

BUSINESS ACTIVITY

INTRODUCTION

The Business Activity Element examines the industry classifications of businesses in Boone County as opposed to the Economy Element which focuses more on the economy in general as it relates to individuals and to the county on the whole. Comparisons are made between Boone County, the Cincinnati Metropolitan Area, and the State of Kentucky. In addition to the inventory and comparison of Boone County industry classifications, areas of future business activity in Boone County are listed. The areas of future business activity are divided into commercial, office and industrial activity. The text addressing the areas of future business activity is intended to provide a synopsis of anticipated business activity development in Boone County. This information is described in further detail in the Land Use Element.

Background

Boone County's economy and related business activity are part of the larger Cincinnati Metropolitan Area's economy. Recognition must be given that Boone County's business activity is closely tied to and inter-related to the larger Cincinnati Metropolitan Area's economy. The industrial, business park, and commercial development in Boone County has occurred hand-in-hand with expansion of the Cincinnati/Northern Kentucky International Airport and has provided the economic prosperity and exceptional quality of life experienced over the past several decades. Numerous factors indigenous to Boone County have allowed for it to lead the region in many growth and prosperity indicators. The continued economic vitality of Boone County is of great importance to the success of the entire northern Kentucky region.

The Business Activity Element primarily utilizes Bureau of Labor statistics compiled by the Northern Kentucky Tri-County Economic Development Corporation (TRI-ED). The Business Activity Element has historically examined the Standard Industry Classifications (SIC) of job providers in Boone County, and includes the years 1998 through 2000. Years 2001 through 2003, however, are published on the basis of the North American Industry Classification System (NAICS). Since the classifications are different, and there is some information not collected in 1998, as well as problems with other data, it is difficult to compare past years to 2001 and later data. For these reasons, this element contains a mainly recent data.

The two broadest standard industry classifications are base and non-base industries. The designation of job providers into base and non-base industries is a traditional methodology in the examination of an area's business activity. Base industries are responsible for importing outside income into an area. Non-base industries circulate income while providing the services necessary both for the operation of base industries and for the daily activities of all residents in an area. Historically, base industries furnish the products which sustain an area, such as those derived from agriculture, mining, and manufacturing activities. In the last decade the economy has changed so that some businesses once treated as services are now of such a scale that they are effectively a base industry. This has been apparent in the Houston Road corridor, where the scale of retail, services, and office has become large enough that it has begun to function as an economic entity all to itself, generating its own need for services. These new services then serve the commercial activity and the increased daytime population rather than directly serving the residential population. The future impact of this phenomenon is that any future regional and/or large discount-oriented commercial areas must be large enough in geographic extent to accommodate this increased need for service businesses. These businesses export a service to a regional or nation-wide market such as financial services. Non-base industries, on the other hand, are users and marketers of base industrial products. The two industry types are interrelated and interdependent.

While base industries provide the initial economic reason for an area's existence, base industry products, employees, and families immediately generate the need for non-base support industries. These non-base industries also require the services of other non-base industries. A growth cycle of population, products, and services is developed. The growth cycle is characterized by variations in industry volume and diversity. Base industries increase their activities and expand their number of employees in response to market demand for their

products. Such growth generates associated population increases and requirements for additional non-base industrial services.

BASE INDUSTRIES

Base industries include Agriculture, Mining, Construction, Manufacturing, and Transportation/Public Facilities. These are defined as follows:

Agriculture

Agricultural production and services (such as landscaping), forestry, and fisheries.

Mining

Extraction of naturally occurring minerals.

Construction

General contractors, operative builders, special builders, special trade contractors, land subdividers, and developers.

Manufacturing

Mechanical or chemical transformation of raw materials into components and the assemblage of components into finished products.

Transportation

Movement of people and merchandise from one place to another.

Public Facilities

Power plants, sanitary services, and other such facilities.

According to the U.S. Census Database of County Business Patterns (NAICS), in 2008, the total number of all business establishments in Boone County was 3,417, a decrease of 99 since the year 2003. The percentage of people employed in base industries decreased during the 1980's and 1990's, but has since remained steady with 40 percent of all employees in the county being employed in a base industry in 2009. Base industry establishments accounted for 34 percent of the total number of business establishments in the county in 2008, a figure that has also remained fairly steady over the years.

Table 5.1 lists the number of base industries and total number of base industry employees in Boone County from 1998 to 2008.

