

# White County, Indiana Target Market Study

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Presented By:



Thomas P. Miller & Associates

1630 N Meridian Street, Suite 430 Indianapolis, IN 46202

> p. 317.894.5508 f. 317.894.5370

www.tpma-inc.com

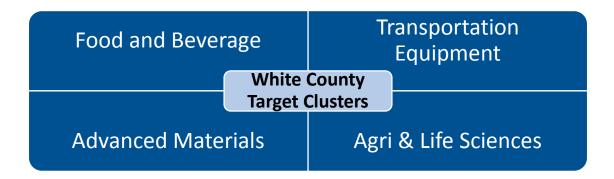
# **Executive Summary**

The mission of the White County Economic Development organization is "to enhance the economy of White County by facilitating the growth and development of business and industry." Though White County is a rural community located in northwestern Indiana, the acute focus on business attraction, expansion, and retention, as well as workforce development programs elevates the region above its peers. Recently, a marketing campaign was completed that featured videos on the community's attractive quality of life and business attraction assets (<a href="http://www.whitecountyin.org/">http://www.whitecountyin.org/</a>). In addition, White County's has historically been one of Indiana's top producers in corn, soybean, swine, and popcorn production while offering charming tourist attractions with Indiana Beach, Lake Freeman, and Lake Shafer.

At the request of the White County Economic Development organization (EDO), Thomas P. Miller and Associates (TPMA) has conducted a target market analysis of White County and the surrounding area with recommendations for the new industrial park located near I-65 – the Mid-America Commerce Park. The analysis will help guide economic development decisions to attract strong industries, businesses, and a workforce to the county and region.

### **Industry Analysis Recommendations**

Industry analysis identified four key clusters of industries that White County should target for the Mid-America Commerce Park, which are the following:



These four clusters are comprised of growing industries that have a strong foundation to support new businesses, making investment worthwhile. While each cluster is unique, the four share similarities in supply chains and required occupations that will allow for synergistic growth.

### **Labor Force Recommendations**

White County and the surrounding counties (Benton, Carroll, Cass, Clinton, Fulton, Howard, Jasper, Miami, Newton, Pulaski, Starke, Tippecanoe, Warren, and White Counties) have a labor force over 264,000 people strong. The labor force is educated and has opportunities to utilize crossover skills to meet the demands of manufacturers.

Among the target industries, a few recurring occupations present themselves as targets due to prevalence in more than one target cluster. These industries and their required education levels are listed below. White County will need to promote these occupations and their required skills in order to grow the workforce needed for attracting the targeted industries.

Education Required	Occupation			
Bachelor's degree	Industrial Engineers			
bacheror's degree	Mechanical Engineers			
Postsecondary non-degree award	First-Line Supervisors of Production and Operating Workers			
	Inspectors, Testers, Sorters, Samplers, and Weighers			
High school diploma or equivalent; Moderate-term on-the-job training	Team Assemblers			
	Cutting, Punching, and Press Machine Setters, Operators, and Tenders,			
Woderate-term on-the-job training	Metal and Plastic			
	Welders, Cutters, Solderers, and Brazers			
High school diploma or equivalent;	Floatrical and Floatranic Equipment Assemblars			
Short-term on-the-job training	Electrical and Electronic Equipment Assemblers			
Less than high school; Short-term on-	HelpersProduction Workers			
the-job training	Laborers and Freight, Stock, and Material Movers, Hand			

In conclusion, this Target Market Study highlights the following labor market data:

- Between 2004-2014, the 14-county region's population grew by 5%, totaling over 540,000
- Between 2004-2014, the largest population growth for both White County and the 14-county region occurred in the 55-64 age group
- White County's median income was \$51,500 in 2015 as compared to the state median of \$48,250
- White County's poverty rate in 2014 was 12.1%, below the rate for Indiana (15.9%) and the U.S. (14.5%)
- White County's population over the age of 25 with a High School Diploma is 89% as compared to Indiana's rate of 87%
- A net loss of 19,200 workers commute outside White County and the 14-county region

