

ECONOMY

INTRODUCTION

This element, a combination of the former 'Economy' and 'Business Activity' chapters from previous plans, describes Boone County's current economic outlook as well as potential future development patterns. Characteristics such as labor force, employment levels, income, poverty, commuting patterns, the number and types of jobs are examined. This chapter also looks at ways to promote a vibrant, diverse, and sustainable economy by encouraging and incentivizing innovation and prosperity while at the same time, recognizing the value of the environment and developing in a way that is compatible with surrounding land uses. Identifying and understanding these factors are vital in creating an atmosphere for long-term, sustainable economic growth in Boone County.

CURRENT ECONOMIC CONDITIONS AND TRENDS

Income

Per capita income measures the average income earned by each person in a given area. Therefore, two wage earners in the same family (or household) are counted separately when measuring per capita income. Household income, on the other hand, considers the earnings of all persons 15 years or older living in the same dwelling unit, regardless if they are related or not. In this case, the wages of two workers living in the same home would be counted together. From 2000 to 2016, per capita income figures for Boone County residents increased steadily and were higher than Kenton and Campbell counties and even more so than the State of Kentucky. Boone County's per capita income is slightly higher than that of the nation (\$31,128) as well as that of the greater Cincinnati area as a whole (\$32,229). Furthermore, the median household income of Boone County residents is much higher than that of Kenton and Campbell counties as well as that of Kentucky (\$43,470) and the Greater Cincinnati area (\$60,260). The steady increase in the per capita and median household incomes of Boone County is representative of the county's economic growth over the past couple of decades. Comparing per capita and median household incomes with nearby and larger geographic areas provides a glimpse as to where citizens enjoy the highest quality of life. The higher the income levels, the higher a standard of living that can be assumed. The most affluent area of Boone County is in the City of Union where the per capita income is near county-wide levels, but the median household income is far above any other portion of the county.

PER CAPITA AND MEDIAN HOUSEHOLD INCOME BY JURISDICTION, 2000-2016

	Per Capita Income			Median Household Income		
	<u>2000</u>	<u>2010</u>	<u>2016</u>	<u>2000</u>	<u>2010</u>	<u>2016</u>
Boone County	\$ 23,535	\$ 29,010	\$ 33,961	\$ 53,593	\$ 64,008	\$ 72,374
City of Florence	\$ 20,451	\$ 24,023	\$ 27,535	\$ 42,567	\$ 48,443	\$ 52,053
City of Union	\$ 27,626	\$ 33,034	\$ 36,496	\$ 84,454	\$ 98,438	\$ 102,253
City of Walton	\$ 17,296	\$ 19,476	\$ 23,682	\$ 42,462	\$ 48,913	\$ 61,835
Kenton County	\$ 22,085	\$ 27,205	\$ 28,785	\$ 43,906	\$ 53,213	\$ 56,568
Campbell County	\$ 20,637	\$ 27,096	\$ 29,834	\$ 41,903	\$ 51,482	\$ 56,772
Kentucky	\$ 18,093	\$ 22,515	\$ 24,063	\$ 33,672	\$ 40,062	\$ 43,740
United States	\$ 21,587	\$ 26,059	\$ 31,128	\$ 41,994	\$ 49,445	\$ 57,617

Source: U.S. Census, American Community Survey (ACS), 2012-2016

Unemployment

During the period from 1990 to 2016, Boone County's unemployment rate remained in the 3-4% range with the exception of an increase up to nearly 10% around 2010 due to the economic downturn. Boone County's economy tends to fluctuate up and down with the economies of the larger economic bodies such as Kentucky and the United States as a whole. However its unemployment has consistently remained slightly below the state and national levels. Boone County has tended to fare better in terms of unemployment both during periods of national economic recession and growth.

