

# Elizabethtown – Fort Knox MSA Transformation Project

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*Measuring the Impact  
of the  
BlueOval SK Battery Park  
on the  
Elizabethtown Metro Area*

**Luke B. Schmidt  
with Dr. Paul Coomes, Ph.D.**

**August 9, 2023**

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**L.B. Schmidt & Associates, LLC**



## Table of Contents

- Transmittal Letter .....5
- Introduction .....7
- Methodology & Acknowledgements .....9
- Executive Summary .....13
- Elizabethtown – Fort Knox MSA Research & Analysis .....31
  - Economic and Demographic Characteristics of the 10-County Elizabethtown Region .....33
  - Elizabethtown – Fort Knox Metropolitan Statistical Area Peer MSA Analysis .....59
  - BlueOval SK Battery Park Impact on Elizabethtown – Fort Knox MSA .....75
- Boomtown Analysis .....109
  - Georgetown, Kentucky .....109
  - Reno, Nevada .....121
  - Meridian, Idaho .....135
  - Round Rock, Texas .....146
- Key Stakeholder Engagement – Pre/Post-Project SWOT Analysis & Surveys/Interviews .....159
  - Pre/Post-Project Community Leader SWOT Analysis .....159
  - Key Community Leader Surveys & Interviews .....162
  - Outer County Leadership Groups .....174
    - Meade County .....174
    - Grayson County .....176
    - Hart County .....178
    - Larue County .....180
- Overview – Competitive Community Economic Development Platforms .....183
  - Bowling Green, Kentucky .....183
  - Columbia, Tennessee .....184
  - Decatur, Alabama .....185
- Elizabethtown – Fort Knox MSA Geographical Expansion .....187
- Bluegrass/Western Kentucky Parkway Conversions to Interstate Status .....193
- Project Recommendations .....199





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Dear Juston, Kenny, Margy, Rick, & Tom,

On behalf of my project partner, Paul Coomes, we are pleased to provide each of you with your copy of the final report on the Elizabethtown – Fort Knox MSA Transformation Project, which accompanies this letter. We appreciate the opportunity to work with each of you and remain available for further consultation and questions.

Sincerely,

*Luke B. Schmidt*

Luke B. Schmidt

cc: Dr. Paul Coomes, Ph.D.



## Introduction

The Elizabethtown – Fort Knox MSA Transformation Project has been developed in response to the announcement in late 2021 and subsequent construction of the massive BlueOval SK Battery Park in Hardin County. The battery park, located on the Glendale megasite just south of Elizabethtown will have a profound impact on Elizabethtown, Hardin County and all of Kentucky.

***BlueOval SK Battery Park will be the largest electric vehicle (EV) battery manufacturing facility in the world and represents the largest single economic development project in Kentucky's history.***

BlueOval SK (BOSK) is a joint venture between The Ford Motor Company and SK On, a South Korean battery manufacturing company. BOSK will produce electric vehicle (EV) batteries for new Ford electric vehicles.

L.B. Schmidt & Associates, LLC, a Louisville-based international consulting firm, in partnership with Dr. Paul Coomes, Ph.D., Professor Emeritus at the University of Louisville, was retained in 2022 by a consortium of clients to study the impact of the battery park on the metropolitan area.

Project clients include:

- Baptist Health Hardin
- Elizabethtown – Hardin County Industrial Foundation
- Elizabethtown Community & Technical College
- Hardin County Chamber of Commerce
- Heartland Communication

Additional project clients/funders include:

- Abound Credit Union
- Elizabethtown Tourism & Convention Bureau
- lightsource BP
- PNC
- South Central Bank
- Swope Family of Dealerships
- The Cecilian Bank
- The Land Store, Inc./Tim Aulbach
- WesBanco
- West Point Bank
- Windstream

The findings of the study begin with the Executive Summary which follows.



## Methodology & Acknowledgements

### Methodology

The Elizabethtown – Fort Knox MSA Transformation Project was conducted by utilizing several types of research, including:

- Online research
- Key stakeholder interviews
- Site visits to “boomtowns”
- Analysis of key government geographical market economic data
- Analysis of data provided by BlueOval SK

The findings which follow in this report are based upon analysis of the “best” data provided by various sources which was available at the time that the research was conducted. Any unanticipated changes in BlueOval SK’s business plan as understood at the time this report was issued may alter the impact numbers presented in this report.

### Acknowledgements

Numerous people provided valuable assistance to the authors as this report was compiled.

The following members of the executive team from BlueOval SK provided invaluable support to the authors as part of the BOSK data analysis:

- Jiem Cranney, Chief Financial Officer
- Neva Burke, Human Resources Director
- Niclas Persson, Internal Control Manager
- Ursula Madden, External Affairs Manager
- Eric Grubb, Director of New Footprint Construction (The Ford Motor Company)
- Mike Fine, BlueOval SK Outside Counsel (Wyatt, Tarrant & Combs)

The following individuals provided invaluable support to the authors as part of the series of outer county key leaders group meetings:

- Annie Emond, Executive Director, Meade County Chamber of Commerce
- April Spalding, Executive Director, Grayson County Chamber of Commerce
- Ashley Herrington, CEO, Owensboro Health Twin Lakes Regional Medical Center
- Blake Burrett, Larue County Judge/Executive
- Bonnie Henderson, Mayor, City of Clarkson
- Bryan Claycomb, Mayor, City of Brandenburg
- David Pace, Chairman, Meade County – Brandenburg Economic Development
- Doug Robinson, Superintendent, Grayson County Schools
- Harold Miller, Mayor, City of Leitchfield
- Heather Whelen, Heartland Communications
- Ilsa Johnson, Director, Leitchfield Tourism
- Jim Phelps, Mayor, City of Hodgenville
- Kenny Rambo, Heartland Communications

- Lori Woosley, Leitchfield City Clerk/Treasurer
- Nick Sullivan, Director, Larue County Chamber of Commerce

The following individuals provided invaluable support to the authors during site visits to “boomtowns:”

#### **Georgetown**

- Jack Conner, Executive Director, Scott County United and Georgetown/Scott County Chamber of Commerce
- Joe Kane, Georgetown/Scott County Planning
- John Nash, Captain, Georgetown Police Department
- John Ward, Chief, Scott County Fire Department
- Kim Menke, Regional Director/Government Affairs, Toyota Manufacturing North America
- Lori Saunders, Executive Director, Georgetown/Scott County Tourism
- Matt Summers, Georgetown/Scott County Planning

#### **Meridian**

- Ashley Squyres, Administrator, Meridian Development Corporation
- Bruce Freckleton, Director, Meridian Community Development Department
- Caleb Hood, Planning Division Manager, City of Meridian
- Dave Winder, Director, Cushman & Wakefield, Boise
- David Miles, Chief of Staff, City of Meridian
- Matthew Stoll, Executive Director, Community Planning Association of Southwest Idaho
- Robert Simison, Mayor, City of Meridian
- Sean Evans, President/CEO, Meridian Chamber of Commerce
- Trent Bernt, L & K Carpet One, Pocatello

#### **Round Rock**

- Brooks Bennett, Assistant City Manager, City of Round Rock
- Joe Brehm, Director of Community Development, City of Round Rock
- Jordan Robinson, President & CEO, Round Rock Chamber of Commerce
- Ryan Therrell, Director of Business Development, Beck Group, Austin

#### **Reno**

- Mike Kazmierski, President, Economic Development Authority of Western Nevada

In addition to the 140 + Hardin County community leaders who participated in the online survey, the following community leaders provided additional support to the project by participating in one-on-one interviews:

- Adam King, Director, Hardin County Planning & Development Commission
- Beth Avey, Vice President, Knox Regional Development Alliance
- Brandon Fogle, Northern Region President, South Central Bank
- Brett Barnes, Systems Manager, Metalsa
- Carl Swope, President, Swope Family of Dealerships
- Daniel London, Executive Director, Lincoln Trail Area Development District
- Davette Swiney, President, Central Kentucky Community Foundation

- Ed Poppe, City Administrator, City of Elizabethtown
- Heidi Hartlage Patterson, Director of Administration, Hartlage Management Company
- Janna Clark, Executive Director, Elizabethtown Tourism & Convention Bureau
- Jeff Gregory, Mayor, City of Elizabethtown
- Jeff Key, Vice President, U.S. Healthcare Systems at Vero Biotech
- Jeff Noel, Lead Pastor, Grace Heartland Church
- Jeremy Thompson, Chief, Elizabethtown Police Department
- Jim Bradford, Deputy Garrison Commander, Fort Knox
- Jim Fugitte, Strategy Consultant at Opportunity Expanded
- Jim Iacocca, President, Knox Regional Development Alliance
- Joe Fowler, President, United Way of Central Kentucky
- Joe Humphrey, Partner, Chrome Unboxed
- John Ward, Hardin County Sheriff
- Josh Hubbard, President, West Point Bank
- Juston Pate, President, Elizabethtown Community & Technical College
- Keith Taul, Hardin County Judge/Executive
- Kelli Bush, Superintendent, Elizabethtown Independent Schools
- Ken Howard, City Attorney, City of Elizabethtown
- Kenny Rambo, President, Heartland Communications Consultants
- Margy Poorman, President, Hardin County Chamber of Commerce
- Marilyn Ford, City President, Heartland Region, WesBanco
- Michael Bowers, Chairman, Venminder
- Ray Springsteen, President, Abound Credit Union
- Rick Games, President, Elizabethtown/Hardin County Industrial Foundation
- Teresa Morgan, Superintendent, Hardin County Schools
- Tim Aulbach, Owner, The Land Store
- Tom Carrico, Vice President & Chief Operating Officer, Baptist Health Hardin
- Tom Wallace, Senior Vice President, PNC Bank

Finally, the authors want to thank Bradley Bottoms, Chief District Engineer, District # 4 of the Kentucky Transportation Cabinet for his assistance in providing additional insight into the issue of converting an existing parkway to an interstate highway.

**Disclaimer:**

***The information presented is accurate as of the date of publication; however, like all data, going forward, it is subject to periodic changes in the business environment.***

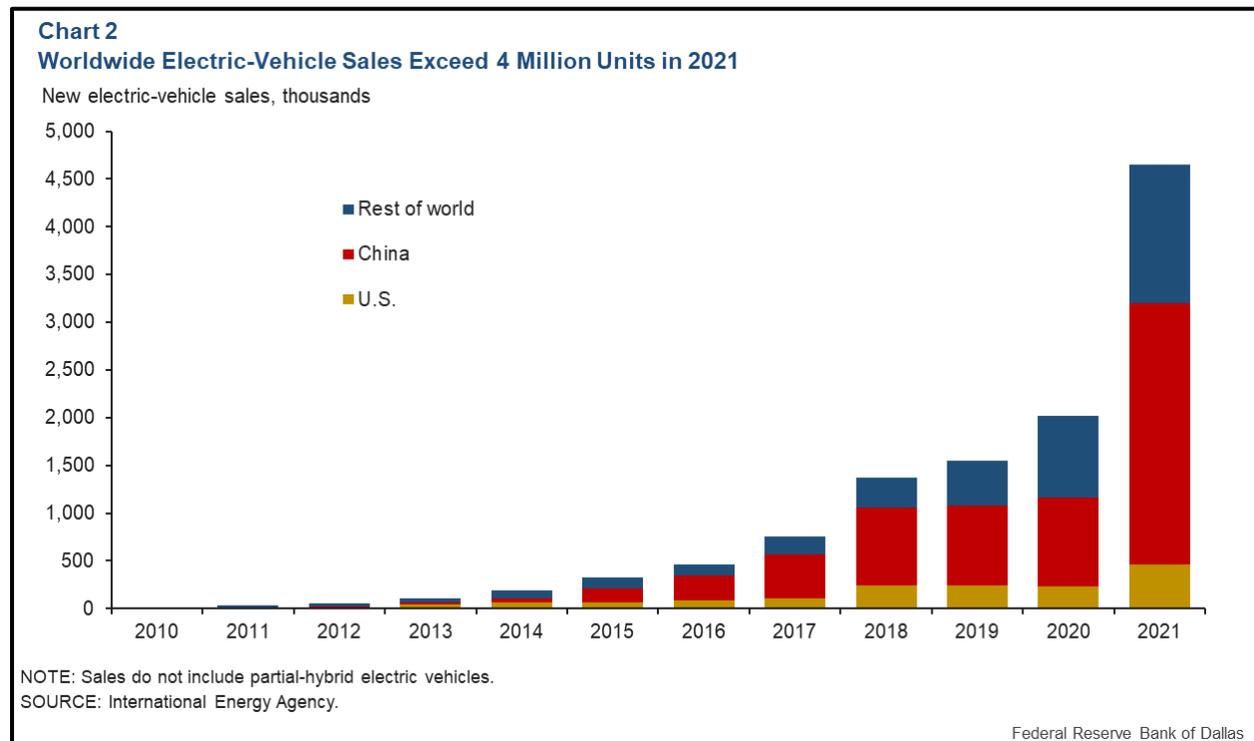
***BlueOval SK's participation was for the purpose of providing information about its activities only. Any conclusions made, and the survey conducted, was done independent of BlueOval SK.***

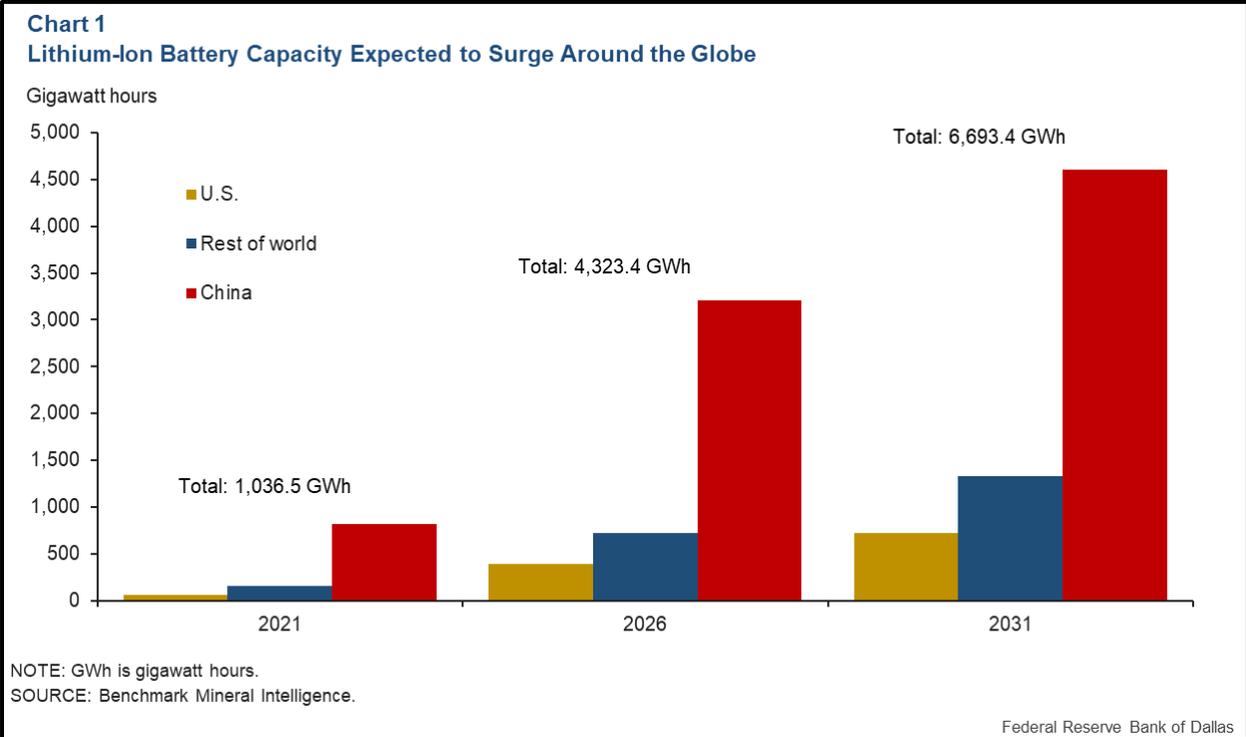


## Executive Summary

***BlueOval SK Battery Park will be the largest electric vehicle (EV) battery manufacturing facility in the world and represents the largest single economic development project in Kentucky's history.***

BlueOval SK (BOSK) is a joint venture between The Ford Motor Company and SK On, a South Korean battery manufacturing company. BOSK will produce electric vehicle (EV) batteries for new Ford electric vehicles. The BOSK Battery Park is one of several EV battery plants which are currently under construction around the country. These facilities are being built in response to growing consumer demand for environmentally friendly vehicles. The two charts which follow, produced by the Federal Reserve Bank of Dallas, illustrate the expected growth in the U.S. EV market, along with growth in related battery manufacturing capacity to power these vehicles:





When first announced by Kentucky Governor Andy Beshear, the initial “impact” numbers for the BOSK Battery Park were astounding: 5,000 new jobs, an initial investment of \$5.8 billion, and two four million+ square feet manufacturing facilities.

From a sheer physical standpoint (square footage), BOSK’s battery park stands out *globally* in terms of its size:

**World’s Largest Manufacturing Facilities<sup>1</sup>**

Rank	Company Name	Location	Total Facility Footprint (Square Feet)	Description
1	Volkswagen	Wolfsburg, Germany	69,965,417	Auto Assembly
2	AVTOVAZ	Tolyatti, Russia	64,583,462	Auto Assembly
3	Hyundai	Ulsan, South Korea	54,357,747	Auto Assembly
4	Kia	Hwaseong, South Korea	35,585,487	Auto Assembly
4	Kia	Yancheng, China	35,585,487	Auto Assembly
5	Foxconn	Longhua, China	32,292,731	Electronics
6	Kia	West Point, GA	28,115,334	Auto Assembly
7	Kia	Teplicka and Vahom, Slovakia	17,792,743	Auto Assembly
8	Kia	Seo-gu, China	12,809,053	Auto Assembly
9	Tesla	Shanghai, China	9,309,544	Auto Assembly
10	Blue Oval SK <sup>2</sup>	Hardin County, KY	8,400,000	EV Electric Batteries
11	Toyota	Georgetown, KY	8,099,993	Auto Assembly
12	BlueOval City <sup>3</sup>	Stanton, TN	7,000,000	Auto Assembly/EV Batteries
13	Jaguar	Lolihull, UK	5,661,816	Auto Assembly
14	Tesla	Sparks, NV	5,489,594	EV Electric Batteries
15	Nissan	Smyrna, TN	5,338,899	Auto Assembly

<sup>1</sup> Source: R List (4/7/23) as measured by facility square footage  
<sup>2</sup> Source: Update provided during BlueOval SK Battery Park town hall held on 4/4/23  
<sup>3</sup> Source: *Tennessee Town & City*; current construction footprint is 7 million square feet, which may ultimately grow to 10 million square feet

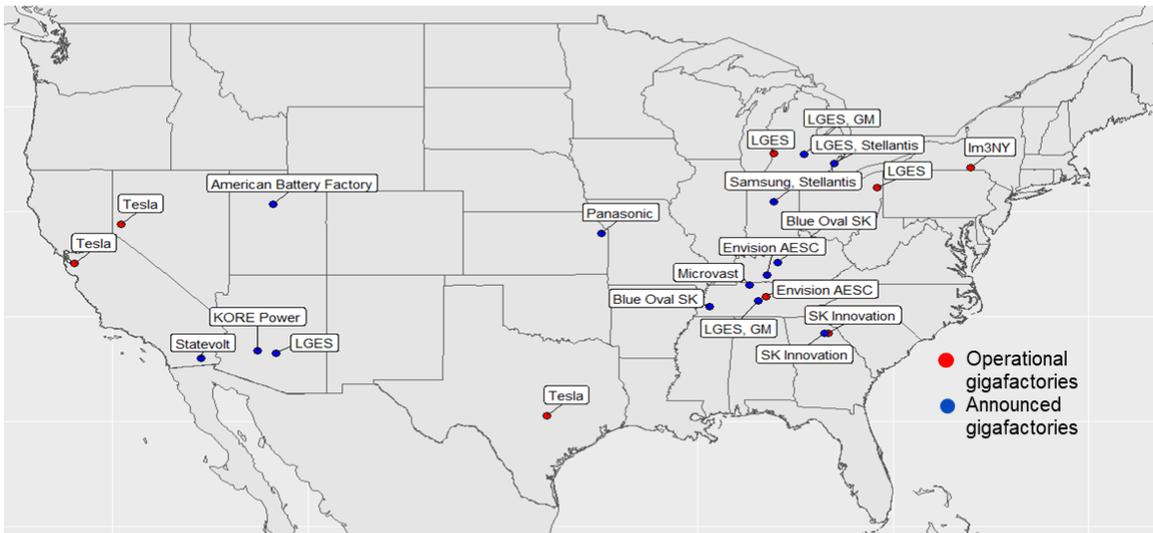
As a stand-alone battery plant investment, BOSK Battery Park will be the largest EV electric battery plant in the world in terms of investment, physical size, jobs created, and manufacturing capacity.

### Largest EV Battery Manufacturing Site Investments<sup>4</sup> (Announced)

Rank	Company	Location	Investment (B)	Jobs	GW Hour Capacity
1	BlueOval SK	Hardin County, KY	\$5.8	5,000	86
2	BlueOval City <sup>5</sup>	Stanton, TN	5.6	6,000	43
3	Hyundai	Bryan County, GA	5.5	8,100	35
4	Rivian	Ft. Worth, TX	5.0	7,500	50
5	Rivian	Covington, GA	5.0	7,500	50
6	GM	Orion, MI	4.0	2,350	N/A
7	Panasonic	DeSoto, KS	4.0	4,000	30
8	GM/LG Energy	Lansing, MI	2.6	1,700	50
9	SK Innovation	Commerce, GA	2.6	3,000	31
10	Stellantis/Samsung	Kokomo, IN	2.5	1,400	33
11	GM/LG Energy	Spring Hill, TN	2.3	1,300	50
12	Envision AESC	Bowling Green, KY	2.0	2,000	30
13	Ford	Multiple Sites (MI)	2.0	3,200	N/A
14	VinFast	Chatham County, NC	2.0	7,500	N/A
15	LG Energy	Holland, MI	1.7	1,200	N/A
16	LG Energy	Queen Creek, AZ	1.4	TBA	11
17	Toyota	Liberty, NC	3.8	2,100	N/A
18	Tesla	Austin, TX	1.1	5,000	N/A

Finally, as shown in the map which follows, Elizabethtown and Hardin County are centrally located when it comes to new EV battery facilities, which should generate new supply chain manufacturing site selection interest:

**Chart 3**  
**New Gigafactories Cluster in the Midwest, South and Near Tesla Facilities**



NOTES: We define a gigafactory as having capacity of 1 gigawatt hour or greater. Map does not include announcements missing a location or capacity estimate.

SOURCE: Company announcements, media reports, NAATBatt North American Lithium-Ion Battery Supply Chain Database.

Federal Reserve Bank of Dallas

<sup>4</sup> Ranked by financial investment; sites shaded in green also include a new auto assembly facility; total investment and new jobs created shown  
<sup>5</sup> BlueOval City is a multi-purpose manufacturing site; the BOSK battery manufacturing site employment will total 2,500 workers out of the total

The impact of the BOSK facility on the Elizabethtown – Fort Knox MSA will be enormous. Using data provided by BOSK, the following key impact metrics have been generated:



Source: Business First of Louisville

#### Construction Phase<sup>6</sup>

- Local: 720 workers
- Travelers: 2,880 workers
- Peak: 10/23: 3,500 workers

#### Housing Requirements:

- Traveling workers: 2,800 units
- Management personnel: 300 units

**Construction Payroll: \$1.6 billion**

**Local materials/services: \$75 million**



Source: Atlanta Journal-Constitution

#### Equipment Installation Phase<sup>7</sup>

- 1,000 engineers on site

Beginning in Q4 of 2023, up to 1,000 engineers from South Korea<sup>8</sup> will be on site to begin the installation of equipment in BOSK Kentucky Plant # 1 and extending through the end of Q4 of 2025 in BOSK Kentucky Plant # 2.

The number of engineers on site may range from 500 to 1,000 from time to time as some engineers may shuttle between BOSK battery plants in Kentucky and Tennessee.

The payroll of the engineers is unknown and is NOT included in the construction payroll figure of \$1.6 billion listed above.

#### Confirmed FTE Workforce<sup>9</sup>

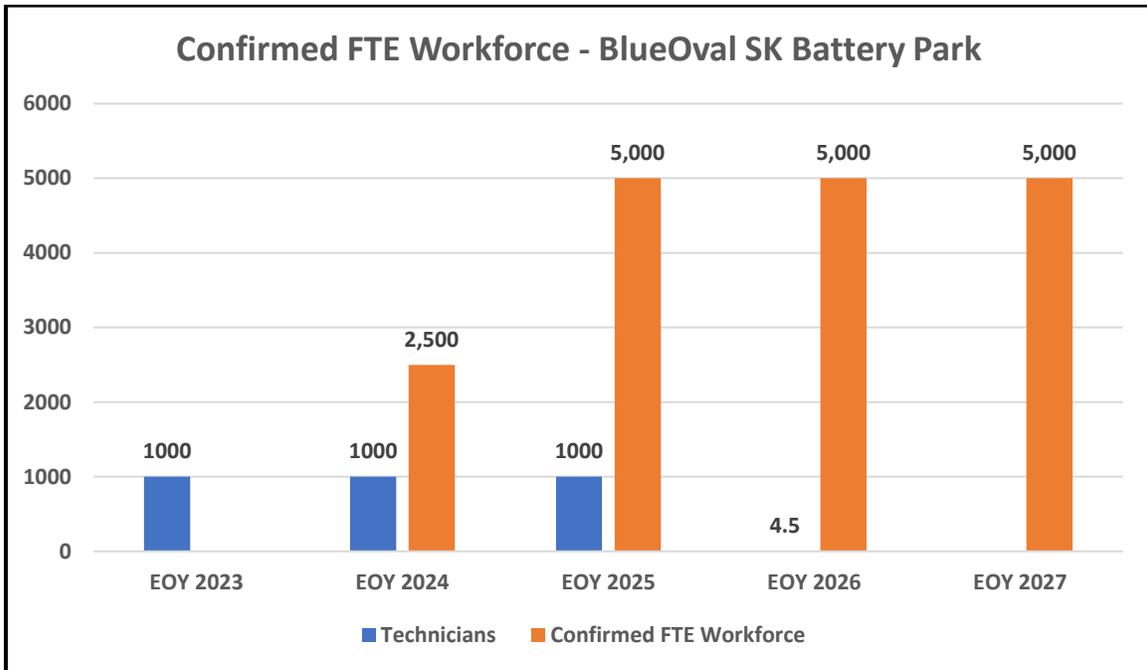
When the BOSK plant was first announced in 2021, the expected Full Time Equivalent (FTE) workforce of the complex was announced as 5,000 workers, making this the largest new announced economic development in Kentucky's history.

<sup>6</sup> Source: BlueOval SK

<sup>7</sup> Source: BlueOval SK

<sup>8</sup> Technicians are temporary workers who will be here on two-year visas installing, calibrating and training personnel on running equipment

<sup>9</sup> Source: BlueOval SK



Source: BlueOval SK

**Additional BlueOval SK FTE Workforce Information – Expected Workforce<sup>10</sup>**

**EOY 25 confirmed workforce: 5,000 FTE**

- EOY 23 workforce: 1,000 FTE
- EOY 24 workforce: 2,500 FTE
- EOY 25 workforce: 5,000 FTE
- EOY 26 workforce: 5,000 FTE
- EOY 27 workforce: 5,000 FTE

BOSK plans to run two 12-hour shifts (patterns to be determined)

In terms of employment, by 2026, BOSK will be one of the largest manufacturing sites in Kentucky based on current employment numbers and the confirmed BOSK employment number as shown in the chart which follows.

- Hardin County will be home to two of the 10 largest manufacturers in Kentucky
- All but one of the Top-10 manufacturers are located along the I-65 Corridor

<sup>10</sup> Source: BlueOval SK

Company	Number of Employees	Location
Toyota Motor Manufacturing, Kentucky, Inc.	8,200	Georgetown
Ford Motor Company, Kentucky Truck	8,000	Louisville
Haier, US Appliance Solutions, Inc.	6,000	Louisville
<b>BlueOval SK</b>	<b>5,000</b>	<b>Hardin County</b>
Louisville Graphite, Inc.	5,000	Louisville
Ford Motor company, Louisville Assembly	4,000	Louisville
Metalsa Structural Products	2,000	Elizabethtown
Rev-A-Shelf, LLC	2,000	Louisville
Bowling Green Metalforming, LLC	1,800	Bowling Green
Dart Container Corporation of Kentucky	1,650	Horse Cave

Source: IndustrySelect.com 10/5/22

### Elizabethtown – Fort Knox MSA Impact Projections – Compiled by Dr. Paul Coomes, Ph.D.

#### Key Assumptions used in Modeling Projections:

1. Battery plant construction period: 2022 through 2024; investment of \$5.8 billion with average of 4,500 construction jobs over three years with average annual pay of \$50,000
2. Plant will begin battery production by EOY 2024 with 2,500 full time employees; EOY 2025 with 5,000 full time employees with average annual pay of \$53,000; with fringe benefits: \$73,000
3. Battery plant will attract several new supplier/support businesses to Hardin County

Custom regional input-output models were built for Hardin County, the Elizabethtown – Fort Knox MSA, and the 10-county Elizabethtown region which provides significant information over 500 industries on such things as local employment, pay, etc. This is the standard method used by regional economists to analyze potential multiplier effects of new developments. In addition, modeling based on Tesla’s “real-world” experience to date in Reno was also factored in.

Additionally, projected average annual pay figure was generated by Dr. Coomes based on data provided by BOSK.



#### Key Findings to Date:

- Each billion dollars of construction expenditures will support around 11,600 total job years in the region
- Each billion dollars of equipment expenditures will support around 823 total job years in the region
- The 5,000 jobs expected to operate the plant will support 8,106 total jobs in the region; this represents an employment multiplier of 1.603
  - Incremental supply chain development: 1,397 jobs
  - Incremental household spending development: 1,619 jobs

### Payroll Information

- By EOY 2026, expected direct plant payroll: \$265 million
- By EOY 2026, expected direct plant payroll (with fringe benefits): \$363 million
- Cumulative 2026 – 2035 expected direct plant payroll impact: \$2.65 billion
- Cumulative 2026 – 2035 expected direct plant payroll impact (with FB): \$3.63 billion

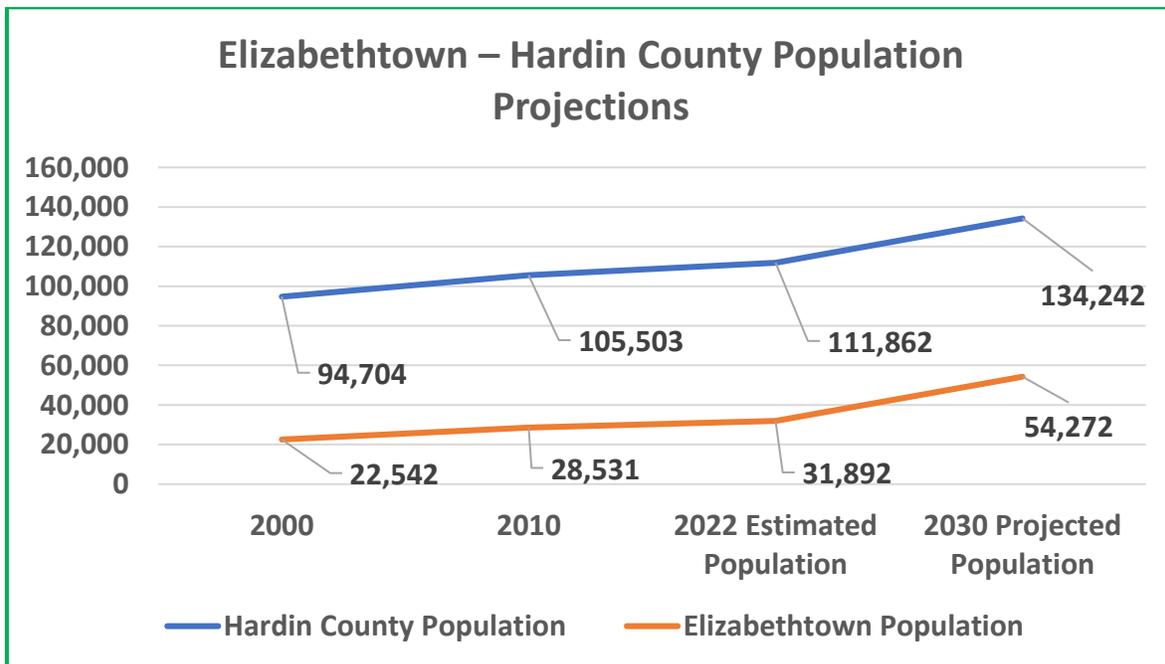
### Note:

**Once BOSK reaches full employment, workers will be subject to a 1% Hardin County Occupational Tax. Tax proceeds collected over the first 10 years will be rebated to BOSK. Initial Occupational Tax proceeds, based upon the \$265 million annual payroll will total \$2.65 million. First 10 years, assuming no wage increase, proceeds will total \$26.5 million.**

Source: Dr. Paul Coomes, Ph.D.

As the data was analyzed, the following issues were considered and clarified with BOSK when possible:

- Will BOSK suppliers move to Hardin County?
- What will remaining acreage on BOSK site be used for?
- Will local governments work to accommodate growth?
- Will Hardin County absorb the bulk of new workers, residents?
- How many jobs will be filled by workers moving to the area?
- Will the pay scale at BOSK draw workers from existing manufacturers?
- What will be needed in terms of new housing, schools, etc.?



Source: Dr. Paul Coomes, Ph.D.

**Projected Growth/Hardin County: 22,380 people – Age Breakout:**

- Under age 5                      1,424
- Ages 5 – 14                      3,128
- Ages 15 – 24                    2,924
- Ages 25 – 34                    2,956
- All Others                         11,949

Source: Dr. Paul Coomes, Ph.D.

**Using Scott County’s growth as a guide, BOSK will catalyze growth in Hardin County for...**

- 8,811 new housing units
- 3,901 new K-12 students
- 75 new staffed hospital beds
- 389 new hospital jobs
- 380 new ambulatory care jobs

Source: Dr. Paul Coomes, Ph.D.

Complete backup data for each of the preceding projections can be found in the section which follows, and which is entitled: Elizabethtown – Fort Knox MSA Research & Analysis, in the subsection entitled: BlueOval SK Battery Park Impact on Elizabethtown – Fort Knox MSA.

**Additional Issues Raised with BlueOval SK**

In addition to data related to employment, BOSK executives were asked to provide input on a variety of issues related to the incoming plant’s needs and community infrastructure needs/issues. Following are the responses:

Issue	Response
Minimum education attainment levels required for BOSK positions	<ul style="list-style-type: none"> <li>• High school/GED or Bachelors/master’s degree depending upon the position</li> </ul>
Anticipated age breakdown of workers	<ul style="list-style-type: none"> <li>• Unknown at this time as workforce has not yet been hired</li> </ul>
Supplier Chain Issues	<ul style="list-style-type: none"> <li>• <i>“We expect that companies and people from all parts of the globe will want to do business with BOSK. They will relocate to the region. We are not able to answer what kinds of workers will fill the positions of our suppliers”</i></li> <li>• Names of companies, site requirements, numbers of employees, etc. are unknown at this time</li> </ul>

Issue	Response
<p>Community <u>infrastructure</u> needs that are currently unavailable in Elizabethtown</p>	<ul style="list-style-type: none"> <li>• More temporary and long-term housing options that are affordable for all levels of BOSK’s workforce</li> <li>• <i>“We encourage developers to create high-quality housing at various levels of affordability”</i></li> <li>• Childcare centers and mass transportation would be an enhancement for employees</li> <li>• BlueOval SK does not intend to provide on-site childcare</li> <li>• <i>“It goes without saying that Elizabethtown will need more housing, more schools, more emergency services, more healthcare services, more healthcare facilities, more hotel capacity and grocery stores”</i></li> </ul>

Issue	Response
<p>Community <u>quality of life</u> needs that are currently unavailable in Elizabethtown</p>	<ul style="list-style-type: none"> <li>• <i>“We recognize the wonderful park ecosystem in Elizabethtown but expect more public spaces will be needed”</i></li> <li>• <i>“Large YMCA would be good for fitness and may also be a great place for childcare services”</i></li> <li>• <i>“Our workers will be interested in a variety of restaurants and leisure opportunities (e.g., mall, movie theater, etc.)”</i></li> <li>• <i>It would be helpful to have a meeting space for large gatherings of people (e.g., convention center)”</i></li> </ul>

Issue	Response
<p>Korean cultural issues for newcomers – how can the community assist BlueOval SK?</p>	<ul style="list-style-type: none"> <li>• Develop community task force to develop better understanding of the Korean community/culture</li> <li>• Provide services/support unique to the Korean culture</li> <li>• Develop long-term platform to foster relationships, including possible Korean sister city</li> <li>• BOSK is developing tools to help educate the Korean population around opportunities for families</li> <li>• BOSK has hired a transition coordinator to assist with basic/immediate needs (e.g., schools, drivers’ licenses, etc.)</li> <li>• BOSK will need for the community to “lean” into helping the new talent feel welcome</li> </ul>

Issue	Response
Transportation	<ul style="list-style-type: none"> <li>• Air cargo needs at Elizabethtown Regional Airport (EKX) are unknown at this time</li> <li>• Would like to see flights to/from Memphis to Louisville/Elizabethtown (<i>“expect steady flow of 8 – 15 people”</i>)</li> <li>• Would like to see regional transit system to bring workers in from outlying counties</li> <li>• Would also like to see regional transit system to bring workers from Louisville and Bowling Green</li> </ul>
Medical Issues	<ul style="list-style-type: none"> <li>• BOSK intends to hire an onsite medical services provider which will work with planned on-site clinics</li> <li>• BOSK intends to contract with an <i>“Occupational Health Services”</i> provider in the area</li> </ul>
Future BOSK Site Expansion Plans	<ul style="list-style-type: none"> <li>• <i>“BOSK’s primary focus is on delivering its initial plan. Plans for the future will be determined later.”</i></li> </ul>

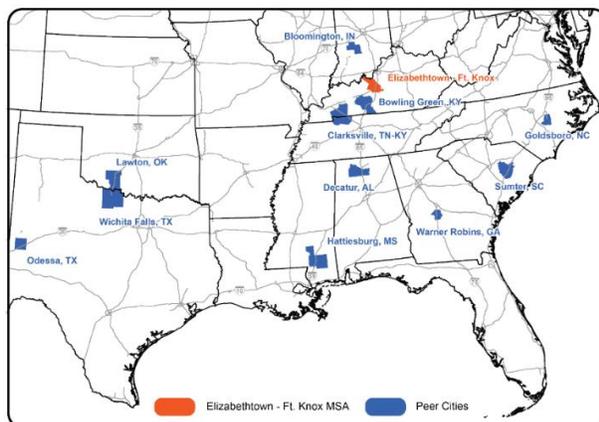
Highlights from other sections of the Study include:

#### Economic and Demographic Characteristics of the 10-County Elizabethtown Region

- The 10-county region has 386,000 residents
- Hardin County has the youngest population among the ten counties
- Taylor and Hardin counties have the most educated residents
- The region supports 177,000 jobs, with manufacturing being a significant source of income
- Average annual manufacturing pay in the region: \$74,000 (Hardin County: \$80,000)
- Total personal income in the 10-county region: \$17.3 billion (2020); \$44,772 per-capita

#### Elizabethtown – Fort Knox MSA Area Peer MSA Analysis

- Elizabethtown – Fort Knox MSA has a population of 154,000



**Elizabethtown - Ft. Knox MSA & Peer Cities**

- Peer MSA qualifications: (1) population between 100,000 – 300,000; (2) along interstate highway; (3) not a state capitol; (4) not a college town; (5) military installation presence; (6) at least 5,000 manufacturing jobs; or (7) another compelling reason for inclusion

Peer Metropolitan Statistical Areas					
MSA Code		Population	Manufacturing Jobs	Military's Share of Total Jobs	State Government's Share of Total Jobs
14020	Bloomington, IN	169,052	9,817	0.5%	ND
14540	Bowling Green, KY	180,751	12,593	0.5%	4.6%
17300	Clarksville, TN-KY	314,364	12,481	18.5%	2.3%
19460	Decatur, AL	152,740	13,688	0.8%	1.2%
<b>21060</b>	<b>Elizabethtown-Fort Knox, KY</b>	<b>154,356</b>	<b>7,530</b>	<b>7.4%</b>	<b>1.9%</b>
24140	Goldsboro, NC	123,967	5,415	8.5%	5.7%
25620	Hattiesburg, MS	169,554	6,400	1.4%	4.6%
30020	Lawton, OK	126,775	3,621	19.3%	2.4%
36220	Odessa, TX	167,701	5,166	0.3%	1.7%
44940	Sumter, SC	139,775	7,113	9.9%	2.7%
47580	Warner Robins, GA	188,060	8,853	4.1%	2.2%
48660	Wichita Falls, TX	152,485	5,183	7.2%	3.8%

Source: US Bureau of Economic Analysis, estimates for 2020. Manufacturing jobs in Warner Robins not disclosed for 2020; 2017 estimate used. State government employment in Bloomington is not disclosed due to Indiana University dominating the total.

Five Decades of Population Growth, Peer MSAs									
MSA Code		1970	1980	1990	2000	2010	2020	Growth 1970 to 2020	Rate
14020	Bloomington, IN	97,656	115,057	126,773	142,709	160,140	169,052	71,396	73.1%
14540	Bowling Green, KY	89,652	107,557	114,270	135,367	159,352	180,751	91,099	101.6%
17300	Clarksville, TN-KY	135,674	168,672	190,352	233,367	274,994	314,364	178,690	131.7%
19460	Decatur, AL	105,018	120,435	132,118	146,095	153,956	152,740	47,722	45.4%
<b>21060</b>	<b>Elizabethtown-Fort Knox, KY</b>	<b>107,652</b>	<b>123,258</b>	<b>125,466</b>	<b>134,506</b>	<b>149,852</b>	<b>154,356</b>	<b>46,704</b>	<b>43.4%</b>
24140	Goldsboro, NC	85,747	97,314	104,896	113,648	122,891	123,967	38,220	44.6%
25620	Hattiesburg, MS	96,397	116,240	126,171	143,768	162,866	169,554	73,157	75.9%
30020	Lawton, OK	114,835	120,234	118,112	121,695	131,568	126,775	11,940	10.4%
36220	Odessa, TX	92,704	117,052	118,652	120,694	137,060	167,701	74,997	80.9%
44940	Sumter, SC	105,380	116,269	129,782	137,330	142,557	139,775	34,395	32.6%
47580	Warner Robins, GA	79,693	97,150	110,920	135,165	168,518	188,060	108,367	136.0%
48660	Wichita Falls, TX	134,547	138,486	140,303	151,847	151,657	152,485	17,938	13.3%

Source: US Bureau of Economic Analysis.

	1970	1980	1990	2000	2010	2020	Growth, 1970 to 2020	Rate
Bloomington, IN	9,566	8,374	10,589	10,879	8,815	9,817	251	2.6%
Bowling Green, KY	8,172	9,967	10,528	14,169	(D)	12,593	4,421	54.1%
Clarksville, TN-KY	9,020	12,038	12,671	15,516	10,236	12,481	3,461	38.4%
Decatur, AL	12,263	14,988	16,568	(D)	12,187	13,688	1,425	11.6%
<b>Elizabethtown-Fort Knox, KY</b>	<b>3,159</b>	<b>5,072</b>	<b>6,112</b>	<b>7,978</b>	<b>5,427</b>	<b>7,530</b>	<b>4,371</b>	<b>138.4%</b>
Goldsboro, NC	6,702	9,138	8,959	7,335	5,311	5,415	-1,287	-19.2%
Hattiesburg, MS	7,319	8,444	9,004	8,261	4,917	6,400	-919	-12.6%
Lawton, OK	2,068	3,549	3,506	3,859	(D)	3,621	1,553	75.1%
Odessa, TX	3,621	7,574	4,562	4,972	4,826	5,166	1,545	42.7%
Sumter, SC	8,604	10,908	11,627	14,378	6,704	7,113	-1,491	-17.3%
Warner Robins, GA	2,929	5,218	5,588	6,708	7,200	8,853	5,924	202.3%
Wichita Falls, TX	4,125	9,982	8,733	9,055	5,490	5,183	1,058	25.6%

Source: US Bureau of Economic Analysis. Estimates before 2001 are on a SIC basis, and thereafter on a NAICS basis.  
D: not disclosed due to confidentiality rules. Warner-Robbins data not disclosed for 2020; 2017 estimate shown here.

	Number of Residents	Median Age	Working Age Veterans	Median Household Income	College Attainment Rate
1	Clarksville	Decatur, AL	Clarksville	Odessa	Bloomington
2	Warner Robins	Sumter	Warner Robins	Warner Robins	Warner Robins
3	Bowling Green	<b>Elizabethtown-Fort Knox</b>	<b>Elizabethtown-Fort Knox</b>	<b>Elizabethtown-Fort Knox</b>	Bowling Green
4	Hattiesburg	Goldsboro	Lawton	Clarksville	Hattiesburg
5	Bloomington	Warner Robins	Goldsboro	Bloomington	Clarksville
6	Odessa	Wichita Falls	Sumter	Lawton	Wichita Falls
7	Decatur, AL	Hattiesburg	Wichita Falls	Decatur, AL	Lawton
8	<b>Elizabethtown-Fort Knox</b>	Bowling Green	Hattiesburg	Bowling Green	<b>Elizabethtown-Fort Knox</b>
9	Wichita Falls	Lawton	Bowling Green	Wichita Falls	Decatur, AL
10	Sumter	Bloomington	Decatur, AL	Hattiesburg	Goldsboro
11	Lawton	Clarksville	Bloomington	Goldsboro	Sumter
12	Goldsboro	Odessa	Odessa	Sumter	Odessa

	Employment Rate	Growth Rate, Manufacturing Employment, 1970 to 2020	Average Annual Pay in Manufacturing	Student housing population	Military quarters population
1	Odessa	Warner Robins	Decatur, AL	Bloomington	Lawton
2	Warner Robins	<b>Elizabethtown-Fort Knox</b>	Lawton	Bowling Green	Clarksville
3	Clarksville	Lawton	Odessa	Hattiesburg	Wichita Falls
4	Bowling Green	Bowling Green	<b>Elizabethtown-Fort Knox</b>	Wichita Falls	<b>Elizabethtown-Fort Knox</b>
5	Wichita Falls	Odessa	Bloomington	Clarksville	Goldsboro
6	<b>Elizabethtown-Fort Knox</b>	Clarksville	Wichita Falls	Warner Robins	Sumter
7	Lawton	Wichita Falls	Clarksville	Odessa	Warner Robins
8	Bloomington	Decatur, AL	Sumter	Sumter	Bloomington
9	Goldsboro	Bloomington	Goldsboro	Goldsboro	Bowling Green
10	Hattiesburg	Hattiesburg	Bowling Green	Lawton	Decatur, AL
11	Decatur, AL	Sumter	Warner Robins	Decatur, AL	Hattiesburg
12	Sumter	Goldsboro	Hattiesburg	<b>Elizabethtown-Fort Knox</b>	Odessa

## Boomtown Analysis

Four cities across the country that have experienced massive growth due mostly to one significant economic development event were analyzed to find out how the communities managed the growth and what lessons which were learned might translate to Elizabethtown and Hardin County. Boomtowns which were analyzed included:

- Georgetown, KY (Toyota auto assembly plant)
- Meridian, ID (Micron high-tech facility investments/California migration)
- Reno, NV (Tesla EV battery manufacturing plant)
- Round Rock, TX (Dell Computer manufacturing/headquarters)

While there is a wealth of information on each city in this section (including jurisdictional comparisons with Elizabethtown and Hardin County), some of the key lessons learned in each community included:



Georgetown – Toyota Auto Assembly Plant

- Concern about future workforce development – where will the workers come from?
- Toyota agreed to be annexed by City to support future growth
- Messaging (about ongoing growth) needed to be better; need good communications between city leaders and citizens



Reno – Tesla EV Battery Factory

- Tesla exceeded what was projected by Nevada
- Tesla facilitated the “re-branding” of Reno; attraction of advanced manufacturing is easier
- Workforce development remains a challenge; worker recruitment now extends to Sacramento
- Transportation “hot spots” develop quickly



Meridian – New Lifestyle Center

- City has minimal height requirements for new buildings; comprehensive plan drives growth
- City/residents need realistic vision and understanding of what is coming
- Invest in infrastructure (such as parks, libraries) early
- Commuter rail needed to connect Valley cities



- City's impact fee places infrastructure expansion costs on developers/customers
- City's economic development efforts led by chamber of commerce
- City's chamber's five-year Momentum strategy yields strong results

**Round Rock – The District (Under Development)**

### **Key Stakeholder Engagement – Pre/Post-Project SWOT Analysis & Surveys/Interviews**

The Elizabethtown – Fort Knox MSA Impact Study also included extensive key stakeholder engagement. Over 140 community leaders received online surveys to gauge community opinion on upcoming growth and the future. Ninety-one community leaders responded (65% response rate – very high for a survey of this type).

Additionally, thirty-four community leaders participated in confidential, one-on-one in-depth interviews with Luke Schmidt.

Summaries of both survey processes can be found later in this Study.

Pre- and post-project SWOT analysis were also conducted. The findings of each SWOT analysis can be found on the following two pages.

### **Overview – Competitive Community Economic Development Platforms**

Going forward, the author believes that the following three cities present the most significant competition for future economic development along the I-65 Corridor:

- Bowling Green, Kentucky
- Columbia, Tennessee
- Decatur, Alabama

The economic development agencies in each of these cities has been combined with the local chamber of commerce and/or other agencies to maximize efficiencies.

### **Elizabethtown – Fort Knox MSA Geographical Expansion**

Beginning in 2028, local officials should begin to monitor U.S. OMB's review of potential MSA boundary expansion to consider expected new commuting patterns related to BOSK which could expand the current MSA boundary. Additionally, local officials need to begin thinking how to expand Elizabethtown's urban core population to at least 100,000 people to assure the continuation of the MSA designation, should existing OMB rules change, requiring a minimum 100,000 urban core population requirement.

**Pre-Project SWOT**  
**Elizabethtown/Hardin County**  
**Strengths/Weaknesses/Opportunities/Threats**  
**August 16, 2022**

**Strengths**

- Location, regional medical center, educational opportunities
- Balanced economy
- Good people/good leadership
- City is poised to lead growth for BOSK with southern annexation; police and fire can handle annexation

**Weaknesses**

- Lack of sewer in outlying areas
- Unprepared for labor, housing, and infrastructure needs for what's coming
- Workforce availability to fill thousands of new jobs
- Not going big
- Lack of unified government

**Opportunities**

- Develop high tech research center with ECTC and battery industry
- BOSK will catalyze growth of new retail and restaurants
- Recruit EV battery plant supply chain
- Annex south and expand services to accommodate growth
- Expand educational opportunities, medical facilities for premium job growth
- Transform community into advanced manufacturing powerhouse

**Threats**

- Current state of volunteer fire departments/EMS
- Lack of new industrial land to recruit battery supply chain
- Lack of vision from community leaders
- Residents/community leaders who are resistant to change
- Residential growth that does not align with tax structure to fund infrastructure expansion
- BOSK will threaten existing industry workforce
- Other communities becoming more progressive and gaining new opportunities ahead of Elizabethtown

**Post-Online Community Leader Survey SWOT Analysis  
Elizabethtown/Hardin County  
Strengths/Weaknesses/Opportunities/Threats  
April 1, 2023**

**Strengths**

- Location, regional medical center, educational opportunities
- Balanced economy
- Good people/good leadership
- City is poised to lead growth for BOSK with southern annexation; police and fire can handle annexation

**Weaknesses**

- Lack of sewer in outlying areas
- Unprepared for labor, housing, and infrastructure needs for what's coming
- Workforce availability to fill thousands of new jobs
- Not going big
- Lack of unified government

**Opportunities**

- Develop high tech research center with ECTC and battery industry
- BOSK will catalyze growth of new retail and restaurants
- Recruit EV battery plant supply chain
- Annex south and expand services to accommodate growth
- Expand educational opportunities, medical facilities for premium job growth
- Transform community into advanced manufacturing powerhouse

**Threats**

- Current state of volunteer fire departments/EMS
- Lack of new industrial land to recruit battery supply chain
- Lack of vision from community leaders
- Residents/community leaders who are resistant to change
- Residential growth that does not align with tax structure to fund infrastructure expansion
- BOSK will threaten existing industry workforce
- Other communities becoming more progressive and gaining new opportunities ahead of Elizabethtown

## **Bluegrass/Western Kentucky Parkway Conversions to Interstate Status**

Every parkway built in Kentucky has been or is being converted into an interstate highway. The remaining portion of the Western Kentucky Parkway that has not yet been designated I-569 (from I-165 in Ohio County to Elizabethtown) should be extended so that the entire parkway has been converted. Steps should also be taken to convert the Bluegrass Parkway to I-565.

### **Project Recommendations**

Finally, the author has taken this opportunity, following extensive community and regional research, to develop several recommendations for consideration by community leaders. The project recommendations are grouped into the following categories:

- Community Branding/Promotion
- Community Growth Management
- MSA Future Planning
- Quality of Life
- Transportation
- Community Leadership/Future Regional Planning & Project Facilitation

The full Study now follows.



## Elizabethtown – Fort Knox MSA Research & Analysis

### Introduction

To fully understand the impact of the BlueOval SK Battery Park on the Elizabethtown Metro Area, significant research and analysis was conducted by Dr. Paul Coomes, Ph.D. This process began by establishing a baseline on just where the Elizabethtown – Fort Knox Metropolitan Statistical Area (MSA) stands today in terms of economic performance – prior to the opening of the BOSK Battery Park – in terms of size, economic output, etc.

Once the baseline was established, the authors also wanted to find out how the Elizabethtown – Fort Knox MSA compares with peer MSAs. Is the Elizabethtown – Fort Knox MSA out-performing or lagging peer MSAs around the country. The authors established a list of peer MSAs taking account of the following key demographic factors (among others):

- Advanced manufacturing center
- Adjacent to a large military base
- Lack of a four-year university (in most cases)
- Adjacent to an interstate highway

The list of peer MSAs includes:

- Bloomington, IN
- Bowling Green, KY
- Clarksville, TN
- Decatur, AL
- Goldsboro, NC
- Hattiesburg, MS
- Lawton, OK
- Odessa, TX
- Sumter, SC
- Warner Robbins, GA
- Wichita Falls, TX

Finally, the authors examined data provided by BlueOval SK specific to the new battery park. From that, Dr. Coomes generated specific impact numbers for the MSA based on the plant's expected size, investment, and employment footprint.

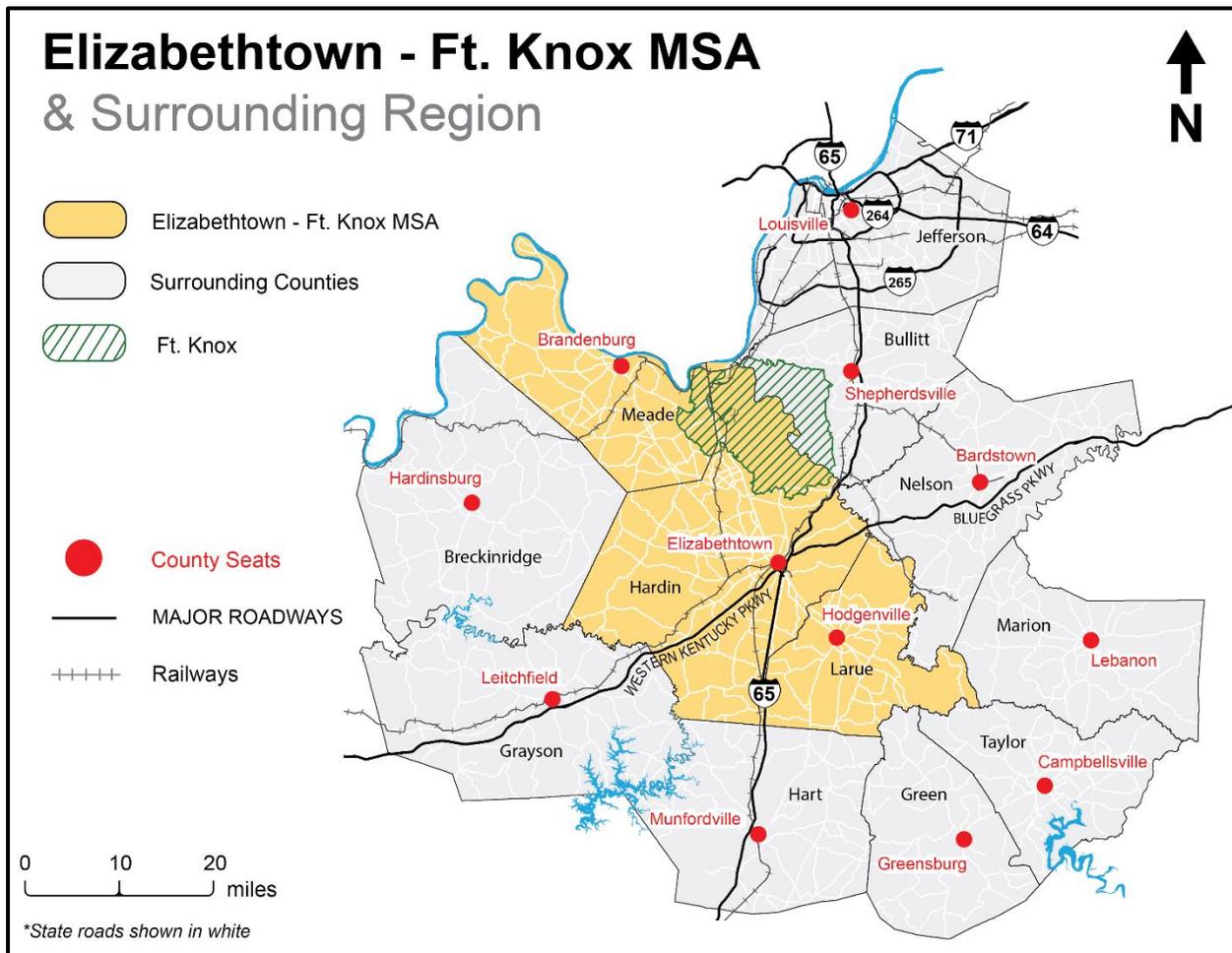
Project research and analysis now follows:



## Economic and Demographic Characteristics of the 10-County Elizabethtown Region

By Dr. Paul Coomes, Ph.D.

Elizabethtown lies at the center of a 10-county region that stretches north to the Ohio River, south to the Green River and cave country, east to Bardstown, and west to Leitchfield. Interstate 65 cuts through the middle, connecting industries in the Midwest and Great Lakes to the South. The Bluegrass and Western Kentucky Parkways provide interstate-like transportation corridors to the east and west of Elizabethtown. The region, of course, includes Fort Knox. Indeed, the metropolitan area is named Elizabethtown-Fort Knox, KY MSA, and includes Hardin, Larue and Meade counties. The ten counties are shown on the map, along with county seats, major roads, and water features<sup>11</sup>. The region includes several major reservoirs and resort parks, including Rough River, Nolin Lake, and Green River Lake.



<sup>11</sup> Christopher Butz created the map.

