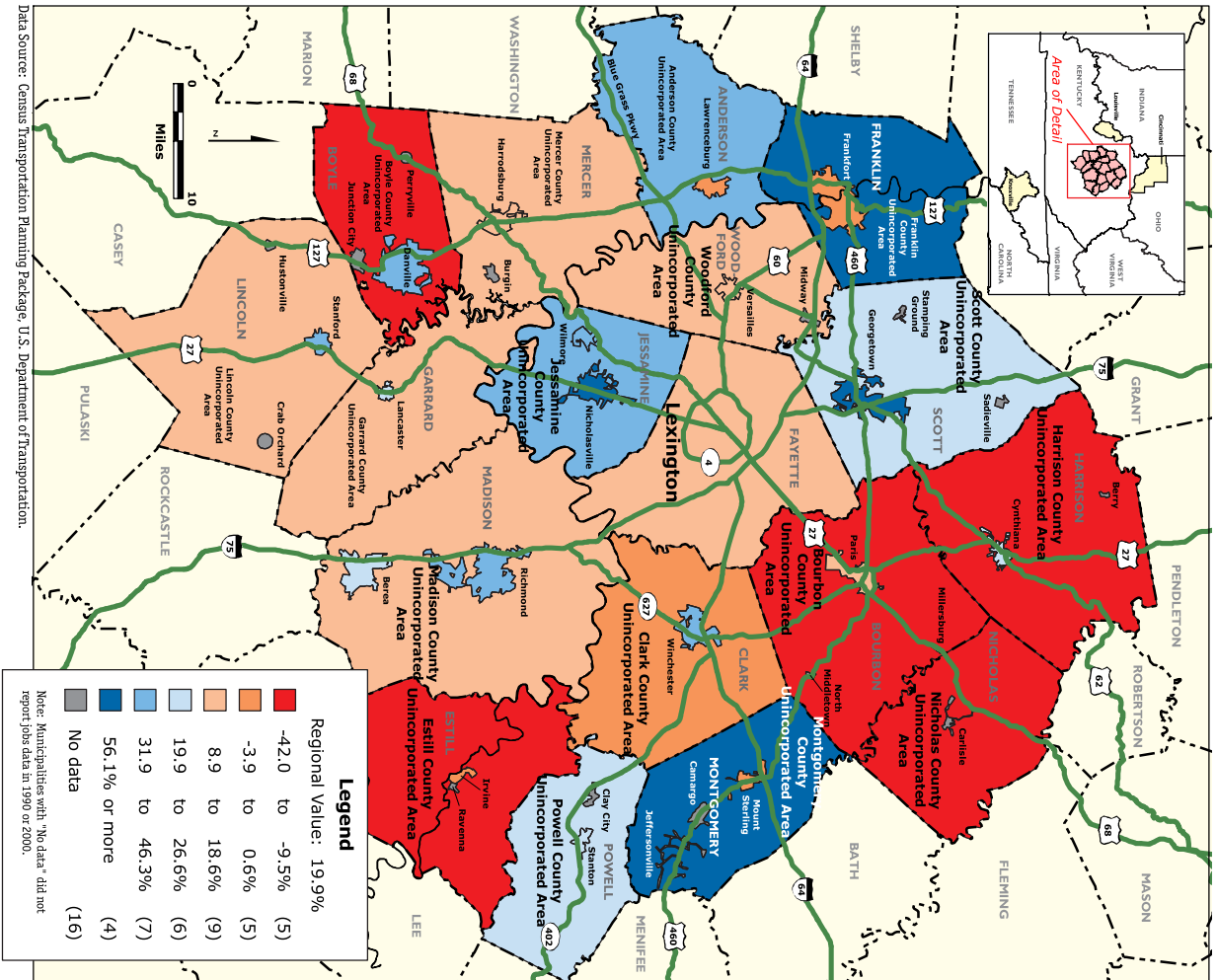
Data Source: U.S. Census Bureau.



**BLUEGRASS REGION:**  
**Total Jobs per Square Mile by Municipality and**  
**County Unincorporated Area, 2000**



**BLUEGRASS REGION:**  
**Percentage Change in Jobs per Square Mile by**  
**Municipality and County Unincorporated Area, 1990-2000**



Data Source: Census Transportation Planning Package, U.S. Department of Transportation.

Data Source: Census Transportation Planning Package, U.S. Department of Transportation.

## Racial and Income Segregation

Sprawling development contributes to a pattern of social separation that divides regions by income and race. As in most metropolitan areas, Bluegrass Region residents are segregated by income and race. Poor people of color are disproportionately located in the core areas of Lexington, while the more rural, outlying areas of the region are home to a great deal of the region's lower-income whites.

The social divide in the region is clearly reflected in its schools. Elementary schools with the highest poverty concentrations (measured by the percentage of students eligible for free or reduced-cost lunch) show a very clear tendency to cluster together in a few parts of the region. (Map 6) The northeastern quarter of Lexington shows the greatest concentration, especially in the core area within New Circle Road. Eleven of the 19 schools in the region with more than 70 percent of students eligible for free or reduced-cost lunch are in this part of the region.

A ring of high-poverty schools is also evident across the far southern and eastern parts of the region. In contrast, except in the immediate environs of Frankfort, schools in the western half of the region nearly all show lower than average poverty.

The overall share of elementary students eligible for free or reduced-cost lunch has also been increasing – from 38 percent in 1999 to 43 percent in 2003 – and poor students remained very likely to attend school with one another. Among individual schools, the changes were wide and varied. (Map 7) Some schools saw little or no change in the percentage of elementary students

eligible for free lunch between 1999 and 2003. At the same time, other schools saw decreases of more than 25 percentage points or increases of more than 30 points. Schools showing large increases in poverty were spread a bit more evenly across the region. Of the 17 schools with increases greater than 15 percentage points, five were in Lexington; Harrison, Mercer, Lincoln and Madison counties each had two; and Powell, Estill, Clark and Boyle counties each had one.

Concentrated poverty is important for several reasons. When school poverty reaches certain thresholds in a community, many middle-class families with children flee to other communities. This flight, in turn, negatively affects the housing market in the community and often creates a vicious cycle of disinvestment.<sup>9</sup>

Schools often experience social change faster than neighborhoods do because families with no children in the public school system (empty nesters, the young, and families with children in private schools) will often remain in a neighborhood past the time when most families with school-aged children in public schools flee. This can ease the increase in overall poverty rates. But ultimately, in most cases, when schools in a community reach certain thresholds of poverty and segregation, middle-class households of all types (i.e., households with residential choices) choose to live in other areas.

The flight of the middle class from a community strains both old and new communities. In fast-growing communities at the edge of the region, the middle class is streaming into increasingly overcrowded schools, a pattern that strains fiscal resources.

But the more powerful harms of this flight accrue to the people left behind in communities of concentrated poverty. High concentrations of poverty affect individual residents and their families as well as the community as a whole. Studies have found that poor individuals living in concentrated poverty are far more likely to become pregnant as teenagers,<sup>10</sup> drop out of high school,<sup>11</sup> and remain jobless<sup>12</sup> than if they lived in socio-economically mixed neighborhoods. These types of outcomes dramatically diminish the quality of life and opportunity for residents who live in areas of concentrated poverty.

Similarly, the concentration of poverty and its attendant social isolation make education, job search and general interaction with mainstream society difficult. The problems associated with concentrated poverty—everything from high crime to poor health—place a significant burden on municipal resources and discourage investment. The impact of concentrated poverty also extends into the larger regional economy by reducing the regional pool of skilled workers and otherwise creating a less attractive environment for economic growth and development.

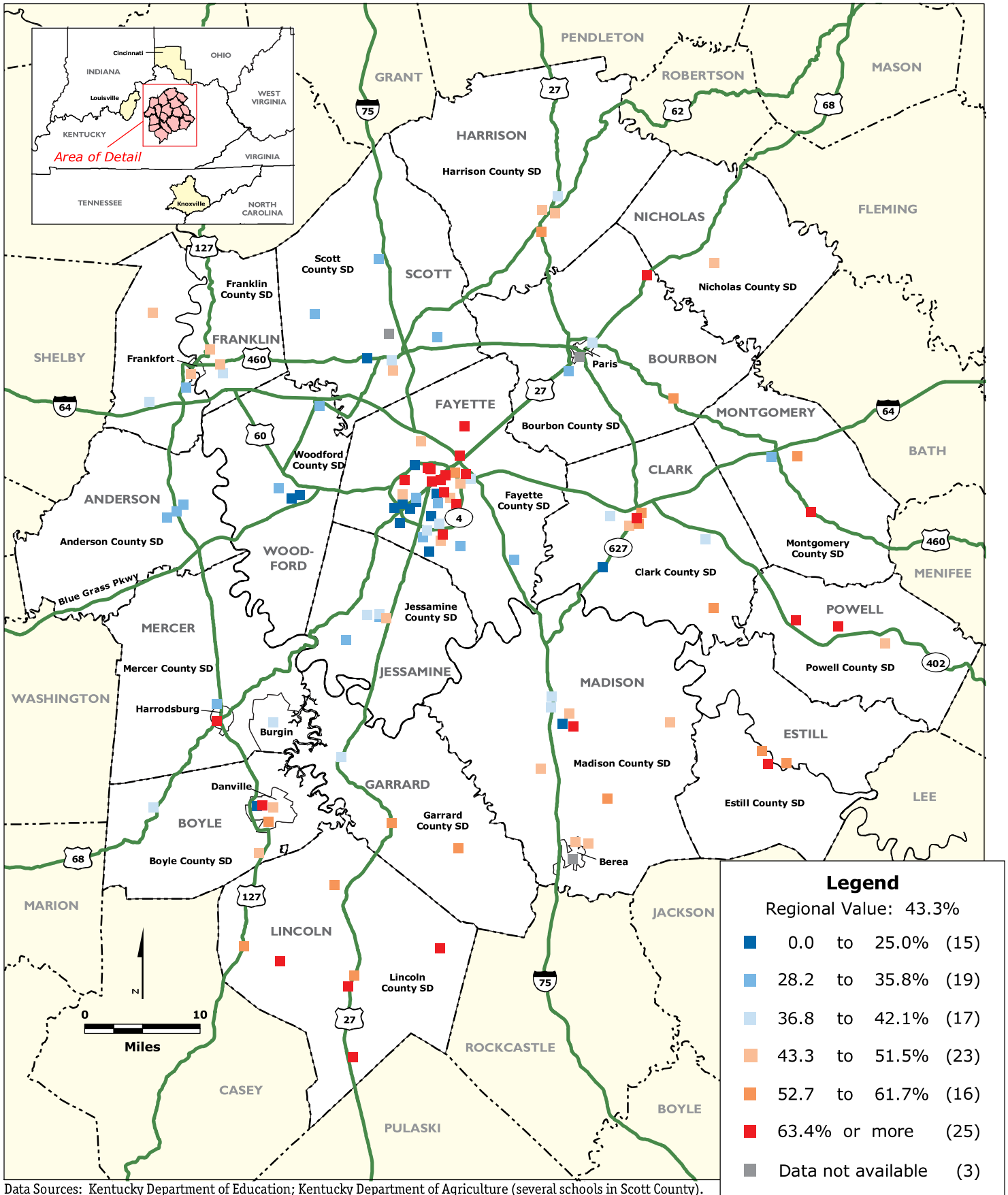
This pattern of concentrated poverty especially harms people of color, who are much more likely than whites to live in high-poverty areas, in part due to subtle discrimination in the housing market.<sup>13</sup> Maps 8 and 9 show this pattern very clearly. Most of the schools with the highest shares of non-Asian minority students (Map 8) are clustered in the core of Lexington, an area that also showed the most distinct concentration of high-poverty schools (Map 6).<sup>14</sup> Indeed, all 11 schools with the highest percentages of non-Asian