TABLE 5.1 - BOONE COUNTY BASE INDUSTRY ESTABLISHMENTS AND EMPLOYEES

	1998		2001		2003		2008	
	Est.	Emp.	Est.	Emp.	Est.	Emp.	Est.	Emp.
Agriculture	4	49	6	45	6	36	5	N.D.
Mining	4	45	4	38	N.D.	N.D.	3	N.D.
Construction	267	1,771	315	2,339	334	2,326	306	2,459
Manufacturing	187	12,731	194	11,516	191	10,690	185	13,077
Information	25	281	34	1,537	38	911	32	712
Trans./Warehouse	198	12,371	746	12,697	761	14,191	691	8,608
Total	687	27,248	1,299	28,172	1,330	28,154	1,222	24,856

Source: U.S. Census County Business Patterns (NAICS)

Tables 5.1 and **5.2** demonstrate how the Information and Transportation/Warehousing sectors have suffered from job loss in Boone County since the last comprehensive plan update, but has remained the same or slightly

improved statewide. A significant decrease in Cincinnati/Northern Kentucky International Airport operations is reflected in these numbers. Manufacturing actually increased in Boone County in the past decade, but decreased in Kentucky overall. **Table 5.3** shows modest increases in most types of Manufacturing in Boone County. This reflects that Boone County's development trends specific to Northern Kentucky are different than other parts of the state.

TABLE 5.2 - KENTUCKY BASE INDUSTRY ESTABLISHMENTS AND EMPLOYEES

	1998		2001		2003		2008	
	Est.	Emp.	Est.	Emp.	Est.	Emp.	Est.	Emp.
Agriculture	203	1,477	215	1,408	221	1,347	278	1,854
Mining	886	22,946	823	19,638	755	18,468	681	22,359
Construction	10,651	83,668	11,671	87,724	11,009	83,375	8,762	78,878
Manufacturing	5,012	320,214	4,931	292,594	4,633	265,961	4,107	247,611
Information	1,357	27,037	1,824	35,256	1,849	32,479	1,558	33,861
Trans./Warehouse	5,540	109,306	4,295	90,030	4,083	86,248	3,074	85,853
Total	23,649	564,648	23,759	526,650	22,550	487,878	18,460	470,416

Source: U.S. Census County Business Patterns (NAICS)

TABLE 5.3 - BOONE COUNTY NUMBER OF MANUFACTURING ESTABLISHMENTS

	2001	2003	2008
Food Products	8	6	8
Apparel and Textiles	6	6	2
Wood Products	5	4	4
Furniture and Fixtures	2	2	4
Paper Products	2	6	6
Printing & Publishing	11	12	18
Chemical Products	7	9	11
Petroleum & Coal	N.D.	2	3
Plastics and Rubber	12	14	18
Stone, Clay, & Glass	8	9	10
Primary Metals	4	2	3
Fabricated Metal Products	22	33	36
Machinery and Equipment	21	25	27
Transportation Equipment	10	7	9
Appliances, Electrical	2	3	5
Computers, Electronics	5	4	5
Miscellaneous	12	21	16
Total	137	156	185

Source: U.S. Census County Business Patterns (NAICS)

The number of Transportation/Public Facilities, Manufacturing, and Contract Construction businesses rose dramatically in the 1990's thanks to the strong economic market of the time. Since 2001, however, the airline industry has dropped in employment, leading to a drop in the overall category. Construction businesses have continued to rise, while other base industries have remained steady. Manufacturing businesses are generally considered the strongest multipliers for "spin-off" non-base businesses.

Base Industries Comparison, State of Kentucky

Table 5.2 lists the number of base industry businesses and total number of employees in the State of Kentucky from 2001 to 2008. Generally speaking, the decline in the number of the various base industry sectors in the state

was more dramatic than in Boone County. Fluctuations in the ratio of Construction businesses in Kentucky were similar to those described for the county during this period. The data in **Table 5.1** and **Table 5.2** demonstrate the importance of mining as a base industry in Kentucky as compared to Boone County. Finally, the number of manufacturing businesses in Kentucky rose during the 1990's, but has decreased since 2000. Boone County experienced an even greater increase during the 1990's, but has leveled off since 2000.