## Economic and Demographic Overview

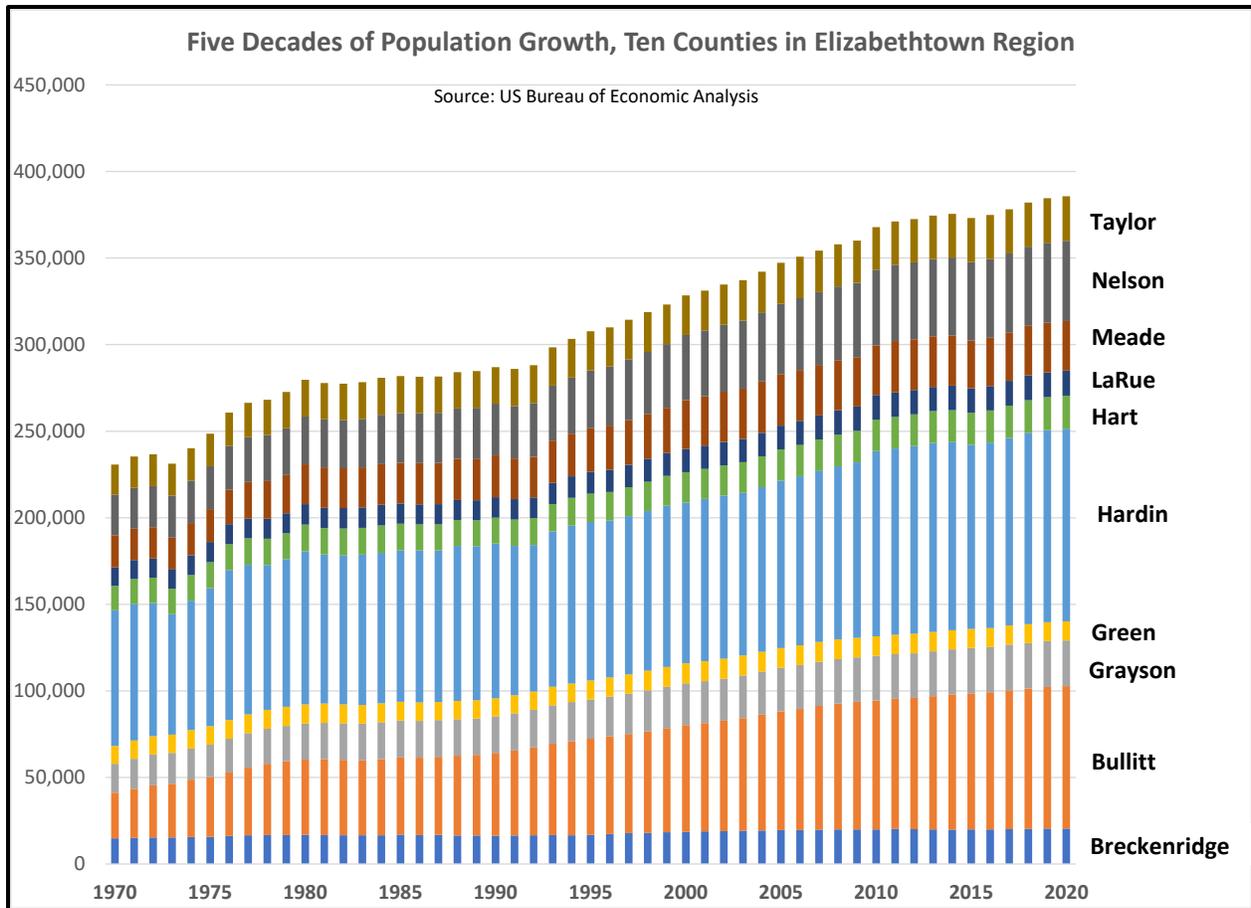
In this section, we review the latest data on economic and demographic conditions in the greater Elizabethtown region, with special attention to county-level measures. Among the most important and interesting findings are:

1. The 10-county region has 386,000 residents, up from 231,000 five decades ago. Hardin County accounts for 29 percent of the regional total, followed by Bullitt County (21 percent) and Nelson County (12 percent). Bullitt has been the fastest growing county in the region. The three-county Elizabethtown-Fort Knox MSA accounts for two-thirds of residents in the region.
2. Hardin County has the ‘youngest’ population among the ten counties in the region, with a median age of 37 years, and Green County has the ‘oldest’ population, with a median age of 44 years.
3. Bullitt, Nelson and Hardin counties have the fewest share of residents reporting a disability. However, over one in five residents of Green, Taylor, Hart and Breckinridge counties report a disability.
4. Taylor and Hardin counties have the most educated residents, with the highest rates of college attainment and the highest rate of adults with a graduate or professional degree. The least educated residents are in Hart and Green counties, where over 20 percent of adults did not finish high school, and less than 12 percent have a college degree.
5. Bullitt and Nelson counties have the highest employment rates, with over 60 percent of adults working, followed by Hardin and Meade. At the low end are Green and Breckinridge counties, with employment rates of 47 percent.
6. The average number of **persons per household** in the region is 2.62, which is between the state average of 2.55 and the national average of 2.67. Bullitt and Grayson counties have the largest household size, at 2.70 persons. LaRue County has the smallest household size, at 2.47.
7. Meade County has the highest percentage (88%) of households with a broadband internet subscription, followed by Bullitt and Nelson. Broadband access is lowest in Grayson, LaRue and Hart counties.
8. The region supports about 177,000 jobs, up from 106,000 jobs five decades ago. Military employment in the region is down to about 6,000, compared to 41,000 in 1970.
9. Manufacturing is a very significant source of income in the region, with over 21,000 jobs. Hardin County has the most manufacturing jobs, accounting for almost one-third of the regional total. Together with Nelson, Bullitt and Hart, these four counties account for 80 percent of the regional total.
10. Manufacturing jobs in the region have an average annual pay of \$74,000, not including fringe benefits. Meade County easily tops the list, with average annual earnings of \$117,000. Hardin County ranks second, with average pay of \$80,000.
11. The biggest employment story in the region is the explosion of distribution and warehousing jobs in Bullitt County. Employment there grew five-fold in just the last thirteen years, from 1,500 to 8,300 jobs.

12. The total personal income of residents in the region in 2020 was \$17.3 billion, or \$44,772 per person. This compares to per capita income in Kentucky overall of \$47,339, and \$59,510 in the United States.
13. The personal income data provides insights into regional commuting patterns since worker earnings by county of work have to be adjusted to a county of residence basis. By far the largest adjustment is for Bullitt County, where so many residents work in Jefferson County. Bullitt County residents bring in over \$1 billion in earnings by working in other counties than do nonresidents working in Bullitt. Meade and LaRue counties provide thousands of workers to Hardin County, and thus also bring large paychecks home. Nelson County residents commute to Jefferson County and many other surrounding counties. Hardin County has the largest negative residence adjustment, reflecting its role as a central place of work for the region's population – more nonresidents take their paychecks out than Hardin residents working outside the county bring paychecks in. Taylor County (Campbellsville) is the only other county with a negative residence adjustment.
14. Transfer payments, such as Social Security, Medicare, and Medicaid, are a large source of personal income for the region, as they are for the state of Kentucky. In 2020, transfer payments accounted for 30 percent of the personal income overall in the region. There is a wide range of dependence on these across the counties, however. Transfers account for 43 percent of personal income in Green County, and 40 percent in Taylor County. The lowest rates are in Bullitt (25 percent), Nelson (27 percent) and Meade (27 percent).
15. Current commuting patterns only support the inclusion of LaRue and Meade counties in the Elizabethtown-Fort Knox MSA. They each have over 35 percent of their working residents working in Hardin County, and the federal threshold is 25 percent. The next highest county in the region is Grayson, where 13.4 percent of all working residents of Grayson work in Hardin. Using the historical data, it would take another 1,200 commuters from Grayson to Hardin County to meet the 25 percent criteria

### **Population growth**

Over the past five decades, the population of the region has grown from 231,000 to 386,000. Hardin County remains the most populous county, though booming Bullitt County may soon equal it. All ten counties posted population growth over the period; however, Green County's population today is only slightly greater than it was in 1970.



The three-county Elizabethtown-Fort Knox MSA now has a population of 154,000 and has added 47,000 residents since 1970. In percentage terms, the 10-county region’s population grew by 67 percent, and the MSA population grew by 43 percent. These growth rates are higher than for the state of Kentucky overall, but lower than for the United States. One can see in the table that Bullitt is by far the fastest growing county in the region, with its population tripling over the last five decades. In terms of growth rates, Bullitt is followed by Nelson, Grayson, and Meade counties.

### Five Decades of Population Growth, Elizabethtown Region

	1970	2020	growth	rate
Breckinridge	14,826	20,537	5,711	38.5%
Bullitt	26,462	82,182	55,720	210.6%
Grayson	16,590	26,480	9,890	59.6%
Green	10,356	10,995	639	6.2%
Hardin	78,328	111,309	32,981	42.1%
Hart	14,099	19,013	4,914	34.9%
Larue	10,714	14,431	3,717	34.7%
Meade	18,610	28,616	10,006	53.8%
Nelson	23,473	46,450	22,977	97.9%
Taylor	17,264	25,707	8,443	48.9%
10-County Region	230,722	385,720	154,998	67.2%
Elizabethtown-Fort Knox MSA	107,652	154,356	46,704	43.4%

Source: US Bureau of Economic Analysis. The Elizabethtown-Fort Knox MSA is composed of Hardin, Larue and Meade counties. For comparison, the population of Kentucky grew by 38.6%, and the United States by 61.7%, over the same period.

## Characteristics of the Population

We now turn to the latest Census Bureau data on the demographic and socioeconomic characteristics of the ten counties in the region. The Bureau’s American Community Survey is conducted each year. Since it is a sample of the population, the accuracy of the estimates is improved by averaging several years of data. Here we use the five-year averages for 2016 to 2020.

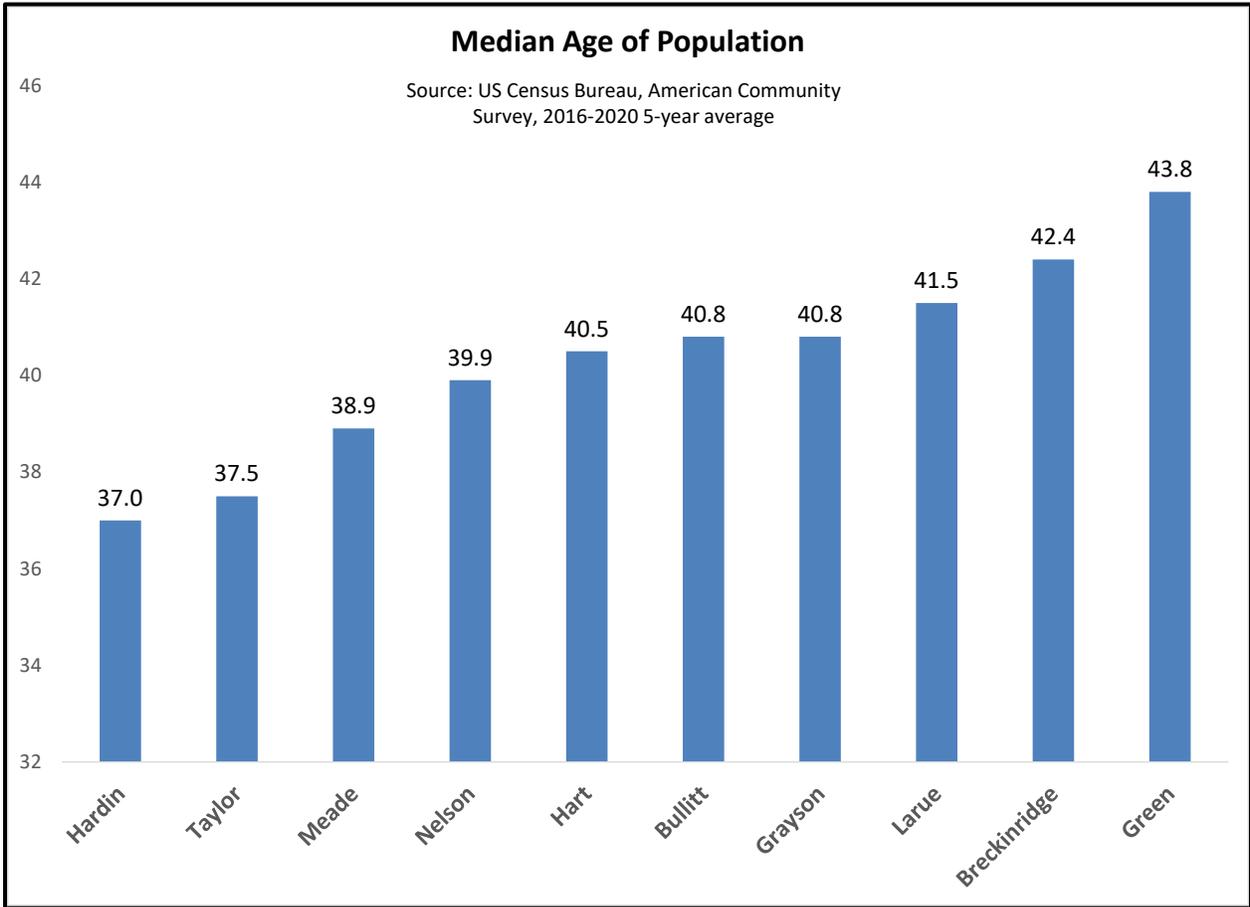
	Population	Median Age	Share of Population, Aged 65+	Share of Population Foreign Born	Civilian Veterans	Non-institutional Population, Aged 18 to 64, Reporting a Disability
Breckinridge	20,283	42.4	19.5%	0.6%	1,564	20.1%
Bullitt	80,921	40.8	15.8%	1.6%	5,601	13.0%
Grayson	26,313	40.8	17.6%	1.2%	1,319	16.0%
Green	11,000	43.8	20.0%	1.1%	713	27.9%
Hardin	109,627	37.0	14.1%	4.0%	13,171	15.7%
Hart	18,833	40.5	16.8%	0.9%	1,181	21.4%
Larue	14,269	41.5	17.4%	3.1%	852	18.7%
Meade	28,379	38.9	14.2%	1.3%	3,212	17.4%
Nelson	45,915	39.9	15.9%	1.2%	3,172	15.1%
Taylor	25,572	37.5	17.5%	1.6%	1,358	20.9%

Source: US Census Bureau, American Community Survey, 2016-2020, 5-year average.

Hardin County has the ‘youngest’ population among the ten counties in the region, with a median age of 37 years, and Green County has the ‘oldest’ population. For comparison, the median age of all Kentucky residents is 39.0, and for the US population it is 38.6. Hardin County also has the most foreign-born residents, as well as the most veterans. This part of the United States tends to have very few foreign-born residents. Nationally, the share of the population that is foreign-born is 13.5 percent, while in Kentucky overall it is only 4.0 percent – the same as for Hardin County. Immigrants are primarily drawn to a few large gateway cities, such as New York, Los Angeles, Chicago, Houston, San Francisco and Washington DC. Towns hosting major universities, with many graduate programs, also tend to have a high percentage of foreign-born residents.

Bullitt, Nelson and Hardin counties have the fewest share of residents reporting a disability<sup>12</sup>. Over one in five residents of Green, Taylor, Hart and Breckinridge counties report having a disability. Kentucky has historically had a high rate of people reporting a disability, and this latest ACS data set shows the rate at 10.3 percent, compared to 16.0 percent nationally. One can see that seven of the ten regional counties have a disability rate above the state average, and all are above the national average.

<sup>12</sup> The Census Bureau definition of disability is found on page 62 of [https://www2.census.gov/programs-surveys/acs/tech\\_docs/subject\\_definitions/2020\\_ACSSubjectDefinitions.pdf](https://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2020_ACSSubjectDefinitions.pdf) “The ACS identifies serious difficulty with four basic areas of functioning – hearing, vision, cognition, and ambulation. These functional limitations are supplemented by questions about difficulty bathing and dressing, and difficulty performing errands such as shopping.” An adult with a difficulty in any of these areas is considered to have a disability.



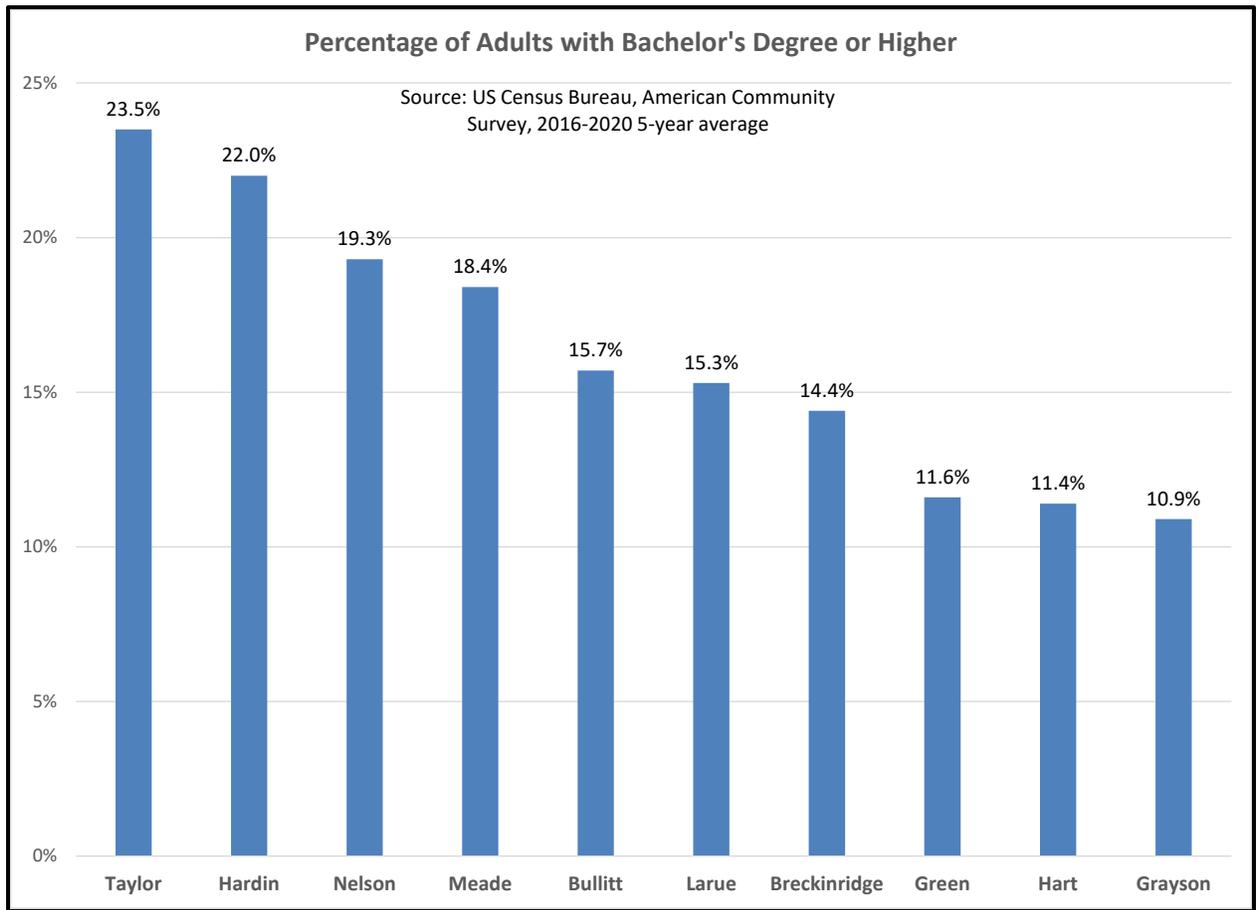
**Education**

There is a wide distribution among the counties in terms of formal education. Taylor and Hardin counties have the most educated residents, with the highest rates of college attainment and the highest rate of adults with a graduate or professional degree. For Taylor County, 23.5 percent of adults have a bachelor’s degree or higher. In Hardin County, the rate is 22.0 percent. Aggregating across the ten counties, we calculate that the college attainment rate for the region is 17.9 percent. For comparison, the college attainment rate for all of Kentucky is 25.0 percent and is 32.9 percent for the United States as a whole. The least educated residents are in Hart and

Green counties, where over 20 percent of adults did not finish high school, and less than 12 percent have a college degree.

	Population 25 years and older	Less than 9th grade	9th to 12th grade, no diploma	High school graduate (includes equivalency)	Some college, no degree	Associate's degree	Bachelor's degree	Graduate or professional degree	High school graduate or higher	Bachelor's degree or higher
Breckinridge	14,083	3.7%	9.9%	42.3%	21.9%	7.7%	8.2%	6.2%	86.3%	14.4%
Bullitt	56,737	3.3%	7.9%	41.5%	21.8%	9.8%	10.4%	5.3%	88.8%	15.7%
Grayson	17,921	7.2%	10.2%	44.7%	20.0%	7.1%	6.2%	4.6%	82.7%	10.9%
Green	7,978	13.2%	10.4%	41.0%	17.7%	6.2%	5.8%	5.8%	76.4%	11.6%
Hardin	72,705	2.6%	5.7%	29.8%	27.2%	12.6%	12.8%	9.3%	91.7%	22.0%
Hart	12,708	10.5%	12.4%	42.0%	17.1%	6.5%	6.6%	4.8%	77.1%	11.4%
Larue	10,092	5.6%	10.7%	36.2%	21.7%	10.4%	6.5%	8.8%	83.7%	15.3%
Meade	19,549	3.1%	7.0%	36.0%	24.4%	11.3%	10.7%	7.7%	90.0%	18.4%
Nelson	31,363	2.1%	5.8%	35.9%	24.6%	12.3%	11.7%	7.6%	92.1%	19.3%
Taylor	16,785	4.2%	8.2%	37.3%	19.8%	7.0%	14.2%	9.2%	87.7%	23.5%
10-County Region	259,921	4.1%	7.6%	36.9%	23.2%	10.3%	10.6%	7.2%	88.3%	17.9%

Source: US Census Bureau, American Community Survey, 2016-2020, 5-year average.



## Labor force

Economic statisticians survey the adult population and distinguish their status into four areas: civilian employed, armed forces, civilians seeking work (unemployed), and those not in the labor force. The civilian labor force is defined as those employed and those unemployed, and the unemployment rate is simply the percentage of that labor force seeking work. A high unemployment rate may truly reflect an excess supply of labor relative to demand, but sometimes a falling unemployment rate reflects more ‘discouraged workers,’ that is, people giving up finding a job and leaving the labor force so defined. Those ‘not in the labor force’ may be retired, have a disability, be raising children, taking care of an ill persons, be a discouraged worker, or simply not interested in a job.

	Population Aged 16+	Civilian Employed	Armed Forces	Civilian Unemployed	Not in the Labor Force		Employment Rate	Civilian Unemployment Rate
Breckinridge	16,189	7,630	0	647	7,912		47.1%	7.8%
Bullitt	65,697	40,657	65	2,152	22,823		62.0%	5.0%
Grayson	20,778	10,669	6	389	9,714		51.4%	3.5%
Green	8,947	4,184	0	239	4,524		46.8%	5.4%
Hardin	85,904	47,832	3,123	3,420	31,529		59.3%	6.7%
Hart	14,706	7,607	0	319	6,780		51.7%	4.0%
Larue	11,473	6,411	5	157	4,900		55.9%	2.4%
Meade	22,797	12,676	817	694	8,610		59.2%	5.2%
Nelson	36,135	22,054	50	759	13,272		61.2%	3.3%
Taylor	20,448	11,323	97	580	8,448		55.8%	4.9%
10-County Region	303,074	171,043	4,163	9,356	118,512		57.8%	5.2%

Source: US Census Bureau, American Community Survey, 2016-2020, 5-year average.

A useful labor market indicator is the ‘employment rate,’ defined as the percentage of the adult population that is employed or in the armed forces. This provides an indication of a region’s intensity of work. Bullitt and Nelson counties top the list, with employment rates above 60 percent, followed by Hardin and Meade. At the low end are Green and Breckinridge counties, with employment rates of 47 percent. The average for the region is 57.8 percent, which is slightly above the state average of 56.3 percent. However, only two counties have an employment rate above the national average of 60 percent.

It is interesting that Hardin County has the second highest unemployment rate, at 6.7 percent, even though it has one of the highest employment rates. This reflects two factors. Recall that Hardin has the youngest population in the region; and therefore, has a greater share of residents in their prime working years. Second, Hardin’s strong manufacturing base and recent growth presents more opportunities for work, and thus more people are seeking work. The overall unemployment rate for the 10-county region is 5.2 percent, which is the same as that for the state of Kentucky and the United States, both at 5.4 percent.

The ACS also provides estimates of health insurance coverage. Here we display the results for employed civilians in prime working ages. Keep in mind the data refer to workers based on where they live, not necessarily where they work. Bullitt County workers have the highest rate of private insurance and the smallest rate without health insurance. Taylor and Nelson counties rank 2<sup>nd</sup> and 3<sup>rd</sup>, respectively, in terms of having private health insurance.

Green, Hart, and Meade counties have the highest percentage of workers with public health insurance. And Hart and Green counties have the highest share of workers that are uninsured.

	<b>Employed Civilians, 19 to 64 years old</b>	<b>With private health insurance</b>	<b>With public coverage</b>	<b>No health insurance coverage</b>
Breckinridge	7,044	82.0%	15.4%	6.6%
Bullitt	37,535	88.6%	11.0%	3.9%
Grayson	10,007	75.7%	21.1%	7.9%
Green	3,827	70.5%	22.1%	10.3%
Hardin	43,699	83.2%	19.9%	5.7%
Hart	6,910	71.6%	21.1%	11.7%
Larue	5,982	78.9%	17.1%	6.5%
Meade	11,788	83.1%	20.0%	4.3%
Nelson	20,281	86.4%	12.5%	5.5%
Taylor	9,575	86.9%	13.3%	4.2%
<b>10-County Region</b>	<b>156,648</b>	<b>83.6%</b>	<b>16.3%</b>	<b>5.6%</b>

Source: US Census Bureau, American Community Survey, 2016-2020, 5-year average.

For comparison, in Kentucky overall 81.3% of such workers have private insurance, 14.9% have public coverage, and 7.2 percent are uninsured. The private insurance rate is the same as that nationally, but Kentucky has a much higher share of workers on Medicaid (public coverage) than does the US (10.5%).

## Household Characteristics

The Census Bureau defines as household as an occupied housing unit. The household might contain a single adult, a married couple with children, a single parent with children, related or unrelated roommates, or anything in between. The average number of persons per household in the region is 2.59, which is between the state average of 2.48 and the national average of 2.60. Bullitt (2.69) and Grayson (2.67) counties have the largest household size. LaRue County has the smallest household size, at 2.42.

	Number of Households	Persons per Household*	Home Ownership Rate	Homeowner vacancy rate %	Rental vacancy rate %	Median Value, Owner-Occupied Unit	Owner-Occupied Units without a	Median Rent	Households with Broadband
Breckinridge	7,731	2.58	81.8%	2.1	5.4	\$104,500	52.9%	\$296	74.8%
Bullitt	29,940	2.69	81.4%	1.4	7.0	\$171,300	34.9%	\$849	84.2%
Grayson	9,753	2.67	73.6%	3.1	7.2	\$118,100	55.7%	\$583	70.6%
Green	4,440	2.45	72.2%	2.2	0.9	\$80,600	51.9%	\$515	74.3%
Hardin	42,059	2.54	61.0%	1.4	8.1	\$157,700	37.2%	\$811	80.1%
Hart	7,256	2.56	74.1%	0.2	6.2	\$93,000	52.0%	\$559	73.2%
Larue	5,779	2.42	76.2%	2.3	0.3	\$125,100	47.1%	\$711	71.5%
Meade	10,690	2.63	74.5%	3.3	8.3	\$154,200	37.5%	\$856	88.3%
Nelson	17,991	2.52	78.1%	1.0	4.7	\$164,200	39.7%	\$799	84.0%
Taylor	9,659	2.52	63.6%	1.1	1.7	\$122,800	47.1%	\$650	82.3%
10-County Region	145,298	2.58							

Source: US Census Bureau, American Community Survey, 2016-2020, 5-year average.  
 \* Excludes group quarters population, such as corrections, nursing homes, dorms, and military quarters.

The region has a high rate of homeownership, that is, the percentage of residents that own rather than rent their home. Only Hardin (61.0%) and Taylor (63.6%) are lower than the state average (67.6%). The share of homeowners without a mortgage varies among the counties. Grayson (55.7%) and Breckinridge (52.9%) have the highest rates, while Hardin (37.2%) and Bullitt (34.9%) have the lowest rates. The state average is 42.8%, and nationally it is 37.9%.

Meade County has the highest percentage of households with a broadband internet subscription, followed by Bullitt and Nelson. Broadband access is lowest in Grayson, LaRue and Hart counties. For reference, the state average rate is 81.6%, and the national rate is 85.2%. Only Meade County has a higher average broadband connection rate than the United States.

The household size calculation above removes the group quarters population from each county's total population. The ACS only provides the total number of persons in group quarters<sup>13</sup>. To see the detailed breakouts, we need to turn to the decennial census data – the recently released results from the 2020 Census. Group quarters may refer to the institutionalized population (corrections, nursing) or noninstitutionalized population (dorms, military quarters). The next table summarizes the 2020 Census data on group quarters. Several things stand out.

- Hardin County has the only military quarters population in the region, at Fort Knox, with 1,260 residents.

<sup>13</sup> Thanks to Dr. Matthew Ruther, Kentucky State Demographer, at the University of Louisville for helping us sort the group quarters measurement puzzle out.

- Taylor County has all the college dorm population in the region, at Campbellsville University, with 947 students.
- Grayson County has a high population in adult correctional facilities for adults, due to the Grayson County Detention Center in Leitchfield. The population in other counties in correctional facilities is a function of the county's population (jails); however, interestingly, the Census reports zero correctional populations in Bullitt and Green counties.
- The nursing home population reflects the population size of the home county. Green County has the highest share of its population (0.9%) in nursing homes, double the regional average (0.4%). Recall from our previous demographic discussion that Green also has the highest median age in the region. Interestingly, the Census reports no nursing facility residents in LaRue County

Group Quarters Population, 2020									
	Grand Total	Institutionalized population				Noninstitutionalized population			
		Total	Correctional facilities for adults	Juvenile facilities	Nursing facilities/Skilled-nursing facilities	Total	College/University student housing	Military quarters	Other noninstitutional facilities
Breckinridge	299	273	207	0	66	26	7	0	19
Bullitt	147	112	0	26	86	35	0	0	35
Grayson	759	723	584	0	139	36	0	0	36
Green	95	95	0	0	95	0	0	0	0
Hardin	2,556	1,105	577	32	496	1,451	0	1,260	191
Hart	233	233	138	0	95	0	0	0	0
Larue	148	148	117	31	0	0	0	0	0
Meade	230	212	152	0	60	18	0	0	18
Nelson	649	268	122	0	146	381	0	0	381
Taylor	1,416	378	194	0	184	1,038	940	0	98
10-County Region	6,532	3,547	2,091	89	1,367	2,985	947	1,260	778

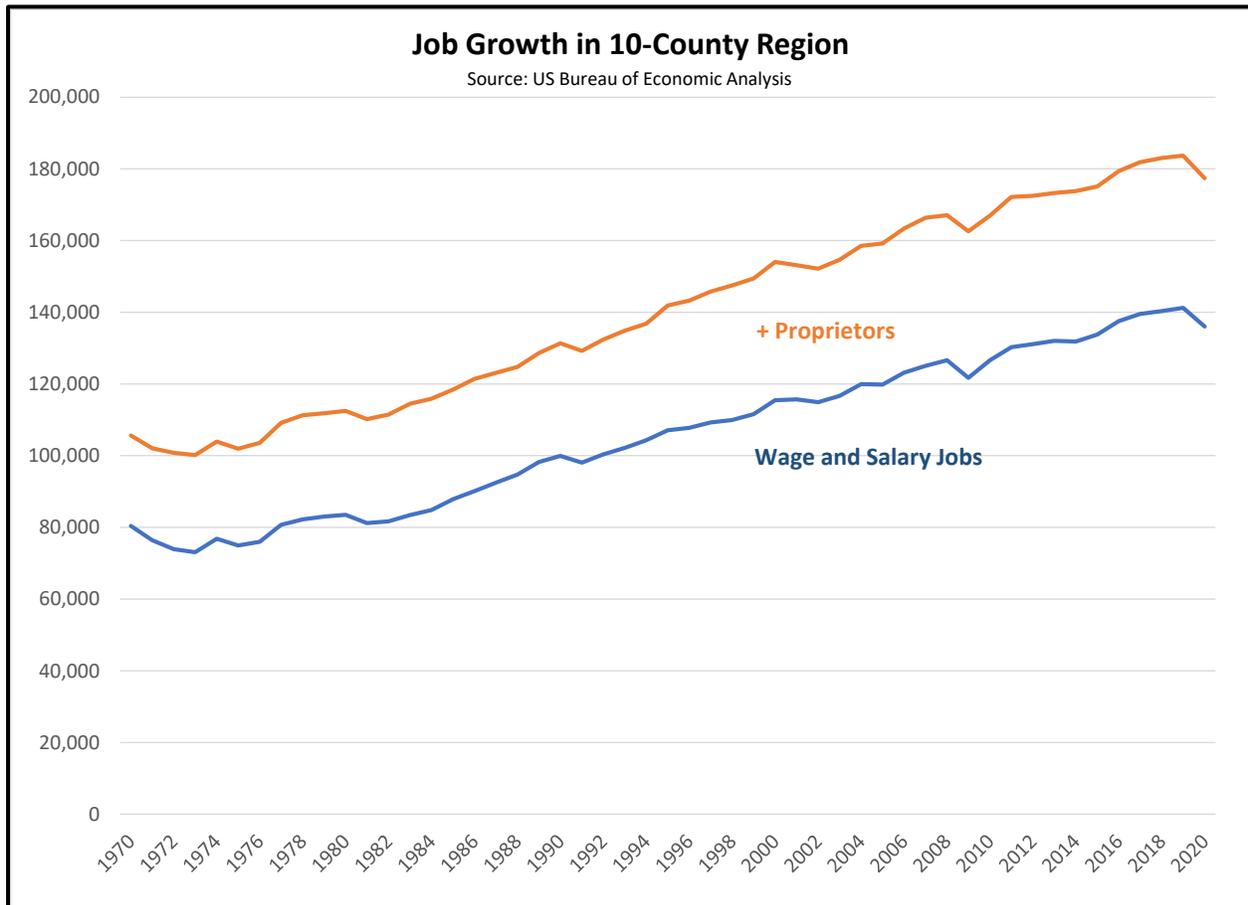
Source: US Census Bureau, 2020 Census, DEC Redistricting Data (PL 94-171)

We can now re-calculate the average household size by county using the more precise and more current 2020 Census data. We subtract the group quarters population from the total population of each county to get the household population. Then we divide the household population by the number of occupied housing units (households). These are shown in the next table. Meade (2.70) and Bullitt (2.61) have the most average persons per household, well above the regional average of 2.54. Green (2.39) and Taylor (2.42) have the fewest persons per household. For comparison, the state average is 2.44, and the national average is 2.55, persons per household. The 2020 household size estimates are a bit lower than those from the 2016-2020 ACS, reflecting a national trend in smaller household sizes. Bullitt County had a large drop.

	<b>Total Population, 2020</b>	<b>Group Quarters Population</b>	<b>Household Population</b>	<b>Households (occupied housing units)</b>	<b>Persons per Household</b>
Breckinridge	20,432	299	20,133	8,003	2.52
Bullitt	82,217	147	82,070	31,409	2.61
Grayson	26,420	759	25,661	10,440	2.46
Green	11,107	95	11,012	4,606	2.39
Hardin	110,702	2,556	108,146	42,933	2.52
Hart	19,288	233	19,055	7,418	2.57
Larue	14,867	148	14,719	5,879	2.50
Meade	30,003	230	29,773	11,045	2.70
Nelson	46,738	649	46,089	18,462	2.50
Taylor	26,023	1,416	24,607	10,171	2.42
<b>10-County Region</b>	<b>387,797</b>	<b>6,532</b>	<b>381,265</b>	<b>150,366</b>	<b>2.54</b>
Source: US Census Bureau, 2020 Census, DEC Redistricting Data (PL 94-171)					

## Jobs by County of Work

The region supports about 177,000 jobs, up from 106,000 jobs five decades ago. This is a growth rate of 69 percent, compared to 82 percent statewide. Jobs are different than employed persons since some people hold more than one job. For example, if someone holds a part-time job at a retail establishment, but also has a sideline business as a consultant, they are counted twice – once as a wage job, and once as a proprietor. Similarly, a factory worker who also has a small farming operation gets counted twice, once as a wage worker, and once as a farm proprietor. Regardless, we can see the steady growth in jobs in the region, as well as the dip in 2020 due to Covid-19 restrictions and closures.



Focusing just on the wage and salary jobs, what has been the regional distribution of growth? Bullitt County dominates the county rankings, contributing almost one-half of all the job growth in the 10-county region over the last five decades, and most of it during the last decade. Nelson and Grayson counties had the next fastest growth rates in jobs. Interestingly, Hardin County, which is the largest employment center in the region, had almost no net job growth over the period. Similarly, the Elizabethtown-Fort Knox MSA posted only a 7.9 percent job growth over the fifty years. That, of course, is about to change.

<b>Five Decades of Wage and Salary Job Growth, Elizabethtown Region</b>				
	<b>1970</b>	<b>2020</b>	<b>growth</b>	<b>rate</b>
Breckinridge	2,469	3,990	1,521	61.6%
Bullitt	2,882	27,418	24,536	851.4%
Grayson	2,916	7,913	4,997	171.4%
Green	1,793	1,982	189	10.5%
Hardin	51,762	52,609	847	1.6%
Hart	2,473	5,296	2,823	114.2%
Larue	1,587	2,724	1,137	71.6%
Meade	2,188	4,575	2,387	109.1%
Nelson	5,596	16,571	10,975	196.1%
Taylor	6,721	12,915	6,194	92.2%
10-County Region	80,387	135,993	55,606	69.2%
Elizabethtown-Fort Knox MSA	55,537	59,908	4,371	7.9%

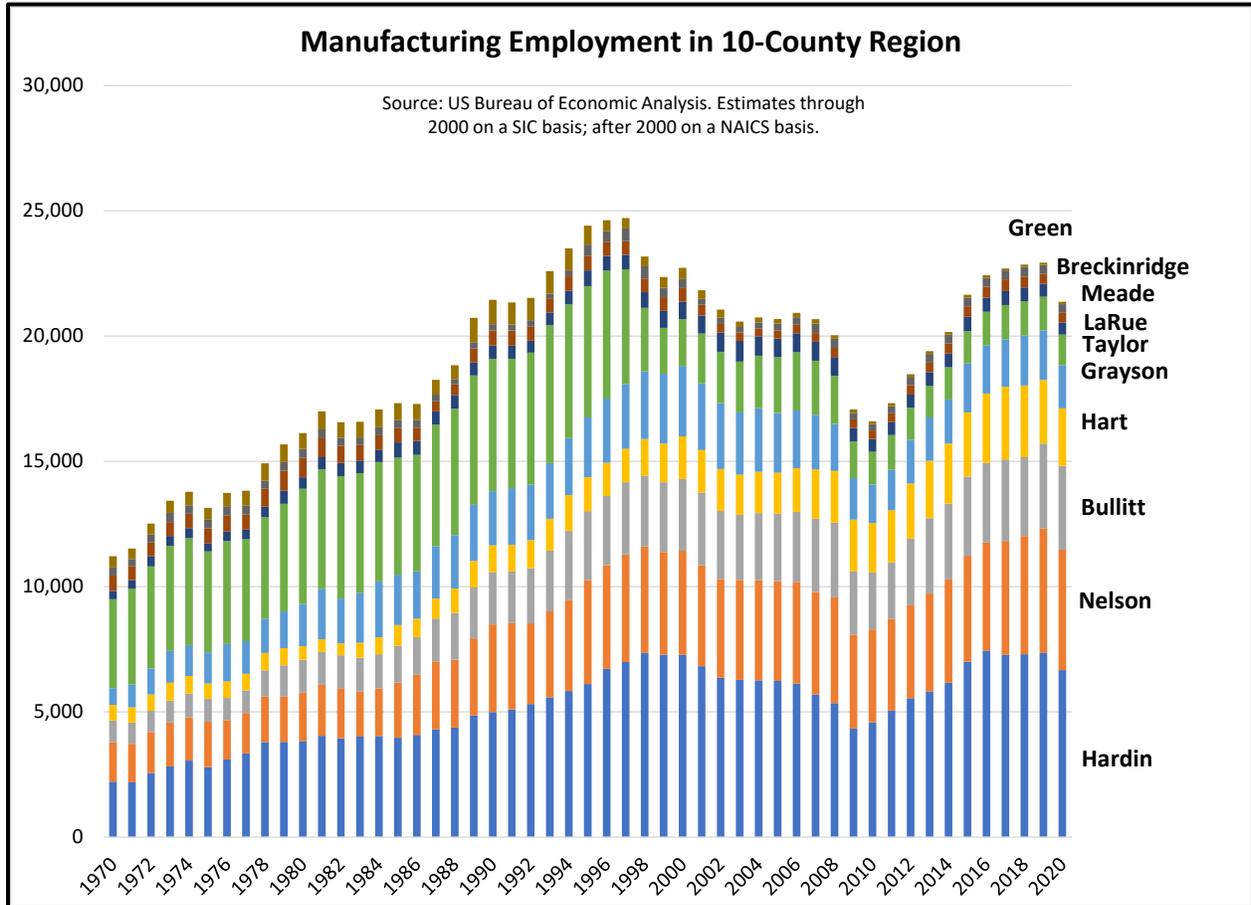
Source: US Bureau of Economic Analysis. The Elizabethtown-Fort Knox MSA is composed of Hardin, Larue and Meade counties. Wage and salary jobs only, excludes proprietors. Estimates on a place of work basis.

Much of the regional job growth summarized above is service based, that is, retail, health care, personal services, and the like that is related to population growth. These are a mixture of part-time, low paying jobs (restaurants, convenience stores) and full-time, high paying jobs (hospitals, K-12 education). Economic growth in our part of the country depends on new jobs in ‘export-based’ industries, where the products are sold to the rest of the world, thus bringing new dollars into the region. This contrasts with areas with strong natural amenities, like oceans and mountains, which draw people to move there, with businesses following them for the talent. Farming is an important export-based industry in the Elizabethtown region, as is the military. However, the manufacturing and logistics are the biggest drivers of growth. Manufacturing has high multiplier effects. A job in, for example, an auto parts plant might support three or four other jobs in the region, through its supply chain and the rounds of re-spending of the employee wages.

While farmers export much of their products outside the state, central Kentucky is not a major agricultural area. It is characterized by small farms growing corn and soybeans, as well as cow-calf operations and beef production. There are less than 10,000 farm proprietors in the 10-county region, down from 15,000 five decades ago. Their total farm income averaged only about \$40 million per year over the past decade and was negative in 2016 and 2018.

Military employment in the region is down to about 6,000, compared to 41,000 in 1970. Federal civilian employment, which includes some Fort Knox-related activity, but also post office and other administrative employees, is down to 5,800, compared to 7,000 five decades ago.

Manufacturing is a very significant source of income in the region, with over 21,000 jobs. As one can see, employment peaked in 1997, fell for the next decade, but has been growing again since 2011. Hardin County has the most manufacturing jobs, accounting for almost one-third of the regional total. Together with Nelson, Bullitt and Hart, these four counties account for 80 percent of the regional total.

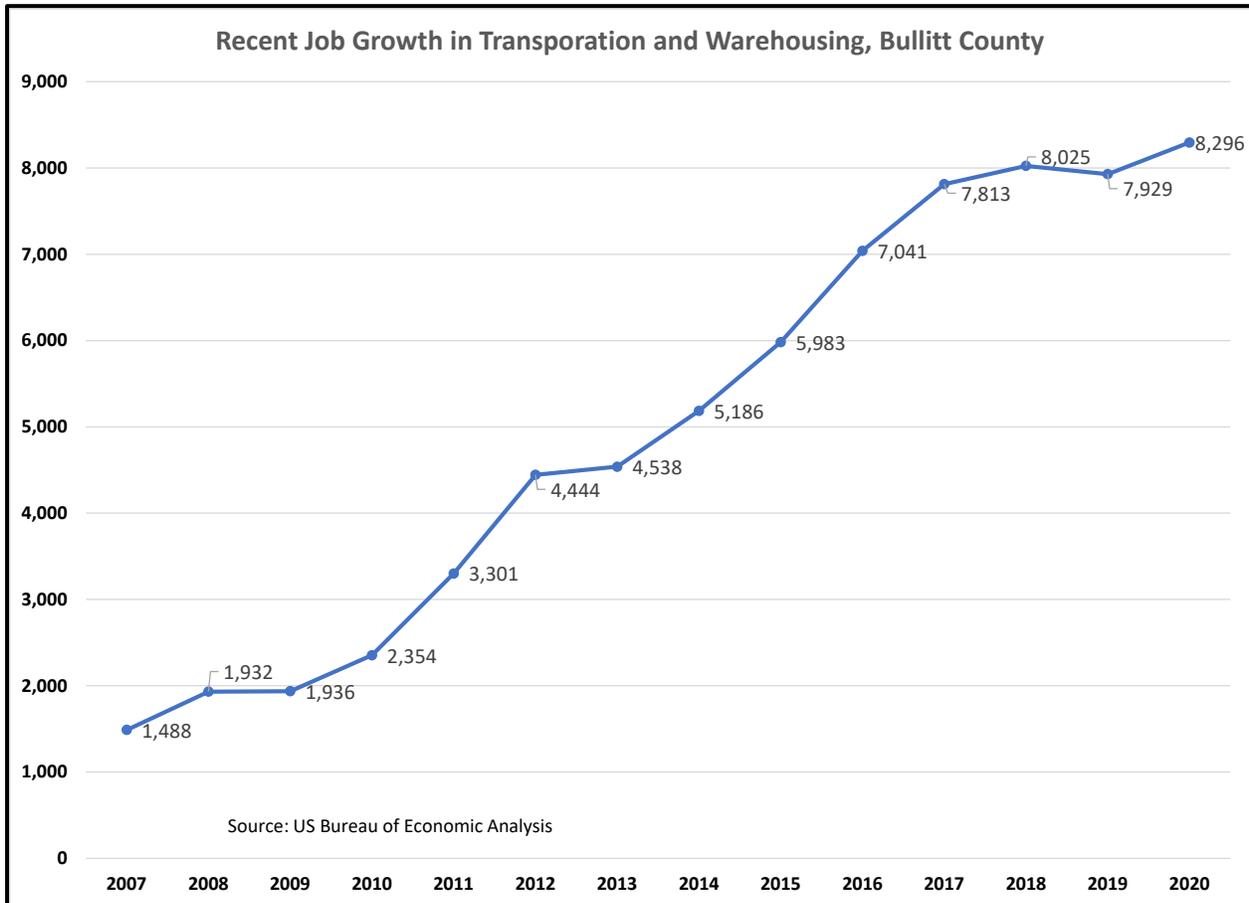


Of course, the manufacturing industry covers a wide range of activities, some requiring little skill, others requiring great skill and training. Wages and salaries reflect the skill and training required, and there is wide variety around the region. Meade County easily tops the list, with average annual earnings of \$117,000, not including fringe benefits. The latest data from BEA do not reflect the new Nucor Steel plant with its four hundred expected jobs. Hardin County ranks second, at \$80,000. Green County ranks last at \$45,000.

Confidentiality rules prevent the federal government from disclosing employment and other economic information if one or two operations dominate a regional total. This is to prevent someone from inferring a company's actual payroll. Thus, there is not much data available on the size of the logistics industries among the ten counties. Fortunately, there are enough business establishments in Bullitt County that the totals have been published since 2007. One can see the tremendous growth in employment there, with a five-fold increase in jobs since 2007. Comparable data are also available for Hardin County, showing 1,700 transportation and warehousing jobs in 2020, up from 1,500 in 2007.

Average Annual Earnings, Manufacturing Jobs in Elizabethtown Region		
	2010	2020
Breckinridge	\$44,860	\$55,341
Bullitt	\$50,005	\$69,690
Grayson	\$42,412	\$68,702
Green	\$28,413	\$45,448
Hardin	\$66,749	\$79,924
Hart	\$40,387	\$68,983
Larue	\$33,356	\$50,052
Meade	\$85,093	\$117,245
Nelson	\$56,013	\$76,511
Taylor	\$37,043	\$57,170
10-County	\$53,076	\$73,606
Elizabethtown-Fort Knox MSA	\$64,737	\$79,892

Source: US Bureau of Economic Analysis



## Personal Income of Residents

Personal income for a county or other region is measured as follows. First, BEA estimates the wages, salaries and proprietors' income of people working in, not necessarily residents of, the county. One can see that the total for the 10-county Elizabethtown region is \$8.8 billion. Then BEA subtracts out employee and employer contributions to Social Security and Medicare. The next step is related to commuting patterns. An adjustment is made to net out how much residents earn in other counties minus how much nonresidents earn in their county. The result for our region is \$2.1 billion, meaning that residents of the 10-county Elizabethtown region earn that much more working outside the region than nonresidents earn working in the region. Finally, BEA adds in property income to residents (dividends, interest, and rent), plus transfer payments. The resulting total personal income is \$17.3 billion, or \$44,772 per resident. For comparison, per capita income in Kentucky overall was \$47,339, and in the United States was \$59,510.

<b>Derivation of personal income, 10-County Region, 2020</b>	
Earnings by place of work	\$8,844,540
Less: Contributions for government social insurance	\$1,086,891
Plus: Adjustment for residence	\$2,059,129
Equals: Net earnings by place of residence	\$9,816,778
Plus: Dividends, interest, and rent	\$2,238,942
Plus: Personal current transfer receipts	\$5,213,650
Total Personal Income of Residents	\$17,269,370
Population	385,720
Per Capita Personal Income	\$44,772
Source: US Bureau of Economic Analysis. Dollars in thousands, except for per capita income.	

It is worth highlighting the county details on the residence adjustment, as it reveals much about regional commuting patterns. One can see that by far the largest adjustment is for Bullitt County, where so many residents work in Jefferson County. Recall that Bullitt County is part of the Louisville MSA. Bullitt County residents bring in over \$1 billion in earnings by working in other counties than do nonresidents working in Bullitt. Meade and LaRue counties, of course, are part of the Elizabethtown-Fort Knox MSA, and thus provide thousands of workers to Hardin County. Nelson County residents commute to Jefferson County and many other surrounding counties; indeed, in years past it has been deemed part of the Louisville MSA. Hardin County has the largest negative residence adjustment, reflecting its role as a central place of work for the region's population – more nonresidents take their

paychecks out than Hardin residents working outside the county bring paychecks home. Taylor County (Campbellsville) is the only other county with negative residence adjustment. Both Hardin and Taylor have had negative residence adjustment over the complete fifty-year period for which estimates are available from BEA.

Transfer payments are a large source of personal income for the region, as they are for the state of Kentucky. In 2020, transfer payments accounted for 30 percent of the personal income overall in the region. There is a wide range of dependence on these across the counties, however. Transfers account for 43 percent of personal income in Green County, and 40 percent in Taylor County. The lowest rates are in Bullitt (25 percent), Nelson (27 percent) and Meade (27 percent).

What are transfer payments? Economists define them as receipts of money or a valuable service for which no payment is required. One can see in the next table that Social Security, Medicare, and Medicaid are the main sources of transfer payments in the region (and across the state), accounting for almost two-thirds of the total. Unemployment insurance payments, income maintenance benefits, and veterans' benefits are other major sources of transfers to the region.

<b>Residence Adjustment (000) to Personal Income, 2020</b>	
Bullitt	\$1,073,048
Meade	\$494,932
Nelson	\$422,129
Larue	\$184,972
Breckinridge	\$160,012
Grayson	\$107,419
Green	\$98,716
Hart	\$25,939
Taylor	-\$63,537
Hardin	-\$444,501
Source: US Bureau of Economic Analysis	

<b>Transfer receipts (000) in 10-County Region, 2020</b>		
	<b>Amount</b>	<b>Share of Total</b>
Current transfer receipts of individuals from governments	\$4,989,103	95.7%
Retirement and disability insurance benefits	\$1,398,524	26.8%
Social Security benefits	\$1,359,902	
Excluding Social Security benefits	\$38,622	
Medical benefits	\$1,881,999	36.1%
Medicare benefits	\$997,269	
Public assistance medical care benefits	\$812,949	
Military medical insurance benefits	\$71,781	
Income maintenance benefits	\$333,076	6.4%
Supplemental Security Income (SSI) benefits	\$76,090	
Earned Income Tax Credit (EITC)	\$82,819	
Supplemental Nutrition Assistance Program (SNAP)	\$100,963	
Other income maintenance benefits	\$73,204	
Unemployment insurance compensation	\$501,163	9.6%
State unemployment insurance compensation	\$499,115	
Excluding state unemployment insurance compensation	\$2,048	
Veterans' benefits	\$320,141	6.4%
Education and training assistance	\$111,145	2.2%
Other transfer receipts of individuals from governments	\$443,055	8.5%
Current transfer receipts of nonprofit institutions	\$183,297	3.5%
Current transfer receipts of individuals from businesses	\$41,250	0.8%
Refundable tax credits	\$542,430	10.4%
<b>Total</b>	<b>\$5,213,650</b>	<b>100.0%</b>
Source: US Bureau of Economic Analysis		

### Commuting Patterns in the Elizabethtown Region

The personal income discussion above touched on the ‘residence adjustment’ factor that converts worker earnings by county of work to income by county of residence. In this section, we examine these underlying commuting patterns more closely, and speculate about the possibility of adding counties to the Elizabethtown-Fort Knox MSA. Data on county commuting patterns is not as current as those on jobs, population, and income, but the latest Census data reveal that all ten counties in this study contribute a significant number of workers to Hardin County. Jefferson County also supplies a lot of workers. One can see from accompanying table that the top eleven supplying counties account for 97 percent of all workers in Hardin County. By far the most important source of workers is Hardin County itself, providing 73 percent of the workers.

The table on the right shows where Hardin County residents go to work. This yields a different pattern from the inflow table. Jefferson and Bullitt counties are major draws for Hardin residents, attracted by job opportunities in the large urban market of Louisville and the booming logistics industries in Bullitt County.

Residence of Workers in Hardin County		
	Number	Share of Total
Hardin County	40,498	73.1%
Meade County	4,088	7.4%
Larue County	2,337	4.2%
Jefferson County	1,908	3.4%
Grayson County	1,371	2.5%
Nelson County	891	1.6%
Breckinridge County	829	1.5%
Hart County	778	1.4%
Bullitt County	623	1.1%
Green County	290	0.5%
Taylor County	104	0.2%
other	1,680	3.0%
<b>Total workers</b>	<b>55,397</b>	<b>100.0%</b>

Source: US Census Bureau, estimates for 2011-15.  
[www.census.gov/data/tables/2015/demo/metro-micro/commuting-flows-2015.html](http://www.census.gov/data/tables/2015/demo/metro-micro/commuting-flows-2015.html)

County of Work, Hardin County Residents		
	Number	Share of Total
Hardin County	40,498	81.4%
Jefferson County	4,012	8.1%
Bullitt County	1,568	3.2%
Larue County	632	1.3%
Meade County	466	0.9%
Nelson County	448	0.9%
Grayson County	249	0.5%
Breckinridge County	110	0.2%
Warren County	96	0.2%
Hart County	85	0.2%
other	1,599	3.2%
<b>Total workers</b>	<b>49,763</b>	<b>100.0%</b>

Source: US Census Bureau, estimates for 2011-15.  
[www.census.gov/data/tables/2015/demo/metro-micro/commuting-flows-2015.html](http://www.census.gov/data/tables/2015/demo/metro-micro/commuting-flows-2015.html)

Warren County also makes the top ten, but Green and Taylor counties attracts only a few dozen Hardin residents and are not represented.

Unfortunately, such detailed Census data are only available with a long lag time. The average over the years 2011 to 2015, as shown, has been calculated using detailed data from the annual American Community Survey, and is the latest available. We will also look at the historical commuting patterns more closely, with an eye to detecting more recent trends using some alternative data sources. The next batch of county-to-county worker flows will be based on the ACS for 2016-2020 and is expected to be released in 2023.

What about the commuting flows among the ten study counties? First, consider LaRue and Meade counties, as they are officially part of the Elizabethtown-Fort Knox MSA. The county-to-county flow of workers is the primary consideration in defining MSAs, and this shows up clearly in the data. One can see in the first table above that Meade and LaRue are the top two suppliers of nonresident workers to Hardin. More Meade residents work in Hardin (4,988) than work in Meade (3,733). And more LaRue residents work in Hardin (2,337) than in LaRue (2,142).

<b>Top Five County Destinations for Work</b>					
<b>County of Residence</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Breckinridge</b>	Breckinridge	Hardin	Jefferson	Perry	Grayson
<b>Bullitt</b>	Jefferson	Bullitt	Hardin	Clark	Nelson
<b>Grayson</b>	Grayson	Hardin	Jefferson	Warren	Ohio
<b>Green</b>	Green	Taylor	Hardin	Hart	Marion
<b>Hardin</b>	Hardin	Jefferson	Bullitt	Larue	Meade
<b>Hart</b>	Hart	Barren	Hardin	Warren	Jefferson
<b>LaRue</b>	Hardin	Larue	Jefferson	Nelson	Bullitt
<b>Meade</b>	Hardin	Meade	Jefferson	Harrison	Bullitt
<b>Nelson</b>	Nelson	Jefferson	Bullitt	Hardin	Washington
<b>Taylor</b>	Taylor	Marion	Adair	Green	Jefferson

Source: US Census Bureau, estimates for 2011-15.  
[www.census.gov/data/tables/2015/demo/metro-micro/commuting-flows-2015.html](http://www.census.gov/data/tables/2015/demo/metro-micro/commuting-flows-2015.html)

None of the other counties in the study region have such a strong employment interchange with Hardin County as do LaRue and Meade. Some are more pulled into the Louisville orbit (Bullitt). Some are pulled south towards Bowling Green (Hart). And some have sufficient job opportunities in their home counties that the commute to Hardin is less attractive (Breckinridge, Grayson, Green, Nelson, Taylor). We anticipate shifts in this dynamic as Hardin County provides many more high-paying jobs over the next decade.

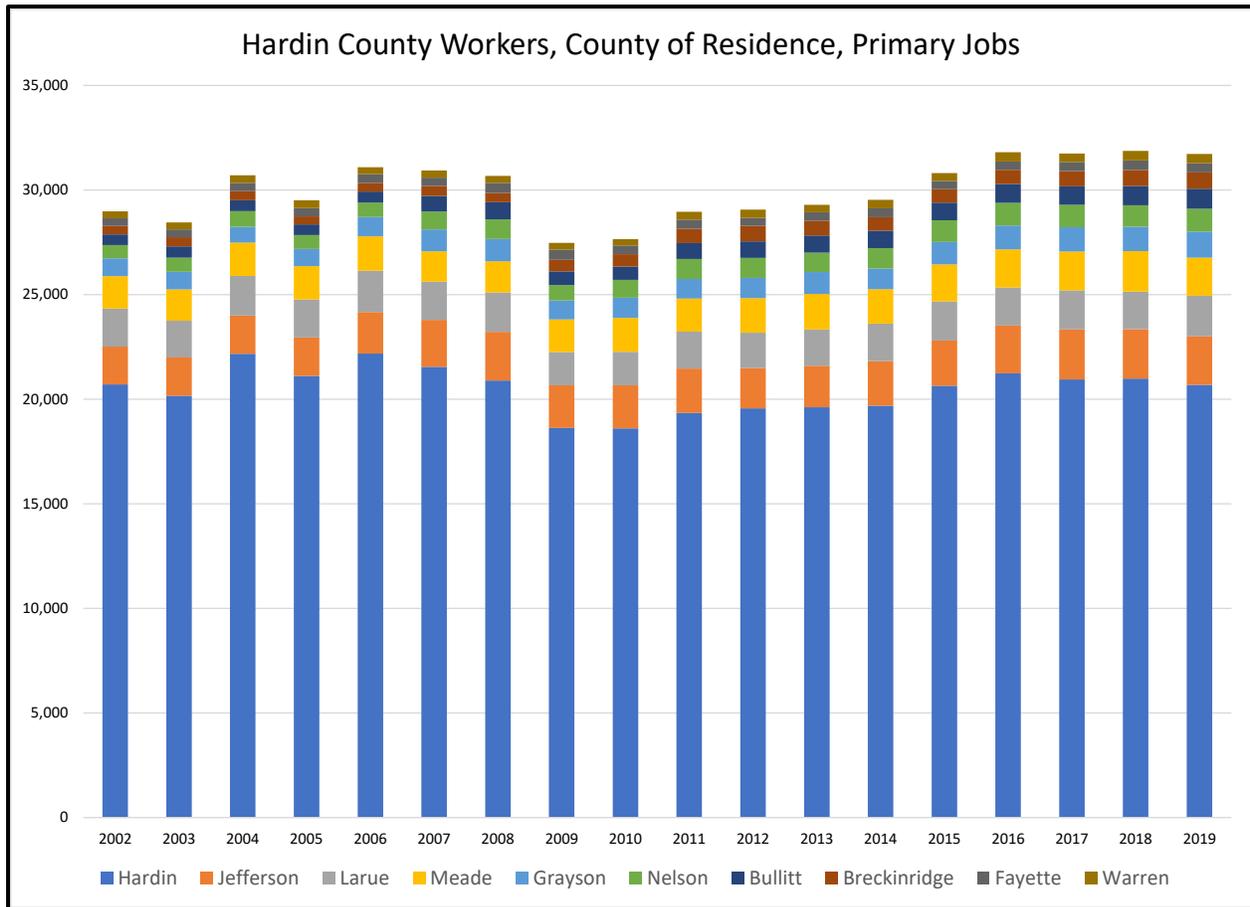
Another Census Bureau program, *OnTheMap* (OTM), provides more current, though less comprehensive, information on the place of residence for workers. This program merges data on individuals from the Unemployment Insurance system and other federal state databases and can identify worker flows down to the census tract and zip code level. It matches the person’s work address to his or her home address, and generates detailed estimates by age, gender, industry and pay.