UNEMPLOYMENT RATE, 1990-2016

	<u>1990</u>	<u>2000</u>	<u>2010</u>	<u>2016</u>
Boone County	3.4%	3.1%	9.9%	3.8%
Northern Kentucky	3.6%	3.7%	10.6%	3.9%
Kentucky	5.8%	3.8%	11.7%	5.0%
United States	5.5%	3.6%	10.6%	4.9%

Source: KY Cabinet for Human Resources, Northern KY Chamber of Commerce

Poverty

The U.S. Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is considered to be living in poverty. If the total income for a family (or unrelated individual) falls below the relevant poverty threshold, then the family and every individual in it (or unrelated individual) is considered to be living in poverty. The level of poverty in an area reflects the degree of economic stress in an area. Obviously, a low poverty rate is an indication of a strong economy. Over the past few decades, Boone County's poverty rate has consistently been lower than neighboring counties and the Commonwealth of Kentucky as well as the Greater Cincinnati area, which stands at 12.6% currently.

POVERTY LEVEL, 2000-2016

	<u>2000</u>	<u>2010</u>	<u>2016</u>
Boone County	5.6%	9.2%	7.6%
Kenton County	8.9%	13.3%	12.6%
Campbell County	9.1%	13.0%	12.8%
Kentucky	15.8%	18.9%	18.5%
United States	11.3%	15.3%	14.1%

Source: U.S. Census, American Community Survey (ACS), 2012-2016

Labor Force

The labor force of an area is defined as the number of residents over 16 years of age who are eligible to be employed whether they have a job or not. The labor force participation rate is the percentage of persons 16 years and over currently employed or seeking employment. Individuals not looking for a job such as full-time students, homemakers, or people above the age of 64, are not part of this data set. During a recession, the labor force participation rate goes down due to fewer jobs available. When there are fewer jobs, people are discouraged to seek out employment which results in a lower participation rate.

The higher the labor participation rate, the better, but if it is low, it can also act as a warning sign for any economy. For that reason, participation rate as well as unemployment data should be evaluated simultaneously to understand the overall employment status in the economy. Boone County's labor force and employment have remained relatively high over the decade and compares favorably to that of Kenton and Campbell Counties.

LABOR FORCE AND EMPLOYMENT, 2010-2016

	<u>2010</u>			<u>2016</u>		
	Total Population	Pop. age 16+	Labor Force Participation Rate	Total Population	Pop. age 16+	Labor Force Participation Rate
Boone County	118,811	85,506	73.8%	128,536	95,134	71.0%
Kenton County	159,720	122,683	69.6%	164,945	127,720	68.4%
Campbell County	90,336	71,034	67.8%	92,211	73,934	66.4%

Source: U.S. Census, American Community Survey (ACS), 2012-2016

Commuting Patterns

The relationship of county commuting patterns to the metropolitan region is a valuable tool for analyzing the county's economy, as well as its relationship to the region's economy and transportation systems. These job-related commuting patterns are termed transpositions. Commuting patterns can reveal whether or not the residents of a community are working locally or having to go outside the community for employment. Conversely, it can also reveal if there are not enough workers in a community due to commuters having to come to work from

their housing units located outside of the area (non-resident workers). Transpositions are generally viewed negatively by transportation planners because a commuter most often travels in a single occupant vehicle. If no changes in commuting habits are seen, or no major roadway capacity improvements or transit improvements (i.e. light-rail, feeder bus) are implemented, economic development could result in increased congestion and pollution problems for the whole region.

TABLE 4.10 – BOONE COUNTY COMMUTING PATTERNS, 2010-2014

	2000		2009		2014	
Working Boone County Residents:	44,507	100%	52,619	100%	56,636	100%
working in Boone County	23,589	53%	19,575	37%	22,142	39%
commuting out of Boone County	20,918	47%	33,044	63%	34,494	61%
People working in Boone County:	45,323	100%	63,717	100%	76,273	100%
from Boone County	23,589	52%	19,575	31%	22,142	29%
commuting into Boone County	21,734	48%	44,142	69%	54,131	71%

Source: U.S. Census, Department of Commerce

During the past couple of decades, Boone County has seen a steady decrease in the percentage of residents who work in Boone County verses having to travel outside the county to their place of employment. Conversely, the number of people commuting to Boone County from outside areas is increasing as well. What this data is telling us is that the jobs in Boone County do not match the skill set of the resident workers. If these trends continue, traffic congestion and pollution will only get worse. However, this is also an indication of the value of the buildable lots in the county. Real estate costs (and demand) are driving the construction of higher end housing which increases the assessed values and therefore provides a higher tax base for local schools and public services.