Manufacturing

The growth of Manufacturing businesses and employment in Boone County is an important indication of the economy of the area. As outlined previously, Manufacturing businesses, and other base industries, create the need for new non-base industries. Additional commercial and service businesses spin-off whenever base industries expand or new ones locate in Boone County. According to the U.S. Census County Business Patterns, of the 175 recorded manufacturing businesses in 2009, twenty-five had 100 to 249 employees, nine had 250 to 499 employees, and one had 500 to 999 employees. In contrast, only three of the recorded 278 Contract Construction businesses in 2009 had over 100 employees. In terms of income, the total number of employees in manufacturing in Kentucky fell 10.4 percent from 1998 to 2002, and fell an additional 17.5 percent from 2002 to 2009.. The total manufacturing payroll in Kentucky rose 1.2 percent from 1998 to 2002 (compared with 33.5 percent growth from 1992-1997) and rose 21.6 percent from 2002 to 2009. Therefore, the expansion or decrease of one Manufacturing business has an impact on Boone County's economy.

Manufacturing, as the major base industry employer, is further detailed and divided into 13 divisions. **Table 5.3** details these 13 divisions by giving both the number of firms and employees for each Manufacturing division. The totals for the 13 divisions are given for each year at the end of the table. These totals do not always equal the sum of the divisions due to disclosure rules.

Table 5.3 provides an indication of the growth of Manufacturing Industries in Boone County. Some types of Manufacturing, such as Rubber and Plastic and Non-electrical Machinery have experienced a steady growth both in the number of employees and the number of firms. Others, such as Fabricated Metal Products, have remained stable as far as number of firms, but have fluctuated greatly in the number of employees. Apparel, Petroleum and Coal Products, and Printing and Publishing are recent additions to Boone County Manufacturing Industries.

In 2009, the County Business Patterns shows that 17.5% of all Boone County employees worked in Manufacturing. This compares to 11.5% of all Cincinnati Metropolitan Area employees, 14.5% of all Kentucky employees, and 5.1% of all national employees. The Boone County percentage has slowly declined from a peak of 33.0% in 1973. This decline has paralleled declines in the percentages of manufacturing employees since 1969 in the Cincinnati Metropolitan Area, in Kentucky, and in the nation, however Boone County remains relatively stronger in manufacturing than the averages for the larger geographic areas.

The distributive share of earnings by Manufacturing employees has similarly declined. In 2009, Manufacturing jobs accounted for 25.4% of total earnings in Boone County, down from a peak of 41.6% in 1974. Manufacturing earnings accounted for 14.1% of all earnings in 2009 in the Cincinnati Metropolitan Area, down from a peak of 38.3% in 1971. Kentucky Manufacturing earnings were down to 17.4% of all earnings in 2009 from a peak of 27.6% in 1973. The national distribution of Manufacturing earnings was down from 28.9% in 1969 to 22.6% in 1997, and had fallen to 11.3% in 2009.

Transportation

One of the most significant increases in base employment in Boone County has been the transportation industry. The presence and expansion of the Cincinnati/Northern Kentucky International Airport has had both a local and a regional economic impact. In 1991, the Airport's employment level was approximately 8,700 with \$215 million paid in regional employee wages and benefits. Total employment in the region directly or indirectly related to ongoing Airport operations was 10,227 for full and part-time jobs in 1991. In 1991, 957,237 business and convention passengers arrived in the Cincinnati region by air. These travelers accounted for regional expenditures of approximately \$605 million and total business sales of \$1.2 billion. In 1993, the Airport's direct employment level rose to 9,933. By 1999, direct employment of the airport was over 15,000. The total economic impact from the Airport has risen from an approximate one-half billion dollars in 1981 to \$3 billion in 1993, \$3.9

billion in 2000, and \$4.5 billion in 2005. Finally, the total number of direct and indirect jobs associated with Airport economic activity has increased from 6,070 in 1981 to 60,100 in 1993, 69,000 in 2000, and over 100,000 in 2005. The number of area jobs to be supported in the year 2011 was originally projected to be 114,500, but this number exceeds what has actually occurred due to the decline in the size and services provided by the airport since 2001, especially during the past 5 years. With the significant changes at the Airport since 2005, CVG is in the process of updating its economic impact study (2010 conditions). The study is expected to be completed in 2012.

NON-BASE INDUSTRIES

Non-base industries include Wholesale Trade, Retail Trade, Finance/ Insurance/Real Estate and Services. These are defined as follows:

Wholesale Trade

The sale of merchandise to industrial, commercial, institutional, and professional businesses.

Retail Trade

The sale of merchandise to the general public for personal or household consumption, and services incidental to retail sales.

