2012 Data and Trend Update to the Strategic Regional Policy Plan

OKI

OKI Land Use Commission

WHERE DO WE GROW FROM HERE?
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1. Purpose and Introduction

OKI Policy Planning

In 2005 OKI’s Board adopted a Strategic Regional Policy Plan (SRPP) containing 101 policies to address 28 strategic regional issues in six major subject areas: transportation; public facilities and services; natural systems; housing; economic development; and land use. The SRPP is the result of a multi-year effort involving OKI’s Board, hundreds of stakeholder organizations and individuals and the public in a systematic process. That process involved examining trends and conditions; determining which regional issues were most strategic; creating a long-term vision for the region; and identifying goals, objectives and policies to achieve the vision and address the issues.

While much has been accomplished since the plan’s adoption in 2005, much remains to be done to reach its goals. In addition, much has changed in the region since 2005. The SRPP needs to be updated to reflect the impacts of subsequent events such as the “Great Recession” and significant changes in our demographics, particularly as the baby-boom generation ages. While many of the strategic regional issues identified in the SRPP remain significant, time has changed both the nature of the region and the way that the goals articulated in the SRPP might be accomplished. In addition, new challenges have emerged that warrant analysis and possible inclusion in the region’s policy planning.

The purpose of this report is provide updated “snapshots” of trends and conditions for the six major topic areas and to identify potential new issues for consideration as the SRPP is revisited.

OKI Land Use Commission

In the late 1990’s, OKI’s Board agreed to work as a land use commission to study the complex connection between transportation and how we use land for homes, businesses, parks and factories. The primary goal of the OKI Land Use Commission has been to bring about more consistency between local land use planning and regional transportation planning, so scarce taxpayer dollars can be used for maximum benefit.

A major product of the Land Use Commission’s efforts to date is the OKI Strategic Regional Policy Plan (SRPP). The plan was developed through exhaustive consultation with local officials, with dozens of peer reviewers in a variety of disciplines, and with the public through multiple rounds of outreach in every county in the OKI region. The plan analyzes regional trends and issues that are barriers to sustainable development, and creates goals, objectives and policies to address these barriers.

The Strategic Regional Policy Plan (SRPP)

The SRPP adopted by the OKI Land Use Commission in 2005 contains an overall 20-year vision for regional vitality, sustainability, and competitiveness, focusing on the land use–transportation connection. Conceptually, the strategic planning process addresses four questions: Where are we as a region? Where are we going given current trends? Where do we want to go? How do we get there? Six strategic subject areas were selected to guide and focus planning efforts to achieve the overall regional vision. These strategic subject areas are housing, transportation, land use, public facilities and services, natural systems, and economic development.

Each subject area of the SRPP contains an overview, a goal, the trends and conditions associated with each strategic regional issue in that subject, and objectives and policies that address each of the issues.

The Land Use Commission came to the conclusion early in the regional visioning process – and sustained it throughout the process – that the region’s trends should not become its destiny. It is not inevitable that the trend of previous growth patterns must continue.
Various public, private and non-profit, and citizen-based institutions within the region that affect regional policy use the Strategic Regional Policy Plan. The plan is used by OKI in its transportation programs to address OKI’s federal mandates. The plan offers guidance to local governments in areas of policy development, land development, and capital budgeting, because public investments in infrastructure greatly affect land development and land use decisions affect infrastructure investments. The Strategic Regional Policy Plan encourages conservation-oriented organizations to look at natural resources extending beyond their agency’s service area. The plan also illustrates how decisions by the economic development community can affect housing, transportation, and other issues.

Plan Implementation

Successful implementation that moves the region toward its vision and goals is the ultimate test of an effective policy plan. Since the Strategic Regional Policy Plan was adopted in 2005, the OKI region has taken many steps to realize the vision that is the foundation of the plan, including:

OKI developed the Elements of an Effective Local Comprehensive Plan in 2006 as a set of guidelines for local governments as they prepare or update their local comprehensive plans. Moreover, OKI has provided several local jurisdictions with comprehensive planning assistance based on SRPP recommendations.

In addition to comprehensive planning guidelines, OKI developed sample ordinances and policy recommendations for communities regarding Bicycle and Pedestrian Facility Standards, Connectivity, Infill Development, Large Scale Retail Development, Mixed Use Development and Transit Friendly Development. These have been used by many communities throughout the region as a foundation for policy change.

The need for a fiscal impact analysis tool was also identified as part of the SRPP. OKI developed a Fiscal Impact Analysis Model in partnership with 10 local governments to help communities better understand the revenues and costs associated with new development as well as their ability to provide public facilities and services. The FIAM estimates the costs and revenues associated with land use change and can compare alternative development scenarios within a jurisdiction and analyze effects of specific development projects. The results of the model are an estimate of potential future expenditures and revenues.

The SRPP serves as the foundation for an integrated approach to community planning in the region. Since the development of the SRPP, many projects across the region have sought to more fully integrate a variety of investments and community elements into cohesive planning efforts.

Revisiting the SRPP

The bulk of this report explores the ways in which our region has changed since 2005. Information is presented by SRPP subject area for trends and conditions associated with each of the 28 strategic regional issues identified in the 2005 plan. These descriptions reflect the best available data and sources as of the spring of 2012 and will be used as a starting point to revisit and discuss the SRPP strategic regional issues and policy recommendations. This report is intended to help the OKI Land Use Commission re-evaluate, substantiate and originate strategic regional issues for the OKI Region in the current decade. In keeping with the SRPP’s vision for the region, the next section of this report provides the mission and stewardship principles that are its foundation.
2. The Supporting Stewardship Principles

The Mission of the OKI Land Use Commission is: Through open dialogue and communication with decision makers and the public, the OKI Commission on Land Use shall develop a strategic regional plan which encourages land use patterns that promote multimodal travel and the efficient use of land, natural resources, and public facilities and services.

The 2005 SRPP’s development included a visioning process built on the preceding mission statement. Through this visioning process, the Commission further determined that the need for “modifying recent trends to create a different future was essential to improving the region’s quality of life in all its dimensions.” The Land Use Commission came to the conclusion in the regional visioning process, and sustained it throughout plan development, “that the region’s trends should not become its destiny.” The result of the process was a “vision for stewardship” for the OKI region for the year 2020 and beyond. The stewardship vision was defined by 13 “principles,” as follows:

- **Transportation Choices**
  In 2020, transportation choices will be available throughout the region, including public transit, automobiles, biking and walking, in a manner that optimizes accessibility, efficiency, mobility, and affordability.

- **Public Facilities and Services**
  In 2020, public facilities and services will be well coordinated and determined prior to land development and redevelopment. Such public facilities and services will include transportation, water, sewer, parks and storm water management systems.

- **Connectivity**
  In 2020, neighborhoods will be linked by a network of interconnected streets and walkways as part of a larger system that provides safe motorized and non-motorized access to homes, businesses, schools, recreation facilities and services, and other destinations. These networks will be designed to keep local traffic off major arterials and high-speed, through-traffic off local streets.

- **Redevelopment and Infill Development**
  In 2020, redevelopment of underutilized areas and infill development within existing areas will be actively promoted for more efficient use of land resources, with consideration given to the need for parkland and green space.

- **Land Use Patterns to Support Transit**
  In 2020, communities throughout the region will have areas that are developed with higher concentrations of housing, businesses, and activities to better utilize land resources and support public transit.

- **Mixed-Use Centers**
  In 2020, centers that include a mix of integrated office, retail, residential, and civic uses will be found throughout the region. These mixed-use centers – of a scale appropriate to their surroundings – will concentrate uses in a manner that supports walking, biking and public transit, and automobiles.

- **Mixed-Use Neighborhoods**
  In 2020, new and redeveloped neighborhoods will include walkable, compatible retail, business, education, and civic uses, as well as a broad range of housing types and price levels.
**Housing Choices**

In 2020, a diverse mix of housing choices – in terms of size, price, type and location – will be available within communities throughout the region. Every community in the region will maintain quality housing, whether it is newer developments or older neighborhoods, owner-occupied or rental.

**Educational Opportunity**

In 2020, comprehensive and quality education will be available throughout the region for residents of all ages.

**Environmental Quality**

In 2020, the health and viability of natural systems, such as air quality, water resources and wildlife habitats will be protected. There will be an extensive network of green spaces in the region that includes neighborhood and regional parks, hillsides, river corridors, forests, flood plains and farmland.

**Cooperative Economic Development**

In 2020, communities will cooperate, coordinate, and share on mutually beneficial economic development opportunities, on business retention and recruitment, and workforce development. This cooperative effort will require the active participation of local governments, economic development organizations, businesses and other stakeholders.

**Fiscal Responsibility**

In 2020, decisions on land development, redevelopment, and improvements to public facilities and services will be made with a clear understanding of their fiscal impacts to individual communities and the region. The cost of development will be allocated among those who benefit, with consideration of the fiscal impacts to existing residents.

**Intergovernmental Cooperation**

In 2020, land use policy remains a fundamental prerogative and responsibility of each local jurisdiction. However, local governments will effectively and willingly communicate, cooperate and coordinate on issues of land use, transportation, natural systems, economic development and public facilities and services.
3. Transportation

The Goal: Provide an effective, balanced, integrated, and financially constrained transportation system for the entire region.

Strategic regional issues identified in the SRPP for this goal are listed below, along with supporting data and regional indicators.

Strategic Regional Issue #1
At the local level, there is little coordination among transportation planning, land use planning, capital budgeting, and economic development.

Integrated Approach to Local Transportation Planning
Local comprehensive plans are the appropriate tool for addressing the need to coordinate transportation planning with planning for land use and economic development, capital budgeting and policy implementation. Up to 2005, however, none of the local comprehensive plans reviewed by OKI used an integrated approach to planning for analyzing transportation; land use, capital budgeting, economic development and policy implementation. A few of the regions' communities coordinated with neighboring jurisdictions in planning for transportation, economic development, and future land use.

OKI will conduct a survey of local plans (2012-2013) to assess the extent of coordination between transportation and other plan elements.

Strategic Regional Issue #2
On a regional scale, there are few available modes of transportation. Limited public transit is an obstacle to accessibility and mobility for the region's citizens, especially the transportation disadvantaged, which includes elderly, disabled, low income, minority populations, and other zero-car households.

Transportation Access for EJ Population Groups
In 2009, automobiles accounted for over 90 percent of the region's total trips compared to 86 percent at the national level. As indicated in Table 3.1, alternative modes also accounted for lower shares of trips at the regional level than the national level. In the OKI region in 2009, 2.7 percent of trips were by transit and 2.2 percent were by walking – which were smaller shares than in 2000 or 1990 -- and .14 percent of trips were by bicycle.

The region's seven transit providers, listed below, provide an alternative mode for those who choose public transit as a personal preference and for individuals without other options.

- South Ohio Regional Transit Authority (SORTA/Metro)
- Transit Authority of Northern Kentucky (TANK)
- The City of Middletown transit system
- Clermont Transportation Connection (CTC)
- Warren County Transit Services (WCTS)
- Butler County Regional Transit Authority (BCRTA)
- Catch-A-Ride (Indiana-Dearborn County)

### Table 3.1: Annual Distribution of Trips by Mode within the Region (thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Automobile</th>
<th>Transit</th>
<th>Walking</th>
<th>Bicycling</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trips</td>
<td>% of total</td>
<td>Trips</td>
<td>% of total</td>
<td>Trips</td>
</tr>
<tr>
<td>OKI Region - 1990</td>
<td>736,585</td>
<td>89.83</td>
<td>28,914</td>
<td>3.53</td>
<td>24,277</td>
</tr>
<tr>
<td>OKI Region - 2000</td>
<td>830,631</td>
<td>93.83</td>
<td>27,740</td>
<td>3.13</td>
<td>21,103</td>
</tr>
<tr>
<td>OKI Region - 2009</td>
<td>883,002</td>
<td>90.66</td>
<td>26,483</td>
<td>2.72</td>
<td>21,112</td>
</tr>
<tr>
<td>US -2009</td>
<td>n/a</td>
<td>86.20</td>
<td>n/a</td>
<td>5.02</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Sources: * Denotes calculation for 8-county region based on data provided and acquired data. 1990 Census, SF3, Table P049; 2007-2009 American Community Survey, Table C08006. [http://www.hud.gov/sustainability](http://www.hud.gov/sustainability); Other is defined as taxi, motorcycle and unspecified means of transportation.
Due to increasing transportation costs and new initiatives to increase ridership, more people in the region are choosing public transit. From 2010 to 2011, TANK ridership increased by 3 percent. In 2010, TANK re-designed the Southbank Shuttle Trolley, which provides convenient, fast service throughout the core of Covington, Newport, and Cincinnati. The Trolley ridership increased 12.6 percent between 2010 and 2011. In 2010 SORTA launched the “one for fun” program which links popular city attractions such as the Cincinnati Museum Center, Music Hall, the Underground Railroad Freedom Center, Eden Park, and the Cincinnati Zoo. Since 2008, SORTA has also added new types of buses (hybrid, accordion or articulated buses, and smaller buses).

In 2012, the City of Cincinnati began construction on the first segment of the Cincinnati Streetcar, which will be $95 million total investment. The development of the streetcar is planned as part of a larger multimodal transportation system that will link downtown with surrounding neighborhoods. The first segment will connect downtown and the Over-the-Rhine neighborhood, while the second segment or extension would connect to the new riverfront park and uptown neighborhoods.

Low density development patterns and financial constraints limit the ability of public transportation providers to serve all of the region’s urban and suburban areas and Environmental Justice (EJ) populations. As indicated by Figure 3.1, many areas in the region with high concentrations of EJ populations (people who are minorities or elderly, have low income or disabilities, or live in zero-car households) lack access to public transit.

In 2012, OKI updated the region’s Coordinated Public Transit – Human Services Transportation Plan. This plan inventoried the region’s services to elderly, people with disabilities and low income populations. The plan identifies gaps in service and establishes strategies that guide funding.
decisions for improvements in the region in compliance with the Job Access/Reverse Commute (JARC) and New Freedom programs.

Table 3.2 shows the estimated percentages of the target populations who live within a quarter-mile, half-mile, and three-quarter mile proximity to the nearest fixed line transit locations. Although a quarter-mile is generally considered walkable, Table 3.2 indicates that the majority of the elderly and people with disabilities and over 40 percent of the low income population reside beyond this walkable distance.

<table>
<thead>
<tr>
<th>Target Populations</th>
<th>Estimated percent of target population residing within proximity of fixed transit route (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elderly Population</td>
<td>45 59 65</td>
</tr>
<tr>
<td>Disabled Population</td>
<td>46 58 63</td>
</tr>
<tr>
<td>Low Income Population</td>
<td>59 69 73</td>
</tr>
</tbody>
</table>

Source: OKI data based on 2000 US Census

Strategic Regional Issue #3

The costs associated with transportation are rising. There is a lack of adequate financial resources to provide roadways and transit in the region.