minority students in 2003 were in Fayette County, and 16 of the 20 with the largest increases in non-Asian minority shares between 1995 and 2003 were in Fayette.

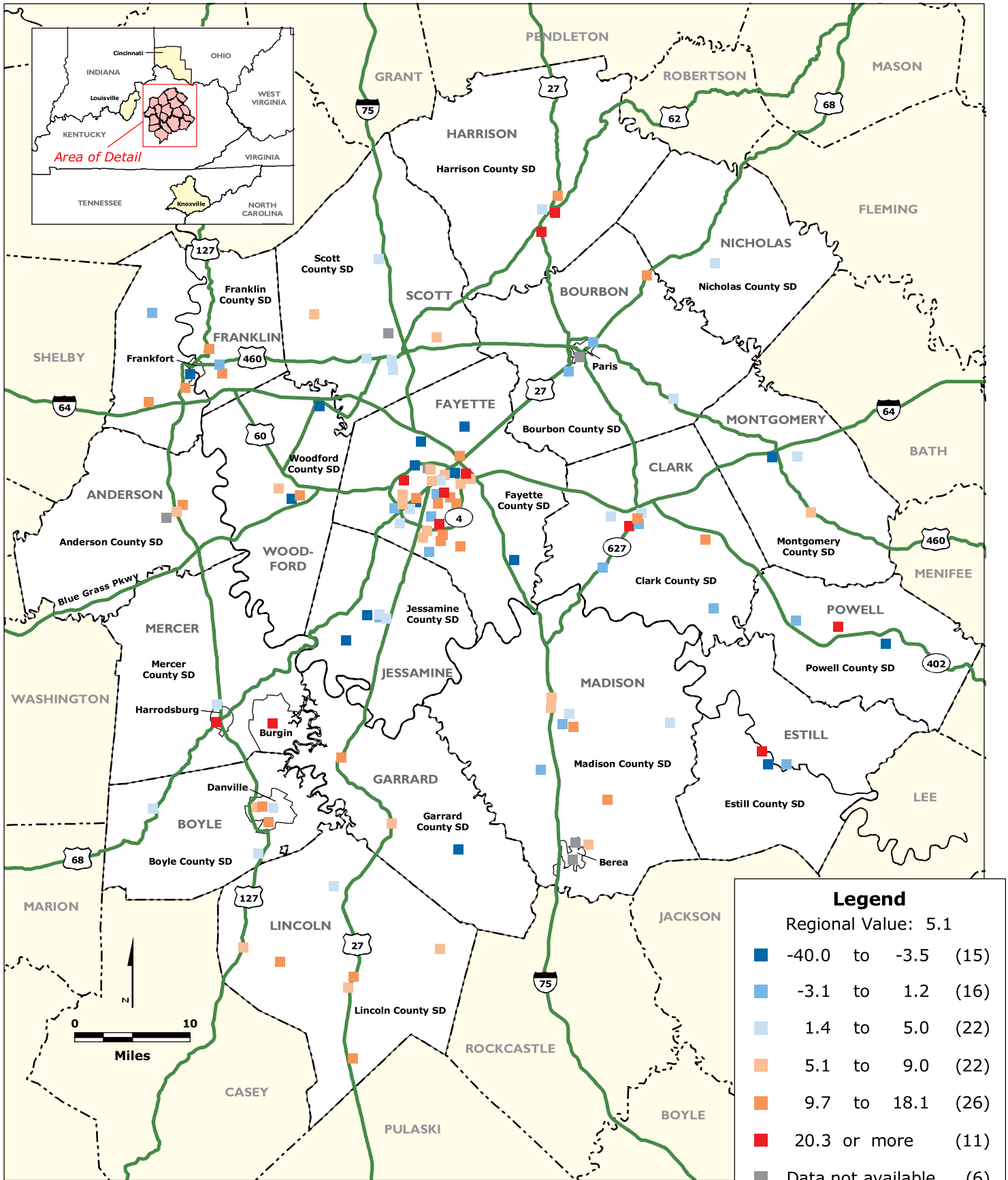
Racially segregated schools are also very likely to be poor schools.<sup>15</sup> In fact, 68 percent of non-Asian minority students in the Bluegrass Region schools attended high-poverty schools in 2003 compared to 51 percent for whites.



# BLUEGRASS REGION: Percentage of Elementary Students Eligible for Free or Reduced Lunch by School, 2003

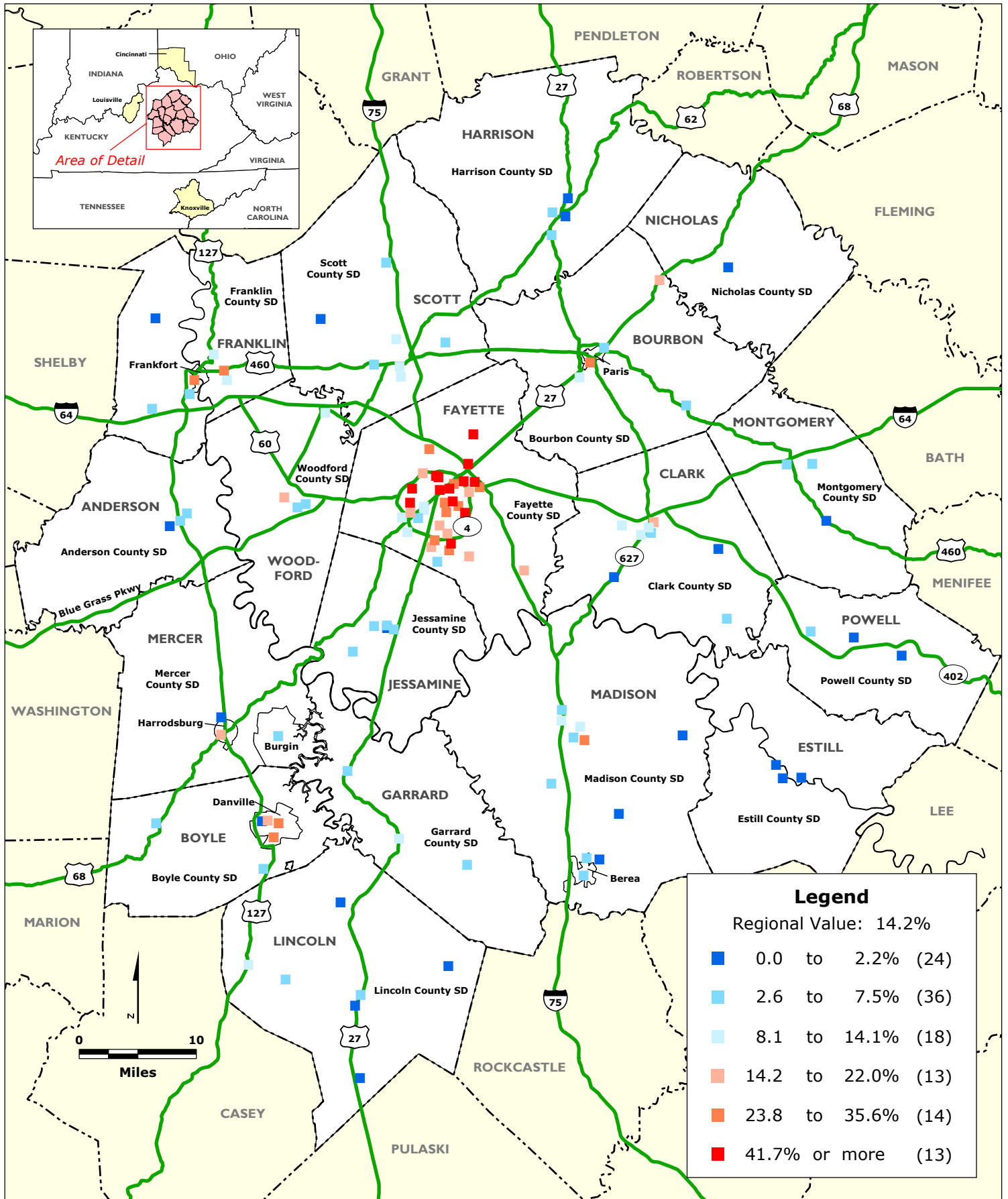


# BLUEGRASS REGION: Change in Percentage Points of Elementary Students Eligible for Free or Reduced Lunch by School, 1999-2003



