

BUSINESS ACTIVITY

The Business Activity Element examines the industry classifications of businesses in Boone County over a span of time from 1980 to 2003. 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.

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 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.

Area economists recommend that an in-depth economic analysis be performed for the three northern Kentucky counties. This analysis should explore issues such as export of services, promoting high tech industries, software engineering, analyzing multiplier effects, a regional measure of productivity, and a detailed shift-share analysis at the 4-digit level. This analysis can be used as a barometer to measure the economic performance of the community by comparing data to regional growth. The study must be uniform across the three counties and updated bi-annually in order to allow tracking over time.

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.

In 2003, the total number of all business establishments in Boone County was 2,947, an increase of 777 since the year 1997. The percentage of people employed in base industries decreased during the 1980's and 1990's, but has remained steady with 41 percent of all employees in the county being employed in a base industry in 2003. Base industry establishments accounted for 26 percent of the total number of business establishments in the county in 2003, 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 2003.

Table 5.1 Boone County Base Industries, 1998 - 2003

		1998	1999	2000	2001	2002	2003
Agriculture	Establishments	4	5	5	6	7	6
	Employees	49	46	37	45	45	36
Mining	Establishments	6	5	6	4	4	ND
	Employees	45	40	60	38	35	ND
Construction	Establishments	267	289	308	315	323	334
	Employees	1,771	2,012	2,233	2,339	2,230	2,326
Manufacturing	Establishments	187	189	189	194	191	191
	Employees	12,731	13,042	13,797	11,516	10,360	10,690
Information	Establishments	-	-	-	34	36	38
	Employees	-	-	-	1,537	1,657	911
Transportation/Warehousing	Establishments	198	213	234	193	198	192
	Employees	12,371	13,289	14,326	12,697	13,114	14,190
Total	Establishments	662	701	742	746	759	761
Total	Employees	26,967	28,429	30,453	28,172	27,441	28,153

(Source: Bureau of Labor Statistics, 1998-2003)

ND - Not disclosed - data does not meet BLS or State disclosure standards

The number of Transportation/Public Facilities, Manufacturing, and Contract Construction businesses rose dramatically from 1989 to 1997. This increase was related to the strong economic market during the 1990's. 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, supplied by TRI-ED, lists the number of base industry businesses and total number of employees in the State of Kentucky from 1998 to 2003. Generally speaking, the growth in the number of the various base industry sectors in the state was not as dramatic as the growth in Boone County. Fluctuations in the number of Construction businesses in Kentucky were similar to those described for the county. 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 over 20 percent during the 1990's, but has decreased since 2000. Boone County experienced greater than a 30 percent increase during the 1990's, and has leveled off since 2000.

Table 5.2 Kentucky Base Industries, 1998 - 2003

		1998	1999	2000	2001	2002	2003
Agriculture	Establishments	203	206	208	215	226	221
	Employees	1,477	1,409	1,363	1,408	1,394	1,347
Mining	Establishments	886	905	892	823	802	755
	Employees	22,946	21,396	19,328	19,638	19,501	18,468
Construction	Establishments	10,651	11,321	11,606	11,671	11,557	11,009
	Employees	83,668	86,735	89,243	87,724	83,418	83,375
Manufacturing	Establishments	5,012	5,142	5,206	4,931	4,834	4,633
	Employees	320,214	320,694	321,798	292,594	275,466	265,961
Information	Establishments	-	-	-	1,824	1,921	1,849
	Employees	-	-	-	35,256	33,753	32,479
Transportation/Warehousing	Establishments	5,540	5,783	5,966	4,295	4,283	4,083
	Employees	109,306	112,157	116,077	90,030	87,404	86,248
Total	Establishments	22,292	23,357	23,878	21,935	21,702	20,701
Total		537,611	542,391	547,809	491,394	467,183	455,399

(Source: Bureau of Labor Statistics, 1998-2003)

ND - Not disclosed - data does not meet BLS or State disclosure standards

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 159 recorded manufacturing businesses in 2002, nineteen had 100 to 249 employees, seven (dropped from eleven in 1997) had 250 to 499 employees, and two had 500 to 999 employees. In contrast, only four of the recorded 311 Contract Construction businesses in 2002 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, while it had risen 11.7 percent from 1992 to 1997. The total manufacturing payroll in Kentucky rose 1.2 percent from 1998 to 2002 (compared with 33.5 percent growth from 1992-1997). 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.