Transportation Infrastructure Costs and the Transportation Funding Shortfall

For the 2040 Long Range Transportation Plan (LRP), the number of projects that can be recommended is limited by the transportation funding revenues projected to be available during the planning period. The available revenues are estimated at $23.10 billion. An additional $6.26 billion would be needed to cover the cost of all the requested transportation improvements proposed to meet transportation needs through 2040. This major funding shortfall constrains the plan’s recommended improvements.

Household Transportation Costs

Household transportation costs continue to rise due to higher fuel prices and more and longer trips. In the OKI region, households spend between 15 and 35 percent of their median household income on transportation expenses (see Table 3.3). The majority of the region’s households are spending between 25 and 30 percent of their incomes on transportation-related expenses. Hamilton County, the region’s most urban county, also has the lowest transportation costs. Figure 3.2, on the following page, illustrates the percentage of household income spent on transportation within the region. Regionally, the further residents live away from employment centers and the central urban core, the more they spend on transportation related expenditures.

<table>
<thead>
<tr>
<th>Geography</th>
<th>Annual Trans. Costs (Median $)</th>
<th>Household Income Level (Median $)</th>
<th>% of Household Income Spent on Transportation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>15-25% 25-30% 30-35%</td>
</tr>
<tr>
<td>Dearborn</td>
<td>14,988</td>
<td>55,994</td>
<td>0.0    33.4    66.6</td>
</tr>
<tr>
<td>Boone</td>
<td>13,632</td>
<td>66,587</td>
<td>6.4    80.4    13.2</td>
</tr>
<tr>
<td>Campbell</td>
<td>12,072</td>
<td>49,212</td>
<td>32.6   56.5    10.9</td>
</tr>
<tr>
<td>Kenton</td>
<td>11,976</td>
<td>51,646</td>
<td>31.9   61.6    6.5</td>
</tr>
<tr>
<td>Butler</td>
<td>12,984</td>
<td>54,274</td>
<td>3.7    83.8    12.5</td>
</tr>
<tr>
<td>Clermont</td>
<td>13,956</td>
<td>59,738</td>
<td>0.0    88.5    31.5</td>
</tr>
<tr>
<td>Hamilton</td>
<td>11,520</td>
<td>47,541</td>
<td>45.7   52.1    2.2</td>
</tr>
<tr>
<td>Warren</td>
<td>13,884</td>
<td>69,143</td>
<td>0.0    78.4    21.6</td>
</tr>
</tbody>
</table>

*OKI Region: 12,456 56,767 25.2 63.5 11.3


Strategic Regional Issue #4

There is insufficient coordination of land use issues between local, state, and regional transportation planning agencies.

Local Coordination

Many comprehensive plans in the region are prepared without coordinating with neighboring jurisdictions or OKI. The value of coordinating with OKI is to provide for consistency between the local comprehensive plan and the Strategic Regional Policy Plan (SRPP) and Long Range Transportation Plan (LRP). Coordination ensures
the greatest positive benefits from investment, efficient mobility between jurisdictions, and overall consistency. The OKI local plan survey (2012-2013) will indicate the extent to which local plans are developed in coordination with or involve neighboring jurisdictions and OKI.

Strategic Regional Issue #5
Traffic congestion is increasing in the region, with multiple implications including loss of productivity, increased pricing of goods and services, loss of personal time, wasted fuel, and degradation of air quality.

Impacts of Congestion
The OKI region’s quality of life and economic competitiveness are closely related to the degree to which the transportation system is able to provide an acceptable level of mobility. Congestion diminishes our mobility. In addition, congestion affects the urban environment by increasing air pollution, reducing mobility, and draining natural resources through fuel consumption.

In 2010, 39 percent of vehicle miles traveled (VMT) during peak travel times were under congested conditions. This is expected to increase to 62 percent in 2040 without implementation of the 2040 Long Range Transportation Plan and to 60 percent with plan implementation. In 2010, nearly 4 percent of the region’s average daily vehicle miles traveled were under congested conditions. This is expected to increase to 14 percent in 2040. According to the 2011 OKI Congestion Management study, our region experiences over 54,000 daily person hours in delayed congestion which is estimated to cost $1.3 million per day. In 2011, the Texas Transportation Institute’s (TTI) Urban Mobility Study concluded that Cincinnati is ranked the 45th most congested urban area in the U.S.

Figure 3.2: Regional Transportation Expenditures
Strategic Regional Issue #6
The number of local trips on Interstate highways has been increasing as a result of commercial and residential development patterns.

Commuting Patterns
Over half of the workforce in five of the eight OKI counties commute to work in a different/neighboring county (see Table 3.4). In contrast, Boone, Butler, and Hamilton County’s workers were increasingly more likely to commute within their home counties over time. Overall however, commuting trends in the region are indicating less intra-county commutes and more inter-county commuting. These inter-county commute patterns lead to more local trips on the interstate systems within the OKI region.

Increasing Trips on the Interstates
The interstate highway system was designed to meet requirements for national defense, as well as accommodate increasing long distance automobile and interstate commercial traffic. Data shows, however, that interstates are heavily used for short trips between residences, retail stores, and services. “Errands” account for over 80 percent of total car travel, with the majority taking place on interstates and highways. In 2010, approximately 37 percent of the region’s total daily vehicle miles traveled occurred on the region’s interstates (see Table 3.5). In 2000, the Federal Highway Administration reported that the Interstate system accounted for only 1.2 percent of total roadways and accommodated 24.1 percent of total travel in the OKI region.

Increasing VMT
In 2010, over 53 million daily vehicle miles were traveled within the region, compared to over 40 million miles in 2005. (See Table 3.5 for a breakdown of daily vehicle miles traveled (DVMT) within the region’s urbanized area.

Table 3.5: Daily Vehicle Miles Traveled in the Region

<table>
<thead>
<tr>
<th>Geography</th>
<th>Interstate DVMT (1,000)</th>
<th>Other Roadway DVMT (1,000)</th>
<th>Total DVMT (1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OKI Region (2005)</td>
<td>13,709</td>
<td>26,402</td>
<td>40,111</td>
</tr>
<tr>
<td>OKI Region (2010)</td>
<td>19,764</td>
<td>33,635</td>
<td>53,399</td>
</tr>
<tr>
<td>Ohio (2010)</td>
<td>14,370</td>
<td>27,400</td>
<td>41,770</td>
</tr>
<tr>
<td>Kentucky (2010)</td>
<td>4,820</td>
<td>5,961</td>
<td>10,781</td>
</tr>
<tr>
<td>Indiana (2010)</td>
<td>574</td>
<td>274</td>
<td>848</td>
</tr>
</tbody>
</table>

Source: OKI

Table 3.4: Intra- and Inter-County Commuting by Percent of Workers (1990 – 2010)

<table>
<thead>
<tr>
<th>Geography</th>
<th>Same County</th>
<th>Different County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dearborn</td>
<td>42.4%</td>
<td>41.9%</td>
</tr>
<tr>
<td>Boone</td>
<td>49.5%</td>
<td>53.0%</td>
</tr>
<tr>
<td>Campbell</td>
<td>36.7%</td>
<td>36.1%</td>
</tr>
<tr>
<td>Kenton</td>
<td>41.8%</td>
<td>40.4%</td>
</tr>
<tr>
<td>Butler</td>
<td>58.8%</td>
<td>56.4%</td>
</tr>
<tr>
<td>Clermont</td>
<td>38.2%</td>
<td>40.1%</td>
</tr>
<tr>
<td>Hamilton</td>
<td>69.2%</td>
<td>84.4%</td>
</tr>
<tr>
<td>Warren</td>
<td>36.6%</td>
<td>38.5%</td>
</tr>
<tr>
<td>OKI Region</td>
<td>67.3%</td>
<td>62.8%</td>
</tr>
</tbody>
</table>

Population Density

As described in the Land Use section of this report, Chapter 8-1, land use development patterns in the past several years have greatly reduced the region’s overall population density. The region’s urbanized land per capita has been, and remains, much lower than the national average. Between 2000 and 2010, the region’s urbanized land areas increased by approximately 17 percent while the region’s population increased by approximately 6 percent.

A steady increase in VMT and a decrease in population density establish a clear connection between land use development patterns and trip generation demand on our roads. The overall increase in distances traveled to and from work as a result of lower population densities also contribute to rising household transportation costs.

Strategic Regional Issue #7

Transportation project choices affect the region’s ability to attain air quality standards.

In 2009, transportation sources accounted for nearly half of the region’s total emissions of Volatile Organic Compounds (VOCs) and Nitrogen Oxides (NOx). (VOC and NOx are considered ozone precursors.) Ozone concentrations in the Ohio counties have decreased from 2004 to 2011 (see Table 3.6).

In December of 2011, the OKI region was designated in attainment of the 1997 ozone standard of 0.084 ppm based on 2007-2009 data. In May 2012 however, the OKI region was given a nonattainment designation based on 2009-2011 data under the new 2008 8-hour Ozone Concentrations standards of 0.075ppm, established by the Environmental Protection Agency (EPA). The areas within the OKI region that were given the nonattainment designation include all portions of Butler, Clermont, Hamilton, and Warren counties in Ohio; the urban census tracts in Boone, Campbell, and Kenton counties in Kentucky; and the Lawrenceburg Township portion of Dearborn County in Indiana. The remainder of Dearborn County and rural census tracts of Boone, Campbell, and Kenton counties all received attainment designations through the EPA.

Continued air quality improvement will take sustained effort by all levels of government. A number of local governments have already contributed to reduced emission with more fuel efficient vehicle fleets and energy-efficient building construction requirements.

### Table 3.6: 8-Hour Ozone Concentrations (Ohio Counties)

<table>
<thead>
<tr>
<th>County</th>
<th><em>2004-2006</em></th>
<th><em>2006-2008</em></th>
<th><em>2007-2009</em></th>
<th><strong>2008 - 2010</strong></th>
<th><strong>2009-2011</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Butler</td>
<td>0.080</td>
<td>0.082</td>
<td>0.082</td>
<td>0.078</td>
<td>0.079</td>
</tr>
<tr>
<td>Clermont</td>
<td>0.079</td>
<td>0.078</td>
<td>0.075</td>
<td>0.071</td>
<td>0.075</td>
</tr>
<tr>
<td>Hamilton</td>
<td>0.082</td>
<td>0.085</td>
<td>0.082</td>
<td>0.079</td>
<td>0.080</td>
</tr>
<tr>
<td>Warren</td>
<td>0.086</td>
<td>0.085</td>
<td>0.082</td>
<td>0.078</td>
<td>0.078</td>
</tr>
</tbody>
</table>

Source: Hamilton County Department of Environmental Services. Continuous Monitors. *Based on 1997 standard of (0.084 ppm) **Based on 2008 standard of (0.075 ppm) [http://www.hcdoes.org/](http://www.hcdoes.org/)
4. Public Facilities and Services

The Goal: Adequate public facilities and services will be available for all planned development, and adequate capacity will be maintained for all existing development and redevelopment areas.

Strategic regional issues identified in the SRPP for this goal are listed below, along with supporting data and regional indicators.

The OKI Land Use Commission uses the phrase “public facilities and services” to mean infrastructure that can be tied to a level of service, including roads, sanitary sewers, solid waste, drainage, potable water, parks and recreation, and mass transit.

Strategic Regional Issue #8

Ill-timed extension of water, sewer and road facilities and services may expedite sprawling, inefficient development.

The timing and location of water, sewer, and road facilities can have a significant impact on land use and development patterns. Conversely, the density, intensity, and intended use of development can affect decisions on the extension of these public facilities and services. Since the 2005 Strategic Regional Policy Plan was adopted, the economic recession has slowed development within the region and reduced the demand on service providers to extend services for greenfield development. Additional analysis is currently needed of this shift in development trends and the resulting impacts on public facilities and services.

Community Water Systems

The OKI region is rich in the quality and quantity of water resources. The primary sources for the region’s water services are the Ohio River, the Ohio River Aquifer, Great Miami/Little Miami Buried Valley Aquifer System, Harsha Lake, the Licking River, and the Whitewater Aquifer. The Buried Valley Aquifer System is designated a “Sole Source Aquifer” by the federal government. The designation protects an area’s ground water resource by requiring EPA to review all proposed projects within the designated area that will receive federal financial assistance. It is given to areas with few or no reasonably available alternative sources to the ground water resource, so that contamination would be catastrophic.

The region has a multiplicity of community water systems and service areas which significantly complicates provision of services and planning. Residents of Butler, Clermont, Hamilton, and Warren counties in Ohio and Dearborn County in Indiana are served by many community water systems. The majority of service in Campbell and Kenton counties is provided by the Northern Kentucky Water District; however, a few independent water systems still operate in these counties, including the City of Taylor Mill and Pendleton County serving portions of southern Campbell County. Boone County has its own water district, as well as the cities of Florence and Walton and the Cincinnati / Northern Kentucky International Airport. All four of these jurisdictions in Boone County purchase water from the Greater Cincinnati Water Works (GCWW). The remaining southern portion of Boone County is serviced through the Bullock Pen Water District.

The three largest water service agencies in the region include the Greater Cincinnati Water Works, the Northern Kentucky Water District, and the Clermont County Water Resources Department. The following descriptions are based on 2010 data.

The Greater Cincinnati Water Works

- serves most of Hamilton County and parts of Butler and Warren counties in Ohio and Boone County, Kentucky.
- covers an area of over 800 square miles.
- has more than 1,200,000 customers.
- provides an average of 133 Million Gallons per Day (MGD).
- has treatment capacity of 260-280 MGD.
- treats surface water from the Ohio River at the Miller Treatment Facility.
• treats groundwater from southern Butler County at the Bolton Treatment Facility.
• will expand services to the City of Lebanon (average anticipated use of 6.9 MGD) and the Village of South Lebanon (average anticipated use of 1.2 MGD) by January 2013.

The Northern Kentucky Water District
• serves municipalities and unincorporated areas of Campbell and Kenton counties and portions of Boone County, Kentucky.
• covers an area of over 300 square miles.
• has more than 300,000 customers.
• provides an average of 32 MGD.
• has treatment capacity of 64 MGD.
• treats surface water from the Licking River at the Taylor Mill plant in Kenton County.
• treats surface water from the Ohio River at the Fort Thomas Plant in Campbell County, which is also being renovated.
• treats surface water from the Ohio River at the Memorial Parkway Plant in Campbell County, which is also being renovated.

The Clermont County Water Resources Department
• serves large portions of Clermont County.
• has more than 120,000 customers.
• provides an average of 12.2 MGD.
• has treatment capacity of 27.7 MGD.
• treats groundwater from the Little Miami Aquifer at the MGS plant near Miamiville.
• treats groundwater from the Ohio River Valley Aquifer at the PUB plant near New Palestine.
• treats surface water from Harsha Lake at the Bob McEwen Water Treatment Plant in Batavia Township, and is renovating and expanding this plant to add 10 MGD of treatment capacity.