<b>Jobs in Hardin County, by Residence of Worker, 2019</b>				
<b>County of Residence</b>	<b>All Jobs</b>	<b>All Private Jobs</b>	<b>Primary Jobs</b>	<b>Private Primary Jobs</b>
Hardin	21,778	16,428	20,686	15,478
Jefferson	2,512	2,309	2,314	2,122
Larue	2,037	1,644	1,950	1,568
Meade	1,904	1,532	1,815	1,448
Grayson	1,289	1,044	1,247	1,009
Nelson	1,150	844	1,095	802
Bullitt	1,007	894	951	841
Breckinridge	830	713	787	675
Fayette	480	430	442	400
Daviess	469	425	438	399
Warren	468	409	440	385
Barren	446	393	422	373
Hart	426	373	409	358
Oldham	355	318	332	298
Shelby	322	290	293	264
other	7,624	6,724	7,154	6,303
<b>Total</b>	<b>43,097</b>	<b>34,770</b>	<b>40,775</b>	<b>32,723</b>

Source: US Census Bureau, OnTheMap, <https://onthemap.ces.census.gov/>

The latest data on residence of Hardin County workers is shown in the table above. The OTM data do not match the commuting data just analyzed, as the program obviously covers fewer workers. However, the top suppliers of workers are the same as we found using the older Census data on county-to-county commuting. Jefferson, Larue, Meade, Grayson, Nelson, Bullitt, and Breckinridge top both lists. This is an indication that the basic commuting patterns in the region have not changed much over the last decade. Green and Taylor counties do not show up in the top twenty-five supplying counties in the OTM database.

The OTM program provides estimates going back to 2002. The next chart shows the top ten counties supplying workers in Hardin County, focusing only on ‘primary jobs,’ or those most likely to support a commute to another county. One can see the effects of the 2008-10 national recession, but that there has been no discernable change in the proportions over this long time.



### Possibility of Additional Counties for the Elizabethtown – Fort Knox MSA

The US Office of Management and Budget (OMB) is the official determiner of MSA boundaries. It currently relies on the results of the ACS commuting patterns discussed above, using non-overlapping five-year ACS results. This means the next measures considered will be from the 2016-2020 ACS, expected to be released in 2023. There are a lot of definitions and rules involved, but for the current issue the main criteria has to do with adding counties to an existing MSA: “Outlying Counties A county qualifies as an outlying county of a CBSA if it meets the following commuting requirements: (a) At least 25 percent of the workers living in the county work in the central county or counties of the CBSA”, where the CBSA is the Core Based Statistical Area that can refer to metropolitan or micropolitan areas.<sup>14</sup>

<sup>14</sup> See the Office of Management and Budget 2010 Standards for Delineating Metropolitan and Micropolitan Statistical Areas; Notice June 28, 2010, [www.govinfo.gov/content/pkg/FR-2010-06-28/pdf/2010-15605.pdf](http://www.govinfo.gov/content/pkg/FR-2010-06-28/pdf/2010-15605.pdf)

Current commuting patterns only support the inclusion of LaRue and Meade counties, which have over 35 percent of their working residents working in Hardin County. The next highest is Grayson, where 1,371 resident workers commute to Hardin. This is 13.4 percent of all working residents of Grayson. Using the historical data, it would take another 1,200 commuters from Grayson to Hardin County to meet the 25 percent criteria.

More information on MSA boundary expansion can be found in the section which focuses on this issue, beginning on Page 187.

<b>Share of Working County Residents that Work in Hardin County</b>	
Breckinridge	11.0%
Bullitt	1.7%
Grayson	13.4%
Green	6.6%
Hart	11.5%
LaRue	41.5%
Meade	35.1%
Nelson	4.5%
Taylor	1.0%

Source: US Census Bureau, estimates for 2011-15.

[www.census.gov/data/tables/2015/demo/metro-micro/commuting-flows-2015.html](http://www.census.gov/data/tables/2015/demo/metro-micro/commuting-flows-2015.html)



## Elizabethtown – Fort Knox Metropolitan Statistical Area Peer MSA Analysis

By Dr. Paul Coomes, Ph.D.

Major industrial developments are occurring in the greater Elizabethtown area, and local leaders are endeavoring to both maximize the regional economic impacts and to prepare the community for anticipated new needs, such as infrastructure, workforce development, housing, and land use planning. This section of our research examines a set of similar metropolitan areas to learn where the Elizabethtown-Fort Knox, KY Metropolitan Statistical Areas (MSA) now stands in terms of demographics, education, economic structure, household income, and other important measures. Such ‘peer cities analyses’ have been used extensively by economic development groups around the US, including nearby markets Louisville and Owensboro.

There are 385 MSAs in the US, ranging in population size from Carson City, NV (56,000) to New York-Newark-Jersey City, NY-NJ-PA (19,124,000). The Elizabethtown-Fort Knox MSA has a population of 154,000. Elizabethtown is located on one of busiest interstate highways in the country, the north-south I-65, and is served also by limited access parkways running east and west. It has a long close historical tie with nearby Fort Knox, a major Army facility. And the MSA supports about 7,500 manufacturing jobs, with thousands more in the pipeline.

We use these features to filter across the 385 MSAs to find similar places. We have identified eleven other MSAs that roughly fit the following criteria: (a) population between 100,000 and 300,000, (b) existence of interstate highway, (c) not a state capitol, (d) not a college town, (e) presence of military installation, (f) with at least 5,000 manufacturing jobs, or (g) have some other compelling similarity to Elizabethtown-Fort Knox.

The twelve MSAs are shown in the table and on the map below. All are on or near an interstate highway. Most have a major military installation; however, three are home to large universities.

- Bloomington, IN is home to Indiana University, and thus a classic college town. There is no military installation there. However, it does have substantial manufacturing employment. Interstate 69 passes through it, and it is only thirty-five miles west of I-65.
- Bowling Green, KY is also home to a large public university, Western Kentucky University; and there is no military installation. However, it is along I-65 south of Elizabethtown, and has very substantial manufacturing activity. Moreover, an electric vehicle battery plant is also planned there.
- Clarksville, TN-KY has the largest population of the group and is of course home to Fort Campbell. It is served by I-24, which connects Nashville and St. Louis.

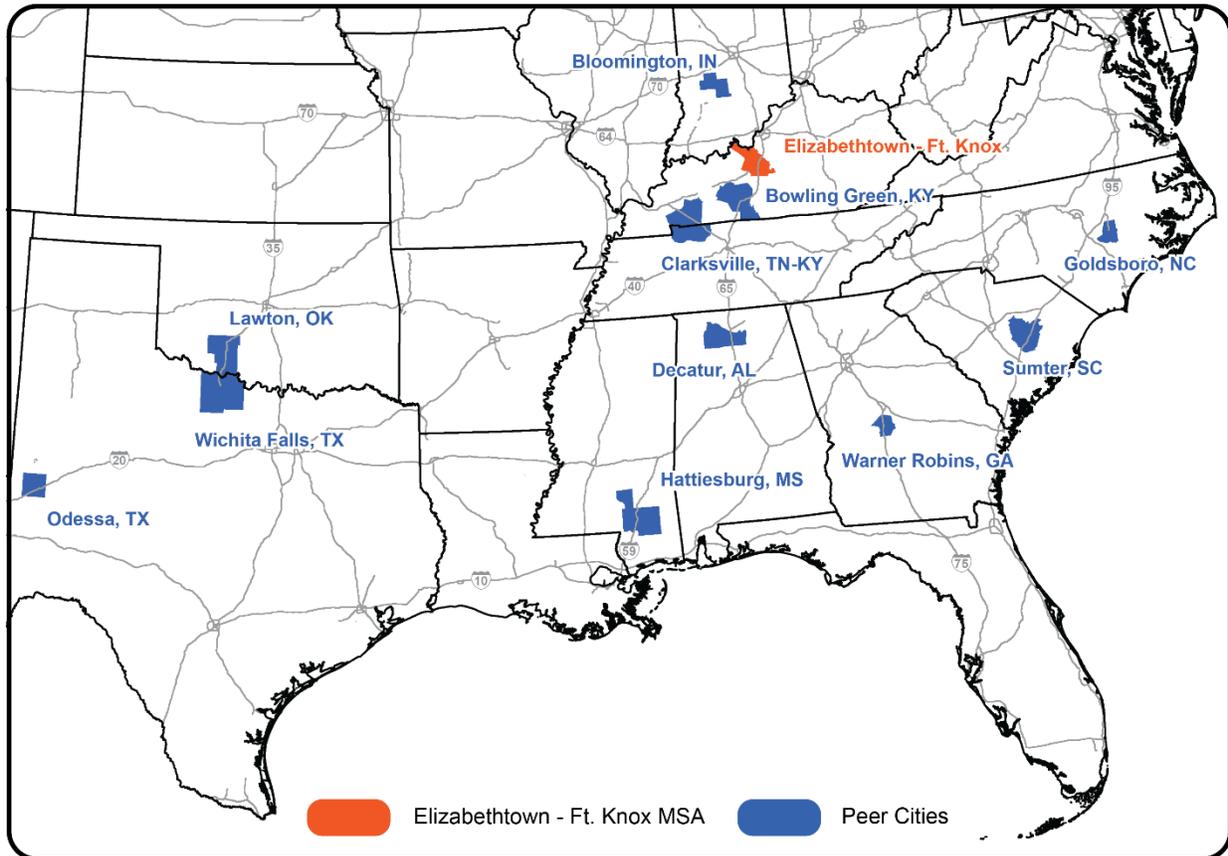
Peer Metropolitan Statistical Areas					
MSA Code		Population	Manufacturing Jobs	Military's Share of Total Jobs	State Government's Share of Total Jobs
14020	Bloomington, IN	169,052	9,817	0.5%	ND
14540	Bowling Green, KY	180,751	12,593	0.5%	4.6%
17300	Clarksville, TN-KY	314,364	12,481	18.5%	2.3%
19460	Decatur, AL	152,740	13,688	0.8%	1.2%
<b>21060</b>	<b>Elizabethtown-Fort Knox, KY</b>	<b>154,356</b>	<b>7,530</b>	<b>7.4%</b>	<b>1.9%</b>
24140	Goldsboro, NC	123,967	5,415	8.5%	5.7%
25620	Hattiesburg, MS	169,554	6,400	1.4%	4.6%
30020	Lawton, OK	126,775	3,621	19.3%	2.4%
36220	Odessa, TX	167,701	5,166	0.3%	1.7%
44940	Sumter, SC	139,775	7,113	9.9%	2.7%
47580	Warner Robins, GA	188,060	8,853	4.1%	2.2%
48660	Wichita Falls, TX	152,485	5,183	7.2%	3.8%

Source: US Bureau of Economic Analysis, estimates for 2020. Manufacturing jobs in Warner Robins not disclosed for 2020; 2017 estimate used. State government employment in Bloomington is not disclosed due to Indiana University dominating the total.

- Decatur, AL, further down I-65, is near the Redstone Arsenal and Huntsville, with its well-known concentration of military personnel and researchers. It has twice the concentration of manufacturing jobs as Elizabethtown-Fort Knox.
- Goldsboro, NC is the smallest of the MSAs, is on I-795 and near to I-95. It is home to the Seymour-Johnson Air Force Base.
- Hattiesburg, MS is on I-59, and has a major Army Training center. It is also home to Southern Mississippi University, with 14,000 students, so it can also be considered a college town, though not so much as Bloomington and Bowling Green.
- Lawton, OK is on I-44, and is home to Fort Sill Military Reservation, with 5,000 employees. It has the fewest manufacturing jobs of any of the peers.
- Odessa, TX is located on I-20 out on the high Texas plains. Historically, its fate rises and falls with the oil market, but it nevertheless has a substantial manufacturing base.  
Sumter, SC is close to I-95 and I-20 and is home to Shaw Air Force Base.

- Warner Robbins, GA is on I-75, just south of Macon. It is home to Robbins Air Force Base.
- Wichita Falls, TX is northwest of Fort Worth, on I-44. It is home to Sheppard Air Force Base, with its 7,200 employees.

These twelve cities are in ten states as shown on the map<sup>15</sup>. All but Bloomington are to the south of Elizabethtown.



## Elizabethtown - Ft. Knox MSA & Peer Cities

### Summary of Findings

Not surprisingly, because the peers have been chosen for their similarities to the Elizabethtown-Fort Knox MSA, we find a high correlation among them for most measures. However, Elizabethtown does stand out in a few areas:

1. Relatively strong growth in manufacturing jobs over the past few decades.
2. High annual pay for manufacturing jobs.

<sup>15</sup> Christopher Butz created the map.

3. High concentration in production, transportation and material moving occupations. It ranks very low in sales and administrative office occupations, and also low in the service occupations.
4. Despite the presence of Fort Knox, the MSA does only ranks fifth highest in military's share of total employment. It does rank third in the number of working age veterans (12,000) and in the total number of resident Armed Forces (4,000).
5. Older population, with few foreign-born residents.
6. Elizabethtown-Fort Knox is one of just two MSAs without a college dorm population. The other is Decatur.

### Historical Population Growth

One can see in the next table how these MSAs have grown in terms of total population over the past five decades. Clarksville clearly stands out, both in terms of total number of residents added and in percentage terms. Warner Robbins ranks highly in both categories, as does Bowling Green. Elizabethtown-Fort Knox ranks eighth in absolute population growth and ninth in percentage growth. Wichita Falls posted very small net population growth over the period, and essentially no growth over the last decade.

### Manufacturing Job Growth

Five Decades of Population Growth, Peer MSAs									
MSA Code		1970	1980	1990	2000	2010	2020	Growth 1970 to 2020	Rate
14020	Bloomington, IN	97,656	115,057	126,773	142,709	160,140	169,052	71,396	73.1%
14540	Bowling Green, KY	89,652	107,557	114,270	135,367	159,352	180,751	91,099	101.6%
17300	Clarksville, TN-KY	135,674	168,672	190,352	233,367	274,994	314,364	178,690	131.7%
19460	Decatur, AL	105,018	120,435	132,118	146,095	153,956	152,740	47,722	45.4%
<b>21060</b>	<b>Elizabethtown-Fort Knox, KY</b>	<b>107,652</b>	<b>123,258</b>	<b>125,466</b>	<b>134,506</b>	<b>149,852</b>	<b>154,356</b>	<b>46,704</b>	<b>43.4%</b>
24140	Goldsboro, NC	85,747	97,314	104,896	113,648	122,891	123,967	38,220	44.6%
25620	Hattiesburg, MS	96,397	116,240	126,171	143,768	162,866	169,554	73,157	75.9%
30020	Lawton, OK	114,835	120,234	118,112	121,695	131,568	126,775	11,940	10.4%
36220	Odessa, TX	92,704	117,052	118,652	120,694	137,060	167,701	74,997	80.9%
44940	Sumter, SC	105,380	116,269	129,782	137,330	142,557	139,775	34,395	32.6%
47580	Warner Robins, GA	79,693	97,150	110,920	135,165	168,518	188,060	108,367	136.0%
48660	Wichita Falls, TX	134,547	138,486	140,303	151,847	151,657	152,485	17,938	13.3%

Source: US Bureau of Economic Analysis.

The Elizabethtown-Fort Knox MSA has posted strong manufacturing growth over the past few decades, and now has more than twice as many jobs as it did in 1970. Among the peer MSAs, only Warner Robins had faster growth, both in absolute and percentage terms. Goldsboro and Sumter on net lost manufacturing jobs over the period.

Manufacturing Employment in Peer Cities								
	1970	1980	1990	2000	2010	2020	Growth, 1970 to 2020	Rate
Bloomington, IN	9,566	8,374	10,589	10,879	8,815	9,817	251	2.6%
Bowling Green, KY	8,172	9,967	10,528	14,169	(D)	12,593	4,421	54.1%
Clarksville, TN-KY	9,020	12,038	12,671	15,516	10,236	12,481	3,461	38.4%
Decatur, AL	12,263	14,988	16,568	(D)	12,187	13,688	1,425	11.6%
<b>Elizabethtown-Fort Knox, KY</b>	<b>3,159</b>	<b>5,072</b>	<b>6,112</b>	<b>7,978</b>	<b>5,427</b>	<b>7,530</b>	<b>4,371</b>	<b>138.4%</b>
Goldsboro, NC	6,702	9,138	8,959	7,335	5,311	5,415	-1,287	-19.2%
Hattiesburg, MS	7,319	8,444	9,004	8,261	4,917	6,400	-919	-12.6%
Lawton, OK	2,068	3,549	3,506	3,859	(D)	3,621	1,553	75.1%
Odessa, TX	3,621	7,574	4,562	4,972	4,826	5,166	1,545	42.7%
Sumter, SC	8,604	10,908	11,627	14,378	6,704	7,113	-1,491	-17.3%
Warner Robins, GA	2,929	5,218	5,588	6,708	7,200	8,853	5,924	202.3%
Wichita Falls, TX	4,125	9,982	8,733	9,055	5,490	5,183	1,058	25.6%

Source: US Bureau of Economic Analysis. Estimates before 2001 are on a SIC basis, and thereafter on a NAICS basis.  
D: not disclosed due to confidentiality rules. Warner-Robbins data not disclosed for 2020; 2017 estimate shown here.

### Average Pay

The average wage and salary job in the Elizabethtown-Fort Knox MSA paid \$48,654 in 2020. The national average was \$64,018, which is pulled up by the largest urban markets with their concentration of high paying professional jobs. One can see in the table that all the peer cities had average pay less than that for the United States, though oil drilling mecca Odessa comes close<sup>16</sup>. Elizabethtown ranks fourth highest among the peers, after Odessa, Warner Robins, and Decatur. This reflects Elizabethtown's high concentration of manufacturing employment.

<sup>16</sup> Odessa supports between 10,000 and 15,000 oil-related jobs, depending on market conditions. By contrast, the Elizabethtown-Fort Knox MSA supports less than 200 mining jobs, in rock quarrying.

Average Annual Pay Relative to United States Total							
	1970	1980	1990	2000	2010	2020	Average Pay, 2020
Bloomington, IN	0.81	0.77	0.77	0.74	0.71	0.73	\$46,912
Bowling Green, KY	0.72	0.79	0.73	0.73	0.73	0.70	\$44,588
Clarksville, TN-KY	0.77	0.81	0.76	0.76	0.88	0.76	\$48,519
Decatur, AL	0.86	0.92	0.85	0.83	0.81	0.77	\$49,415
<b>Elizabethtown-Fort Knox, KY</b>	<b>0.77</b>	<b>0.81</b>	<b>0.79</b>	<b>0.77</b>	<b>0.85</b>	<b>0.76</b>	<b>\$48,654</b>
Goldsboro, NC	0.75	0.75	0.75	0.73	0.73	0.71	\$45,465
Hattiesburg, MS	0.70	0.74	0.73	0.68	0.71	0.67	\$42,705
Lawton, OK	0.79	0.80	0.80	0.73	0.85	0.73	\$46,946
Odessa, TX	0.95	1.10	0.89	0.78	0.93	0.95	\$60,968
Sumter, SC	0.65	0.71	0.74	0.69	0.73	0.72	\$46,325
Warner Robins, GA	1.04	0.98	0.90	0.88	0.92	0.80	\$51,248
Wichita Falls, TX	0.82	0.87	0.80	0.71	0.74	0.69	\$44,128

Source: US Bureau of Economic Analysis. Wages and salaries divided by wage and salary employment.

Manufacturing jobs in the Elizabethtown-Fort Knox MSA average almost \$80,000 per year in pay. This is fourth highest among the peers and is why it ranks high in overall pay per job. Decatur is easily the highest in terms of manufacturing pay, at \$89,000 per job. It is home a GE Appliance-Haier (refrigerators) plant, with about 1,400 jobs, a 3M plant with 950 employees, and the Nucor Steel mill, with over seven hundred employees<sup>17</sup>.

Average Annual Pay per Job in Manufacturing, 2020	
Bloomington, IN	\$79,066
Bowling Green, KY	\$64,996
Clarksville, TN-KY	\$67,275
Decatur, AL	\$88,762
<b>Elizabethtown-Fort Knox, KY</b>	<b>\$79,892</b>
Goldsboro, NC	\$65,572
Hattiesburg, MS	\$60,918
Lawton, OK	\$80,367
Odessa, TX	\$80,134
Sumter, SC	\$67,209
Warner Robins, GA	\$61,671
Wichita Falls, TX	\$72,643

Source: US Bureau of Economic Analysis. Data for Warner Robins not disclosed for 2020; 2017 data shown.

<sup>17</sup> See <https://mceda.org/facts-mapWe> news/top-employers

## Demographic and Socioeconomic Characteristics

We now take a deeper look at the demographic and socioeconomic characteristics of the peer cities. The most recent data are from the American Community Survey, produced by the US Census Bureau. The survey is performed every year, but the accuracy is improved for smaller places by averaging several years of data. The five-year ACS, 2016-2020 is the latest available, and we explore some of the results next.

	Population	Median Age	Percent of Population Aged 65+	Percent Foreign Born	Veterans, Aged 18 to 64
Bloomington, IN	168,172	31.5	13.8%	7.3%	3,697
Bowling Green, KY	176,852	35.1	14.3%	7.1%	4,786
Clarksville, TN-KY	304,584	31.2	11.1%	4.5%	27,325
Decatur, AL	152,321	40.9	17.6%	3.7%	4,311
<b>Elizabethtown-Fort Knox, KY</b>	<b>152,275</b>	<b>37.7</b>	<b>14.4%</b>	<b>3.4%</b>	<b>11,695</b>
Goldsboro, NC	123,785	37.6	16.4%	7.0%	7,268
Hattiesburg, MS	168,646	35.5	14.3%	2.2%	5,534
Lawton, OK	127,157	33.6	13.0%	5.6%	10,517
Odessa, TX	162,067	30.6	9.6%	13.9%	3,166
Sumter, SC	140,540	38.5	18.1%	2.8%	7,249
Warner Robins, GA	182,819	35.8	13.1%	5.8%	13,691
Wichita Falls, TX	151,352	35.7	15.6%	5.6%	6,858

Source: US Census Bureau, American Community Survey, 2016-2020 5-year average.

The median age of the Elizabethtown-Fort Knox MSA population is 37.7. Only Decatur and Sumter have an older population. Odessa, with its young oil workers and large immigrant population has the lowest median age (30.6) and the smallest share of residents aged sixty-five or older (9.6%). The two college towns, Bloomington and Bowling Green, skew younger, and their foreign-born share is lifted by foreign students. The presence of large military installations provides a high number of working-age veterans for Clarksville, Warner Robins, Elizabethtown-Fort Knox, and Lawton.

## Human Capital

Most of the residents of the peer cities have completed high school, though in Odessa almost one-fourth of the population is without a high school diploma. The distribution gets much wider when considering college degrees. Over 49 percent of Bloomington residents have at least a bachelor's degree, and over 19 percent have a graduate or professional degree. Odessa is again at the bottom, with only 17 percent of residents with a college degree. The

Elizabethtown-Fort Knox MSA ranks eighth highest in college attainment (20.7 percent), and 7<sup>th</sup> highest for advanced degrees (8.9 percent).

	High School Attainment*	College Attainment*	Percent with a Graduate or Professional Degree
Bloomington, IN	91.9%	40.7%	19.4%
Bowling Green, KY	86.4%	27.1%	11.1%
Clarksville, TN-KY	91.3%	26.0%	9.2%
Decatur, AL	83.3%	20.1%	6.6%
<b>Elizabethtown-Fort Knox, KY</b>	<b>90.6%</b>	<b>20.7%</b>	<b>8.9%</b>
Goldsboro, NC	85.5%	19.8%	6.2%
Hattiesburg, MS	87.8%	27.1%	10.4%
Lawton, OK	90.4%	22.8%	9.3%
Odessa, TX	76.6%	16.6%	4.9%
Sumter, SC	85.3%	19.5%	7.5%
Warner Robins, GA	91.3%	29.6%	13.0%
Wichita Falls, TX	88.6%	23.1%	7.6%

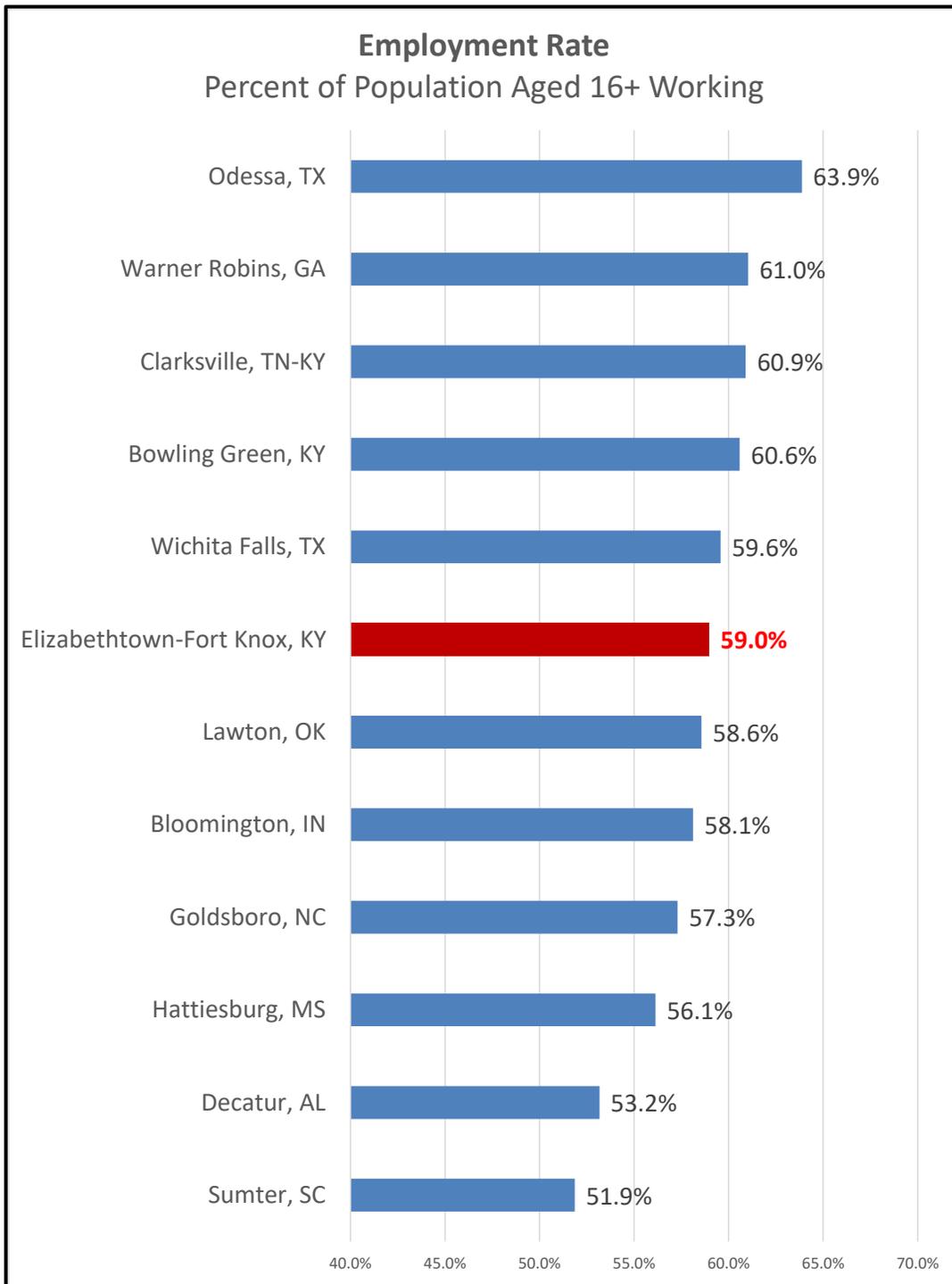
Source: US Census Bureau, American Community Survey, 2016-2020 5-year average.

\* Percentage of persons aged 25 and older with at least a high school or bachelors degree.

### Labor Force Characteristics

The labor force includes persons aged sixteen or older that are employed and those seeking work (unemployed). Economic statisticians distinguish between the civilian labor force and those in the armed forces. The latest labor force estimates for the peer cities are provided in the next table. For example, the Elizabethtown-Fort Knox MSA has 120,000 persons aged 16+. Of those, 3,900 are in the military, 67,000 are employed civilians, 4,300 are seeking work, and 45,000 are not in the labor force. Those not in the labor force may be retired, disabled, raising children, taking care of an ill person, or simply not actively seeking work. One can see the strong military presence in Clarksville, Lawton, Wichita Falls, Warner Robins, Elizabethtown, and Sumter.

The raw numbers need some interpretation. A useful summary measure is the “Employment Rate,” measured as the percentage of adults who are working, either as civilians or in the armed forces. Elizabethtown-Fort Knox ranks in the middle of the peers, with an employment rate of 59 percent. Odessa tops the list with an employment rate of almost 64 percent. Sumter and Decatur are at the bottom.



The widely reported unemployment rate is a measure of the mismatch between labor supply and demand, though it can be misleading. It is calculated by dividing the number of unemployed by the sum of those employed and those unemployed (the civilian labor force). When people want to work, but give up searching for a job, they are no longer counted as unemployed – they are out of the labor force. Thus, it is possible to have a low unemployment rate but a lot of people on the sidelines. For the Elizabethtown-Fort Knox MSA the average unemployment rate

over the five-year period was 6.0 percent. This is eighth highest among the peers, bracketed by Sumter (9.3 percent) and Wichita Falls (4.4 percent).

	Population, Age 16+	Civilian Employed	Civilian Unemployed	Armed Forces	Not in the Labor Force
Bloomington, IN	143,758	83,450	5,565	104	54,639
Bowling Green, KY	141,187	85,431	4,766	105	50,885
Clarksville, TN-KY	231,964	120,694	8,257	20,577	82,436
Decatur, AL	121,820	64,708	3,110	61	53,941
<b>Elizabethtown-Fort Knox, KY</b>	<b>120,174</b>	<b>66,919</b>	<b>4,271</b>	<b>3,945</b>	<b>45,039</b>
Goldsboro, NC	97,864	53,058	3,031	3,023	38,752
Hattiesburg, MS	132,588	73,636	6,256	789	51,907
Lawton, OK	100,348	50,243	3,598	8,523	37,984
Odessa, TX	118,021	75,343	5,305	42	37,331
Sumter, SC	112,132	54,819	5,541	3,329	48,443
Warner Robins, GA	142,579	82,810	5,352	4,206	50,211
Wichita Falls, TX	120,969	65,849	3,016	6,215	45,889

Source: US Census Bureau, American Community Survey, 2016-2020 5-year average.

What is the distribution of employed persons by industry among the peer MSAs? The ACS provides twelve industrial categories, summarized in the next two tables. The first column provides the number of employed civilians in the MSAs, and the other columns show the percentage distribution across industries. As expected, the

	Employed Civilians, Aged 16+	Agriculture, forestry, fishing and hunting, and mining	Construction	Manufacturing	Wholesale trade	Retail trade	Transportation and warehousing, and utilities
Bloomington, IN	83,450	0.7%	5.5%	10.8%	1.4%	9.8%	3.7%
Bowling Green, KY	85,431	1.7%	6.5%	16.6%	3.0%	12.4%	5.8%
Clarksville, TN-KY	120,694	1.2%	6.8%	13.3%	2.0%	11.1%	5.2%
Decatur, AL	64,708	1.2%	8.6%	22.0%	2.6%	11.6%	4.6%
<b>Elizabethtown-Fort Knox, KY</b>	<b>66,919</b>	<b>0.9%</b>	<b>6.3%</b>	<b>15.8%</b>	<b>1.7%</b>	<b>11.7%</b>	<b>6.4%</b>
Goldsboro, NC	53,058	4.2%	6.2%	13.8%	2.7%	13.3%	4.4%
Hattiesburg, MS	73,636	2.4%	6.4%	10.7%	2.4%	12.2%	5.5%
Lawton, OK	50,243	2.0%	5.5%	10.0%	1.1%	11.8%	3.5%
Odessa, TX	75,343	15.2%	8.0%	6.3%	3.9%	13.4%	8.7%
Sumter, SC	54,819	1.9%	7.0%	15.2%	2.1%	10.7%	5.9%
Warner Robins, GA	82,810	0.8%	4.8%	8.6%	1.4%	13.2%	5.5%
Wichita Falls, TX	65,849	3.5%	6.5%	8.4%	2.0%	13.2%	6.1%

Source: US Census Bureau, American Community Survey, 2016-2020 5-year average.

Elizabethtown-Fort Knox MSA ranks high in Manufacturing (third) and the ‘Transportation and warehousing, and utilities’ (2<sup>nd</sup>) industries. It ranks first in the Information industry, though this is a very small share of employment in all the MSAs. It ranks low in ‘Agriculture, forestry, fishing and hunting, and mining.’ and in the ‘Educational services, and health care and social assistance’ industries, both 10<sup>th</sup>s highest.

	Information	Finance and insurance, and real estate and rental and leasing	Professional, scientific, and management, and administrative and waste management services	Educational services, and health care and social assistance	Arts, entertainment, and recreation, and accommodation and food services	Other services, except public administration	Public administration
Bloomington, IN	1.8%	4.5%	7.7%	34.4%	11.1%	4.4%	4.1%
Bowling Green, KY	1.0%	4.0%	7.9%	23.7%	10.6%	4.4%	2.3%
Clarksville, TN-KY	1.6%	4.4%	9.8%	23.2%	9.5%	4.6%	7.4%
Decatur, AL	1.2%	3.6%	8.6%	19.5%	8.3%	4.7%	3.4%
<b>Elizabethtown-Fort Knox, KY</b>	<b>2.0%</b>	<b>4.8%</b>	<b>7.7%</b>	<b>20.9%</b>	<b>9.2%</b>	<b>4.9%</b>	<b>7.7%</b>
Goldsboro, NC	1.0%	3.5%	7.5%	22.9%	8.9%	5.4%	6.1%
Hattiesburg, MS	1.2%	4.9%	6.3%	27.5%	11.3%	4.9%	4.3%
Lawton, OK	1.3%	4.6%	8.5%	25.8%	11.2%	5.2%	9.6%
Odessa, TX	1.2%	4.5%	6.4%	16.3%	8.1%	5.2%	2.8%
Sumter, SC	1.4%	4.2%	7.7%	23.4%	8.6%	5.5%	6.4%
Warner Robins, GA	1.2%	5.1%	9.0%	21.7%	9.2%	4.0%	15.5%
Wichita Falls, TX	1.4%	5.0%	6.9%	24.7%	11.0%	5.7%	5.6%

What is the distribution of occupations in the peer MSAs? The next table provides a summary. In fitting with its large manufacturing base, the Elizabethtown-Fort Knox MSA has a high concentration in ‘Production, transportation and material moving’ occupations. It ranks very low in ‘Sales and office’ occupations, and also low in the Service occupations (healthcare support, firefighting, law enforcement, food preparation, building maintenance, personal care).

	Management, business, science, and arts	Service	Sales and office	Natural resources, construction, and maintenance	Production, transportation, and material moving
Bloomington, IN	44.0%	18.7%	19.0%	6.8%	11.4%
Bowling Green, KY	32.3%	17.8%	21.7%	9.1%	19.1%
Clarksville, TN-KY	32.1%	19.1%	21.9%	10.0%	16.9%
Decatur, AL	30.6%	16.2%	20.3%	10.9%	22.0%
<b>Elizabethtown-Fort Knox, KY</b>	<b>33.8%</b>	<b>16.7%</b>	<b>19.5%</b>	<b>10.6%</b>	<b>19.5%</b>
Goldsboro, NC	29.6%	19.8%	20.6%	11.9%	18.1%
Hattiesburg, MS	34.3%	17.5%	23.3%	9.2%	15.7%
Lawton, OK	37.3%	19.9%	20.2%	9.4%	13.2%
Odessa, TX	23.8%	14.8%	24.0%	17.4%	20.0%
Sumter, SC	29.0%	18.6%	22.6%	10.8%	19.1%
Warner Robins, GA	35.4%	17.0%	23.8%	10.4%	13.5%
Wichita Falls, TX	32.3%	20.1%	21.2%	11.3%	15.1%

Source: US Census Bureau, American Community Survey, 2016-2020 5-year average.

## Household Characteristics

The Census Bureau defines a household as an ‘occupied housing unit.’ It could refer to a single adult, a married couple with kids, unrelated roommates of any age, or anything in between. As one can see in the table, most of the peer cities have households averaging around two and one-half people each. Odessa with its large young immigrant population has the highest household size (2.99). Elizabethtown-Fort Knox ranks in the middle of the peers in terms of persons per household. It ranks higher in median and average household income (third). But it ranks only eighth in terms of the share of households with a broadband connection.

	Number of Households	Average Household Size	Median Household Income	Average Household Income	Percent of Households with Broadband Connection
Bloomington, IN	65,229	2.34	\$52,226	\$70,787	86.4%
Bowling Green, KY	67,547	2.50	\$51,591	\$72,185	84.4%
Clarksville, TN-KY	111,845	2.63	\$54,911	\$70,402	84.5%
Decatur, AL	58,939	2.55	\$51,842	\$68,866	75.1%
<b>Elizabethtown-Fort Knox, KY</b>	<b>58,528</b>	<b>2.55</b>	<b>\$56,680</b>	<b>\$75,605</b>	<b>80.7%</b>
Goldsboro, NC	48,198	2.51	\$47,221	\$65,694	83.7%
Hattiesburg, MS	62,222	2.64	\$48,231	\$67,866	77.2%
Lawton, OK	45,456	2.59	\$52,219	\$70,509	86.0%
Odessa, TX	53,602	2.99	\$63,096	\$83,130	84.1%
Sumter, SC	54,479	2.51	\$45,854	\$60,607	77.4%
Warner Robins, GA	68,257	2.63	\$63,074	\$78,422	86.1%
Wichita Falls, TX	56,210	2.44	\$51,099	\$67,321	80.5%

Source: US Census Bureau, American Community Survey, 2016-2020 5-year average.

The household size calculation above removes the group quarters population from each county’s total population. The ACS only provides the total number of persons in group quarters<sup>18</sup>. To see the detailed breakouts, we need to turn to the decennial census data – the recently released results from the 2020 Census. Group quarters may refer to the institutionalized population (corrections, nursing) or noninstitutionalized population (dorms, military quarters). The next table summarizes the 2020 Census data on group quarters. Several things stand out.

- The college dorm population is very significant in Bloomington, Bowling Green and Hattiesburg. Elizabethtown-Fort Knox is one of just two MSAs without student housing.

	Total	Institutionalized population:					Noninstitutionalized population:			
		Subtotal	Correctio nal facilities for adults	Juvenile facilities	Nursing facilities/ Skilled- nursing facilities	Other instituti onal facilities	Subtotal	College/U niversity student housing	Military quarters	Other noninsti tutional facilities
Bloomington, IN	12,441	1,250	255	21	927	47	11,191	10,645	0	546
Bowling Green, KY	6,354	1,574	616	35	808	115	4,780	4,391	0	389
Clarksville, TN-KY	9,874	3,122	1,777	47	1,168	130	6,752	1,450	5,049	253
Decatur, AL	2,501	2,284	1,443	33	792	16	217	0	0	217
<b>Elizabethtown-Fort Knox, KY</b>	<b>2,934</b>	<b>1,465</b>	<b>846</b>	<b>63</b>	<b>556</b>	<b>0</b>	<b>1,469</b>	<b>0</b>	<b>1,260</b>	<b>209</b>
Goldsboro, NC	3,972	2,516	1,388	26	491	611	1,456	400	580	476
Hattiesburg, MS	6,598	1,811	363	58	1,324	66	4,787	4,297	0	490
Lawton, OK	9,470	3,955	3,008	68	707	172	5,515	161	5,174	180
Odessa, TX	2,550	1,245	782	40	423	0	1,305	674	0	631
Sumter, SC	3,812	2,543	1,737	78	728	0	1,269	410	419	440
Warner Robins, GA	2,999	1,080	482	21	577	0	1,919	1,168	302	449
Wichita Falls, TX	11,268	5,133	4,091	35	1,002	5	6,135	1,594	4,200	341

Source: US Census Bureau, 2020 Census, DEC Redistricting Data (PL 94-171)

- The military quarters population stands out in Lawton, Clarksville, and Wichita Falls, with Elizabethtown-Fort Knox ranking fourth.
- The corrections population is very large in Wichita Falls (Alfred Unit maximum security prison) and Lawton (Lawton Correctional Facility, medium security, adult male).
- The nursing home population follows the population size of the MSAs.

The ACS provides detailed estimates of homeownership and related housing variables. The Elizabethtown-Fort Knox MSA does not really stand out in any of these measures. Bloomington, Clarksville, and Bowling Green have the highest median home values, while Wichita Falls, Sumter, and Lawton have the lowest home values. Odessa, Bloomington, and Clarksville have the highest median monthly rents, while Decatur, Sumter, and Goldsboro have the lowest rents.

<sup>18</sup> Thanks to Dr. Matthew Ruther, Kentucky State Demographer, at the University of Louisville for helping us sort the group quarters measurement puzzle out.

	Homeowner Vacancy Rate	Rental Vacancy Rate	Home Ownership Rate	Median Value, Owner- Occupied Units	Share of Owner- Occupied Housing Units Without a Mortgage	Median Rent of Occupied Units Paying Rent
Bloomington, IN	1.4	5.2	58.3%	\$177,700	37.3%	\$931
Bowling Green, KY	1.4	5.4	62.7%	\$161,500	40.6%	\$798
Clarksville, TN-KY	1.6	8.1	59.3%	\$165,100	33.6%	\$920
Decatur, AL	0.9	6.7	73.5%	\$137,600	49.7%	\$666
<b>Elizabethtown-Fort Knox, KY</b>	<b>1.9</b>	<b>7.7</b>	<b>65.0%</b>	<b>\$153,700</b>	<b>38.4%</b>	<b>\$806</b>
Goldsboro, NC	1.4	3.8	62.9%	\$125,900	43.6%	\$784
Hattiesburg, MS	1.3	10.5	65.1%	\$135,600	48.2%	\$815
Lawton, OK	3.1	7.7	54.4%	\$121,500	41.0%	\$810
Odessa, TX	1.3	7.0	65.5%	\$147,900	54.2%	\$1,073
Sumter, SC	1.9	5.8	67.5%	\$116,000	49.4%	\$773
Warner Robins, GA	1.5	6.9	66.0%	\$155,200	32.7%	\$907
Wichita Falls, TX	2.1	10.8	63.9%	\$106,500	51.5%	\$818

Source: US Census Bureau, American Community Survey, 2016-2020 5-year average.

Next, we summarize the MSA rankings for selected measures discussed above.

Ranking of Metro Areas for Selected Indicators					
	Number of Residents	Median Age	Working Age Veterans	Median Household Income	College Attainment Rate
1	Clarksville	Decatur, AL	Clarksville	Odessa	Bloomington
2	Warner Robins	Sumter	Warner Robins	Warner Robins	Warner Robins
3	Bowling Green	<b>Elizabethtown-Fort Knox</b>	<b>Elizabethtown-Fort Knox</b>	<b>Elizabethtown-Fort Knox</b>	Bowling Green
4	Hattiesburg	Goldsboro	Lawton	Clarksville	Hattiesburg
5	Bloomington	Warner Robins	Goldsboro	Bloomington	Clarksville
6	Odessa	Wichita Falls	Sumter	Lawton	Wichita Falls
7	Decatur, AL	Hattiesburg	Wichita Falls	Decatur, AL	Lawton
8	<b>Elizabethtown-Fort Knox</b>	Bowling Green	Hattiesburg	Bowling Green	<b>Elizabethtown-Fort Knox</b>
9	Wichita Falls	Lawton	Bowling Green	Wichita Falls	Decatur, AL
10	Sumter	Bloomington	Decatur, AL	Hattiesburg	Goldsboro
11	Lawton	Clarksville	Bloomington	Goldsboro	Sumter
12	Goldsboro	Odessa	Odessa	Sumter	Odessa

Ranking of Metro Areas for Selected Indicators					
	Employment Rate	Growth Rate, Manufacturing Employment, 1970 to 2020	Average Annual Pay in Manufacturing	Student housing population	Military quarters population
1	Odessa	Warner Robins	Decatur, AL	Bloomington	Lawton
2	Warner Robins	<b>Elizabethtown-Fort Knox</b>	Lawton	Bowling Green	Clarksville
3	Clarksville	Lawton	Odessa	Hattiesburg	Wichita Falls
4	Bowling Green	Bowling Green	<b>Elizabethtown-Fort Knox</b>	Wichita Falls	<b>Elizabethtown-Fort Knox</b>
5	Wichita Falls	Odessa	Bloomington	Clarksville	Goldsboro
6	<b>Elizabethtown-Fort Knox</b>	Clarksville	Wichita Falls	Warner Robins	Sumter
7	Lawton	Wichita Falls	Clarksville	Odessa	Warner Robins
8	Bloomington	Decatur, AL	Sumter	Sumter	Bloomington
9	Goldsboro	Bloomington	Goldsboro	Goldsboro	Bowling Green
10	Hattiesburg	Hattiesburg	Bowling Green	Lawton	Decatur, AL
11	Decatur, AL	Sumter	Warner Robins	Decatur, AL	Hattiesburg
12	Sumter	Goldsboro	Hattiesburg	<b>Elizabethtown-Fort Knox</b>	Odessa



## Economic and Fiscal Impacts of BlueOval SK EV Battery Plant on Elizabethtown – Fort Knox MSA: Preliminary Estimates

### Introduction

BlueOval SK Battery Park is now under construction. The battery park, located on the Glendale megasite just south of Elizabethtown will have a profound impact on Elizabethtown, Hardin County and all of Kentucky.

***BlueOval SK Battery Park will be the largest electric vehicle (EV) battery manufacturing facility in the world and represents the largest single new economic development project in Kentucky’s history.***

When first announced by Kentucky Governor Andy Beshear, the initial “impact” numbers for the BlueOval SK Battery Park were astounding: 5,000 new jobs, an initial investment of \$5.8 billion, and two four-million square feet manufacturing facilities.

From a sheer physical site impact (square footage), BOSK’s battery park stands out *globally* in terms of its size:

#### World’s Largest Manufacturing Facilities<sup>19</sup>

Rank	Company Name	Location	Total Facility Footprint (Square Feet)	Description
1	Volkswagen	Wolfsburg, Germany	69,965,417	Auto Assembly
2	AVTOVAZ	Tolyatti, Russia	64,583,462	Auto Assembly
3	Hyundai	Ulsan, South Korea	54,357,747	Auto Assembly
4	Kia	Hwaseong, South Korea	35,585,487	Auto Assembly
4	Kia	Yancheng, China	35,585,487	Auto Assembly
5	Foxconn	Longhua, China	32,292,731	Electronics
6	Kia	West Point, GA	28,115,334	Auto Assembly
7	Kia	Teplicka and Vahom, Slovakia	17,792,743	Auto Assembly
8	Kia	Seo-gu, China	12,809,053	Auto Assembly
9	Tesla	Shanghai, China	9,309,544	Auto Assembly
10	Blue Oval SK <sup>20</sup>	Hardin County, KY	8,400,000	EV Electric Batteries
11	Toyota	Georgetown, KY	8,099,993	Auto Assembly
12	BlueOval City <sup>21</sup>	Stanton, TN	7,000,000	Auto Assembly/EV Batteries
13	Jaguar	Lolihull, UK	5,661,816	Auto Assembly
14	Tesla	Sparks, NV	5,489,594	EV Electric Batteries
15	Nissan	Smyrna, TN	5,338,899	Auto Assembly

From a market impact/stand-alone investment, BOSK Battery Park will be the largest EV electric battery plant in the world in terms of investment, physical size, jobs created, and manufacturing capacity.

<sup>19</sup> Source: R List (4/7/23) as measured by facility square footage

<sup>20</sup> Source: Update provided during BlueOval SK Battery Park town hall held on 4/4/23

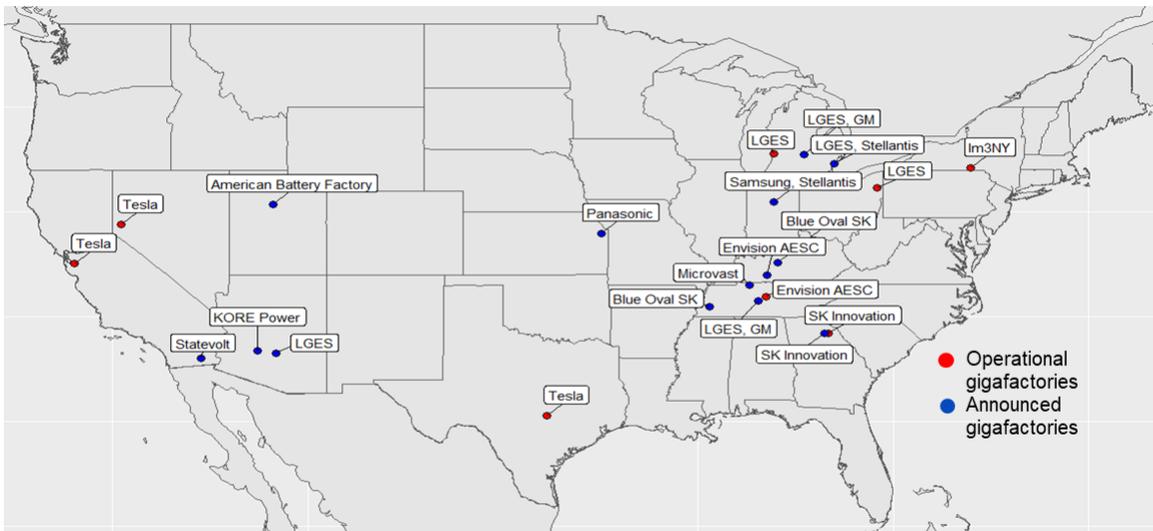
<sup>21</sup> Source: *Tennessee Town & City*; current construction footprint is 7 million square feet, which may ultimately grow to 10 million square feet

## Largest EV Battery Manufacturing Site Investments<sup>22</sup> (Announced)

Rank	Company	Location	Investment (B)	Jobs <sup>23</sup>	GW Hour Capacity
1	BlueOval SK	Hardin County, KY	\$5.8	5,000	86
2	BlueOval SK <sup>24</sup>	Stanton, TN	5.6	6,000	43
3	Hyundai	Bryan County, GA	5.5	8,100	35
4	Rivian	Ft. Worth, TX	5.0	7,500	50
5	Rivian	Covington, GA	5.0	7,500	50
6	GM	Orion, MI	4.0	2,350	N/A
7	Panasonic	DeSoto, KS	4.0	4,000	30
8	GM/LG Energy	Lansing, MI	2.6	1,700	50
9	SK Innovation	Commerce, GA	2.6	3,000	31
10	Stellantis/Samsung	Kokomo, IN	2.5	1,400	33
11	GM/LG Energy	Spring Hill, TN	2.3	1,300	50
12	Envision AESC	Bowling Green, KY	2.0	2,000	30
13	Ford	Multiple Sites (MI)	2.0	3,200	N/A
14	VinFast	Chatham County, NC	2.0	7,500	N/A
15	LG Energy	Holland, MI	1.7	1,200	N/A
16	LG Energy	Queen Creek, AZ	1.4	TBA	11
17	Toyota	Liberty, NC	3.8	2,100	N/A
18	Tesla	Austin, TX	1.1	5,000	N/A

Finally, as shown in the map which follows, Elizabethtown and Hardin County are centrally located when it comes to new EV battery facilities, which should generate new supply chain manufacturing site selection interest:

**Chart 3**  
New Gigafactories Cluster in the Midwest, South and Near Tesla Facilities



NOTES: We define a gigafactory as having capacity of 1 gigawatt hour or greater. Map does not include announcements missing a location or capacity estimate.

SOURCE: Company announcements, media reports, NAATBatt North American Lithium-Ion Battery Supply Chain Database.

Federal Reserve Bank of Dallas

Specific market impact/projected numbers now follow.

<sup>22</sup> Ranked by financial investment; sites shaded in green also include a new auto assembly facility; total investment and new jobs created shown

<sup>23</sup> Number of jobs as of the date of project announcement

<sup>24</sup> BlueOval City is a multi-purpose manufacturing site; the BOSK battery manufacturing site employment will total 2,500 workers out of the total

### Construction Phase

- Local: 720 construction workers
- Travelers: 2,880 construction workers
- Peak: 10/23: 3,500 construction workers on site
- Additional 500 – 1000 (non-construction) technicians on-site Q3 2023 – EOY 2025

#### Housing Requirements:

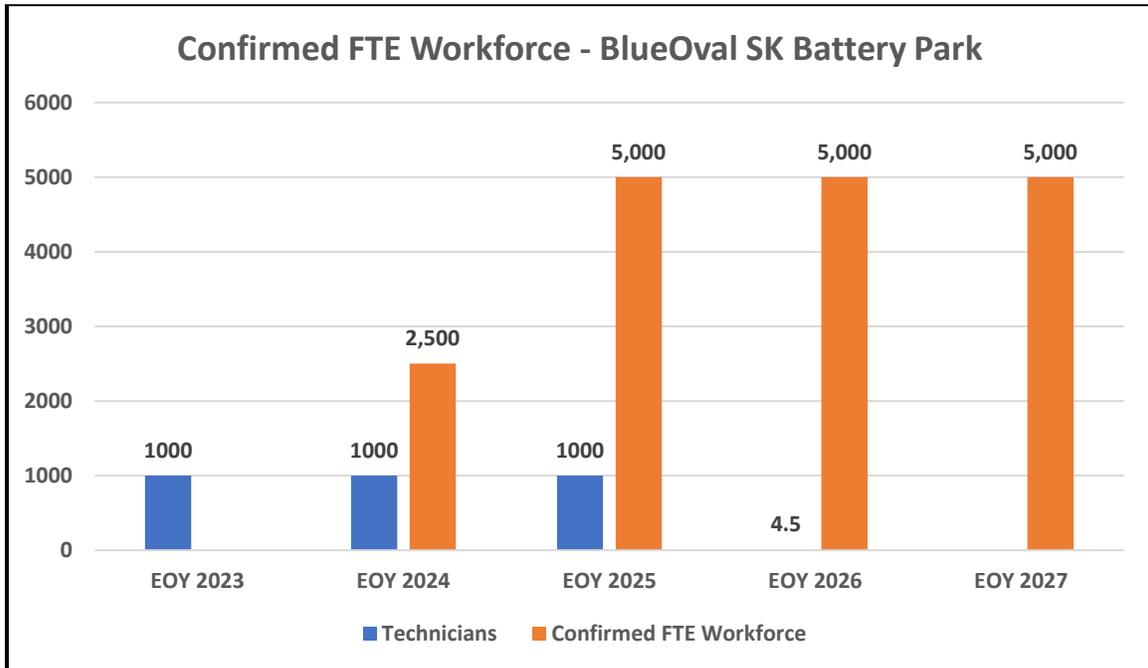
- Traveling workers: 2,800 units
- Management personnel: 300 units

**Construction Payroll: \$1.6 billion**

**Local materials/services: \$75 million**

Source: BlueOval SK

#### Updated BlueOval SK Employment



Source: BlueOval SK

### Additional BlueOval SK FTE Workforce Information – Expected Workforce<sup>25</sup>

#### EOY 25 confirmed workforce: 5,000 FTE

- EOY 23 workforce: 1,000 FTE
- EOY 24 workforce: 2,500 FTE
- EOY 25 workforce: 5,000 FTE
- EOY 26 workforce: 5,000 FTE
- EOY 27 workforce: 5,000 FTE

BOSK plans to run two 12-hour shifts (patterns to be determined)

### Employment/Payroll Projected Impacts

The 5,000 jobs expected to operate the plant will support 8,106 total jobs in the region; this represents an employment multiplier of 1.603

- Incremental supply chain development: 1,397 jobs
- Incremental household spending development: 1,619 jobs
- By EOY 2026, expected direct plant payroll: \$265 million (1% HC Occupational Tax: \$2.65 million)
- By EOY 2026, expected direct plant payroll (with fringe benefits): \$363 million
- 2026 – 2035 expected direct plant payroll impact: \$2.65 billion<sup>26</sup> (HC Occ. Tax: \$26.5 million)
- 2026 – 2035 expected direct plant payroll impact (with FB): \$3.63 billion<sup>27</sup>

Source: Dr. Paul Coomes, Ph.D.

As the data was analyzed, the following issues were considered and clarified with BOSK when possible:

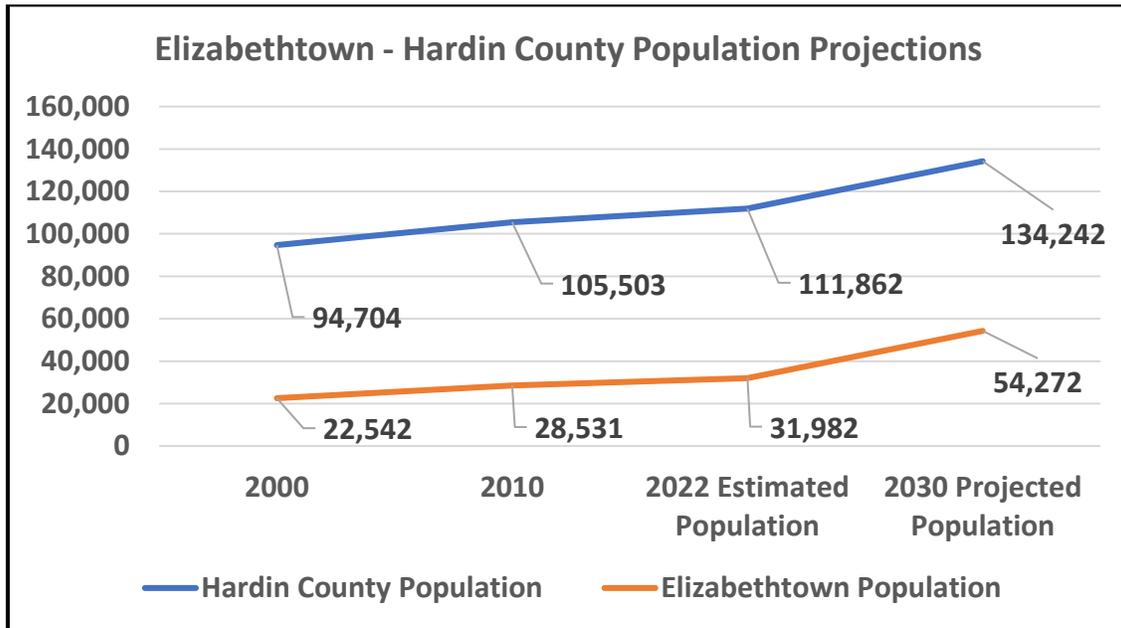
- Will BOSK suppliers move to Hardin County?
- What will remaining acreage on BOSK site be used for?
- Will local governments work to accommodate growth?
- Will Hardin County absorb the bulk of new workers, residents?
- How many jobs will be filled by workers moving to the area?
- Will the pay scale at BOSK draw workers from existing manufacturers?

<sup>25</sup> Source: BlueOval SK

<sup>26</sup> With no pay adjustment

<sup>27</sup> With no pay adjustment

- What will be needed in terms of new housing, schools, etc.?



Source: Dr. Paul Coomes, Ph.D.

**Projected Growth/Hardin County: 22,380 people – Age Breakout:**

- Under age 5                    1,424
- Ages 5 – 14                    3,128
- Ages 15 – 24                   2,924
- Ages 25 – 34                   2,956
- All Others                        11,949

Source: Dr. Paul Coomes, Ph.D.

**Using Scott County’s growth as a guide, BOSK will catalyze growth in Hardin County for...**

- 8,811 new housing units
- 3,901 new K-12 students
- 75 new staffed hospital beds
- 389 new hospital jobs
- 380 new ambulatory care jobs

Source: Dr. Paul Coomes, Ph.D.