COMMUTING TIMES/HOME EMPLOYMENT, 2010-2016

	2010		2016	
Mean travel time to work	24.1 min.		23.7 min.	
Worked from home	1,659	2.8%	2,554	4.1%

Source: U.S. Census, American Community Survey (ACS), 2012-2016

A few trends that are impacting congestion and pollution in a positive way are the slight decrease in travel time to work as well as the steady increase of people working from home (or telecommuting). The shorter the commute time and the fewer number of people who are driving to work can have a positive impact on congestion and pollution. The closer a job is to one’s home, the less impact their commute will have on traffic and pollution. In addition, the more people who are able to “telecommute”, or work from home, the lessening of traffic congestion and pollution will be even greater.

Occupation by Industry

The types of occupations that Boone County’s residents are employed in provide a social/economic profile of the population. Prior to 1960, most Boone County residents were employed in “blue collar” industries. This trend began to shift during the 1970’s and by 1980, “white collar” employment accounted for over half of the total county employment. As of 2016, approximately 70% of the county’s residents are employed in “white collar” jobs.

Boone County’s resident worker population has become more professional than in the past. Of the represented industries, “blue collar” jobs are primarily Agriculture-Mining, Construction, Manufacturing, and Transportation-Warehousing-Public Utilities, whereas “white collar” jobs would include Trade (wholesale-retail), Professional (finance, insurance, real estate, scientific, management, administrative, and information), Education and Health Care, Services (arts-entertainment, hospitality, and food), and Public Administration.

Over the course of the past decade, the U.S. Census re-categorized the industry employment descriptions, so direct comparison to previous trends is difficult. However, general trends are evident. Currently, education and health care lead the way in Boone County with nearly 20% of the workforce in those related fields. Manufacturing is still holding steady with approximately 15% of the workforce. Retail jobs are slightly increasing while transportation and warehousing are slowly slipping.

BOONE COUNTY CITIZENS (16 YEARS AND OVER) - JOBS BY MAJOR INDUSTRY, 2005-2016

INDUSTRY	2005		2010		2016	
Ag/Mining	158	0.3%	396	0.6%	342	0.5%
Construction	3,827	6.6%	2,977	4.6%	3,339	5.2%
Manufacturing	7,364	12.6%	7,868	12.2%	9,327	14.6%
Transportation/Warehousing/Utilities	7,813	13.4%	5,871	9.1%	5,467	8.6%
Trade	10,872	18.6%	9,342	14.5%	n/a	
Wholesale Trade	n/a		n/a		2,209	3.5%
Retail Trade	n/a		n/a		8,266	13.0%
Professional	8,402	14.4%	9,285	14.5%	6,394	10.0%
Education/Health Care	8,494	14.6%	12,362	19.2%	12,534	19.7%
Services	9,019	15.5%	7,290	11.3%	n/a	
Other Services (besides Public Admin.)	n/a		n/a		2,548	4.0%
Public Administration	2,349	4.0%	2,546	4.0%	2,280	3.6%
Information	n/a		n/a		1,176	1.8%
Finance/Insurance/Real Estate	n/a		n/a		5,144	8.1%
Arts/Entertainment/Recreation	n/a		n/a		4,731	7.4%
Total Workforce (16+ years old)	58,298	100.0%	64,234	100.0%	63,757	100.0%

Source: U.S. Census, American Community Survey (ACS), 2012-2016

Employment Levels

According to the data, the top three industries in Boone County are Educational/Health Care, Manufacturing, and Retail Trade. In fact, 47.3 percent of the workers in Boone County were employed in one of these three industries. Some industries show evidence of being fairly volatile in terms of employment, with important shifts from year to year in the number of workers employed including professional jobs which is experiencing a sharp downward turn in numbers since 2010. This analysis of employment numbers suggests that Boone County's economic complexion is a mix of traditional base industries such as Manufacturing and non-base industries like Retail Trade, Professional Services, and the Education/Health Care industries.

Employment Trends

Future trends should include the rapidly growing warehousing and logistics industry around the Cincinnati-Northern Kentucky International Airport (CVG) as well as in the Hebron and Richwood areas. Also, a continuation in the growth of wholesale/retail employment is expected being led by the recent redevelopment of the regionally-oriented commercial district in the Mall Road Area into a mixed use urban community and the continued commercial expansion of the Houston/Donaldson area as well as potentially the Marydale site. There should also be continued growth in manufacturing employment with the expansion of industrial development around the airport and along U.S. 25 near Richwood.