Each community water system approaches operations and planning independently, with resulting incremental effects on development. The primary forms of coordination among community water systems are intergovernmental agreements and contracts that enable some systems to purchase water from others and redistribute it to their own customers, or that enable interconnections so that systems have a back-up in case of contingencies and emergencies affecting their water sources or distribution systems. In addition, there is some degree of coordination between community water systems and local planning departments through the sharing of future population and land use projections. Nonetheless, not all community water suppliers in the region have a long-range plan for facilities and services and the majority of communities they serve do not incorporate facilities and services planning within their comprehensive plans.

Local Wastewater Facilities and Services
It is important to evaluate the sewage collection systems and treatment capacity of publicly owned wastewater treatment facilities in the context of land use development patterns and future population projections. This evaluation helps service providers in determining the need to increase capacity, extend existing facilities and services, or build new ones.

Table 4.1: Sewer and Wastewater Facilities and Use (2011)

<table>
<thead>
<tr>
<th>Geography</th>
<th>Major Sewer Service/Treatment Providers</th>
<th>Major Public Wastewater Treatment Plants</th>
<th>Average Daily Flow MGD</th>
<th>Capacity MGD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dearborn</td>
<td>6</td>
<td>6</td>
<td>4.29</td>
<td>7.77</td>
</tr>
<tr>
<td>Boone*</td>
<td>2</td>
<td>1</td>
<td>6.00</td>
<td>20.00</td>
</tr>
<tr>
<td>Campbell*</td>
<td>1</td>
<td>1</td>
<td>1.10</td>
<td>12.00</td>
</tr>
<tr>
<td>Kenton*</td>
<td>1</td>
<td>1</td>
<td>33.00</td>
<td>45.00</td>
</tr>
<tr>
<td>Butler</td>
<td>5</td>
<td>11</td>
<td>51.53</td>
<td>107.25</td>
</tr>
<tr>
<td>Clermont</td>
<td>6</td>
<td>12</td>
<td>15.76</td>
<td>28.65</td>
</tr>
<tr>
<td>Hamilton</td>
<td>5</td>
<td>12</td>
<td>188.89</td>
<td>206.48</td>
</tr>
<tr>
<td>Warren</td>
<td>7</td>
<td>8</td>
<td>19.39</td>
<td>31.24</td>
</tr>
<tr>
<td>OKI Region</td>
<td>31</td>
<td>52</td>
<td>319.98</td>
<td>458.39</td>
</tr>
</tbody>
</table>

*Sanitation District #1 of Northern Kentucky serves all three counties but is one organization. The sources of information for this table are Sanitation District #1 of Northern Kentucky and OKI Water Quality Management Plan Updates (for Butler, Clermont, Hamilton and Warren Counties, June 2011; for Dearborn County, July 2011)

As shown in Table 4.1, there are 31 major providers of sewer service and treatment for residents of the OKI region, this number does not include private providers of wastewater facilities such as mobile home parks and some commercial enterprises. These major providers manage 52 major publicly owned treatment plants with a total average flow of approximately 319,986 MGD and a total treatment capacity of 458,388 MGD. The
two largest providers of wastewater treatment in the region are the Metropolitan Sewer District of Greater Cincinnati (MSD) and Sanitation District 1 (SD1) of Northern Kentucky.

The Metropolitan Sewer District (MSD):
- serves 43 of the 49 Hamilton County jurisdictions and parts of Butler, Clermont and Warren Counties.
- covers an area of over 290 square miles.
- has more than 230,000 users/customers.
- treats an average of more than 184 MGD of wastewater.
- identifies facility projects and major pollution control initiatives in a project list by jurisdiction available via: http://projectgroundwork.org

Sanitation District 1 (SD1):
- serves more than 30 municipalities and unincorporated portions of Boone, Campbell and Kenton Counties in northern Kentucky.
- covers an area of over 220 square miles.
- serves more than 100,000 users/customers.
- treats an average of about 40 MGD of wastewater.
- identifies facility projects and major pollution control initiatives in a project list by county via: http://www.sd1.org/Projects/

Federal and State Stormwater and Wastewater Treatment Requirements

The National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources, or distinct passages (i.e. pipes or man-made ditches) that discharge pollutants into waters.

The federal Stormwater Phase II Final Rule requires the operator of a regulated municipal separate storm sewer system (MS4) to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage because the MS4’s stormwater discharges are considered point sources of pollution. They are considered point sources of pollution because they discharge stormwater into discrete passages. As part of this process, operators must design a stormwater management program that:

- Reduces the discharge of pollutants to the “maximum extent practicable”;
- Protects water quality; and
- Satisfies the appropriate water quality requirements of the Clean Water Act.

Phase II carries significant costs, particularly in older cities with aging infrastructure, such as Cincinnati, Covington, and Newport. Through the Clean Water Act, the federal government mandated the elimination of sanitary sewer overflows (SSOs) and a reduction of discharges from combined sewer overflows (CSOs). CSO's come from sewers built many years ago in older cities that receive not only domestic sewage but also rainwater during storm events, which results in a volume of wastewater too great for the sewer to handle, thereby causing overflows directly into nearby streams.

In 1999, MSD began negotiating with EPA, the State of Ohio, and the Department of Justice to establish a formal remediation program for CSOs and SSOs. The result was a 2003 Consent Decree between MSD and state and federal agencies. Similarly, SD1 in northern Kentucky entered into a Consent Decree in 2007. Both systems must file annual reports on their remediation programs.

A Regional Approach to Efficient Wastewater Facilities and Services Planning

As part of the 2006 Elements of an Effective Local Comprehensive Plan report, OKI addresses the need for communities to coordinate public facilities and services with future land use projections. OKI encourages communities to complete a facility capacity analysis, by geographic service area, indicating capacity surpluses and deficiencies for (Ibid, Section III.A.2.a):

- existing conditions, design capacity, and the current demand.
- an initial planning period of at least five years, based on projected demand.
- the remaining increment of the planning period using projected population and future land use distributions and any available
surplus capacity identified in the initial five-year incremental capacity analysis.

OKI also recommends that communities implement policies that maximize the use of existing facilities (Section III.A.3.b.3). Further study is needed to determine the extent to which communities are following such recommendations.

**Strategic Regional Issue #9**

*Adequate infrastructure does not keep pace with the impacts of development.*

Development impacts in 2005 clearly outpaced infrastructure in many cases. Although regional development has slowed since 2005, there are areas throughout the region where service and capacity do not exist to meet demand. There is a need to further evaluate SRI #9 by analyzing current development patterns in comparison to infrastructure.

**Maintaining Existing Facilities and Services**

As part of OKI’s *Elements of an Effective Comprehensive Plan* report (Section III.A.2. a-c), OKI encourages local governments to analyze the performance of existing facilities; problems and opportunities for replacement, expansion or new siting; and incremental planning steps. These analyses will help communities to effectively consider the costs associated with new and existing facilities and services, and to form strategic objectives and policies. Such analysis has never been more important, as communities find themselves struggling to sustain a level of service and infrastructure capacity based on development assumptions that have become more volatile because of economic fluctuations and the legacy of the "housing bubble".

**Maximizing the Use of Existing Infrastructure**

As part of OKI’s prioritization process for transportation projects, priority points are given to projects in areas with existing water and sewer infrastructure available. This promotes infill development and the utilization of infrastructure and facilities in brownfield and greyfield areas.

Rapid decline in the housing market since 2005 has resulted in instances of abandoned and underutilized infrastructure throughout the region. Further research should be completed to determine best practices or approaches in managing and capitalizing on this infrastructure.

**Strategic Regional Issue #10**

*There is little coordination among public facilities and services planning, transportation planning and land use planning.*

**Analysis of Comprehensive Plans for Planning Coordination**

OKI staff provides technical support at the request of local jurisdictions engaged in the comprehensive planning process. OKI maintains a record of local plans within the region including names, areas covered, date of recommendations, and reference to hard copies or electronic copies. OKI will conduct a local plan survey (2012-2013) to assess local planning efforts in the region, to determine if efforts have grown to coordinate public facilities and services planning with transportation and land use planning.

**State Codes Guiding Planning Coordination**

Each state has the power to set requirements or guidelines for comprehensive planning. In our region, each state has different legislation in place which hinders regional cohesion and coordination among neighboring comprehensive planning efforts. These differences are further discussed in the Land Use section.
5. Natural Systems

The Goal: Protect and improve the diversity and sustainability of the region’s natural systems.

Strategic regional issues identified in the SRPP for this goal are listed below, along with supporting data and regional indicators.

Strategic Regional Issue #11
Protection and sustainability of groundwater and surface water resources are not always addressed in local, state, regional and federal planning processes.

Planning for Clean Water
As the demands placed on water resources continue to grow, so does the need for local planning to protect them. The Clean Water Act, enacted in 1972 and subsequently reauthorized and amended, is the primary federal law for controlling pollution so as to achieve the national goal: to maintain and restore surface waters to levels that provide for the protection and propagation of fish, shellfish, and wildlife and recreation.

States’ responsibilities include establishing water quality standards, monitoring water resources, and administering programs and enforcing policies to reach clean water goals. States’ document progress and problems in attaining these goals for individual water resources in their bi-annual Integrated Water Monitoring and Assessment Reports.

OKI is the federally designated agency with responsibility for water quality management planning in this metropolitan area. OKI prepared the Regional Water Quality Management Plan in 1978. Since then, funding to maintain and update the plan has been limited and inconsistent, but OKI updated a plan for the four Ohio counties and for Dearborn County, Indiana in 2011. These plans identify wastewater facility planning areas and the designated agencies responsible for managing wastewater facilities, and also provide updated information on the conditions of local water resources, changes in land use and population distribution, and nonpoint source pollution and management. This information can serve as a foundation for local planning to protect water resources.

Planning to Protect Drinking Water Supply
The Safe Drinking Water Act (SWDA) was enacted in 1974 to protect public health by regulating public drinking water supply. It applies to any surface or ground water source that could be used for drinking water. Under the SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards.

- A major amendment in 1986 required the development of “Wellhead Protection Programs” for groundwater.
- Another major amendment in 1996 expanded protection programs for surface water sources, requiring “Source Water Assessment and Protection Programs” (SWAPs).
- State agencies administer the programs by which community water systems are required to develop a SWAP.
- SWAPs contain information and recommendations relevant for consideration in local comprehensive plans.

Drinking water in the OKI region is provided from both ground and surface water resources. The primary sources for the region’s drinking water include the Ohio River, the Ohio River Aquifer, Great Miami/Little Miami Buried Valley Aquifer System, Harsha Lake, the Licking River, and the Whitewater Aquifer.

Relevance of Water Resources to Local Comprehensive Plans
In its 2006 Elements of an Effective Local Comprehensive Plan, OKI encourages local governments to promote the conservation, preservation, and protection of groundwater and surface water resources in the region. As a basis for developing protective strategies, local plans...
should conduct a natural resource inventory that includes the locations and other information for: (Ibid, Section IV.A.1-4)

- Rivers, lakes, and groundwater,
- Floodplains,
- Watershed boundaries and
- Wetlands.

The analysis of these resources should consider existing provisions for conservation or protection existing and projected uses, and applicable state water conservation and use policies (Ibid, Section IV.B.4).

As a basis for reviewing SRPP goals and recommendations, OKI will conduct a survey of local plans (2012-2013) to determine if and how local jurisdictions provide for the sustainability of groundwater and surface water resources.

**Strategic Regional Issue # 12**

*The value and preservation of diverse natural systems, which includes air, water, wildlife, plantlife and land, are not always examined in local, state, regional and federal planning processes.*

**Support for Local Conservation Planning**

The National Environmental Policy Act (NEPA, 1970) calls for stewardship and for a sustainable environment balanced with other needs of present and future generations. To achieve this goal, NEPA targets decisions that involve the use of federal funds. The intention is to ensure that all branches of the federal government give proper consideration to the environment prior to action.

State agencies involved in conservation and protection produce considerable information useful for local planning to preserve natural systems. Since the SRPP’s adoption in 2005, major sources of new information on wildlife and plantlife and land systems include:

- updated information in the Natural Heritage Database for tracking rare animal and plant species.

- wildlife conservation plans that include needs and strategies for protecting species and the identification of priority conservation areas, which include rivers and streams and land areas in the OKI region;

- statewide forest assessments produced in 2012 that contain information relevant to the OKI region.

**Local Initiatives and Expanded Cooperation**

At the local level, various agencies, organizations and jurisdictions are working to preserve and enhance environmental resources. Examples of local organizations that have actively expanded conservation through several initiatives in the region in recent years include:

- The Northern Kentucky Urban and Community Forestry Council (NKUCFC), published forest assessments for Boone County in 2002, Kenton County in 2004 and Campbell County in 2006

- The Northern Kentucky University (NKU) Center for Applied Ecology partners with government agencies, non-profits, and private landowners to improve environmental stewardship in the region.

- The Green Umbrella recently transitioned into a “Regional Sustainability Alliance” that has expanded membership and is bringing more agencies into cooperative efforts. Among nine newly created “action teams,” the Land and Water action teams have both developed performance metrics for conservation efforts and are upgrading websites to provide technical resources and data.

- The Mill Creek Watershed Council of Communities is another organization that has expanded collaborative efforts to conserve resources. Its Twin Creek Preserve project restored upper reaches of the Mill Creek and created 8 acres of new floodplain wetlands. The Council provides a range of services and projects to reduce flooding, improve stormwater management, and enhance the Mill Creek’s natural attributes.

**Role of Regional Transportation Planning**

Requirements for regional transportation planning resulted in OKI’s conducting two rounds of environmental consultations with state and local agencies since 2005. Consultations involve
disussions of how the transportation plan might affect high-value environmental resources and how adverse effects might be avoided. The process has resulted in new data on local resources, new perspective on major environmental concerns, and new considerations for developing strategies to reduce harmful impacts – an expanded basis for regional and local planning.

The resources for which there is new data are “Regionally Significant Environmental Resources” (resources identified in state conservation plans, maps, or inventories) and include:

- the region’s least impaired streams and the river segments with highest value for aquatic habitat;
- local native species in each county that are federally or state listed as endangered, threatened, or rare;
- prime farmland (defined by the Natural Resources Conservation Service) and agricultural districts (enrolled in Ohio and Kentucky for 5-year protection programs)

One of the outcomes of the consultations was a modification of the scoring process used for recommending projects in the 2040 Long Range Transportation Plan. The modification gives more weight to projects that mitigate adverse impacts to Regionally Significant Environmental Resources and still more weight to projects that avoid impacts to those resources. This revised scoring can be used to encourage planning for local transportation projects that are more sensitive to their environmental impacts.