Finally, following are answers to several questions submitted to BOSK executives relative the expected growth in Elizabethtown and Hardin County:

Issue	Response
Minimum education attainment levels required for BOSK positions	<ul style="list-style-type: none"> <li>• High school/GED or Bachelors/master’s degree depending upon the position</li> </ul>
Anticipated age breakdown of workers	<ul style="list-style-type: none"> <li>• Unknown at this time as workforce has not yet been hired</li> </ul>
Supplier Chain Issues	<ul style="list-style-type: none"> <li>• <i>“We expect that companies and people from all parts of the globe will want to do business with BOSK. They will relocate to the region. We are not able to answer what kinds of workers will fill the positions of our suppliers”</i></li> <li>• Names of companies, site requirements, numbers of employees, etc. are unknown at this time</li> </ul>

Issue	Response
Community <u>infrastructure</u> needs that are currently unavailable in Elizabethtown	<ul style="list-style-type: none"> <li>• More temporary and long-term housing options that are affordable for all levels of BOSK’s workforce</li> <li>• <i>“We encourage developers to create high-quality housing at various levels of affordability”</i></li> <li>• Childcare centers and mass transportation would be an enhancement for employees</li> <li>• BlueOval SK does not intend to provide on-site childcare</li> <li>• <i>“It goes without saying that Elizabethtown will need more housing, more schools, more emergency services, more healthcare services, more healthcare facilities, more hotel capacity and grocery stores”</i></li> </ul>

Issue	Response
Community <u>quality of life</u> needs that are currently unavailable in Elizabethtown	<ul style="list-style-type: none"> <li>• <i>“We recognize the wonderful park ecosystem in Elizabethtown but expect more public spaces will be needed”</i></li> <li>• <i>“Large YMCA would be good for fitness and may also be a great place for childcare services”</i></li> <li>• <i>“Our workers will be interested in a variety of restaurants and leisure opportunities (e.g., mall, movie theater, etc.)”</i></li> <li>• <i>It would be helpful to have a meeting space for large gatherings of people (e.g., convention center)”</i></li> </ul>

Source for all of the above charts: BOSK

Issue	Response
Korean cultural issues for newcomers – how can the community assist BlueOval SK?	<ul style="list-style-type: none"> <li>• Develop community task force to develop better understanding of the Korean community/culture</li> <li>• Provide services/support unique to the Korean culture</li> <li>• Develop long-term platform to foster relationships, including possible Korean sister city</li> <li>• BOSK is developing tools to help educate the Korean population around opportunities for families</li> <li>• BOSK has hired a transition coordinator to assist with basic/immediate needs (e.g., schools, drivers' licenses, etc.)</li> <li>• BOSK will need for the community to “lean” into helping the new talent feel welcome</li> </ul>

Issue	Response
Transportation	<ul style="list-style-type: none"> <li>• Air cargo needs at Elizabethtown Regional Airport (EKX) are unknown at this time</li> <li>• Would like to see flights to/from Memphis to Louisville/Elizabethtown (<i>“expect steady flow of 8 – 15 people”</i>)</li> <li>• Would like to see regional transit system to bring workers in from outlying counties</li> <li>• Would also like to see regional transit system to bring workers from Louisville and Bowling Green</li> </ul>
Medical Issues	<ul style="list-style-type: none"> <li>• BOSK intends to hire an onsite medical services provider which will work with planned on-site clinics</li> <li>• BOSK intends to contract with an “Occupational Health Services” provider in the area</li> </ul>
Future BOSK Site Expansion Plans	<ul style="list-style-type: none"> <li>• <i>“BOSK’s primary focus is on delivering its initial plan. Plans for the future will be determined later.”</i></li> </ul>

Source for all of the above charts: BOSK

Following is extensive data/backup for the market projections generated by Dr. Coomes. Additional issues raised by BlueOval SK executives regarding the company’s arrival in Hardin County can be found immediately following this section.

## Economic and Fiscal Impacts of EV Battery Plant: Preliminary Estimates

by

Paul Coomes and Barry Kornstein

*Revised again July 29, 2023 (original 11-28-22)*

The BlueOval SK electric vehicle battery plant is under construction near Glendale, just south of Elizabethtown along Interstate 65. Ford is building two 4.2 million square foot buildings on its 1,550-acre campus. SK Innovation will install the equipment to make the batteries<sup>28</sup>. The battery plant will use less than one-half the acreage at the site, and it is too early to know how the remaining acreage will fill with suppliers and ancillary businesses<sup>29</sup>. We anticipate significant future developments related to the plant, both at the site and elsewhere in the region.

To project the economic and fiscal impacts on the Elizabethtown region we have made some plausible assumptions, based on company announcements, interviews with decision-makers, economic models, and references to the one other similar site in the US – the Tesla Gigafactory (EV battery plant) outside of Reno NV, which has been operating for five years. We examine the Tesla experience to learn about likely construction and operations payrolls, as well as supplier linkages.

The key assumptions used in our analysis are:

1. Construction of the battery plant will occur over three years, from 2022 through 2024. The total investment will be \$5.8 billion. There will be an average of 4,500 construction jobs over the three years (Tesla Giga), with average annual pay per job of around \$50,000.
2. The plant will begin battery production by the end of 2024. By the end of 2025, there will be 5,000 employees. The average annual pay for the employees will be \$53,000. With fringe benefits, the average employee compensation will be \$73,000.
3. The battery plant will attract several new supplier and support businesses to the site and elsewhere in Hardin County. Two South Korean companies – Advanced Nano Products and Lotte Aluminum - have already announced major investments to support battery production, total 215 new jobs.

We have used these basic assumptions to project the direct and spin-off economic activity in the region. Custom regional input-output models were built for Hardin County, the three-county Elizabethtown-Fort Knox MSA, and the ten-county region. These models have rich information on over 500 industries, how much each industry purchases from all other industries, as well as the current local employment, pay, and output for each industry. This is the standard method used by regional economists to analyze potential multiplier effects of new developments.

### Main findings to date

1. Each billion dollars of construction expenditures is expected to support around 11,600 total job-years in the region. And each billion dollars of expenditures on new manufacturing equipment is expected to

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<sup>28</sup> The two Hardin County plants are to support 86 gigawatt hours per year of annual battery cell production capacity. See announcement: <https://media.ford.com/content/fordmedia/fna/us/en/news/2021/09/27/ford-to-lead-americas-shift-to-electric-vehicles.html> .

<sup>29</sup> A November 14, 2022 *Wall Street Journal* story on the EV supply chain reports that currently almost all the raw materials (lithium, nickel, cobalt, manganese) are found outside the US, particularly in China, Australia, Indonesia, and Africa. China dominates refining of the materials. See [www.wsj.com/articles/electric-vehicles-scarce-parts-supply-chain-11668206037](http://www.wsj.com/articles/electric-vehicles-scarce-parts-supply-chain-11668206037) .

support 823 total job-years in the region. The equipment impacts are much smaller than the construction impacts, since presumably the sophisticated machines used to make the batteries will be imported from other regions – this equipment is not available locally.

2. We have built customized regional input-output models to simulate the operation of the battery plant. Because there is no history of battery production in the region, we have modified the models to reflect the new industry, as well as adding the capacity associated with the two supplier plants already announced.
3. The 5,000 jobs expected to operate the plant will support 8,016 total jobs in the region. This represents an employment multiplier of 1.603. The interindustry spending linkages (supply chain) accounts for only an additional 1,397 jobs. The new household spending related to the extra payroll in the region, provides an additional 1,619 jobs. This indicates that, without the presence of more major battery plant suppliers in the region, the largest economic impact is through the new payroll caused by the plant.
4. At full operation, by 2026 we expect the direct payroll at the plant to be around \$265 million, excluding fringe benefits. The one percent occupational tax recently levied for the site would therefore be worth \$2.7 million that year, and grow with pay raises for workers at the plant. Assuming a three percent average annual wage increase, by 2035 the occupational tax revenue would be \$3.6 million.

#### **The Tesla Battery Factory near Reno**

Batteries for electric vehicles are only now becoming a major US industry, and thus there is little economic evidence on which to base the BlueOval SK scenario. However, Tesla built an EV battery plant near Reno, Nevada over five years ago. State officials, in crafting tax and other incentives, hired economists to project the impacts of construction and operations, and their reports are publicly available<sup>30</sup>. They estimated that the construction phase would involve expenditures of \$4.9 billion over three years, an amount and timeframe very similar to that for the BlueOval SK plant. The following table provides their projections.

The average annual pay per job in the table is \$56,900 for each year, whether during construction or operations. It appears that the job numbers in the first three years refer to Tesla employees and are considered operations jobs, not construction jobs. Later in the report, the analysts provide a more detailed discussion of construction and focus on the Installation expenditures (their Figure 2). There they estimate direct construction employment to be 3,800, 4,900, and 4,700 respectively, in the first three years, plus hundreds more jobs per year as further equipment is installed over the horizon. They estimate the average direct personal income per construction job to be \$44,700.

In 2018, the State of Nevada commissioned another economic impact study to bring up to date the developments at the site. They found that Tesla had invested \$6.0 billion in plant and equipment, much more than the \$4.95 billion originally projected. Employment at the Gigafactory by mid-2018 was 7,100, as compared to the 6,500 jobs originally projected. Average annual pay per job was \$53,600. The update also provides fresh estimates of the regional economic impacts. For employment in 2018, they find that the 7,100 direct jobs lead to an increase in total regional jobs of 15,300. This implies an employment multiplier of 2.167. However, it is not clear how the The IMPLAN model of Reno or the state of Nevada that the researchers used would not have any data on battery manufacturing, since there was no history of such production in the region. Presumably, the researchers used the national battery sector, which would lead to an overestimate of regional impacts (the national IMPLAN model incorporates all suppliers in the US). spinoff impacts were measured, as the authors do not explain their methods.

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<sup>30</sup> See [www.leg.state.nv.us/Session/79th2017/Exhibits/Assembly/GA/AGA355F.pdf](http://www.leg.state.nv.us/Session/79th2017/Exhibits/Assembly/GA/AGA355F.pdf)

The IMPLAN model of Reno or the state of Nevada that the researchers used would not have any data on battery manufacturing, since there was no history of such production in the region. Presumably, the researchers used the national battery sector, which would lead to an overestimate of regional impacts (the national IMPLAN model incorporates all suppliers in the US).

<b>Projections for Tesla Gigafactory EV Battery Plant Outside Reno, Nevada</b>					
	<b>Jobs</b>	<b>Payroll</b>	<b>Construction</b>	<b>Equipment</b>	<b>Installation</b>
2015	700	\$39,817,456	\$335,000,000	\$592,500,000	\$88,875,000
2016	1,700	\$96,699,536	\$345,000,000	\$1,382,500,000	\$207,375,000
2017	4,700	\$267,345,776	\$320,000,000	\$1,382,500,000	\$207,375,000
2018	6,500	\$369,733,520	\$0	\$592,500,000	\$88,875,000
2019	6,500	\$369,733,520	\$0	\$100,000,000	\$15,000,000
2020	6,500	\$369,733,520	\$0	\$250,000,000	\$37,500,000
2021	6,500	\$369,733,520	\$0	\$250,000,000	\$37,500,000
2022	6,500	\$369,733,520	\$0	\$500,000,000	\$75,000,000
2023	6,500	\$369,733,520	\$0	\$500,000,000	\$75,000,000
2024	6,500	\$369,733,520	\$0	\$500,000,000	\$75,000,000
2025	6,500	\$369,733,520	\$0	\$500,000,000	\$75,000,000
2026	6,500	\$369,733,520	\$0	\$650,000,000	\$97,500,000
2027	6,500	\$369,733,520	\$0	\$750,000,000	\$112,500,000
2028	6,500	\$369,733,520	\$0	\$1,000,000,000	\$150,000,000
2029	6,500	\$369,733,520	\$0	\$0	\$0
2030	6,500	\$369,733,520	\$0	\$0	\$0
2031	6,500	\$369,733,520	\$0	\$0	\$0
2032	6,500	\$369,733,520	\$0	\$0	\$0
2033	6,500	\$369,733,520	\$0	\$0	\$0
2034	6,500	\$184,866,760	\$0	\$0	\$0
<b>20 Year Total</b>		<b>\$6,504,465,848</b>	<b>\$1,000,000,000</b>	<b>\$8,950,000,000</b>	<b>\$1,342,500,000</b>

Source: "Economic Impact of Tesla on Washoe and Storey Counties", by Applied Economics for the Nevada Governor's Office, page 5, September 14, 2014.

**Construction Payroll at BlueOval SK Site**

We are assuming, based on the Tesla analysis, that there will be an average of 4,500 construction jobs over three years. The latest data on construction pay is shown in the next table, for both the Elizabethtown-Fort Knox MSA and the State of Kentucky. One can see that the average pay across all construction categories is between \$47,200 and \$48,500. Given the May 2021 reference date for the pay data, as well as the recent labor shortages in the trades, we will assume the average pay for the BlueOval SK project to be \$50,000 per year. This implies a total construction payroll of \$673 million, or \$224 million per year for three years<sup>31</sup>.

<sup>31</sup> BOSK has provided us with an estimate of total construction payroll of \$1.6 billion.

### Average Annual Pay in Selected Construction Occupations, May 2021

SOC Code	Occupational title	Elizabethtown- Fort Knox MSA	State of Kentucky
47-0000	All Construction and Extraction Occupations	\$47,200	\$48,510
47-1011	First-Line Supervisors of Construction Trades and Extraction	\$62,810	\$67,940
47-2031	Carpenters	\$41,850	\$45,940
47-2051	Cement Masons and Concrete Finishers	\$40,510	\$41,870
47-2061	Construction Laborers	\$42,850	\$39,480
47-2073	Operating Engineers and Other Construction Equipment Op	\$51,960	\$51,580
47-2111	Electricians	\$50,750	\$53,370
47-2141	Painters, Construction and Maintenance	\$36,800	\$39,270
47-2152	Plumbers, Pipefitters, and Steamfitters	\$55,940	\$57,630
47-2211	Sheet Metal Workers	\$44,840	\$48,730
47-4011	Construction and Building Inspectors	\$62,060	\$53,830

Source: US Bureau of Labor Statistics, Occupational Employment Survey, [www.bls.gov/oes/current/oes\\_21060.htm](http://www.bls.gov/oes/current/oes_21060.htm)

#### Operations Payroll at BlueOval SK

The companies have announced that, once operational, there will be around 5,000 full-time employees at the battery plant. We have used the national employment matrix to make an estimate of the average pay across the various occupations. Storage battery manufacturing is classified under the industry NAICS 335900, “Other electrical equipment and component manufacturing”. The US Bureau of Labor Statistics compiles an employment matrix that reveals the occupational makeup of employees in each industry. The top 25 occupations for this industry are shown in the next table, along with the average annual wage for each occupation. The weighted average across these occupations in 2021 was \$53,049<sup>32</sup>. This is likely below the average wage for the BlueOval SK plant, but until we have better information we will use this pay. Multiplying the 5,000 operations jobs by the average pay gives us a total annual payroll of \$265.2 million<sup>33</sup>.

The average pay shown above does not include fringe benefits, which are expected to be very significant. For Kentucky manufacturing industries the average fringe rate is 27 percent, i.e., the ratio of employee compensation to wages and salaries paid. However, the rate is higher for manufacturing of electrical equipment (37 percent) and manufacturing of motor vehicles (28 percent). These fringe rates are very consistent over time. Using the more specific electrical equipment rate implies that total labor compensation at the BlueOval SK batter plant will be

<sup>32</sup> Limiting the list to the top 25 occupations biases downward the weighted average, since there are several occupations with fewer workers that earn much higher wages. For example, just outside the top 25 are Industrial Engineering Technicians (\$61,230) and Software Developers (\$120,990).

<sup>33</sup> BOSK provided us with an estimated breakout of workers by major occupation, as well as an hourly wage range for most of the workers. The occupational breakout is: 81% operators, 8% maintenance, 5% engineers, 6% management/supervisor. Using the mid-point of their wage rates for production workers, and BLS averages for annual salaries of engineering and management occupations, and assuming 2,000 hours per year, we get \$440 million payroll per year, excluding fringe benefits.

\$363.1 million annually. With average wages of \$53,049, this implies average total compensation of \$72,700 per operations job.

<b>Top 25 Occupations in National Employment Matrix, 335900 Other electrical equipment and component manufacturing</b>				
<b>Occupation Code</b>	<b>Occupation Title</b>	<b>2021 Employment (000)</b>	<b>2021 Percent of Industry Employment</b>	<b>Average Annual Wage</b>
51-2028	Electrical, electronic, and electromechanical assemblers, except coil winders, tapers, and finishers	28.1	19.8	\$39,630
51-2090	Miscellaneous assemblers and fabricators	15.0	10.6	\$37,780
51-9061	Inspectors, testers, sorters, samplers, and weighers	5.2	3.7	\$44,810
51-1011	First-line supervisors of production and operating workers	5.1	3.6	67,330
17-2112	Industrial engineers	3.6	2.5	\$95,200
53-7062	Laborers and freight, stock, and material movers, hand	3.5	2.5	\$34,950
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	3.2	2.2	\$72,390
43-5071	Shipping, receiving, and inventory clerks	3.2	2.2	\$38,210
51-4021	Extruding and drawing machine setters, operators, and tenders, metal and plastic	3.2	2.3	\$40,520
11-1021	General and operations managers	3.1	2.2	\$115,250
51-4041	Machinists	3.1	2.2	\$49,020
51-4081	Multiple machine tool setters, operators, and tenders, metal and plastic	3.0	2.1	\$40,830
17-2071	Electrical engineers	2.5	1.8	\$107,890
11-3051	Industrial production managers	2.0	1.4	\$117,780
17-2141	Mechanical engineers	2.0	1.4	\$97,000
49-9071	Maintenance and repair workers, general	2.0	1.4	\$44,920
43-4051	Customer service representatives	1.9	1.4	\$39,070
17-3023	Electrical and electronic engineering technologists and technicians	1.8	1.3	\$69,070
51-4072	Molding, coremaking, and casting machine setters, operators, and tenders, metal and plastic	1.8	1.3	\$37,530
13-1020	Buyers and purchasing agents	1.6	1.2	\$72,540
13-2011	Accountants and auditors	1.5	1.0	\$83,980
43-5061	Production, planning, and expediting clerks	1.5	1.1	\$52,220
43-9061	Office clerks, general	1.5	1.0	\$38,990
49-9041	Industrial machinery mechanics	1.5	1.1	\$58,780
51-4121	Welders, cutters, solderers, and brazers	1.4	1.0	\$48,290
	<b>Top 25 occupations</b>	<b>102.3</b>	<b>72.3</b>	<b>\$53,049</b>
	<b>Total, all occupations</b>	<b>142.2</b>		

Source for occupational makeup of industry: US Bureau of Labor Statistics, <https://data.bls.gov/projections/nationalMatrix?queryParams=335900&ioType=i>  
Source for wage data: US Bureau of Labor Statistics, [https://www.bls.gov/oes/current/oes\\_nat.htm](https://www.bls.gov/oes/current/oes_nat.htm)

### Fringe Benefits in Manufacturing, Kentucky, 2021

	Compensation of employees	Wages and salaries	Ratio
Manufacturing	\$19,842,591,000	\$15,603,496,000	1.27
Durable goods manufacturing	\$12,723,443,000	\$9,982,472,000	1.27
Wood product mfg	\$555,240,000	\$440,498,000	1.26
Nonmetallic mineral product mfg	\$532,029,000	\$424,742,000	1.25
Primary metal mfg	\$1,209,149,000	\$975,997,000	1.24
Fabricated metal product mfg	\$1,614,946,000	\$1,320,706,000	1.22
Machinery mfg	\$1,576,435,000	\$1,245,518,000	1.27
Computer and electronic product mfg	\$426,546,000	\$338,795,000	1.26
<b>Electrical equipment, appliance, and component mfg</b>	<b>\$1,197,085,000</b>	<b>\$874,426,000</b>	<b>1.37</b>
Motor vehicles, bodies and trailers, and parts mfg	\$4,622,970,000	\$3,620,500,000	1.28
Other transportation equipment mfg	\$345,605,000	\$265,390,000	1.30
Furniture and related product mfg	\$231,430,000	\$189,380,000	1.22
Miscellaneous mfg	\$412,008,000	\$286,520,000	1.44

Source: US Bureau of Economic Analysis

#### Modeling the Linkages Between the New Developments and Overall Regional Activity

We have constructed IMPLAN models of Hardin County, the 3-county Elizabethtown-Fort Knox MSA, and the 10-county region of interest<sup>34</sup>. These models reveal the economic activity in each of over 500 industries, as well as how much each industry purchases from the other industries to generate its output. The models also predict how the new payroll translates in new household income and then local spending on goods and services. We use the models to predict the spinoff impacts of the battery plant construction and then the ongoing impacts of operations. There is no history of battery production in the region, and hence our default models are not capable of simulating the operation. We made several adjustments to the models to more accurately reflect the how the plant will likely impact the region.

#### Modeling the linkages between capital expenditures and overall regional activity

The construction phase involves developing the necessary infrastructure (roads, water, sewers, telecommunications, parking lots, lighting), putting up the two large buildings, and installing the manufacturing equipment. The companies have announced an investment total of \$5.8 billion over three years, though detailed spending by category has not been released. Much of the infrastructure has been put in place by the state and Hardin County prior to the BlueOval SK decision. We focus here on the impact of constructing the buildings and installing the equipment<sup>35</sup>.

Since we do not know the breakout of spending between buildings and equipment, we have analyzed these on a 'per \$100 million' basis. That way, the impact estimates can be scaled up to the ultimate capital investment when more details become available. We use our IMPLAN models of the region to predict each type of impact.

<sup>34</sup> For information about the model, see [www.implan.com](http://www.implan.com).

<sup>35</sup> Barry Kornstein built the spending patterns profiles for the construction phase, and simulated the model.

First consider the construction of the buildings. For Hardin County alone, our model predicts 825 direct construction jobs per \$100 million in construction spending, and total of 1,067 jobs across all industries in the County. One can see in the table how the estimated impacts rise as the geographic reference area is widened. The indirect effects reveal the impact of interindustry spending. The induced effects reveal the impact of new household spending. One can see that the household spending impacts are greater than the interindustry impacts. This reflects the fact that construction materials must be imported into the region, and thus there are relatively few supplier-related jobs. The spending chain from construction payroll has a greater impact on the regional economy than the supply chain for materials.

The models also predict the new labor income generated by the construction. For all three geographies, the estimated direct labor income is between \$43 and \$45 million. This indicates that labor accounts for over 40

<b>Predicted Employment Impacts</b>			
<i>per \$100 million of manufacturing construction</i>			
	<b>Hardin County</b>	<b>Elizabethtown-Fort Knox MSA</b>	<b>10-County Region</b>
Direct	825.2	852.4	875.6
Indirect	91.9	94.5	106.1
Induced	149.8	168.2	181.4
<b>Total</b>	<b>1,066.8</b>	<b>1,115.0</b>	<b>1,163.1</b>

Source: IMPLAN models, using 2019 economic data; simulation of sector #51 "Construction of new manufacturing structures"

<b>Predicted Labor Income Impacts</b>			
<i>per \$100 million of manufacturing construction</i>			
	<b>Hardin County</b>	<b>Elizabethtown-Fort Knox MSA</b>	<b>10-County Region</b>
Direct	\$42,876,305	\$43,409,141	\$45,391,668
Indirect	\$5,179,188	\$5,091,437	\$5,271,638
Induced	\$6,076,670	\$6,516,855	\$6,656,621
<b>Total</b>	<b>\$54,132,162</b>	<b>\$55,017,434</b>	<b>\$57,319,927</b>

Source: IMPLAN models, using 2019 economic data; simulation of sector #51 "Construction of new manufacturing structures"

percent of the building construction cost. The total predicted labor income, direct plus spinoff, rises from \$54 million when considering Hardin County alone to \$57 million when zooming out to the 10-county region. If one divides the direct labor income by direct employment, one can see that the average income per job is just under \$52,000, in line with the occupational wage data we analyzed in the previous section.

These estimates can be scaled up as needed to reflect the actual building construction costs. If, for example, the buildings cost \$1 billion to construct, the estimates shown here can be multiplied by ten. Keep in mind that the model predictions are on an annual basis, while the construction phase will last three years.

Given the new one percent occupational tax levied on the special district, we can use these estimates to get a feel for the taxes that will be generated from construction. Keeping with the \$1 billion example, the direct Hardin County labor income would generate \$4.3 million in occupational taxes. Most of the spin-off labor income in Hardin County would presumably be captured in Elizabethtown or one of the other municipalities in the County that levy their own occupational tax.

Next, consider the impact of expenditures on equipment. Again, we simulate the impact on a per \$100 million basis, which can be scaled up as more information about actual expenditures becomes available. Here the regional economic impacts are much smaller than for the construction of the buildings. This is due to lack of local suppliers of the sophisticated equipment needed for the battery plant. The model predicts only 60 total jobs for Hardin County, and 82 total jobs for the 10-county region.

Similarly, the predicted labor income impacts are relatively small, only \$4.2 million under the 10-county simulation.

<b>Predicted Employment Impacts</b>			
<i>per \$100 million of manufacturing equipment expenditures</i>			
	<b>Hardin County</b>	<b>Elizabethtown-Fort Knox MSA</b>	<b>10-County Region</b>
Direct	37.9	39.7	52.6
Indirect	12.1	12.2	16.5
Induced	9.5	10.5	13.2
<b>Total</b>	<b>59.5</b>	<b>62.4</b>	<b>82.3</b>

Source: IMPLAN models, using 2019 economic data; simulation using capital expenditures (Furniture, Fixtures, Equipment) template 3359 - Other electrical equipment and component manufacturing

So, for example, if capital expenditures on equipment were \$1 billion, we can multiply these results by ten. For the 10-county region, the model predicts 823 new jobs and \$42.1 million in new labor income. Note that this only refers to the capital expenditures, not the labor required for installation. The labor component is included in the construction section just discussed.

<b>Predicted Labor Income Impacts</b>			
<i>per \$100 million of manufacturing equipment expenditures</i>			
	<b>Hardin County</b>	<b>Elizabethtown-Fort Knox MSA</b>	<b>10-County Region</b>
Direct	\$2,588,193	\$2,500,989	\$3,036,971
Indirect	\$587,174	\$553,712	\$686,823
Induced	\$386,991	\$408,940	\$484,038
<b>Total</b>	<b>\$3,562,358</b>	<b>\$3,463,641</b>	<b>\$4,207,832</b>

Source: IMPLAN models, using 2019 economic data; simulation using capital expenditures (Furniture, Fixtures, Equipment) template 3359 - Other electrical equipment and component manufacturing

### Modeling the linkages between plant operation and overall regional activity

We turn now to modeling the impact of the battery plant operation. One of the industries in the model is sector number 333, is ‘Storage battery manufacturing’. Unfortunately, because there is no history of regional economic activity in battery manufacturing, the models are empty of data for the sector. To simulate the battery plant, we have used the national production function for that industry and introduced battery employment<sup>36</sup>. The model looks at what is required (nationally) to make storage batteries, checks that against the local capacity for each supplying industry, and predicts the regional spin-off activity<sup>37</sup>.

Currently, as one might expect, the region does not supply much of what a battery plant requires. Many of the most important inputs are minerals mined and processed elsewhere, typically outside the US. However, several key suppliers have announced major investments in Hardin County. In July 2022, Lotte Aluminum Materials USA,

<b>Annual Economic Impact of 5,000 Battery Plant Jobs, 10-County Region</b>				
<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added</b>	<b>Output</b>
Direct Effect	5,000.0	\$394,406,081	\$653,168,025	\$1,828,114,564
Indirect Effect	1,397.4	\$70,292,335	\$119,665,315	\$286,712,700
Induced Effect	1,618.8	\$60,217,751	\$121,232,215	\$223,083,101
<b>Total Effect</b>	<b>8,016.2</b>	<b>\$524,916,167</b>	<b>\$894,065,556</b>	<b>\$2,337,910,364</b>
<i>implied multiplier</i>	<i>1.603</i>	<i>1.331</i>	<i>1.369</i>	<i>1.279</i>

Source: modified IMPLAN model of 10-county region, using 2019 economic data.

<sup>36</sup> Barry Kornstein performed the adjustments to the model, and provided explanations that are paraphrased here.

<sup>37</sup> The process is actually more complicated than this. When battery manufacturing is introduced into the model, the regional inputs it uses are then not available to other industries that use those inputs. This mitigates some of the positive multiplier effects predicted by the model.

was approved by the City of Elizabethtown for an Industrial Revenue Bond valued at \$250 million<sup>38</sup>. Lotte, a South Korean firm, will make cathode aluminum to supply the EV battery plant, and expects to employ 122 people full-time. In August 2022, South Korea’s Advanced Nano Products announced a \$50 million investment in a ‘carbon battery nanomaterials’ plant in Hardin County, to create 93 high-paying jobs<sup>39</sup>. We have adjusted the IMPLAN models to reflect this new supplier capacity; and also adjusted it to reflect local (as opposed to national) average pay per job in the battery industry.

The largest regional spinoff impacts are in sectors like truck transportation, restaurants, building materials, and building services. The result, summarized in the table above for the case of 5,000 battery plant workers, shows an employment multiplier of 1.603, which is modest for a manufacturing industry. Note that the Indirect Effect, which captures interindustry spending linkages, is only an additional 1,397 jobs. The Induced Effect, which measures the effect of new household spending related to the extra payroll in the region, provides an additional 1,619 jobs. This indicates that, without the presence of more major battery plant suppliers in the region, the largest economic impact is through the new payroll caused by the plant.

Note that IMPLAN predicts direct labor income of \$394.4 million, which is slightly higher than the \$363.1 million we predicted above using BLS data on manufacturing pay and fringes. This type of difference is common in such modeling exercises.

For the same simulation, the top ten sectors most impacted in terms of employment are shown in the next table. Again, the main employment gains are expected in consumer-facing industries, driven by the higher household incomes due to the battery plant. Sectors like restaurants, retail, and auto repair are most linked to household, not industrial, spending.

Sector	Description	Employment	Labor Income	Value Added	Output
333	Storage battery manufacturing	5,000.0	\$394,406,081	\$653,168,025	\$1,828,114,564
417	Truck transportation	188.2	\$13,083,162	\$15,339,813	\$30,627,470
510	Limited-service restaurants	141.9	\$2,609,575	\$4,260,771	\$10,708,800
447	Other real estate	127.8	\$2,065,737	\$7,120,265	\$22,735,097
476	Services to buildings	118.8	\$3,234,431	\$4,153,723	\$8,850,933
405	Retail - Building material and garden equip and supplies	114.4	\$4,668,019	\$8,357,187	\$12,801,477
509	Full-service restaurants	110.0	\$2,334,228	\$3,465,061	\$6,832,929
396	Wholesale - Other durable goods merchants	108.0	\$5,698,342	\$11,059,914	\$24,613,381
411	Retail - General merchandise stores	91.6	\$2,768,508	\$3,947,540	\$6,682,988
512	Automotive repair and maint, except car washes	75.2	\$4,499,397	\$5,185,577	\$7,851,433

As expected, the battery plant multipliers are slightly smaller when the geographic scope is reduced. For example, the employment multiplier for the Elizabethtown-Fort Knox MSA is 1.591, and for Hardin County alone is 1.555.

<sup>38</sup> See [www.thenewsenterprise.com/news/local/two-new-companies-coming-to-e-town-s-industrial-park/article\\_d035f4fa-0c91-11ed-b525-ef0e07d950d6.html](http://www.thenewsenterprise.com/news/local/two-new-companies-coming-to-e-town-s-industrial-park/article_d035f4fa-0c91-11ed-b525-ef0e07d950d6.html)

<sup>39</sup> See [www.lanereport.com/158717/2022/08/advanced-nano-products-creating-93-jobs-with-nearly-50m-investment-to-locate-in-elizabethtown/?utm\\_source=Faster%20Lane%20Newsletter&utm\\_medium=Email&utm\\_campaign=](http://www.lanereport.com/158717/2022/08/advanced-nano-products-creating-93-jobs-with-nearly-50m-investment-to-locate-in-elizabethtown/?utm_source=Faster%20Lane%20Newsletter&utm_medium=Email&utm_campaign=)

The primarily reflects the smaller markets to capture household spending as fewer counties are included in the analysis.

We have focused on employment impacts, but the model also tracks other economic categories. Labor income includes not only wages and salaries of employees, but also fringe benefits and income to self-employed persons and/or unincorporated business owners. Output is the value of production. Value added is the difference between an industry's Output and the cost of its intermediate inputs. That is, it is a measure of the industry's contribution to regional GDP. Value added is the best measure of how much of Output 'sticks' to the regional economy. A good example is a new car dealership. If a person pays \$35,000 for a new car, only two or three thousand dollars are likely captured locally, as most of the spending goes to an out-of-the-region car manufacturer.

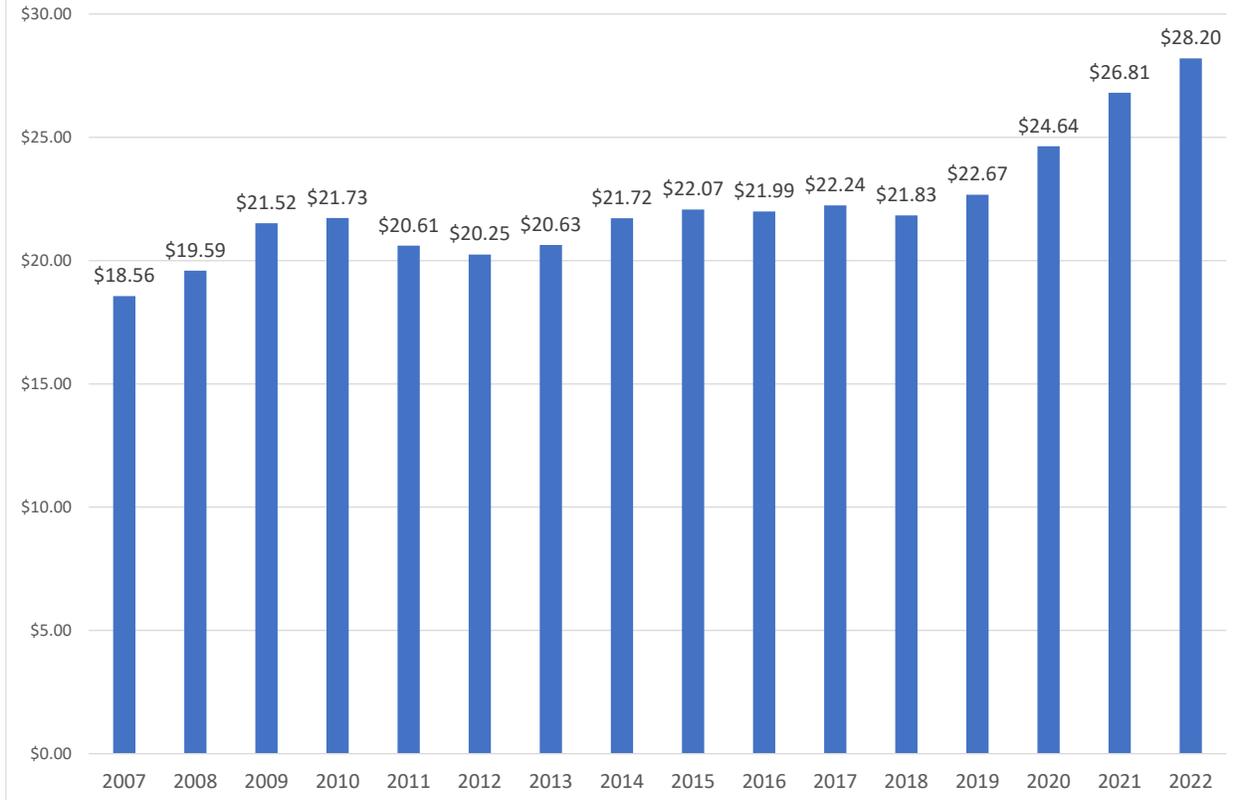
Clearly, everyone expects the battery plant to quickly draw suppliers to the site and region. As these are identified, we can add these to the model and this will yield higher and higher estimates of regional economic impact. The Tesla Gigafactory outside Reno is a good example. There are now many supplier operations located near its battery factory.

### **Pay increases over time**

The Toyota/Georgetown experience suggests that average wages rise as workers gain experience, productivity improves, and the cost of living increases. The accompanying chart shows the strong growth in average wages statewide the past several years, as the job market tightened and inflation returned. One can also see the declines in average wages after the 2009-10 recession. The compound annual growth rate over the fifteen years shown is 2.8 percent. Assuming a 3.0 percent annual growth rate for the EV plant implies that total wages would grow to \$356 million by 2035. The one percent occupational tax recently levied for the site would then generate \$3.6 million per year.

## Average Hourly Earnings, Manufacturing Workers, Kentucky

Source: US Bureau of Labor Statistics, Current Employment Survey



### Electricity Usage

The company expects to purchase 1,900 gigawatt-hours of electricity annually to operate the plant. We do not have access to the confidential industrial electricity rate negotiated by the company, presumable with LGE/KU. The US Energy Information Agency reports that industrial electricity users in Kentucky paid around 6.5 cents per kilowatt-hour in March 2023<sup>40</sup>. Presumably, such a large customer as BOSK could negotiate a lower rate than the state average. At 5.0 cents, that implies an annual electricity purchase of \$95 million. Hardin County schools levy a three percent sales tax on utilities<sup>41</sup>. Under these assumptions, the school system would receive \$2.85 million annually from the tax.

<sup>40</sup> See [www.eia.gov/electricity/data.php#sales](https://www.eia.gov/electricity/data.php#sales)

<sup>41</sup> See rates at <https://revenue.ky.gov/Business/Utility-Gross-Receipts-License-Tax/Pages/default.aspx>

## Anticipated Regional Growth in Population, Housing, K-12 Students

*Revised Draft: June 12, 2023*

The new BlueOval SK EV battery plant and other recent announcements certainly ensure regional growth in employment, population, housing, school enrollment, traffic, health care, retail sales, and a host of other economic and demographic measures. But how much growth? No one knows for sure, as there are yet so many key decisions and responses to make. Businesses have plans, but plans have a habit of changing under new conditions.

Will suppliers to the battery plant move operations to Hardin County, or simply ship the materials and components in from existing facilities? How will the large remaining acreage fill up with suppliers or other manufacturing operations? Will local governments accommodate the growth in housing, or will some refuse to extend utilities and grant building permits? Will Hardin County absorb the bulk of new workers and residents, or will most jobs be filled by residents of surrounding counties? How many jobs will be filled by workers moving to Kentucky from downsized Ford (or other company's) plants in other states? Will the pay scale at the battery plant draw workers from existing manufactures in the Elizabethtown area, creating labor shortages and new worker recruitment and training challenges? Will all county school systems add classrooms and staff, or will new workers with children opt to move to the county most ready to grow and educate?

These kinds of questions cannot be answered with any precision in advance. However, we can begin to anticipate the size and character of regional growth by studying other communities that have experiences a transformational industrial development. Two examples stand out – Georgetown KY and Reno NV. We find that:

1. The Toyota plant in Georgetown began producing Camrys in 1988, beginning with about 3,000 workers. It now employs around 8,000 people. With the new Toyota plant and suppliers, Scott County began a long boom in jobs, population, and housing.
2. Scott County has been one of the fastest growing Kentucky counties over the past three decades, almost tripling in population. The strong employment growth caused many people to move to the Georgetown area. Scott County's proximity to fast-growing Lexington also makes it an attractive location for commuters who can zip down I-75 and be in Fayette County in minutes.
3. An 8,000 growth in Scott County manufacturing jobs was accompanied by a 37,000 growth in County residents, a population growth factor of 4.6. If we were to apply that to the 5,000 new manufacturing jobs expected for Hardin County, this would lead a growth in Hardin's population of 22,380. As we get more information about suppliers setting up operations in the region this estimate will need to be revised upwards.
4. Both the total number of workers in Scott County, as well as the number of Scott County residents working there essentially doubled over the period. The total number of people working in Scott grew by 15,900, with 8,100 of those filled by Scott County residents. Fayette supplied the most additional workers (2,700), followed by Harrison (1,000), Madison (700), and Bourbon (400). The Scott County experience suggest that counties surrounding Hardin would provide one-half of the workers induced by the growth in Hardin. However, since Hardin County has a much larger population and labor force than Scott, we believe up to three-fourths of the workers will be Hardin residents.
5. The Toyota-induced boom, beginning in 1988, led to an increase in housing units directly proportional to the increase in population. Based on the Scott County experience, the growth in Hardin County's population would lead to 8,811 new housing units.

6. In Scott County, there was a slight shift toward home rental as opposed to ownership during the first decade after Toyota began operations. The homeownership rate slipped from 67% to 66% from 1980 to 1990. However, over the last three decades the homeownership rate increased substantially and is now over 72%. Hardin County has a low homeownership rate, 61%, due to the large military population. With over 16,000 renter-occupied units, a very high rental vacancy rate of 8.1%, and thousands of new units in the permit stage, Hardin seems well-positioned to handle the early influx of new residents.
7. There is an indication that the Scott County housing market was over-built by 2010, with the overall vacancy rate (combined owner-occupied and renter-occupied) at 9.8%. It has since come back to its historical norm of just over 6%. Due to Scott's small residential workforce, the Toyota plant drew workers from over 75 Kentucky counties. Many long-distance commuters stayed in RV parks and extended stay hotels. This is much less likely in Hardin County.
8. There was a tight relationship between population growth and school enrollment in Scott County. By 2020, there were 142 public school students per 1,000 Scott County residents. Applying that ratio to the projected Hardin County population growth calculated above, this suggests that the Hardin County schools might add 3,901 students. The Scott County experience suggests that the greatest growth in students comes several years after the initial surge in manufacturing jobs. Also, the growth in enrollment was very even across grade levels, suggesting an even age profile for the new households.
9. Tesla opened its lithium-ion battery plant (Gigafactory) near Reno in 2016, and has steadily increased direct employment, as have its suppliers. The facility is in the Tahoe Reno Industrial Center (TRIC), along Interstate 80, about 24 miles east of Reno. TRIC, anchored by Tesla, now has about 15,000 employees, compared to 2,000 employees a decade earlier.
10. The Gigafactory and TRIC are situated in very sparsely populated Storey County. It is very arid and has few towns, homes, or schools.
11. The workforce at the Gigafactory and TRIC are primarily commuters from Reno-Washoe County. The demographic and economic impact of the industrial park on the Reno MSA is much harder to detect than that for Georgetown and Scott County, as the Reno market is much bigger than that of Georgetown or Elizabethtown. The population of the Reno MSA was already growing steadily before the Gigafactory was developed. There was a slight acceleration of population in the 2015 to 2020 period, but it is difficult to attribute all that to the explosive growth at the industrial park.
12. Using historical ratios, the anticipated growth in Hardin County's population will lead to a need to increase hospital capacity by 75 staffed beds, associated with an additional 389 hospital jobs. The population growth will also support an increase of 380 ambulatory care jobs, e.g., at offices of physicians.

### **The Toyota-Scott County experience**

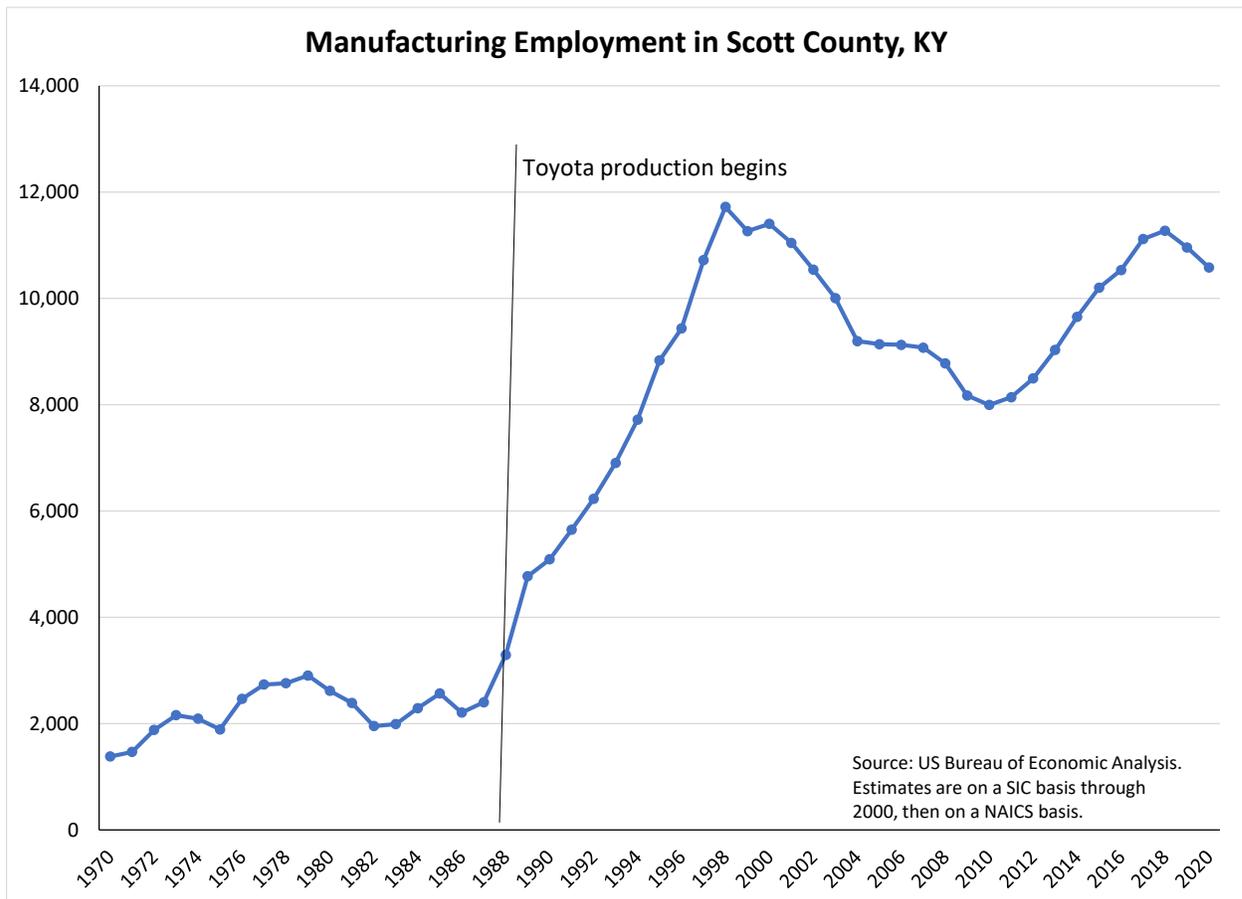
The most relevant case study in Kentucky is that of the Georgetown Toyota plant. It began producing Camrys in 1988, with about 3,000 employees. It has subsequently added production lines and now employs about 8,000 people<sup>42</sup>. Several auto-related suppliers have also located there. Scott County had a small population in the mid-1980s and has tripled since.

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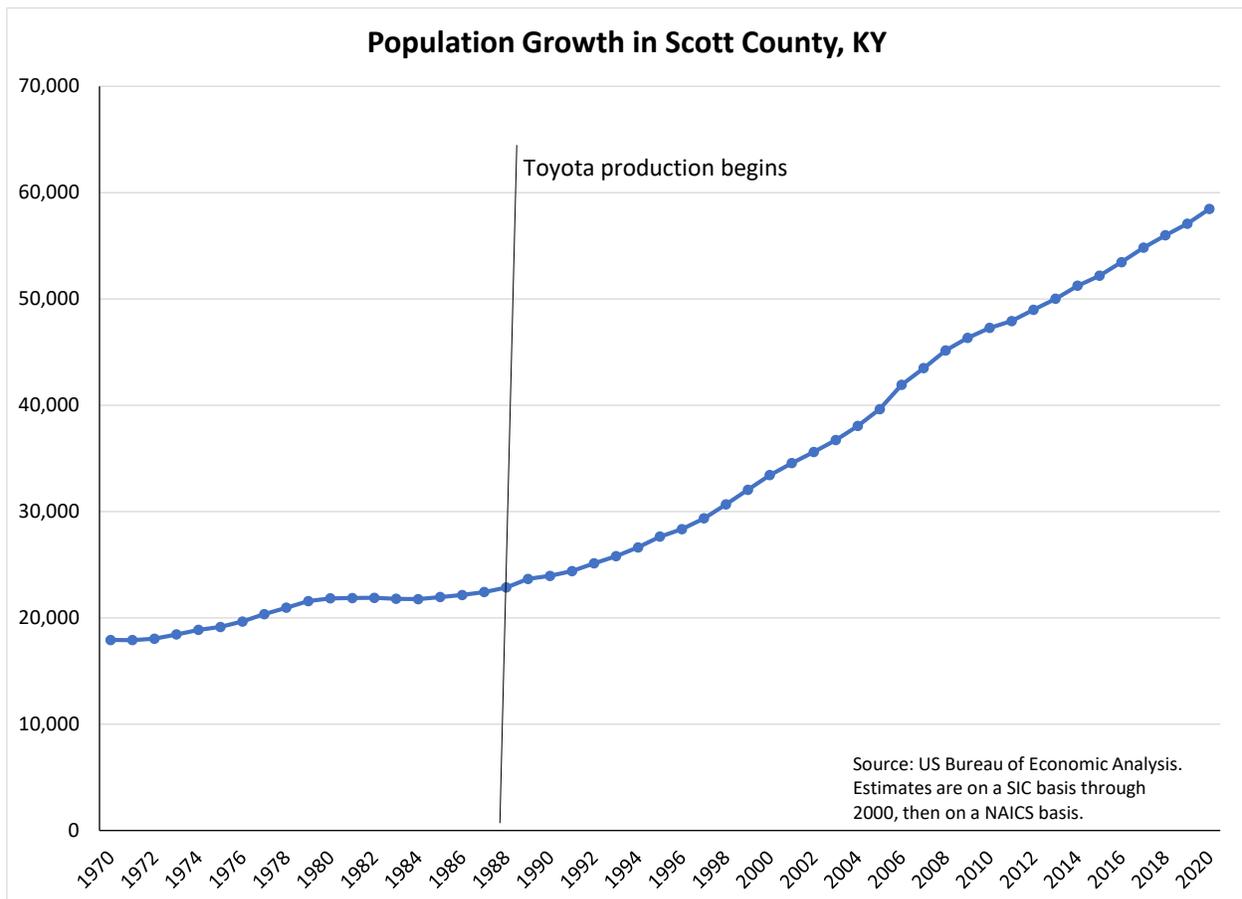
<sup>42</sup> See *The Kentucky Encyclopedia*, John Kleber editor, 1992, page 891; and <https://pressroom.toyota.com/facility/toyota-motor-manufacturing-kentucky-tmmk/>

Before we examine the historical data, we should recognize two primary differences between the industrial sites. First, Elizabethtown and Hardin County are much larger and more economically diversified than Georgetown and Scott County was thirty-five years ago. Part of this is sheer size, as Hardin County encompasses 628 square miles, compared to only 285 square miles in Scott County. Second, Scott County is adjacent to Fayette County, and part of the Lexington MSA, thus providing a large nearby workforce and supplier network. Hardin County is part of the three-county Elizabethtown-Fort Knox MSA, and therefore is more self-contained.

One can see the exponential growth in manufacturing employment in Scott County beginning in the late 1980s. Employment went from around 3,000 jobs to 12,000 jobs over the next decade and remains above 10,000 today. In 1970, manufacturing accounted for 30 percent of all wage and salary jobs in Scott County; by 1998, manufacturing accounted for 51 percent of those jobs. The share is now down to 37 percent, as strong population growth induced thousands of new retail and service jobs.



The manufacturing jobs were filled by a mixture of existing County residents, new County residents, and commuters from surrounding counties. The average wage for Scott County manufacturing jobs is now over \$77,100 per year, with another \$18,500 in fringe benefits, meaning these are some of the best jobs in the state of Kentucky. Scott County has been one of the fastest growing Kentucky counties over the past four decades, almost tripling in population. The strong employment growth caused many people to move to the Georgetown area. Scott County's proximity to fast-growing Lexington also makes it an attractive location for commuters who can zip down I-75 and be in Fayette County in minutes.



So, there are several contributing factors to Scott’s population growth. How have commuting patterns around Scott County changed since the late 1980s? The latest data reveals the wide range of commuters from around the Bluegrass region. Sixteen Kentucky counties each provide more than 150 workers to Scott County, and six counties supply more than 500 workers. These are all in the Bluegrass region, with the most workers supplied by adjacent Fayette (4,700) and Harrison (1,500) counties. Madison, Bourbon, Franklin and Clark counties each supply between 500 and 1,000 workers. Woodford and Jessamine counties also supply a significant number of workers to Scott County. Interstate 75 makes it a short trip, for example, for the 39 miles from Richmond to Georgetown.

Compare now the commuting patterns in 1990 with the most recent data. We see that the number of Scott County residents working in Scott County more than doubled since 1990. Only two surrounding counties, Fayette and Harrison, supplied more than 500 workers to Scott. Fayette more than doubled its commuter flow to Scott over the subsequent twenty-five years, and Harrison tripled its supply of workers. A similar ramp-up in commuters is evident throughout the Bluegrass region. Madison County, for example, increased.

County	Workers	Percentage
Scott	6,907	55.4%
Fayette	2,046	16.4%
Harrison	545	4.4%
Franklin	357	2.9%
Jefferson	336	2.7%
Bourbon	285	2.3%
Clark	222	1.8%
Owen	215	1.7%
Woodford	163	1.3%
Madison	153	1.2%
Montgomery	90	0.7%
Grant	88	0.7%
Jessamine	87	0.7%
Estill	66	0.5%
Anderson	58	0.5%
Other counties	859	6.9%
<b>Total workers</b>	<b>12,477</b>	<b>100.0%</b>

Source: US Census Bureau  
<https://www2.census.gov/programs-surveys/commuting/datasets/1990/worker-flow/kywrkco.txt>

County	Workers	Percentage
Scott	14,962	52.7%
Fayette	4,696	16.5%
Harrison	1,531	5.4%
Madison	808	2.8%
Bourbon	683	2.4%
Franklin	645	2.3%
Clark	573	2.0%
Woodford	456	1.6%
Jessamine	419	1.5%
Owen	297	1.0%
Grant	253	0.9%
Anderson	252	0.9%
Shelby	232	0.8%
Jefferson	230	0.8%
Montgomery	224	0.8%
Nicholas	218	0.8%
Pendleton	155	0.5%
Other counties	1,747	6.2%
<b>Total workers</b>	<b>28,381</b>	<b>100.0%</b>

Source: US Census Bureau, estimates for 2011-15.  
[www.census.gov/data/tables/2015/demo/metro-micro/commuting-flows-2015.html](http://www.census.gov/data/tables/2015/demo/metro-micro/commuting-flows-2015.html)

Note that both the total number of workers in Scott County, as well as the number of Scott County residents working there both doubled over the period. The total number of people working in Scott grew by 15,900, with 8,100 of those filled by Scott County residents. Which counties in the region made up the difference? Fayette supplied the most additional workers (2,700), followed by Harrison (1,000), Madison (700), and Bourbon (400). The Scott County experience suggest that Hardin County will see strong population growth because of the new battery plant. Moreover, the surrounding counties will provide one-half of the workers induced by the growth in Hardin. This will also stimulate the counties in the region, causing them to grow faster than otherwise.

Let us summarize the historical relationship between job and population growth in Scott County. Interestingly, over the forty years shown in the table, the *growth rate* for all wage and salary jobs is the same as the growth rate in manufacturing jobs (approximately 300%). This suggests a strong linkage between Toyota (plus other manufacturers) and county-wide employment in retail and service industries.

Scott County Job and Population Growth							
	1980	1990	2000	2010	2020	Growth 1980 to 2020	Growth rate
Manufacturing jobs	2,616	5,089	11,401	7,994	10,579	7,963	304.4%
All wage and salary jobs	7,079	11,997	24,418	22,724	28,932	21,853	308.7%
Population	21,834	23,943	33,422	47,271	58,470	36,636	167.8%

Source: US Bureau of Economic Analysis. Jobs are on a place of work basis, not place of residence. Population estimates are as of July 1; whereas decennial census estimates area as of April 1.

However, the growth in population was much slower than job growth, consistent with our discussion of regional commuting patterns above. An 8,000 growth in manufacturing jobs was accompanied by a 37,000 growth in County residents, a population growth factor of 4.6. If we were to apply that to the 5,000 new manufacturing jobs expected for Hardin County, this would lead a growth in Hardin’s population of 22,380.

Housing. How did the housing market in Scott County respond to the strong population and employment growth? It turns out that the number of housing units grew at an almost identical *rate* as did population. Just looking at the thirty-year period from 1990 to 2020, we see that the household population grew by 33,200 (145%), while 13,600 housing units were added (149%). As a result, the average number of people per household remained unchanged. Based on the Scott County experience, the growth in Hardin County’s population would lead to 8,811 new housing units.

There was slight shift toward home rental as opposed to ownership during the first decade after Toyota began operations. The homeownership rate slipped from 67% to 66% from 1980 to 1990. However, over the last three decades the homeownership rate increased substantially and is now over 72%.

Scott County Housing Characteristics						
	1980	1990	2000	2010	ACS 2016-2020	2020
Total population	21,813	23,867	33,061	47,173	55,961	57,155
Household population	20,817	22,866	31,593	45,857	54,648	56,054
In group quarters	996	1,001	1,468	1,316	1,313	1,101
Total housing units	7,782	9,173	12,977	19,303	22,535	22,795
Occupied housing units (households)	7,268	8,501	12,110	17,408	21,186	21,371
Owner-occupied housing units	4,878	5,628	8,450	12,336	15,326	
Renter-occupied housing units	2,390	2,873	3,660	5,072	5,358	
Vacant units	514	672	867	1,895	1,349	1,424
Share of occupied units owner-occupied	67.1%	66.2%	69.8%	70.9%	72.3%	
Overall vacancy rate	6.6%	7.3%	6.7%	9.8%	6.0%	6.2%
Persons per household	2.86	2.69	2.61	2.63	2.58	2.62
Median value, owner-occupied units *	\$44,000	\$68,200	\$107,900		\$197,900	
Median rent, renter-occupied units *	\$195	\$270	\$513		\$934	

Source: US Census Bureau, decennial census results, plus the American Community Survey 5-year average for 2016-2020. Beginning with the 2010 decennial census, only a few housing questions were included. Detailed housing characteristics are now only available from the ACS each year.

\* For decennial census years, the valuations refer to the prior year, e.g., 1980 Census refers to home values in 1979.

There is also an indication that the housing market was over-built by 2010 (as it was nationally), with the overall vacancy rate (combined owner-occupied and renter-occupied) at 9.8%. It has since come back to its historical norm of just over 6%.

Following our projection of Hardin County' population in the previous section, we can apply the Scott County housing experience to project new housing units in Hardin. Adding 22,380 new residents to Hardin would require about 8,811 new housing units.

**Schools.** We see that public school enrollment grew rapidly after Toyota arrived, but not as fast as population or jobs. Jobs are measured on a place of work basis, so it makes sense that all the regional commuters into Scott

Summary of School Attendance Relative to Population and Jobs							
Scott County, KY							
	1988	1990	2000	2010	2020	Growth 1988 to 2020	rate
Schools: average daily attendance	3,852	4,173	5,066	7,175	8,331	4,479	116.3%
County population	22,852	23,943	33,422	47,271	58,470	35,618	155.9%
Wage and salary jobs in County	9,358	11,997	24,418	22,724	28,932	19,574	209.2%
Students per 1,000 residents	169	174	152	152	142	-26	-15.5%
Students per 1,000 wage and salary jobs	412	348	207	316	288	-124	-30.0%

Sources: school attendance from Kentucky Department of Education; population and jobs from US Bureau of Economic Analysis.

County would not put pressure on the school system. The relationship is tighter with population growth. But the new residents of the County did not induce public K-12 enrollment at the pre-Toyota rate.<sup>43</sup> Alternatively, the new residents did not have kids at the historical rate. By 2020, there were 142 public school students per 1,000 Scott County residents. Applying that ratio to the projected Hardin County population growth calculated above, this suggests that the Hardin County schools might add 3,901 students.

One can see that average daily attendance (ADA) in Scott County public schools has more than doubled since Toyota began operation. ADA was 3,852 in 1988 and was 8,331 in the 2020 school year. Interestingly, the greatest growth rate in ADA was not during the first decade, but in the 2000 to 2010 decade.