BUSINESS AND EMPLOYMENT ACTIVITY

Boone County's economy and related business activity is closely tied to and interrelated with the larger Cincinnati Metropolitan Area's economy. Industrial, business park, and commercial development in Boone County has occurred hand-in-hand with expansion of the Cincinnati/Northern Kentucky International Airport (CVG) 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 it to lead the region in many growth and prosperity indicators. The continued economic vitality of Boone County is of even greater importance to the success of the Northern Kentucky region.

Base and Non-Base Industries

There are two categories of industrial activity; base and non-base. Base industries furnish the products which sustain a society, such as those derived from agriculture, mining, and manufacturing activities. Non-base industries, on the other hand, are users and marketers of base industrial products. These support (or service) activities have developed beyond the simple distribution of physical products to the provision of human services. The two industry types are interrelated and interdependent. Base industrial activities are responsible for bringing outside income into a community. Non-base industries then circulate that income while providing the services necessary both for the operation of base industries and for daily activities of all residents in the community.

While base industries provide the foundation for a long term employment sector, base industry products, employees and families immediately generate the need for non-base support industries. This develops an urban growth cycle of population, products, and service, in terms of both volume and diversity. Growth may be considered to be an increase in volume. Base industries increase their activities and expand their employment rolls in response to market demand for their products. Such growth generates population increases and requirements for additional non-base services.

It is important to realize the constraints of the comparison. With the shift of the past few decades in the United States to a post-industrial economy, the base and non-base distinction no longer strictly follows traditional lines. Boone County's strong retail, office, and service sectors serve as a regional base and act as a regional draw resulting in significant outside dollars flowing into the county's economy. The U.S. Census and other data sources also change, combine, or split categories over time, which often makes data difficult to compare.

Furthermore, Boone County's economy is strongly tied to the Greater Cincinnati Metropolitan Area's economy. It is important to note that several factors outside the county have an important effect on the county's economy. However, despite these constraints the base to non-base analysis does reveal important aspects of the county's economic anatomy, and this comparison is useful in establishing the current status of economic factors.

Tables 5.1 and 5.2 demonstrate how the Information and Transportation/Warehousing sectors have seen considerable growth since the last comprehensive plan update as it has at the statewide level. Manufacturing increased in Boone County in the past decade, but decreased in Kentucky overall. This reflects that Boone County's development trends specific to Northern Kentucky are different than other parts of the state. In fact, 59% of jobs located in Boone County in 2015 were "blue collar" jobs whereas at the state level it was only 24%. Boone County's more "blue collar" employment opportunities do not match up with the mostly "white collar" jobs Boone County residents have. This explains the disparity between the "white collar" income earned by Boone County residents and the "blue collar" income of job opportunities in the county. Residents of the county have to travel to other counties for employment, whereas, establishments located in Boone County rely on a workforce that commutes into the county. This is also further complicated by the housing costs within the county as most new construction is aimed at the "white collar" worker instead of the "blue collar", or more affordable homes that would match workers in the area to homes.

Manufacturing

The growth of Manufacturing businesses and employment in Boone County is an important indication of the economy of the area. 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.

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. Furthermore, the decision by CVG to allow for development of its land surrounding the airport for aviation and non-aviation related uses is adding to the regional economic impact. CVG is currently in the process of updating its Master Plan and is expected to be completed with the process by early 2019.

Retail/Services

With the continuing development of the Mall Road, Houston Road, and Walton Town Center areas as regional shopping districts, the Retail and Services industries have remained major components of Boone County's economy. Additional retail development and opportunities in the Union Town Center area will certainly arrive as the completion of the realigned Mt. Zion Road nears. However, the steady increase of people shopping on-line will no doubt continue to negatively impact brick and mortar retail stores across the country as goods are delivered from warehouses directly to one's home.