Relevance of Natural Resource Protection to Local Comprehensive Plans

In the 2006 Elements of an Effective Comprehensive Plan, OKI encourages local jurisdictions to complete an analysis to identify and inventory these natural resources (Section IV.A.5-8):

- commercially valuable minerals,
- areas that experience soil erosion problems,
- steep hillsides prone to landslides and
- the location and status of wildlife and vegetative communities, including the quality of forests (endangered, threatened, or of special concern).

The guidance document recommends that:

- “For each inventoried natural resource, the potential for conservation, use, or protection should be identified, based on evaluating intrinsic and economic values.” (Ibid, Section IV.B.2) and that
- policies should promote “cooperation with adjacent local governments to conserve, appropriately use, or protect any unique vegetative communities located within more than one local jurisdiction.” (Ibid, Section IV.C.3.i)

New Strategies to Reduce Air Pollution

Federal and state governments have strengthened efforts to address health concerns related to air quality. Some of these changes may create effects, opportunities or needs that should be considered in local and regional planning. At the federal level, changes have been made in standards for power plant emissions (the Cross-State Air Pollution Rule), Green House Gas (GHG) emissions and Miles per Gallon for Light Duty Vehicles, and low sulfur diesel and GHG emissions for Heavy Duty Vehicles.

At the state level changes have been made in regulations for reformulated and low Rapid Vapor Pressure (RVP) gas. At the local level, funding for Congestion Mitigation and Air Quality Improvement (CMAQ) has been used for clean buses, intersection improvements and the Regional Clean Air Program.

Impaired Streams and Watersheds

Information on impaired streams and watersheds from OKI’s Regional Water Quality Management Plan updates and State Integrated Water Quality Reports shows a continuing need to protect and improve local water resources. A watershed is a geographic area where water, sediments and dissolved materials drain to a common outlet, such as a lake, wetland, river or stream.
The States rank impaired waters in conjunction with preparing Total Maximum Daily Loads (TMDLs). A TMDL is a written quantitative assessment of problems in a water body and contributing sources of pollution. It specifies the amount a pollutant needs to be reduced to meet water quality standards, allocates pollutant load reductions, and provides the basis for taking actions to restore an impaired water body.

In the region’s four Ohio counties, 64 of the 82 watersheds are classified as impaired. In Dearborn County, 127 miles of the county’s 700 miles of streams and waterways are impaired. Of waterways that have been monitored in Boone, Campbell, and Kenton counties, 108 miles of streams and rivers and 57 acres of lakes are classified as impaired. Impaired water bodies increase costs because efforts are needed to avoid or reduce harmful impacts.

### Analysis of Impervious Surfaces

Impervious surfaces such as pavement and rooftops prevent rainfall infiltration, increasing runoff and potential erosion. Additional runoff increases pollutants, temperature, volume, and velocity and is a major source of impairments to stream quality and flow, stream channels, and aquatic habitat. Flash flooding can occur when heavy rains fall over these impervious surfaces and are quickly washed into nearby streams. In combined sewer areas, impervious surface further increases combined sewer overflows.

With funding from the Ohio EPA, OKI is in the process of developing an impervious surface inventory for the four Ohio counties. This data will be completed within 2012 and provide a useful tool for water quality management planning and for analyzing the built environment’s impact on watersheds and waterways in southwest Ohio. When coupled with information about the natural environment -- such as slopes, soils, stream corridors, and aquifers -- it can also be used to identify and potentially protect areas of increased runoff, sedimentation and stream bank erosion or reduced aquifer recharge.

### Strategic Regional Issue #13

There is little coordination among natural systems planning, land use planning and public facilities planning.

#### Relevance of Coordinated Approach for Local Comprehensive Plans

As part of the development of a local comprehensive plan, OKI’s *Elements of an Effective Local Comprehensive Plan* recommends coordination between natural systems, land use, and facilities and services planning. The OKI guidance document further recommends policies that:

- “protect water quality by restriction of activities and land uses known to adversely affect the quality of water resources” (Ibid, Section IV.C.3.a) and
- “promote the development of infill sites, greyfields, and brownfields to minimize the need for development of greenfields that may impact significant natural systems.” (Ibid, Section IV.C.3.p)

As a basis for developing the SRPP update, OKI will survey local comprehensive plans to develop a better understanding of the extent to which planning for natural systems, land use, and facilities and services are coordinated.

### Outcome of Environmental Consultations

One of the conclusions drawn from environmental consultations with state and local agencies was that the major environmental concerns discussed are not effectively addressed at the local level. More specifically, development and stormwater management practices and policies in general do not work to conserve forested areas, maintain stream corridors, divert roadway runoff from streams, protect streams not yet impaired, or slow the growth of impervious surface.

In discussion, participants clarified how planning for development can reduce costly environmental
impacts. The economic benefits of avoiding adverse environmental impacts were high-lighted by comments that “it’s cheaper to avoid impacts than to mitigate for them” and “it’s cheaper to protect environmental resources now than to restore them later.”

The financial implications of increased mitigation costs are the basis for the federal requirement for consultations at the regional level. The outcomes of discussion should be used to improve regional and local planning processes.

**Strategic Regional Issue #14**

Protection and sustainability of water resources are most effectively addressed on a watershed basis, while local governments make planning and budgeting decisions on a jurisdictional basis.

**Resources for Watershed Planning**

A number of watershed organizations have been formed whose members have collaborated or shared resources to benefit a specific water resource. (See Table 5.1 for a list of watershed organizations within our region and the waterway associated with them) A watershed focus can lead to strong collaborative efforts and sharing of resources among many natural systems organizations (e.g. conservation districts, storm water districts, sewer districts, county health districts, and institutions). These organizations provide the potential to further expand planning efforts that will benefit the watersheds they serve.

**Table 5.1: Organizations Engaged in Watershed Planning**

<table>
<thead>
<tr>
<th>Ohio</th>
<th>Kentucky</th>
<th>Indiana</th>
<th>Ohio River</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Miami River</td>
<td>Friends of the Great Miami (FOGM)</td>
<td>Banklick Watershed Council</td>
<td>Multiple</td>
</tr>
<tr>
<td></td>
<td>Rivers Unlimited (RU)— works in other waterways as well</td>
<td>Licking River Watershed Watch</td>
<td>Licking River Greenways &amp; Trails</td>
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<tr>
<td></td>
<td>Great Miami River Watershed Network</td>
<td>Multiple</td>
<td>Dearborn County Soil and Water Conservation District: Watershed Management Plans for Hogan Creek, Tanner Creek and Laughery Creek</td>
</tr>
<tr>
<td></td>
<td>Miami Conservancy District</td>
<td>Licking River Watershed Watch</td>
<td>Center for Ohio River Research and Education (Thomas More College Biology Department)</td>
</tr>
<tr>
<td></td>
<td>Butler County Stream Team (GMR, Mill Creek, LMR)</td>
<td>Licking River Watershed Watch</td>
<td>Ohio River Foundation</td>
</tr>
<tr>
<td></td>
<td>Great Miami Water Quality Monitoring Project (Unincorporated) - (University of Cincinnati, FOGM, RU, and Ham. Co. SWCD)</td>
<td>Licking River Watershed Watch</td>
<td>Ohio River Valley Water Sanitation Commission/ORSANCO (Water Education Foundation)</td>
</tr>
<tr>
<td>East Fork of the Little Miami River</td>
<td>Clermont County Office of Environmental Quality</td>
<td>Licking River Watershed Watch</td>
<td>Ohio River Way</td>
</tr>
<tr>
<td></td>
<td>East Fork Watershed Collaborative</td>
<td>Licking River Watershed Watch</td>
<td>River Watchers</td>
</tr>
<tr>
<td>Little Miami River</td>
<td>Greenacres Water Quality Project (WQP) Limited Liability Company (LLC) - Saturday Stream Snapshot</td>
<td>Licking River Watershed Watch</td>
<td>Multiple</td>
</tr>
<tr>
<td></td>
<td>Little Miami, Inc.</td>
<td>Licking River Watershed Watch</td>
<td>Center for Ohio River Research and Education (Thomas More College Biology Department)</td>
</tr>
<tr>
<td>Mill Creek</td>
<td>Little Miami River Partnership</td>
<td>Licking River Watershed Watch</td>
<td>Ohio River Foundation</td>
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<tr>
<td></td>
<td>Mill Creek Restoration Project</td>
<td>Licking River Watershed Watch</td>
<td>Ohio River Valley Water Sanitation Commission/ORSANCO (Water Education Foundation)</td>
</tr>
</tbody>
</table>

Several watershed-based planning efforts have been undertaken in the region. These include Watershed Action Plans, increased use of watersheds for stormwater management planning by SD1 and MSD, and Clermont County’s recent Watershed Balanced Growth Plan initiative. Watershed planning was one of the strategies suggested by local and state agencies in OKI Environmental Consultations. A Watershed Action Plan (WAP) is a comprehensive plan for protecting and improving a watershed, typically funded through EPA and local communities. This plan includes an inventory of watershed resources, assesses problems within the watershed, and details goals to protect these resources and to address problem areas.

Several WAPs have been completed in the four Ohio counties and submitted to the state for endorsement:

- Conditionally Endorsed – Pending
  - Stonelick Creek WAP in Clermont County
- Full Endorsement
  - East Fork Headwaters WAP – partially in Clermont County
  - East Fork Lake Tributaries WAP in Clermont County
  - Lower East Fork WAP in Clermont County
  - Middle East Fork WAP in Clermont County
  - Todd Fork WAP in Warren County
  - Twin Creek WAP in Warren County
Upper Mill Creek WAP in Butler County

In Kentucky, a WAP has been completed for Banklick Creek (mostly in Kenton County), and WAPs are in progress for Gunpowder Creek and Woolper Creek in Boone County.

Dearborn County has completed Watershed Management Plans for Tanners Creek, Hogan Creek, and South Laughery Creek.

In addition to conventional watershed planning, the Clermont Soil and Water Conservation District and Clermont County Planning Department completed a Balanced Growth Plan for the Middle East Fork sub-watershed which was endorsed by the state in 2012. The Ohio Balanced Growth Program is a state-wide initiative to help communities balance development and natural resource protection through local land use planning.

Potential New Issues for Consideration

Energy Efficiency

Since the SRPP was adopted in 2005, energy efficiency has become increasingly important for its environmental implications and its relevance to planning for sustainability. Its role in new buildings and renovations, and the implications of projected energy costs, are indicated below.

LEED (Leadership in Energy and Environmental Design) was developed by the U.S. Green Building Council (USGBC) in 2000 to promote designing and building at high performance levels in these areas:

- human and environmental health,
- sustainable site development,
- water savings,
- energy efficiency,
- materials and resource selection,
- indoor environmental quality,
- location and linkages,
- awareness and education,
- innovation in design, and
- regional priority.

The Cincinnati Regional Chapter of the USGBC maintains a list of existing and new LEED projects within our region. Currently there are over 20 LEED projects in our region that include homes, building additions, institutions and office buildings.

Founded in 2009, the Greater Cincinnati Energy Alliance (GCEA) provides reduced cost energy assessments and financial incentives to support energy improvements for homeowners, non-profit organizations, and commercial building owners. A 2011 study prepared by the GCEA estimates electricity consumption in the region to decrease at an average annual rate of -0.2 percent between 2008 and 2030. For the same time period, however, electricity costs are forecast to increase 53-55 percent. Accordingly, even though average usage is slightly decreasing, the forecasted increase in cost will have a dramatic regional impact.

Climate Change

Climate change is another issue that is becoming increasingly important for planning. A number of indicators point to our region’s need to address and prepare for climate change. According to the 2009 U.S. Global Climate Change Research Program our region is projected to experience:

- an average increase in temperature of 3-4°F in the next 30-50 years,
- an estimated 60-90 days with average temperatures over 90°F in the latter part of the 21st Century, compared to roughly 20 days now.
- a 30 percent increase in heavy precipitation is projected within the next 30 years.

Some parts of region have already taken steps that recognize the implications of climate change. The OKI 2040 Plan is the first Long Range Transportation Plan to acknowledge future effects of climate change as an issue when considering the design of future transportation facility investments. The City of Cincinnati developed a Climate Protection Action Plan in 2008 called the “Green Cincinnati Plan”. Hamilton County recently
launched the “Hamilton County Climate Initiative” under the leadership of county elected officials.

**OKI Greenspace Program**

OKI’s Greenspace Program is expanding resources to support local and regional conservation efforts. Through environmental consultations on the transportation plan and other initiatives, OKI has made considerable progress in developing GIS data, agency directories, resource inventories, perspective on local conservation needs, and information on local and state protection strategies. These resources are useful tools both for supporting and for promoting the expansion of greenspace and environmental resource protection.
6. Housing

The Goal: Offer a diverse mix of housing choices – in terms of size, price, type, transit accessibility and location – within communities throughout the region, and maintain and improve the quality of the housing stock in every community in the region, whether newer developments or older neighborhoods, owner-occupied or rental.

Strategic Regional Issue #15

The housing stock in the region’s older neighborhoods is in need of stabilization and revitalization in order to maintain the community’s fiscal strength and protect the property owner’s assets.

Condition and Age of Housing Stock

All counties have some degree of physical problems in their housing stock, such as lack of plumbing, non-working heating systems, no electricity, dangerous stairways, or leaking roofs. Many communities lack resources at the local level to identify, prevent, or eliminate these substandard housing conditions. Currently there is no uniform tool or strategy in place for measuring the condition of existing housing stock in the region. Few communities have the resources to comprehensively survey housing stock, much less address these issues.

Analysis of the Census Bureau’s decennial data and the American Community Survey’s 3-year estimates indicate the varying degrees of age in the region’s housing stock. According to the 2008-2010 American Community Survey estimates, the oldest housing stock is located in Hamilton County (see Table 6.1). Older housing stock that has not been updated may hinder a community’s ability to attract new homebuyers. This may result in disinvestment and decreasing property values in neighborhoods.

Property Assessment

Between 2000 and 2008, nearly all counties in the region experienced a steady increase in residential home values. After 2008 most counties in the region experienced a decline in home values until 2010 (see Figure 6.1).

As of 2010, Hamilton County fell nearly $45,000 shy of national average median home values and below all other counties in the region. Warren County continues to have the highest median home values in the region and is approximately $6,000 below the 2010 national average. In 2010, Cincinnati MSA median home values increased to $162,200, while the U.S. values increased above $197,000 (see Figure 6.1).