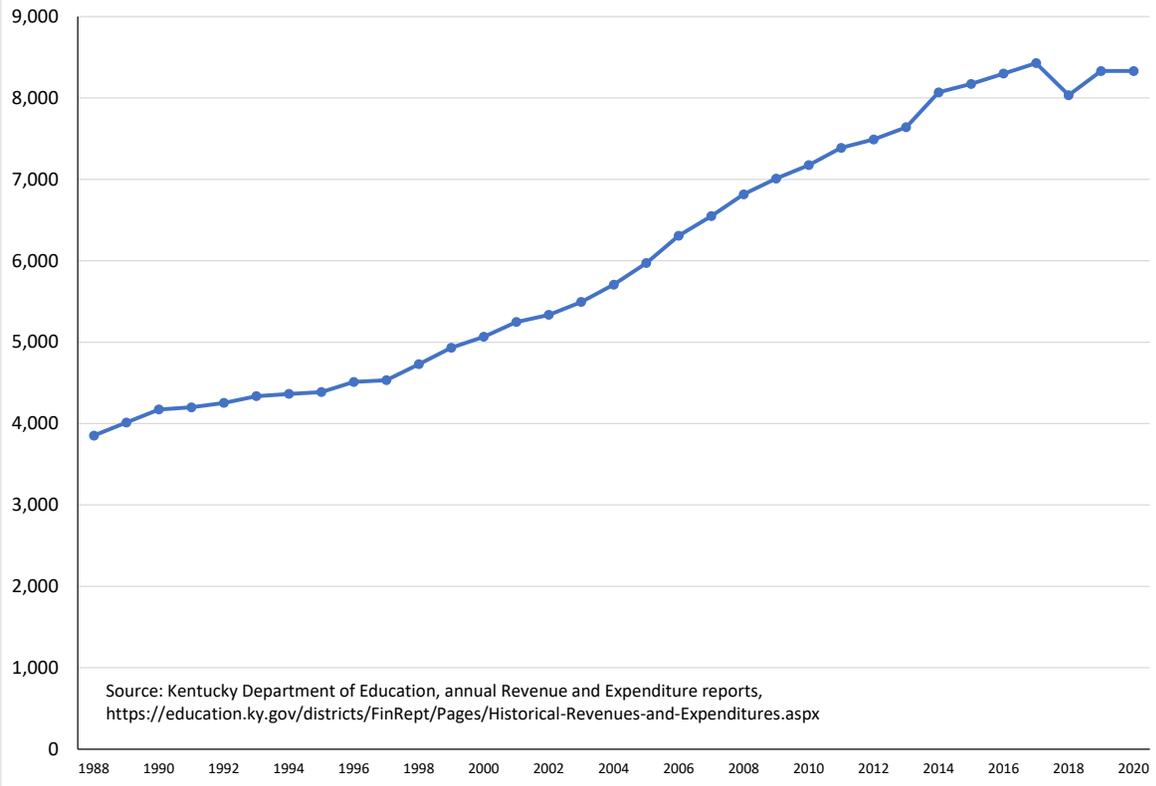
This aligns with County population growth rates, which were also the strongest in that second decade. Also note the recent flattening of attendance, with no growth since 2016.

What was the age profile of new students? Thankfully, there are grade-level enrollment data available since the 1999-2000 school year, and these are summarized in the next chart. One can see the strong growth in 2000-2010 decade, where kindergarten attendance jumped 55 percent, grade 1 to 3 attendance jumped 42 percent, grade 4-8 attendance jumped 44 percent, and high school attendance jumped 41 percent. The evenness of the growth across grades suggests that new residents brought an even age profile of students to the County.

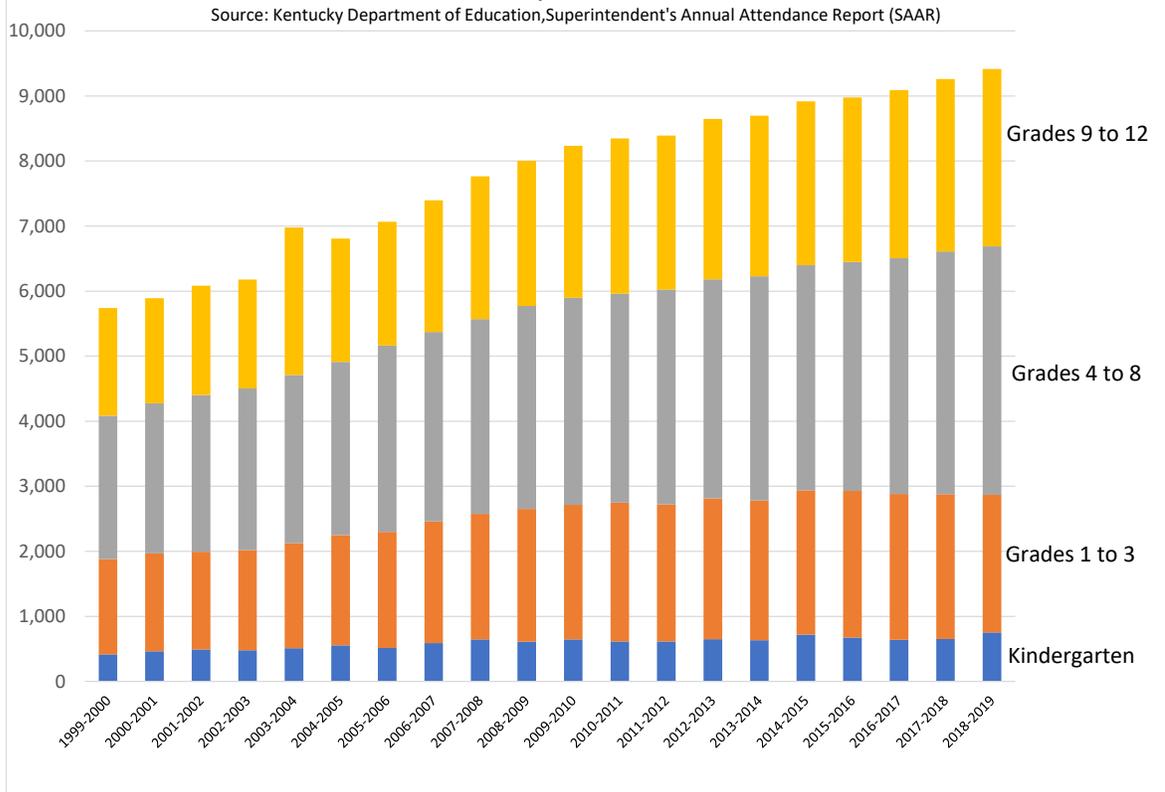
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<sup>43</sup> There is at least one private school in Scott County, St. John's Catholic, K-8 with 150 students. Interestingly, the school had been closed since 1976, but came back to life just as Toyota was building their new plant. See <https://stjohnschoolonline.org/st-john-school-history> . Its enrollment is of course not included in the public-school attendance data shown here.

### Scott County Schools, Average Daily Attendance



### Scott County School Attendance

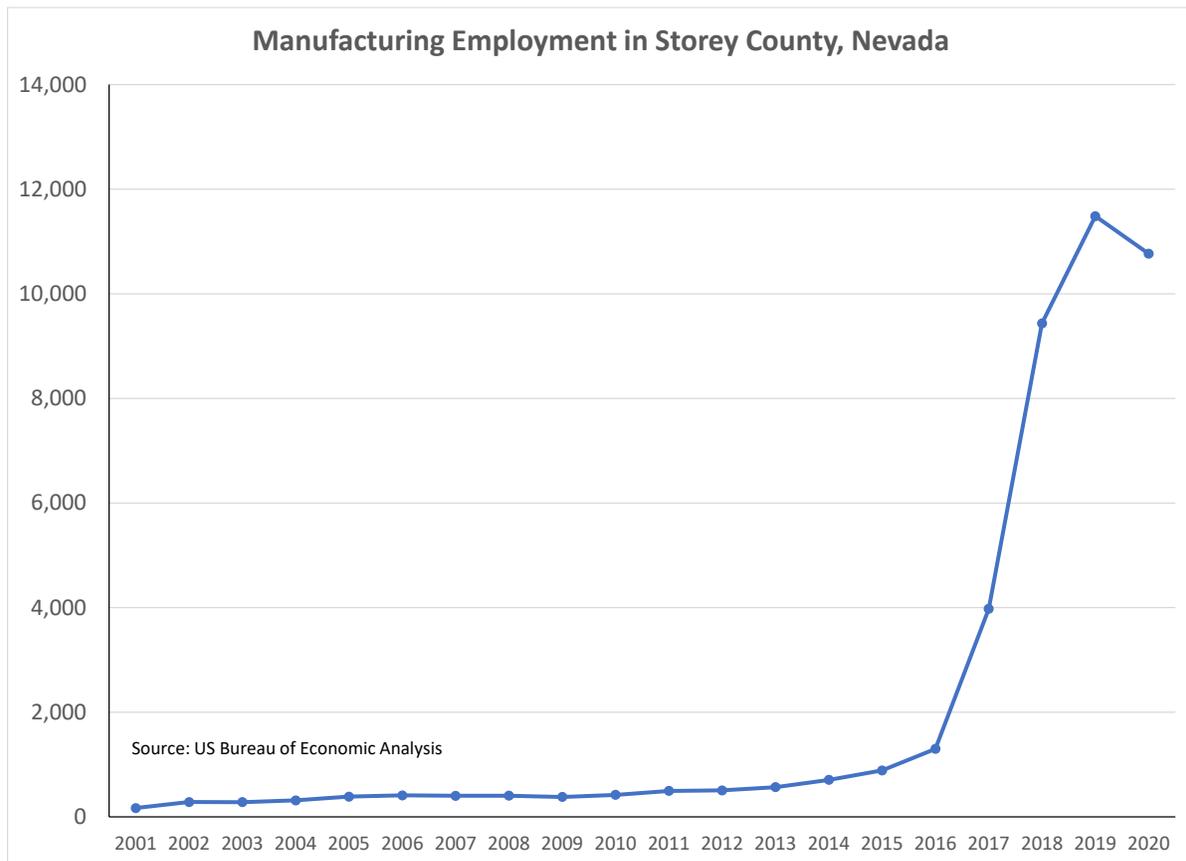


### The Tesla Gigafactory in Storey County, NV (Reno MSA) experience

Tesla opened its lithium-ion battery plant near Reno in 2016, and has steadily increased direct employment, as have suppliers<sup>44</sup>. The facility is in the Tahoe Reno Industrial Center (TRIC), along Interstate 80, about 24 miles east of Reno. TRIC, anchored by Tesla, now has about 15,000 employees, compared to 2,000 employees a decade earlier. How has that job growth translated into demographic and housing growth in the region?

One can see in the next chart that before Tesla there almost no manufacturing jobs in Storey County. From 2015 to 2020, the County added 10,000 manufacturing jobs. Other sectors also posted strong growth, particularly transportation and warehousing, which added 1,500 jobs. Across all industries, the County gained 12,500 jobs, doubling its employment base in just five years.

The average annual pay in manufacturing is now over \$96,500, with fringe benefits bringing the average compensation to over \$117,000, in Storey County, meaning these are some of the best paying jobs in the state of Nevada.



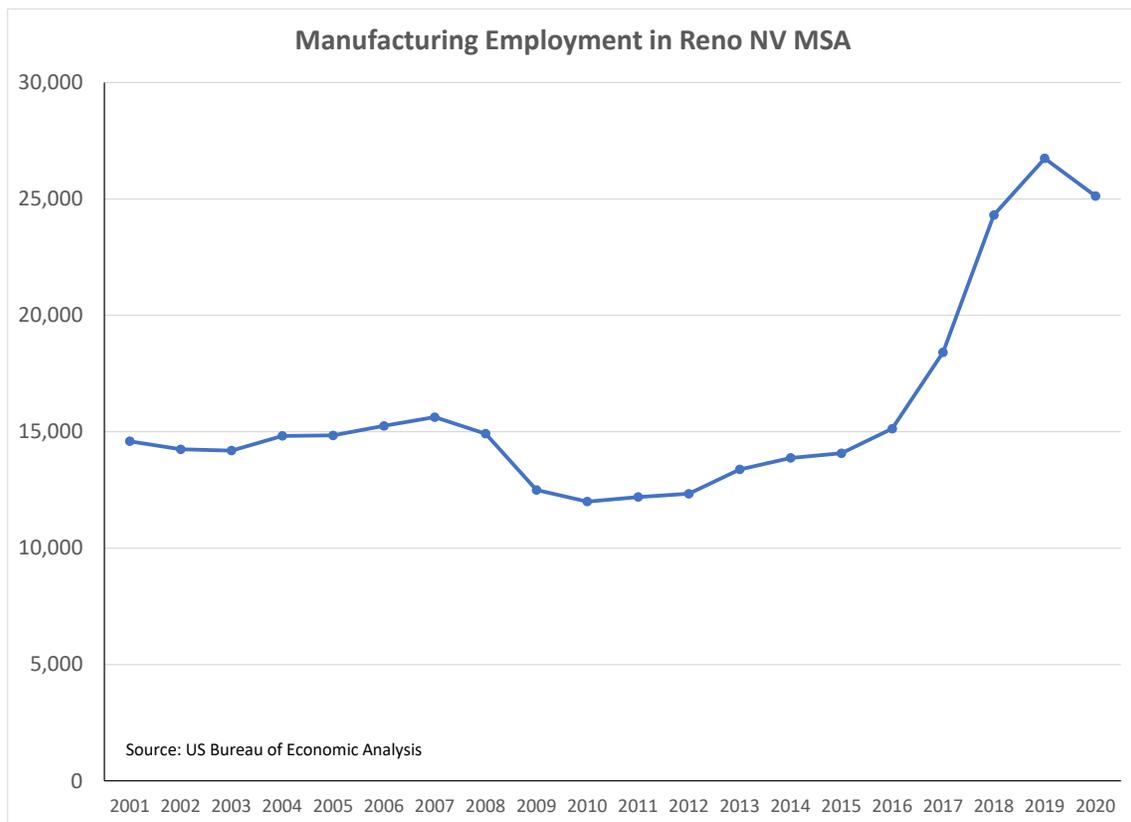
<sup>44</sup> For an overview, see [https://en.wikipedia.org/wiki/Gigafactory\\_Nevada](https://en.wikipedia.org/wiki/Gigafactory_Nevada) and [www.nevadaappeal.com/news/2021/dec/25/gilman-reflects-10-years-tahoe-reno-industrial-cen/](http://www.nevadaappeal.com/news/2021/dec/25/gilman-reflects-10-years-tahoe-reno-industrial-cen/). For a major recent supplier announcement, see [www.wsj.com/articles/redwood-materials-plans-3-5-billion-battery-materials-plant-in-nevada-11658750400](http://www.wsj.com/articles/redwood-materials-plans-3-5-billion-battery-materials-plant-in-nevada-11658750400)

Storey County is part of the Reno MSA, together with Washoe County and Carson City. The MSA has a population of over 480,000. Storey County is very arid and sparsely populated, with only 4,300 residents. So, the workforce at the Gigafactory and TRIC are primarily commuters from Reno-Washoe County. The demographic and economic impact of the industrial park on the Reno MSA is much harder to detect than that for Georgetown and Scott County. One can see that the population of the Reno MSA was already growing steadily before the Gigafactory was developed. There was an acceleration in the 2015 to 2020 period, but it is difficult to attribute all that to the explosive growth at the industrial park. The Reno market is much bigger than that of Georgetown or Elizabethtown.

<b>Pop Growth, Reno MSA</b>		
<b>2005 to 2010</b>	<b>2010 to 2015</b>	<b>2015 to 2020</b>
29,420	20,532	34,791
7.4%	4.8%	7.8%

Source: US Bureau of Economic Analysis

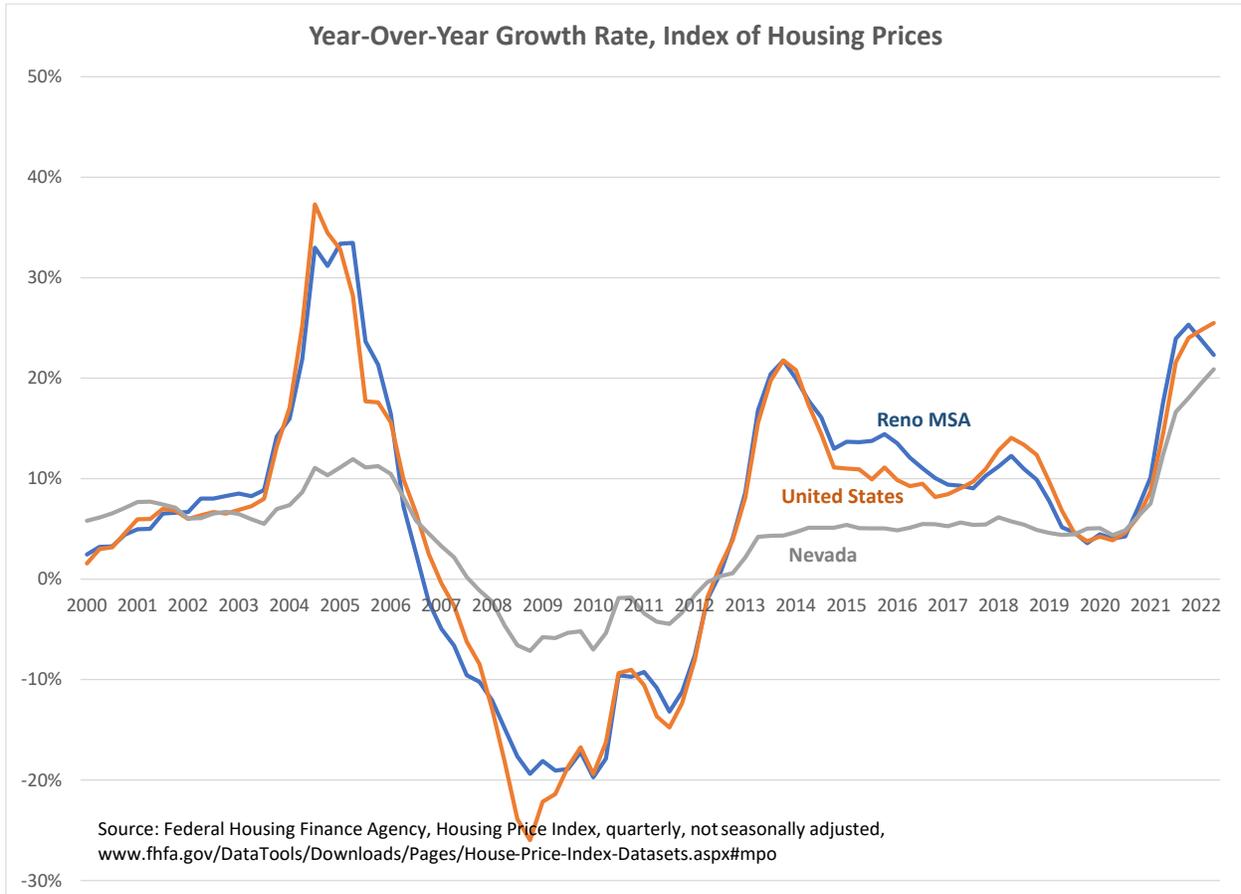
However, it is clear from economic data that manufacturing was the strongest growth component in the Reno MSA since 2015. The growth in manufacturing jobs in the MSA mirror that in Storey County. No other industrial sector posted a comparable employment growth rate in the MSA.



Indeed, total MSA employment grew only 8.5 percent between 2015 and 2020, compared to 78.5 percent growth for manufacturing. With such high annual pay, clearly the Gigafactory and TRIC have been the growth engine for Reno the past several years.

I find some evidence that the run up in manufacturing employment boosted home prices in the Reno MSA. The Federal Housing Finance Agency uses home purchase transactions to monitor the growth in prices. As one can see in the chart, Reno follows the national pattern, with the pre-bubble buildup in 2004 to 2006 followed by the

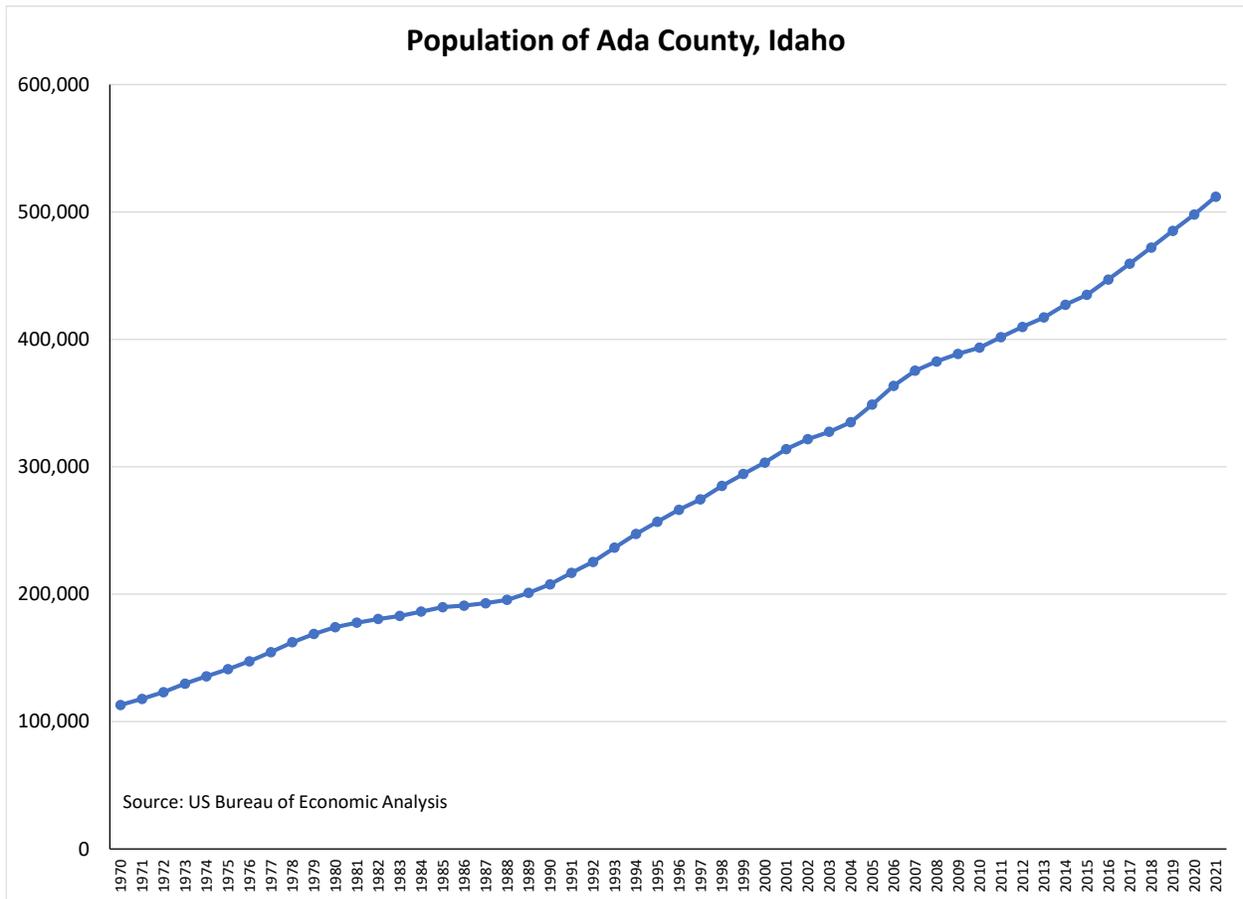
national housing bust and recession of 2007 to 2010. However, Reno did see a relative acceleration in home prices as the Gigafactory was being built and then operating, with Reno's prices rising faster than the national average from the second quarter of 2014 through the second quarter of 2017. It appears that once the plant was up and running that the housing market reverted to its traditional pattern.



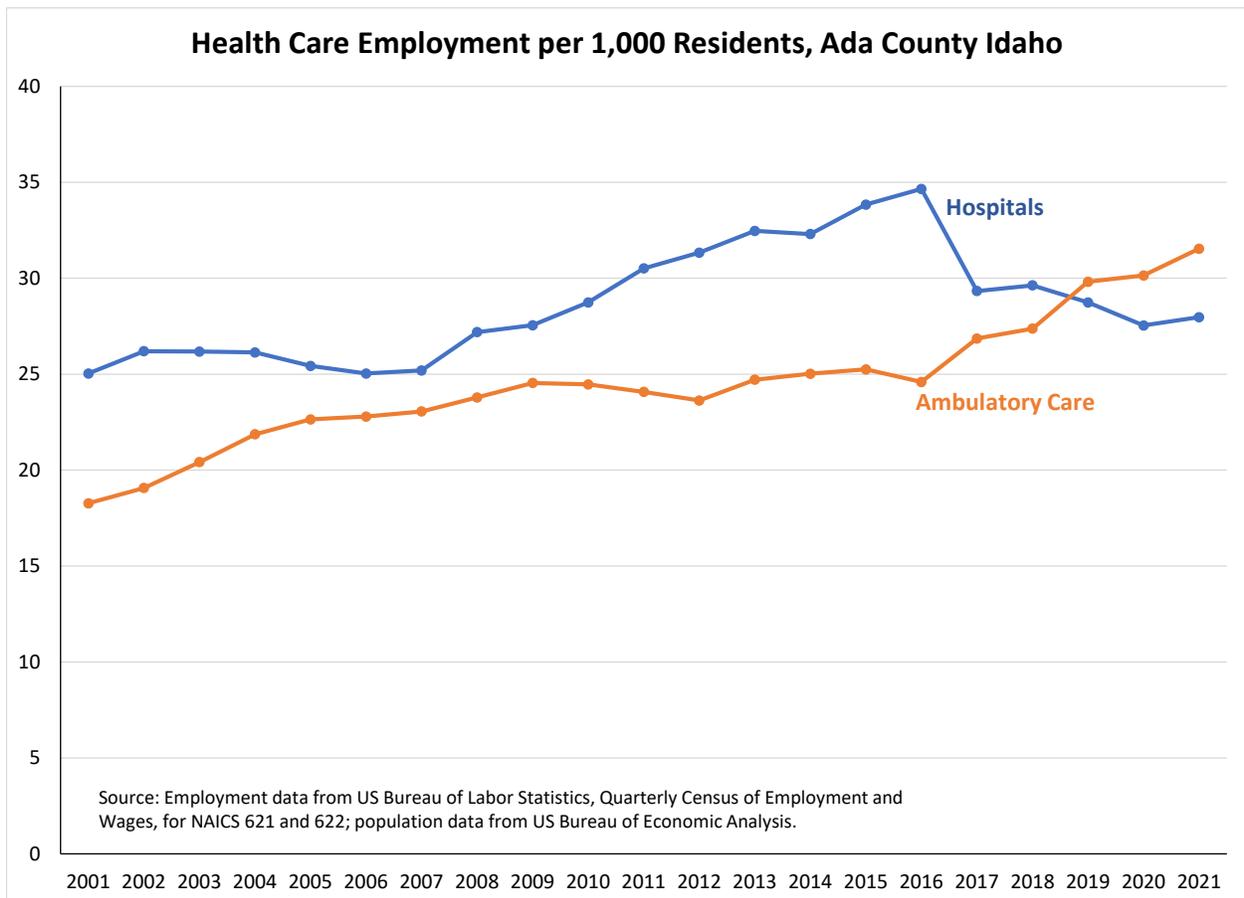
Given the above, I do not believe there is a lot to learn from the Gigafactory experience regarding demographics and housing. The industrial park is in a very sparsely populated county, with little in the way of infrastructure, housing or schools. Employees at the Storey County facility commute from adjacent and very developed Reno and Washoe County. In 2020 the Washoe population is 477,000, compared to Storey's population of only 4,200. Indeed, there are four times more people working in Storey County than there are residents. Washoe County was large enough to absorb the new employees and residents without unusual stress on its housing market. There is plenty to learn, however, from studying the suppliers that built operations next to the Gigafactory.

### Anticipated Growth in Health Care Industry

How will the expected growth in Hardin County’s population translate into growth in health care facilities? Scott County KY is not a good example to study, since it is so proximate to Lexington and its major hospitals. However, one of the boomtowns we have analyzed, Meridian ID, provides some rich insights. Meridian is the fastest growing city in Idaho. It is in Ada County, which includes Boise, and is by far the most populous county in the state. One can see the exponential growth in the following chart, particularly over the last few decades. The county has added 200,000 residents in just the last twenty years.



Good data on health care employment in Ada County is available since 2001. We examine two sectors – ambulatory care facilities<sup>45</sup> and hospitals. Between 2001 and 2021, the county population grew 62 percent, while employment at ambulatory care facilities grew 182 percent, and hospital employment grew 58 percent. The next chart summarizes the recent growth in employment in terms of jobs per thousand residents. As elsewhere, there has been a shift from inpatient to outpatient treatment, so that now there are more jobs at the ambulatory care facilities than at hospitals. Combining the two sectors, we find that the number of employees per thousand residents rose from 43 to 59 over the period shown. The overall increase in health care employment per capita is due to the aging population. The median age of county residents increased from 33.0 in 2000 to 37.8 years in 2020.

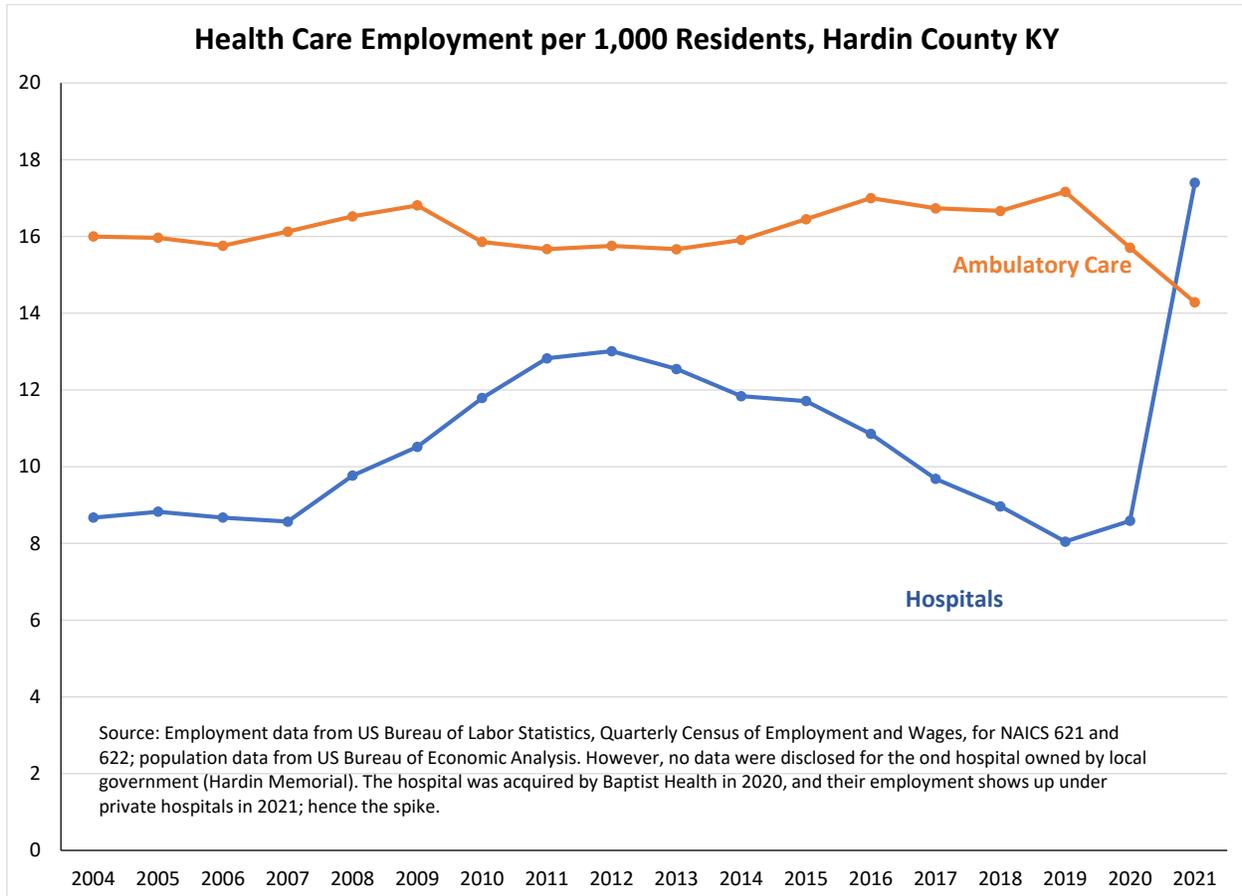


The number of health care employees in Hardin County is much lower on a per capita basis than in Ada, ID. In 2021, there were 14.3 ambulatory care employees per thousand residents, and 17.4 hospital employees per thousand residents. Combining the two yields only about 32 employees per thousand residents, compared to 60 in Ada County. The relatively low numbers for Hardin County are no doubt due to its proximity to Louisville and its many large hospitals, as well as the full complement of specialists supported by the much larger population and

<sup>45</sup> The ambulatory health care services industry, NAICS 621, includes the offices of physicians, dentists and other practitioners, outpatient care centers, diagnostic labs, and home health care services.

the University of Louisville Medical School. This, of course, will not change with the new battery plant and associated regional growth.

The next chart is included for consistency but is deceptive because BLS did not disclose employment data for the one (large) hospital owned by local government. Only the data for 2021 is useful here, as it reflects employment at Baptist Health, which acquired Hardin Memorial in 2020. The data on ambulatory care facilities is comprehensive and reveals a very steady pattern of employment as a ratio to the number of residents. One can also see the ambulatory care pullback in 2020 and 2021 due to COVID-19 related service postponements.



So, what does all this data suggest about future health care employment in Hardin County? First, the ambulatory care component has been quite stable historically (pre-COVID), at about 17 employees per thousand residents. This implies that the 22,380 anticipated new residents will support 380 ambulatory care jobs. Similarly, the 17.4 hospital jobs per thousand residents (in 2021) leads to an additional 389 hospital jobs in the County. Assuming an average of five employees per bed, this implies that hospital capacity will need to increase by 75 staffed beds.

# Boomtown Analysis

## Introduction

This component of the Elizabethtown – Fort Knox MSA Transformation Project includes an examination of small cities that have gone through massive growth due primarily to major economic development in the community.

While each city is different, lessons can be learned by how each community managed the growth as it occurred (and, if they were allowed a “do-over,” what would they do differently?). Luke Schmidt conducted each of the site visits and in each case held scheduled meetings with various community leaders. The site visits included the following key components:

- Community Profile Compilation
- Economic Driver Analysis
- Growth Management Issues Analysis

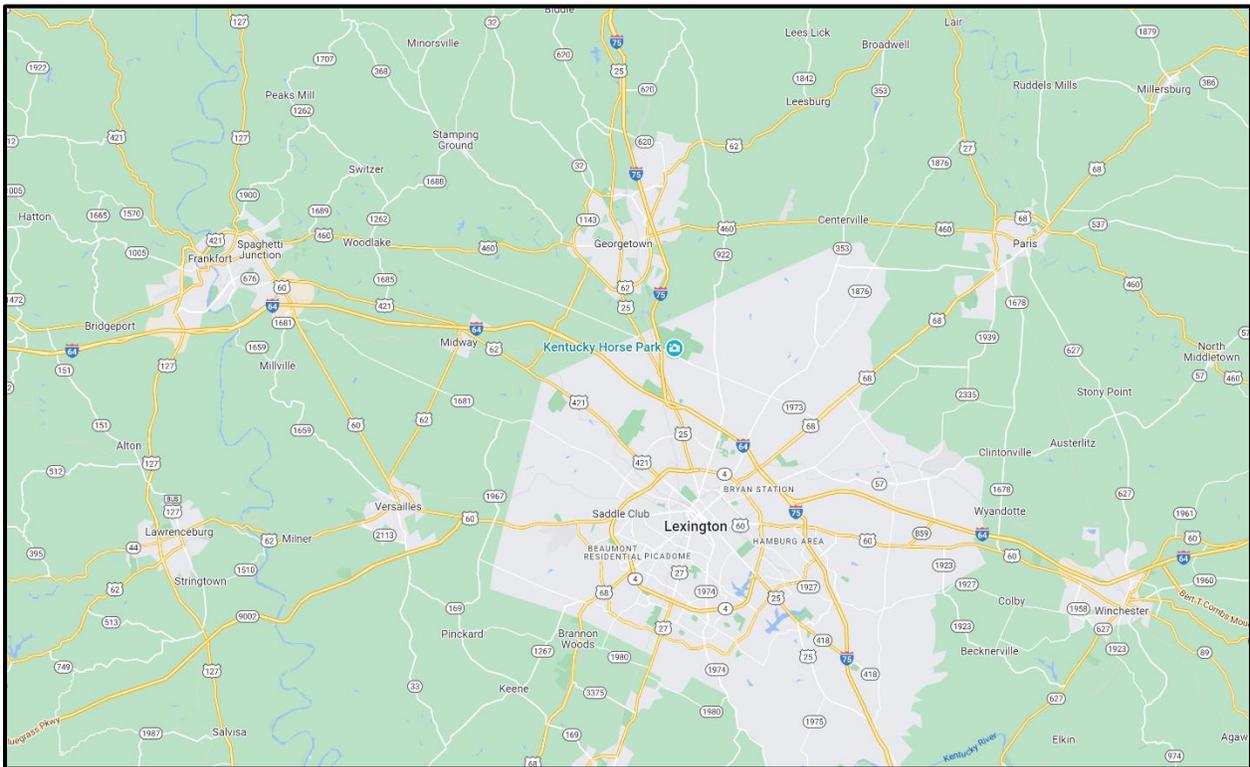
The boomtown (city/county) jurisdictions are compared with Elizabethtown/Hardin County. Except for Reno, Elizabethtown at one point was larger than each of the examined communities. Each city serves as the anchor city or lies within a Metropolitan Statistical Area (MSA).

## BOOMTOWN CITIES

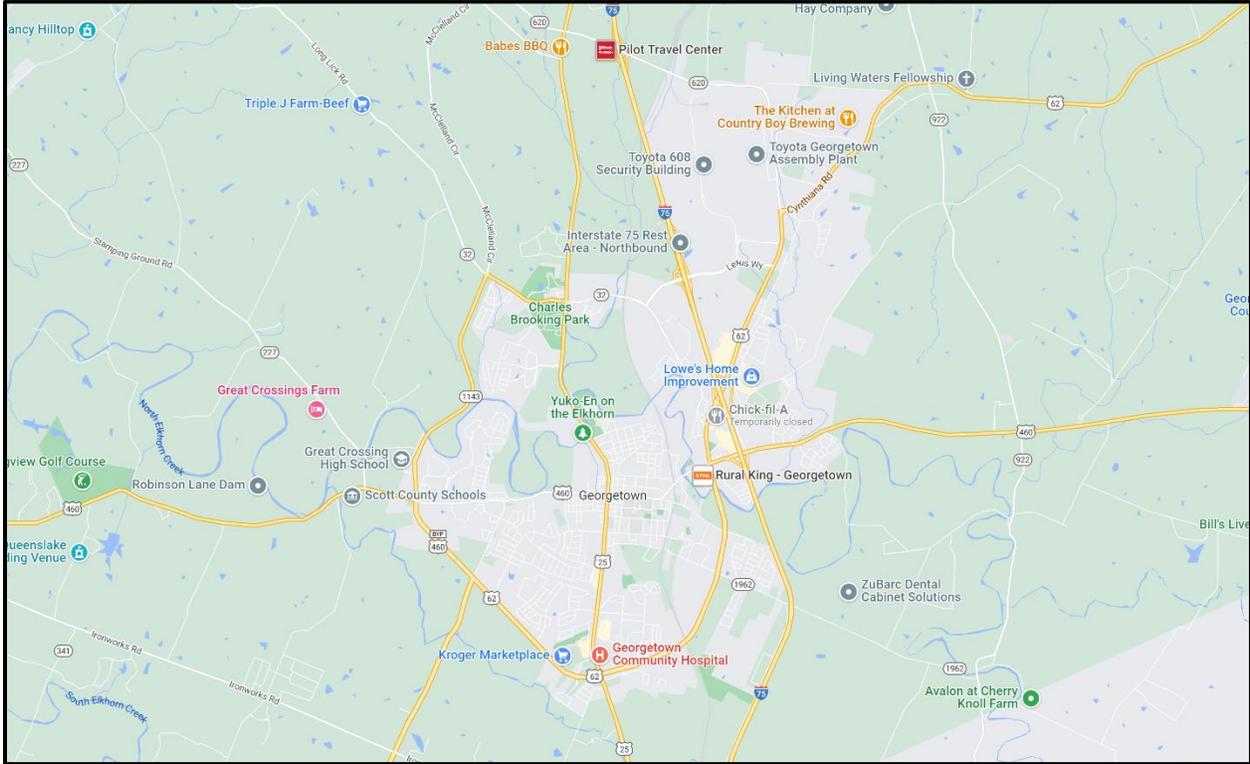
- Georgetown, KY
- Meridian, ID
- Reno, NV
- Round Rock, TX

## Georgetown, Kentucky

Georgetown is in Central Kentucky, just north of Lexington alongside Interstates 64 and 75.



Georgetown has three and a half exits along I-75 and one exit on I-64. Downtown Lexington is 13 miles away.



### Boomtown Economic Driver

Georgetown is the county seat of Scott County. The city's economy is driven primarily by Toyota Motor Manufacturing Kentucky's huge manufacturing complex located on the northeast side of the city.



Toyota Motor Manufacturing Kentucky Georgetown Auto Assembly Plant

Source: Google Image/USA Today

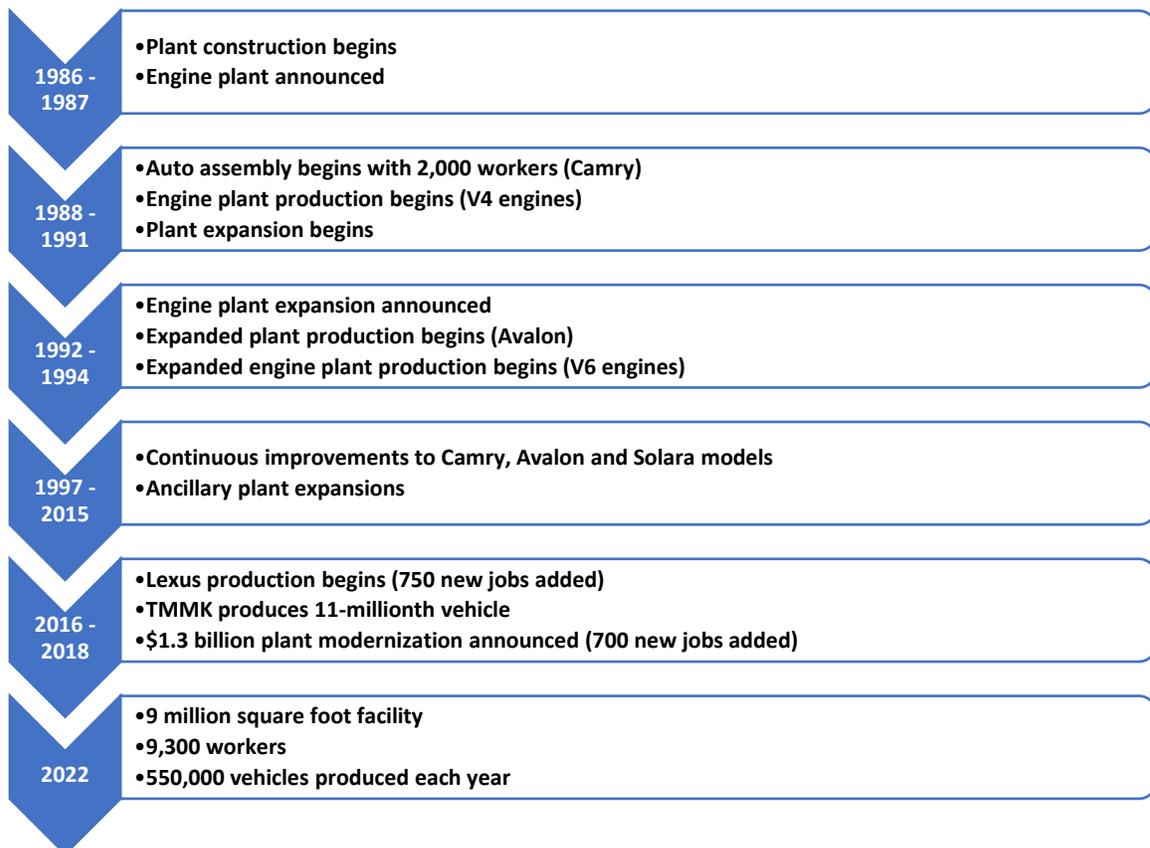
### Toyota by the Numbers

- Toyota started operations with a “clean sheet,” meaning that the company intentionally targeted first/new hires WITHOUT prior auto industry experience...12 of the original 2,000 workers had prior auto industry experience
- Today, Toyota draws workers from 78 Kentucky counties (87% of Scott County workers live in the nine Bluegrass counties)
- Some of the workers that commute stay temporarily in extended stay hotels, RV camps, or share apartments with other Toyota workers
- Approximately 37% of the Toyota workforce lives in Scott County, with adjacent Fayette, Franklin, Harrison, and Woodford counties supplying a large share of workers
- 40% of the current Toyota workforce are females
- Toyota has an on-site day care center for children
- Two subsidiary companies employ an additional 1,100 workers

### FUTURE WORKFORCE DEVELOPMENT

With today's low unemployment rate, all bets are off...Toyota leader is concerned that BlueOval SK workers may be recruited/come from other existing manufacturers in the region, which could be problematic for all existing employers

### Toyota Motor Manufacturing Kentucky Milestones

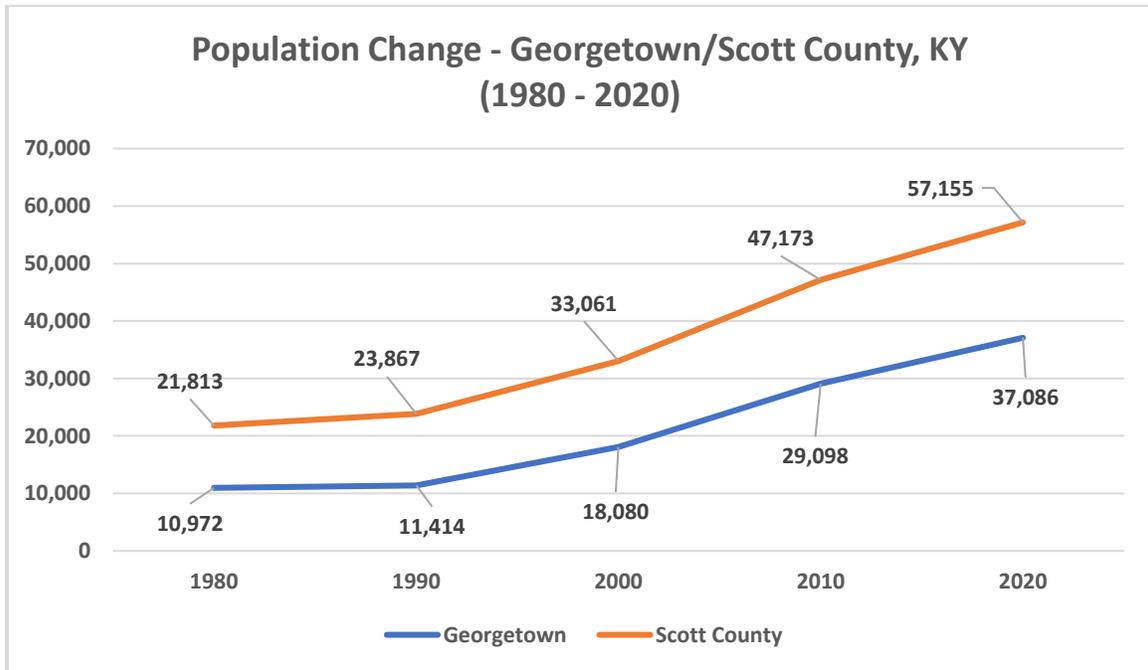




First Lexus Rolls Off the Georgetown Assembly Line  
 Source: Google Image/USA Today

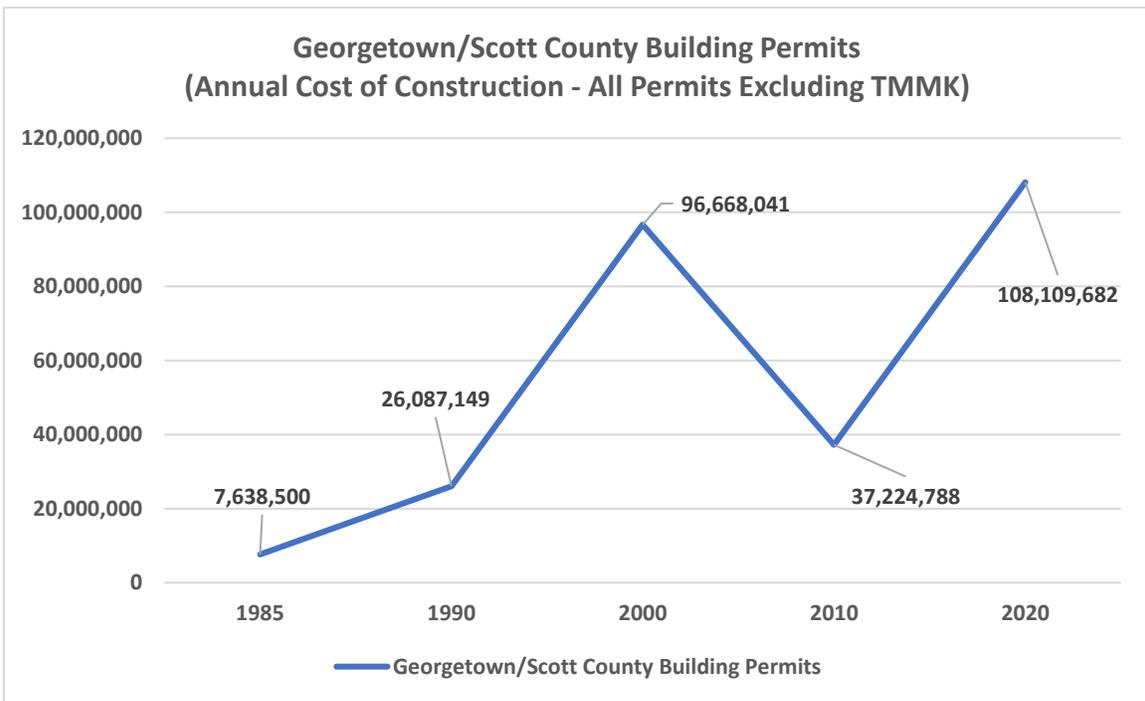
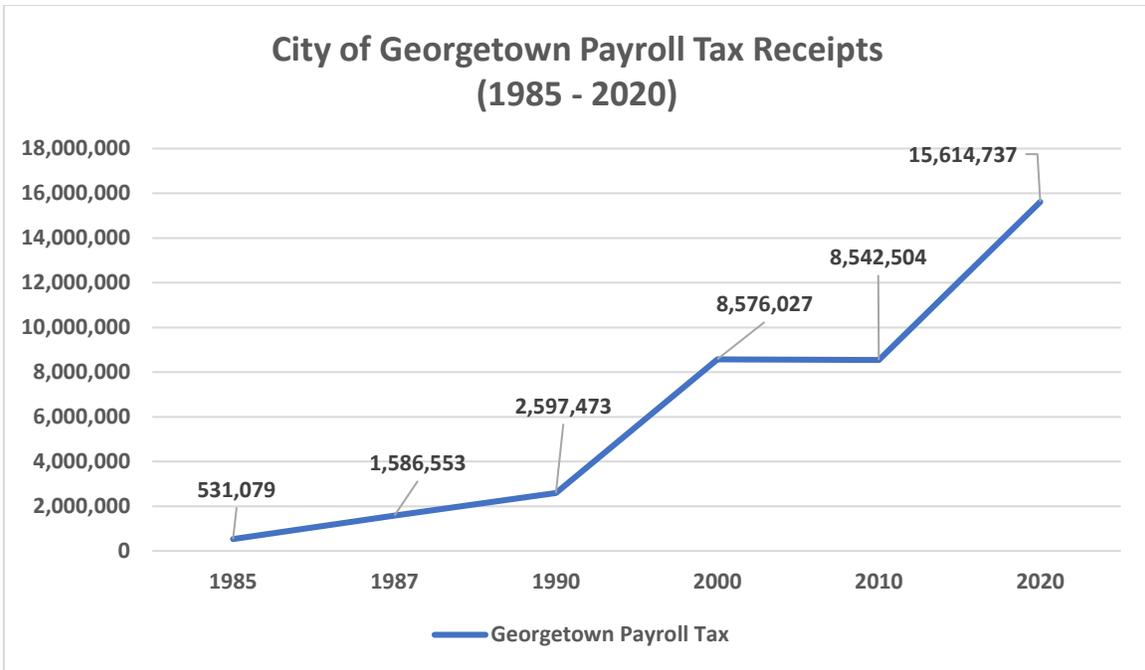
### Community Profile

Toyota’s impact on Georgetown and Scott County has been monumental, as the charts illustrating leading indicators show the changes over time, beginning with the change in population chart<sup>46</sup> which follows:



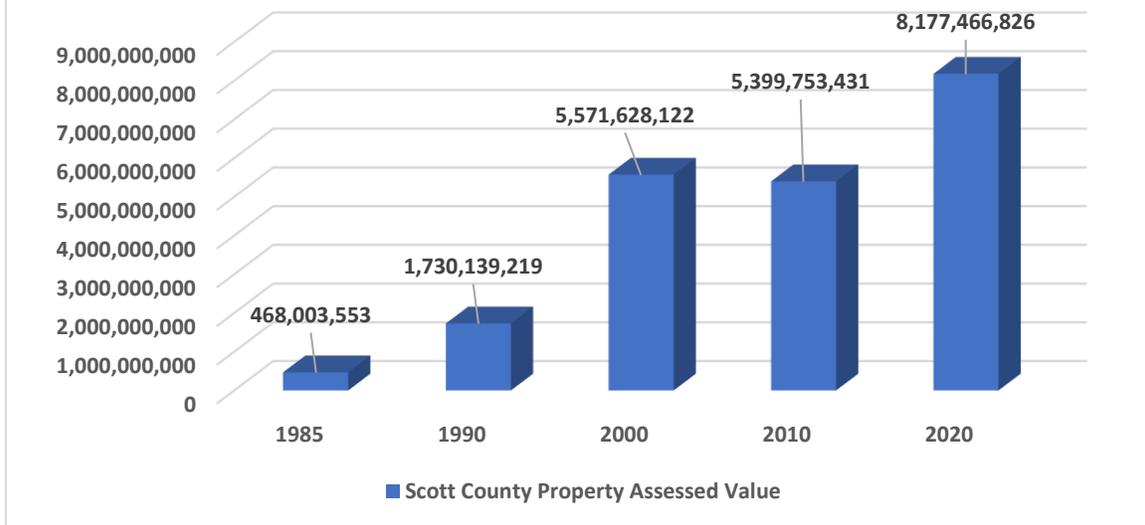
- Georgetown’s population rate of growth (1980 – 2020): + 238%
- Scott County’s population rate of growth (1980 – 2020): + 162%

<sup>46</sup> Source: U.S. Census Bureau



Source: Scott County United (above and below)

### Scott County Property Assessed Value Changes (1985 - 2000)



Average weekly wages are strong in Scott County, and typically exceed the state averages, as shown in the following chart:

Average Weekly Wages in Industry by Place of Work - 2020			
Industry	Scott County	Kentucky	
Contract Construction	\$1,128.00	\$1,093.00	
Manufacturing	1,716.00	1,166.00	
Transportation, Warehousing, Utilities	1,334.00	1,083.00	
Information/Communication	1,642.00	1,263.00	
Finance, Insurance, Real Estate	1,355.00	1,371.00	
Services	775.00	698.00	
Federal/State/Local Government	797.00	903.00	
Professional/Science/Technical	1,429.00	1,301.00	

Source: KY Stats/KY Workforce Development/KY Cabinet for Economic Development/Scott County United Fourth Quarter by NAICS Codes 2020

### Toyota’s Approach to Georgetown

- Upon arrival in the Georgetown community, Toyota was driven exclusively by Japanese culture: the company worked to "harmonize" with the community, not dominate it
- During the past 30 years, Toyota has worked to help diversify the community's economy, to shield it from severe ups and downs of the auto industry; such cycles are not as pronounced in Georgetown as they are in Michigan
- While Toyota strives to be a "good neighbor," the thought still exists in the minds of many that when it comes to community improvements, "Toyota will pay for it!"
  - This is not the company's approach, as it feels it is doing its part by providing millions in annual payroll (it does support various community initiatives at “appropriate” levels)

***To support future community growth, driven by the facility, Toyota agreed to be annexed by the City of Georgetown early on.***

### **General Comments**

Following are general comments shared by site visit meeting participants:

- Georgetown Police Department is short five officers; pay is an issue; previously officers received salary and health benefits which covered full families; families are no longer covered which has made it more difficult to recruit/retain new officers; city is now looking at this issue
- Georgetown needs a reset when it comes to how revenue is raised
- Property tax rate increases are constrained by the 4% revenue growth caps per state law
- Communities need to plan long-range for growth, revenue and expenditures
- Communities that receive a large economic development project, such as Toyota, need to "plan for life" after the incentive package runs out
- Community has dual occupational taxes; Scott County workers pay this tax once, while Georgetown workers' pay the Scott County occupational tax, along with the Georgetown occupational tax
- The existing school district does not include a technical training component
- City and county did not keep up with planning for growth; good people were involved; however, it also requires community will
- Communities should plan for the future by including capital budgeting for Quality-of-Life issues and other incremental improvements
- Georgetown and Scott County are impacted by Lexington and the surrounding area; a regional economic development strategy is under development

## Jurisdiction Demographics<sup>47</sup>/Comparisons

Community Factor	Georgetown	Elizabethtown	Scott County	Hardin County
<b>Population</b>	37,730	31,931	58,252	111,607
<b>Geography</b>				
Population/Sq. Mile	2,187.8	1,155.1	202.8	177.6
Land Area/Sq. Mile	16.95	27.18	281.7	623.4
<b>Population Demographics</b>				
<b>Age/Sex</b>				
Under 5 Years	7.5%	6.4%	6.2%	6.3%
Under 18 Years	25.7%	23.6%	24.6%	24.7%
65 Years and Over	10.0%	15.0%	12.7%	14.7%
Female	52.1%	51.9%	50.6%	49.9%
<b>Race</b>				
White	84.2%	76.9%	90.3%	80.4%
African American	6.2%	12.1%	5.6%	12.4%
Hispanic	6.3%	4.9%	4.6%	6.1%
<b>Housing</b>				
Housing Units	10,733	13,039	23,224	47,324
Owner-Occupied	63.0%	45.6%	72.3%	61.0%
Median Value/O-O	\$176,300	\$175,400	\$197,900	\$157,700
Median Gross Rent	\$940	\$765	\$934	\$811
Building Permits	N/A	N/A	591	353
<b>Computer/Internet Use</b>				
Homes with Computer	93.0%	87.0%	93.1%	91.2%
Homes with Internet	88.5%	76.1%	88.0%	80.1%
<b>Education</b>				
High School Graduate + Bachelor's Degree +	92.7%	92.2%	92.7%	91.7%
	29.6%	27.7%	30.4%	22.0%
<b>Transportation</b>				
Mean Trav. Time Work	20.1 Min.	20.2 Min.	21.8 Min.	22.3 Min
<b>Income &amp; Poverty</b>				
Med. HH Income	\$66,972	\$47,270	\$71,750	\$57,101
Per Capita Income	\$30,339	\$30,424	\$33,536	\$30,779
Persons in Poverty	12.1%	13.4%	8.0%	11.2%

<sup>47</sup> Source: U.S. Census Bureau; 2021 Statistics & Estimates

## Jurisdiction Governance, Operations & Miscellaneous/Comparisons

Community Factor	Georgetown	Elizabethtown	Scott County	Hardin County
<b>Population<sup>48</sup></b>	<b>37,730</b>	<b>31,931</b>	<b>58,252</b>	<b>111,607</b>
<b>Combined Statistical Area</b>	<b>Lexington – Richmond – Frankfort</b>	<b>Louisville – Elizabethtown – Ft. Knox</b>	<b>Lexington – Richmond – Frankfort</b>	<b>Louisville – Elizabethtown – Ft. Knox</b>
<b>Population</b>	749,512	1,512,785	749,512	1,512,785
<b>U.S. Rank</b>	71	38	71	38
<b>Metropolitan Statistical Area</b>	<b>Lexington – Fayette</b>	<b>Elizabethtown – Fort Knox</b>	<b>Lexington – Fayette</b>	<b>Elizabethtown – Fort Knox</b>
<b>Population</b>	517,846	156,766	517,846	156,766
<b>U.S. Rank</b>	109	271	109	271
<b>Government</b>				
<b>Governance</b>	<b>Mayor/Council</b>	<b>Mayor/Council</b>	<b>County Judge/Executive Fiscal Court</b>	<b>County Judge/Executive Fiscal Court</b>
	Eight councilmembers elected at-large	Six councilmembers elected at-large	Seven magistrates elected by district	Eight magistrates elected by district
	12 Boards & Commissions	11 Boards & Commissions		10 Boards & Commissions
<b>Annual Budget<sup>49</sup></b>	\$91.8 million	\$97.2 million	\$43.4 million <sup>50</sup>	\$55.3 million
<b>Key Revenue Sources</b>	General Fund: 43% Special Revenues: 52% Proprietary Funds: 5%	General Fund: 56% Special Revenues: 14% Utility Revenues: 10% Natural Gas Rev.: 20%	General Expenditures: 80% Road Expenditures: 10% Jail Expenditures: 10%	Federal Grants: 19% General Fund: 45% Jail Fund: 12% Misc. 5% Road Fund: 6% Sol. Waste Fund: 12% State Grants: 1%
	Some projects funded through reserves	Some projects funded through reserves		
<b>Planning/Zoning Dept.</b>	YES	YES	YES	YES
<b>Economic Development</b>	<b>Scott County United (SCU)</b> SCU leads community economic development; SCU operates from the Georgetown – Scott County Chamber of Commerce offices	<b>Elizabethtown – Hardin County Industrial Foundation (EHCIF)</b>  City has a business development department and partially funds EHCIF for industrial development.  Hardin County Chamber of Commerce also supports commercial growth	<b>Scott County United (SCU)</b> SCU leads community economic development; SCU operates from the Georgetown – Scott County Chamber of Commerce offices	
<b>Public Safety</b>				
<b>Public Safety – Fire<sup>51</sup></b>	<b>Georgetown Fire Dept.</b>	<b>Elizabethtown Fire Dept.</b>	<b>Scott County Fire Dept.</b>	
<b># Stations</b>	3	3	6 <sup>53</sup>	21 <sup>54</sup>
<b># Personnel</b>	59	54	51	N/A
<b>Apparatus<sup>52</sup></b>	6	11	18	81