Table 5.2 and **Table 5.3** detail the number of Manufacturing businesses and number of Manufacturing employees per manufacturing business for Kentucky and for Boone County. In 2002, the County Business Patterns shows that 18.7% of all Boone County employees worked in Manufacturing. This compares to 14.4% of all Cincinnati Metropolitan Area employees, 17.8% of all Kentucky employees, and 12.8% 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.

**Table 5.3 Boone County Manufacturing Industries
Number of Establishments, 1998 - 2003**

	1998	1999	2000	2001	2002	2003
Food & Kindred Products	7	6	6	12	13	12
Apparel Products	4	5	5	5	5	6
Furniture and Fixtures	4	4	5	8	4	8
Paper and Allied Products	8	8	10	9	10	10
Printing & Publishing	23	23	24	17	15	14
Chemicals and Allied Products	8	8	10	13	13	15
Petroleum & Coal Products	0	0	0	ND	ND	ND
Rubber & Miscellaneous Products	20	21	20	17	21	22
Stone, Clay & Glass Prdts.	10	10	10	10	9	7
Fabricated Metal Products	18	19	20	33	31	28
Industrial Machinery & Equipment	53	50	45	36	32	34
Electronic Equipment	7	7	9	7	6	ND
Miscellaneous	13	15	15	20	24	24
Total	175	176	179	137	131	130

(Source: Bureau of Labor Statistics, 1998-2003)

ND - Not disclosed - data does not meet BLS or State disclosure standards

The distributive share of earnings by Manufacturing employees has similarly declined. In 2002, Manufacturing jobs accounted for 24.8% of total earnings in Boone County, down from a peak of 41.6% in 1974. Manufacturing earnings accounted for 17.9% of all earnings in 1987 in the Cincinnati Metropolitan Area, down from a peak of 38.3% in 1971. Kentucky Manufacturing earnings were down to 23.4% of all earnings in 2002 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 14.7% in 2002.

Transportation

One of the most significant increases in base employment in Boone County is the transportation industry. The presence and expansion of the Cincinnati/Northern Kentucky International Airport has 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, while the number of passengers increased from 982,311 in 1993 to 1,486,958 in 2004. 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, and \$3.9 billion in 2000. 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, and 69,000 in 2000. The projected number of area jobs supported in the year 2011 is 114,500.

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 2,186 in 2003. This represents 74.2 percent of all businesses in the county, up from 70.1 in 1989. The 40,505, (increased from 28,978 in 1997) non-base industry employees accounted for 59.0 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 details the number of non-base industry businesses and the total number of non-base industry employees from 1970 to 1997. Each category has continued to increase in Boone County.

Table 5.4 Boone County Non-Base Industries, 1998 - 2003

		1998	1999	2000	2001	2002	2003
Wholesale Trade	Establishments	229	245	264	282	295	317
	Employees	4,464	4,803	4,751	4,834	5,166	5,851
Retail Trade	Establishments	530	550	564	430	441	440
	Employees	12,566	12,884	13,387	8,703	8,724	8,615
F I R E	Establishments	147	156	178	275	271	279
	Employees	942	992	1,120	4,897	5,440	6,092
Services	Establishments	728	775	839	1,071	1,107	1,150
	Employees	11,133	11,828	13,488	24,936	19,749	19,947
Total	Establishments	1,634	1,726	1,845	2,058	2,114	2,186
Total	Employees	29,105	30,507	32,746	43,370	39,079	40,505

(Source: Bureau of Labor Statistics, 1998-2003)

ND - Not disclosed - data does not meet BLS or State disclosure standards

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 1998 to 2003. 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 growth in the number of the non-base industry sector in Kentucky was generally not as dramatic as the growth in Boone County.