Table 6.1: Median Year of Construction

<table>
<thead>
<tr>
<th>Geography</th>
<th>2000 (Estimate)</th>
<th>2008-2010 (Estimate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dearborn</td>
<td>1974</td>
<td>1979</td>
</tr>
<tr>
<td>Boone</td>
<td>1986</td>
<td>1993</td>
</tr>
<tr>
<td>Campbell</td>
<td>1958</td>
<td>1965</td>
</tr>
<tr>
<td>Kenton</td>
<td>1965</td>
<td>1968</td>
</tr>
<tr>
<td>Butler</td>
<td>1972</td>
<td>1975</td>
</tr>
<tr>
<td>Clermont</td>
<td>1977</td>
<td>1981</td>
</tr>
<tr>
<td>Hamilton</td>
<td>1958</td>
<td>1958</td>
</tr>
<tr>
<td>Warren</td>
<td>1980</td>
<td>1990</td>
</tr>
<tr>
<td>Metro Area</td>
<td>1966</td>
<td>1970</td>
</tr>
</tbody>
</table>


Figure 6.1: Cincinnati MSA Median Home Value vs. U.S. Median Home Value (2000-2010)
Housing Assistance and Rehabilitation Programs

The region receives roughly $25 million in annual HUD funding through the Community Development Block Grant (CDBG) and HOME programs. To receive funding, jurisdictions must be covered by a Consolidated (Housing) Plan that examines community development and housing needs. The Federal funds must be used to eliminate slum/blight or to benefit low or moderate-income residents.

With federal funding and programs being cut, local jurisdictions are finding other ways to provide assistance and support for residents to rehabilitate or renovate properties. Within our region, some county and local jurisdictions are providing assistance and support for housing repair, rehabilitation and preservation, including:

- The City of Cincinnati
  - Housing Maintenance Services (emergencies)
  - Lead Paint Information (hazard reduction assistance)
  - Rental Rehab
  - Single Family Support Fund (SFSF)
  - Residential Tax Abatement
  - Neighborhood Support Program
  - People Working Cooperatively
- The City of Covington
  - Homeowner Repair (through CDBG)
  - Homeowner Rehab (through CDBG)
  - Homeowner Façade (through CDBG)
  - Preservation Workshops and Seminars
  - General Preservation Assistance
- Butler County, Ohio
  - Home Repair (emergencies)
  - Single Family Rehabilitation (Substandard Conditions)
- Clermont County, Ohio
  - Clermont County Community Housing Improvement Program (CHIP)
    - Home Repair
    - Owner Private Rehabilitation
  - HUD Rehab Guide
  - Community Housing Improvement Strategy (CHIS)
- Hamilton County, Ohio
  - Home Improvement Program (HIP)
  - People Working Cooperatively

Addressing the Deterioration of Housing Stock and Sub-standard Housing Conditions

As of 2005, no local comprehensive plan reviewed by OKI addressed the identification, prevention, or elimination of substandard housing conditions. No local comprehensive plan reviewed by OKI addressed deterioration of housing stock in relation to the community’s quality of life. In addition, Consolidated Plans or housing plans are not usually considered in a community’s comprehensive plan. Because of its multi-faceted focus, the comprehensive plan is an appropriate document to consider and address the condition of the community’s housing stock. OKI will conduct a local plan survey (2012-2013) to inventory methods used in local planning efforts in the region to address housing stock.

As part of OKI’s Elements of an Effective Local Comprehensive Plan, OKI encourages local governments to complete a housing stock inventory. This inventory will help local governments to develop policies about the quality of housing and conserving, rehabilitating, or demolishing housing units, including historically significant housing.

Strategic Regional Issue #16

Generally, there is a lack of housing convenient to transit and services such as shopping and daycare.

As a result of traditional development patterns commercial retail operations and fixed transit systems are predominantly located along business corridors and neighborhood cores, away from many residential neighborhoods. Figure 6.2 on the following page illustrates the proximity of residential neighborhoods in relation to a quarter mile or walkable distance from commercial retail operations and fixed transit routes. A large percentage of the region’s residential neighborhoods lack convenient access to commercial retail and fixed transit routes.
Population Density
From 1990 to 2000 and again from 2000 to 2010, the region’s urbanized land increased at a greater rate than the population increased. Between 2000 and 2010 the urbanized land area increased by approximately 17 percent, while the population increased by only 6 percent. The final two columns in Table 6.2 show the overall urbanized area and total population densities of the region and of the US. The values represent the number of people per acre. The larger the value, the more dense the development patterns are.

Transportation Cost
Transportation costs continue to rise due to higher fuel prices and the distances traveled to and from places of employment and residences. As mentioned in the Transportation section, households in the region spend between 15 and 35 percent of their incomes on transportation related expenses (see Table 6.3 on the following page).

Table 6.2 Total and Urbanized Land Densities

<table>
<thead>
<tr>
<th>Geography</th>
<th>Urbanized Area Population</th>
<th>Total Population</th>
<th>Urbanized Area (acres)</th>
<th>Total Area (acres)</th>
<th>Urbanized Area per Capita</th>
<th>Urbanized Area Population Density (acre)</th>
<th>Total Population Density (acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OKI 1990</td>
<td>1,428,838</td>
<td>1,744,124</td>
<td>403,776</td>
<td>1,659,328</td>
<td>0.2315</td>
<td>3.5387</td>
<td>1.0511</td>
</tr>
<tr>
<td>OKI 2000</td>
<td>1,503,262</td>
<td>1,886,650</td>
<td>429,932</td>
<td>1,658,393</td>
<td>0.2279</td>
<td>3.4965</td>
<td>1.1376</td>
</tr>
<tr>
<td>OKI 2010</td>
<td>1,624,827</td>
<td>1,999,474</td>
<td>504,154</td>
<td>1,657,171</td>
<td>0.2521</td>
<td>3.2229</td>
<td>1.2066</td>
</tr>
<tr>
<td>US 2000</td>
<td>192,323,824</td>
<td>281,421,906</td>
<td>47,296,000</td>
<td>2,263,960,320</td>
<td>0.1681</td>
<td>4.0664</td>
<td>0.1243</td>
</tr>
<tr>
<td>US 2010</td>
<td>219,922,123</td>
<td>308,745,538</td>
<td>56,065,920</td>
<td>2,260,419,475</td>
<td>0.1816</td>
<td>3.9226</td>
<td>0.1366</td>
</tr>
</tbody>
</table>

Low density development patterns and financial constraints have made it difficult for the seven public transportation providers to efficiently reach all urban and suburban residences and Environmental Justice (EJ) populations.

**Strategic Regional Issue #17**

**Affordable housing is not consistently available throughout the region.**

**Percent of Income Spent on Housing**

Affordable housing is often misunderstood and seen as undesirable by many communities. For many, affordable housing implies properties that are subsidized by federal programs, or that accept Housing Choice Vouchers or “Section 8” properties. The appropriate measure for housing affordability is the housing cost burden, or the percentage of a household’s income spent on housing. Households spending more than 30 percent of their income on housing have an excessive cost burden. According to the 2008-2010 American Community Survey, more than 24 percent of all households in every county in the region have an excessive housing cost burden (see **Table 6.4**).

For example, Warren County has the highest median household income in the region at nearly $70,000, but also has the highest percentage of households spending over 30 percent of their income on housing, at over 55 percent. **Figure 6.3**, on the following page, illustrates the percentage of household income spent on housing within the region. Regionally, the highest concentration of household expenditures on housing is located along the eastern edge of Butler and Hamilton counties and the western edges of Clermont and Warren counties.

The issue of housing costs relative to income has been exacerbated in recent years by the sub-prime lending crisis and economic recession. In the 14-county metropolitan area, the number of households experiencing severe housing cost burden has increased significantly, from 18.2 percent in 2000 to 26.5 percent in 2010, according to the 2011 Housing Report by Affordable Housing Advocates.

Many federal programs provide rental assistance to families, seniors and those with disabilities on a sliding scale and require tenants to pay 30 percent of their income for rent. In Hamilton County, of those to receive housing subsidies,

<table>
<thead>
<tr>
<th>Geography</th>
<th>Annual Trans. Costs (Median $)</th>
<th>Household Income Level (Median $)</th>
<th>% of Household Income Spent on Transportation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>15-25% 25-30% 30-35%</td>
</tr>
<tr>
<td>Dearborn</td>
<td>14,988</td>
<td>55,994</td>
<td>0.0 33.4 66.6</td>
</tr>
<tr>
<td>Boone</td>
<td>13,632</td>
<td>66,587</td>
<td>6.4 80.4 13.2</td>
</tr>
<tr>
<td>Campbell</td>
<td>12,072</td>
<td>49,212</td>
<td>32.6 56.5 10.9</td>
</tr>
<tr>
<td>Kenton</td>
<td>11,976</td>
<td>51,646</td>
<td>31.9 61.6 6.5</td>
</tr>
<tr>
<td>Butler</td>
<td>12,984</td>
<td>54,274</td>
<td>3.7 83.8 12.5</td>
</tr>
<tr>
<td>Clermont</td>
<td>13,956</td>
<td>59,738</td>
<td>0.0 68.5 31.5</td>
</tr>
<tr>
<td>Hamilton</td>
<td>11,520</td>
<td>47,541</td>
<td>45.7 52.1 2.2</td>
</tr>
<tr>
<td>Warren</td>
<td>13,864</td>
<td>69,143</td>
<td>0.0 78.4 21.6</td>
</tr>
<tr>
<td>*OKI Region</td>
<td>12,456</td>
<td>56,767</td>
<td>25.2 63.5 11.3</td>
</tr>
</tbody>
</table>

Source: * Based on a weighted average for the 8-county region. http://factfinder2.census.gov

<table>
<thead>
<tr>
<th>Geography</th>
<th>Annual Housing Costs (Median $)</th>
<th>Household Income Level (Median $)</th>
<th>% of Household Income Spent on Housing (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Less than 20% 20-30% 30-40% 40-45% Greater than 45%</td>
</tr>
<tr>
<td>Dearborn</td>
<td>11,268</td>
<td>55,994</td>
<td>41.6 58.4 0 0 0</td>
</tr>
<tr>
<td>Boone</td>
<td>13,392</td>
<td>66,587</td>
<td>20.6 48.3 26.3 4.8 0</td>
</tr>
<tr>
<td>Campbell</td>
<td>10,032</td>
<td>49,212</td>
<td>46.1 46.0 7.8 0 0</td>
</tr>
<tr>
<td>Kenton</td>
<td>10,980</td>
<td>51,646</td>
<td>46.2 46.0 7.8 0 0</td>
</tr>
<tr>
<td>Butler</td>
<td>11,808</td>
<td>54,274</td>
<td>34.2 43.3 16.9 3.9 1.8</td>
</tr>
<tr>
<td>Clermont</td>
<td>12,588</td>
<td>59,738</td>
<td>26.4 55.1 10.7 6.1 1.6</td>
</tr>
<tr>
<td>Hamilton</td>
<td>10,848</td>
<td>47,541</td>
<td>42.6 40.9 12.2 2.2 2.1</td>
</tr>
<tr>
<td>Warren</td>
<td>15,564</td>
<td>69,143</td>
<td>13.2 30.1 42.3 8.9 5.9</td>
</tr>
<tr>
<td>*OKI Region</td>
<td>12,060</td>
<td>56,767</td>
<td>36.2 43.0 15.6 3.3 1.9</td>
</tr>
</tbody>
</table>

Source: * Based on a weighted average for the 8 county region. http://factfinder2.census.gov
Distribution of Affordable Housing

In the region there are an estimated 35,000 subsidized housing units, the majority of which are located in Hamilton, Kenton and Campbell counties. The demand for these subsidized units however, is spread throughout the region’s eight counties.

The demand for subsidized housing in the OKI region is an estimated four times greater than the existing supply. As a result, many low income households who need and qualify for subsidized rental housing are unable to receive it. In Hamilton County alone, there are approximately 24,000 subsidized rental units, while 121,000 households qualify for subsidies by level of income. Demand has been so great that the Housing Choice Voucher program waiting list was closed from 2007 until 2011. When the waiting list opened in 2011 for five days, over 19,000 families applied (Ibid, 2011 Housing Report).

Strategic Regional Issue #18

Distressed public school districts affect and are affected by the surrounding neighborhoods.

In a 2002 comparative study of the 25 largest metropolitan areas by Myron Orfield of American Metropolitics, the OKI region’s schools displayed the seventh worst degree of segregation by income. While segregation impacts local schools to varying degrees, there is a general misconception of school quality and performance in the region, especially in more urban districts. According to 2010 and 2011 State Report Cards, on a county level and within nearly all individual schools analyzed, performance measures in the region were at or above national standards and average ratings, and have been improving overall each year (see Table 6.5 and Table 6.6 on the following page).
Each state develops their own performance measure rating, based on test scores and national standards. Ohio and Indiana follow a similar system, in which a performance rating is given to each school and a final qualitative rating is also given based on the performance rating and the previous year’s scores (see Table 6.6). The table shows the qualitative ratings and the number of schools within each county falling under that category.

Kentucky uses a test based performance system for elementary, middle, and high school age groups. A combined percentage of Proficient and Distinguished students are compared to the state average (see Table 6.5). Since 2005, all three Kentucky counties in the region have scored above the state average and continue to improve.

Table 6.5: School Performance Kentucky (2010)

<table>
<thead>
<tr>
<th>Geography</th>
<th>Distinguished and Proficient</th>
<th>Apprentice and Novice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boone</td>
<td>70.52</td>
<td>29.48</td>
</tr>
<tr>
<td>Campbell</td>
<td>69.24</td>
<td>30.76</td>
</tr>
<tr>
<td>Kenton</td>
<td>63.39</td>
<td>36.61</td>
</tr>
<tr>
<td>State of Kentucky</td>
<td>61.91</td>
<td>38.09</td>
</tr>
</tbody>
</table>


Strategic Regional Issue #19
Socioeconomic issues continue to fuel migration within the region.

A 2011 study by the Brookings Institute, using 2010 Census data, found that Cincinnati, Ohio is the 8th most segregated metro region in the nation. On average, regional neighborhoods have three times more whites than blacks or vice versa. The latter is true especially in Hamilton County where 85 percent of the region’s black population lives. The magenta shading in Figure 6.4 show tracts that are over 50 percent black. Surprisingly, Hamilton County has an increasing number of integrated communities compared to any other county in the region.

Figure 6.4 Dissimilarity Map for Cincinnati


Potential New Issues for Consideration

Homelessness

Homelessness affects thousands of people per day within the OKI region. States are required by the Department of Housing and Urban Development (HUD) to complete a biennial Point-in-Time Count (PIT) of sheltered and unsheltered homeless persons one evening out of the year. Table 6.7 on the following page, shows the regional counts for 2010 and 2011, as well as the percent change between the two years. Only

Table 6.6: School Performance Ohio (2011) and Indiana (2010)

<table>
<thead>
<tr>
<th>Ohio</th>
<th>Excellent with Distinctions</th>
<th>Excellent</th>
<th>Effective</th>
<th>Continuous Improvement</th>
<th>Watch</th>
<th>Emergency</th>
<th>Not Rated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butler</td>
<td>19</td>
<td>23</td>
<td>18</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Clermont</td>
<td>9</td>
<td>26</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hamilton</td>
<td>12</td>
<td>68</td>
<td>44</td>
<td>42</td>
<td>10</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Warren</td>
<td>4</td>
<td>28</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Indiana</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Clermont and Hamilton counties experienced an increase in PIT homeless populations during this study.