Finance/Insurance/Real Estate (FIRE)

Banking, credit services, and brokerage of real estate.

Services

Professional and personal services.

In 1997, the number of non-base industry businesses in Boone County was 1,596, which had risen to 2,195 in 2008. This represents 64.2 percent of all businesses in the county, down from 70.1 in 1989. The 41,572 (increased from 28,978 in 1997) non-base industry employees accounted for 62.6 percent of all workers in Boone County, up from 57.4 percent in 1989. The combined number of base industry and non-base industry businesses and employees do not total 100 percent due to unclassified businesses and employees.

Table 5.4 and **Table 5.5** detail the number of non-base industry businesses and the total number of non-base industry employees from 2001 to 2008 for Boone County and Kentucky, respectively. Historically in Boone County, these categories increased from 1970 through the 1990's but have since fluctuated. **Table 5.4** indicates how important retail and services industries are to Boone County's economy. Data in these categories must be handled with care because of differences in definitions from year to year.

TABLE 5.4 - BOONE COUNTY NON-BASE INDUSTRY ESTABLISHMENTS AND EMPLOYEES

	2001		2003		2008	
	Est.	Emp.	Est.	Emp.	Est.	Emp.
Wholesale Trade	282	4,834	317	5,851	184	5,270
Retail Trade	430	8,703	440	8,615	495	9,872
F.I.R.E.	275	4,897	279	6,092	334	5,204
Services	1,071	24,936	1,150	19,947	1,182	21,226
Total	2,058	43,370	2,186	40,505	2,195	41,572

Source: U.S. Census County Business Patterns (NAICS)

TABLE 5.5 - KENTUCKY NON-BASE INDUSTRY ESTABLISHMENTS AND EMPLOYEES

	2001		2003		2008	
	Est.	Emp.	Est.	Emp.	Est.	Emp.
Wholesale Trade	7,826	72,681	7,965	72,793	4,428	74,882
Retail Trade	17,232	217,969	16,503	212,454	16,024	230,483
F.I.R.E.	9,884	81,609	9,757	84,285	10,453	88,020
Services	46,388	809,722	45,981	828,798	40,767	653,680
Total	81,330	1,181,981	80,206	1,198,330	71,672	1,047,065

Source: U.S. Census County Business Patterns (NAICS)

Non-Base Industries Comparison, State of Kentucky

Table 5.5 details the number of non-base industry businesses and the total number of non-base industry employees in the State of Kentucky from 2001 to 2008. In general, retail and service sectors are stronger in Boone County than in the state overall. As with the base industry sector of the economy, the non-base industry sector in Boone County grew while it declined in Kentucky.

Retail Trade

With the continued development of the Mall Road area and Houston Road as regional shopping districts, Retail Trade has remained a major component of Boone County's economy. According to the U.S. Census County Business Patterns, the 2009 payroll for the 9,943 Retail Trade employees was \$213,745,000 or an average annual income of \$21,497 per employee. This payroll amount is considerably lower than the base industries. The number of Retail Trade employees, however, exceeded all other classifications except manufacturing in Boone County. In fact, 15.6% of all workers in the county worked in a Retail Trade business, however only 9.5 percent of total payroll was paid to Retail Trade employees. Because of the importance of Retail Trade to Boone County, it is further detailed and divided into 8 divisions. **Tables 5.6** and **5.7** detail these 8 divisions by giving the number of Retail businesses and employees for each of the divisions.

TABLE 5.6 - BOONE COUNTY RETAIL ESTABLISHMENTS AND EMPLOYEES

	2001		2003		2008	
	Est.	Emp.	Est.	Emp.	Est.	Emp.
Building, Garden Materials	25	544	44	801	42	678
Department Stores, Discount	18	2,243	21	2,175	25	2,356
Food Stores	39	1,277	41	1,126	46	1,000-2,499
Motor Vehicles and Parts	42	954	48	1,110	48	1,125
Apparel & Accessories	72	735	72	735	84	1,011
Furniture, Home Furnishings	32	324	30	332	27	322
Electronics and Appliances	20	409	24	297	28	395
Health, Personal Care	31	483	35	530	29	385
Gas Stations, Convenience	50	716	53	752	52	593
Sports, Hobby, Books, Music	27	499	32	510	34	495
Office, Gifts, Pets, Florists etc.	56	591	58	549	53	524
Deliveries, Internet	13	200	17	170	27	808
Total	425	8,975	475	9,087	495	9,692-11,191