# **Table of Contents**

Executive Summary	1
Industry Analysis Recommendations	1
Labor Force Recommendations	1
Introduction	5
Methodology	5
Target Industry Analysis Methodology	5
A Note on Data Sources	5
Target Market Study	7
Food and Beverage Cluster	8
Economic Impact	9
Associated Occupations	10
Supply Requirements	10
Supply Leakage	11
Transportation Equipment Manufacturing Cluster	13
Economic Impact	14
Associated Occupations	14
Supply Requirements	15
Supply Leakage	16
Advanced Materials Cluster	17
Economic Impact	20
Associated Occupations	20
Supply Requirements	21
Supply Leakage	22
Agri & Life Sciences Cluster	23
Economic Impact	25
Associated Occupations	25
Supply Requirements	26
Supply Leakage	26
Labor Force Analysis	28
Geography	28
Population	28
Age Demographics	29

Income	29
Education	30
Commuting Patterns and Labor Force Availability	31
Overall Labor Analysis	32
Target Market Labor Analysis	33
Crossover and Upskilling	34
Mid-America Commerce Park	35
White County Shell Building	36
Broadband Assets	36
Energy Assets	37
Purdue University - College of Agriculture	38
AgriNovus Indiana	39
Lilly Endowment Planning Grant	39
Site Location Consultants	40
Lead Generation	40
Appendix A: Building Requirements for Target Industries	42
Food Processing	42
Life Science R&D and Manufacturing	/13

### Introduction

White County, Indiana is home to nearly 25,000 residents and more than 600 businesses. The county has a strong and dynamic economy with a number of regional assets including a strong manufacturing base and proximity to Lafayette; prime location relative to Chicago and Indianapolis and Purdue University; and a talented and educated workforce. Currently, the White County EDO is developing the Mid-America Commerce Park (MACP), a 600+-acre industrial site along I-65 that will include a shell building with additional room for expansion and development. Furthermore, White County officials have approved a Tax Increment Financing (TIF) district of approximately 2,200 acres encompassing the MACP, creating an attractive MEGA site as defined by the Indiana Economic Development Corporation. In order to help maximize the assets of the region, TPMA has conducted a target market analysis to provide key insights on industries to target, workforce readiness, and business attraction.

### Methodology

In order to gain an understanding of the regional supply chain and industry needs, TPMA — with the guidance of the White County EDO and the Region 4 Workforce Investment Board — identified the region to focus its analysis. This region includes 14 counties within a 45-mile radius of a point in the center of White County. The 45-mile radius also reflects a 45-minute commute time to businesses within the County. This region will be referred to throughout this report as the 14-county region. The counties in this region are Benton County, Carroll County, Cass County, Clinton County, Fulton County, Howard County, Jasper County, Miami County, Newton County, Pulaski County, Starke County, Tippecanoe County, Warren County, and White County.

#### Target Industry Analysis Methodology

Industry data was pulled at the 4-digit NAICS level for all industries in the 14-county region. Target manufacturing industries were identified based on the prevalence of jobs in the region, job growth or loss over the past 10 years, future projections over the next five and 10 years, location quotient, competitive effect (i.e. whether job growth or loss was based off of factors specific to the region as compared to national or industry trends), and average wages. Industries were also targeted for their relevance to other high-performing industries and were grouped based on similar characteristics. Proactive business targeting was also a consideration in the selection of target industries to confirm the best prospects for White County.

The three strong regional industry clusters contain a high number of current and projected industry jobs, earnings, concentration (location quotient), and competitive advantages (shift share). The aspirational industry - Agri & Life Sciences -- aims to either attract businesses that do not currently have a strong industry presence, or to supply industries not currently within the 14-county region and can be future target industries for the County to consider.

### A Note on Data Sources

All data and statistics used in this appendix were sourced from Economic Modeling Specialists Intl. (EMSI) 2014 data, unless otherwise noted.

EMSI compiles data from a variety of federal, state, and private data sources. Projections are backwards-looking, meaning that future projections are partially based upon 15-year trends and may not accurately predict real-time demand. Therefore, it will be critical to update projections, confirm employer demand,

and assess workforce requirement on a regular basis. For more information about EMSI, see <a href="http://www.economicmodeling.com/">http://www.economicmodeling.com/</a>.

# **Target Market Study**

A target market study provides a guide to focus resources and align partners and efforts in a common approach to increasing economic prosperity. It does not suggest organizations ignore companies that fall outside the targeted industries; rather, a target market study can help prioritize options when time and money are limited.

For White County, the recommended manufacturing target industry clusters are:



Each of these clusters is comprised of between three and 13 industry groups (4-digit NAICS codes). Across these industries, over 36,500 workers are employed in the region, with average earnings per job of just over \$70,000 per year. These industries have experienced job growth of more than 24.5 percent over the last five years.