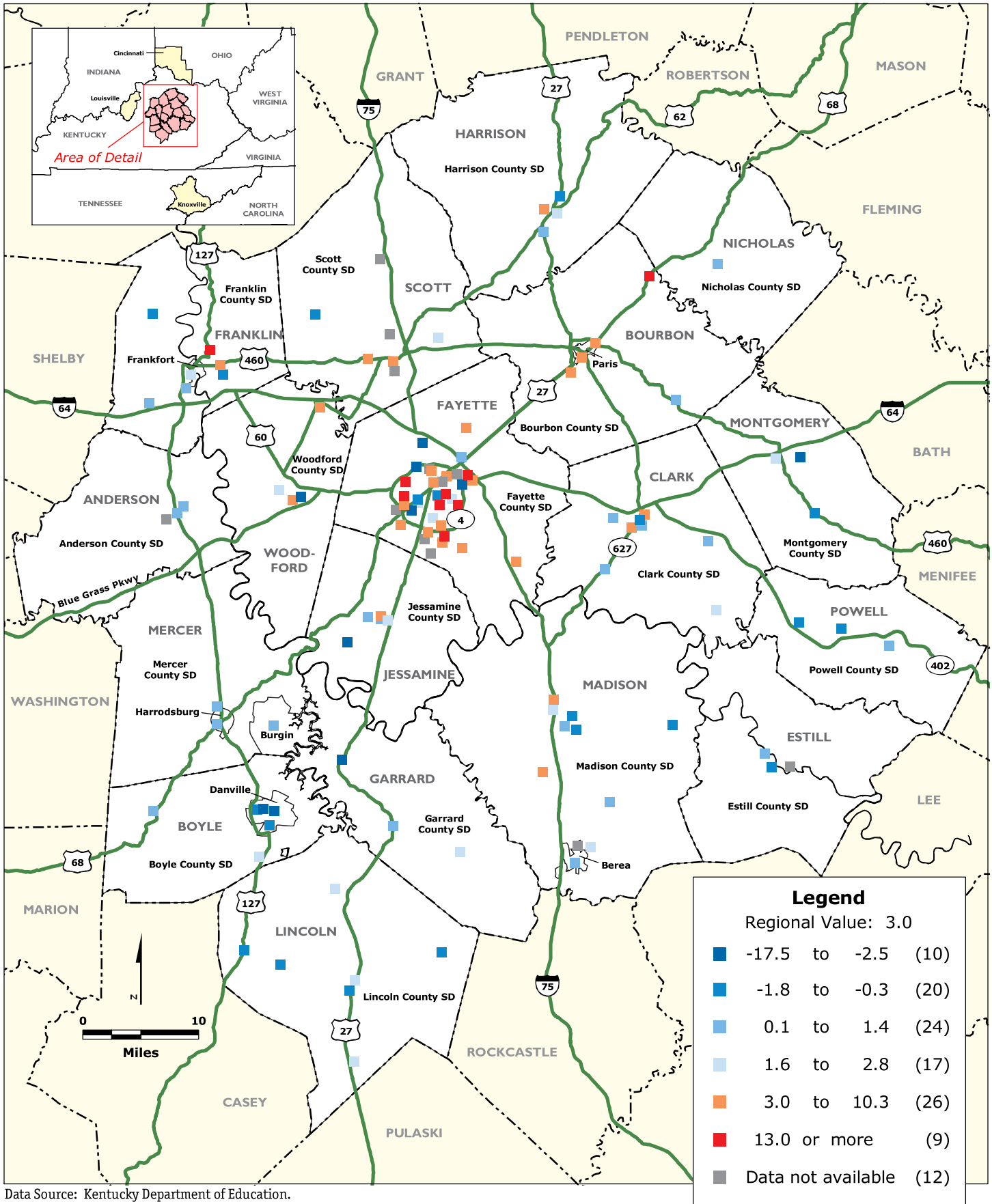
Data Sources: Kentucky Department of Education; Kentucky Department of Agriculture (several schools in Scott County).

# BLUEGRASS REGION: Percentage of Non-Asian Minority Elementary Students by School, 2003



Data Source: Kentucky Department of Education.

# BLUEGRASS REGION: Change in Percentage Points of Non-Asian Minority Elementary Students by School, 1995-2003



Data Source: Kentucky Department of Education.

## Fiscal Inequality

The Bluegrass Region has a relatively fragmented system of local government, and its municipal governments rely heavily on locally generated tax revenues to pay for public services. The primary local taxes are the traditional property tax and the occupation, or payroll, tax. Municipalities in Kentucky rely much more heavily on income-based taxes than in most other states.<sup>16</sup>

However, both of the primary tax instruments are limited in important ways by state law or the state constitution. A municipality's property tax revenues on existing property tax base cannot increase by more than four percent per year and income-based local taxes are technically forbidden by the state constitution. Two important features of the local tax system result from these limitations. First, the property tax – the primary local tax in most states – plays a much smaller role in Kentucky than elsewhere. And second, municipalities use their power to assess license fees to, in effect, tax income. The occupation, or payroll, tax is technically a license fee, but, it serves the function in Kentucky that income taxes serve elsewhere.<sup>17</sup>

An important feature of this tax is that it is assessed based on where people work, or where jobs are located, rather than where they live. Since jobs are much less uniformly distributed across the region than people or income, this increases fiscal disparities. It also increases the incentives facing local governments to compete for revenue-generating land uses – in this case, jobs.

Communities face significant, often overwhelming, pressures to compete for development that will expand their

property and payroll tax bases. These pressures often drive local land-use planning decisions, encourage sprawl and increase economic and social disparities.

Localities pay attention to the net effect that any new development will have on local revenues and expenditures—on whether the proposed development “pays its way.” To win the most profitable land uses, local governments may offer public subsidies or infrastructure improvements. But perhaps the most common approach is “fiscal zoning”—making land-use decisions not based on the suitability of the land or the long-term needs of the region, but on the tax revenue a development can generate right away in a small part of the region. For example, many communities lay out great tracts of land for commercial development, regardless of whether it is the most appropriate use for the location.<sup>18</sup>

This competition is costly in several ways. First from the Bluegrass Region's perspective, it is wasteful of public resources. Public sector time, effort and money is likely to be expended to affect the location of businesses that would have located somewhere in the region anyway. Second, the competition can contribute to vicious cycles of decline. If a business relocates from one municipality to another, the loser must either raise tax rates to maintain revenues or decrease the amount or quality of services, diminishing its attractiveness to businesses in the next round of competition. Third, such uncoordinated competition often makes the task of providing regional infrastructure more expensive than it has to be. Finally, the payroll tax (either combined with a property tax or on its own) increases the fiscal benefits to

localities of business compared to residential development. This can lead to inadequate provision of housing, especially affordable housing.

The most unusual feature of the local fiscal environment in Kentucky is the payroll tax. Although the availability of this tax provides some advantages by diversifying local revenue systems and providing some potential to tax non-resident consumers of a locality's public services, it is unlikely to provide all of the fiscal benefits that it promises.

While a local payroll tax appears to be taxing resident workers and non-resident commuters, much of the tax is actually borne by local businesses. Businesses in a high payroll tax municipality are likely to bear the brunt of any tax differentials in the form of wage premiums paid to workers. Those in professions with employment opportunities throughout the region will opt for a job in a high payroll tax place only if they are compensated for the extra cost in some way. This generally means higher wages.

Businesses therefore have a strong incentive to avoid payroll taxes when making location decisions. This should be particularly true of labor-intensive businesses with high wages – the Holy Grail for local economic development planners. Although payroll tax rates do not vary as dramatically across most of the region as they do in some parts of the state, the differences are great enough to create these location incentives. Of particular concern is the much greater than average tax rate in Lexington. Lexington's 1974 merger with Fayette County eased the fiscal burdens faced by most core cities in the U.S. However, in the long run, this part of the region will face stiffening competition for economic

activity with the surrounding areas. As a rule, it does not pay to allow tax differentials between core areas and outlying areas to grow too wide as has happened in the study area.

In the Bluegrass Region, as in most parts of Kentucky, the surest way for such a business to avoid the extra cost associated with higher than average payroll taxes is to locate in unincorporated areas, where lower than average county government payroll taxes apply.<sup>19</sup> In other words, the tax pushes businesses to locate in the parts of the region least likely to have the necessary supporting infrastructure already in place.

The combination of the statutory and constitutional limitations on municipal taxes and the robust revenue-generating potential of the payroll tax distorts the local tax system in Kentucky. The resulting system is unbalanced. This is most evident in the places where the payroll tax has the greatest potential to generate revenues. In Lexington, for instance, one of the highest payroll tax rates in the region generates nearly two-thirds of the city's tax revenues, while the under-used property tax generates less than one-fourth. In the short run, this combination may appear, to Lexington's residents, to distribute part of the tax burden to non-resident commuters. But, in the long run, it hurts the city's economy by putting an inappropriate share of the local tax burden on local businesses.<sup>20</sup>

Maps 10 and 11 show the distribution of property tax base across the region and how it has changed in recent years. Fiscal disparities are relatively wide. Nearly all of the northwestern part of the region is above the regional average with almost all of the area to the west and

south of Lexington below the average. Property tax base per household ranged from just \$26,700 per household in Ravenna City to more than \$320,000 per household in the unincorporated portion of Mercer County.