Table 6.7: Point-in-Time Homeless Counts (2010 & 2011)

<table>
<thead>
<tr>
<th>County</th>
<th>2010 PIT Homeless</th>
<th>2011 PIT Homeless</th>
<th>2010-2011 %Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butler</td>
<td>189</td>
<td>162</td>
<td>-14.29%</td>
</tr>
<tr>
<td>Clermont</td>
<td>95</td>
<td>98</td>
<td>3.16%</td>
</tr>
<tr>
<td>Hamilton</td>
<td>1008</td>
<td>1275</td>
<td>26.49%</td>
</tr>
<tr>
<td>Warren</td>
<td>317</td>
<td>312</td>
<td>-1.58%</td>
</tr>
<tr>
<td>Boone</td>
<td>116</td>
<td>9</td>
<td>-92.24%</td>
</tr>
<tr>
<td>Campbell</td>
<td>122</td>
<td>93</td>
<td>-23.77%</td>
</tr>
<tr>
<td>Kenton</td>
<td>406</td>
<td>296</td>
<td>-27.09%</td>
</tr>
<tr>
<td>Dearborn</td>
<td>n/a</td>
<td>n/a</td>
<td>-14.29%</td>
</tr>
<tr>
<td>OKI Region</td>
<td>2253</td>
<td>2245</td>
<td>-0.36%</td>
</tr>
</tbody>
</table>


Regions and communities take part in annual unduplicated counts that provide trend data and accurate counts on demographic profiles for Outreach, Shelter, Transitional Housing, Rapid Rehousing, and Permanent Supportive Housing Programs. The Partnership Center Ltd. conducts the annual unduplicated count for Hamilton County. In 2009 there were 7,325 unduplicated men, women, and children identified as homeless (4,981 adults and 2,344 children). In 2011 this number increased to 7,838 unduplicated men, women, and children (5,368 – adults and 2,470 children).

Foreclosures, Abandoned Developments & Unfinished Neighborhoods

There were over 5,600 foreclosure filings in our most urbanized county (Hamilton County) in 2011. Since 2008, the number of foreclosure filings within six of the eight OKI counties fluctuated slightly, only Butler and Hamilton counties have experienced the greatest change in annual foreclosure filings (see Table 6.8).

In 2011, Butler County had the highest foreclosure rate of any county in the State of Ohio. The number of foreclosure filings does not take into account the number of households that have defaulted on their mortgage payments. National mortgage default trends have remained steady over the past year and these trends are expected to continue. Local and national realty experts predict that national foreclosures will remain high through 2012. Another issue facing many homeowners in cities where home values have decreased drastically is that their debt exceeds the property's fair market value. This is known as the “upside-down” effect caused by economic strains on the housing market.

In 2011, local news stations reported on the abandonment and foreclosure of many properties located along the suburban fringe. Several subdivisions in outer suburbs remain unfinished, placing existing new construction and property values in real jeopardy. Roads and sidewalks are incomplete and planned parks, bike paths and other amenities remain non-existent.

Community developers are typically required to post a performance bond which ensures that money is available to complete improvements on infrastructure, such as roadways and sidewalks. In order to ensure a certain level of quality workmanship and materials in the improvements completed by a developer, a maintenance bond should be posted. This bond extends for a set period of time after completion of the

Table 6.8: Annual Foreclosure Filings

<table>
<thead>
<tr>
<th>Geography</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total 2008-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butler</td>
<td>3,532</td>
<td>4,249</td>
<td>3,166</td>
<td>3,330</td>
<td>14,277</td>
</tr>
<tr>
<td>Clermont</td>
<td>1,742</td>
<td>1,342</td>
<td>1,402</td>
<td>1,591</td>
<td>6,077</td>
</tr>
<tr>
<td>Hamilton</td>
<td>7,793</td>
<td>6,120</td>
<td>6,556</td>
<td>5,696</td>
<td>26,135</td>
</tr>
<tr>
<td>Warren</td>
<td>1,558</td>
<td>1,498</td>
<td>1,450</td>
<td>1,307</td>
<td>5,813</td>
</tr>
<tr>
<td>Boone</td>
<td>86</td>
<td>375</td>
<td>*n/a</td>
<td>49</td>
<td>*510</td>
</tr>
<tr>
<td>Campbell</td>
<td>253</td>
<td>401</td>
<td>*n/a</td>
<td>90</td>
<td>*744</td>
</tr>
<tr>
<td>Kenton</td>
<td>1,055</td>
<td>1,034</td>
<td>*n/a</td>
<td>367</td>
<td>*2,456</td>
</tr>
<tr>
<td>Dearborn</td>
<td>166</td>
<td>*n/a</td>
<td>*n/a</td>
<td>57</td>
<td>*223</td>
</tr>
<tr>
<td>OKI Region</td>
<td>16,185</td>
<td>*15,019</td>
<td>*12,574</td>
<td>12,487</td>
<td>*56,265</td>
</tr>
</tbody>
</table>

infrastructure improvements until they are accepted by the local government for public use.

These are options communities can take to protect local residents and themselves from developers walking away from a project without finishing promised infrastructure improvements. However, in many cases, these bonds do not cover all the expenses a jurisdiction will incur if a developer walks away from a development and its infrastructure.

**Housing Mismatch**

The OKI region has an excess of ‘new’ housing stock, particularly large single family homes that may not meet the future demands of the region’s population. Many anticipate the future housing types desired by many in the aging population, such as the ‘baby boomers’, and younger generations include smaller homes and lots in more walkable and multi-modal communities with many local amenities. In many cases, the existing housing stock is located in neighborhoods that do not provide the necessary and desired amenities to support the growing demands.
7. Economic Development

The Goal: Improve cooperation and coordination on economic development efforts and opportunities throughout the region, and provide incentives for such cooperation in order to make our region the location of choice for diverse businesses and to build the regional tax base.

Strategic Regional Issue #20

Suburbs and cities are linked in a single regional economy, but numerous economic development organizations operate without a common mission, plan, or coordination and compete for economic development opportunities.

Regional Economy: Income Growth and Employment

As described by the 2001 OKI Elements of a Strong Regional Economy, job and income generation are the single most important objectives of any economy and economic development strategy.

Over the past two decades the region’s median household income levels have continued to increase (see Table 7.1). Many counties within the region experienced employment growth from 1990-2008. Hamilton County was the exception, with a loss of nearly 100,000 employed persons between 2000 and 2008. Between 2008 and 2009, all counties experienced a loss in total employment (see Table 7.2). In 2010, Dearborn and Warren counties experienced a growth in total employment.

Table 7.1: Median Household Income (1990-2010)

<table>
<thead>
<tr>
<th>Geography</th>
<th>1990</th>
<th>2000</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dearborn</td>
<td>$31,398</td>
<td>$48,899</td>
<td>$55,994</td>
</tr>
<tr>
<td>Boone</td>
<td>$34,485</td>
<td>$53,593</td>
<td>$66,587</td>
</tr>
<tr>
<td>Campbell</td>
<td>$29,228</td>
<td>$41,903</td>
<td>$49,212</td>
</tr>
<tr>
<td>Kenton</td>
<td>$30,516</td>
<td>$43,906</td>
<td>$51,646</td>
</tr>
<tr>
<td>Butler</td>
<td>$32,440</td>
<td>$47,885</td>
<td>$54,274</td>
</tr>
<tr>
<td>Clermont</td>
<td>$32,465</td>
<td>$49,386</td>
<td>$59,738</td>
</tr>
<tr>
<td>Hamilton</td>
<td>$29,498</td>
<td>$40,964</td>
<td>$47,541</td>
</tr>
<tr>
<td>Warren</td>
<td>$36,728</td>
<td>$57,952</td>
<td>$69,143</td>
</tr>
</tbody>
</table>

*OKI Regional Average $32,095 $48,061 $56,767


Economic Development Activities in the Region

Since the 2005 Strategic Regional Policy Plan, there have been a growing number of economic development organizations forming within the region. Local communities, counties, and private entities are establishing new economic development organizations to compete regionally and locally for companies and jobs. In Ohio, the formulation of port authorities has been used as a tool to facilitate economic development activities. Examples include the Butler County Port Authority (2005) and the Warren County Port Authority (2007).

The partnerships created by the Port of Greater Cincinnati Development Authority with the City of Cincinnati and Hamilton County have led to a

Table 7.2: Total Employment (1990-2010)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dearborn</td>
<td>8,646</td>
<td>10,581</td>
<td>13,322</td>
<td>14,424</td>
<td>14,757</td>
<td>15,002</td>
<td>15,357</td>
<td>13,609</td>
<td>13,690</td>
</tr>
<tr>
<td>Boone</td>
<td>32,033</td>
<td>39,931</td>
<td>58,492</td>
<td>60,042</td>
<td>62,409</td>
<td>67,420</td>
<td>68,679</td>
<td>63,815</td>
<td>61,688</td>
</tr>
<tr>
<td>Campbell</td>
<td>18,544</td>
<td>20,206</td>
<td>23,371</td>
<td>25,489</td>
<td>24,096</td>
<td>24,147</td>
<td>24,531</td>
<td>24,325</td>
<td>23,908</td>
</tr>
<tr>
<td>Kenton</td>
<td>45,502</td>
<td>55,238</td>
<td>63,831</td>
<td>62,781</td>
<td>70,519</td>
<td>63,078</td>
<td>75,996</td>
<td>74,080</td>
<td>68,711</td>
</tr>
<tr>
<td>Butler</td>
<td>84,530</td>
<td>94,630</td>
<td>114,422</td>
<td>123,211</td>
<td>129,734</td>
<td>131,861</td>
<td>135,320</td>
<td>129,208</td>
<td>120,242</td>
</tr>
<tr>
<td>Clermont</td>
<td>31,019</td>
<td>37,699</td>
<td>48,106</td>
<td>50,355</td>
<td>52,623</td>
<td>50,761</td>
<td>50,316</td>
<td>47,231</td>
<td>44,640</td>
</tr>
<tr>
<td>Hamilton</td>
<td>517,092</td>
<td>522,152</td>
<td>556,563</td>
<td>479,873</td>
<td>485,622</td>
<td>480,658</td>
<td>481,991</td>
<td>460,652</td>
<td>450,229</td>
</tr>
<tr>
<td>Warren</td>
<td>28,910</td>
<td>39,436</td>
<td>59,045</td>
<td>63,760</td>
<td>68,822</td>
<td>72,208</td>
<td>74,238</td>
<td>72,061</td>
<td>72,171</td>
</tr>
</tbody>
</table>

*OKI Region 766,276 819,873 937,152 879,935 908,582 905,135 926,428 884,981 855,279


*Calculation for 8-county region based on county-level data.
variety of development projects including the National Underground Railroad Freedom Center, the Great American Tower at Queen City Square, and the Cincinnati Zoo & Botanical Gardens parking facility. The Port Authority provides bond financing to local projects. In Northern Kentucky, the Tri-County Economic Development Corporation or Northern Kentucky Tri-ED is a non-profit economic development organization serving Boone, Campbell and Kenton counties in Northern Kentucky. In Indiana, the Dearborn County Economic Development Initiative and the Southeast Indiana Growth Alliance promotes economic development activities and available incentives in southeast Indiana.

The Cincinnati USA Partnership is a 15 county regional economic development initiative and catalyst to promote a regional approach to economic development. Nearly 200 communities and public economic development organizations support the Partnership. The Partnership works to identify regional economic opportunities and market the region domestically and internationally. In the second half of 2011, the Cincinnati USA Partnership was selected as the region’s JobsOhio Network Partner for the southwest Ohio region. JobsOhio was established in February 2011 as the lead economic development arm of the state. By being selected as a regional partner to JobsOhio, the Cincinnati Partnership plays a significant role in promoting economic development regionally and in serving as the access point to state economic development grants and incentives. For the past 10 years, Site Selection Magazine has nationally ranked the Cincinnati Partnership in the top 10 for Business Expansion.

Additionally, there are two regional action plan agencies that work collaboratively to address social and economic issues within the region. Agenda 360 is a regional action plan for the four Southwest Ohio counties of Butler, Clermont, Hamilton, and Warren. The organization and its partners developed specific quantifiable goals, including those related to business growth and a qualified workforce. Quantitative measures allow Agenda 360 and its partners to appropriately focus resources. In Northern Kentucky, Vision 2015 was established to work with community members on a shared public plan for Northern Kentucky’s future. The six critical areas identified and addressed through Vision 2015 include economic competitiveness, educational excellence, urban renaissance, livable communities, effective governance, and regional stewardship. In 2010, Agenda 360 and Vision 2015 began collaboration efforts on a Regional Indicators Project to produce a report, Our Region by the Numbers. This report is a critical self-examination of the region’s performance compared to other regions with which our region competes.

In 2011, Agenda 360 and Vision 2015 began collaborative efforts to develop The Story Project, which will result in a master narrative that captures the history and assets of the Greater Cincinnati community. This project is about uncovering the essence of the region and why its unique qualities create an extraordinary place with rich resources and high potential. The narrative is intended to provide a platform for developing a consistent and compelling message about the region for a range of audiences including economic development professionals, elected leaders and other policymakers.

**Strategic Regional Issue # 21**

*Economic vitality depends on an educated, skilled workforce.*

**Regional Workforce**

The region continued to increase its civilian labor force by 10 percent from 1990 to 2000 and again from 2000 to 2010, for an overall increase of 20 percent from 1990 to 2010 (see Table 7.3).
Educational Attainment in the Region

An educated and skilled workforce is at the base of a vital economy. Employers need to be confident that if they relocate or expand their business in this region, there will be qualified employees to fill positions.

In a 1999 report on the future of the Cincinnati Metro Region, Michael Gallis, one of the country’s leading experts in large-scale metropolitan regional development strategies stated that “the development of an educated and skilled regional workforce is the most important competitive advantage a region can have.” According to the 2008-2010 American Community Survey estimates, educational attainment throughout the region is comparable to the national average for persons 25 years of age and older. All counties in the region are above the national average for receiving a high school diploma or equivalent, except Hamilton and Warren counties which fall just below the national average of 28.4 percent. For receiving a Masters or Professional degree, all counties in the region are below the national average, except Hamilton and Warren Counties (see Table 7.4).

Studies completed by Employers First Regional Workforce Network (EFRWN) since 2008 found that one in three local businesses struggle to find qualified workers in our region. EFRWN states that “fragmented services that are difficult for employers to navigate, and an inadequately prepared workforce that lacks the technical and professional skills demanded by employers,” are issues within the region. EFRWN has worked with private and non-profit agencies to develop workforce improvement programs for the healthcare, construction, and advanced manufacturing industries. EFRWN also works with businesses to find the qualified workforce they need to compete within the region.