5.1 - BOONE COUNTY INDUSTRY ESTABLISHMENTS AND EMPLOYEES, 2000-2015

INDUSTRY NAICS code	2005			2010			2015		
	Est.	Emp.	Percent	Est.	Emp.	Percent	Est.	Emp.	Percent
Total for all sectors	2,758	60,042	100.0%	2,820	61,688	100.0%	3,076	77,322	100.0%
Agriculture, forestry, fishing and hunting	5	a		3	a		2	a	
Mining, quarrying, and oil and gas extraction	5	b		3	b		3	a	
Utilities	10	e		7	c		13	e	
Construction	338	2,793	4.7%	279	1,984	3.2%	274	2,329	3.0%
Manufacturing	169	11,200	18.7%	169	10,183	16.5%	197	14,094	18.2%
Wholesale trade	166	3,923	6.5%	178	4,951	8.0%	216	7,728	10.0%
Retail trade	465	9,999	16.7%	452	9,338	15.1%	468	9,189	11.9%
Transportation and warehousing	135	7,689	12.8%	156	8,307	13.5%	209	12,314	15.9%
Information	36	432	0.7%	23	686	1.1%	30	935	1.2%
Finance and insurance	173	3,276	5.5%	187	3,667	5.9%	196	3,797	4.9%
Real estate and rental and leasing	138	1,002	1.7%	110	656	1.1%	123	707	0.9%
Professional, scientific, and technical services	229	2,616	4.4%	237	2,531	4.1%	236	2,134	2.8%
Management of companies and enterprises	24	664	1.1%	22	f		32	1,257	1.6%
Admin. and support/waste management/remediation services	163	3,300	5.5%	165	4,313	7.0%	173	5,429	7.0%
Educational services	18	187	0.3%	26	424	0.7%	26	2,399	3.1%
Health care and social assistance	201	3,405	5.7%	225	4,472	7.2%	262	4,623	6.0%
Arts, entertainment, and recreation	31	645	1.1%	42	761	1.2%	49	675	0.9%
Accommodation and food services	233	6,330	10.5%	281	6,118	9.9%	307	6,931	9.0%
Other services (except public administration)	216	2,157	3.6%	250	2,247	3.6%	256	2,489	3.2%
Industries not classified	3	2	0.0%	5	2	0.0%	4	4	0.0%

a = 0-19 employees;

b = 20-99 employees; c = 100-249 employees

e = 250-499 employees; f = 500-999 employees

Source: U.S. Census County Business Patterns (NAICS), 2015

5.2 - KENTUCKY INDUSTRY ESTABLISHMENTS AND EMPLOYEES, 2000-2015

INDUSTRY 2012 NAICS code	2005			2010			2015		
	Est.	Emp.	Percent	Est.	Emp.	Percent	Est.	Emp.	Percent
Total for all sectors	92,176	1,514,199	100.0%	90,771	1,456,790	100.0%	91,845	1,579,477	100.0%
Agriculture, forestry, fishing and hunting	299	1,680	0.1%	242	1,856	0.1%	224	1,313	0.1%
Mining, quarrying, and oil and gas extraction	667	20,198	1.3%	640	21,192	1.5%	487	14,068	0.9%
Utilities	330	8,179	0.5%	341	8,310	0.6%	335	8,413	0.5%
Construction	9,318	82,815	5.5%	7,770	64,267	4.4%	7,108	65,891	4.2%
Manufacturing	4,152	253,804	16.8%	3,778	202,990	13.9%	3,692	232,007	14.7%
Wholesale trade	4,560	69,769	4.6%	4,284	67,931	4.7%	4,293	72,254	4.6%
Retail trade	16,566	223,666	14.8%	15,579	217,746	14.9%	15,187	207,315	13.1%
Transportation and warehousing	3,167	75,975	5.0%	2,951	79,895	5.5%	2,938	92,858	5.9%
Information	1,688	31,102	2.1%	1,487	31,808	2.2%	1,507	35,992	2.3%
Finance and insurance	6,189	66,124	4.4%	6,393	66,811	4.6%	6,395	73,587	4.7%
Real estate and rental and leasing	3,734	19,162	1.3%	3,604	18,045	1.2%	3,680	17,217	1.1%
Professional, scientific, and technical services	8,004	60,829	4.0%	8,132	65,537	4.5%	8,290	72,731	4.6%
Management of companies and enterprises	631	24,527	1.6%	639	25,386	1.7%	705	30,671	1.9%
Admin. and support/waste management/remediation services	3,670	89,259	5.9%	4,011	81,964	5.6%	4,058	119,443	7.6%
Educational services	865	28,076	1.9%	874	27,931	1.9%	906	28,599	1.8%
Health care and social assistance	10,083	224,193	14.8%	10,960	241,385	16.6%	12,875	253,185	16.0%
Arts, entertainment, and recreation	1,301	17,294	1.1%	1,274	17,032	1.2%	1,332	16,931	1.1%
Accommodation and food services	6,965	147,371	9.7%	7,517	150,583	10.3%	7,910	170,344	10.8%
Other services (except public administration)	9,791	69,897	4.6%	9,578	65,690	4.5%	9,371	65,799	4.2%
Industries not classified	196	279	0.0%	717	431	0.0%	552	859	0.1%