To determine the industry groups included in the region's target industry clusters, all 4-digit NAICS codes were analyzed and included or eliminated based on four main factors. Each industry group included has a current employment of more than 25 workers, and one (or more) of the following

- Positive **competitive effect** industry group experienced growth based on local factors
- Positive **expected change** industry group experienced growth based on a combination of local, industry, and national factors
- Location quotient above 1.2 industry group has a local employment concentration of at least 1.2 times the national average indicating uniqueness to the rest of the U.S.
- Similarity or complementarity with another target industry

This section provides profiles of each target industry cluster, focusing on included industry groups and their characteristics, regional business establishments, cluster economic impact, associated occupations, supply requirements, and supply leakage values. Analysis is provided for the 14-county region, with additional information highlighting particular strengths.



### Food and Beverage Cluster

The Food and Beverage industry cluster is a target for White County and the 14-county region. According to the U.S. Department of Commerce Industry Report on Food Manufacturing, the industry is one of the nation's largest manufacturing sectors, comprising an estimated 10% of all manufacturing shipments. Generally, the food processing industry has historically been competitive despite downturns in the economy, including the recent recession, due to a baseline of consumer demand regardless of the economic environment. In addition, the industry has experienced a steady influx of mergers and acquisitions in recent years. And in terms of expansions, many U.S. food processors are growing their operations to get closer to their customer base.

# FOOD AND BEVERAGE CLUSTER

AT A GLANCE

Employment **7,346** 

Establishments 48

Average Earnings \$50,070

Job Growth 2004-2014 +3.7%

Job Growth 2009-2014 -0.6%

While Food and Beverage Manufacturing is a regional strength

and target cluster, White County does not have an existing critical mass, meaning the County does not contain a concentration of relevant companies to sustain business activity for this industry alone. Thus, the data provided for this cluster includes the 14-county region surrounding, and including, White County.

Representative White County companies include: BioTown Ag, ConAgra Foods, and Rose Acre Farms

The Food and Beverage cluster contains seven industries:

- Grain and Oilseed Milling (3112) includes companies that mill flour and manufacture malt, starch, and vegetable fats and oils, and breakfast cereals.<sup>3</sup>
- Sugar and Confectionary Product Manufacturing (3113) includes companies that process sugarcane, beets, and cacao into sugar or chocolate, and companies that start with sugar and chocolate and process these further.
- Fruit and Vegetable Preserving and Specialty Food Manufacturing (3114) includes companies that
  freeze food, such as juices, vegetables and specialty foods, and companies that use other
  preservation processes including pickling, canning, and dehydrating
- Dairy Product Manufacturing (3115) includes companies that process dairy products from milk including fluid milk, cheese, butter, ice cream and dry, condensed, and evaporated dairy products.
- Animal Slaughtering and Processing (3116) includes companies that slaughter and process various animals into products for human consumption.
- Bakeries and Tortilla Manufacturing (3118) includes companies that manufacture bread, bakery products, frozen cakes, pies, pastries, cookies, crackers, pasta, and tortillas.
- Other Food Manufacturing (3119) this broad category includes companies that produce snack foods, coffee, tea, food flavorings, syrups, seasonings, dressings, condiments, spices, and more.

<sup>&</sup>lt;sup>1</sup> http://trade.gov/td/ocg/report08 processedfoods.pdf

 $<sup>\</sup>frac{^2http://www.areadevelopment.com/Print/FoodProcessing/Q2-2014/food-processing-industry-consolidation-expansion-28198122.shtml?ID=4408\&ID1=93$ 

<sup>&</sup>lt;sup>3</sup> All NAICS definitions from <a href="http://www.census.gov/eos/www/naics/">http://www.census.gov/eos/www/naics/</a>

These seven industries host over 7,300 jobs in the 14-county region. Additional statistics can be found in the table on the next page.