<sup>48</sup> Source: U.S. Census Bureau; 2020 Census

<sup>49</sup> Proposed total expenditures FY 2022 – 2023: City of Georgetown; City of Elizabethtown; Hardin County Government

<sup>50</sup> Proposed expenditures FY 2021 – 2022

<sup>51</sup> Sources: various jurisdictions

<sup>52</sup> Source: KentuckyFireTrucks.com; Includes full time and reserve vehicles

<sup>53</sup> Includes Scott County, Stamping Ground, and Toyota departments

<sup>54</sup> Includes career departments (Fort Knox and Radcliff) and 12 volunteer fire departments

Community Factor	Georgetown	Elizabethtown	Scott County	Hardin County
<b>Public Safety – Police</b> <sup>55</sup>	<b>Georgetown Police Dept.</b>	<b>Elizabethtown Police Dept.</b>	<b>Scott County Sheriff</b>	<b>Hardin County Sheriff</b>
<b># Personnel</b>	62	76 <sup>56</sup>	N/A	60
<b># Sworn Officers</b>	57	54	N/A	35
<b>EMS System</b>			<b>Georgetown – Scott County Emergency Medical Services</b>	<b>Hardin County Emergency Medical Services</b>
<b># Stations</b>			3	3
<b># Ambulances</b>			9	14
<b># Personnel</b>			31	N/A
<b>Funding</b>			GSCEMS is managed by the County and is jointly funded by the City (\$3.1 million) and the County (amount N/A)	HCEMS' FY 2022 – 2023 budget totals \$7 million, which is funded primarily by EMS patient fees (\$6 million), with shortfall covered by County
<b>Health Care</b>				
<b>Hospital System</b>	<b>Georgetown Community Hospital (GCH);</b> 75-bed community hospital which is part of the LifePointe Health System  Facility provides healthcare in 18 specialty areas and employs 460 workers  No public funding required	<b>Baptist Health Hardin (BHH);</b> 300-bed regional hospital which serves 10 counties with 400,000 people  Facility employs 2,700 workers; 445 physicians; provides healthcare in 40 specialty areas with over 40 satellite locations;  Facility undergoing \$250 million expansion  No public funding required		
<b>Education</b>				
<b>Community College</b>	<b>Bluegrass Community &amp; Technical College (BCTC)</b>  Seven campuses including satellite campus located in Georgetown featuring 40 areas of study	<b>Elizabethtown Community &amp; Technical College (ECTC)</b>  Total enrollment: 7,773 <sup>57</sup> (ranks third in KY system);  Five campuses; 30 education/career programs		
<b>Colleges/Universities</b>	<b>Georgetown College</b>  Private liberal arts college	<b>Western KY University Elizabethtown/ Fort Knox</b>  ECTC main campus also houses WKU campus		

<sup>55</sup> Sources: various jurisdictions

<sup>56</sup> Source: *Kentucky Law Enforcement* magazine

<sup>57</sup> School Year 2020 - 2021

Community Factor	Georgetown	Elizabethtown	Scott County	Hardin County
<b>Local Schools</b>		<b>Elizabethtown Independent Schools</b>  2,473 students  One high school One middle school Two elementary schools	<b>Scott County Schools</b>  (Consolidated system)  9,440 students  Four high schools Three middle schools Nine elementary schools	<b>Hardin County Schools</b>  14,655 students  Five high schools Six middle schools Seven elementary schools
<b>Transportation</b>				
<b>Airport</b>	<b>Georgetown – Scott County Regional Airport (27K)</b>  General aviation airport 5,500-foot runway  Airport funded through user fees and with some support from the City and the County	<b>Elizabethtown Regional Airport at Addington Field (EKX)</b>  General aviation airport 6,000-foot runway ILS instrument approach  Airport funded through user fees and some support from the City	<b>Georgetown – Scott County Regional Airport (27K)</b>  General aviation airport 5,500-foot runway  Airport funded through user fees and with some support from the City and the County	
<b>Transit System</b>	<b>GTran</b>  Operates two routes on a deviated route system	<b>Transit Authority of Central Kentucky (TACK)</b>  On-demand system		<b>Transit Authority of Central Kentucky (TACK)</b>  On-demand system
<b>Miscellaneous</b>				
<b>Library System</b>			<b>Scott County Public Library</b>  One location  Established as an Authority with taxing privileges which funds operations, plus various fees  Governed by the Scott County Public Library Board of Trustees	<b>Hardin County Public Library</b>  One location  Funded by the County, plus various fees  Governed by the Hardin County Public Library Board of Trustees
<b>YMCA</b>	None	None	None	None

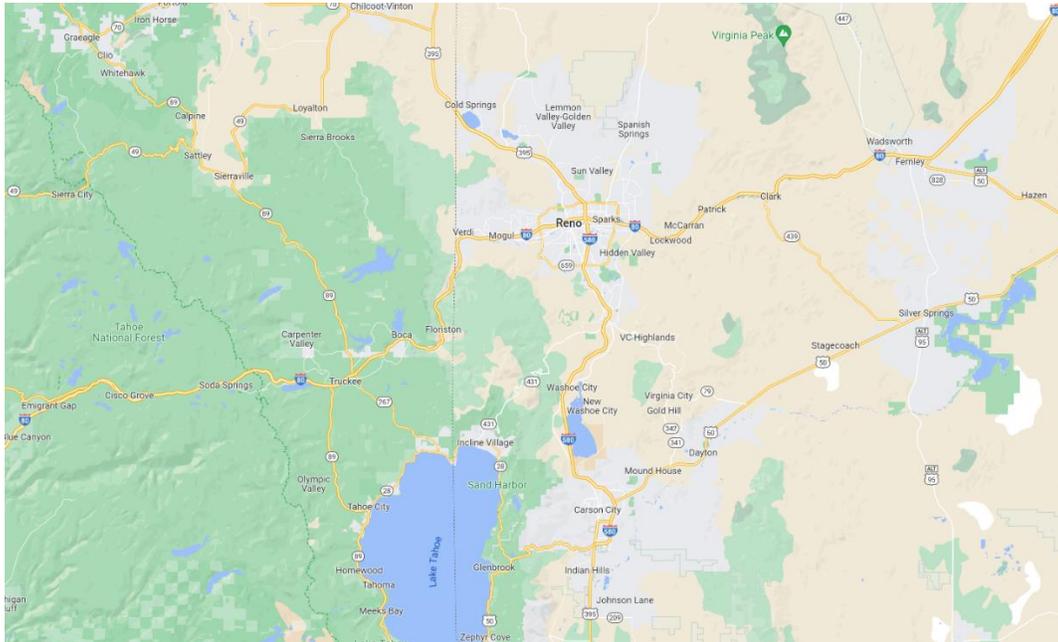
### Lessons Learned

Following are comments shared by site visit meeting participants regarding “lessons learned” from the growth brought by Toyota:

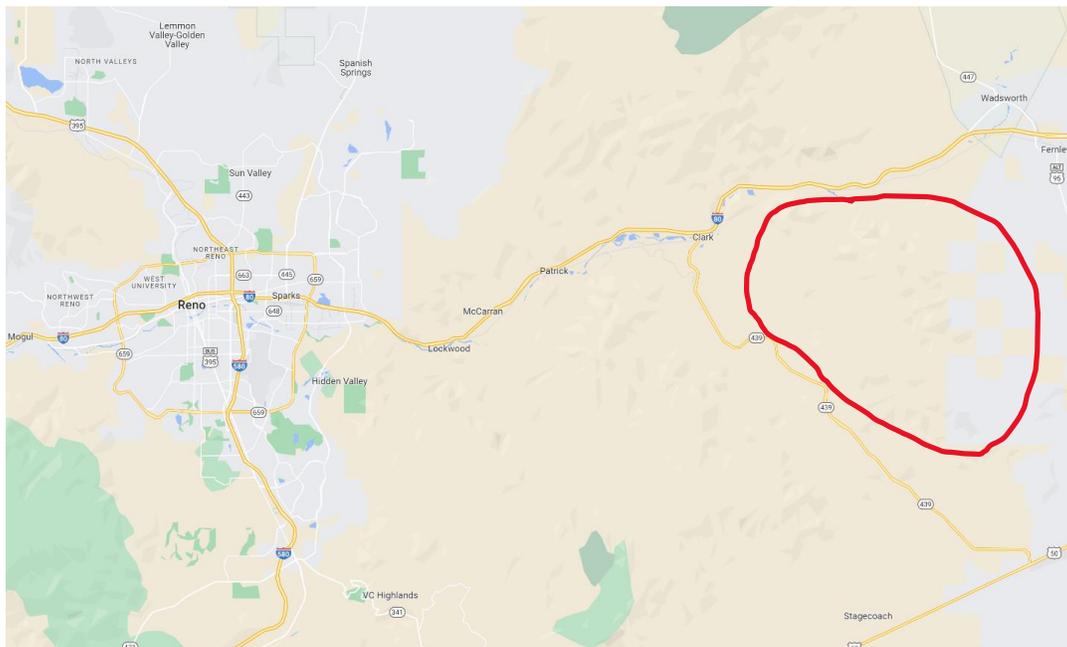
- Messaging to the community needed to be better
- Need good communication between city leaders and citizens
- 911 tax could/should be used to fund technology changes
- Communities can "live off of" occupational taxes and property taxes; net profits tax should be used to fund capital improvements
- Communities should institute zero-based budgeting
- Capital budget/tax is needed to pay for infrastructure improvements
- Set key performance goals for the community and monitor performance and communicate ongoing progress reports/results
- BlueOval SK needs to quickly designate someone to serve as the company's community leader while the plants are under construction and beyond; this person can be a well-respected Elizabethtown or Hardin County citizen...this person can serve as a bridge between the community and the companies and address issues as they arise

## Reno, Nevada

Reno is in Western Nevada, along the California border. The region is a major tourist destination, with Lake Tahoe, world-class ski areas, mountain activities, along with gaming. More recently, the Reno area has become known for its new high-tech industries, including the first electric vehicle battery plant, which was opened by Tesla.



The Tesla plant is located 23 miles east of downtown Reno in the Tahoe – Reno Industrial Center, an industrial park alongside I-80 which includes 30,000 acres of developable property.



**Tahoe – Reno Industrial Center Located in Area Circled in Red;  
Tesla Giga Nevada Plant is In the Center**

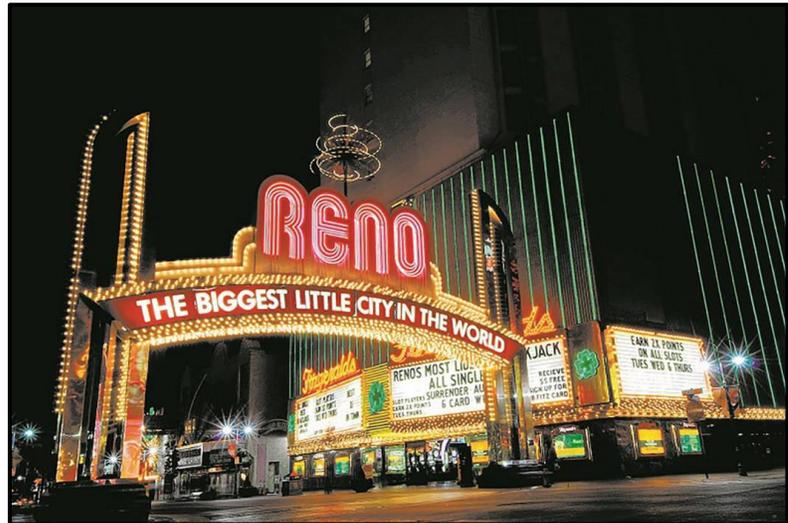
## Boomtown Economic Driver

Reno's growing economy is part of a defined shift to reduce the historical dependence on gaming. When the economy is strong, the gaming/tourism industry is strong; however, any significant downfalls can lead to severe unemployment in the gaming industry.

Reno is also experiencing a migration of residents from nearby California, who are fed up with long commutes to work, unaffordable housing, poor schools, and high taxes.

As part of its economic development strategy, Reno touts its high quality of life.

As such, the shift to high tech. Proximity to the Bay Area/Silicon Valley (approximate four-hour drive) and the dry high desert climate contribute to the region's success in recruiting high tech industry. Reno has good commercial air service to other high-tech hubs, including nonstop flights to Austin, Portland, San Jose, and Seattle.



Tesla Giga Nevada Plant, Storey County, NV (Phase One: 1.8 million Square Feet)

Source: Google Image

To more vertically integrate its business, Tesla decided to start building its own electric vehicle batteries. Tesla's Giga Nevada plant is the company's first and is a joint venture with Panasonic. The Reno location, which won out over several competing states, was driven by its proximity to Tesla's existing auto assembly plant in Fremont, California, the relative low cost of land and the arid climate.

## TESLA NEVADA GIGAFACTORY

In every key measurement, Tesla's actual investment, projected number of full-time workers, and payroll exceeded projections given prior to the execution of the incentive agreement with the State of Nevada.

Tesla has been the catalyst to recent growth across Western Nevada.

### Tesla By the Numbers

- Plant location: Tahoe – Reno Industrial Center (30,000-acre park)
- Plant footprint (Phase One): 1.8 million square feet
- Year construction started: 2014
- Plant opened: 2017
- Projected 2018 Number of Employees: 6,000<sup>58,59</sup>
- Projected Capital Investment: \$4.95 billion
- Projected Annual Payroll: \$353.6 million
- Actual 2020 Number of Employees: 7,805<sup>60</sup>
- Actual Capital Investment (2020): \$5.2 billion
- Actual Annual Payroll: \$572.2 million
- Projected Economic Benefit to Nevada: \$100 billion over 20 years<sup>61</sup>
- Projected Tax Base: \$1.9 billion over 20 years
- Job Multiplier Number: 2.84<sup>62</sup>

With respect to the incentive agreement originally negotiated with the State of Nevada, there is no question whatsoever that Tesla has exceeded all performance measurements.



Rendering – Tesla Gigafactory Nevada Fully Built Out  
Source: Google Image

<sup>58</sup> Source: Nevada Office of Economic Development *2018 Economic Impact of Tesla on Washoe and Storey Counties*

<sup>59</sup> Includes both Tesla and Panasonic workers, along with a smaller number of co-located supplier workers

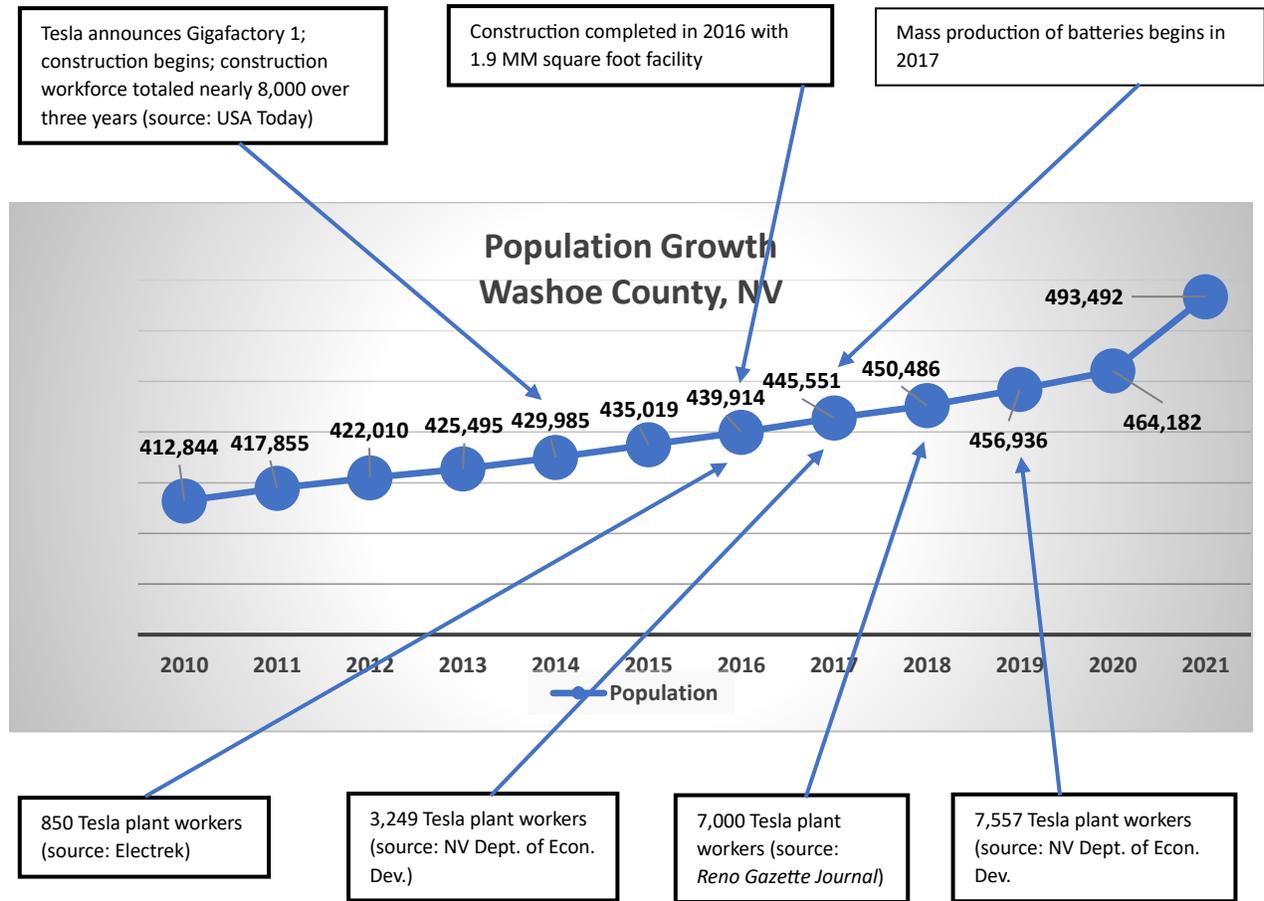
<sup>60</sup> Source: Nevada Office of Economic Development *Annual Report Projects with Capital Investments of \$3.5 Billion*

<sup>61</sup> Source: Former Governor Brian Sandoval

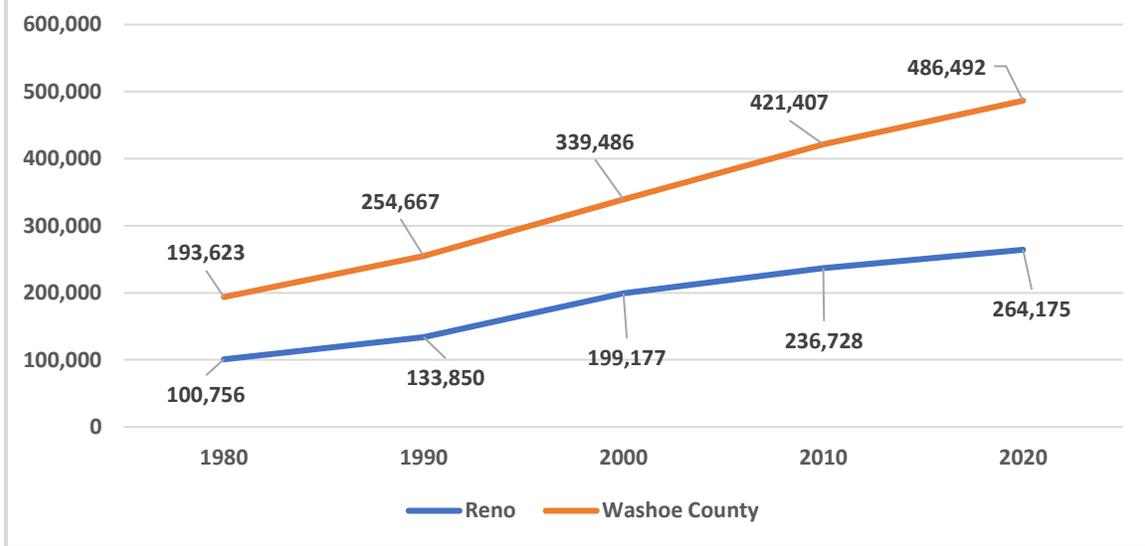
<sup>62</sup> Source: Economic Development Authority of Western Nevada

## Community Profile

There is no denying that Tesla’s investment in Reno has served as a catalyst for additional growth in the region.

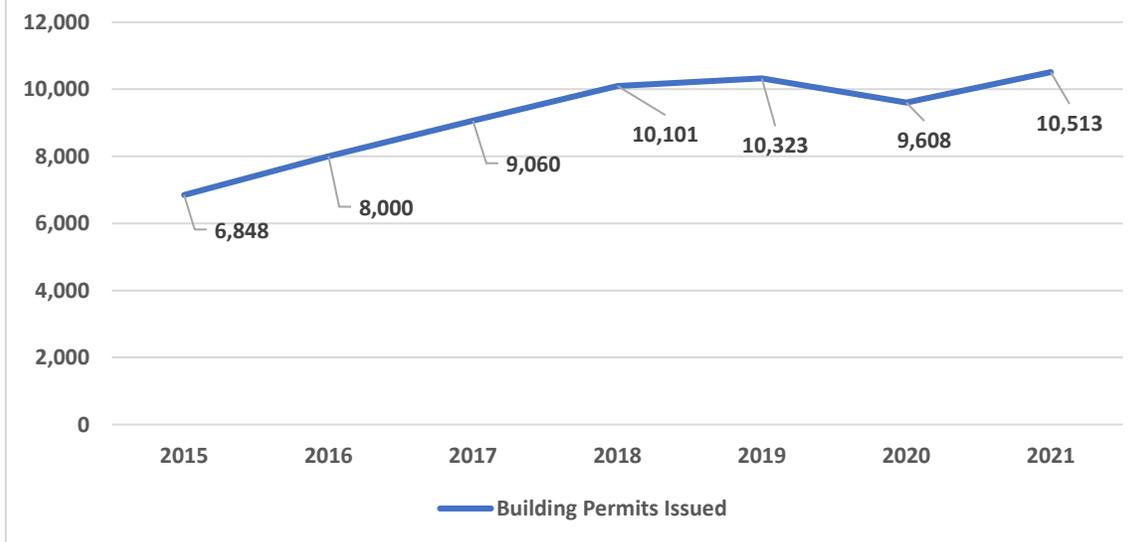


### Population Change - Reno/Washoe County, NV (1980 - 2020)

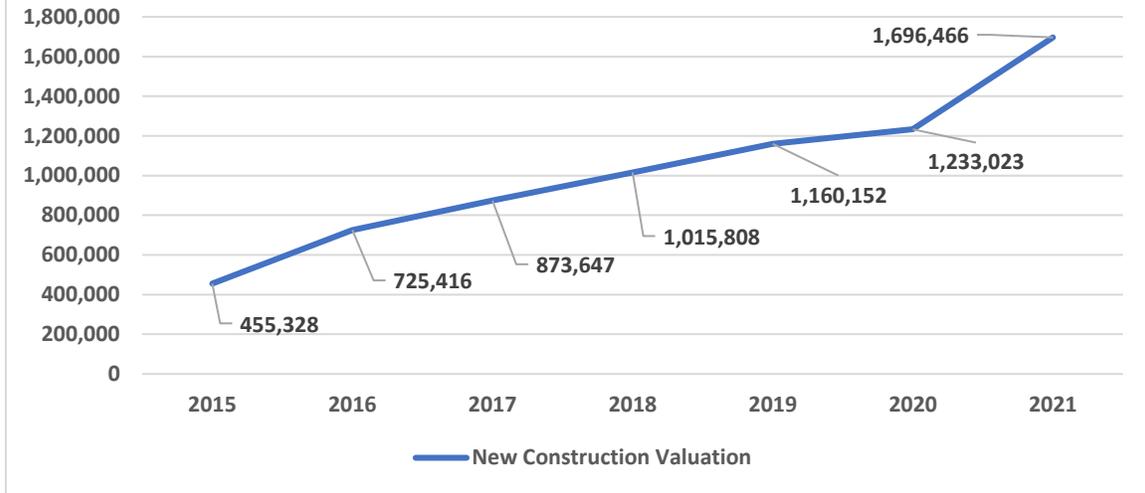


- Reno's rate of population growth (1980 – 2020): 162%
- Washoe County's population growth (1980 – 2020): 151%

### Building Permits Issued - City of Reno (2015 - 2021)



**New Construction Valuation - City of Reno  
(2015 - 2021)  
(In Thousands)**



## Jurisdiction /Demographics<sup>63</sup>/Comparisons

Community Factor	Reno	Elizabethtown	Washoe County	Hardin County
<b>Population</b>	268,851	31,931	493,392	111,607
<b>Geography</b>				
Population (Sq. Mile)	2,426	1,155.1	74	177.6
Land Area (Sq. Mile)	111.72	27.18	6,542	623.4
<b>Population Demographics</b>				
<b>Age/Sex</b>				
Under 5 Years	5.9%	6.4%	5.4%	6.3%
Under 18 Years	20.9%	23.6%	21.2%	24.7%
65 Years and Over	15.1%	15.0%	17.2%	14.7%
Female	49.6%	51.9%	49.3%	49.9%
<b>Race</b>				
White	60.3%	76.9%	60.9%	80.4%
African American	3.2%	12.1%	2.9%	12.4%
Hispanic	24.0%	4.9%	25.9%	6.1%
<b>Housing</b>				
Housing Units		13,039	212,930	47,324
Owner-Occupied	47.7%	45.6%	57.9%	61.0%
Median Value/O-O	\$361,100	\$175,400	\$360,500	\$157,700
Median Gross Rent	\$1,107	\$765	\$1,150	\$811
Building Permits		N/A	5,312	353
<b>Computer/Internet Use</b>				
Homes with Computer	93.6%	87.0%	94.5%	91.2%
Homes with Internet	85.4%	76.1%	87.2%	80.1%
<b>Education</b>				
High School Graduate + Bachelor's Degree +	89.9%	92.2%	88.9%	91.7%
	34.5%	27.7%	31.7%	22.0%
<b>Transportation</b>				
Mean Trav. Time Work	20.6 Min.	20.2 Min.	22.3 Min.	22.3 Min
<b>Income &amp; Poverty</b>				
Med. HH Income	\$61,860	\$47,270	68,272	\$57,101
Per Capita Income	\$36,358	\$30,424	37,689	\$30,779
Persons in Poverty	12.6%	13.4%	10.2%	11.2%

<sup>63</sup> Source: U.S. Census Bureau; 2021 Statistics & Estimates

## Jurisdiction Governance, Operations & Miscellaneous/Comparisons

Community Factor	Reno	Elizabethtown	Washoe County	Hardin County
<b>Population<sup>64</sup></b>	268,851	31,931	493,392	111,607
<b>Combined Statistical Area</b>	Reno – Carson City – Fernley	Louisville – Elizabethtown – Ft. Knox	Reno – Carson City – Fernley	Louisville – Elizabethtown – Ft. Knox
Population	667,301	1,512,785	667,301	1,512,785
U.S. Rank	76	38	76	38
<b>Metropolitan Statistical Area</b>	Reno	Elizabethtown – Fort Knox	Reno	Elizabethtown – Fort Knox
Population	497,535	156,766	497,535	156,766
U.S. Rank	114	271	114	271
<b>Government</b>				
<b>Governance</b>	Mayor/Council  Six councilmembers elected by district  26 Boards & Commissions	Mayor/Council  Six councilmembers elected at-large  11 Boards & Commissions	County Manager/ Board of Supervisors  Five commissioners elected by district  53 Boards & Commissions	County Judge/Executive Fiscal Court  Eight magistrates elected by district  10 Boards & Commissions
<b>Annual Budget<sup>65</sup></b>	\$660 million	\$97.2 million	\$1 billion	\$55.3 million
<b>Key Revenue Sources</b>	Services Charges: 25% Other Sources: 17% C Tax: 15% Property: 14%  Various Fees/Funds	General Fund: 56% Special Revenues: 14% Utility Revenues: 10% Natural Gas Rev.: 20%  Some projects funded through reserves	Property Taxes: 48% C Tax: 36%  Various fees/funds	Federal Grants: 19% General Fund: 45% Jail Fund: 12% Misc. 5% Road Fund: 6% Sol. Waste Fund: 12% State Grants: 1%
<b>Planning/Zoning Dept.</b>	YES	YES	YES	YES
<b>Economic Development</b>	<b>Economic Development Authority of Western Nevada (EDAWN)</b>  \$2.9 million annual budget (2021); funded by contributions; responsible for new business and industrial development	<b>Elizabethtown – Hardin County Industrial Foundation (EHCIF)</b>  City has a business development department and partially funds EHCIF for industrial development;  Hardin County Chamber of Commerce also supports commercial growth	<b>Economic Development Authority of Western Nevada (EDAWN)</b>  \$2.9 million annual budget (2021); funded by contributions; responsible for new business and industrial development	
<b>Public Safety</b>				
<b>Public Safety – Fire<sup>66</sup></b>	Reno Fire Dept.	Elizabethtown Fire Dept.	Truckee Meadows FD	
# Stations	14	3	11 <sup>68</sup>	21 <sup>69</sup>
# Personnel	297	54	N/A	N/A
Apparatus <sup>67</sup>	31	11	38	81

<sup>64</sup> Source: U.S. Census Bureau; 2020 Census

<sup>65</sup> Proposed total expenditures FY 2022 - 2023

<sup>66</sup> Sources: various jurisdictions

<sup>67</sup> Source: KentuckyFireTrucks.com; Includes full time and reserve vehicles

<sup>68</sup> Truckee Meadows Fire Department...covers all unincorporated Washoe County (6,000 square mile area); professional department

<sup>69</sup> Includes career departments (Fort Knox and Radcliff) and 12 volunteer fire departments

Community Factor	Reno	Elizabethtown	Washoe County	Hardin County
<b>Public Safety – Police</b> <sup>70</sup>	<b>Reno Police Dept.</b>	<b>Elizabethtown Police Dept.</b>	<b>Washoe County Sheriff</b>	<b>Hardin County Sheriff</b>
<b># Personnel</b>	431	76 <sup>71</sup>	781	60
<b># Sworn Officers</b>	339	54	365	35
			Sheriff's office also manages the county jail	
<b>EMS System</b>			<b>Regional Emergency Medical Services Authority (REMSA)</b>	<b>Hardin County Emergency Medical Services</b>
<b># Stations</b>			None <sup>72</sup>	3
<b># Ambulances</b>			42 ambulances/4 aircraft	14
<b># Personnel</b>			478 F/T & P/T	N/A
<b>Funding</b>			REMSA is the exclusive EMS services provider in Washoe County; REMSA provides ground and air-based services throughout the region; funding is provided solely through user fees with no tax subsidies or funding; oversight provided by Washoe County Health Department	HCEMS' FY 2022 – 2023 budget totals \$7 million, which is funded primarily by EMS patient fees (\$6 million), with shortfall covered by County
<b>Health Care</b>				

<sup>70</sup> Sources: various jurisdictions

<sup>71</sup> Source: *Kentucky Law Enforcement* magazine

<sup>72</sup> REMSA uses system status management deployment model; ambulances are deployed to various locations throughout Washoe County based on where people are at any given time; deployment locations are closer to employment centers during the day and residential areas during evenings; this system provides faster response times

Community Factor	Reno	Elizabethtown	Washoe County	Hardin County
<b>Hospital System</b>	<p><b>Northern Nevada Medical Center</b> (NNMC); 124-bed acute care hospital (operated by Universal Health Services); provides healthcare in 13 specialty areas</p> <p><b>Renown Health</b> 946-bed hospital system with 7,200 employees; provides all major areas of care over five hospitals and numerous outpatient facilities</p> <p><b>St. Mary's Health</b> 380-bed hospital offering 31 specialty areas of care; system has 10 provider locations and is owned by Prime Healthcare Services (Which operates 15 hospitals)</p>	<p><b>Baptist Health Hardin (BHH)</b>; 300-bed regional hospital which serves 10 counties with 400,000 people</p> <p>Facility employs 2,700 workers; 445 physicians; provides healthcare in 40 specialty areas with over 40 satellite locations;</p> <p>Facility undergoing \$250 million expansion</p> <p>No public funding required</p>		
<b>Education</b>				
<b>Community College</b>	<p><b>Truckee Meadows Community College (TMCC)</b></p> <p>Total enrollment: 13,000</p> <p>Five campuses; 50 education/career programs</p>	<p><b>Elizabethtown Community &amp; Technical College (ECTC)</b></p> <p>Total enrollment: 7,773<sup>73</sup> (ranks third in KY system);</p> <p>Five campuses; 30 education/career programs</p>		
<b>Colleges/Universities</b>	<p><b>University of Nevada/Reno</b></p> <p>Total enrollment: 21,453</p> <p>18 colleges offering multiple graduate degrees</p>	<p><b>Western KY University Elizabethtown/ Fort Knox</b></p> <p>ECTC main campus also houses WKU campus</p>		
<b>Local Schools</b>		<p><b>Elizabethtown Independent Schools</b></p> <p>2,473 students</p> <p>One high school One middle school Two elementary schools</p>	<p><b>Washoe County Schools District</b></p> <p>Consolidated system</p> <p>64,000 students</p> <p>17 high schools 17 middle schools 66 elementary schools</p>	<p><b>Hardin County Schools</b></p> <p>14,655 students</p> <p>Five high schools Six middle schools Seven elementary schools</p>

<sup>73</sup> School Year 2020 - 2021

Community Factor	Reno	Elizabethtown	Washoe County	Hardin County
<b>Transportation</b>				
<b>Airport</b>	<p><b>Reno – Tahoe International Airport (RNO)</b></p> <p>Commercial airport 11,000-foot runway ILS instrument approach</p> <p>Airport is self-funded through its Authority</p>	<p><b>Elizabethtown Regional Airport at Addington Field (EKK)</b></p> <p>General aviation airport 6,000-foot runway ILS instrument approach</p> <p>Airport funded through user fees and some support from the City</p>		
<b>Transit System</b>		<p><b>Transit Authority of Central Kentucky (TACK)</b></p> <p>On-demand system</p>	<p><b>Regional Transportation Commission of Washoe County (RTC)</b></p> <p>Operates multiple fixed-route intracity and intercity routes, along with on-demand services</p>	<p><b>Transit Authority of Central Kentucky (TACK)</b></p> <p>On-demand system</p>
<b>Miscellaneous</b>				
<b>Library System</b>			<p><b>Washoe County Library System</b></p> <p>10 locations</p> <p>Governed by the Washoe County Library Board of Trustees;</p> <p>\$10.3 million budget supported by county funds, plus various fees and grants</p>	<p><b>Hardin County Public Library</b></p> <p>One location</p> <p>Funded by the County, plus various fees</p> <p>Governed by the Hardin County Public Library Board of Trustees</p>
<b>YMCA</b>	YES – 3 locations	None	YES – 3 locations	None

### Lessons Learned

Mike Kazmierski, President & CEO of the Economic Development Authority of Western Nevada (EDAWN) provided considerable insight into growth issues, given that Reno has just gone through the initial growth phase of the Tesla plant, including:

- When first announced in 2015, Tesla’s footprint was expected to cover:
  - \$10 billion investment (when facility is fully built out)
  - 10 million square feet
  - 6,500 jobs (average wage of over \$25/hour)
  - \$100 billion economic impact over 20 years
- Current structure totals 1.8 million square feet (four levels); includes Tesla and Panasonic advanced manufacturing facilities
- The Tesla plant impacts a region extending 30 miles in all directions, but primarily 25 miles to the West in Reno and Washoe County (the Tahoe – Reno Industrial Center (TRIC) lies just over the Storey County line; Storey County, with the exception of TRIC, is very rural with desert, low rolling hills, and sagebrush; Storey

County in 2010 had a population of 4,010, which grew to 4,104 in 2020, which indicates that virtually all of the growth impact was targeted towards Washoe County)

- TRIC encompasses 107,000 acres and is the largest industrial park in the U.S. (30,000 acres are developable)
- TRIC has one access point along I-80 and is home to several distribution centers, fulfillment centers, along with Tesla and related Tesla suppliers; employment in TRIC totals 25,000 workers
- Traffic is a huge issue; although Reno has a transit system, it does not serve TRIC; Tesla contracts with a private company and charters 125 buses each day to bring workers to/from Reno
- Tenants in TRIC have staggered start times to alleviate some of the traffic tie-ups

- Mike Kazmierski strongly encouraged Elizabethtown and the Commonwealth of Kentucky to “get its arms around” traffic before the BlueOval SK facility opens...all options should be explored:
  - HOV lane on I-65
  - Development of a full-service transit system
  - Commuter rail to bring workers in from Louisville and other surrounding areas

- Tesla’s investment has led to numerous community “success” points, including:
  - Tesla has rebranded Reno
  - Attraction of advanced manufacturing is now easier
  - Job growth continues at the rate of 4% (10,000 new jobs per year)
  - Unemployment has declined from 14% to 4%
  - Easier to attract talent to the Reno region
  - Reinforced the city’s effort to attract technology clients
  - Increased average wages throughout the region

- Tesla created a job multiplier effect of 2.84 for each direct job created

## Challenges

- **Workforce Development & Attraction**
  - Cast a wide net – EDAWN is looking to Sacramento to find workers
  - Help/listen to legacy companies
  - Activate K-12/STEM and educate parents
  - Consider all industries including construction companies
  - Coordinate the effort across many agencies

- **Housing – Expedite & Encourage More Housing**

- Especially affordable housing for workforce
- This is a government problem
- Failure to act will cause many more problems

- **PR – Media**

- “Negatives” will be covered very well
- Positives – you may need professional help
- Target the entire state

- **Transportation**

- Hot spots develop quickly – major traffic congestion takes time to fix
- Start planning now for transit/HOV lanes

- **Time & Complacency is Your Enemy**

- This is a long-term challenge
- Key people and elected officials change
- Maintain a coordinated and committed effort

- **Cost of Everything is Going Up**

- Labor shortages = pay increases for everyone
- Housing shortages = rent/housing price increases
- Construction costs likely to increase

- **Business as Usual Mentality**

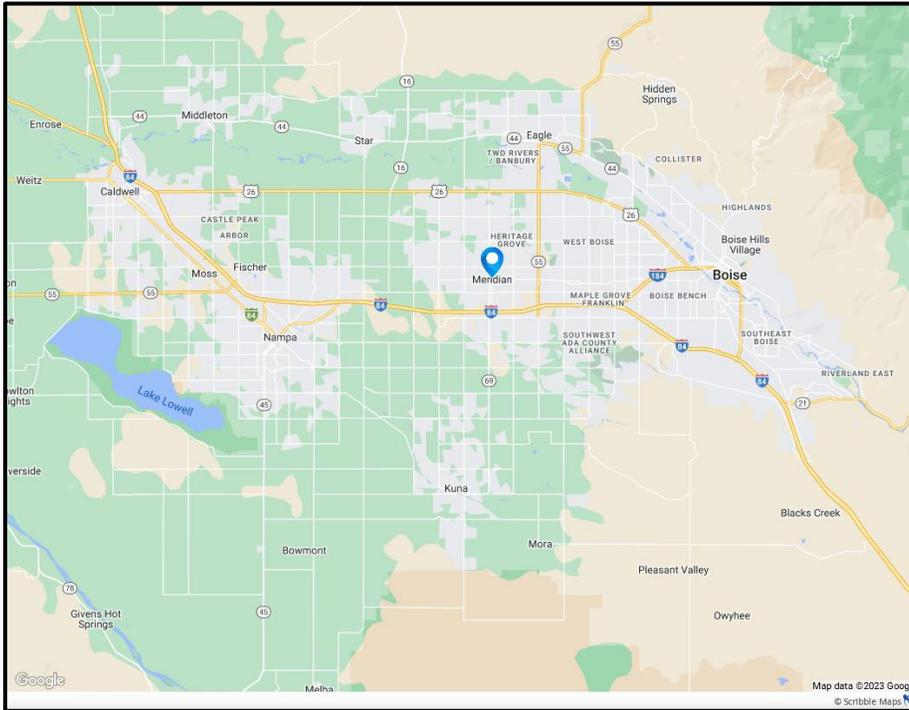
- Many will doubt what is coming...some are slow to believe
- This makes it hard to resolve issues and use resources

- **Cultural Differences – BlueOval SK and South Korea**

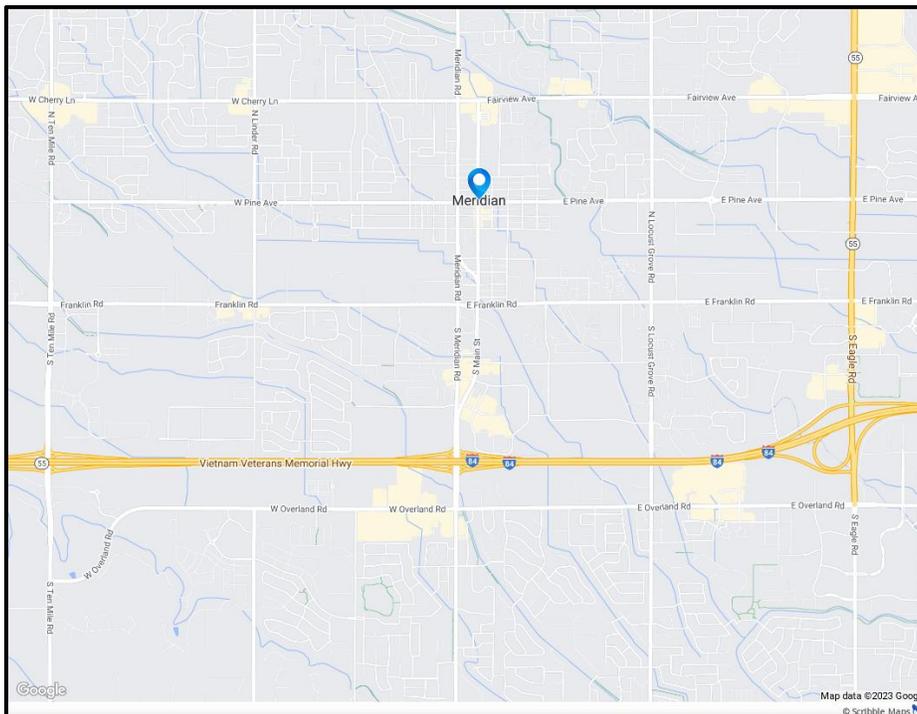
- Understand the differences
- Seek to develop a welcoming environment

## Meridian, Idaho

Meridian is in Southwest Idaho, just west of Boise, alongside Interstate 84.



Meridian has three exits along Interstate 84. Downtown Boise is 12 miles away. Meridian is in Ada County (largest in Idaho) which also includes the county seat city of Boise (largest in Idaho).



## Meridian Economic Drivers

Meridian's super-hot economy is driven by the following:

- High tech industry economic development investments by Micron Technology and Hewlett-Packard
- Significant migration of people from California



**Micron Technology Boise Campus**

Source: Google Image



**Boise HP Campus**

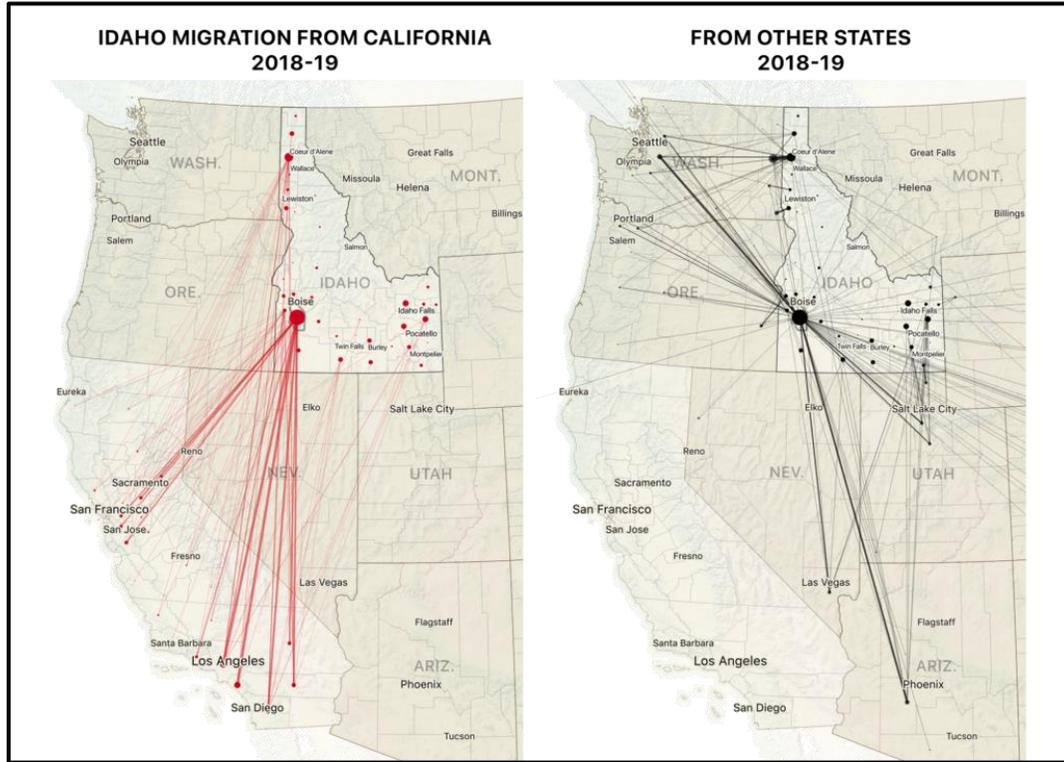
Source: Idaho Stateman

Micron Technology is a high-tech company headquartered in nearby Boise. The company manufactures digital storage units. The company employs over 5,000 workers at its Boise campus (corporate headquarters, major manufacturing site, along with research and development). Founded in 1978, the company has grown significantly which has contributed to much of the recent growth in Meridian. Micron Technology also operates a satellite facility in Meridian.

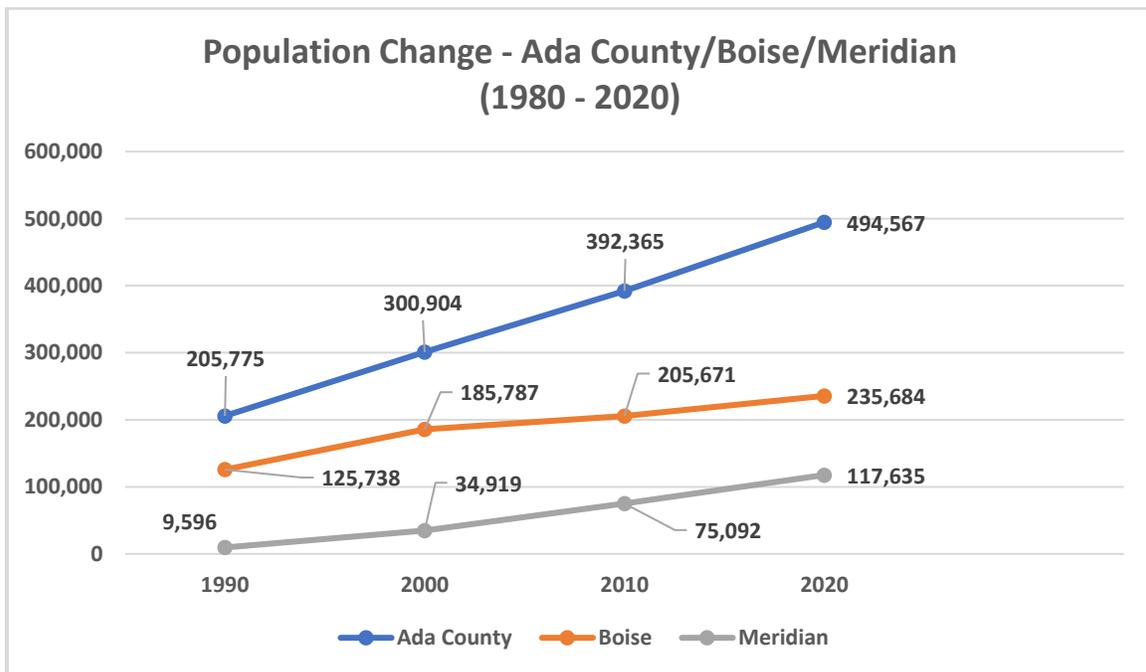
Hewlett Packard (HP) also has a large manufacturing presence in the Boise/Meridian area, which employs around 2,000 workers.

The real driver of growth in Meridian has been the migration of California residents relocating to the Boise/Meridian area. Idaho, one of the country's "most-Republican" states, is primarily drawing residents from California's more conservative areas: Orange County, Riverside County, and San Diego County, with others coming from Northern California, such as Placer County (between Sacramento and Reno). Californians are fleeing what has become a deteriorating quality of life, in terms of affordable housing, long commutes to work, crime, poor schools, etc. Conversely, Idaho's affordable high quality of life has become a magnet for Californians. The high rate of

migration is also driven by the COVID-19 pandemic and workers who are now working from home has produced astounding rates of growth:



Net Migration Pathways to Idaho  
 Source: Bill Lane Center for the American West/Stanford University



Population Rates of Growth (1980 – 2000): Ada County: 140.3%; Boise: 87.4%; Meridian: 1,125.8%

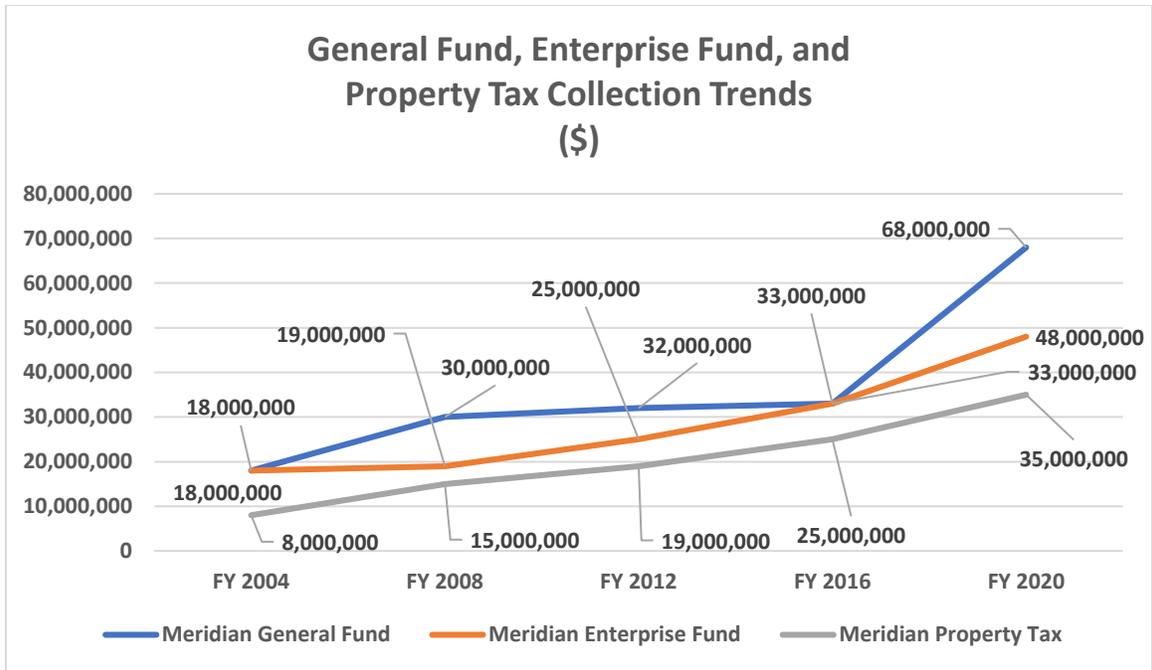


The Village Shopping Center Urban Lifestyle Center with Numerous Shops, Restaurants, and a Cinema  
 Source: Google Image

The City of Meridian has two primary sources of income: the General Fund and the Enterprise Fund. Revenue sources for each fund are shown in the chart below:

General Fund	Enterprise Fund
<p><b>Property Taxes</b></p> <p><b>Intergovernmental Fees</b></p> <ul style="list-style-type: none"> <li>• State Sales Tax Revenue Sharing</li> <li>• State Liquor Sales Revenue Sharing</li> <li>• Rural Fire Agreement</li> <li>• Grant Revenues</li> </ul> <p><b>Franchise Fees</b></p> <ul style="list-style-type: none"> <li>• Gas Services</li> <li>• Cable TV Services</li> <li>• Power/Electricity Services</li> </ul> <p><b>Licenses &amp; Permits</b></p> <ul style="list-style-type: none"> <li>• Community Building Permits</li> <li>• Dog Licenses</li> <li>• Alcoholic Permit Revenue</li> </ul> <p><b>Development Impact Fees</b></p> <ul style="list-style-type: none"> <li>• Fire Impact Fee Revenue</li> <li>• Parks Impact Fee Revenue</li> <li>• Police Impact Fee Revenue</li> </ul>	<p><b>Water Services</b></p> <ul style="list-style-type: none"> <li>• Water Utility Sales</li> <li>• Water Connection Revenue</li> <li>• Water Meter Sales</li> </ul> <p><b>Sewer Services</b></p> <ul style="list-style-type: none"> <li>• Sewer Utility Sales</li> <li>• Sewer Connection Revenue</li> </ul> <p><b>Other Revenue Services</b></p> <ul style="list-style-type: none"> <li>• Investment Interest Revenue</li> <li>• Trash Billing Services Revenue</li> <li>• Engineering Fees</li> </ul>

Three indicators of growth in Meridian can be found in the chart which follows: Total General Fund, Total Enterprise Fund, and Property Tax Collections.



Source: City of Meridian Website; Amounts Shown are Rounded



New Class A Office Building in Meridian (Located Along I-84)

Source: Google Image/Ten Mile Developers

#### General Comments

A group of Meridian community leaders were asked what they liked most about living in Meridian, along with what they liked the least about living in Meridian. The chart which follows provides a summary of the group's comments.