Source: U.S. Census County Business Patterns (NAICS), 2015

ECONOMIC DEVELOPMENT

Tourism

Tourism in and of itself is not necessarily a component of economic development but it does attract outside dollars into the community in a number of ways. Visitors coming to Boone County not only spend time in the community, but also spend money while here as they stay in hotels, eat in restaurants, shop in retail stores, or pay for services. Tourism is having a large impact on Boone County as seen in the recent trend of new hotels being built and proposed. Some of Boone County's main attractors include the Creation Museum, Big Bone Lick State Park, Rabbit Hash, Turfway Racetrack, the Florence Freedom minor league ballpark, the official designation of northern Kentucky as a "gateway" to the Bourbon Trail and associated distilleries and breweries, the many commercial areas, as well as the Cincinnati-Northern Kentucky International Airport which, along with the hotels located in Northern Kentucky (2/3 of which are located in Boone County), serves as a base for additional regional tourism outside of Boone County to such destinations as downtown Cincinnati, the Kentucky Speedway in Sparta, KY and the Ark Encounter in Williamstown, KY.

Recreation and Activity Areas

Overall quality of life and local economic health can be improved by the presence of a strong pedestrian and bike system that connects neighborhoods, employment uses, retail centers, recreation parks and facilities, government services, and community identifiers such as historic sites. These systems connected to individual paths can give identity to an area of the county and encourage small business growth. Examples include the Mary Ingles (historic pioneer) trail system along the Ohio River, the General John Hunt Morgan (Civil War) trail through the center of the county, or the beginning of an airport perimeter multi-use trail system. There are many commercial recreational opportunities in Boone County including the World of Golf driving range facility and golf course in Florence, Sports of All Sorts in the Florence/Union area, the Florence Freedom minor league baseball team, and Turfway Park, which offers live horse racing, as well as many passive and active recreational areas that provide places to hike, bike, walk, run, play sports, and listen to concerts. These opportunities regularly attract people from all around the greater Cincinnati area into Boone County.

Sustainability

A sustainable economy is one that remains viable from generation to generation and not as affected by national recessions or dependent upon national expansions. The goal of a truly sustainable economy is to experience local economic development while at the same time remaining a vital part of the overall metropolitan region's economy. Coordinating the components of a continually renewing and changing economic system includes not only having a diversity of jobs, but also providing an appropriate supply of employees living in the area who are suited for those jobs. The diversity of industry and employment opportunities has long been the strength of Boone County's economy, but the challenge of providing local housing opportunities for workers in all industries remains.

CONCLUSIONS AND RECOMMENDATIONS

The Goals for the Economy element suggests promoting a vibrant, diverse, and sustainable economy while at the same time recognizing the value of the environment. They also recommend innovation and prosperity with meaningful employment opportunities that are developed in appropriate locations and compatible with the surrounding land uses. The Objectives describe many ways to achieve these goals.

Boone County needs to identify and promote business and economic sectors of the future in order to remain competitive in a regional and global economy. This can be done by staying informed as to the latest economic trends not only locally, but nationally and internationally. A detailed economic study or analysis of Boone County and the region and what lies ahead would be a way to prepare for the future economic sectors and industries. Furthermore, the encouragement of programs assisting in entrepreneurial start-ups could ensure that the up and coming businesses would find Boone County a friendly place to start and hopefully remain. These high-end, skilled businesses could take advantage of the highly educated Boone County residents who would normally have to travel outside of the county for employment of this type.