Source: U.S. Census County Business Patterns (NAICS)

TABLE 5.7 - SELECTION OF BOONE COUNTY SERVICE ESTABLISHMENTS AND EMPLOYEES

	2001		2003		2008	
	Est.	Emp.	Est.	Emp.	Est.	Emp.
Restaurants, Bars, Hotels	200	5,390	213	5,306	274	6,322
Health Care, Social Services	173	2,670	182	3,238	228	4,139
Laundry, Hair, Beauty, Diet	58	725	61	664	84	813
Repair, Maintenance	84	801	78	830	93	736
Professional, Technical, Legal	172	1,163	198	1,162	231	2,920
Remedial, Waste Mngmt.	146	3,513	148	3,398	176	5,509
Management of Companies	22	628	20	637	20	637
Art, Entertainment, Recreation	27	638	30	599	48	925
Total of Select Sectors	882	15,528	930	15,834	1,154	22,001

Source: U.S. Census County Business Patterns (NAICS)

Table 5.6 shows growth in some types of retail, but decrease in others for 2008. This is the year that is generally accepted as the beginning of the latest economic recession. Increases in Service establishments and employees are larger than other industry sectors in Boone County.

In 2009, the County Business Patterns reported that 15.6 percent of all Boone County employees worked in Retail Trade, compared to 13.4 percent of all employees in the Cincinnati Metropolitan Area, 14.9 percent of all employees in Kentucky, and 12.9 percent of all national employees. The peak for the Boone County percentage was 25.8 percent in 1978.

Services

In 2009, the payroll in Boone County for the 14,007 Service employees (County Business Patterns) was \$302,440,000 for an average annual income of \$21,592 per employee. The Service average annual income is significantly lower than the average \$50,740 in the Manufacturing sector but comparable to the \$21,497 average annual income for Retail Trade employees. The number of Service employees has surpassed Retail Trade employees.

In 2009, the County Business Patterns indicated that 21.9 percent of all Boone County employees worked in the Service sector, compared with 39.1 percent of all employees in the Cincinnati Metropolitan Area, 39.0 percent of all employees in Kentucky, and 42.4 percent of all national employees.

RECOMMENDED AREAS OF COMMERCIAL ACTIVITY

Since the immediate Florence area figures so prominently in Boone County's commercial activity, this region has the momentum to continue dominating any expansion of commercial activity. Currently, "big box" retail has been overbuilt in the county. As a result, building vacancies and tenant changes are visible along the major commercial corridors in Florence. The market and infrastructure impacts of future large scale or regional commercial uses on the existing Florence commercial districts must be considered. Furthermore, it is important to encourage the reuse of vacant commercial buildings and ongoing maintenance and rehabilitation of older business districts, instead of creating new commercial districts. Four studies, the Houston-Donaldson Study, the Central Florence Strategic Plan, the Main Street Study, and the Mall Road District Study, have defined the scale and type of commercial uses in the City of Florence and surrounding area. The Houston Road area will mature with expansion of the retail and office base, and expansions of St. Elizabeth-Florence Hospital. The Main Street area will experience a rebirth as a result of an expanded population in the area and public improvements. Existing business districts need to be supported through market analysis and realistic recommendations. Overall the commercial economy of Boone County has become more diversified.

The City of Florence was the main sponsor of the Mall Road Corridor Study in 2002-2003. This study examined the market conditions for Mall Road, and developed a strategic plan based on demographic characteristics of the

trade area, competition, and traffic patterns. The plan includes traffic improvements, bike and pedestrian improvements, parking lot design, street furniture, tree plantings, signage recommendations, design standards, remedies for unsightly features, and drafted model changes to the zoning ordinance for the corridor. The overall goal of the study was to re-design Northern Kentucky's largest commercial area into a strong mixed use, urban community with extensive new commercial, office, entertainment, and residential development. A major component of the plan is to develop new urban buildings within the existing large parking lots and implement a grid street system to create a dense, active, successful, focal point for Northern Kentucky. In order to begin implementation, the City of Florence has moved ahead with the hiring of an Economic Development Coordinator, and has conducted meetings with area property owners and developers to begin implementation of the Master Plan. The City of Florence has requested the Planning Commission to a land use and zoning study. The Mall Road District is expected to be completed in 2011. It will include a series of recommendations involving land use, zoning, transportation, pedestrian access, parking, design review, signage, and business incentives.