Property tax base growth patterns were more mixed. (Map 11) Both high and low growth places are scattered across the region with no clear geographic pattern. However, property tax base disparities increased during the period. In 1994, the ratio of the tax base in the 95<sup>th</sup> percentile place – the municipality or unincorporated area with a tax base greater than 95 percent of places in the region – to that in the 5<sup>th</sup> percentile place was 5.0. This had grown in 2004 to 5.5. This means that the 5<sup>th</sup> percentile municipality would have to assess a property tax rate *5.5 times higher* than the 95<sup>th</sup> percentile place in order to generate the same revenues per household.

Payroll tax base shows even greater disparities. (Map 12) Among the places that assess the tax, tax base per household ranges from \$2,182 per household in Jeffersonville to more than \$180,000 in Georgetown. The ratio of the 95<sup>th</sup> percentile tax base to the 5<sup>th</sup> percentile is 8.3, significantly larger than the property tax base ratio.<sup>21</sup>

The implications of property and payroll tax base disparities this wide are important. Municipalities at the low end of the spectrum face a very difficult choice between providing regionally competitive levels of local public services like police and fire protection by assessing tax rates that are higher than their regional counterparts – sometimes much higher – and assessing competitive tax rates while providing much lower than average local services.

Either combination puts them at a serious disadvantage when competing for new residents or businesses. Tax base disparities of this magnitude clearly create the potential for vicious cycles of decline in low tax base places.

## School Finance

Fiscal inequalities among communities also have serious repercussions for school districts and the children enrolled in them. School funding disparities are especially troublesome if they correlate with factors like poverty or special need populations that increase the costs of providing good public schools. Kentucky's school finance system underwent a major overhaul in 1990. Before these changes were instituted, Kentucky's education finance system was one of the worst in the United States.<sup>22</sup> Funding disparities were large; districts in the 95<sup>th</sup> percentile raised \$3,262 while those in the 5<sup>th</sup> percentile raised just \$1,839.<sup>23</sup>

However, the Kentucky Education Reform Act (KERA) of 1990 changed significant portions of state education law, focusing on curriculum, school governance and school finance.<sup>24</sup> The non-fiscal changes included standardization of curriculum, textbooks and teacher certification, as well as reorganization of the state's department of education.<sup>25</sup> As a part of the financial reform, KERA created the Support Education Excellence in Kentucky (SEEK) formula.<sup>26</sup> The formula created a base payment-per-student, with districts receiving additional aid for transportation and for students from low-income families and special-needs students.<sup>27</sup> Districts must now tax at a specific minimum rate, with the state providing the difference between the





## **ESTIMATING TAX BASE IN THE BLUEGRASS REGION**

The complexity of state laws governing local taxation in Kentucky results in great diversity in the tax instruments used by local governments in the Bluegrass region. This creates special problems in estimating local tax capacities.

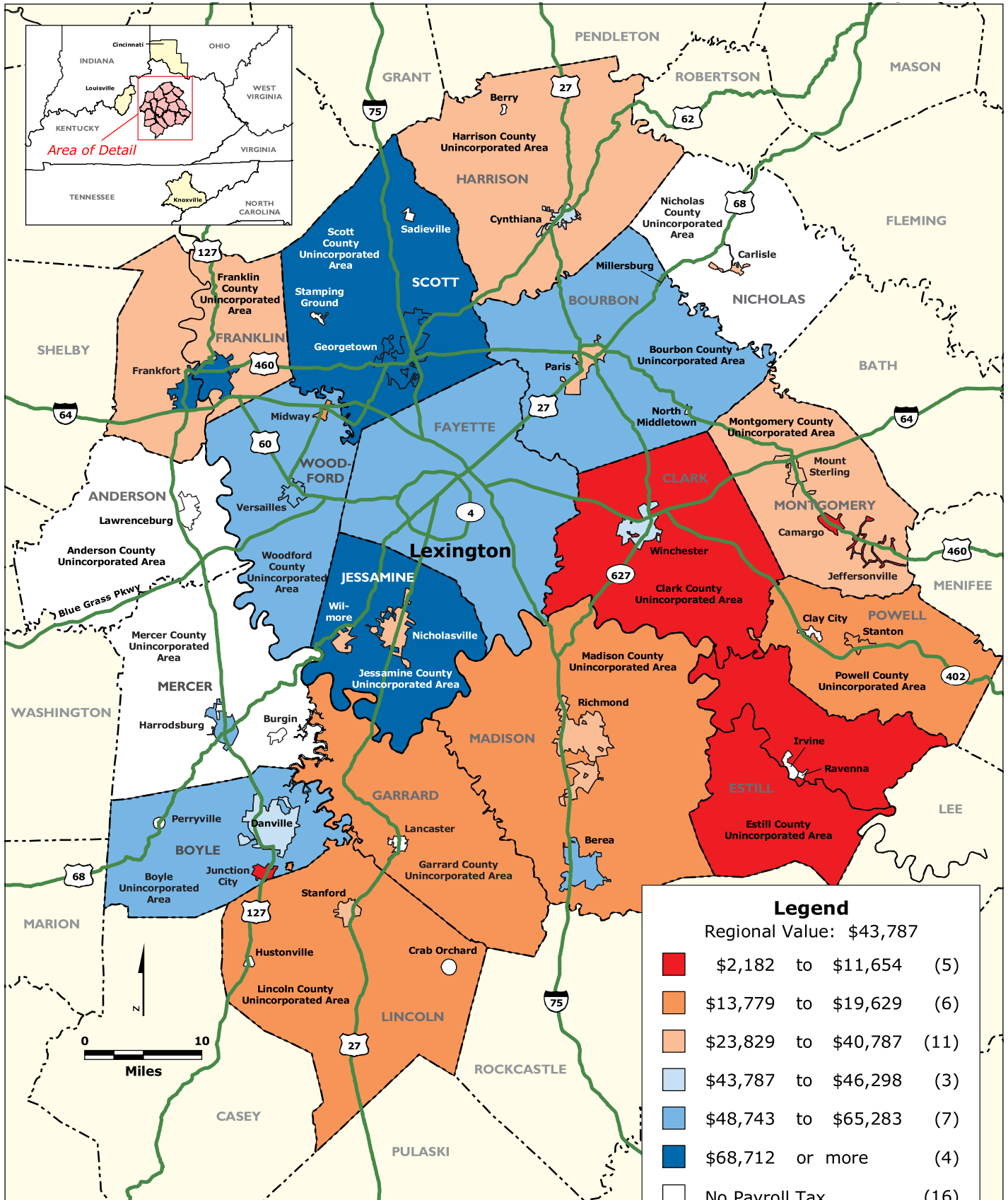
Three major tax instruments are used in the region – the property tax, the payroll (or occupation) tax and the insurance premium tax. Ideally, one would like to account for all three when estimating the ability of local governments to raise revenues. However, tax base estimates are available for all local areas in the region only for the property tax. Estimates of local payroll tax base or insurance premium tax base can be calculated only where the taxes are in use. This means that payroll tax base estimates are available for only 38 of the 52 municipalities and county unincorporated areas in the region and for just 27 of the 52 for the insurance premium tax. For this reason, only the property tax base per household was used in the community classification.

The economic activities that generate payroll and insurance premium tax base are directly or indirectly related to the value of property in an area. (Businesses generating payroll for the payroll also generate property for the property tax. Insurance premium tax base is related to household income levels, which, in turn are related to house values, a component of the property tax base.) This means that the property tax serves as a reasonable proxy for the other two taxes when classifying the communities and unincorporated areas.

Since payroll tax base can be estimated for so many of the local areas in the region, it was also estimated and mapped. Payroll tax base was estimated by dividing the revenues from the tax by the tax rate. In the 13 counties where the county-level tax is assessed against the tax base in all cities and towns – in other words where workers in a town pay both the local tax and the county tax – tax base in the cities and towns were included in the tax base estimated for unincorporated areas in the counties. In the four counties (Clark, Franklin, Madison and Montgomery) where only one tax or the other is paid, base in cities and towns were not included in the estimate for the unincorporated areas. (There are not payroll taxes in Anderson County.)