In addition, the continually changing nature of the Cincinnati/Northern Kentucky International Airport (CVG) needs to be understood in order to address potential impacts and to support aviation growth for passengers and business in the future. Boone County must be ready to adjust to any further shifts in this dynamic by remaining involved with the Airport as it updates its Master Plan.

Tourism is a valuable and vital part of not only Boone County's economy, but also that of the region as a whole and needs to be promoted and accommodated as an economic resource and to promote sustainability. Besides the obvious tourism attractions such as the Creation Museum, Florence Freedom, Turfway Park, golf courses, and parks (both passive and active) throughout the county, there are other types of tourism such as agri-tourism and heritage tourism that could benefit from simple promotion. The result of these segments of tourism will continue to draw economic resources to Boone County with little financial investment.

American companies are regularly outsourcing portions of their operations. The intellectual talent and skilled workers needed to support this activity is being developed outside the U.S. 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. In order to compete in this changing global economy, efforts must be made to educate and develop local talent and workforces in order to draw these industries back to the U.S. and sustain them.

High paying jobs for a highly skilled and educated workforce needs to be encouraged and promoted for the residents and businesses of Boone County. This is a two-fold process. Besides promoting these types of jobs, the education system in Boone County needs to insure that they are producing the skilled workers who can fill these jobs. Education is paramount when preparing the future workforce of the community. College and career-ready programs and the Early College Program need to continue to be stressed and utilized as do the opportunities provided by Gateway and the Ignite Institute which can more than adequately prepare the next generation of workers to match whatever jobs come to the area. This will help Boone County identify and promote economic jobs and sectors of the future while at the same time preparing the future workforce for them and remain competitive in the regional and global economy.

While it's important to understand the types of jobs and industries in a community, it is equally important to know the location of these jobs and industries. They must be promoted in suitable locations to keep the county a vital part of a strong regional economy. For example, industrial development needs to be encouraged to locate near railroad lines, highways, the Ohio River, the Airport, and where infrastructure exists or is planned. The most efficient way to do this is by having compact, efficient development patterns with appropriately sized and well maintained buffer spaces between other land uses. Furthermore, larger scale interstate commercial uses, as well as the freight logistics industry, should occur within close proximity to interstate interchanges not only for maximum convenience and economy to the traveling public, but also to minimize traffic congestion in areas not necessarily close to interchanges. Recently, semi-trucks have been parked in roadways, specifically in the Hebron and Richwood areas, waiting their turn to enter warehouse facilities in order to receive or deliver goods. If the facilities are not located close to interchanges and with ample parking and/or stacking, the need for a regional logistics parking lot for staging arises.

Boone County currently has two Tax Increment Financing (TIF) districts located between Richwood Road and Chambers Road on the east side of I-71/75, which allows for tax revenues from new developments to pay for public improvements in the area. In the future, other TIF districts may be formed by the legislative units. Also, the Hebron area is the home to 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. Lastly, the U.S. Department of Treasury and Internal Revenue Service recently certified 144 census tracts in Kentucky as "Opportunity Zones" — low-income areas where major investors would be incentivized by significantly reduced and deferred capital gains taxes. One of these zones is located in Boone County. It includes the area wraps around south and east portions of the Cincinnati-Northern Kentucky International Airport with a southern boundary along Burlington Pike and along I-75/I-71 and the Boone County line with Kenton County to the east. These mechanisms and districts need to be promoted to further the economic viability and opportunities in Boone County moving forward.

Ample future industrial districts need to continue being identified on the Future Land Use Map so that potential impacts on residential developments are known and can be avoided and/or addressed. Boone County must be sensitive to the mixing of commercial uses of any kind with residential developments. The recent emergence of Airbnb, which operates as an online service for people to lease or rent homes for short-term lodging, is one example of a commercial use impacting residential uses. While this can facilitate in the promotion of the tourism industry, it also can have negative impacts such as parking or additional traffic if not appropriately located as it is essentially mixing commercial uses with non-commercial uses. More research and consideration needs to be given to this fairly new phenomenon in order to find ways to make it compatible with surrounding land uses. Furthermore, commercial and industrial uses need to be compatible with surrounding natural systems as well. Effective site placement, architectural design, and landscape design for these uses are critical so that they do not negatively impact adjoining uses with smoke, dust, noise, and odor. Therefore, site development and enforcement of the standards described in the Boone County Subdivision Regulations need to be carefully coordinated with the proper regulatory agencies so that they do not develop into a situation that is hazardous to human life or the environment.