NAICS	Description	2014 Jobs	'04-'14 Change	CE '04- '14	'14- '19 Change	CE '14- '19	'14 LQ	Average Earnings
3112	Grain and Oilseed Milling	734	120	131	23	24	8.16	\$86,955
3113	Sugar and Confectionery Product Manufacturing	317	-91	-24	-33	(11)	3.10	\$31,639
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	135	65	68	37	40	0.52	\$39,767
3115	Dairy Product Manufacturing	169	-282	-290	-54	(57)	0.84	\$62,796
3116	Animal Slaughtering and Processing	4,433	743	934	367	217	6.13	\$41,081
3118	Bakeries and Tortilla Manufacturing	144	-176	-176	-19	(21)	0.32	\$61,593
3119	Other Food Manufacturing	1,414	-115	-367	-125	(211)	5.21	\$49,969

#### Economic Impact

If the 14-county region attracts 150 new jobs within this industry cluster, the region can expect a total impact of 278 new jobs (including the initial +150) and \$12.1 million in combined annual earnings for the region.<sup>4</sup>



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<sup>&</sup>lt;sup>4</sup> Economic impact measures the total direct, indirect, and induced effects on jobs and earnings in the region as a result of adding or subtracting a number of jobs in one particular industry. As this effect is measured at the 6-digit NAICS level, this model includes all 6-digit industries that make up the 4-digit industry groups in this cluster, providing they employ at least one worker in the region. The added 100 jobs were then distributed across these industries, weighted by employment to include the weighted effect of the range of included multipliers.

#### **Associated Occupations**

The following table displays the top 10 occupations that are most often required to staff companies within the Food and Beverage industry cluster.

Description	Jobs (2014)	Annual Openings <sup>5</sup>	Median Earnings <sup>6</sup>	Education and Training
Meat, Poultry, and Fish Cutters and Trimmers	1,130	62	\$28,413	Less than high school; Short-term on-the-job training
Slaughterers and Meat Packers	531	31	\$26,062	Less than high school; Short-term on-the-job training
Packers and Packagers, Hand	401	55	\$20,717	Less than high school; Short-term on-the-job training
Packaging and Filling Machine Operators and Tenders	388	36	\$28,080	High school diploma or equivalent; Moderate-term on-the-job training
HelpersProduction Workers	328	87	\$23,546	Less than high school; Short-term on-the-job training
Laborers and Freight, Stock, and Material Movers, Hand	300	305	\$25,314	Less than high school; Short-term on-the-job training
First-Line Supervisors of Production and Operating Workers	291	86	\$57,824	Postsecondary non-degree award; Less than 5 years' experience
Food Batchmakers	286	13	\$24,419	High school diploma or equivalent; Moderate-term on-the-job training
Inspectors, Testers, Sorters, Samplers, and Weighers	249	96	\$40,914	High school diploma or equivalent; Moderate-term on-the-job training
Industrial Truck and Tractor Operators	223	78	\$30,555	Less than high school; Short-term on-the-job training

Wages for these occupations in the region range from \$20,717 per year at the low end for Packers and Packagers, and to \$57,824 per year at the high end for First-Line Supervisors of Production and Operating Workers. The values represent wage levels for these occupations across all industries, not just in the Food and Beverage industry cluster. Six of the top 10 occupations require a high school diploma or less accompanied by short-term on the job training. Only one, First-Line Supervisors of Production and Operating Workers, requires any previous experience.

#### Supply Requirements

As site location consultants will verify, one of the top site location factors for the processing industry is supply-chain strengths and proximity. Combining the seven industries in this cluster, the Food and Beverage Cluster in the region purchases more than \$3.3 billion in goods and services for its operations. The top three industries from which the group purchases are Animal Production (\$944 million), Crop Production (\$661 million), and Animal (except Poultry) Slaughtering (\$163 million).

Of the \$3.3 billion in goods and services sourced by this cluster, 81 percent, or \$2.7 billion, is purchased from outside of the region. Conversely, the cluster locally purchases more than 50 percent of goods and

<sup>&</sup>lt;sup>5</sup> For this, and all other references to Average Annual Openings, the figures refer to openings across all industries, while employment is industry-specific.

<sup>&</sup>lt;sup>6</sup> Median Hourly Earnings multiplied by 40 hours for workweek and 52 for weeks in a year.

<sup>&</sup>lt;sup>7</sup>Food Processing <a href="http://www.areadevelopment.com/corporate-site-selection-factors/Q2-2015/locating-food-manufacturing-facility-critical-factors-377009.shtml">http://www.areadevelopment.com/corporate-site-selection-factors/Q2-2015/locating-food-manufacturing-facility-critical-factors-377009.shtml</a>

services for four of the top 15 industries: Animal (except Poultry) Slaughtering (75 percent), Meat Processed from Carcasses (55 percent), Fats and Oils Refining and Blending (54 percent), and Wet Corn Milling (71 percent).