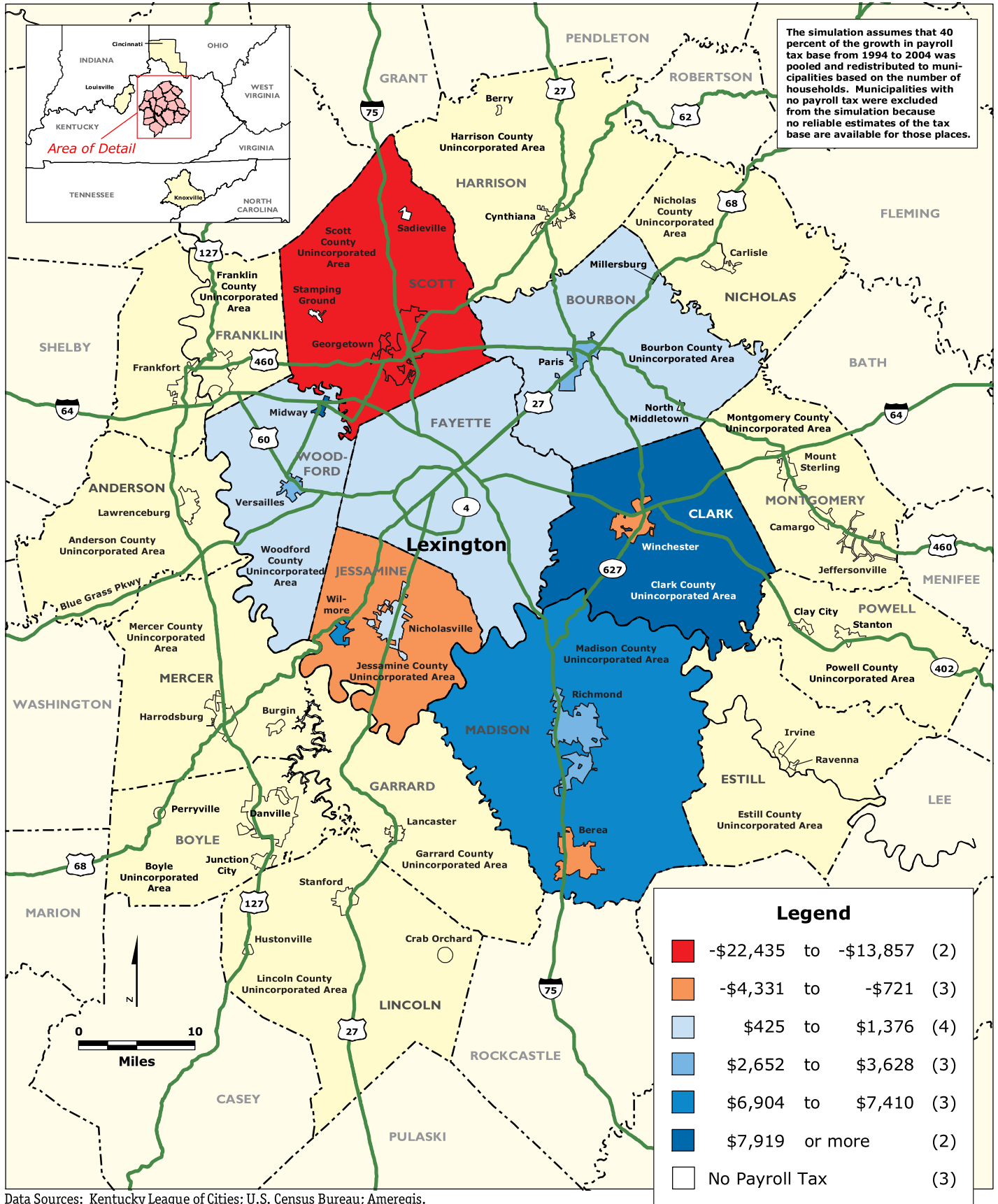
**BLUEGRASS REGION:  
Payroll Tax Base per Household by Municipality  
and County Unincorporated Area, 2004**  
(Nicholas and Mercer county data will be added when  
available)



Data Sources: Kentucky League of Cities; U.S. Census Bureau.



# BLUEGRASS REGION: Simulated Change in Payroll Tax-Base per Household Resulting from a Payroll Tax-Base-Sharing Program by Municipality and County Unincorporated Area, 1994-2004



Data Sources: Kentucky League of Cities; U.S. Census Bureau; Ameregis.

local revenue and the adjusted base payment.<sup>28</sup>

Additionally, districts have two optional funding choices which allow the district to raise funds. There is also equalization of funding for districts below a certain level of assessed property.<sup>29</sup>

KERA not only increased total education expenditures, but also raised poorer districts spending closer to the levels of wealthier districts. The program's first eight years showed revenue increasing significantly in property-poor districts, while revenue in affluent districts increased more modestly.<sup>30</sup> A recent study employed multiple tests of inequity and concluded that the SEEK formula has achieved "a substantial degree of fiscal equity."<sup>31</sup> Where there was previously a large gap between affluent and poor districts, after KERA, "the link between property wealth and revenue per pupil is essentially gone."<sup>32</sup>

This reform hasn't completely solved Kentucky's school financing problems. The "hold harmless" provision in the SEEK formula that guarantees no school district will receive less state aid per pupil than it did in the 1991-92 fiscal year has created something of a ceiling, instead of the floor it had intended.<sup>33</sup> While Kentucky is ahead of other states in terms of providing equitable funding across communities, providing each child with an adequate education would likely require a higher payment.<sup>34</sup>

## **Affordable Housing**

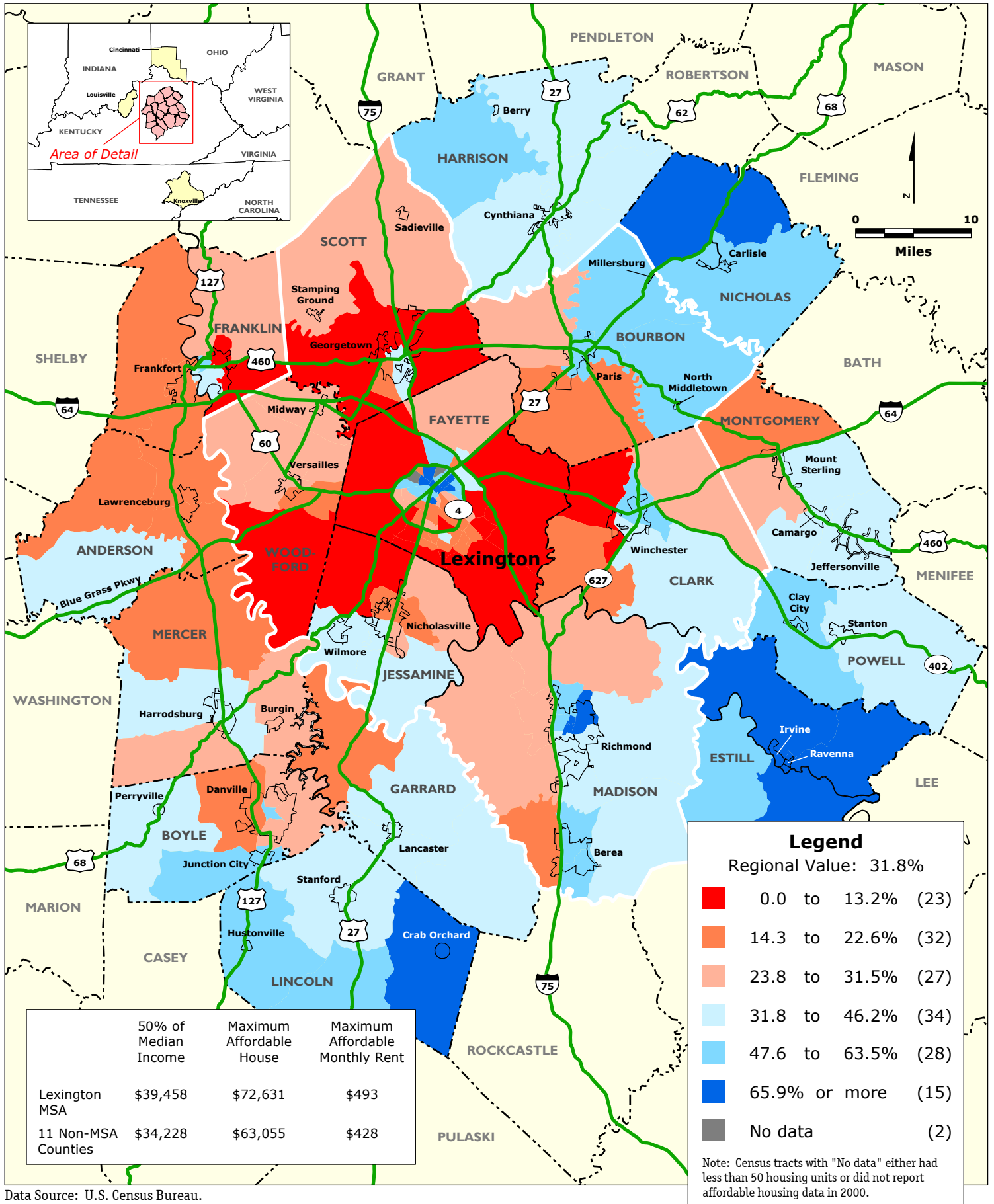
In addition to effects on land use and schools, the realities of local-government finance also create strong incentives for local governments to limit the amount of affordable housing within

their jurisdiction, usually in favor of high-end residential and commercial developments that generate more in revenue than in infrastructure, school or related costs. When aggregated over the entire region, this process often results in region-wide shortages of affordable housing and distributions of affordable housing that hurt the regional economy. For instance, mismatches are created between where workers can afford to live and where new jobs are being created. These policies also effectively exclude low and moderate income people from many localities.

The Bluegrass Region is a relatively affordable housing market. However, affordable housing is very unevenly distributed across the region (Map 13). The region's most affordable areas are concentrated in Lexington and the counties along the northeast, southeast and southern edges of the region. Affordable housing shortfalls are greatest in the areas surrounding Lexington, in portions of Fayette, Jessamine, Scott and Woodford counties.

Many parts of the Bluegrass Region with higher amounts of affordable housing (Estill, Nicholas, Harrison and the eastern half of Bourbon counties) were the areas that saw job loss from 1990 to 2000. Areas with substantial job growth (Franklin, portions of Anderson and Jessamine counties) had much smaller shares of affordable housing. This means that many workers have longer commutes to their jobs than would be necessary if affordable housing was more evenly distributed.

# BLUEGRASS REGION: Percentage of Housing Units Affordable to a Household with 50 Percent of the Regional Median Income by Census Tract, 2000



## Looking Forward: Strategies for Regional Reform

Uncoordinated growth, widening fiscal disparities and concentrated poverty threaten the prosperity of the Bluegrass Region. The merger of the City of Lexington with Fayette County created a municipality much better able to deal with the costs of poverty but, in the long run, the core of the region still faces significant challenges. In addition, as in most metropolitan areas, many suburban areas face growing challenges associated with poverty and rapid growth.

The fragmented nature of the region's political and planning system – 18 counties, 34 cities and 24 school districts – makes it unlikely that reform at the local level alone will solve these complex problems. Solutions must focus on regional initiatives. Broad policy areas where regional reforms are most needed to combat social separation and sprawl include:

- Greater tax equity to equalize resources among local governments
- Smarter land-use planning to support more sustainable development practices
- Strengthened metropolitan governance to give all communities a voice in regional decision-making

In addition to addressing individual problems, these strategies are mutually reinforcing. Successfully implementing one makes implementing others much easier, both substantively and politically.