Migration Trends of the Region’s Educated Professionals

Migration patterns have a correlative relationship to the quality and type of workers available. Talent is highly mobile and moves toward the places with the most to offer in terms of opportunities and quality of life. A decrease in young professionals in a region can cause a “brain drain” effect that particularly impacts the technology-based portion of an economy, but can

Table 7.4: Educational Attainment within the Region Compared to US Average

<table>
<thead>
<tr>
<th>Geography</th>
<th>Population 25 Years and Over</th>
<th>No Diploma or Degree Completed</th>
<th>High School Graduate, GED, or Equivalent</th>
<th>Some College - No Degree</th>
<th>Associate’s Degree</th>
<th>Bachelor’s Degree</th>
<th>Graduate or Professional Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dearborn</td>
<td>33,416</td>
<td>11.0%</td>
<td>40.2%</td>
<td>22.4%</td>
<td>8.2%</td>
<td>12.3%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Boone</td>
<td>75,306</td>
<td>9.2%</td>
<td>30.4%</td>
<td>22.6%</td>
<td>8.7%</td>
<td>19.2%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Campbell</td>
<td>58,939</td>
<td>13.1%</td>
<td>34.7%</td>
<td>19.9%</td>
<td>6.4%</td>
<td>15.7%</td>
<td>10.2%</td>
</tr>
<tr>
<td>Kenton</td>
<td>105,313</td>
<td>12.2%</td>
<td>31.7%</td>
<td>21.5%</td>
<td>7.1%</td>
<td>17.9%</td>
<td>9.6%</td>
</tr>
<tr>
<td>Butler</td>
<td>233,286</td>
<td>12.8%</td>
<td>34.1%</td>
<td>20.1%</td>
<td>6.7%</td>
<td>16.8%</td>
<td>9.5%</td>
</tr>
<tr>
<td>Clermont</td>
<td>130,041</td>
<td>12.4%</td>
<td>35.5%</td>
<td>19.6%</td>
<td>6.8%</td>
<td>16.7%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Hamilton</td>
<td>527,445</td>
<td>12.0%</td>
<td>27.5%</td>
<td>20.2%</td>
<td>7.6%</td>
<td>20.3%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Warren</td>
<td>138,448</td>
<td>8.7%</td>
<td>27.6%</td>
<td>19.4%</td>
<td>7.8%</td>
<td>23.1%</td>
<td>13.5%</td>
</tr>
<tr>
<td>US Average</td>
<td>202,053,193</td>
<td>14.7%</td>
<td>28.4%</td>
<td>21.3%</td>
<td>7.6%</td>
<td>17.6%</td>
<td>10.4%</td>
</tr>
</tbody>
</table>

Source: (Based on 2008-2010 American Community Survey 3 year estimates of Educational Attainment by Sex for Population 25 years and over) http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Highlighted green text represents those counties that contain educational attainment at or above the national average.
also be a concern for other economic sectors. Table 7.5 shows the average household income of those moving into and out of each county within the region. Butler, Warren and Hamilton counties have a substantial difference between in and out household migration incomes. The households moving into Butler and Warren counties have a much higher average income than those moving out of those counties. The households moving into Kenton, Clermont, and Hamilton counties have a much lower average income than those moving out of those counties. For example, Hamilton County is experiencing a net difference of $10,000 average household income between in and out migration patterns.

**Table 7.5: Average Income Relative to Migration (2010)**

<table>
<thead>
<tr>
<th>Geography</th>
<th>In-Migration Average Household Income</th>
<th>Out-Migration Average Household Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dearborn</td>
<td>$36,294</td>
<td>$32,648</td>
</tr>
<tr>
<td>Boone</td>
<td>$41,295</td>
<td>$39,357</td>
</tr>
<tr>
<td>Campbell</td>
<td>$36,019</td>
<td>$35,517</td>
</tr>
<tr>
<td>Kenton</td>
<td>$35,105</td>
<td>$36,140</td>
</tr>
<tr>
<td>Butler</td>
<td>$49,608</td>
<td>$39,302</td>
</tr>
<tr>
<td>Clermont</td>
<td>$40,427</td>
<td>$45,877</td>
</tr>
<tr>
<td>Hamilton</td>
<td>$40,196</td>
<td>$50,474</td>
</tr>
<tr>
<td>Warren</td>
<td>$56,233</td>
<td>$49,791</td>
</tr>
<tr>
<td><em>OKI Regional Average</em></td>
<td>$41,897</td>
<td>$41,138</td>
</tr>
</tbody>
</table>

Source: *Based on 8-County Region. IRS Migration Files. [http://mcdc2.missouri.edu/cgi-bin/broker? PROGRAM=websas.irsmig_menu.sas& SERVICE=appdev&st=29](http://mcdc2.missouri.edu/cgi-bin/broker? PROGRAM=websas.irsmig_menu.sas& SERVICE=appdev&st=29)*

Since 2000, the region has generally experienced a negative total net household migration, with Boone, Campbell and Warren counties experiencing a positive net household migration (see Table 7.6).

**Regional Impacts from the Workforce Investment Act (WIA) of 1998**

The purpose of the 1998 Workforce Investment Act (WIA) is to consolidate, coordinate and improve employment training, literacy, and vocational rehab programs at the state and local levels. Local WIA programs are overseen by the Southwest Ohio Regional Workforce Policy Board, the Northern Kentucky Area Development District, and the Southeastern Indiana Workforce Investment Board. The two major initiatives undertaken to tackle these issues in the region include the Workforce Development Network and the Strive Partnership program.

The Workforce Development Network has made connections among career and technical training programs to better support the chronically unemployed and under-employed, and has exceeded early goals for putting more people to work. Strive created a fund to provide support for children of families residing in the urban core who want to attend college. Strive partners closely with the United Way and its Success by Six program to leverage resources and support. (Success by Six is a national United Way program focused on improving school readiness through local community change.)

**Table 7.6: Migration Trends within the Region**

<table>
<thead>
<tr>
<th>Geography</th>
<th>2010</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Net Migration</td>
<td>Within the Region</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dearborn</td>
<td>-69</td>
<td>45</td>
</tr>
<tr>
<td>Boone</td>
<td>256</td>
<td>271</td>
</tr>
<tr>
<td>Campbell</td>
<td>182</td>
<td>103</td>
</tr>
<tr>
<td>Kenton</td>
<td>-101</td>
<td>92</td>
</tr>
<tr>
<td>Butler</td>
<td>-764</td>
<td>308</td>
</tr>
<tr>
<td>Clermont</td>
<td>-73</td>
<td>284</td>
</tr>
<tr>
<td>Hamilton</td>
<td>-3,122</td>
<td>1,447</td>
</tr>
<tr>
<td>Warren</td>
<td>228</td>
<td>344</td>
</tr>
<tr>
<td><em>OKI Region</em></td>
<td>-3,463</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: *Based on 8-County Region. IRS Migration Files. [http://mcdc2.missouri.edu/cgi-bin/broker? PROGRAM=websas.irsmig_menu.sas& SERVICE=appdev&st=29](http://mcdc2.missouri.edu/cgi-bin/broker? PROGRAM=websas.irsmig_menu.sas& SERVICE=appdev&st=29)*
Strategic Regional Issue #22

Sprawling development patterns can destabilize central downtown business districts, as well as secondary business districts.

Regional and Downtown Effects of Suburbanization

Infrastructure expansion, separation of land uses, and the abundance of inexpensive land along the urban fringe have resulted in low-density development patterns. The region’s total number of business establishments, shown in Table 7.7, peaked in 2006-2007 and has since declined. Comparing this trend to the total number of downtown establishments shows that the majority of the total establishment increases took place in the outlying counties of the region (see Table 7.7; and Figures 7.1 and 7.2).

Figure 7.3 on the following page illustrates the projected movement of jobs within the region between 2005 and 2040. Each green dot represents an increase of 50 jobs, while each red dot represents a loss of 50 jobs. Employment growth is expected to follow the suburbanizing pattern of the population, as it has in recent decades. Five of the region’s eight counties are projected to continue to increase their shares of the region’s employment while Hamilton, Campbell and Dearborn counties’ shares are projected to level off or decrease.

Establishments and Employees in the Central Business District of the Urban Core

An evaluation of the total number of business establishments in downtown Cincinnati shows a decrease of over 200 total establishments or a 9 percent decrease between 1995 and 2009 (see Figure 7.1). The total number of employees in downtown Cincinnati had increased from approximately 75,000 to approximately 85,000 from 1995 to 2000, before dropping to 65,000 in 2009 (see Figure 7.2).

Table 7.7: Total Business Establishments (1990-2010)

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dearborn</td>
<td>713</td>
<td>952</td>
<td>973</td>
<td>1,035</td>
<td>1,038</td>
<td>1,044</td>
<td>1,028</td>
<td>978</td>
<td>968</td>
</tr>
<tr>
<td>Boone</td>
<td>1,586</td>
<td>1,897</td>
<td>2,402</td>
<td>2,758</td>
<td>2,861</td>
<td>2,961</td>
<td>2,967</td>
<td>2,874</td>
<td>2,820</td>
</tr>
<tr>
<td>Campbell</td>
<td>1,451</td>
<td>1,576</td>
<td>1,615</td>
<td>1,662</td>
<td>1,635</td>
<td>1,686</td>
<td>1,694</td>
<td>1,665</td>
<td>1,618</td>
</tr>
<tr>
<td>Kenton</td>
<td>2,657</td>
<td>3,073</td>
<td>3,229</td>
<td>3,252</td>
<td>3,279</td>
<td>3,312</td>
<td>3,254</td>
<td>3,200</td>
<td>3,118</td>
</tr>
<tr>
<td>Butler</td>
<td>5,306</td>
<td>5,833</td>
<td>6,305</td>
<td>7,021</td>
<td>7,144</td>
<td>7,350</td>
<td>7,207</td>
<td>7,019</td>
<td>6,945</td>
</tr>
<tr>
<td>Clermont</td>
<td>2,439</td>
<td>2,647</td>
<td>3,277</td>
<td>3,600</td>
<td>3,596</td>
<td>3,817</td>
<td>3,729</td>
<td>3,625</td>
<td>3,554</td>
</tr>
<tr>
<td>Hamilton</td>
<td>24,571</td>
<td>25,577</td>
<td>24,896</td>
<td>23,500</td>
<td>23,399</td>
<td>22,869</td>
<td>22,342</td>
<td>21,750</td>
<td>21,382</td>
</tr>
<tr>
<td>Warren</td>
<td>2,084</td>
<td>2,422</td>
<td>2,938</td>
<td>3,515</td>
<td>3,645</td>
<td>4,053</td>
<td>4,016</td>
<td>3,930</td>
<td>3,910</td>
</tr>
<tr>
<td>*OKI Region</td>
<td>40,807</td>
<td>43,977</td>
<td>46,635</td>
<td>46,343</td>
<td>46,537</td>
<td>47,092</td>
<td>46,237</td>
<td>45,042</td>
<td>44,315</td>
</tr>
</tbody>
</table>

In Downtown Cincinnati Inc.’s (DCI’s) 2010 State of Downtown Report, 37 development projects were identified as completed or underway within Downtown, accounting for over $2 billion in development costs. The most notable development projects include the Cincinnati Riverfront Park and Banks Mixed-Use Development, the Queen City Square and Great American Tower office complex, and the Horseshoe Casino. Cincinnati’s Central Business District (CBD) remains home to eleven of Cincinnati’s Fortune 1000 companies, seven of which are Fortune 500 companies (Procter & Gamble, Kroger, Macy’s, Fifth Third Bancorp, American Financial Group, Western & Southern Financial and the 2012 addition of Omnicare).

Based on the U.S. Census, Covington’s downtown business establishment trends have fluctuated between 1995 and 2009; with two low points in 2001 and 2009 (see Figure 7.4). During this same time employment trends remained relatively stagnant, with a sharp increase from 2007 to 2008 of approximately 14,000 employees (see Figure 7.5). This increase can be attributed to $300 million in new investments in Covington along the riverfront by Ashland Inc. and Omnicare, two of the region’s Fortune 500 companies.

Figure 7.4: Downtown Covington Business Establishments

![Figure 7.4](http://censtats.census.gov/)


Figure 7.5: Downtown Covington Employment

![Figure 7.5](http://censtats.census.gov/)


Figure 7.3: Employment Trends (2005 – 2040)

![Figure 7.3](http://censtats.census.gov/)

Source: OKI GIS Database
In Newport, over $1 billion of investment is planned for the community’s riverfront, including two riverfront communities following the live/ work model. Initial investments have included One Riverfront Place, a Class A office building, and the Newport on the Levee Complex.

Potential New Issues for Consideration

Green Employment Opportunities

Opportunities for employment and job growth in the green building sector are evidenced by recent initiatives across the region. In 2007, Hamilton County Environmental Services established the “Go Green Challenge” to encourage both large and small organizations to reduce their environmental impacts. A list of local resources to help organizations implement their environmental goals can be found on the Go Green Challenge website. As of 2011 there are over 100 organizations throughout the tri-state that have joined the Go Green Challenge.

In 2008, the City of Cincinnati developed the Climate Change Action Plan: The Green Cincinnati Plan to address and prepare for climate change. The Plan calls for the City serve as an example for the region by setting goals for drastic reductions in energy usage and emissions. In 2012, the city has begun the process of updating the 2008 plan.

A 2011 study prepared by the Greater Cincinnati Energy Alliance (GCEA) estimates electricity consumption in the region to decrease at an average annual rate of -0.2 percent between 2008 and 2030; however, electricity costs are forecast to increase an overwhelming 53-55 percent over this same period. These trends favor new employment opportunities to rehabilitate and refurbish our region’s aging building stock, to become more energy efficient and climate-sensitive. Other employment opportunities include the creation of contractor training centers and production and distribution outlets for green building products. The GCEA study anticipates that 317 new local jobs would be created by 2030 from increased participation of homeowners and non-profit organizations in the GCEA’s program to improve the performance of residential and non-profit buildings.

Tax Sharing Opportunities

A Joint Economic Development District (JEDD) allows a township and a city or a village to collect income tax from a geographically limited property within the community. A JEDD is designed to encourage cooperation among local communities, to enhance development opportunities. Within the geographic boundaries of the JEDD, an income tax is administered by the municipality and collected by the District. Townships have no taxing authority of their own; therefore the municipalities collect the tax and distribute it to its District partners.

In the OKI region, cities and townships have implemented JEDDs to fund infrastructure improvements to promote and sustain commercial and industrial developments. Examples of townships and cities that have partnered to establish JEDDs in the OKI region include:

- West Chester Township with the cities of Fairfield and Springdale,
- Union Township and the City of Milford,
- Liberty Township and the City of Middletown,
- Harrison Township and the City of Harrison, and
- Springfield Township and the City of Mount Healthy.

Regional tax base or revenue sharing is a system that involves communities designating a set portion of their assessed value base, or a stream of tax revenues, in a regional pool of assessed values or tax revenues. This pool is then divided among all localities in the pool using a formula that involves total population and other established variables.