Five of the industries on this list below (**bolded**) also fall within the industry groups that comprise the Food and Beverage cluster, and one industry (*italicized*) falls into the Advanced Materials cluster indicating that there could be existing supply relationships within this cluster, or opportunities for new relationships to be formed with existing companies.

Industry	Amount	In-Region
Animal Production	\$943,693,795	9.1%
Crop Production	\$660,899,815	13.6%
Animal (except Poultry) Slaughtering	\$163,222,462	75.0%
Meat Processed from Carcasses	\$144,480,307	54.7%
Fats and Oils Refining and Blending	\$97,097,280	53.6%
Soybean and Other Oilseed Processing	\$92,436,331	35.7%
Corporate, Subsidiary, and Regional Managing Offices	\$76,612,208	1.5%
General Freight Trucking, Long-Distance, Truckload	\$57,944,014	22.4%
Wholesale Trade Agents and Brokers	\$54,019,458	4.4%
Plastics Bottle Manufacturing	\$50,750,467	2.1%
Rail transportation	\$48,870,561	15.9%
Wet Corn Milling	\$30,948,837	70.9%
Natural Gas Distribution	\$29,045,581	20.9%
General Freight Trucking, Local	\$26,659,272	17.7%
General Freight Trucking, Long-Distance, Less Than Truckload	\$24,358,512	11.7%

### Supply Leakage

Over 81 percent, or about \$2.7 billion, of goods and services required for the Food and Beverage manufacturing cluster are purchased outside of the 14-county region surrounding White County. Approximately 70 percent of this supply leakage is concentrated in the ten industries in the table below. Shaded industries are reasonable targets for expansion of the Food and Beverage supply chain in the region. Others, such as Corporate, Subsidiary, and Regional Managing Offices and Crop Production, are often location-constricted and therefore would not likely be suitable for attraction. **Bolded** industries are part of the Food and Beverage industry while *italicized* industries are part of another White County target industry cluster.

Industry	Supply Leakage	Leakage
		Percent
Animal Production	\$858,109,808	90.9%
Crop Production	\$570,935,561	86.4%
Corporate, Subsidiary, and Regional Managing Offices	\$75,492,260	98.5%
Meat Processed from Carcasses	\$65,379,109	45.3%
Soybean and Other Oilseed Processing	\$59,481,483	64.3%
Wholesale Trade Agents and Brokers	\$51,644,518	95.6%
Plastics Bottle Manufacturing	\$49,681,654	97.9%
Fats and Oils Refining and Blending	\$45,074,097	46.4%
General Freight Trucking, Long-Distance, Truckload	\$44,990,065	77.6%
Rail transportation	\$41,103,262	84.1%

The occupations typically required for these six supply targets are detailed below.<sup>8</sup>

Description	Median Earnings	Education and Experience
Heavy and Tractor-Trailer Truck Drivers	\$38,100.78	Postsecondary non-degree award; Short-term on-the-job training
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$53,974.31	High school diploma or equivalent; Moderate-term on-the-job training
Laborers and Freight, Stock, and Material Movers, Hand	\$24,097.83	Less than high school; Short-term on-the-job training
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	\$74,026.30	Bachelor's degree; Moderate-term on-the-job training
Office Clerks, General	\$28,114.27	High school diploma or equivalent; Short-term on-the-job training
Customer Service Representatives	\$30,919.85	High school diploma or equivalent; Short-term on-the-job training
General and Operations Managers	\$96,037.65	Bachelor's degree; Less than 5 years' experience
Light Truck or Delivery Services Drivers	\$29,093.95	High school diploma or equivalent; Short-term on-the-job training
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	\$32,831.67	High school diploma or equivalent; Short-term on-the-job training
Bookkeeping, Accounting, and Auditing Clerks	\$35,729.04	High school diploma or equivalent; Moderate-term on-the-job training

<sup>&</sup>lt;sup>8</sup> Based on national data.