Table 5.5 Kentucky Non-Base Industries, 1998 - 2003

		1998	1999	2000	2001	2002	2003
Wholesale Trade	Establishments	8,543	8,704	8,923	7,826	8,056	7,965
	Employees	83,020	85,358	86,514	72,681	71,507	72,793
Retail Trade	Establishments	21,784	21,996	22,462	17,232	17,095	16,503
	Employees	328,982	333,896	342,311	217,969	213,744	212,454
F I R E	Establishments	6,365	8,198	8,651	9,884	9,867	9,757
	Employees	68,643	69,028	70,430	81,609	83,207	84,285
Services	Establishments	36,435	37,514	39,523	46,388	46,826	45,981
	Employees	627,228	644,012	665,508	809,722	821,180	828,798
Total	Establishments	73,127	76,412	79,559	81,330	81,844	80,206
Total	Employees	1,107,873	1,132,294	1,164,763	1,181,981	1,189,638	1,198,330

(Source: Bureau of Labor Statistics, 1998-2003)

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 2002 payroll for the 9,007 Retail Trade employees was \$176,489,000 or an average annual income of \$19,595 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, 16.4% of all workers in the county worked in a Retail Trade business, however only 10.0 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 both the number of Retail businesses and employees for each of the divisions.

Table 5.6 Boone County Retail Businesses 1998 - 2003

		1998	1999	2000	2001	2002	2003
Building Materials & Garden Supplies	Establishments	28	30	29	33	32	27
	Employees	625	579	477	644	638	558
General Merchandise	Establishments	16	19	19	19	21	21
	Employees	2,244	2,362	2,401	2,336	2,312	2,293
Food Stores	Establishments	41	43	40	39	40	50
	Employees	1,058	1,137	1,253	2,227	2,209	1,983
Auto Dealers & Service Stations	Establishments	69	70	74	85	89	86
	Employees	1,262	1,323	1,452	1,461	1,408	1,425
Apparel & Accessories	Establishments	50	49	54	58	61	63
	Employees	610	649	673	712	700	746
Furniture & Home Furnishings	Establishments	47	49	54	95	97	101
	Employees	653	692	794	1,310	1,449	1,479
Eating & Drinking	Establishments	159	160	168	180	185	191
	Employees	4,377	4,418	4,702	5,053	5,186	5,227
Miscellaneous Retail	Establishments	140	144	151	198	200	193
	Employees	2,055	2,227	2,305	2,950	3,491	4,153
Total	Establishments	550	564	589	707	725	732
Total	Employees	12,884	13,387	14,057	16,693	17,393	17,864

(Source: Bureau of Labor Statistics, 1998-2003)

ND - Not disclosed - data does not meet BLS or State disclosure standards

**Table 5.7
Florence and Boone County Retail Trade, 1998 - 2003**

Number of Established Businesses and Workers		
Building Materials & Garden Supplies	Establishments	27
	Employees	558
General Merchandise	Establishments	21
	Employees	2,293
Food Stores	Establishments	50
	Employees	1,983
Auto Dealers & Service Stations	Establishments	86
	Employees	1,425
Apparel & Accessories	Establishments	63
	Employees	746
Furniture & Home Furnishings	Establishments	101
	Employees	1,479
Eating & Drinking	Establishments	191
	Employees	5,227
Miscellaneous Retail	Establishments	193
	Employees	4,153
Total	Establishments	732
Total	Employees	17,864

(Source: Bureau of Labor Statistics, 1998-2003)

ND - Not disclosed - data does not meet BLS or State disclosure standards

In 1975, there were only 3 Retail stores in Boone County with 100 to 249 employees while in 1978 there were 7 such Retail stores. The increase in the mean number of employees between 1976 and 1978 corresponds to the construction of the Florence Mall. The leveling-off and decrease in the mean number of employees after 1978 can be attributed to the increase in smaller stores. Although 6 stores continued to employ between 100 to 249 employees in 1984, the number of small stores (between 1 and 4 employees) had risen to 145. By 1986, however, the number of larger stores had increased to 11 and the number of smaller stores had slightly decreased to 132. The mean number of employees was 17 in 1986. With the construction of new large retail stores along Houston Road, the mean number of employees has increased to 19.6 in 2002.

According to the 1982 Census of Retail Trade, Boone County had a total of 435 Retail Trade businesses. Approximately one-fifth of these businesses did not have payrolls indicating that they were family owned and operated. Seventy percent of the Boone County Retail Trade businesses were located in Florence. This has remained consistent with 76.3 percent of Florence establishments being retail operations in 2002.

In 2002, the County Business Patterns reported that 16.4 percent of all Boone County employees worked in Retail Trade, compared to 12.3 percent of all employees in the Cincinnati Metropolitan Area, 14.7 percent of all employees in Kentucky, and 13.2 percent of all national employees. The peak for the Boone County percentage was 25.8 percent in 1978.