Most Like About Living in Meridian	Least Like About Living in Meridian
<ul style="list-style-type: none"> <li>• Great quality of life...you can ski and whitewater raft all in one day; skiing is 30 minutes away</li> <li>• Great natural areas close to the metro</li> <li>• 16 city parks</li> <li>• Family-friendly activities</li> <li>• Four seasons</li> <li>• City (and state) is business-friendly</li> <li>• Small businesses are the heartbeat of the city</li> <li>• Excellent schools</li> <li>• Low utility costs and reasonable tax rates</li> <li>• Politically conservative area</li> </ul>	<ul style="list-style-type: none"> <li>• Meridian (and the entire Treasure Valley) has become a heat island, with the temperature increase of 5 + degrees over the past five years</li> <li>• City's rate of growth is a challenge; planning should have started sooner</li> <li>• Ada County controls ALL road development plans for the entire county – including the cities</li> <li>• Overwhelming number of people are moving here</li> <li>• Lack of vision for growth</li> <li>• Some of the growth has occurred in non-priority areas – infrastructure is still catching up</li> <li>• State of Idaho has made it harder and harder for local governments/groups to plan and implement (less state funding to support growth)</li> <li>• Changing demographic dynamics of migrants (families vs. retirees)</li> <li>• Massive use of the regional Boise Trail System by residents has resulted in an increase in vandalism and graffiti</li> </ul>



**Union 93 Mixed Use Development Under Construction Downtown**  
 Source: Google Image/Jackson Main Architecture

- Housing prices have skyrocketed across the metro area...to maximize the value of the land, the City of Meridian has minimal height requirements for buildings proposed to be built in the downtown and commercial areas
- Today, the City relies on a Comprehensive Plan to drive and implement growth
- State legislature limits what cities can do to provide affordable housing as part of the overall mix
- Building material costs have impacted overall costs
- Rental rates have doubled
- Prior to the recession, 360 single-family homes were permitted each month by the City
- Now, permitting is one to one single-family vs. multi-family housing
- 20% of the current available housing stock is multi-family
- COVID pandemic pushed migration from California with the growth in “working from home”

## Jurisdiction /Demographics<sup>74</sup>/Comparisons

Community Factor	Meridian	Elizabethtown	Ada County	Hardin County
<b>Population</b>	125,963	31,931	511,931	111,607
<b>Geography</b>				
Population (Sq. Mile)	3,353.3	1,155.1	470.5	177.6
Land Area (Sq. Mile)	35.08	27.18	1,052.01	623.4
<b>Population Demographics</b>				
<b>Age/Sex</b>				
Under 5 Years	6.8%	6.4%	5.1%	6.3%
Under 18 Years	28.2%	23.6%	28.2%	24.7%
65 Years and Over	12.4%	15.0%	15.6%	14.7%
Female	50.3%	51.9%	49.7%	49.9%
<b>Race</b>				
White	89.5%	76.9%	91.7%	80.4%
African American	1.0%	12.1%	1.3%	12.4%
Hispanic	8.0%	4.9%	9.1%	6.1%
<b>Housing</b>				
Housing Units	N/A	13,039	204,585	47,324
Owner-Occupied	76.8%	45.6%	70.2%	61.0%
Median Value/O-O	\$304,500	\$175,400	\$298,600	\$157,700
Median Gross Rent	\$1,200	\$765	\$1,062	\$811
Building Permits	N/A	N/A	7,487	353
<b>Computer/Internet Use</b>				
Homes with Computer	96.0%	87.0%	94.7%	91.2%
Homes with Internet	91.4%	76.1%	88.0%	80.1%
<b>Education</b>				
High School Graduate + Bachelor's Degree +	96.4%	92.2%	95.3%	91.7%
	41.1%	27.7%	40.1%	22.0%
<b>Transportation</b>				
Mean Trav. Time Work	22.6 Min.	20.2 Min.	20.9 Min.	22.3 Min
<b>Income &amp; Poverty</b>				
Med. HH Income	\$76,403	\$47,270	\$69,952	\$57,101
Per Capita Income	\$36,614	\$30,424	\$37,333	\$30,779
Persons in Poverty	6.5%	13.4%	7.7%	11.2%

<sup>74</sup> Source: U.S. Census Bureau; 2021 Statistics & Estimates

## Jurisdiction Governance, Operations & Miscellaneous/Comparisons

Community Factor	Meridian	Elizabethtown	Ada County	Hardin County
<b>Population<sup>75</sup></b>	<b>117,635</b>	<b>31,931</b>	<b>494,567</b>	<b>111,607</b>
<b>Combined Statistical Area</b>	<b>Boise – Mountain Home – Ontario</b>	<b>Louisville – Elizabethtown – Ft. Knox</b>	<b>Boise – Mountain Home – Ontario</b>	<b>Louisville – Elizabethtown – Ft. Knox</b>
<b>Population</b>	882,138	1,512,785	882,138	1,512,785
<b>U.S. Rank</b>	65	38	65	38
<b>Metropolitan Statistical Area</b>	<b>Boise</b>	<b>Elizabethtown – Fort Knox</b>	<b>Boise</b>	<b>Elizabethtown – Fort Knox</b>
<b>Population</b>	795,268	156,766	795,268	156,766
<b>U.S. Rank</b>	75	271	75	271
<b>Government</b>				
<b>Governance</b>	Mayor/Council  Six councilmembers elected at large but changing to districts in 2023  7 Boards & Commissions	Mayor/Council  Six councilmembers elected at-large  11 Boards & Commissions	Chief Operating Officer/ Board of Commissioners  Three commissioners elected by district  12 Boards & Commissions	County Judge/Executive Fiscal Court  Eight magistrates elected by district  10 Boards & Commissions
<b>Annual Budget<sup>76</sup></b>	\$136 million	\$97.2 million	\$342 million	\$55.3 million
<b>Key Revenue Sources</b>	General Fund: 63.5% (Property Taxes/Fees/Impact Fees) Enterprise Fund: 36.5% (Utility Revenues)	General Fund: 56% Special Revenues: 14% Utility Revenues: 10% Natural Gas Rev.: 20%  Some projects funded through reserves	General Fund: <sup>77</sup> 86%  Self-Supporting: <sup>78</sup> 14%	Federal Grants: 19% General Fund: 45% Jail Fund: 12% Misc. 5% Road Fund: 6% Sol. Waste Fund: 12% State Grants: 1%
<b>Planning/Zoning Dept.</b>	YES	YES	YES	YES
<b>Economic Development</b>	<b>Meridian Development Corporation</b> (Responsible for Downtown Development)  City also has an economic development department for business development	<b>Elizabethtown – Hardin County Industrial Foundation (EHCIF)</b>  City has a development department and partially funds EHCIF for industrial development;  Hardin County Chamber of Commerce also supports commercial growth		<b>Hardin County Planning Commission</b>  County planning commission and staff review development plans for unincorporated parts of Hardin County and provide permits
<b>Public Safety</b>				
<b>Public Safety – Fire<sup>79</sup></b>	<b>Meridian Fire Dept.</b>	<b>Elizabethtown Fire Dept.</b>		
<b># Stations</b>	6	3		21 <sup>81</sup>
<b># Personnel</b>	125	54		N/A
<b>Apparatus<sup>80</sup></b>	N/A	11		81

<sup>75</sup> Source: U.S. Census Bureau; 2020 Census

<sup>76</sup> Proposed total expenditures FY 2022 - 2023

<sup>77</sup> Supported by various taxes, including property taxes, special levy and special districts

<sup>78</sup> Supported by various fees such as special revenue and business taxes/fees

<sup>79</sup> Sources: various jurisdictions

<sup>80</sup> Source: KentuckyFireTrucks.com; Includes full time and reserve vehicles

<sup>81</sup> Includes career departments (Fort Knox and Radcliff) and 12 volunteer fire departments

Community Factor	Meridian	Elizabethtown	Ada County	Hardin County
<b>Public Safety – Police <sup>82</sup></b>	<b>Meridian Police Department</b>	<b>Elizabethtown Police Dept.</b>	<b>Ada County Sheriff</b>	<b>Hardin County Sheriff</b>
<b># Personnel</b>	43	28 <sup>83</sup>	800	60
<b># Sworn Officers</b>	143	54	400	35
			Department also manages the Ada County Jail	
<b>EMS System</b>			<b>Ada County Paramedics</b>	<b>Hardin County Emergency Medical Services</b>
<b># Stations</b>			14	3
<b># Ambulances</b>			28	14
<b># Personnel</b>			147	N/A
<b>Funding</b>			ACP is a property-based ambulance taxing district which provides 30% of the annual operating budget, with the balance made up with ambulance fees and annual membership called Vital Ride  ACP covers all of Ada County and works in partnership with five area fire departments (including Meridian Fire)	HCEMS' FY 2022 – 2023 budget totals \$7 million, which is funded primarily by EMS patient fees (\$6 million), with shortfall covered by County
<b>Health Care</b>				
<b>Hospital System</b>	<b>St. Luke's Meridian</b> (Part of the St. Luke's Health System; eight hospitals with 1,008 beds and other outpatient facilities) Meridian hospital statistics:  Opened: 2001 # Beds: 174 2022 Admissions: 9,048 2022 ER Visits: 54,721 2022 Outpatient Visits: 199,309 2022 Surgeries: 8,771 2022 Newborns: 873  No public funding required	<b>Baptist Health Hardin (BHH)</b> ; 300-bed regional hospital which serves 10 counties with 400,000 people  Facility employs 2,700 workers; 445 physicians; provides healthcare in 40 specialty areas with over 40 satellite locations;  Facility undergoing \$250 million expansion  No public funding required	<b>St. Alphonsus</b> (Part of the Trinity Health System; 381 beds; the only Level II Trauma Center in the region with 25 specialty areas of treatment); 252 locations in Idaho and Oregon  <b>St. Luke's Boise</b> (Part of the St. Luke's Health System; eight hospitals with 1,008 beds and other outpatient facilities) Boise hospital statistics:  # Beds: 437 All major specialties  No public funding required	

<sup>82</sup> Sources: various jurisdictions

<sup>83</sup> Source: *Kentucky Law Enforcement* magazine

Community Factor	Meridian	Elizabethtown	Ada County	Hardin County
<b>Education</b>				
<b>Community College</b>		<b>Elizabethtown Community &amp; Technical College (ECTC)</b>  Total enrollment: 7,773 <sup>84</sup> (ranks third in KY system);  Five campuses; 30 education/career programs	<b>College of Western Idaho</b>  One of two comprehensive community colleges systems in Idaho; serves Ada and Canyon counties  Total enrollment: 20,561  Four campuses in nearby Boise and Nampa; six schools with 27 majors	
<b>Colleges/Universities</b>		<b>Western KY University Elizabethtown/ Fort Knox</b>  ECTC main campus also houses WKU campus	Following institutions have campuses in nearby Boise:  <b>Boise State University</b>  Enrollment: 24,103 100 graduate programs  <b>Idaho State University</b> and the <b>University of Idaho</b> maintain satellite campuses in Boise	
<b>Local Schools</b>	<b>West Ada School District</b>  Serves West Ada County, including Meridian, West Boise and Eagle (largest school district in Idaho)  36,140 students  11 high schools 11 middle schools 34 elementary schools	<b>Elizabethtown Independent Schools</b>  2,473 students  One high school One middle school Two elementary schools	<b>Boise School District</b>  26,000 students  Four high schools Eight middle schools 32 elementary schools  <b>Kuna Joint Sch. Dist. 3</b>  <b>Melba Sch. Dist. 136</b>  <b>West Ada School Dist.</b>  36,140 students  11 high schools 11 middle schools 34 elementary schools	<b>Hardin County Schools</b>  14,655 students  Five high schools Six middle schools Seven elementary schools
<b>Transportation</b>				
<b>Airport</b>		<b>Elizabethtown Regional Airport at Addington Field (EKX)</b>  General aviation airport 6,000-foot runway ILS instrument approach  Airport funded through user fees and some support from the City	<b>Boise Air Terminal (BOI)</b>  Commercial airport in nearby Boise; 10,000-foot runway; ILS instrument approach  Operated by the city	

<sup>84</sup> School Year 2020 - 2021

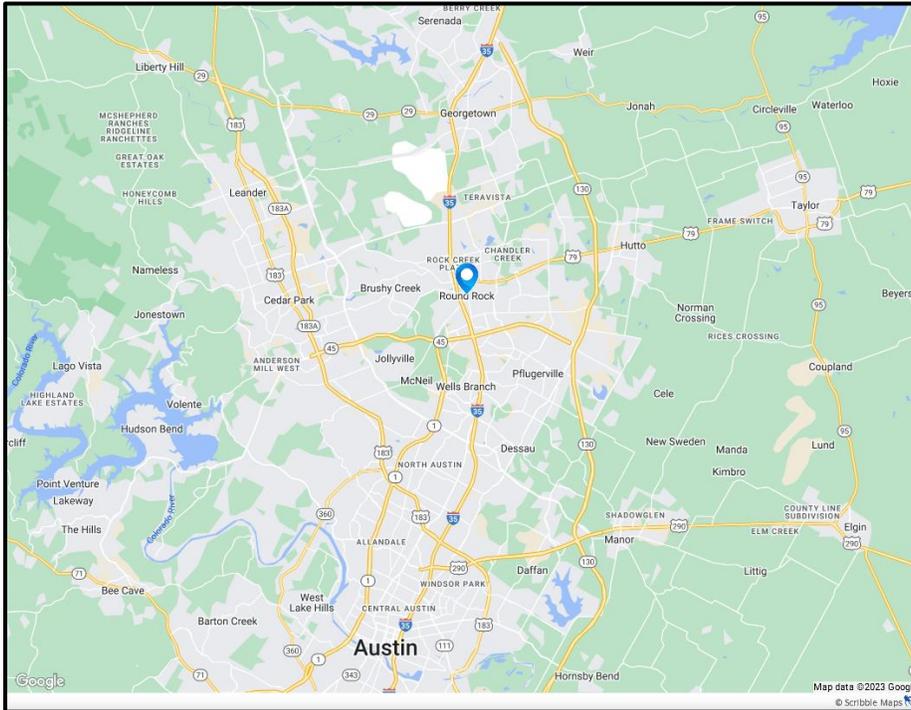
Community Factor	Meridian	Elizabethtown	Ada County	Hardin County
<b>Transit System</b>	<b>Valley Regional Transit</b>  Regional mass transit fixed route/on-demand system which serves the cities of Boise, Meridian, Nampa and Ada County	<b>Transit Authority of Central Kentucky (TACK)</b>  On-demand system	<b>Valley Regional Transit</b>  Regional mass transit fixed route/on-demand system which serves the cities of Boise, Meridian, Nampa and Ada County	<b>Transit Authority of Central Kentucky (TACK)</b>  On-demand system
<b>Miscellaneous</b>				
<b>Library System</b>	<b>Meridian Library District</b>  Four locations  Funded by property taxes administered by the Meridian Free Library District (approved by the voters in 1974)  Annual budget: \$6.9 million			<b>Hardin County Public Library</b>  One location  Funded by the County, plus various fees  Governed by the Hardin County Public Library Board of Trustees
<b>YMCA</b>	<b>Treasure Valley YMCA</b>  Six locations with two in Meridian	None	<b>Treasure Valley YMCA</b>  Six locations with two in Meridian	None

### Lessons Learned

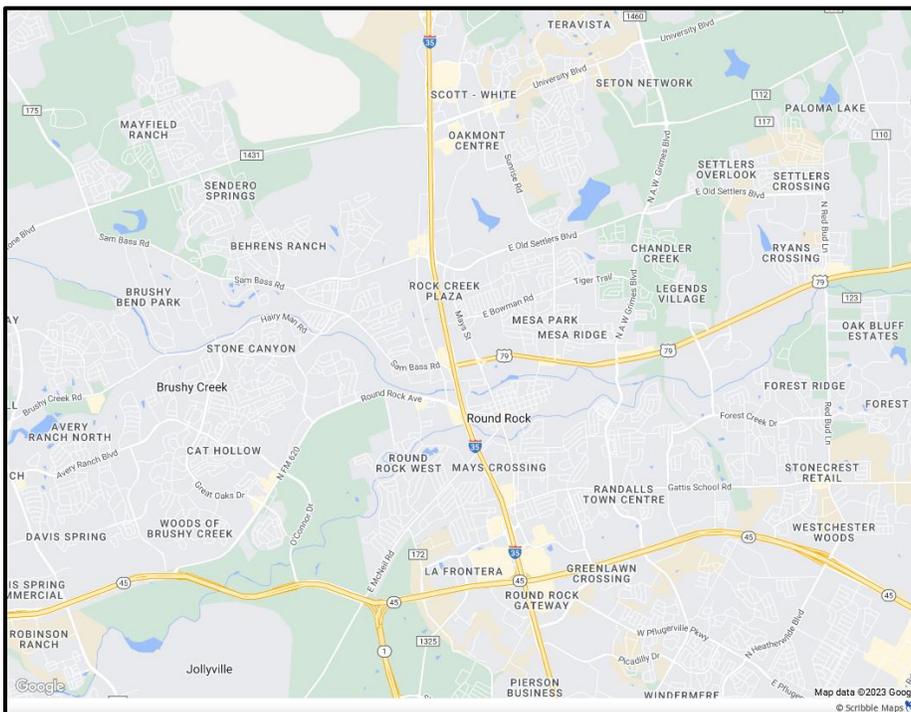
- As the I-84 freeway was expanded across the Valley, including through and around Meridian, **frontage roads should have been added on both sides** to accommodate growth along the interstate corridor
- Development of the Eagle Road commercial corridor was poorly managed
- City (and residents) need to have a realistic vision and understanding of what is coming (e.g., better messaging and communication)
- Invest in infrastructure early
- Invest in amenities such as parks and libraries
- An interurban rail line should have been developed to connect the cities in the Valley to work, education, and medical facilities to reduce traffic
- Understand and manage the competition which will arise when you have two primary retail areas (downtown and Meridian's village shopping areas)

## Round Rock, Texas

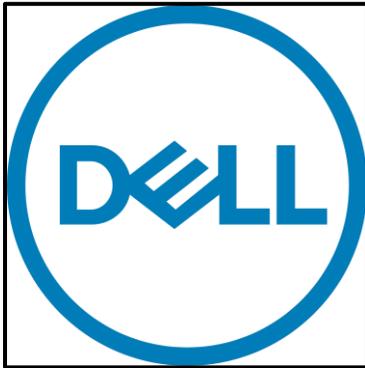
Round Rock is in Central Texas, just north of Austin alongside Interstate 35.



Round Rock has eight exits along Interstate 35. Downtown Austin is 19 miles away.



Round Rock is a fast-growing city located in Central Texas. Round Rock is located 19 miles north of the capital city of Austin. For years, Round Rock, located in Williamson County (Austin is in Travis County) served as a small bedroom community to Austin.

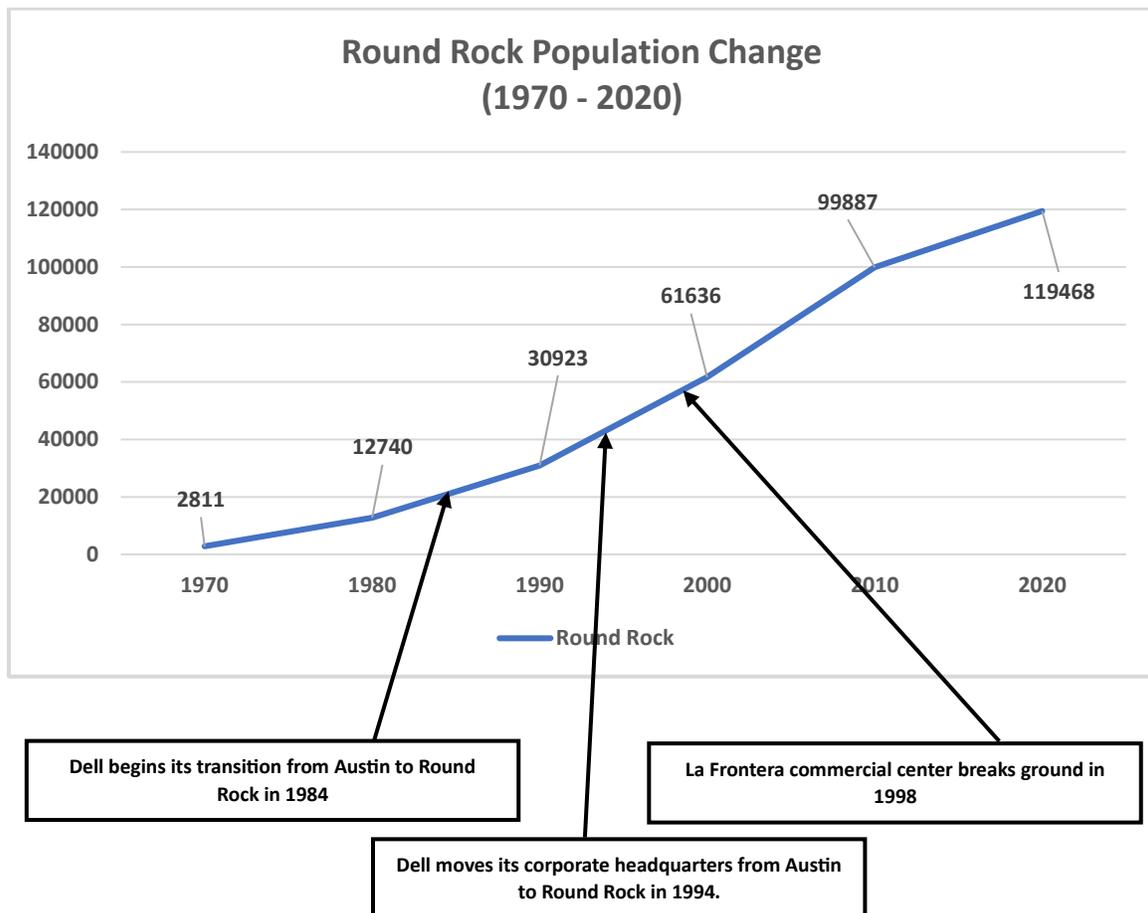


Then, in 1984, everything began to change. Dell Technologies started growing and moving its operations from Austin to Round Rock. Corporate headquarters moved from Austin to Round Rock in 1994.

What started out as a vision on the part of first-year University of Texas student Michael Dell evolved into one of the world's largest technology companies. Michael Dell dropped out of college after his freshman year to focus full time on his vision for computing.

Michael Dell's initial personal investment of \$1,000 to start PCs Unlimited in 1984 has grown to today's Dell Technologies, with 2022 annual revenue of \$101 billion and a market capitalization of \$33.69 billion. Dell Technologies today operates on a global scale and is one of the largest providers of personal computers in the world.

Today, Dell Technologies' corporate offices, key manufacturing and sales centers are in Round Rock. The impact on the city has been enormous. The company today employs 16,000 workers at its various Round Rock facilities.





**Dell Technologies Corporate Headquarters – Round Rock**  
Source: Google Image

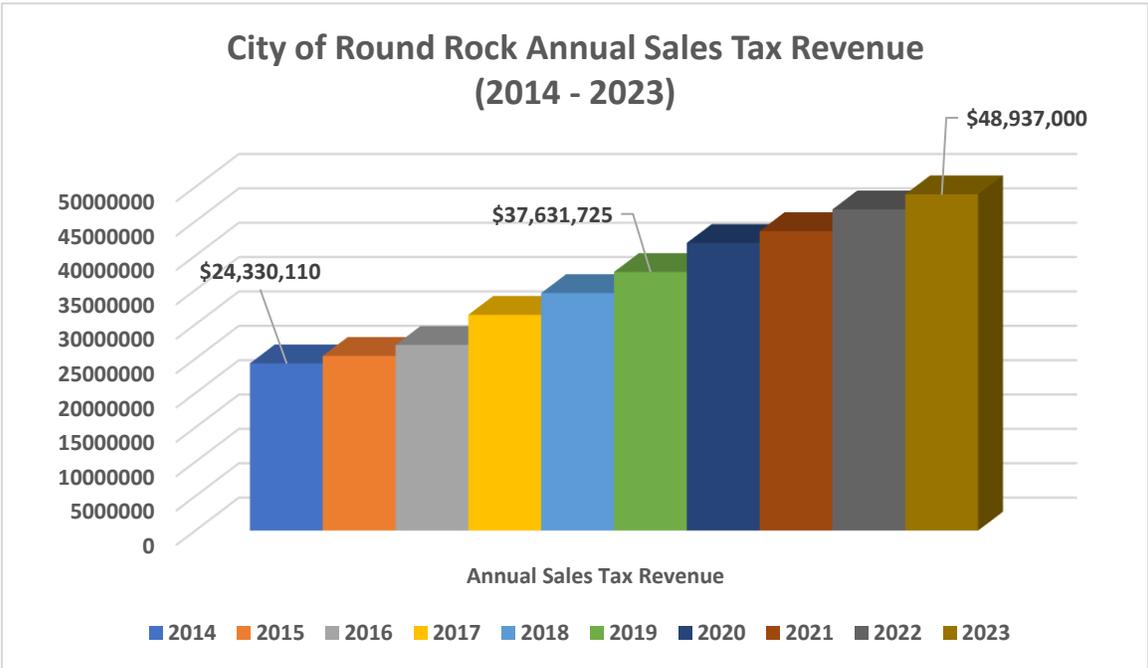
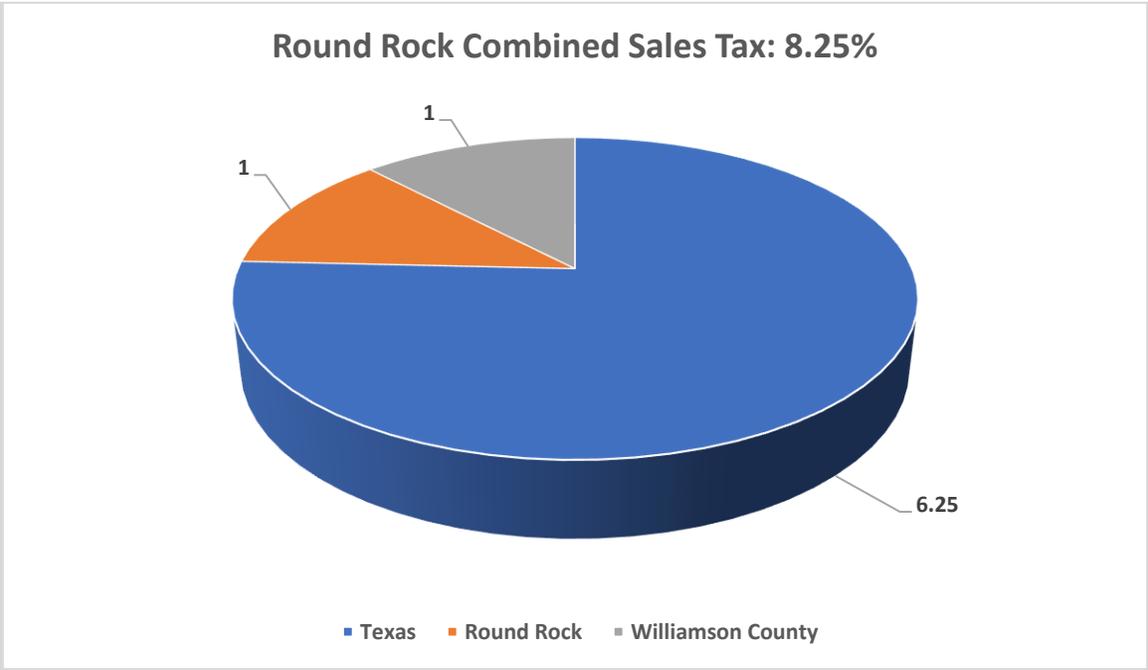


**Additional Dell Technologies Facility – Round Rock**  
Source: KVUE-TV

Over the years, Dell's growth in Round Rock was exponential. As the company grew, so did the city and the need for services. By 1988, significant growth was underway, and the city needed to find a funding solution that would help to pay for investments in infrastructure. By leveraging Dell's direct sales to customers function – based in Round Rock – the city asked voters in 1988 to agree to implementing a half cent sales tax.

By doing this, the city would receive tax proceeds from every Dell sales transaction. To sell this to the voters, the city agreed to offset the new sales tax with a corresponding decrease in the property tax rate. Voters approved the new tax, and the city found its funding source.

At present, the combined sales tax is 8.25%, and is broken down as follows:



The city's share of the sales tax is further divided as follows: 0.50 of the proceeds goes towards a reduction in the city's property tax, while the remaining 0.50 is dedicated towards transportation and economic development projects.

Early on, the city also decided that as Dell continued to grow it did not want to become a Dell “company town,” and it decided to begin efforts to diversify its economy. As such, the city began to focus on commercial development, hotels and conventions.



La Frontera Apartment Complex  
Source: Google Image



Austin Marriott North Hotel (located in Round Rock)  
Source: Google Image

One such development is La Frontera, which is located on the city’s southside. This complex includes hotels, apartments, shopping and restaurants (over one million square feet of development).

To manage the growth, the city has continuously annexed land to expand the city’s boundaries. Under Texas law, cities are allowed to annex land and can also serve unincorporated areas with water and sewer and annex the unincorporated land later.

Round Rock also has an impact fee system, which requires payment by developers for connecting to the city’s utility system. The rationale behind the impact fee system is that existing citizens should not have to pay for utility expansion due to growth and development – the developers (and their customers) should bear this cost.

Round Rock has 10 Municipal Utility Districts (also known as MUD’s). MUDs are typically started by developers as land is developed. Muds function as singular utility districts which can charge fees by users. MUDs enable developers to recoup costs and are typically sold to or merged with the city’s utility district upon buildout.

Transportation is another huge issue in Round Rock, due to all the growth. Over time, Interstate 35 has been expanded through the city. A new loop was built along the southside of the city, tying in with the expressway system around the north side of Austin.

Texas’ expressway systems also include frontage roads along both sides of the expressway, which fosters commercial growth and ease of access on and off I-35.



Interchange I-35 at Loop 1 (Built During Road Expansion)  
Source: Google Image/Wikipedia

Round Rock’s development is led by the Round Rock Chamber of Commerce. The Chamber aggressively recruits new business and industry which conform to the city’s strategic plan and vision. The Chamber also manages **Momentum** – the Chamber’s Five-Year Economic Development strategy.

During the past 10 years, through the Momentum strategy and platform, the Chamber has achieved the following milestones:

#### **Momentum – 10-Year Milestones/Achievements**

- 75 total project wins
- 6,644 new direct jobs
- 10,371 direct and indirect new jobs
- \$1.8 billion direct capital investment
- \$2.6 billion total investment
- \$3.4 million in incremental sales tax
- \$96.9 million in incremental property tax
- \$100 + million in new revenue to Round Rock Independent School District, the town of Wilco and the City of Round Rock

The next new development is The District, which is located on the southside of Round Rock, adjacent to booming North Austin. The District will include luxury apartments, Class A office space, and retail components.



**Rendering: The District**

**Source: Austin Business Journal/Google Image**

Downtown Round Rock is also growing. In 1980, the city's population was just over 12,000 people. Round Rock was primarily a bedroom community to nearby Austin. As such, the city's downtown area was small. As the growth related to Dell and subsequent commercial development occurred, it was mostly on the city's perimeter and along I-35.



The city has been intentional about preserving the downtown area's older buildings (many of which feature an attractive limestone façade, which is unique to Central Texas communities). Downtown serves as the city's government center (nearby Georgetown is the county seat of Williamson County). City Hall has been expanded as the city has grown to include an attractive plaza area which is used for outdoor concerts. A parking garage has been built behind City Hall.



Many of the older buildings along Main Street have been converted into bars, coffee shops, and restaurants, thereby making Downtown Round Rock an entertainment destination. The city also just opened a new and expanded public library downtown.

**Round Rock Civic Plaza (Above)**  
**Downtown Round Rock**  
**Sources: Google Image**



**New Round Rock Library**  
**Source: Google Image**

## Jurisdiction /Demographics<sup>85</sup>/Comparisons

Community Factor	Round Rock	Elizabethtown	Williamson County	Hardin County
<b>Population</b>	123,676	31,931	643,026	111,607
<b>Geography</b>				
Population (Sq. Mile)	3,174.0	1,155.1	546.6	177.6
Land Area (Sq. Mile)	37.64	27.18	1,115.83	623.4
<b>Population Demographics</b>				
<b>Age/Sex</b>				
Under 5 Years	5.9%	6.4%	5.9%	6.3%
Under 18 Years	25.9%	23.6%	24.5%	24.7%
65 Years and Over	9.1%	15.0%	12.6%	14.7%
Female	50.7%	51.9%	50.3%	49.9%
<b>Race</b>				
White	71.2%	76.9%	79.0%	80.4%
African American	9.6%	12.1%	7.7%	12.4%
Hispanic	28.7%	4.9%	25.4%	6.1%
<b>Housing</b>				
Housing Units	N/A	13,039	249,308	47,324
Owner-Occupied	58.6%	45.6%	68.2%	61.0%
Median Value/O-O	\$259,400	\$175,400	\$282,700	\$157,700
Median Gross Rent	\$1,345	\$765	\$1,368	\$811
Building Permits	N/A	N/A	15,036	353
<b>Computer/Internet Use</b>				
Homes with Computer	98.1%	87.0%	97.3%	91.2%
Homes with Internet	95.4%	76.1%	94.1%	80.1%
<b>Education</b>				
High School Graduate + Bachelor's Degree +	93.0%	92.2%	93.3%	91.7%
	41.3%	27.7%	41.9%	22.0%
<b>Transportation</b>				
Mean Trav. Time Work	25.3 Min.	20.2 Min.	28.0 Min.	22.3 Min
<b>Income &amp; Poverty</b>				
Med. HH Income	\$86,121	\$47,270	\$90,834	\$57,101
Per Capita Income	\$37,131	\$30,424	\$38,494	\$30,779
Persons in Poverty	6.2%	13.4%	5.6%	11.2%

<sup>85</sup> Source: U.S. Census Bureau; 2021 Statistics & Estimates

## Jurisdiction Governance, Operations & Miscellaneous/Comparisons

Community Factor	Round Rock	Elizabethtown	Williamson County	Hardin County
<b>Population<sup>86</sup></b>	123,676	31,931	643,026	111,607
<b>Combined Statistical Area</b>		Louisville – Elizabethtown – Ft. Knox		Louisville – Elizabethtown – Ft. Knox
<b>Population</b>		1,512,785		1,512,785
<b>U.S. Rank</b>		38		38
<b>Metropolitan Statistical Area</b>	Austin – Round Rock – Georgetown	Elizabethtown – Fort Knox	Austin – Round Rock – Georgetown	Elizabethtown – Fort Knox
<b>Population</b>	2,352,426	156,766	2,352,426	156,766
<b>U.S. Rank</b>	28	271	28	271
<b>Government</b>				
<b>Governance</b>	Council/Manager  Six councilmembers elected by district  Nine Boards & Commissions	Mayor/Council  Six councilmembers elected at-large  11 Boards & Commissions	County Judge/ Commissioners Court  Four commissioners elected by district  Six Boards & Committees	County Judge/Executive Fiscal Court  Eight magistrates elected by district  10 Boards & Commissions
<b>Annual Budget<sup>87</sup></b>	\$555.5 million	\$97.2 million	\$453.9 million	\$55.3 million
<b>Key Revenue Sources</b>	Property Tax: 13% Sales Tax: 20% Hotel Occupancy: 2% Utility Fees: 11% Contracts: 13% Self-Funded Proj.: 30%	General Fund: 56% Special Revenues: 14% Utility Revenues: 10% Natural Gas Rev.: 20%  Some projects funded through reserves	General Fund: 53% Road & Bridge Fund: 10% Debt Service Fund: 34%	Federal Grants: 19% General Fund: 45% Jail Fund: 12% Misc. 5% Road Fund: 6% Sol. Waste Fund: 12% State Grants: 1%
<b>Planning/Zoning Dept.</b>	YES	YES		YES
<b>Economic Development</b>	<b>Round Rock Chamber of Commerce</b>  The Chamber serves as the lead agency for business and industrial development	<b>Elizabethtown – Hardin County Industrial Foundation (EHCIF)</b>  City has a development department and partially funds EHCIF for industrial development;  Hardin County Chamber of Commerce also supports commercial growth	<b>Williamson County Economic Development Partnership</b>  Self-funded collaboration group of around 15 communities in the county, including Round Rock...focus is primarily on partnering where able to develop new business opportunities	<b>Hardin County Planning Commission</b>  County planning commission and staff review development plans for unincorporated parts of Hardin County and provide permits
<b>Public Safety</b>				
<b>Public Safety – Fire<sup>88</sup></b>	<b>Round Rock Fire Dept.</b>	<b>Elizabethtown Fire Dept.</b>	There are numerous municipal fire departments located throughout Williamson County	
<b># Stations</b>	9	3		21 <sup>91</sup>
<b># Personnel</b>	130 <sup>90</sup>	54		N/A
<b>Apparatus<sup>89</sup></b>	15	11		81

<sup>86</sup> Source: U.S. Census Bureau; 2020 Census

<sup>87</sup> Proposed total expenditures FY 2022 - 2023

<sup>88</sup> Sources: various jurisdictions

<sup>89</sup> Source: KentuckyFireTrucks.com; Includes full time and reserve vehicles

<sup>90</sup> Source: Round Rock International Association of Fire Fighters

<sup>91</sup> Includes career departments (Fort Knox and Radcliff) and 12 volunteer fire departments

Community Factor	Round Rock	Elizabethtown	Williamson County	Hardin County
<b>Public Safety – Police</b> <sup>92</sup>	<b>Round Rock Police Dept.</b>	<b>Elizabethtown Police Dept.</b>	<b>Williamson County Sheriff</b>	<b>Hardin County Sheriff</b>
<b># Personnel</b> <b># Sworn Officers</b>	N/A 145 <sup>93</sup>	28 <sup>94</sup> 54	N/A N/A	60 35
<b>EMS System</b>			<b>Williamson County Emergency Medical Services</b>	<b>Hardin County Emergency Medical Services</b>
<b># Stations</b> <b># Ambulances</b> <b># Personnel</b>			18 17 145	3 14 N/A
<b>Funding</b>			EMS service is funded by user fees and funds provided by the county raised by taxes	HCEMS' FY 2022 – 2023 budget totals \$7 million, which is funded primarily by EMS patient fees (\$6 million), with shortfall covered by County
<b>Health Care</b>				
<b>Hospital System</b>	<p><b>St. David's Round Rock Medical Center</b> 175-bed hospital with Level II Trauma Center; facility offers various services including Williamson County's first specialized cardiac facility</p> <p><b>Baylor Scott &amp; White Medical Center Round Rock</b> Part of 52-hospital system stretching from Dallas/Ft. Worth to San Antonio; 101 beds and 40 primary care areas</p> <p><b>Ascension Seton Williamson</b> 181-bed hospital; part of 139-hospital system in 19 states; Level II Trauma Center; 16 primary specialty areas;</p> <p>No public funding required for any of the above hospitals</p>	<p><b>Baptist Health Hardin (BHH)</b>; 300-bed regional hospital which serves 10 counties with 400,000 people</p> <p>Facility employs 2,700 workers; 445 physicians; provides healthcare in 40 specialty areas with over 40 satellite locations;</p> <p>Facility undergoing \$250 million expansion</p> <p>No public funding required</p>	<p><b>Baylor Scott &amp; White Medical Center Taylor</b> Part of 52-hospital system stretching from Dallas/Ft. Worth to San Antonio; 25-bed hospital</p> <p><b>Cedar Park Regional Medical Center</b> 126-bed hospital; 16 primary specialties</p> <p><b>St. David's Georgetown Hospital</b> 114-bed facility with Level IV Trauma Center;</p> <p>No public funding required for any of the above hospitals</p>	

<sup>92</sup> Sources: various jurisdictions

<sup>93</sup> Source: Round Rock Police Officers Association

<sup>94</sup> Source: *Kentucky Law Enforcement* magazine

Community Factor	Round Rock	Elizabethtown	Williamson County	Hardin County
<b>Education</b>				
<b>Community College</b>	<p><b>Austin Community College</b></p> <p>Total enrollment: 70,000 across 11 campuses including one in Round Rock; 100 degrees over 11 primary study areas</p>	<p><b>Elizabethtown Community &amp; Technical College (ECTC)</b></p> <p>Total enrollment: 7,773<sup>95</sup> (ranks third in KY system);</p> <p>Five campuses; 30 education/career programs</p>		
<b>Colleges/Universities</b>	<p><b>Texas State University Round Rock</b></p> <p>Branch of Texas State University (located 48 miles from the main campus in San Marcos); TSURR is designed for students taking upper-level courses, transitioning from community college and offers bachelors, masters, and doctoral degrees in 13 primary study areas</p>	<p><b>Western KY University Elizabethtown/ Fort Knox</b></p> <p>ECTC main campus also houses WKU campus</p>		
<b>Local Schools</b>	<p><b>Round Rock Independent School District</b></p> <p>46,989 students</p> <p>Seven high schools 11 middle schools 35 elementary schools</p>	<p><b>Elizabethtown Independent Schools</b></p> <p>2,473 students</p> <p>One high school One middle school Two elementary schools</p>	<p>There are 16 independent school districts which serve parts of Williamson County, including the Round Rock Independent School District</p>	<p><b>Hardin County Schools</b></p> <p>14,655 students</p> <p>Five high schools Six middle schools Seven elementary schools</p>
<b>Transportation</b>				
<b>Airport</b>		<p><b>Elizabethtown Regional Airport at Addington Field (EKX)</b></p> <p>General aviation airport 6,000-foot runway ILS instrument approach</p> <p>Airport funded through user fees and some support from the City</p>		
<b>Transit System</b>	<p><b>Capital Metro</b></p> <p>Fixed route system serving Austin metro area including Round Rock</p>	<p><b>Transit Authority of Central Kentucky (TACK)</b></p> <p>On-demand system</p>		<p><b>Transit Authority of Central Kentucky (TACK)</b></p> <p>On-demand system</p>

<sup>95</sup> School Year 2020 - 2021

Community Factor	Round Rock	Elizabethtown	Williamson County	Hardin County
<b>Miscellaneous</b>				
<b>Library System</b>	<p><b>Round Rock Public Library</b></p> <p>One location; new building in downtown Round Rock which also includes a new 300-car parking garage; library averages 30,000 monthly visits (2019) and in 2019 had an annual budget of \$2.9 million; library is operated by the city</p>		<p>There are nine separate libraries in Williamson County, including one in Round Rock</p>	<p><b>Hardin County Public Library</b></p> <p>One location</p> <p>Funded by the County, plus various fees</p> <p>Governed by the Hardin County Public Library Board of Trustees</p>
<b>YMCA</b>	YES	None	YES	None

### Lessons Learned

- Fully understand how public/private partnerships work (or should work)
- Maintaining a high quality of life is paramount
- Obtain transportation rights of way sooner rather than later
- During depressed times, build more infrastructure to take advantage of lower costs (downtown Round Rock Civic Plaza parking garage was built during a “down” market and cost \$1.5 million)
- Companies and site selectors should see Round Rock as a great city to live in and work in



## Key Stakeholder Engagement – Pre/Post-Project SWOT Analysis & Surveys/Interviews

A major component of the Elizabethtown – Fort Knox MSA Transformation Project revolves around key stakeholder research. Simply put, as BlueOval SK continues to build out its site in Hardin County and fully staff up for its 2025 facility opening, it is important to know and understand how metro community leaders perceive the value of the project and its impact on the region. Research (using both online surveys and in-person interviews/in-person video interviews) focused on two primary groups:

- Elizabethtown/Hardin County Community Leadership Group
- Outer County Community Leadership Groups

In every instance, all survey responses were aggregated. No individual responses are shown in the data which follows.

### Pre/Post-Project Community Leader SWOT Analysis

To ascertain community leader positions on the “front end,” of this project regarding the new battery park, a pre-project SWOT analysis was conducted in August 2022, which identified **Strengths, Weaknesses, Opportunities** and **Threats**. Later, and as part of the online survey, community leaders were also asked to identify **SWOT** matrixes facing the community. Both the Pre and Post SWOT Analysis charts can be found on the following two pages.

**Pre-Project SWOT**  
**Elizabethtown/Hardin County**  
**Strengths/Weaknesses/Opportunities/Threats**  
**August 16, 2022**

**Strengths**

- Existing solid infrastructure will support BlueOval SK
- Ongoing Baptist Health Hardin expansion is a real plus for community
- ECTC/University Center (under development) - great connection for transitioning military workers and trailing spouses

**Weaknesses**

- Lack of regional transit
- County/state roads in Glendale area - can they handle heavy truck traffic?
- Is infrastructure in place for massive growth in Elizabethtown?
- Is City prepared to annex adjacent areas to control its destiny?
- Is City prepared to amend its building height moratorium to accommodate denser growth?

**Opportunities**

- Great existing political capital on state/federal levels
- Housing - will require thoughtful development
- Competitively position Elizabethtown for R & D development opportunities
- BlueOval SK is the accelerator
- BMW in Spartanburg has a partnership with local community college with an R & D component
- Fort Knox energy independence/proposed solar farms
- Opportunity for NEW community communications and branding

**Threats**

- Lack of unified government may lead to poor decision making across jurisdictions
- Segmentation of urban and rural traditions
- Level of sophistication of decision making by some in government
- Workforce availability
- Existing plants will be competing with BlueOval SK for the same workers
- Parts of the MSA still have NO access to the Internet

**Post-Online Community Leader Survey SWOT Analysis  
Elizabethtown/Hardin County  
Strengths/Weaknesses/Opportunities/Threats  
April 1, 2023**

**Strengths**

- Location, regional medical center, educational opportunities
- Balanced economy
- Good people/good leadership
- City is poised to lead growth for BOSK with southern annexation; police and fire can handle annexation

**Weaknesses**

- Lack of sewer in outlying areas
- Unprepared for labor, housing, and infrastructure needs for what's coming
- Workforce availability to fill thousands of new jobs
- Not going big
- Lack of unified government

**Opportunities**

- Develop high tech research center with ECTC and battery industry
- BOSK will catalyze growth of new retail and restaurants
- Recruit EV battery plant supply chain
- Annex south and expand services to accommodate growth
- Expand educational opportunities, medical facilities for premium job growth
- Transform community into advanced manufacturing powerhouse

**Threats**

- Current state of volunteer fire departments/EMS
- Lack of new industrial land to recruit battery supply chain
- Lack of vision from community leaders
- Residents/community leaders who are resistant to change
- Residential growth that does not align with tax structure to fund infrastructure expansion
- BOSK will threaten existing industry workforce
- Other communities becoming more progressive and gaining new opportunities ahead of Elizabethtown

## **Key Community Leader Surveys & Interviews**

A total of 141 in-depth online surveys were sent out to Hardin County leaders. Ninety-one leaders responded, providing for a 65% response rate – a very good response rate for a survey of this type. Additionally, 34 community leaders participated in confidential one-on-one interviews.

### **Key Community Leader Online Survey Summary**

Overall, most all the 91 respondents to the online survey were in lockstep on key community issues and perceptions. The online survey covered the following areas:

- Quality of Life Issues
- Overall Growth Issues
- Economic Development Issues
- BlueOval SK Battery Park Issues
- Future Industrial Development/New Jobs Issues
- The Next Big Project Issue
- Fort Knox

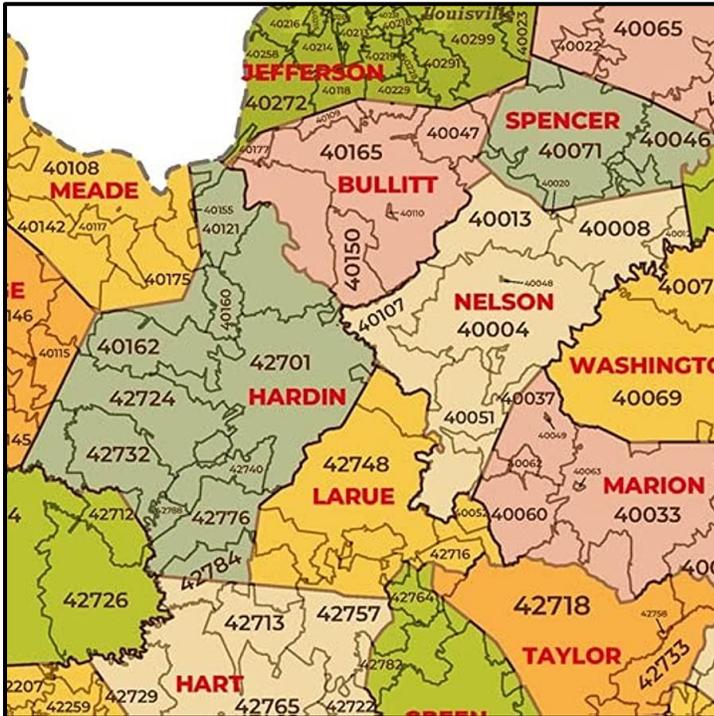
Following is a summary of the key majority viewpoints:

#### **Quality of Life Issues**

- People like living in Hardin County and appreciate the collaboration, collegiality, support and comradery that exists between government, education, healthcare, and business leaders
- People appreciate the low crime rate and the fact that the community is growing and is a good place to raise a family
- On the other end of the spectrum, people would like more “premium” restaurants, department stores and better retail opportunities
- Concern was expressed about the new leadership team in Hardin County Government and their lack of preparedness for the growth and influx that is coming
- Concern was also expressed about the lack of convention/meeting space, public transit and cultural opportunities
- Strong majorities expressed satisfaction when it comes to education providers (all levels) in the community, along with the quality of healthcare providers and public safety agencies, and park systems
- While majorities expressed satisfaction with retail opportunities in Downtown Elizabethtown and the North Dixie retail corridor (excluding Towne Mall), significant dissatisfaction was expressed about the current status of Towne Mall and retail opportunities in Radcliff and Vine Grove
- Crowne Point Theater and the Elizabethtown Sports Park scored very high marks in terms of satisfaction of opportunities provided to citizens

**Overall Growth Issues**

- Strong majorities supported and/or recognized the following when it comes to future growth:
  - Managing growth both in the City of Elizabethtown and beyond with smart growth strategies
  - Land values will increase resulting in more dense housing developments
  - The community should begin planning for new utility corridors to accommodate future growth
  - The community should begin planning for extending professional (full-time) firefighting protection services to outlying areas near the BOSK plant
  - The City of Elizabethtown should consider developing a strategic annexation plan, recognizing that thousands of people already live just outside the city limits, work in and use/enjoy city services/amenities



**Kentucky's 10 Largest Cities (2020 Census):**

1. Louisville	633,045
2. Lexington	322,570
3. Bowling Green	72,294
4. Owensboro	60,183
5. Covington	40,961
6. Georgetown	37,086
7. Richmond	34,585
8. Florence	31,946
9. Elizabethtown	31,394
10. Hopkinsville	31,180

**2021 Population Statistics**

Elizabethtown Estimated Population: 31,931  
Ninth largest in Kentucky

Zip Code Estimated Population: 52,279  
Fourth largest in Kentucky

### **Economic Development Issues**

- Strong majorities supported and/or recognized the following when it comes to economic development:
  - Elizabethtown/Hardin County will be one of the five growth centers/economic powerhouses of Kentucky going forward
  - It is important to maintain growth and development of new jobs to retain local talent and recruit new talent to the community going forward
  - New regional transit system to efficiently move people and workers around Hardin County
  - New community branding is needed for current and future economic development/market promotion
  - Appropriately planned solar energy projects should become part of the community's power mix
- One area of concern: majority of respondents to not believe that community leaders are aligned properly to implement the existing growth, and plan for and manage future growth

### **BlueOval SK Issues**

- Strong majorities agreed that BOSK will become a key and valued component of the community, support the active recruitment of BOSK supplier plants to the community, and that the community should formally engage with BOSK to support future expansion of the battery park

### **Future Industrial Development/New Jobs**

Strong majorities agreed on the following:

- Support Elizabethtown/Hardin County Industrial Foundation efforts to secure new industrial development land to compete with regional communities and create new jobs
- Take steps in the foreseeable future to secure land for the next "big project," which might require a new mega site

### **Key Community Leader In-Person Interviews/Key Community Leader Video Interviews**

In addition to the extensive online survey, an additional group of community leaders were invited to participate in follow-up interviews – either in one-on-one in-person interviews conducted in Elizabethtown, or via one-on-one

video interviews. Each of these 34 people participated in a confidential 30-minute interview. Each were asked the following three questions and all responses were aggregated:

1. From your perspective, what is missing in the community today?
2. What would you like the community to look like in five to ten years?
3. To achieve your vision for the community, how do we get there?

A summary of the responses to the in-person and video interviews begins on the next page.

A summary of each of the four outer county group sessions then follows.

## Key Community Leader In-Person/In-Person Video Interview Summaries – Categorized by Author

### 1. From your perspective, what is missing in the community today?

Community Leadership	Education	Government	Infrastructure/Transportation	Community Quality of Life
<p><b>Community Collaboration &amp; Leadership</b></p> <ul style="list-style-type: none"> <li>• One voice from a regional perspective</li> <li>• Lots of good groups doing good things backed with good people but are not always working together; some groups tend to work in silos</li> <li>• Lack of singular leadership “voice” (either an individual or organization) to represent community; community is full of great people, but who is the natural leader?</li> </ul>	<p><b>Advanced Manufacturing/Engineering</b></p> <ul style="list-style-type: none"> <li>• High school students ready to move into advanced manufacturing positions – work ready for other than college</li> <li>• More advanced manufacturing classes to feed metro industry needs (all districts/ industries)</li> <li>• College engineering school/pathway to engineering (no KY community college has an engineering pathway)</li> </ul>	<p><b>Government Leadership</b></p> <ul style="list-style-type: none"> <li>• Lack of good working relationship between the City and County</li> <li>• Community is too divided...long run, this won't play well when the need to move quickly on an issue comes up</li> <li>• Overall quality of leadership is not where it needs to be...City government tends to be “cliqish” when it comes to appointments and other issues</li> <li>• Political will to do what is needed is lacking</li> </ul>	<p><b>Housing</b></p> <ul style="list-style-type: none"> <li>• Adequate number of housing units</li> <li>• Affordable housing (for Fort Knox soldiers and BOSK workers alike)</li> <li>• Housing – needs to be defined as to type/market level/quantities</li> <li>• Lack of infrastructure...can't build large subdivision that doesn't have sewer and water...same goes for schools</li> <li>• More mixed use, more walkable, more attractive developments</li> <li>• Need to integrate green space into future development</li> <li>• More housing/entertainment downtown</li> </ul>	<p><b>Downtown Elizabethtown</b></p> <ul style="list-style-type: none"> <li>• Recreational issues – need more vibrant downtown and arts scene</li> <li>• Public gathering space downtown</li> <li>• Need more parking downtown</li> </ul>

Community Leadership	Education	Government	Infrastructure/Transportation	Community Quality of Life
<p><b>Community Branding</b></p> <ul style="list-style-type: none"> <li>Lack of community branding; need to promote community as the EV battery capital/energy center of the world</li> </ul>	<p><b>Workforce Development</b></p> <ul style="list-style-type: none"> <li>Linkage between DOD-schools and the EC3 facility (Fort Knox can't afford technical studies area) – issues are busing related to/from high schools and dollar cost (EC3 is maxed out in space); EC3 will need to expand not only for Fort Knox but for BOSK</li> <li>Need another 30,000 people to move to this area to fill jobs</li> <li>Workforce recruitment</li> </ul>	<p><b>Public Safety &amp; Related Tax Issues</b></p> <ul style="list-style-type: none"> <li>Volunteer fire departments are having serious problems finding volunteer fire fighters...staffing is minimal</li> <li>Lack of first-class EMS and paid county fire protection and the ability to pay for county fire protection</li> <li>Lack of taxing district to fund EMS and county fire fighting</li> </ul>	<p><b>Roads/Regional Transit</b></p> <ul style="list-style-type: none"> <li>Community needs a comprehensive plan (L'Enfant's master plan for Washington, D.C. was referenced) – how will roads be laid out, utilities?</li> <li>Ability to get around without a car – regional transit, bicycle lanes</li> <li>Regional transit system; workers and parents don't have an opportunity to easily transit the area</li> <li>With coming growth, infrastructure could become more of an issue (roads)...do we have what we need?</li> </ul>	<p><b>Greater Elizabethtown</b></p> <ul style="list-style-type: none"> <li>Arts community needs further development</li> <li>Too many gaps by being so close to Louisville</li> <li>Community has evolved to a more executive area – 16 generals at Fort Knox have made it an executive post</li> <li>Elizabethtown is not yet an executive community</li> <li>Lack of good conference/meeting facilities</li> <li>Younger people want Louisville amenities and will live there if Elizabethtown doesn't provide it</li> </ul>

Community Leadership	Education	Government	Infrastructure/Transportation	Community Quality of Life
	<p><b>Miscellaneous</b></p> <ul style="list-style-type: none"> <li>• Four-year university</li> <li>• Need stronger/more schools</li> <li>• Affordable land for new schools (last school – previous price: \$11,000/acre; now: \$65,000)</li> </ul>	<p><b>Workforce Development</b></p> <ul style="list-style-type: none"> <li>• How do we ensure that we'll have the workers – with the skillsets – that will be needed?</li> <li>• How do we ensure that workforces at existing industrial plants won't be cannibalized by BOSK?</li> <li>• Collaboration is needed to make this work but does not currently exist</li> <li>• A talent attraction program – led by government – is needed</li> </ul>	<p><b>Regionalization</b></p> <ul style="list-style-type: none"> <li>• Lack outside of the box thinking</li> <li>• Need for regionalization/regional planning</li> <li>• Critical problem of water supply across a multi-county region</li> <li>• Need for regional water system</li> <li>• HCWD 1/2 - lynchpin between Louisville Water and other jurisdictions – equipment age prevents expansion for industrial development</li> <li>• HCWD 2 can't add sewer line without City approval</li> </ul> <p><b>Airport</b></p> <ul style="list-style-type: none"> <li>• Airport needs to expand – need commercial flights/larger aircraft</li> </ul>	<p><b>Amenities/Retail</b></p> <ul style="list-style-type: none"> <li>• More high-end restaurants (Jeff Ruby's)</li> <li>• Grocery store in Glendale; along with medical services</li> <li>• YMCA</li> <li>• Childcare facilities</li> <li>• 24-hour vet services</li> <li>• Good country club environment</li> <li>• Lack of an area where executives can mix socially</li> <li>• Lack of Class A office space</li> <li>• Lack of fiber capacity/redundancy in some areas of the county</li> <li>• Quality of life – music venues</li> <li>• Need more retail stores – still must go to Louisville for good men's clothing</li> <li>• Needs Dillard's/Johnson &amp; Murphy</li> <li>• Better quality of grocery stores (Whole Food/Trader Joes)</li> </ul>

**Key Community Leader In-Person/In-Person Video Interview Summaries – Categorized by Author**

**2. What would you like the community to look like in five to ten years?**

Category	Specific
<p align="center"><b>Amenities</b></p>	<ul style="list-style-type: none"> <li>• More grocery stores – Publix would be good</li> <li>• Need better restaurants – for entertaining customers/global company leaders – we have to go to Louisville now</li> <li>• Need more greenspace – will provide a more prosperous look</li> <li>• Recreation – need bicycle lanes</li> <li>• Better retail corridor</li> <li>• More recreational opportunities</li> </ul>
<p align="center"><b>Community Leadership/Visionary</b></p>	<ul style="list-style-type: none"> <li>• Visionary planning is a must</li> <li>• Engage younger professionals in community issues</li> <li>• Intentionally incorporate new people into community leadership positions</li> <li>• I want this to be a community that my kids would want to come back to after college (larger city of more interest to mid-20-year-olds, but not a huge city)</li> <li>• I like the “hometown” feel</li> <li>• A well-planned community that has capitalized on the growth</li> <li>• Public safety/education – growth needs to be managed in order to maintain a safe city with good schools</li> <li>• Minimize loss of quality of place</li> <li>• Minimize political issues</li> <li>• How do we keep the crime rate low?</li> <li>• How do we keep quality of schools/medical care?</li> </ul>

Category	Specific
Cultural Issues	<ul style="list-style-type: none"> <li>• More opportunities for cultural events – we need to up our game and bring in nationally recognized talent</li> <li>• TED Talk – initiate events from the community</li> </ul>
Downtown Elizabethtown	<ul style="list-style-type: none"> <li>• Vibrant downtown, such as Greenville, SC or Bowling Green – existing efforts to grow downtown Elizabethtown need to happen faster</li> <li>• Replicate downtown Greenville, SC – modern yet historic – beautiful downtown</li> </ul>
Education	<ul style="list-style-type: none"> <li>• More schools</li> <li>• New private school (religious and/or not religious)</li> <li>• Full four-year branch of Western Kentucky University</li> <li>• Attract other university engineering programs (Purdue) to Elizabethtown Community &amp; Technical College</li> <li>• Vigorous program to educate high school students about the value of advanced manufacturing jobs (as an alternative to college)</li> <li>• Community with good schools</li> <li>• More balanced distribution of students across county school district</li> </ul>
Glendale	<ul style="list-style-type: none"> <li>• Maintain “village” atmosphere (as much as possible)...most likely will have more shops and restaurants</li> <li>• Grow village in the right way to maintain the environment/ambience that has made Glendale famous</li> </ul>

Category	Specific
<p><b>Greater Elizabethtown</b></p>	<ul style="list-style-type: none"> <li>• <b>Elizabethtown – maintain community feel vs. becoming a “big city” – don’t want it to look like Louisville</b></li> <li>• <b>BOSK – productive and doing what its designed to do</b></li> <li>• <b>Improve area south of downtown</b></li> <li>• <b>Minimize political issues</b></li> <li>• <b>City that has maintained its low crime rate, along with its high-quality schools and medical care</b></li> <li>• <b>A community that put in upgrades in infrastructure to handle BOSK and other new plants</b></li> <li>• <b>Increase in spousal employment opportunities</b></li> <li>• <b>New partnerships to make things happen</b></li> <li>• <b>New “brand” of being more of a metro area</b></li> <li>• <b>Thriving/sustainable market</b></li> <li>• <b>A community that did not become another “factory town”</b></li> <li>• <b>A community that successfully attracted a younger demographic</b></li> <li>• <b>Become a progressive community by making progressive investments in the community</b></li> <li>• <b>Want the community to feel like it does today – sense of community</b></li> <li>• <b>“Fill in the blanks...” – south side of Elizabethtown needs development</b></li> <li>• <b>Going from 36,000 people to becoming a larger city</b></li> <li>• <b>Multiple choices/types of places to live</b></li> <li>• <b>Strong churches/schools</b></li> </ul>

Category	Specific
Transportation	<ul style="list-style-type: none"><li data-bbox="646 248 940 272">• New regional transit system</li><li data-bbox="646 302 1234 326">• New transportation infrastructure opportunities such as Uber</li><li data-bbox="646 355 1247 380">• A community that has successfully managed traffic and growth</li><li data-bbox="646 409 1283 433">• Airport– upgrade FBO, which serves as the community’s front door</li><li data-bbox="646 462 1440 487">• Airport – expand airport with new commercial flights/air cargo options/new hangars</li><li data-bbox="646 516 1058 540">• Identify the next big “Ring Road” project?</li><li data-bbox="646 570 1220 594">• Build new outer loop around Elizabethtown (10-mile radius)</li></ul>

## Key Community Leader In-Person/In-Person Video Interview Summaries – Categorized by Author

### 3. *In order to achieve your vision for the community, how do we get there?*

Leadership	Government
<p><b>Vision Development Issues</b></p> <ul style="list-style-type: none"> <li>• Goal: make this a community where people want to live</li> <li>• Need to manage and grow vision for the community</li> <li>• Eliminate good old boy networks and their current acceptability; set aside egos</li> <li>• Be intentional about letting go of control</li> <li>• Need tons of collaboration</li> <li>• Need strategic approach to fulfilling community quality of life needs</li> </ul> <p><b>Vision Implementation/Management Issues</b></p> <ul style="list-style-type: none"> <li>• Community leaders/elected officials need to send message: BOSK will bring change which will benefit the entire community (need campaign)</li> <li>• Branding – build on BOSK</li> <li>• Leaders need to work in unison in planning for the region’s future</li> <li>• Assemble group from Elizabethtown and Glendale to talk about growth and how to get there</li> <li>• Assemble a group to recruit specific entities to the community</li> <li>• Need core group of people “who love this community...willing to lead/invest”</li> <li>• Need for group to set aside egos for the benefit of the community – servant mindset instead of money mindset</li> <li>• Everyone “takes a piece” – people with expertise take the lead on various components</li> <li>• Need strong group to lead future development of region</li> </ul>	<p><b>Coordination/Collaboration Issues</b></p> <ul style="list-style-type: none"> <li>• Need to work around the disjointedness of existing local governments or find a better way to deliver local government services</li> <li>• Need for comprehensive planning – need first class area planner to develop a master plan for the Elizabethtown area to assure connectivity to BOSK and other new plants</li> <li>• Ensure that city services are in place for the growth that is coming</li> <li>• Focus on changing some of the regulations/restrictions to allow development of housing and commercial projects (such as Elizabethtown’s building height cap)</li> </ul> <p><b>Revenue Issues</b></p> <ul style="list-style-type: none"> <li>• Determine how to pay for these things</li> <li>• New local taxation opportunities are needed in order to grow</li> <li>• One example is Georgia’s Special Purpose Local Option Sales Tax (SPLOST)</li> </ul> <p><b>Governing Issues</b></p> <ul style="list-style-type: none"> <li>• Unified government needs to be revisited</li> </ul>

## Outer County Leadership Groups

### Introduction

A key component of the Elizabethtown – Fort Knox MSA Transformation Project is the key stakeholder interview process. To fully understand the impact that the new BlueOval SK (BOSK) Battery Park is going to have on the metro area, it is important to gauge the mindsets of various key community leaders, both inside and outside of Hardin County. To that end, four interviews were conducted with community leadership groups in the following outer counties:

- Grayson County
- Hart County<sup>96</sup>
- Larue County
- Meade County

Each session revolved around a SWOT (Strengths, Weaknesses, Opportunities, and Threats) theme relative to the impact that the BOSK plant might have on the outer county. Each session included the following presentation agenda:

- Welcome/self-introductions
- BOSK project overview
- Elizabethtown – Fort Knox MSA Transformation Project overview
- General discussion

Following are summaries from each of the four sessions:

### Meade County

Meeting attendees included the following people:

- Annie Emond, Executive Director, Meade County Chamber of Commerce
- Bryan Claycomb, Mayor-Elect, City of Brandenburg
- David Pace, Chairman, Meade County Economic Development
- Kenny Rambo, President, Heartland Communications Consultants
- Luke Schmidt, President, L.B. Schmidt & Associates, LLC (project consultant)



Much of the discussion centered on the Nucor Steel plant that is currently under construction (and nearly finished) in Brandenburg. The plant is expected to be fully operational by March 2023 and will employ 427 workers.