### Transportation Equipment Manufacturing Cluster

Industries in the Transportation Equipment Manufacturing subsector produce equipment for transporting people and goods. Establishments in this cluster use processes similar to those of other machinery manufacturing establishments - bending, forming, welding, machining, and assembling metal or plastic parts.<sup>9</sup>

Demand is driven by employment and interest rates, growth in consumer income, military budgets, and the overall economic climate. <sup>10</sup> As consumer income continues to rebound from the economic downturn, companies in the Transportation Equipment Manufacturing cluster can expect increased revenue, particularly in the industries identified below.

Vanguard National Trailer is a representative company currently within White County.

# TRANSPORTATION EQUIPMENT MANUFACTURING

AT A GLANCE

Employment 18,873

Establishments 37

Average Earnings \$86,161

Job Growth 2009-2014 +48.6%

The Transportation Equipment Manufacturing cluster contains three industries:

- Motor Vehicle Manufacturing (3361) manufacturing chassis and complete versions of automobiles, light duty motor vehicles, heavy duty trucks, motor homes, and other motor vehicles.
- Motor Vehicle Body and Trailer Manufacturing (3362) –manufacturing motor vehicle bodies and cabs; truck and other detachable trailers; motor homes; and camper trailers.
- Motor Vehicle Parts Manufacturing (3363) manufacturing engine parts, electronic equipment, steering and suspension components, brakes, transmission, seating and other parts related to and used in motor vehicles.

NAICS	Descriptio	n		2014 Jobs	'04-'14 Change	CE '04- '14	'14-'19 Change	CE '14- '19	'14 LQ	Average Earnings
3361	Motor Ve	hicle Manufa	cturing	3,149	538	1,226	614	804	11.11	\$82,912
3362	Motor Vel Manufact	hicle Body ar uring	ıd Trailer	3,429	28	526	424	432	16.04	\$56,422
3363	Motor Manufact	Vehicle uring	Parts	12,295	(3,030)	324	(2,771)	(2,206)	15.10	\$95,287

Within White County, Transportation Equipment Manufacturing is centered on one industry: Motor Vehicle Body and Trailer Manufacturing. This is due to the presence of Vanguard National Trailer Corporation who is a major manufacturer of truck trailers.

NAICS	Description		'04-'14 Change		'14-'19 Change		2014 LQ	Average Earnings
3362	Motor Vehicle Body and Trailer Manufacturing	524	359	383	281	282	56.14	\$48,661

<sup>&</sup>lt;sup>9</sup> http://www.bls.gov/iag/tgs/iag336.htm

<sup>&</sup>lt;sup>10</sup> Hoovers http://www.hoovers.com/industry-facts.transportation-equipment-manufacturing.1018.html

#### **Economic Impact**

If the 14-county region attracts 150 new jobs within this industry cluster, the region can expect a total impact of 264 new jobs (including the initial +150) and \$17.6 million in combined annual earnings for the region.<sup>11</sup>



### **Associated Occupations**

The following table displays the top 10 occupations that are most often required to staff companies within the Transportation Equipment industry cluster.

Description	Jobs (2014)	Annual Openings <sup>12</sup>	Median Earnings <sup>13</sup>	Education and Training
Team Assemblers	5,463	375	\$38,369	High school diploma or equivalent, Moderate-term on-the-job training
Welders, Cutters, Solderers, and Brazers	669	107	\$34,684	High school diploma or equivalent, Moderate-term on-the-job training
Industrial Engineers	578	61	\$73,069	Bachelor's degree
Laborers and Freight, Stock, and Material Movers, Hand	524	234	\$25,321	Less than high school, Short-term on-the-job training
First-Line Supervisors of Production and Operating Workers	513	62	\$57,825	Postsecondary non-degree award, Less than 5 years' experience
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	490	40	\$26,207	High school diploma or equivalent, Moderate-term on-the-job training
Electricians	410	80	\$59,348	High school diploma or equivalent, Apprenticeship
Mechanical Engineers	399	59	\$80,265	Bachelor's degree
Inspectors, Testers, Sorters, Samplers, and Weighers	360	74	\$40,924	High school diploma or equivalent, Moderate-term on-the-job training
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	335	32	\$35,891	High school diploma or equivalent, Moderate-term on-the-job training

<sup>&</sup>lt;sup>11</sup> Economic impact measures the total direct, indirect, and induced effects on jobs and earnings in the region as a result of adding or subtracting a number of jobs in one particular industry. As this effect is measured at the 6-digit NAICS level, this model includes all 6-digit industries that make up the 4-digit industry groups in this cluster, providing they employ at least one worker in the region. The added 100 jobs were then distributed across these industries, weighted by employment to include the weighted effect of the range of included multipliers.