Services

In 2002, the payroll in Boone County for the 16,526 Service employees (County Business Patterns) was \$342,720,000 for an average annual income of \$20,738 per employee. In 1997, the payroll for 9,731 employees was estimated at \$154,236,400 resulting in approximately \$15,850 per employee. Although the Service average annual income is lower than the average \$42,743 in the Manufacturing sector, the average annual income for Service workers is higher than that of Retail Trade employees. The number of Service employees has surpassed Retail Trade employees. Because of the importance of the Service sector to Boone County, it is further detailed and divided into 12 divisions that are described in **Table 5.8**. These totals do not always equal the sum of the divisions due to disclosure rules. The total number of Business Services businesses has increased every subsequent year. The Bureau of Labor Statistics data may be different from County Business Patterns because of the way establishments are classified.

Table 5.8 Boone County Service Businesses 1998 - 2003

		1998	1999	2000	2001	2002	2003
Hotels & Other	Establishments	23	28	30	33	36	36
	Employees	571	642	691	677	636	654
Personal Services	Establishments	65	65	69	9	64	78
	Employees	509	526	571	582	700	877
Business Services	Establishments	181	196	202	324	356	370
	Employees	3,981	5,205	4,854	4,529	5,238	4,835
Auto Repair, Etc.	Establishments	76	76	77	73	76	81
	Employees	1,025	1,096	1,070	920	920	1,115
Misc. Repair	Establishments	31	34	29	15	25	47
	Employees	250	268	189	89	134	478
Amusement & Recreation	Establishments	36	40	37	12	20	21
	Employees	567	542	579	203	253	233
Health Services	Establishments	113	116	129	121	124	126
	Employees	2,054	2,181	2,186	943	943	930
Legal Services	Establishments	34	33	33	34	35	34
	Employees	154	118	123	123	135	147
Education	Establishments	10	13	14	17	17	21
	Employees	159	183	212	168	267	367
Social Services	Establishments	48	47	42	36	42	41
	Employees	532	552	558	521	550	604
Membership Org.	Establishments	9	9	8	7	8	9
	Employees	169	157	145	142	153	145
Misc. Services, Eng. Mgmt., Motion Pictures, etc.	Establishments	77	87	102	180	191	195
	Employees	262	302	426	1,340	1,249	1,424
Total	Establishments	693	731	758	844	977	1,038
Total	Employees	9,219	10,762	10,566	9,283	10,073	10,546

(Source: Bureau of Labor Statistics, 1998-2003)

ND - Not disclosed - data does not meet BLS or State disclosure standards

The number of Health Services businesses doubled in the 1980's, and has continued to increase. The number of Legal Service businesses, which has been recorded in the County Business Patterns only since 1980, rose 41 percent during the 1980's, but has remained relatively constant between 1998 and 2003.

In 2002, the County Business Patterns indicated that 30.2 percent of all Boone County employees worked in the Service sector, compared with 47.0 percent of all employees in the Cincinnati Metropolitan Area, 42.5 percent of all employees in Kentucky, and 47.3 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. Three studies, the Houston-Donaldson Study, the Main Street Study, and the Mall Road Corridor 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. Luke West 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 and 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. During the process a week-long design charette was held to bring together citizens, public officials, planners, and designers to produce a master plan for the corridor. 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. Since the completion of the Study, 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 become a catalyst in redeveloping this aging area. The major ramifications for land use planning are that increased commercial and office square footage should occur, and significant residential development may occur.

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 growing residential areas on Mt. Zion Road and along Dixie Highway 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.

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 Verona/I-71 interchange has been slow to develop to this point. However, the demand for commercial services will arise in the near 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 recent development of the car 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. 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/Airport Interchange should experience a decrease in the existing airport related commercial activities, as these services and activities will 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 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 next few years. Significant commercial will not occur, however, until residential development occurs in the corridor. 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, potential impacts of casino gaming in Indiana, and the designation of the

Big Bone/Middle Creek Scenic Highway. In recent years, heritage tourism businesses have increased. 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 2030, 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 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 under utilized commercial sites that provide redevelopment opportunities. These areas are often referred to as grayfields or brownfields because they have older structures or pavement that are not functioning 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 and planned 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.