Many problems with the location and arrangement of commercial uses have emerged, especially along the KY 18 and U.S. 42 corridors. Commercial developments along KY 18 and U.S. 42 west of Mall Road should not be regionally oriented nor should they attract additional traffic, but rather be served by the existing or future population of the area. A mix of commercial, office, and residential uses, along with limited access, should be encouraged along KY 18. Along the entire KY 18 corridor east of Burlington, there are traffic congestion problems that can be worsened by adding commercial access points.

The land surrounding the U.S. 42 area, southwest of Florence, will experience additional commercial growth towards the City of Union, but should be done on a smaller scale to mitigate any adverse impacts and to be compatible with surrounding land uses and densities. The U.S. 42 corridor toward Union will have a mixture of commercial, office, institutional, public facility and residential uses. As defined by the 2000 Union Town Plan, commercial development should occur in neighborhood business district form in specified locations instead of strip style commercial. The Union Town Center could be used as an example of planning efforts for other parts of the U.S. 42 corridor, as well as other corridors in Boone County. Ultimately, mixed use town centers should be developed at major crossroads throughout Boone County without commercial development along the roadways between the town centers. Street connectivity is critical in these types of corridors.

Commercial developments that occur in the KY 18 and U.S. 42 corridors should be limited in scale (e.g. building, intensity, use, etc.) and clustered to serve growing residential neighborhoods. Planned Unit Developments should be encouraged so that commercial construction is incorporated within new residential areas and designed properly. These commercial clusters should not function as an extension of Florence and Mall Road, but as distinct units serving the Burlington and Union areas. This principle should apply to the Limaburg area and surrounding area as well. The commercial development in this area should coordinate closely with the projected high and medium density residential development to form a more coherent community and create neighborhood centers rather than just a strip extending out of Florence. An example of this type of design is the Oakbrook Marketplace, which ties into the subdivision while serving a larger trade area.

The I-75/Mt. Zion Road Interchange should have commercial activity concentrated to the east of I-75 and along U.S. Highway 25. The type of commercial activity northeast of the interchange should serve the residential areas on Mt. Zion Road and along Dixie Highway, Gateway Technical College, and the Northern Kentucky Industrial Park. Street and parking lot connections are critical in this area to help traffic flow on Mt. Zion Road.

Highway related commercial activity is appropriate at the I-75/Richwood Road Interchange. However, such growth on the west side of the interchange should be adequately buffered from existing and planned residential uses. As the residential area of Richwood grows, especially with the development of the Triple Crown Country Club, neighborhood and convenience commercial uses should develop. These new uses should be oriented toward the residents rather than the highway travelers. Most of the highway commercial growth should take place east of the interchange, although this growth should not occur to the point of blocking industrial traffic from future planned industrial development along U.S. Highway 25. Commercial development in this area should be designed to serve nearby residential growth. Over time, the truck oriented uses should be replaced with other commercial development as the interchange transforms from a travel services area to a residential area. Tax

Increment Financing (TIF) is the process of allocating tax revenues from new development toward public improvements in a defined area. Boone County currently has two TIF districts located between Richwood Road and Chambers Road on the east side of I-71/75, which may be used to pay for public improvements in the area. In the future, other TIF districts may be formed by the legislative units.

The I-75 Interchange at Walton is capable of additional commercial growth as appropriate levels of infrastructure become available. However, even with recent improvements to the interstate and interchange, additional truck oriented commercial activity will be detrimental to the traffic conditions at this interchange. The area should contain commercial services that serve traffic and customers that are already on Mary Grubbs Highway, and that include interconnected driveway systems, extensive landscaping, and provide a suitable "front door" to the growing City of Walton. This especially affects the southeast quadrant of the interchange in the Service Drive area. In this way, the TA truck stop impacts on KY 18 in Florence can be avoided at this similar location. The additional commercial development should address the coordination and limitation of access points to insure safe access at the interchange and along Mary Grubbs Highway, Stephenson Mill Road and Walton-Verona Road. Good development design and landscaping will be important at this high visibility location. The Walton Town Center should continue to grow, serving both local residents and interstate travelers.

The Verona/I-71 interchange has been slow to develop to this point. However, the demand for commercial services will arise in the future. A detailed study involving citizens and land owners needs to be prepared for both the interchange area as well as the existing town of Verona to the southeast. This study is imperative in light of the development of the auto racing facility in Sparta to the south and its potential impacts on the interchange area. The racetrack facility could result in the need for commercial services at the interchange giving the county an opportunity to plan ahead for this development.