Boone County and other metropolitan regions are making the transition to a sustainable, regional economy. What are now viewed as environmental problems (e.g. energy inefficient construction methods) will actually become opportunities for new, innovative sustainable businesses (e.g. retrofitting older structures for energy conservation). The goal should be to achieve a combination of land uses that balances revenues generated from those uses with the expenditures required to support them. There are numerous ways to achieve this. One is the promotion and support of local agriculture. Examples of local support for agriculture include the farmers' market in Burlington. The State of Kentucky has promoted this Farmers' Market as the ideal outlet for traditional tobacco farmers to sell alternative crops like fruits and vegetables and to help shorten the distances our foodstuffs are transported as well as enabling our local farmers.

Encouraging the establishment of recycling programs and recycled materials industries is another way to achieve a more sustainable, regional economy. Boone County has maintained a volunteer curbside recycling program for the community. Another step that could be taken would be maximizing the use of the local governments' purchasing power so that recycled products would be encouraged to be purchased. Maximizing energy conservation and the development of local renewable resources are also two other attributes of a regional, sustainable economy. Duke Energy promotes energy conservation through its Energy Home rebates program that includes recommendations for replacing normal light bulbs with long-life, energy-efficient, LED bulbs, as well as providing energy assessments for homes that give homeowners tips on energy savings. Duke Energy also offers energy incentive programs to businesses through a variety of tools and resources to help them save money make their business more efficient. In addition, the encouragement of telecommuting and virtual employment can minimize potential impacts on traffic as well as air quality as fewer vehicles will be on the roadways during rush hour commute times.

Conclusion

Boone County's specific resources and strengths should be nurtured as catalysts for economic development and should start taking the necessary steps to make the transition towards a more sustainable, regional economy of the future. It is recommended that a detailed study or analysis of Boone County's economy be performed to provide a more accurate and detailed profile of Boone County businesses and labor force, employment trends, workforce readiness, etc. Such a study would also evaluate the strengths and weaknesses of current industry types and their potential for expansion. It could also be used to recruit target industries suitable to Boone County and its local workforce. City/County officials will then be able to use this information to promote job growth within their jurisdiction and provide direction on incentive programs to expand existing businesses or recruit new ones and at the same time, set Boone County up with a more sustainable and diversified economy that is ready for whatever the future trends may be, including dealing with the impact of the logistics industry (i.e. Amazon) on big box retail and what becomes of any empty retail centers and their parking lots in the event that they close. Boone County should examine creative mixed-use methods of incorporating high density residential with brick and mortar retail opportunities as a way to promote a local and sustained economy.

In addition, there are many local agencies that provide services to the existing and prospective business community in not just Boone County, but for all of Northern Kentucky. Some of them are focused more towards

attracting new economic engines or components to the area, while others are here to provide assistance to the smaller or struggling industries that already exist in Boone County. The Northern Kentucky Tri-County Economic Development Corporation (Tri-ED) is charged with recruiting companies into the Northern Kentucky region. In recent years, Tri-ED has also placed an emphasis on retaining existing businesses. The Northern Kentucky Chamber of Commerce helps to promote and support the development of businesses in the Northern Kentucky region through leadership and advocacy programs, events, initiatives, marketing opportunities, and publications. Another invaluable resource includes the Northern Kentucky Area Development District NKADD which educates and empowers communities by implementing services through specific areas of expertise in aging, community development, human services, and workforce development. They also act as a forum, clearinghouses, technical center, and can provide continuity to projects during the transition of local elected officials. Lastly, the Center for Economic Analysis and Development at Northern Kentucky University (NKU) provides economic analysis and business research and conducts research on issues related to the current and future economic well-being of businesses and communities. It is important to know who these agencies are and to encourage those who need assistance or information to contact them and take advantage of the valuable services they provide in order to achieve these goals.