## Tax Reforms

Current tax law in Kentucky hamstring local government, greatly limiting their access to revenues from the traditional “big three” of state and local taxation – property, income and sales. Limitations on the growth of property tax revenue mean that most areas must look to other sources for much of their revenue.

Constitutional prohibitions on taxing income and sales create the need to find “proxy” revenue sources with serious disadvantages, such as the occupational license fee (payroll tax) and the insurance premium tax. The payroll tax is not available to all localities and the way it is structured increases incentives for inefficient competition for particular types of tax base, undermining regional planning and development priorities. The insurance premium tax arbitrarily taxes one form of consumption, leaving most sales untouched. The result is a bewildering and inefficient array of taxes that exacerbate fiscal disparities and distort the economy.

A special task force – the Task Force on Local Taxation – recently recommended that the Kentucky Constitution be amended to allow for modernization of the local tax system. The task force's report and various commentators emphasized the need for more flexibility, more authority for multi-jurisdictional tax sharing, and greater accountability to voters.<sup>1</sup>

For instance, constitutional reforms that allowed localities in a region to jointly impose a regional sales or income tax could greatly reduce the complexity of the local tax system while at the same time reducing incentives for municipalities and counties to engage in beggar thy neighbor competition for tax base.

These efficiencies could be achieved by replacing the current patchwork quilt of insurance premium and payroll taxes with a single regional sales or payroll tax. The revenue generated from such a tax could then be distributed to counties, municipalities and school districts based on any number of criteria. For instance, a portion of the regional tax revenues could be distributed based on the origin of the collections – the location of payroll or sales – to finance the local infrastructure and other costs associated with economic activity. The remainder of the revenues could then be distributed based on a formula including other local characteristics, such as the number of households, poverty, or tax base.

Another option to improve the overall efficiency of the system while reducing fiscal disparities that would require no new tax instruments is tax base sharing.

### **Tax Base Sharing**

Tax-base sharing is one way to significantly improve both the equity and efficiency of the regional fiscal system. In such a system, a portion of the growth in local tax base of each municipality or unincorporated area is allotted to a regional pool. This tax-base is then available to be redistributed back to local areas and taxed by each municipality or county at its own tax rate. Each municipality or unincorporated area contributes to the regional pool and each receives an allotment from the pool.<sup>2</sup>

Contributions to the pool are based only on the growth in tax base. This means that all existing tax base is effectively held harmless, minimizing the impact on places that are net contributors to the system. For instance, if tax base in a municipality grew by 10 percent and 40

percent of that growth was contributed to the regional pool, the municipality's tax base after its contribution would still be 96.4 percent of what it would have been without the tax-base sharing program. And this is *before* the municipality received its distribution from the regional pool. Any receipts from the pool would push the municipality's post-sharing tax base toward, and, in most cases, beyond its original tax base.

The redistribution formula can take a variety of forms. It can be aggressively redistributive – using local tax base or poverty rates as a primary component, for instance – or it can be relatively neutral – using local population or household counts.

If the contribution formula is designed properly, tax-base sharing can also improve the efficiency of the local tax system. In the model used in the largest tax-base sharing system in the United States – the Twin Cities Fiscal Disparities program – communities contribute 40 percent of the increase in commercial-industrial property tax base to the pool, which is then redistributed with a formula based on population and local tax base.

The Twin Cities design reduces the incentive for communities to compete for tax base, because they do not keep all of the resulting revenues. At the same time, since localities retain enough of the tax base to cover the costs of growth, the incentive is not so strong that local areas will be unwilling to allow new development.<sup>3</sup>

In principle, tax-base sharing can be employed with any local tax. In Kentucky, the primary candidates are the property tax and the payroll tax. Maps 13 and 14 show the results of

simulations of the effects of tax base sharing with these two bases in the Bluegrass Region. In each case, the maps show the net distribution (contribution minus distribution) per household for municipalities and unincorporated areas if a tax base sharing program had pooled 40 percent of the increase in tax base between 1994 and 2004 and redistributed it to municipalities based on the number of households in each place.

In the simulation for the property tax (Map 13), tax base sharing would increase the tax base available in 38 of the 52 municipalities and unincorporated areas in the region – areas serving 65 percent of the households outside of Lexington. Lexington, itself, would have been a small net contributor to the system. Its total property tax base would have been roughly 2 percent lower in 2004, or by about the amount its base grew in six months during the period.

The payroll tax simulation (Map 14) yields similar results. In this case, tax base sharing would increase the tax base available to 26 of the 36 localities included in the simulation. The net receivers represent 68 percent of households in the included municipalities outside of Lexington, while Lexington would essentially break even. (Lexington's net contribution would have been well under one percent of its base.)<sup>4</sup>

Overall, net contributors to the regional property tax pool (municipalities that would have contributed more property tax base than they received) would have had about 4 percent less tax base in 2004 than their actual base. Net contributors in the payroll tax simulation would have had about 5 percent less tax base in 2004 as a group. However, if tax base sharing

had actually been in place, municipalities and counties would have had much more incentive to engage in cooperative economic development activities. If these incentives had led to just four- or five-tenths of a percent faster growth per year in their tax bases (depending on the tax-base), the resulting tax base in these places would have been greater in 2004 than it was without the program.

Both simulations show the great potential for tax base sharing to level the playing field, reducing the very wide tax base disparities that exist in the region.

And in the long run, all types of communities stand to benefit from tax-base sharing. Communities that are net receivers – the majority of places – can provide more or better local services without increasing local tax rates. The minority of communities that are net senders can also benefit from tax-base sharing. In the long-run, they benefit from more robust growth in the regional economy that can result from greater cooperation across the region on economic development activities. The program also serves as an insurance policy against future changes in regional growth patterns. Very few parts of the region can count on being a regional growth leader forever.

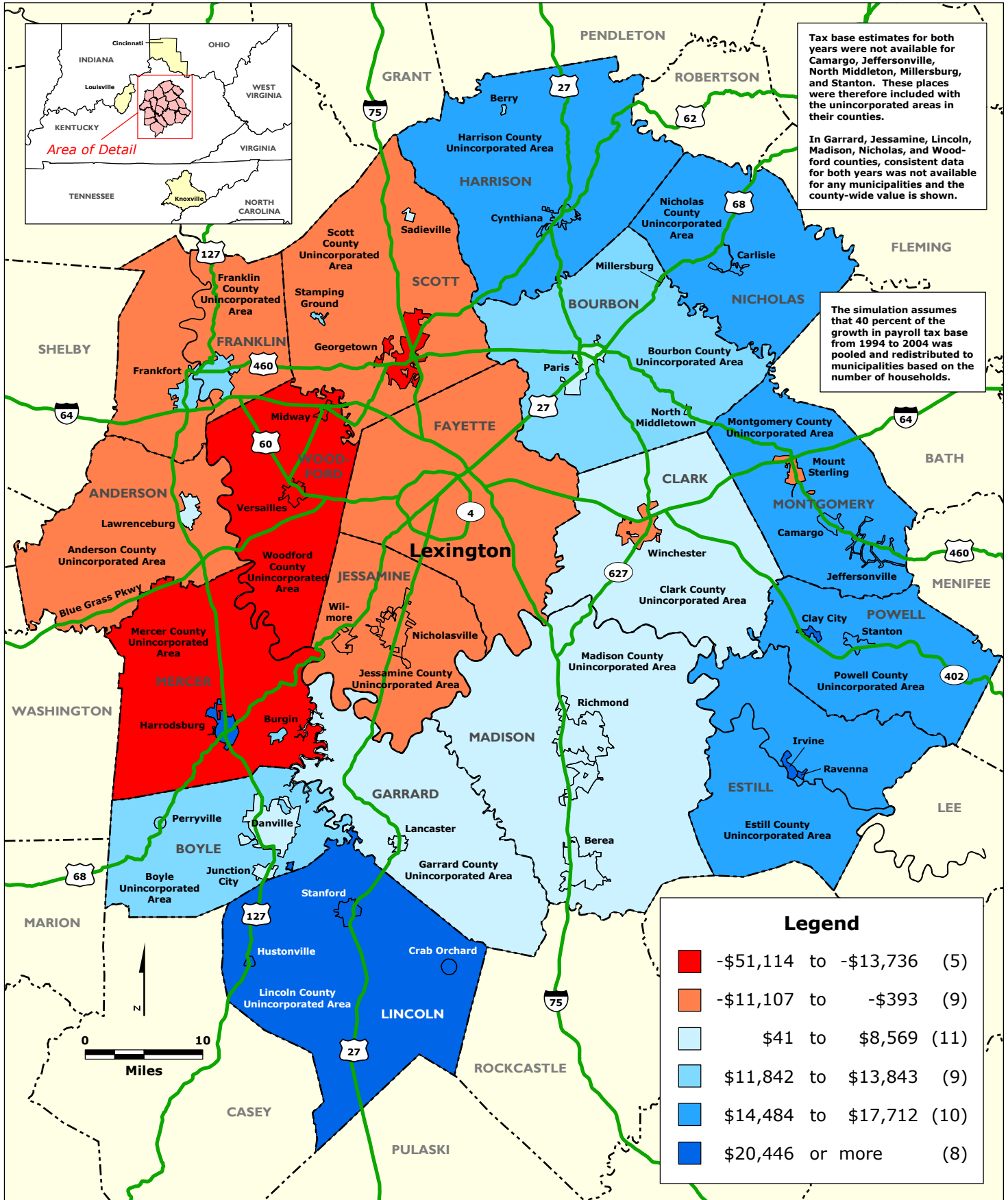
## **Cooperative Land-Use Planning**

Tax policies are only part of the reason for inequitable and inefficient growth occurring in the Bluegrass Region. The localized nature of planning also contributes to unbalanced growth. This arrangement makes it difficult to implement coherent policies in areas with regional implications, such as housing, transportation, economic