The Hebron area will experience additional commercial development along KY 237 and KY 20 as the northern area increases in population. The existing commercial center along KY 20, just east of KY 237, will probably not expand significantly because the new highways, I-275 and KY 237, have bypassed it. Commercial development in Hebron will center around the intersection of new KY 237 and KY 20 with a limited amount of convenience and neighborhood commercial uses north of the I-275 interchange to serve the SouthPark Industrial Park, Park West Industrial Park, and the growing number of residential subdivisions along North Bend Road. Park West is also the home of a Foreign Trade Zone (FTZ No. 47) which is an area exempt from Customs payment, taxes, and duties normally associated with international trade. Such FTZ's are designed to stimulate economic growth while encouraging companies to keep their operations in the United States.

With the amount of residential construction expected in the North River area, larger scale commercial developments, such as drug stores and grocery stores will be needed. Commercial development in this area should be designed to serve the northern part of Boone County. This commercial growth should coordinate with the existing and proposed industrial and residential developments, especially in terms of access.

The I-275/KY 212 Interchange should experience a decrease in airport related commercial activities due to the economy, as these services and activities may eventually be provided on Airport property. The existing airport related commercial businesses at the KY 20/I-275 Interchange should evolve into highway related businesses. This area could support office related businesses, particularly properties possessing panoramic views of the Ohio River. Additional commercial growth based upon the expansion of the airport, and subsequent industrial growth, will be located at the Mineola I-275 Interchange as evidenced by the Airport Exchange Business Park and the Circleport Industrial Park.

Other types of projected commercial activity include the eventual restoration and redevelopment of older commercial areas, developments and corridors. This includes sites along Dixie Highway, U.S. 42 (in Florence), KY 18 (in Florence), Dream Street, downtown Burlington, and Union. The Mall Road District Study addresses business vacancy issues, traffic circulation, and has presented a concept for a new image of the corridor.

The Petersburg Road/Idlewild Interchange area at KY 8 and I-275 is now experiencing traffic volumes on I-275 that could support some commercial activity in the future. Significant commercial will not occur, however, until

residential development occurs in the corridor as well as the expansion of sanitary sewer service. Parallel roads should be utilized to provide access to commercial developments. Particular concern should be taken in the design and development of the commercial businesses due to the existing topography and character of the surrounding area.

The various small communities should continue to serve the commercial needs of their surrounding areas, and any regulations or incentives that affect these areas should be designed to support small businesses. New businesses, as they are constructed or as existing structures are remodeled, should be developed with sensitivity to the historical character as well as the current character of the area. Tourism in the County should increase as a result of improvements to Big Bone Lick State Park, impacts of casino gaming in Indiana, and the increase in recent years of heritage tourism in Boone County. This industry is significant since Boone County consistently ranks near the top in the State in tourism dollars generated. Planning principles which guide commercial development in the more developed parts of the county should not be ignored. The Small Community of Burlington, for example, should be revitalized in terms of its commercial opportunities, especially those day-time services which would be available to the many users of the county seat. However, this redevelopment should be done with attention paid to existing traffic, parking, and pedestrian patterns. The 2000 Union Town Plan will provide concepts for other small communities in the path of new development.

In general, large residential developments may need to provide for neighborhood-scale commercial activities. Neighborhood commercial activities may include small grocery or convenience stores, family restaurants, professional offices or small retail operations of general merchandise. These neighborhood commercial activities should be scaled to serve only their surrounding residential subdivisions, and designed to fit in with their surroundings.

RECOMMENDED AREAS OF INDUSTRIAL AND OFFICE ACTIVITY

A critical need in Boone County is to protect future industrial land, because the access, infrastructure, and level land that make it favorable for industrial development are finite. Beyond 2035, Boone County may have difficulty in developing more industrial uses outside the airport, U.S. 25, and Walton areas. In general, areas planned for non-extractive industrial uses should not be changed to allow other land uses to develop. The Northern Kentucky Tri-County Economic Development Corporation has identified a need for industrial building sites that have the necessary infrastructure and zoning and are ready to develop.

Existing sites should also be examined to enable adaptive re-use or redevelopment of buildings. There are numerous older vacant industrial buildings and sites or underutilized commercial sites that provide redevelopment opportunities. These areas are often referred to as grayfields or brownfields because they have older structures or pavement that does not function as an effective business use.