<sup>&</sup>lt;sup>12</sup> For this, and all other references to Average Annual Openings, the figures refer to openings across all industries, while employment is industry-specific.

<sup>&</sup>lt;sup>13</sup> Median Hourly Earnings multiplied by 40 hours for workweek and 52 for weeks in a year

Wages for these occupations in the 14-county region range from \$25,321 per year at the low end for the occupation "Laborers and Freight, Stock, and Material Movers, Hand" to \$80,265 per year at the high end for Mechanical Engineers. The values represent wage levels for these occupations across all industries, not just in the Transportation Equipment Manufacturing cluster. Seven of the top 10 occupations require a high school diploma or less accompanied by short-term on the job training, and only one, Mechanical Engineers, requires a Bachelor's degree.

### Supply Requirements

Combining the three industries in this cluster, the Transportation Equipment Manufacturing Cluster in the region purchases approximately \$5.8 billion in goods and services for its operations. The top three industries from which the group purchases are Corporate, Subsidiary, and Regional Managing Offices (\$719 million), Motor Vehicle Metal Stamping (\$304 million), and Custom Roll Forming (\$214 million).

Of the \$5.8 billion in goods and services sourced by this cluster, 88 percent, or \$5.1 billion, is purchased from outside of the region. **Bolded** industries in the list below fall within the transportation equipment cluster while *italicized* industries fall within other target clusters.

Industry	Amount	In-Region
Corporate, Subsidiary, and Regional Managing Offices	\$719,512,724	1.2%
Motor Vehicle Metal Stamping	\$304,257,011	2.3%
Custom Roll Forming	\$214,152,734	1.0%
Iron and Steel Mills and Ferroalloy Manufacturing	\$188,106,505	0.1%
Machine Shops	\$158,556,152	6.6%
Motor Vehicle Seating and Interior Trim Manufacturing	\$157,163,660	4.4%
Other Motor Vehicle Parts Manufacturing	\$153,576,508	8.4%
Motor Vehicle Gasoline Engine and Engine Parts Manufacturing	\$134,061,779	4.2%
Motor Vehicle Transmission and Power Train Parts Manufacturing	\$134,004,911	39.3%
Iron Foundries	\$120,375,762	3.8%
Wholesale Trade Agents and Brokers	\$118,525,679	6.8%
All Other Plastics Product Manufacturing	\$115,987,439	2.1%
Nonferrous Metal Die-Casting Foundries	\$105,864,112	1.2%
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	\$77,032,692	42.5%
Semiconductor and Related Device Manufacturing	\$75,667,116	2.9%

#### Supply Leakage

Over 88 percent, or approximately \$5.1 billion, of goods and services required for the Transportation Equipment manufacturing cluster, are purchased outside of the 14-county region. 43 percent of this supply leakage is concentrated in the ten industries in the table below. Highlighted industries are suitable targets for expansion of the Transportation Equipment Manufacturing supply chain in the region. Others, such as Corporate, Subsidiary, and Regional Managing Offices and Crop Production, are often location-constricted and therefore would not likely be suitable for attraction. **Bolded** industries in the list below fall within the transportation equipment cluster while *italicized* industries fall within other target clusters.

Industry	Supply Leakage	Leakage Percent
Corporate, Subsidiary, and Regional Managing Offices	\$711,226,556.37	98.8%
Motor Vehicle Metal Stamping	\$297,173,033.72	97.7%
Custom Roll Forming	\$212,114,100.17	99.0%
Iron and Steel Mills and Ferroalloy Manufacturing	\$187,973,134.37	99.9%
Motor Vehicle Seating and Interior Trim Manufacturing	\$150,187,831.36	95.6%
Machine Shops	\$148,043,797.07	93.4%
Other Motor Vehicle Parts Manufacturing	\$140,708,699.15	91.6%
Motor Vehicle Gasoline Engine and Engine Parts Manufacturing	\$128,467,077.53	95.8%
Iron Foundries	\$115,792,768.51	96.2%
All Other Plastics Product Manufacturing	\$113,577,800.34	97.9%

The associated occupations typically required to staff these six attractive industries described above (highlighted) as supply targets are detailed below.<sup>14</sup>