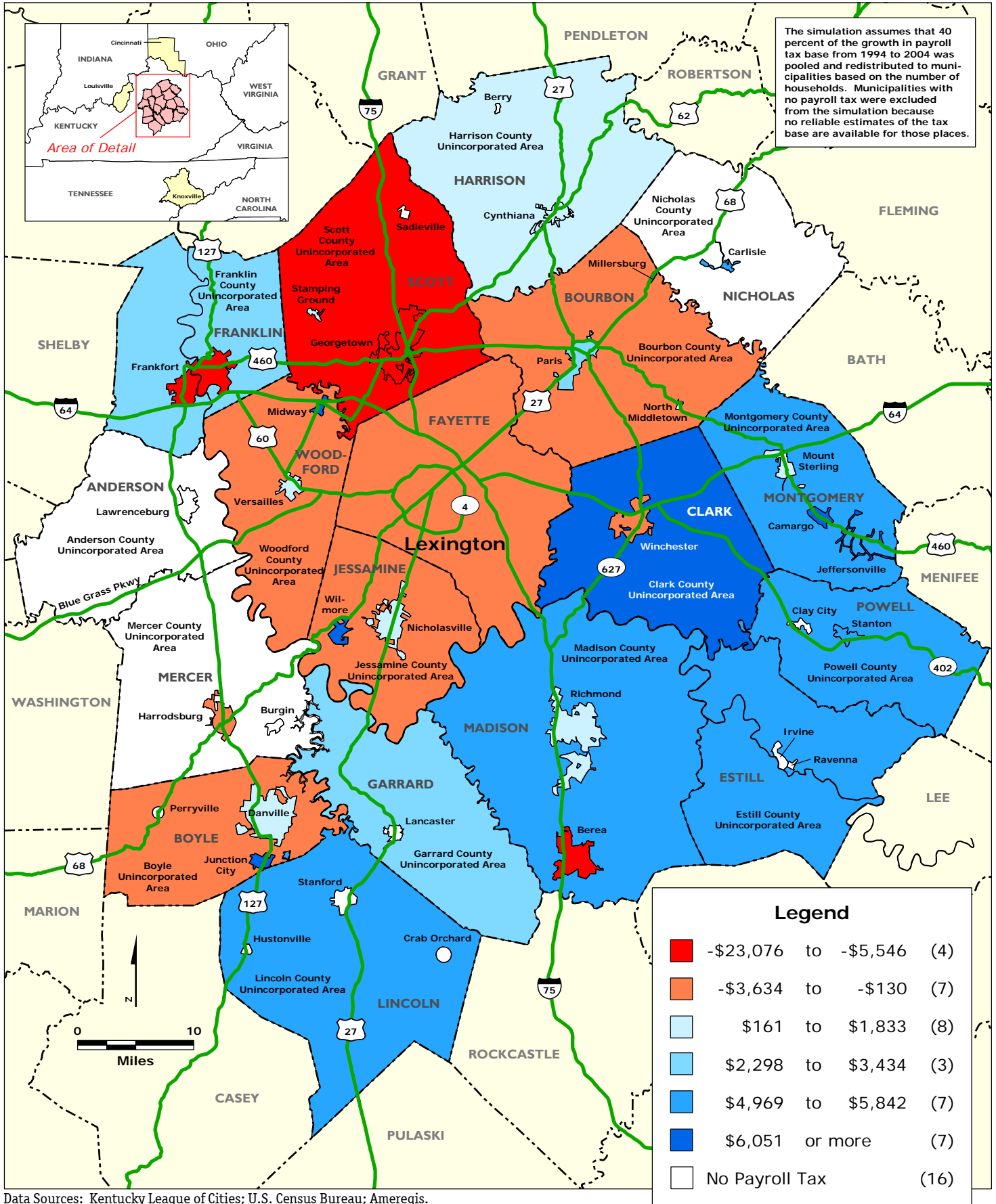


# BLUEGRASS REGION: Simulated Change in Property Tax-Base per Household Resulting from a Property Tax-Base-Sharing Program by Municipality and County Unincorporated Area, 1994-2004



Data Sources: Kentucky Department of Revenue; County Property Value Administrators; U.S. Census Bureau; Ameregis.

# BLUEGRASS REGION: Simulated Change in Payroll Tax-Base per Household Resulting from a Payroll Tax-Base-Sharing Program by Municipality and County Unincorporated Area, 1994-2004 (Nicholas and Mercer county unincorporated data will be added when available)



development or environmental protection.

While Kentucky has a nationally lauded comprehensive community planning program (KRS 100), much more could be done to improve upon the original. A major drawback of KRS 100 is that it is voluntary. The legislation prohibits a county from engaging in comprehensive planning if just one city doesn't wish to participate. Another shortcoming of KRS 100 is the consistent failure of every administration to fund the state planning assistance office for which the legislation provides. There is also no provision for training standards for planning and zoning commissioners.<sup>5</sup>

Strengthening KRS 100 by providing initiatives and/or mandates for counties and cities to enact comprehensive planning and zoning programs can help counties to alleviate the problems associated with development near cities, but outside city boundaries. Residents in these developments want traditional city services like utilities, police, fire and sanitation services, but do not want to be annexed and charged for them. Counties often take up the slack with the result being duplication of services.<sup>6</sup>

## **Metropolitan Governance**

As in most places, the fragmented nature of local government in the Bluegrass Region has discouraged coordinated strategies for dealing with regional problems. That is unfortunate, because many of the challenges are simply too large for any one local government to address alone.

Effective, efficient regional efforts strike a balance by allowing local control over issues best addressed by local governments, while promoting

cooperation on larger issues affecting the entire region, such as highway and sewer investments, affordable housing, transit, land-use planning, air and water quality and economic development.

A wide variety of options are available to improve regional decision-making in the Bluegrass Region. These include strengthening existing regional organizations, finding new ways to encourage inter-local cooperation, and creating new institutions to plan or provide services on a regional scale.

All metropolitan areas are already required to have metropolitan planning organizations (MPO's) to oversee transportation planning. The Lexington Area MPO currently serves this function. However, its jurisdiction includes only two of the seven counties (Fayette and Jessamine) in region's core metropolitan area.

The MPO's narrow jurisdiction clearly is inadequate to accommodate the extensive and increasing links among the seven counties. For instance, in the 1990s, the number of workers commuting from a residence in the five metropolitan counties not included in the Lexington MPO (Bourbon, Clark, Madison, Scott and Woodford) to a job in Fayette or Jessamine grew by roughly a third and the number of workers living in Fayette or Jessamine and working in one of the other five counties grew by two-thirds. By 2000, nearly 30 percent of the jobs in Fayette and Jessamine were filled by residents from the other five counties.

Maintaining a transportation system that can accommodate the regional economy's increasingly complex commuting patterns is arguably the most important function the MPO must serve.

Its current structure clearly makes this very difficult, if not impossible. Regional agencies can take a wide variety of forms, varying from special districts designed to plan or provide a single service to fully-fledged multi-purpose governments with powers to regulate or provide services in several areas.

Transportation planning is only one of several public purposes most logically pursued at regional scales. Others include (but are not limited to):

- Regional land-use planning
- Coordination of local land use planning, emergency services and economic development
- Regional environmental planning and services such as wastewater collection and treatment, protection of sensitive natural areas, and protection of other regional assets
- Transit
- Housing, and
- Tourism

The common denominator of these activities and objectives is that their costs and benefits are rarely concentrated in a single community or county.

For instance, the full benefits of conserving natural resources or other regional assets (like the Bluegrass Region's horse farms) will be felt region-wide through increased recreational opportunities or tourism. But, at the same time, the costs of conservation can be highly localized, often in the form of lost tax base or foregone development opportunities.

In this situation, local or county governments do not face the proper incentives. The benefits of conservation

activities are likely to be under-valued (because many accrue to other parts of the region) while the costs are fully borne locally. The likely result is that local areas will do too little to protect the sensitive resources or regional assets.

This happens not because local public officials or voters value the resources any less than others or behave irrationally. It happens because they have no incentive to account for all of the benefits when evaluating whether a particular action is worth the cost. An organization that evaluates all of the costs and benefits is what is needed in this situation.

Expanding the scale and functions served by the Lexington MPO is only one of several ways to strengthen regional decision-making. Activities can range from advisory roles to regulatory activities and service provision. The scope of activities can range from single service agencies to multi-purpose governments. And representatives can be selected directly by voters or indirectly through appointment by Governors, Mayors or City Councils.

Examples run the gamut along all three dimensions. Portland Metro and the Twin Cities Metropolitan Council are examples of multi-purpose governments that have limited authority to impose region-wide taxes and engage in regional planning, oversight of local planning, transportation planning, and the operation of transit and waste water collection and treatment systems. Portland Metro representatives are directly elected while, in the Twin Cities, the council is appointed by the Governor.

In many states, including Florida, Michigan, Ohio and North Carolina,

councils of government (COG's) are an important vehicle for inter-local cooperation. In others, special purpose districts are the dominant tool.<sup>7</sup>

It is important to remember that local and regional governance are not mutually exclusive. All of the organizational models can be adapted to facilitate local and regional cooperation. The model that best fits the needs of the Bluegrass Region depends on the range and type of policy issues to be addressed and the will to pursue regional solutions to regional problems. It is clear, however, that the current system of fragmented governance is inadequate to the task of finding and implementing region-wide solutions to regional problems.