The plant site totals 900 acres along the Ohio River, and the building footprint takes up about 200 acres.

Prior to the plant's construction, the vacant property's value contributed approximately \$8,000 per year in property tax to the local school district. With the buildout and improvements, the site now contributes between \$700,000 and \$1 million annually.

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<sup>96</sup> Hart County leadership group session was conducted via video conference



**Nucor Brandenburg Mill**

Source: *The (Elizabethtown) News-Enterprise*

### **General Comments**

- Nucor now has 427 employees working on the site
- Plant site is located outside of Brandenburg city limits
- Nucor does not want to be annexed by the City of Brandenburg
- Nucor's work shed is pulling from six primary counties: Meade, Harrison (IN), Breckinridge, Hardin, Larue, and Grayson
- KY 313 has improved access to Brandenburg/Meade County and helped to land the plant
- Nucor does not plan to have a childcare facility on the site
- Nucor expects up to 165 trucks per day to pick up product; as such, there is a need for a truck stop/service center to support drivers and serve as a place to line up for product pickup
- Housing prices have risen with the arrival of the plant; former median house price: \$135,000; now \$265,000 - \$303,000 for a single-family home
- Median household income has also risen in Meade County with the arrival of Nucor; 3/19 median household income: \$56,000; 12/21: \$64,000
- Poverty rate of 14.8% remains in place
- Population has grown by 3,000 over the past three years

### **Strengths**

- BOSK is working with Meade County Schools to develop pathways for careers
- KY 313 access to I-65 is a plus for attracting future industry, including possible BOSK suppliers
- Meade County Industrial Authority is looking for new land on KY 313
- City of Brandenburg's water system is expanding to 2 million gallons per day

## **Weaknesses**

- KY 313 is considered to be a waste transport corridor; there is concern about transporting waste from the BOSK plant through Meade County in the event of an accident...this could turn into a haz-mat issue
- Meade County needs more emergency responders
- There is no existing tax base to support growth

## **Opportunities**

- County would like to develop network of EV charging stations and make it a multi-county network
- During COVID, Nucor established digital hotspots around the county which served to expand Internet access; hotspots remain in place

## **Threats**

- Wage issue is real...originally due to Nucor and now due to both Nucor and BOSK...how with other local businesses and industry compete?
- Small businesses are finding it harder to find/retain new employees
- Lack of sewer service outside cities of Brandenburg and Muldraugh

## **Additional Comments**

- People need to get facts straight about the development
- BOSK might drive growth from Hardin County, down KY 313 to the Ohio River Bridge
- City of Brandenburg needs to be in position to extend sewer lines if the need presents itself
- Need to look beyond county boundaries for regional growth opportunities
- Meade County Schools are key to retaining talent/residents
- Meade County needs a couple of better restaurants and a new grocery store

## **Grayson County**

Meeting attendees included the following people:

- April Spalding, Executive Director, Grayson County Chamber of Commerce
- Ashley Herrington, CEO, Twin Lakes Medical Center/Owensboro Health
- Bonnie Henderson, Mayor, City of Clarkson
- Doug Robinson, Superintendent, Grayson County Schools
- Harold Miller, Mayor, City of Leitchfield
- Ilsa Johnson, Tourism Director, City of Leitchfield
- Kenny Rambo, President, Heartland Communications Consultants
- Kevin Henderson, Judge/Executive, Grayson County
- Loretta Woosley, City Clerk/Treasurer, City of Leitchfield
- Luke Schmidt, President, L.B. Schmidt & Associates, LLC

Much of the discussion centered on Leitchfield and Grayson County's proximity to Elizabethtown and the expectation that many workers from Grayson County will pursue employment at BOSK.



Twin Lakes Medical Center/Owensboro Health  
Source: Google Image

### General Comments

- Current Leitchfield population is 6,500, with another 1,500 living just outside of the city
- Most of Grayson County now has fiber access to the Internet
- Many BOSK workers coming from urban areas may want to relocate in a rural area

### Strengths

- BOSK team met with county school district leaders and established a pathway between BOSK and the community
- The Western Kentucky Parkway provides an opportunity to move BOSK goods through Grayson County
- Grayson County Schools are working to scale-up schools to supply students for “jobs of the future”
- Grayson County offers less expensive/more affordable housing without countywide planning and zoning
- City of Leitchfield does have planning and zoning

### Weaknesses

- Lack of countywide planning and zoning
- Current county workforce participation in the job market
- Lack of housing for potential BOSK workers to purchase and commute to the plant



Nolin Lake – Significant Source of Tourism Dollars in Grayson County  
Source: Google Image

## Opportunities

- County leaders would like to see the Commonwealth develop a national job recruitment campaign encouraging former Kentuckians to return home to help fill the new positions
- Develop sewer system in eastern Grayson County to accommodate new homes from Hardin County spillover
- Develop regional transit system to shuttle Grayson County workers to Elizabethtown
- Build on existing 25-acre industrial site to recruit BOSK supply chain companies
- Build on existing plan to add new WK Parkway interchange at Big Clifty
- Begin working regionally to promote the region for business and economic development

## Threats

- Potential loss of Leitchfield industrial workers to BOSK

## Hart County

Meeting (conducted via video conference) attendees included the following people:

- Joe Choate, Judge/Executive, Hart County
- Kaylie Butler, Executive Director, Hart County Chamber of Commerce
- Kenny Rambo, President, Heartland Communications Consultants
- Luke Schmidt, President, L.B. Schmidt & Associates, LLC
- Nathan Smith, Superintendent, Hart County Schools
- Randall Curry, Mayor, City of Horse Cave



Hart County Blueway on the Green River

Source: Google Image

## General Comments

- County is in the Barren River Area Development District; BRADD is mostly influenced by Bowling Green and Warren County
- Dart with 1,200 employees is the largest employer in Hart County
- More workers commute into Hart County to work at the Marzetti plant

- Existing industrial parks in Munfordville and Horse Cave are full
- Hart County sits in the “middle” of various jurisdictions/issues which impact the county
- The county is part of KYTC District # 4 (Elizabethtown)
- The county is in the South Central Community College service area (Bowling Green)
- Citizens in Munfordville and northern Hart County go to Elizabethtown for additional services
- Citizens in Horse Cave and southern Hart County go to Bowling Green for additional services
- The Medical Center (Bowling Green) now own Caverna Hospital
- The county is in the Central Time Zone but has economic ties to the Eastern Time Zone as well



**Downtown Munfordville**  
Source: Google Image

### **Strengths**

- Hart County is located 15 miles from the BOSK site (Bonnieville exit)
- County is located halfway between the BOSK site in Hardin County and the AESC site in Warren County which should drive interest by supply chain firms
- County is considering regional water/sewer projects with Hardin and Larue counties
- Existing sewer line runs north to Bonnieville; this could be extended to Upton and the industrial park that is under development at the I-65 exit (Larue County side of Upton)
- Hart County Industrial Authority would like to develop an industrial park in the north end of Hart County to tie into the Glendale megasite opportunity; 100 + acres have been donated to the Authority in Bonnieville and the Authority has funding for initial excavation in hand.
- Another 97 acres are available for industrial development in Horse Cave, also alongside I-65; two BOSK suppliers are looking at the Horse Cave site

### **Weaknesses**

- Hart County has planning services but does not have zoning (Munfordville and Horse Cave do have planning and zoning); Bonnieville does not have either planning or zoning
- The county is 30 minutes from major hospitals or shopping in Elizabethtown or Bowling Green
- The county has infrastructure shortcomings

### **Opportunities**

- Services need to be upgraded to better serve citizens (e.g., more doctors, etc.)
- There is a need for a “bridge” between the two ADD districts and the two community colleges
- Munfordville could be a great bedroom community – between the two battery plants
- There is a concerted effort to bring veterans processing out of the Army at Fort Campbell to relocate to the Bowling Green area (BRADD initiative)

- Build on existing infrastructure shortcomings
- Consider the development of incentives to attract new businesses and services (but don't duplicate existing services) in Munfordville
- Community alignment in Hart County at present is strong – everyone is working together
- Community needs to be able to pivot with the market when new opportunities arise

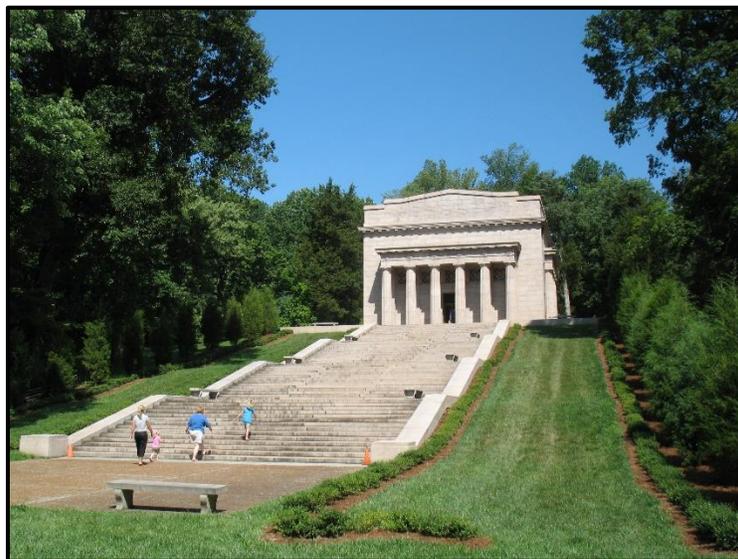
### Threats

- None reported by the group

### Larue County

Meeting attendees included the following people:

- David Raleigh, Superintendent, Larue County Schools
- Eric Allen, Director of Student Services, Larue County Schools
- Kenny Rambo, President, Heartland Communications Consultants
- Luke Schmidt, President, L.B. Schmidt & Associates, LLC
- Nick Sullivan, Executive Director, Larue County Chamber of Commerce



Abraham Lincoln Birthplace National Historic Site

Source: Google Image

### Strengths

- There is room for industrial expansion in Larue County...lots of open land
- The county has a very low tax rate
- The county has an excellent school district with high rates of achievement
- Recreation and tourism opportunities are in place with 20 miles of nature trails and a national historic site

### Weaknesses

- Cost to procure industrial land may serve as an impediment to development

- Lack of available land to build housing
- County's low tax rate does not provide funding sources for infrastructure
- Existing mobile home parks and other rental property won't contribute to increasing the tax base...this could lead to higher poverty rates
- County residents are resistant to change which impacts ability to grow
- Housing and apartment costs and rental rates are increasing; duplex rent is now \$1,600/month



#### Opportunities

- Growth in population and the economy can lead to smart growth
- Grow recreation and tourism streams...keep tourists here after they visit Abraham Lincoln National Historic Site

#### Threats

- Incremental student enrollment increase without corresponding tax revenue won't be enough to fund capital improvements...two of four Larue County schools are now operating at full capacity
- County residents are resistant to change
- Lack of an adequate workforce – where can we find people to fill existing jobs?
- BOSK may poach some of our existing industrial and agricultural workers
- The growth that comes to Larue County may be on the “low end” when it comes to growing the economy



## Overview – Competitive Community Economic Development Platforms

As has been shown above, the impact of the new BlueOval SK Battery Park on Elizabethtown and Hardin County will be enormous. Of almost equal importance is the catalyzing effect that the BOSK facilities will have on the community for future growth. Not just community growth but future industrial development and new manufacturing jobs.

The I-65 Corridor is now one of the two most important corridors in the nation when it comes to automobile assembly and suppliers to the automotive industry. Elizabethtown remains in a very strong position to recruit additional automotive suppliers to the region, and other types of manufacturing facilities as well. At the same time, other communities will want to attract their fair share of the business. Three growing communities along the I-65 Corridor have been identified as potential key competitors to Elizabethtown/Hardin County going forward:

- Bowling Green, Kentucky
- Columbia, Tennessee
- Decatur, Alabama

Following is a brief overview of how each community has organized its economic development assets.

### Bowling Green, Kentucky

Bowling Green lies an hour south of Elizabethtown on I-65. Following is a brief comparison of the two cities:

Category	Bowling Green	Elizabethtown
County	Warren	Hardin
County Seat	YES	YES
Population/City	74,926	31,892
MSA	Bowling Green	Elizabethtown – Fort Knox
MSA # Counties	Four	Three
MSA Population/Rank	185,682/234 <sup>th</sup>	157,026/272 <sup>nd</sup>
CSA	Bowling Green – Glasgow	Louisville – Elizabethtown – Fort Knox
CSA Population/Rank	237,487/127 <sup>th</sup>	1,512,785/38 <sup>th</sup>
Interstate Highway(s)	I-65/I-165	I-65
Four Year University(s)	Western Kentucky University	None
Community College	South Central Community & Technical College	Elizabethtown Community & Technical College
Hospital/# Beds	Greenwood Hospital/211 The Medical Center/337	Baptist Health Hardin/300
Airport/Longest Runway	Bowling Green – Warren County Regional/6,500'	Elizabethtown Regional/6,000'
Industrial Parks	Kentucky Transpark	Hughes Center of Commerce & Industry T.J. Patterson Industrial Park
Current Available Ind. Acreage <sup>97</sup>	9 Acres	27 Acres
Lead Econ. Dev. Organization	Bowling Green Area Chamber of Commerce	Elizabethtown – Hardin County Industrial Foundation

Note all population figures are 2022 U.S. Census Bureau estimates

<sup>97</sup> Source: available acreage as shown in the respective state's economic development website



Bowling Green’s economy revolves primarily around two principal drivers: manufacturing and Western Kentucky University. AESC Envision is currently building an EV electric battery plant in the Kentucky Transpark.

The Bowling Green Chamber ([www.bgchamber.com](http://www.bgchamber.com)) serves as the lead economic development organization not only Bowling Green and Warren County, but also leads a regional 10-county consortium known as South Central Kentucky.

The Chamber has won numerous awards for economic development and last year hosted 20 new project announcements. The Bowling Green Chamber also provides “traditional” chamber services to its 1,200 members.

### Columbia, Tennessee

Columbia lies 179 miles south of Elizabethtown on I-65. Columbia is the largest city between Nashville and Huntsville, Alabama. Following is a brief comparison of the two cities:

Category	Columbia	Elizabethtown
County	Maury	Hardin
County Seat	YES	YES
Population/City	41,690 (2020)	31,892
MSA	Nashville – Davidson - Murfreesboro	Elizabethtown – Fort Knox
MSA # Counties	13	Three
MSA Population/Rank	2,046,828/35 <sup>th</sup>	157,026/272 <sup>nd</sup>
CSA	Nashville – Davidson – Murfreesboro	Louisville – Elizabethtown – Fort Knox
CSA Population/Rank	2,143,407/32 <sup>nd</sup>	1,512,785/38 <sup>th</sup>
Interstate Highway(s)	I-65	I-65
Four Year University(s)	None	None
Community College	Columbia State Community College	Elizabethtown Community & Technical College
Hospital/# Beds	Maury Regional Medical Center/305	Baptist Health Hardin/300
Airport/Longest Runway	Maury County Regional/6,000'	Elizabethtown Regional/6,000'
Industrial Parks		Hughes Center of Commerce & Industry T.J. Patterson Industrial Park
Current Available Ind. Acreage <sup>98</sup>	150 Acres <sup>99</sup>	27 Acres
Lead Econ. Dev. Organization	Maury Alliance	Elizabethtown – Hardin County Industrial Foundation

Note all population figures are 2022 U.S. Census Bureau estimates



Source: Gresham-Smith

Like Bowling Green, the chamber and economic development functions in Columbia are combined into one group – the Maury Alliance ([www.mauryalliance.com](http://www.mauryalliance.com)). At present, only the State of Tennessee list one 150-acre site as available in Columbia. The economy is driven by the nearby GM assembly plant in Spring Hill, which includes an EV electric battery plant which is currently under construction.

<sup>98</sup> Source: available acreage as shown in the respective state’s economic development website

<sup>99</sup> Single site; includes existing 87,000 square foot building

## Decatur, Alabama

Decatur lies 249 miles south of Elizabethtown on I-65. The city is the anchor city of the Decatur Metropolitan Statistical Area (MSA) and is adjacent to the Huntsville MSA. Following is a brief comparison of the two cities:

Category	Decatur	Elizabethtown
County	Morgan	Hardin
County Seat	YES	YES
Population/City	57,938 (2020)	31,892
MSA	Decatur	Elizabethtown – Fort Knox
MSA # Counties	Two	Three
MSA Population/Rank	157,425/271 <sup>st</sup>	157,026/272 <sup>nd</sup>
CSA	Huntsville – Decatur	Louisville – Elizabethtown – Fort Knox
CSA Population/Rank	659,486/78 <sup>th</sup>	1,512,785/38 <sup>th</sup>
Interstate Highway(s)	I-65/I-565	I-65
Four Year University(s)	None	None
Community College	Calhoun Community College System	Elizabethtown Community & Technical College
Hospital/# Beds	Decatur Morgan Hospital/120	Baptist Health Hardin/300
Airport/Longest Runway	Pryor Field Regional/6,107'	Elizabethtown Regional/6,000'
Industrial Parks		Hughes Center of Commerce & Industry T.J. Patterson Industrial Park
Current Available Ind. Acreage <sup>100</sup>	23 sites ranging in size from 5 – 238 Acres	27 Acres
Lead Econ. Dev. Organization	Morgan County Economic Development Association	Elizabethtown – Hardin County Industrial Foundation

Note all population figures are 2022 U.S. Census Bureau estimates

The Morgan County Economic Development Association ([www.mceda.org](http://www.mceda.org)) leads the economic development function in the Decatur area as a stand-alone entity. Decatur's economy revolves around its key location on the Tennessee River (it is the largest port on the Tennessee River in terms of cargo). Proximity to the port has led to the development of 12 Fortune 500 manufacturing facilities.



Source: Google Image

Proximity to nearby (and fast-growing) Huntsville – now the largest city in Alabama – has also resulted in more advanced manufacturing opportunities. Included in this is the Mazda-Toyota auto assembly plant located in adjacent Limestone County, which opened two years ago.

Each of these three cities are expected to continue to provide worthy competition to Elizabethtown and Hardin County when it comes to future site selection for manufacturing facilities. Each has certain advantages over the others (e.g., Tennessee's lack of personal income tax; Decatur's extensive port facilities, Bowling Green's four-year university, Hardin County's soon to be largest EV electric battery manufacturing site in the world, etc.).

The most important issue now facing Elizabethtown and Hardin County: securing new tracts of land for industrial development.

<sup>100</sup> Source: available acreage as shown in the respective state's economic development website



## Elizabethtown – Fort Knox MSA Geographical Expansion

Research has been completed on an issue of interest to the sponsors of the Elizabethtown – Fort Knox MSA Transformation Project – that of the possible expansion of the current boundaries of the MSA itself. Following is a summary of the research:

### Background

The Elizabethtown Metropolitan Statistical Area (MSA) was first designated in 2000 by the Office of Management and Budget (OMB). In its first delineation, the MSA included Hardin and LaRue counties. By 2013, OMB expanded the delineation of the MSA to include Meade County (which had been part of the nearby Louisville MSA). The MSA's name was also changed at that time to the Elizabethtown – Fort Knox Metropolitan Statistical Area.

(Only two of 384 MSAs include the name in the MSA title of a nearby military installation; Watertown – Fort Drum (NY) is the other one.)

The Elizabethtown – Fort Knox MSA ranks 271<sup>st</sup> in population, with a 2021 estimated population of 156,766<sup>101</sup> people, just behind Grand Junction (CO) and just ahead of Decatur (AL). The MSA is part of the Louisville – Elizabethtown – Bardstown Combined Statistical Area<sup>102</sup>, which ranks 37<sup>th</sup> in the nation with a population of 1,602,309 people.



Kentucky MSAs<sup>103</sup>

### Designation/Expansion of an MSA

To understand how an MSA can be expanded, it is useful to first understand how an MSA is initially designated.

The U.S. Office of Management and Budget (OMB) is the federal agency tasked with the delineation of “core based statistical areas.” Every core based statistical area has a “central” county, which always contains the county with the largest population. There are two types of core based statistical areas: micropolitan and metropolitan (the name of the core based statistical area is always based on the largest city in the defined geographical area).

<sup>101</sup> Source: U.S. Census Bureau

<sup>102</sup> The Combined Statistical Area includes adjoining core based statistical areas with overlapping commuting patterns; Bardstown is a separate micropolitan area which includes Nelson County

<sup>103</sup> Source: Google Image

- Micropolitan areas contain a central county with an overall smaller population, with an urban core area population of between 10,000 and 50,000 people; micropolitan areas can include more than one county (Campbellsville, Glasgow, and Somerset are examples of micropolitan statistical areas in Kentucky)
- Metropolitan areas contain a central county with a larger population, with an urban core area population of 50,000 or more people; metropolitan areas can include more than one county (Louisville, Lexington, Bowling Green, Elizabethtown – Fort Knox, and Owensboro are examples of metropolitan statistical areas in Kentucky)

OMB every 10 years, following the census, determines which areas are designated metropolitan or micropolitan statistical areas. Such designation is based entirely on census figures. OMB also decides if any existing MSA boundaries need to be revised. Such boundary revisions from one or more outlying counties adjacent to the central county are based on census data and five-year estimates provided in the American Community Survey (ACS).

ACS data importantly illustrates commuting patterns between counties. If a county has most of its workers commuting to the central county, per OMB regulations, then that county is added to the MSA. As indicated above, due to commuting patterns, Meade County was added to the Elizabethtown – Fort Knox MSA.

By comparison, like Elizabethtown, Bowling Green achieved MSA status in 2000 with two original counties – Warren and Edmonson. Due to changing commuting patterns, two more counties – Allen and Butler – were added in 2010. Today, Bowling Green’s MSA’s 2021 estimated population is 182,594. Bowling Green’s MSA ranks as the 236<sup>th</sup> largest metro, just behind Kingston (NY) and just ahead of Joplin (MO). The Bowling Green MSA is part of the Bowling Green – Glasgow Combined Statistical Area<sup>104</sup>, which ranks 127<sup>th</sup> in the nation with a population of 234,410 people.

#### **Future Expansion of the Elizabethtown – Fort Knox MSA**

At present, OMB is reviewing ACS data for every MSA in the country. Per the federal regulations related to this issue, **OMB will announce sometime during June 2023 the delineation for each MSA – the addition of any new MSAs, and the expansion (or contraction) of any existing MSA.** In the case of the current review, OMB will be reviewing ACS commuting data for the period of 2016 – 2020.

The 2016 – 2020 data may show changes in the MSA commuting pattern to Elizabethtown. If so, then it can be assumed that one or more counties may be added to the Elizabethtown – Fort Knox MSA.

However, the period of 2016 through 2020 will not have the advantage of including what **clearly will bring significant commuting changes into and out of the MSA.** Once the BlueOval SK Blue Oval Battery Park is fully operational by 2026, it is expected that many new workers will be commuting ***to*** Elizabethtown ***from*** counties such as Green (11,291 population), Hart (19,460 population), and Grayson (26,524 population).

The addition of just Hart and Grayson counties pushes the MSA population to 202,750 people. That would make Elizabethtown – Fort Knox the 225<sup>th</sup> largest metro, just behind Bend (OR) and just ahead of St. Cloud (MN). **It would also place the metro in a new list – markets greater than 200,000 people – which could be significant when it comes to potential future economic development and growth.**

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<sup>104</sup> The Glasgow Micropolitan Statistical Area includes Barren and Metcalfe counties

OMB review of ACS commuting data for **2033 MSA delineation will take place in 2028** and will examine commuting patterns **from 2023 – 2028**.

### **Advantages/Disadvantages to MSA Inclusion**

When the metro designation was first envisioned back in the 1940s and as it has been implemented by OMB, the primary intent of the designation (be it metropolitan or micropolitan) is simple: “The classification provides a nationally consistent set of delineations for collecting, tabulating, and publishing Federal statistics for geographic areas<sup>105</sup>.”

It has never been the intent of OMB to use this system for the purpose of designating counties urban or rural. In fact, many rural counties have been routinely added to MSAs over the years.

That said, “Although MSA classifications originally were intended to be used solely to describe a county, policymakers have used them to make policy on issues such as health care, education, and housing...For example, transportation, housing, health care and education policy all allocate federal funding using OMB classifications<sup>106</sup>.” The larger the MSA, the larger the potential federal grant may be.

As important, aside from federal grants, economic development officials, corporate expansion executives, etc., routinely use the list of MSAs to target new markets. As an example, a restaurant company, looking to expand in the Midwest or Mid-South, may set as an entry threshold “any metropolitan area,” or, any MSA with a population of over 100,000 people. Counties located in the Midwest or Mid-South that may lie in smaller MSAs or in any micropolitan area, will miss the cut (and the investment/new jobs opportunity).

Being a part of an MSA also provides a county with new branding opportunities when it comes to community promotion and economic development.

As the project consultant has examined this issue, the only potential negative for a rural county to be added to an MSA may be the loss of some future U.S. Department of Agriculture loan/grant eligibility.

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<sup>105</sup> Source: OMB website

<sup>106</sup> Source: *The Washington Post* (4/19/21)

### Potential Future Threat to Elizabethtown – Fort Knox MSA

While working on this project component, the consultant also spent time reviewing one of OMB’s process recommendations as to how the metropolitan/micropolitan designation works. As part of its 10-year review, OMB routinely requests suggestions or recommendations as to how the program should be changed/improved. OMB’s Standards Review Committee review these recommendations. Public comments are allowed after the recommendations are first published/posted. Then OMB formally acts on the recommendations.

During the most recent round, one recommendation which OMB formally considered was:

- (1) **The minimum urban area population to qualify as an MSA be increased from 50,000 to 100,000<sup>107</sup>**  
(emphasis added)

OMB rejected this recommendation, but only after a lot of blowback from community leaders and Members of Congress. Had this recommendation been formally adopted, 144 MSAs would have been re-classified as Micropolitan Statistical Areas. This would have included Bowling Green, Elizabethtown, and Owensboro in Kentucky.

According to an article in the *Owensboro Messenger-Inquirer* (3/20/21), OMB currently lists the core urban population for each of the three Kentucky metros as follows:

- Bowling Green 78,306
- Elizabethtown 73,467
- Owensboro 70,543

The urban population figure for Elizabethtown most likely includes city limit populations for Elizabethtown, Radcliff, and Vine Grove, plus some of the outer suburbs of Elizabethtown currently in unincorporated areas (e.g., Cecilia, Rineyville, Glendale, etc.).

What this means is that based on current population figures, **Elizabethtown needs to grow its urban core by at least 30,000 people to circumvent this threat in the future**. The project consultant recommends that discussions begin in the community to address this issue going forward.

### How Can the Elizabethtown – Fort Knox MSA be Expanded?

A review of the OMB regulations does not include a standardized method for a **community** to use to expand its MSA. Rather, OMB relies on a ten-year process which revolves around the census. Project consultant Luke Schmidt met with staff from the offices of Congressman Brett Guthrie, Senator Rand Paul, and Senate Minority Leader Mitch McConnell. It is the view of Leader McConnell’s staff that the community’s next best opportunity to expand the boundary of the MSA will occur in 2028. During 2028, OMB staff will do a deep dive into the previous five years of commuting patterns for each MSA (this will include the first two full years of commuting to the new BOSK plant).

If the community is not successful in 2028 in expanding the boundary of the MSA, the next opportunity will occur in 2033 as part of the regular 10-year process described above. It is the view of Leader McConnell’s staff that in

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<sup>107</sup> Source: OMB

2033, OMB staff will rely on data which include historical commuting patterns to the BOSK plant, beginning in 2025. Consultant Schmidt concurs with this view.



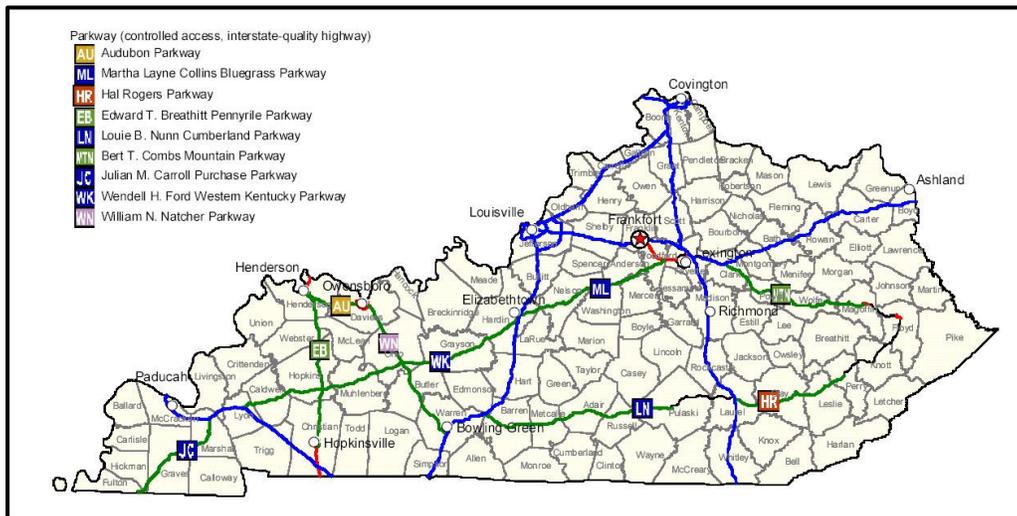
## Bluegrass/Western Kentucky Parkway Conversions to Interstate Status

Preliminary research has been completed on an additional issue of interest to the sponsors of the Elizabethtown – Fort Knox MSA Transformation Project – that being the possible conversion of two of Kentucky’s parkways to interstate status. Following is a summary of the research:

### Background

Kentucky developed a system of turnpikes and parkways, beginning back in the late 1950s. Two of these highways – the Kentucky Turnpike and the Mountain Parkway – were built before the establishment of the federal interstate highway system. The parkway system was designed to bring four-lane limited access highways to all parts of the Commonwealth.

The Kentucky Turnpike connected Louisville and Elizabethtown. The turnpike became part of Interstate 65. In 1963, the Western Kentucky Parkway (now known as the Wendell Ford Western Kentucky Parkway) was built from Elizabethtown to Princeton. (The parkway was extended from Princeton to I-24, providing an expressway from Elizabethtown to Paducah.



Kentucky's Parkway and Interstate System<sup>108</sup>

In 1965, the Bluegrass Parkway (now known as the Martha Layne Collins Bluegrass Parkway) was built from Elizabethtown eastward to Versailles, providing an expressway link between Elizabethtown and Lexington.

Kentucky’s parkway system was built before and during the establishment of the federal interstate system. As such, the parkways, like interstates, are limited access highways. The parkways are built like interstate highways but may not meet all the standards of interstate highways. The parkways opened many parts of Kentucky that otherwise had been previously served with poor highways and have helped to facilitate economic development.

(All parkways started as toll roads; however, once the bonds were paid off, the tolls were removed.)

Elizabethtown has benefited enormously from its central location, at the hub of I-65 and the Bluegrass and Western Kentucky parkways.

<sup>108</sup> Source: Google Image

## Ongoing Conversion of Kentucky Parkways to Auxiliary Interstate Highway Status

Most of Kentucky’s parkways have either been converted or are in the process of being converted to auxiliary interstate highway status. An auxiliary interstate highway is defined as a spur, loop, or by-pass route which intersects with an interstate highway. An auxiliary interstate highway is one that has been built as a new highway or is an existing highway which has been converted and upgraded to meet interstate standards.

Following is a list of parkways which have been converted or are being converted into auxiliary interstate highways:

Parkway <sup>109</sup>	From	To	Conversion Status
<b>Audubon</b> <sup>110</sup>	Henderson/I-69	Owensboro	No conversion underway
<b>Bluegrass</b>	Elizabethtown/I-65	Versailles	No conversion underway
<b>Cumberland</b>	Park City/I-65	Somerset	Currently being converted to I-365
<b>Daniel Boone</b>	London/I-75	Hazard	Two-lane parkway; does not meet interstate standards
<b>Green River</b>	Bowling Green/I-65	Owensboro	Converted to I-165
<b>Mountain</b>	Winchester/I-64	Salyersville	Section from Winchester to Campton is four lanes Section from Campton to Salyersville is being widened Parkway will be extended to Prestonsburg
<b>Pennyrile</b>	Henderson	Hopkinsville	Section from Henderson to WK Pkwy converted to I-69 Section from WK Pkwy to Hopkinsville converted to I-169
<b>Purchase</b>	Calvert City/I-24	Fulton	Converted to I-69
<b>Western Kentucky</b>	Elizabethtown/I-65	Eddyville/I-24	Section from Pennyrile Pkwy to Eddyville converted to I-69 Section from I-69 to I-165 designated future I-569 I-165 to Elizabethtown – conversion study completed 2022

As the above chart indicates, all but four parkways have been converted (or are being converted) to interstate status. The Daniel Boone Parkway is two-lanes and would not qualify for conversion. The Mountain Parkway is undergoing a major expansion in terms of capacity (upgrading from two to four lanes) and is being extended eastward to Prestonsburg. Interstate conversion may occur at a future date. Formal discussion about conversion of the Audubon Parkway to I-369 has taken place.

Parts of the Western Kentucky Parkway have been converted to I-69, and a section at the current western end of the parkway has been proposed for conversion to I-569 (from I-69 to I-165).

This leaves the eastern most section of the Western Kentucky Parkway and the Bluegrass Parkway which have not been converted, both of which intersect I-65 at Elizabethtown.

### Process of Converting a Parkway to an Auxiliary Interstate Highway

Converting a parkway to an auxiliary interstate highway includes a lot of moving parts, such as taking a highway currently under “state” management and converting it to “federal” management. One of the benefits to the state is that after conversion, 90% of maintenance costs become the responsibility of the federal government.

Before a parkway can be converted, it must first be upgraded (where needed) to federal Interstate Design Standards. Broadly speaking, following are the 10 primary design standards which must be met prior to conversion (some waivers/exceptions may be permitted):

1. Design Speed
2. Lane Width

<sup>109</sup> Parkway historical names listed

<sup>110</sup> Proposal would convert Audubon Parkway to I-369 if it is upgraded to interstate standards

3. Shoulder Width
4. Horizontal Curve Radius
5. Superelevation Rate (deals with steep grades)
6. Stopping Sight Distance
7. Maximum Grade
8. Cross Slope
9. Vertical Clearance (e.g., overpasses, overhead signs, etc.)
10. Design Loading Structural Capacity

The process usually begins with a formal study, commissioned by the Kentucky Transportation Cabinet, to determine what upgrades will be required to convert the highway. The study will look at such things as:

- Do any existing interchanges need to be rebuilt?
- Are shoulder widths adequate?
- Is pavement strength adequate?
- Are exits spaced properly?
- Are medians wide enough, or is some type of crossover barrier needed in certain areas?

The study will provide a detailed list of all needed improvements, along with an estimated cost. Funding sources are usually identified in such studies.

As an example, the Cumberland Parkway between Park City/I-65 and Somerset is currently being converted to I-365 (92-mile four-lane parkway). The upgrade study has been completed and the **study's Executive Summary follows the narrative in this section of the report**. Estimated cost to bring the parkway up to interstate standards is \$72.6 million. A redesign/rebuild of an interchange in Glasgow is the single most expensive upgrade item (\$15 million). Conversion signage may be permitted once the upgrades are committed, completed or well underway.

### **Assessment of Converting the Bluegrass and Western Kentucky Parkways**

#### **Western Kentucky Parkway**

The Kentucky Transportation Cabinet completed a comprehensive study of converting the eastern most section of the Western Kentucky Parkway, from I-165 to Elizabethtown in May 2022. Initial conversion costs of the 60-mile stretch of parkway range from \$56 million to \$64 million. Initial conversion means that immediate safety/design issues will have been met; however, the parkway will still not meet "final" interstate design standards. It is possible at this point that the federal government will allow interstate signage to be installed.

To meet final standards, the cost will range from \$102 million to \$127 million. According to the KYTC study, up to \$70 million of this cost will center on a redesign and rebuild of much of the existing major interchange on the south side of Elizabethtown, where I-65, the Western Kentucky Parkway, US 31W, US 31W By-Pass, and the Lincoln Parkway meet. On the Parkway's section of this interchange, none of it meets the federal interstate design standard. There are two full expressway interchanges and a grade level intersection all within one mile of each other. Full remedy of this situation could require new flyover ramps from I-65 to the parkway, along with other adjustments.

## **Bluegrass Parkway**

According to KYTC, nothing outside of a few conversations has been done to start the conversion process of the Bluegrass Parkway to an interstate highway.

Using the ongoing Cumberland Parkway conversion as a guide, it can be assumed that many of the same types of individual items found in their study (e.g., shoulder width expansions, length of ramp areas, etc.) will also be found in a study of the Bluegrass Parkway.

On the Bluegrass Parkway, along with standard remedial issues, it is anticipated that the interchanges which once also served as toll plazas at Boston and Bloomfield will need to be redesigned and rebuilt.

For the two parkways, these three interchange issues will be the most expensive part of their respective conversions.

## **Conversion Benefits**

There are certain benefits which will accrue to the Elizabethtown community if either or both parkways are converted to auxiliary interstate highway status, including:

1. Implementation of road design enhancements which might take decades to achieve otherwise
2. Improvements in parkway safety
3. Putting Elizabethtown on three (3) different interstate highways, which will enhance economic development efforts and the creation of new jobs

The first two benefits listed above will also accrue to communities located along the parkways, like Bardstown, Harrodsburg, Lawrenceburg, and Leitchfield with conversion. However, the most important benefit will be putting these communities on an interstate highway for the first time, which will enhance their respective efforts to create new jobs.

## **Conversion Strategy/I-365**

The process by which the Cumberland Parkway is currently being converted to I-365 follows below:



As noted above, the Cumberland Parkway is in the process of being converted to I-365. To get this process off the ground, the Somerset – Pulaski County Economic Development Authority (SPEDA) took the lead in sharing the benefits of conversion to community leaders along the parkway. SPEDA was soon joined by South Kentucky RECC, Taylor County RECC, and Farmers RECC as additional sponsors to keep the project moving forward. Outreach to the Kentucky Transportation Cabinet also took place.

Appropriate state and federal legislative support were developed up front.

The sponsors successfully applied for \$500,000 in federal BUILD funds to fund the upgrade study. The study has been completed and work is underway to fund and carry out the needed upgrades. The Cumberland Parkway has been designated a future interstate spur.

## Recommendations

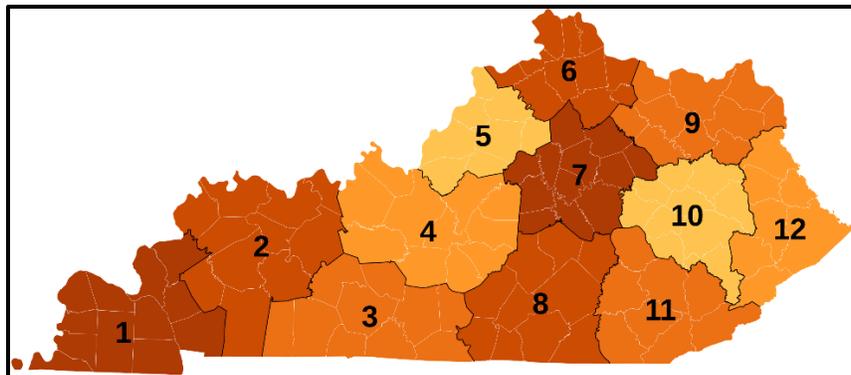
If community leaders in Elizabethtown decide to proceed with parkway conversion, several things will need to take place. Because two different parkways are involved, it will require two separate projects (both working to achieve the same outcome). Following is a preliminary list of what will be required:

### Project Management

Because Elizabethtown is served by both parkways (and the community stands to benefit the most from conversion), it is suggested that the primary sponsor be based in Elizabethtown. The Hardin County Chamber of Commerce can serve as the primary sponsor and can recruit additional sponsors in Elizabethtown and along both parkways.

A project facilitator should be selected to manage (on behalf of the sponsors) the projects and keep both moving forward, including initiation of discussions with the Kentucky Transportation Cabinet to fully develop an implantation plan. Starting with District # 4 officials, this will include KY Highway District officials in:

- District # 2 (Madisonville) – Western Kentucky Parkway
- District # 4 (Elizabethtown) – Western Kentucky Parkway/Bluegrass Parkway
- District # 7 (Lexington) – Bluegrass Parkway



Kentucky Highway Department Districts<sup>111</sup>

Finally, develop talking points and a PowerPoint presentation to “make the case” to various project constituents and build support for securing state and federal approvals as needed.

### Community Leaders Outreach

Along each parkway, initiate outreach to the following organizations and individuals and build support:

- Chambers of commerce
- Economic development agencies
- Mayors and county judge/executives
- State representatives and state senators
- Utilities which serve communities along the parkways

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<sup>111</sup> Source: Google Image

### **Federal Leader Outreach<sup>112</sup>**

- Senate Minority Leader Mitch McConnell
- Senator Rand Paul
- Congressman James Comer (KY 01)
- Congressman Brett Guthrie (KY 02)
- Congressman Thomas Massie (KY 04)
- Congressman Andy Barr (KY 06)

Part of any plan will need to include an understanding of what will be required of Congress and the Kentucky General Assembly when it comes to various approvals. This can be confirmed with the initial discussion with KYTC District # 4 officials.

Conversion of the Bluegrass Parkway will be a “start from scratch” program as no work regarding conversion has been started, historically. It is expected that the Bluegrass Parkway will be designated I-565.

Conversion of the Western Kentucky Parkway ( ) should build on what has been done so far to convert part of the WK Parkway to I-569 in Muhlenberg and Ohio counties. It is expected that the remaining portion of the WK Parkway from I-165 in Ohio County to Elizabethtown will be also designated as I-569.

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<sup>112</sup> Amazingly, the Bluegrass Parkway cuts across four different congressional districts

## Project Recommendations

### Introduction

The arrival of BlueOval SK, accompanying supplier plants, Krueger Packaging, and Nucor is an exciting time for the MSA. Many new opportunities such as commercial, retail, dining, etc. will arrive. Using the aggregated responses from the Key Stakeholder online surveys provides insight into the thought processes of community leaders as to the current state of the region and its future.

Bottom line: strong majorities of community leaders who participated in the Key Stakeholder engagement process support seizing the opportunities provided by BlueOval SK and supporting future growth. As a reminder, following are summaries of the responses:

Following is a summary of the key majority viewpoints:

#### Quality of Life Issues

- People like living in Hardin County and appreciate the collaboration, collegiality, support and comradery that exists between government, education, healthcare, and business leaders
- People appreciate the low crime rate and the fact that the community is growing and is a good place to raise a family
- On the other end of the spectrum, people would like more “premium” restaurants, department stores and better retail opportunities
- Concern was expressed about the new leadership team in Hardin County Government and their lack of preparedness for the growth and influx that is coming
- Concern was also expressed about the lack of convention/meeting space, public transit and cultural opportunities
- Strong majorities expressed satisfaction when it comes to education providers (all levels) in the community, along with the quality of healthcare providers and public safety agencies, and park systems
- While majorities expressed satisfaction with retail opportunities in Downtown Elizabethtown and the North Dixie retail corridor (excluding Towne Mall), significant dissatisfaction was expressed about the current status of Towne Mall and retail opportunities in Radcliff and Vine Grove
- Crowne Point Theater and the Elizabethtown Sports Park scored very high marks in terms of satisfaction of opportunities provided to citizens

### **Overall Growth Issues**

- Strong majorities supported and/or recognized the following when it comes to future growth:
  - Managing growth both in the City of Elizabethtown and beyond with smart growth strategies
  - Land values will increase resulting in more dense housing developments
  - The community should begin planning for new utility corridors to accommodate future growth
  - The community should begin planning for extending professional (full-time) firefighting protection services to outlying areas near the BOSK plant
  - The City of Elizabethtown should consider developing a strategic annexation plan, recognizing that thousands of people already live just outside the city limits, work in and use/enjoy city services/amenities

### **Economic Development Issues**

- Strong majorities supported and/or recognized the following when it comes to economic development:
  - Elizabethtown/Hardin County will be one of the five growth centers/economic powerhouses of Kentucky going forward
  - It is important to maintain growth and development of new jobs to retain local talent and recruit new talent to the community going forward
  - New regional transit system to efficiently move people and workers around Hardin County
  - New community branding is needed for current and future economic development/market promotion
  - Appropriately planned solar energy projects should become part of the community's power mix
- One area of concern: majority of respondents to not believe that community leaders are aligned properly to implement the existing growth, and plan for and manage future growth

### **BlueOval SK Issues**

- Strong majorities agreed that BOSK will become a key and valued component of the community, support the active recruitment of BOSK supplier plants to the community, and that the community should formally engage with BOSK to support future expansion of the battery park

### Future Industrial Development/New Jobs

Strong majorities agreed on the following:

- Support Elizabethtown/Hardin County Industrial Foundation efforts to secure new industrial development land to compete with regional communities and create new jobs
- Take steps in the foreseeable future to secure land for the next “big project,” which might require a new mega site

To tie this project together, the author has developed a series of recommendations for the consideration of community leaders. The recommendations are grouped as follows:

- Community Branding/Promotion
- Community Growth Management
- MSA Future Planning
- Quality of Life
- Transportation
- Community Leadership/Future Regional Planning & Project Facilitation

### Community Branding/Promotion



BlueOval SK not only represents a “once in a lifetime” opportunity in terms of investment, new jobs, etc., for the community, it also brings new opportunities for the community to re-brand itself, to take advantage (among other things) of the fact that it will be the **“EV electric battery manufacturing capital of the world.”**

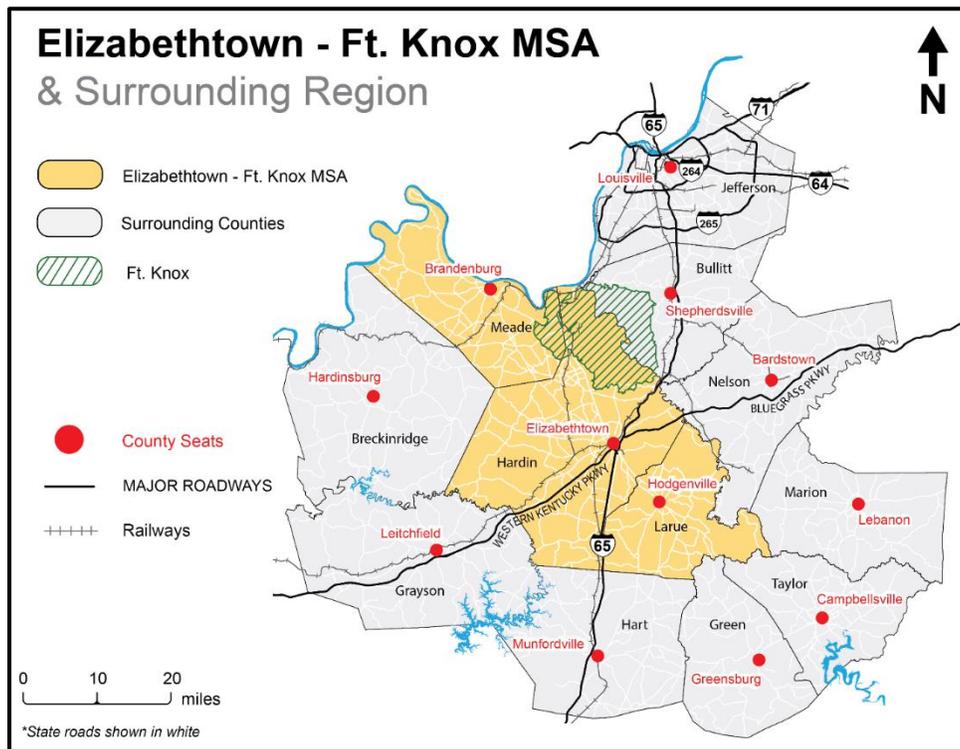
This presents all new opportunities to position Elizabethtown, Hardin County, Central Kentucky, the I-65 Corridor, and indeed all of Kentucky on a global basis.

Such repositioning/re-branding can lead to further opportunities for the community to grow in terms of new retail, dining, industrial development, and job creation.

### **Recommendation:**

1. ***Develop a steering committee of community leaders to examine this issue to determine how to proceed in a timely manner to fully maximize the opportunities currently presented by BOSK***

## MSA Future Planning



As part of the MSA boundary review process previously described in this report, community leaders should immediately recognize that the previously proposed (and rejected) OMB rule which would require a minimum urban core population of at least 100,000 people could again be proposed (and accepted), and, if the Elizabethtown urban population falls below 100,000 that the community could see its current MSA designation changed to that of Micropolitan Statistical Area, which will lead to a reduction in federal grants; as such, community leaders should immediately begin looking at opportunities which will enable Elizabethtown to increase its urban core population to at least 100,000 people

### **Recommendations:**

- 1. Recognize a possible future threat through a change in OMB MSA designation rules which would raise the urban core population requirement from 50,000 to 100,000 people***
  - a. Identify opportunities to increase Elizabethtown's urban core population from 73,000 to 100,000 +***
- 2. At the appropriate time in 2028, monitor U.S. OMB's interim review of existing MSA boundary delineation and commuting patterns to ensure that the Elizabethtown – Fort Knox MSA is allowed to expand appropriately (the addition of Grayson and Hart counties alone would elevate the MSA's population to over 200,000 and create a whole new market opportunity)***

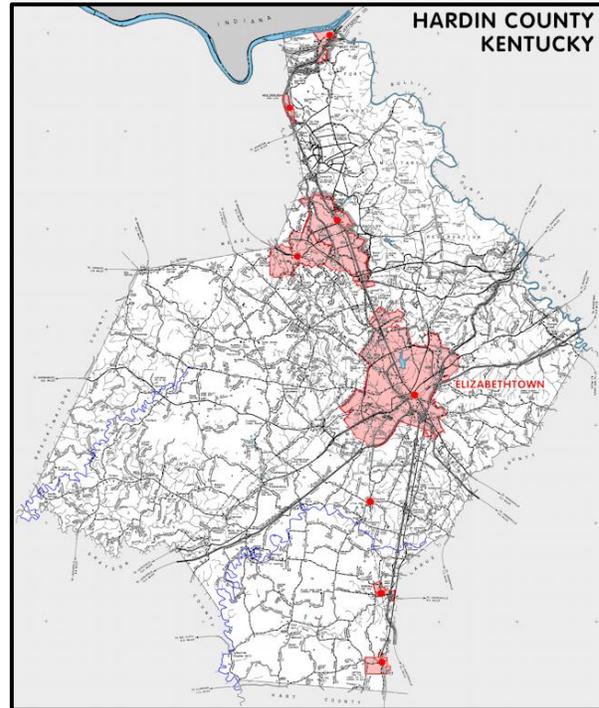
## Community Growth Management

As indicated in the impact section of this report, significant growth is coming to the MSA, most all of it centered on the City of Elizabethtown and Hardin County. This growth brings new opportunities for both jurisdictions to examine how each intends to proceed when it comes to managing this growth and providing vital services in the most cost-efficient manner.

Neither jurisdiction wants “hap-hazard” growth when it comes to new housing, commercial, and retail developments. At the same time, many of the thousands of newcomers who relocate to the region will do so with an expectation that efficient public services will be provided (including utilities, law enforcement, planning and zoning, EMS, and full-time professional firefighting).

Given current revenue streams, the City and the County need to evaluate just how they can manage the coming growth, and implement smart growth strategies (e.g., is the County in position to provide full time fire protection, enhanced EMS service, develop new parks and other quality of life needs?).

This, then, raises the overall issues of annexation and/or unified government (both of which were identified and supported during the key stakeholder engagement part of this impact project). Inclusion within the City of Elizabethtown, through annexation or unified government brings certain benefits to residents:



Issue	Solution/Benefit
<p><b>Thousands will be relocating to Elizabethtown and Hardin County</b></p> <p><b>Neither jurisdiction wants “hap-hazard” growth</b></p> <p><b>Given current revenue streams, the City and the County need to evaluate how each can manage the coming growth and implement smart growth strategies</b></p> <p><b>For example, is the County in position to provide full time fire protection, enhanced EMS service, develop new parks and other QOL needs?</b></p>	<p><b>This raises the issues of annexation or unified government, either of which will bring benefits:</b></p> <ol style="list-style-type: none"> <li><b>1. Professional, full-time police protection</b></li> <li><b>2. Professional, full-time fire protection</b></li> <li><b>3. Attainment of higher insurance (ISO) ratings</b></li> <li><b>4. Corresponding decreases in insurance premiums</b></li> <li><b>5. Expanded tax basis – the larger the jurisdiction, the lower the unit cost to provide services</b></li> <li><b>6. Access to multiple tax streams, such as property, occupational, lodging, restaurant, etc.</b></li> <li><b>7. Expansion of alcoholic beverage sales area to correspond with a growing city</b></li> </ol>

(Conversely, Hardin County, and cities like Radcliff have current limitations – due to state law – which limit their ability to levy certain types of taxes to help pay for needed public services and infrastructure as the overall community grows.)

**Recommendations:**

1. ***City of Elizabethtown should consider the following:***
  - a. ***Annex immediate surrounding unincorporated suburban area***
  - b. ***Annex area south to new I-65/Ring Road interchange***
  - c. ***Annex the BOSK facility to provide future funding for City services, OR,***
2. ***City and County should consider creating joint commission to explore benefits and develop plan for unified government to include City and unincorporated Hardin County to present to voters***
3. ***Eliminate height moratorium on buildings in the City to allow for denser residential and commercial development, while respecting the historic Public Square area, recognizing increasing land costs***
4. ***Plan utility expansion accordingly***
  - a. ***Consider the development of an impact fee to fund future infrastructure development***

What might unified government look like today in Hardin County?

City of Elizabethtown		31,892
Hardin County		111,862
Communities Expected to Opt Out of Unification:		
Radcliff	22,953	
Vine Grove	6,880	
West Point	952	
Sonora	<u>565</u>	
Subtotal	(31,350)	
Elizabethtown/Hardin County (unincorporated)		80,512

The preceding chart illustrates the population of a unified government jurisdiction as described above, (this does NOT include the thousands of expected newcomers).

Elizabethtown would become the third largest city in Kentucky (it currently ranks 9<sup>th</sup>).

Another important consideration is the streamlining of government services which could occur with unified government. The previous study conducted on unified government for Hardin County indicated that 94 existing government jurisdictions (e.g., departments, fire departments, planning departments, boards and commissions, etc.) could be reduced to nine departments to provide the efficient delivery of government services.

## Quality of Life



### **Recommendations:**

- 1. Build upon past success by reviewing current City design guidelines, planning and zoning requirements and amend where needed to ensure that future development will result in an overall aesthetic making the City the most attractive in Kentucky in which to live; this would include building design, lighting, landscaping, streetscapes, etc.**
- 2. Build upon the excellent work underway in Downtown Elizabethtown by identifying other downtown areas which are both historic in nature yet growing and accommodating of both historic structures, the building of newer, more modern (and taller) structures with parking garages with a net result of a strong, vibrant downtown core**
  - a. Bentonville, AR**
  - b. Bowling Green, KY**
  - c. Greenville, SC**
- 3. Build upon the existing retail shopping district along North Dixie Avenue by replacing Towne Mall with a lifestyle center with more upscale stores (similar to The Paddock in Louisville)...this could include a new hotel, new dining options, new residential options**
- 4. Explore opportunities to develop new parks in unincorporated Hardin County**
- 5. The City should investigate new/alternative funding systems to fund new infrastructure and recruit new developers, businesses and services with incentives, TIF districts, etc.**



## Transportation



Elizabethtown/Hardin County's central location has been the cornerstone to the community's success in growing and recruiting new business and industry to the area. Access to key transportation infrastructure is essential to the community's growth going forward and directly contributes to new jobs and investment. There are several things the community can do to facilitate further and improved links to the transportation eco-system.

### **Recommendations:**

- 1. Interstates/Parkways**
  - a. Convert remainder of Western Kentucky Parkway to I-569**
  - b. Convert Bluegrass Parkway to I-565**
  - c. Monitor KYTC plans to widen I-65 from I-265**
- 2. Develop community EV electric charging station plan**
- 3. Support facilitation of funding for the feasibility study and expeditious construction of a new all-weather 8,000-foot runway at Elizabethtown Regional Airport (EKX) to support Fort Knox, capable of handling C-17 transport aircraft for U.S. Army training/deployment needs, thereby opening up new air cargo capability for the I-65 Corridor**
- 4. Investigate regional transit system needs**
  - a. Hardin/surrounding counties**
  - b. Commuter rail along the I-65 Corridor (Louisville – Bowling Green)**
  - c. Future Louisville – Nashville Amtrak route**
- 5. Recruit Uber and Lyft rideshare services to the area**

## Workforce Recruitment



### **Recommendations:**

1. ***Recognizing the need to source thousands of workers to fill the new positions at BlueOval SK – and the additional direct and indirect jobs which will follow, the community should work with BOSK to develop a workforce development campaign in areas outside of the immediate region, encouraging those who are looking for new employment opportunities to relocate to the Elizabethtown metro area***
2. ***Along with this concept, consider (as other growing communities have done) the development of some type of incentive program to encourage workers to relocate***

## Community Leadership/Future Regional Planning & Project Facilitation

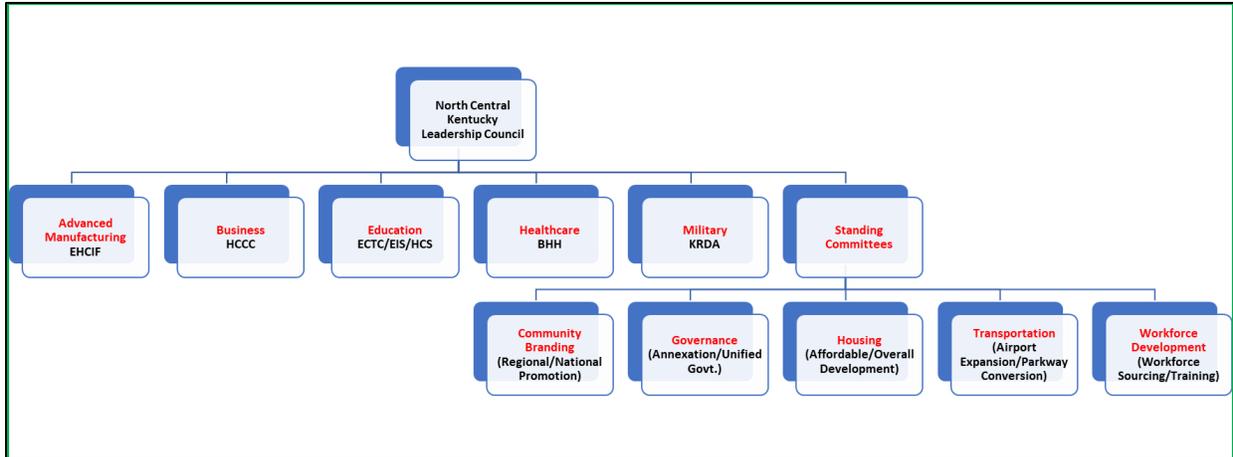
Many of the above referenced goals and objectives will require thoughtful consideration. If the community agrees with many of these and wishes to pursue implementation, it will require a platform from which to advocate, plan, and implement the ideas incorporated in the goals. How the community (and region) decide to do this will set the tone (literally) for the next 50 years.

The community and the region need to develop a new platform, commonly found in other successful, larger regions which can serve as the catalyst for strategic planning, collaboration and project implementation.

### **Recommendation:**

1. ***Develop new central platform which further integrates existing groups for the purpose of catalyzing strategic planning, community collaboration, community visioning, and, project implementation***

This platform can take many shapes and be either created from “scratch,” or developed as an adjunct to one or more existing organizations, including (1) a build out of the Hardin County Chamber’s Presidents Circle, (2) a new, stand-alone entity, or (3) another concept, such as a civic council found in larger markets. The platform can address the following areas as shown in the chart below:



**How to get there:**

- *Consider other groups to be added (e.g., tourism, etc.)*
- *Develop steering committee to fully evaluate concept/need*
- *Develop Mission Statement/Goals & Objectives*
- *Build out Hardin County Chamber of Commerce’s Presidents Council, or,*
- *Consider civic council concept, or,*
- *Something else*