A nearby example of this type of revenue sharing is Dayton, Ohio’s Economic Development/Government Equity Program.
Montgomery County Commissioners created the ED/GE program as part of a 1989 one-half percent increase in sales tax and committed $5 million per year over 10 years to the program. The ED/GE Program was the first approach to tax-based revenue sharing in Ohio and one of the few programs in the United States.

The Program enables participating jurisdictions to apply for grants each year (ED) for job creation and new business investment while providing each participating jurisdiction with tax sharing through a formula that distributes tax dollars from growing communities to communities that are not growing. In this program, all communities are given the opportunity to profit from economic growth (GE) in the county regardless of where the growth occurs.

Since 1992, ED/GE awards have assisted in the creation or retention of more than 30,000 jobs and leveraged more than $1 billion in public and private funds. There are 14 cities, 4 villages, and 9 townships, representing 99 percent of Montgomery County’s population, that participate in the ED/GE Program. In 2010, County Commissioners and participating jurisdictions voted to renew the Program for an additional 9 years through 2019. This renewal strengthened the program criteria, with emphasis on discouraging inter-jurisdictional relocations.
8. Land Use

The Goal: Encourage local governments throughout the region to create up-to-date, consistent, and coordinated comprehensive plans.

Strategic Regional Issue #23

There are few truly comprehensive plans at the local government level which link land use policies with transportation planning and capital budgeting.

The OKI Land Use Commission’s Vision for Stewardship emphasizes the desirability for local governments to communicate, cooperate, and coordinate on the issues of transportation, land use, public facilities, natural resources, economic development, and housing.

Analysis of Local Comprehensive Plans

OKI’s Land Use Commission has identified key components of an effective comprehensive plan including:

- Public Participation Processes.
- Core Data and Analysis of existing conditions.
- General Planning Elements:
  - Transportation,
  - Community Facilities,
  - Natural Resources,
  - Recreation and Open Space,
  - Housing,
  - Economic Development,
  - Land Use,
  - Capital Improvements, and
  - Intergovernmental Coordination.
- Level of Service for public facilities and infrastructure.
- Plan Implementation.
- Monitoring and Evaluation to establish a process for reviewing and assessing the implementation and updating procedures.

The Land Use section in OKI’s Elements of an Effective Local Comprehensive Plan encourages local communities to designate future land use patterns by assessing and coordinating their general planning elements.

Strategic Regional Issue #24

There is major fragmentation of political, legal and land use authority in the region, including wide variations among state planning laws.

State Planning Laws

Ohio, Kentucky, and Indiana have different enabling legislation to help guide the development of local comprehensive plans. The differences in state enabling legislation among the region’s three states hinder coordination between local, regional, and state agencies.

The State of Ohio does not require comprehensive planning at the local level, nor does it provide a guide to promote coordination of local plans. A jurisdiction must be covered by either a county or local comprehensive plan to be given zoning powers.

The State of Kentucky requires its municipalities to develop a comprehensive plan in order to have zoning powers. The state established guidelines to better coordinate local plans that must include at minimum, an analysis and projections of goals and objectives, land use, transportation, and facilities.

The State of Indiana requires all jurisdictions to be covered by a comprehensive plan in order to have zoning powers. The state developed general guidelines of required planning elements that must include objectives, policy for land use, and policy for public ways, places, lands, structures, and utilities.
Local Comprehensive Planning in the OKI Region

In 2011 OKI conducted an inventory of comprehensive plans in the region. As of 2011 there are 115 jurisdictions with the ability to develop plans, and 98 (or 85 percent) of these jurisdictions have comprehensive plans, while 39 percent of existing plans have been developed or updated within the past 5 years. Approximately 45 percent are over 5 years old and about 7 percent are over 20 years old.

Strategic Regional Issue # 25

The public costs associated with new development are not widely understood, nor is a consistent method for calculating public costs used in the region, leading to developments that may not generate anticipated revenues.

OKI's Fiscal Impact Analysis Model (FIAM) as a Tool for Local Governments

In response to policy recommendations contained within the SRPP, OKI formed a partnership with ten local governments and developed the Fiscal Impact Analysis Model (FIAM). The FIAM provides local governmental decision-makers valuable information regarding financial revenues and costs associated with new development and land use changes. The OKI model uses local data and can be implemented at all levels of government (i.e. county, city, and township) represented in the OKI region.

The model can compare alternative development scenarios within a jurisdiction and analyze the effects of specific development projects. The FIAM uses local government budgetary data as well as land use, population, and employment information to accurately project costs and revenues of local development decisions. Local data on land use, market value, tax rates, and financial data are necessary to develop reasonable estimates. OKI is continuing to promote, utilize and refine this tool and is preparing a strategy to make the tool available to other regions in the country.

Strategic Regional Issue # 26

Land is being consumed for new development at a rate five times faster than population growth, resulting in a decrease in population density and population movement toward communities farther away from current centers of population and employment.

Regional Population Density

As described in the Housing Chapter, the region's urbanized land area per capita between 2000 and 2010 increased at a greater pace than the national average (see Table 8.1 on the following page). Between 1990 and 2000, and again from 2000 to 2010 the region's urbanized land increased at a higher rate than the population increased (see Table 8.1 on the following page). As seen in the final two columns of Table 8.1, the region's Urbanized Area Population Density and Total Population Density have decreased since 2000. This trend is a result of the region's urbanized land area increasing twice as fast as the region's population, as stated earlier.

Figure 8.1 on the following page illustrates the region's urbanized land changes between 1990 and 2010.

Figures 8.2 and 8.3, on page 8-4, illustrate housing density patterns in 2005 and projected patterns for 2040. By 2040 the patterns become less dense around the urban core and denser along the interstate arterials.
Table 8.1: Cincinnati MSA – Urbanized Land Density (1990-2010)

<table>
<thead>
<tr>
<th>Geography</th>
<th>Urbanized Area Population</th>
<th>Total Population</th>
<th>Urbanized Area (acres)</th>
<th>Total Area (acres)</th>
<th>Urbanized Area per Capita</th>
<th>Urbanized Area Population Density (acre)</th>
<th>Total Population Density (acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OKI 1990</td>
<td>1,428,838</td>
<td>1,744,124</td>
<td>403,776</td>
<td>1,659,328</td>
<td>0.2315</td>
<td>3.5387</td>
<td>1.0511</td>
</tr>
<tr>
<td>OKI 2000</td>
<td>1,503,262</td>
<td>1,886,650</td>
<td>429,932</td>
<td>1,658,393</td>
<td>0.2279</td>
<td>3.4965</td>
<td>1.1376</td>
</tr>
<tr>
<td>OKI 2010</td>
<td>1,624,827</td>
<td>1,999,474</td>
<td>504,154</td>
<td>1,657,171</td>
<td>0.2521</td>
<td>3.2229</td>
<td>1.2066</td>
</tr>
<tr>
<td>USA 2000</td>
<td>192,323,824</td>
<td>281,421,906</td>
<td>47,296,000</td>
<td>2,263,960,320</td>
<td>0.1681</td>
<td>4.0664</td>
<td>0.1243</td>
</tr>
<tr>
<td>USA 2010</td>
<td>219,922,123</td>
<td>308,745,538</td>
<td>56,065,920</td>
<td>2,260,419,475</td>
<td>0.1816</td>
<td>3.9226</td>
<td>0.1366</td>
</tr>
</tbody>
</table>


Figure 8.1: Change in the Region’s Urbanized Land Area

Source: OKI GIS Database and 2010 Census
Figure 8.2: 2005 Household Density Map

Source: OKI GIS Database

Figure 8.3: 2040 Household Density Map

Source: OKI GIS Database
Regional Land Use and Zoning

Figures 8.4 and 8.5 illustrate existing land use changes for the region from 2000 to 2012. Existing Land use classification systems in the Indiana and Ohio counties have changed resulting in previously classified ‘Undeveloped’ rural regions being classified as ‘Agricultural’. Since 2000, Butler, Hamilton and Campbell Counties have added a ‘Mixed Use’ existing land use classification, consisting of mixed office, retail, and residential land uses. ‘Residential’ land uses remain the predominant land use in the region with most of the development occurring since 2000 in the residential classification.
Zoning ordinances and practices are a strong indicator of the region’s anticipated future land uses. **Figures 8.6 and 8.7** illustrate the change in local zoning ordinances from 2000 to 2012. Many local ordinances have expanded to include ‘Planned Development’ zones for residential, commercial/office, mixed use, and industrial areas. In addition, a ‘Mixed Use’ zoning classification has been added to many local ordinances. Previously zoned ‘Undeveloped’ and some ‘Institutional’ areas in 2000 have been rezoned as ‘Conservation/ Park/ Limited Development’. ‘Residential’ and ‘Agricultural’ zones remain the predominant zoning classification throughout the region.
Strategic Regional Issue # 27

There is a tendency in the region to develop vacant land on the suburban fringe because greenfield development is more economical and less constrained than brownfield development.

Encouraging Brownfield Development

The EPA defines a brownfield as “property where the expansion, redevelopment, or reuse of which may be complicated by the existence or potential existence of a hazardous substance, pollutant, or contaminant.”

The term greyfield is used to describe underperforming, vacant, and/or underutilized land. These properties are often former commercial uses accompanied by large, empty areas of asphalt. Examples of greyfields include vacant big box retail sites, and vacant, underused, or outdated commercial locations on otherwise valuable land.

Greenfield development takes place on previously undeveloped land. Traditional zoning and development practices linked to transportation policies and projects have made greenfield development more feasible and less restrictive when compared to infill development of brownfield and greyfield sites.

The EPA and other federal and state agencies provide technical support, programs, and financing options (i.e. grants and revolving loans) to facilitate the cleanup and redevelopment of brownfield and greyfield sites. As part of the Elements of an Effective Comprehensive Plan, OKI encourages policy provisions to "promote adaptive reuse of buildings and sites in the region’s business core, where appropriate and for reuse of brownfield and greyfield sites (Ibid, Section VIII.C.3.k).

Federal and State Regulations and Programs

The EPA’s Brownfields Program provides technical assistance and direct funding for assessment, cleanup, loans, and environmental job training on brownfield sites. This program provides support to leverage local resources to complete a thorough brownfield redevelopment project.

In 2011, the Ohio Department of Development launched its Brownfield Action Plan Pilot Program to provide direct assistance for communities to create and implement a “Brownfield Action Plan.” The program is divided into two phases. Phase I will provide technical assistance for the pilot communities to develop an action plan. Phase II will provide grant funding of $50,000 to implement the action plan activities.

In 2008, the Port of Greater Cincinnati Development Authority was restructured and expanded to partner with local communities to identify and implement economic development activities within the City of Cincinnati and Hamilton County. Partnerships with property owners, developers, end-users, non-profits, and local governments have led to a variety of development projects. These project areas include:

- remediation and renewal of various brownfield sites; and
- leveraging innovative financing options and providing bond financing to local projects.

Strategic Regional Issue # 28

Low-density developments, and isolation of residential, work place and shopping uses increases the per-unit cost of public facilities, taxes or user fees and the level of income needed to obtain housing.

Traditional development and Euclidean Zoning policies promote the separation of land uses. Resulting development patterns increase vehicle miles traveled, commute times, public costs, and
can limit the availability of housing near places of employment.

**Alternatives to Low Density Development**

Traditional development practices including land use and zoning regulations typically promote single-use, low density development patterns. Mixed-use developments are often restricted due to zoning districts. As part of OKI’s *Elements of an Effective Local Comprehensive Plan*, OKI encourages local jurisdictions to implement policy provisions in favor of higher densities and mixed-use developments, if locally desired (Section VIII.C.3).

Examples of alternative development practices include Transit-Oriented Developments (TODs), Planned Unit Developments (PUDs), mixed-use and Form-Based Codes (FBCs), and Low Impact Conservation Developments.

OKI’s *Community Choices Guide* defines a TOD as the creation of compact, walkable communities centered on transit systems that “promote sustainable communities by providing people of all ages and incomes with improved access to transportation and housing choices.” TODs also reduce the negative impacts of automobile travel on the environment.

A mixed-use development is often associated with higher density residential units and neighborhood scale commercial uses. FBCs are a method of regulating development to achieve a specific urban form or character of development, rather than focusing on the separation of land uses. The regulations and standards in FBCs, presented in both diagrams and words, are associated with a “regulating plan” that designates the appropriate form and scale and therefore the character of development. Conservation developments, also known as conservation subdivisions, are a green design strategy to preserve open space and natural areas, while increasing the density of the developed area.

**Regional Development Trends**

There are few local governments in the region implementing alternatives to low density, single-use development patterns. The City of Bellevue, Kentucky adopted a form-based zoning code in 2011. The stated intent of Bellevue’s form-based code is to preserve the rich and historical culture of Bellevue’s built environment. In 2010, the City of Sharonville adopted a *Downtown Strategic Master Plan* intended to redevelop and revitalize the downtown core of Sharonville. This plan proposes infill development over underutilized parking lots, increasing density by creating high density residential buildings, and developing a live/ work model through mixed use developments.

The City of Cincinnati is currently pursuing the adoption of neighborhood level form-based codes as part of its “Plan Build Live” initiative. In 2012, construction began on the Cincinnati Streetcar line, which will provide fixed transit services between Downtown Cincinnati and the Over the Rhine neighborhood, and is planned to eventually extend to the Uptown area. This effort provides the opportunity to promote a form of transit oriented development along certain stops and corridors of the streetcar route.

**Potential New Issues for Consideration**

**Collaboration and Shared Services**

Diminishing revenue streams and increased demand for public services strain local government resources. Many communities have been forced to reduce or cut services. Collaboration between agencies at the public, private, and non-profit levels can reduce costs. Shared service agreements provide the opportunity for neighboring organizations or jurisdictions to form a collaboration where services (i.e. maintenance equipment, garbage collection, information technology services, fuel
depots, administrative offices, etc.), and costs are shared according to the established contract.

**Healthy Communities**

The region struggles with a variety of health issues. In addition to asthma and air quality related illnesses, the prevalence of diabetes and heart disease in the region is high when compared to other regions. A recent study by the Child Policy Research Center at Cincinnati Children’s Hospital found that 31.2 percent of children ages 10-17 and 28.1 percent of children ages 2-5 were overweight or obese in Hamilton County. Land use and development decisions impact the residents of surrounding neighborhoods and their access to community resources. Further research should be done on policy changes that could address walkability and access to spaces for physical activity, as well as improving access to vital amenities such as healthy food, healthcare and other community resources.

**Aging Population**

As part of OKI’s 2012 *Coordinated Public Transit – Human Services Transportation* Plan, OKI identified the need to plan for an increasing number of elderly people in the region. The percentage of elderly people in the region is projected to grow from under 12 percent of the region’s population in 2005 to 17 percent by 2040. This growth in the region’s elderly population has significant implications for travel and living needs now and in the future. These needs will include improved access to alternative transportation modes and housing options in proximity to commercial operations and medical facilities. Fulfilling these needs will require sustained attention as communities plan for the future.