## Endnotes (Metropatterns)

<sup>1</sup> The Lexington Metropolitan Statistical Area, as defined by the U.S. Census Bureau, is Bourbon, Clark, Fayette, Jessamine, Madison, Scott and Woodford counties. This study uses the Blue Grass Area Development District's service area, which adds Anderson, Boyle, Estill, Franklin, Garrard, Harrison, Lincoln, Mercer, Nicholas and Powell counties to the study area plus Montgomery County.

<sup>2</sup> Grouping was accomplished using the K-means clustering procedure in SPSS. All variables were calculated as percentages of the regional average and standardized by the number of standard deviations from the mean so that the effects of variables with very wide variations did not overwhelm the effects of variables with narrower variations. For more on cluster analysis in general, and K-means clustering in particular, see *StatSoft, Inc. Electronic Statistics Textbook* (Tulsa, OK: StatSoft, 2002) at [www.statsoft.com/textbook/stathome.html](http://www.statsoft.com/textbook/stathome.html).

<sup>3</sup> The simple correlation coefficient is .51, which is significant at the 99 percent confidence level.

<sup>4</sup> The census-tract-level map of population growth from 1990 to 2000 is available at [www.ameregis.com](http://www.ameregis.com)

<sup>5</sup> A map showing the change in urbanized land in the Bluegrass Region is available at [www.ameregis.com](http://www.ameregis.com).

<sup>6</sup> American Horse Council, 2005.

<sup>7</sup> U.S. Census of Agriculture, 1997 and 2002.

<sup>8</sup> Bluegrass Tomorrow, "Vision Report 2006," 17 (2006).

<sup>9</sup> See James S. Coleman, *Equality of Educational Opportunity* (Washington, D.C.: Government Printing Office, 1966); Gary Burtless, ed., *Does Money Matter? The Effect of School Resources on Student Achievement and Adult Success* (Washington, D.C.: Brookings, 1996); James Traub, "What No School Can Do," *The New York Times Magazine*, January 16, 2000.

<sup>10</sup> Jonathan Crane, "The Effects of Neighborhoods on Dropping Out of School and Teenage Childbearing," in *The Urban Underclass*, C. Jencks and P. Peterson. eds. (Washington, D.C.: Brookings Institution, 1991), pp. 299-320; Susan E. Mayer, "How Much Does a High School's Racial and Socioeconomic Mix Affect Graduation and Teenage Fertility Rates?" in *The Urban Underclass*, pp. 321-41; Douglas A. Massey

and Nancy S. Denton, *American Apartheid: Segregation and the Making of the Underclass* (Cambridge, MA: Harvard University Press, 1993), pp. 169-70; Dennis P. Hogan and Evelyn Kitagawa, "The Impact of Social Status, Family Structure, and Neighborhood on the Fertility of Black Adolescents," *American Journal of Sociology* 90, no. 4 (1985): 825-55; Frank F. Furstenburg, Jr., S. Philip Morgan, Kristen A. Moore, and James Peterson, "Race Differences in the Timing of Adolescent Intercourse," *American Sociological Review* 52 (1987): 511-18; Elijah Anderson, "Neighborhood Effects on Teenage Pregnancy," in *The Urban Underclass*, pp. 375- 98; Sara McLanahan and Irwin Garfinkel, "Single Mothers, the Underclass, and Social Policy," *The Annals of the American Academy of Political and Social Science* 501 (1989): 92.

<sup>11</sup> Crane, "The Effects of Neighborhoods," pp. 274-320; Mayer, "Graduation and Teenage Fertility Rates," pp. 321- 41; Massey and Denton, *American Apartheid*, pp. 169-70.

<sup>12</sup> Massey and Denton, *American Apartheid*, pp. 180-82.

<sup>13</sup> For a general discussion of housing discrimination, see John Yinger, "Testing for Discrimination in Housing and Related Markets," *A National Report Card on Discrimination in America*, ed. Michael Fix and Margery Austin Turner (Washington, D.C.: The Urban Institute, 1998).

<sup>14</sup> Asians were not included in the analysis of racial segregation because research has shown that they tend to experience less educational and housing segregation than blacks, Latinos and Native Americans. See Douglas Massey, "The Residential Segregation of Blacks, Hispanics, and Asians: 1970 to 1990," in Gerald D. Jaynes, Ed., *Immigration and Race: New Challenges for American Democracy* (New Haven: Yale University Press, 2000); and Gary Orfield and John T. Yun, "Resegregation in American Schools" (Cambridge, Mass.: The Civil Rights Project, Harvard University, 1999).

<sup>15</sup> High-poverty schools are those with free and reduced-price lunch eligibility rates of 40 percent or greater.

<sup>16</sup> In the late 1990s, just 8 percent of county and local revenues in Kentucky came from state aid, compared to 22 percent nationwide. 23 percent of municipal general revenues were from income-based taxes (the payroll) compared to 6 percent nationwide. *1997 Census of Governments*, Bureau of the Census.

<sup>17</sup> Kentucky's third most widely-used local tax, the insurance premium tax, is a "proxy" tax in

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much the same way as the payroll tax. Forbidden to use local sales taxes, localities instead tax insurance premiums, a tax which is essentially a specialized local sales tax.

<sup>18</sup> See William A. Fischel, "Property Taxation and the Tiebout Model: Evidence for the Benefit View from Zoning and Voting," *Journal of Economic Literature* 30 (1992), pp. 171-77, for a discussion of fiscal zoning and why it occurs.

<sup>19</sup> The existence of unincorporated areas is not a necessary prerequisite for this process to occur. The Philadelphia wage tax, for instance, has had a much-documented effect on city employment, despite the fact that its metropolitan area is fully incorporated. See Luce, Thomas, "Local Taxes, Public Services, and the Intrametropolitan Location of Firms and Households," *Public Finance Quarterly*, Volume 22, no. 2, pp. 139-67, (1994).

<sup>20</sup> See Timothy Bartik, *Who Benefits from State and Local Economic Development Policies?* W.E. Upjohn Institute, 1991 for a summary of the effects of local tax differentials on business location decisions. For a specific analysis of the negative effects of wage-based tax on job growth in a large central city, see Thomas Luce, "Local Taxes, Public Services, and the Intrametropolitan Location of Firms and Households," *Public Finance Quarterly*, vol. 22, no. 2, pp. 139-67, 1994.

<sup>21</sup> These comparisons almost certainly understate the disparities. Payroll tax base per household could not be calculated for places that do not assess the tax. Since most of these places are likely to be at the low end of the distribution, actual disparities are probably even wider.

<sup>22</sup> Molly A. Hunter, *All Eyes Forward: Public Engagement and Education Reform in Kentucky*, 28 J.L. & EDUC. 485, 486 (1999).

<sup>23</sup> Jacob E. Adams, Jr. & William E. White II, *The Equity Consequence of School Finance Reform in Kentucky*, 19 Educ. Evaluation & Pol'y Analysis 165, 174 tbl.3 (1997).

<sup>24</sup> Scott Trimble & Andrew C. Forsaith, *Achieving Equity and Excellence in Kentucky Education*, 28 U Mich. J. L. Reform 599, 608 & n.71 (1995).

<sup>25</sup> Jacob E. Adams, Jr., *School Finance Reform and Systemic School Change: Reconstituting Kentucky's Public Schools*, 18 J Educ. Fin. 318, 328-29 (1993).

<sup>26</sup> KY. Rev. Stat. Ann. § 157.310-.440 (2004).

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<sup>27</sup> KY. Rev. Stat. Ann. § 157.360(2) (2004).

<sup>28</sup> KY. Rev. Stat. Ann. § 160.740(a); Lawrence O. Picus et al., *Assessing the Equity of Kentucky's SEEK Formula: A 10-Year Analysis*, 29 J. Educ. Fin. 315, 317 (2004).

<sup>29</sup> KY. Rev. Stat. Ann. § 157.440(1)(a), (2)(a).

<sup>30</sup> Ann E. Flanagan & Sheila E. Murray, *A Decade of Reform: The Impact of School Reform in Kentucky, in Helping Children Left Behind*, *supra* note \_\_\_, 195, 204-05.

<sup>31</sup> Picus, et al., *supra* note \_\_\_, at 334-35.

<sup>32</sup> Picus, et al., *supra* note \_\_\_, at 334-35.

<sup>33</sup> Coomes, Paul and Kornstein, Barry, "Kentucky's Economic Competitiveness: A Call for Modernization of the State's Fiscal Policies." University of Louisville. 32 (2004).

<sup>34</sup> Picus, et al., *supra* note \_\_\_, at 335.

## Endnotes (Policy Section)

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<sup>1</sup> “Task force wants to improve Kentucky’s local tax systems”, Jack Brammer, Herald Leader Frankfort Bureau, June 28, 2006, [www.kentucky.com/mld/kentucky/14917747.htm](http://www.kentucky.com/mld/kentucky/14917747.htm).

<sup>2</sup> Model legislation to set up a tax-base sharing system is available in *Growing Smart Legislative Guidebook*, American Planning Association, 2002, available at [www.planning.org/guidebook](http://www.planning.org/guidebook).

<sup>3</sup> For a more extensive discussion of tax base sharing, see “Regional Tax Base Sharing: the Twin Cities Experience”, Thomas Luce, in *Local Government Tax and Land Use Policies in the United States: Understanding the Links*, Helen Ladd, Lincoln Institute of Land Policy, 1998.

<sup>4</sup> Municipalities and unincorporated where the payroll tax does not currently exist were excluded from the simulation because their tax base cannot be estimated.

<sup>5</sup> Mudd, David, “Planning,” *City*, Kentucky League of Cities 11 (Summer 2004).

<sup>6</sup> *Ibid*, 12.

<sup>7</sup> For a much more extensive discussion of these issues, see *Growing Smart Legislative Guidebook*, American Planning Association, 2002, available at [www.planning.org/guidebook](http://www.planning.org/guidebook).