Recent expansion and renewal of existing businesses that has occurred in the Northern Kentucky Industrial Park should continue to be encouraged for all industrial and office areas. Existing businesses can be supported through appropriate incentives or infrastructure improvements, just as new businesses often receive incentives for locating in the community. The planned improvements to Industrial Road are an example. Tax Increment Financing and similar mechanisms can facilitate business corridors, and the Gateway Technical College should be an impetus for redevelopment in this area. Any vacant property that does occur should be maintained properly to help the property be sold or leased.

The Northern Kentucky Industrial Park has the potential to expand along its southern boundary. The location of the county's population involved in manufacturing correlates well with this concentration of industry. The area southward to Mt. Zion Road should be reserved for the expansion of the Northern Kentucky Industrial Park.

The Richwood and Walton interchanges will serve an increasing amount of industrial traffic along the U.S. 25 and I-75 corridors. Most of the industrial activity should locate near the interchanges to minimize travel on non-interstate roads. The area between U.S. 25 and the Boone/Kenton County line contains industrial potential due to

interstate and rail access. Development of this area should utilize Old Lexington Pike as a frontage road to limit the number of access points onto Dixie Highway. The realignment of Old Lexington Pike with Richwood Road has made this area more accessible to the interstate. Business development to the east of Walton should be facilitated by major roadway improvements extending east from Mary Grubbs Highway and ultimately connecting with major thoroughfares in Kenton County - including KY 16 and KY 17.

The KY 237 and Mineola Pike I-275 Interchanges will experience continued industrial development in addition to the previously outlined commercial/office development. The mixture of uses should be carefully designed and planned to minimize negative impacts. The existing and future residential uses must be adequately buffered from the new development in these two interchange areas. Future office development is recommended for the Marydale area.

Future areas to consider for business park, office campus style development include the I-71 corridor in the Verona area and the Petersburg I-275 exit area. These areas need to be evaluated in more detail to make sure the impact on infrastructure and on residential uses are appropriate, and that the timing of development is correct.

Several future interstate highway interchanges have been discussed for Boone County including one on I-275 west of Hebron, one on I-75 south of Walton (possibly just across the county line), and another on I-71 between Walton and Verona. The implementation of any of the interchanges must be accompanied with a land use study that evaluates and protects future industrial and business park land. Service and highway commercial development should be minimal in order to preserve prime industrial or business park land.

Property on the north side of KY 20 and near existing Airport runways should be developed with a planned combination of industrial and office uses if existing and future land uses are properly buffered from adjoining uses. The area surrounding the Airport and Airport property should be closely examined to explore industrial and office development opportunities. This examination can be performed by using the Cincinnati/Northern Kentucky International Airport Master Plan and by conducting an Off-Airport Land Use and Zoning Study. Development of this area should occur with extreme sensitivity to the river view and to the steep slopes. The area to the west of the airport along Hossman Road may also be suitable for office oriented development if proper access and buffering can be accomplished.

The river bottom areas, especially the Petersburg and Belleview areas, will continue to support extractive industries such as sand and gravel mining, however, the remaining resource has shifted primarily from gravel to sand. These areas generally have poor road accessibility, although industries involved in processing bulk products could locate there to make use of river barge transportation. Future development or expansion of these industries should occur with sensitivity to the residential, recreational, and agricultural potential of the river bottom area, especially near Woolper Creek. Upon the disuse of existing sand and gravel operations, reclamation should occur. Other types of mining activities may occur in the future of Boone County, but only with an evaluation of its benefits and costs to the community, including its impact on existing businesses and residential/agricultural uses. Consistent with state law, large, concentrated agricultural production of livestock and similar operations should be treated in planning and land use regulations as an industrial use, not an agricultural use because of the potential noise, visual, traffic, and other impacts on surrounding land uses.

CONCLUSION

In 2011, the International Monetary Fund (IMF) forecasted that the GDP of the United States will fall below that of China by 2016. American companies are regularly outsourcing portions of their operations, especially to China. The intellectual talent and skilled workers needed to support this activity is being developed outside the US as well, to the point where jobs in some industries in the U.S. (e.g., skilled and experienced engineers and scientists in biotech and aerospace industries) remain unfilled, despite record unemployment. For America to continue to compete in this changing global economy, it will have to focus efforts in several areas, including educating and developing local talent and workforces, supporting local manufacturing, and encouraging foreign companies to invest locally.