Description	Median Earnings	Education and Experience
Machinists	\$39,503	High school diploma or equivalent, Long-term on-the-job training
Team Assemblers	\$28,215	High school diploma or equivalent, Moderate-term on-the-job training
Computer-Controlled Machine Tool Operators, Metal and Plastic	\$35,901	High school diploma or equivalent, Moderate-term on-the-job training
First-Line Supervisors of Production and Operating Workers	\$54,228	Postsecondary non-degree award, Less than 5 years' experience
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	\$28,454	High school diploma or equivalent, Moderate-term on-the-job training
Inspectors, Testers, Sorters, Samplers, and Weighers	\$35,264	High school diploma or equivalent, Moderate-term on-the-job training
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	\$29,952	High school diploma or equivalent, Moderate-term on-the-job training
HelpersProduction Workers	\$23,150	Less than high school, Short-term on- the-job training
Welders, Cutters, Solderers, and Brazers	\$36,567	High school diploma or equivalent, Moderate-term on-the-job training
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	\$34,338	High school diploma or equivalent, Moderate-term on-the-job training

<sup>&</sup>lt;sup>14</sup> Based on national data.

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### **Advanced Materials Cluster**

The Advanced Materials cluster is a wide ranging group of industries covering specialty manufacturing in woods, plastics, metals, and electronics. The group combines disparate industries that share highly specified manufacturing processes and have a strong regional jobs prevalence.

Representative White County companies in this cluster include: Ball Corporation, Cives Steel Company, Terra Drive Systems, and US Molders.

The Advanced Materials cluster contains 13 industries:

Veneer, Plywood, and Engineered Wood Product
Manufacturing (3212) — includes establishments
manufacturing veneer and/or plywood; engineered
wood members; and reconstituted wood products.
 Specific examples include hard- and softwood veneer and
plywood manufacturing and truss manufacturing.

# ADVANCED MATERIALS

### AT A GLANCE

Employment 7,755
within White County 1,400
Establishments 182
within White County 16
Average Earnings \$52,671
Job Growth 2009-2014 +16.9%

- Other Wood Product Manufacturing (3219) includes all other wood product manufacturing such as wood window and door manufacturing, wood container and pallet manufacturing, and prefabricated wood building manufacturing. Excludes sawmills, wood preservation facilities, and NAICS 3212 above.
- Plastics Product Manufacturing (3261) includes organizations engaged in processing new or recycled plastics resins into intermediate or final products. Notable examples include plastics pipes and pipe fitting manufacturing and plastics bottle manufacturing.
- Architectural and Structural Metals Manufacturing (3323) includes establishments manufacturing
  prefabricated metal buildings and sections, structural metal products, metal plate work products,
  metal framed windows, sheet metal, and ornamental and architectural metal products.
- Boiler, Tank, and Shipping Container Manufacturing (3324) includes establishments manufacturing metal boiler and heat exchangers and heavy gauge metal for tanks, vessels, and other containers.
- Spring and Wire Product Manufacturing (3326) includes establishments manufacturing steel and wire springs through processes such as cutting, bending, and heat winding; also touches on establishments manufacturing certain wire products.
- Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing (3327) includes establishments that machine metal, plastics, and composite parts on an order basis, and establishments that machine precision turned products or manufacture industrial fasteners.
- Other Fabricated Metal Product Manufacturing (3329) includes establishments manufacturing various other fabricated metal products including fabricated pipe and pipe fitting manufacturing, and industrial valve manufacturing.
- Communications Equipment Manufacturing (3342) includes establishments manufacturing telephone, data, radio, television, wireless, and other communications and broadcasting equipment.

- Semiconductor and Other Electronic Component Manufacturing (3344) includes establishments manufacturing semiconductors and other parts for electronic applications; examples include capacitors, resistors, bare and loaded printed circuit boards, and computer modems.
- Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (3345) includes
  establishments manufacturing navigational, measuring electromedical, and control instruments such
  as analytical laboratory instruments, instruments for measuring, displaying, and controlling industrial
  process variables, and aeronautical instruments.
- **Electrical Equipment Manufacturing (3353)** includes establishments manufacturing transformers, motors, generators, switchboards, and industrial controls.
- Other Electrical Equipment and Component Manufacturing (3359) includes establishments manufacturing all other electrical equipment and component manufacturing such as fiber optic cables, current-carrying and noncurrent-carrying wiring devices, and batteries.

NAICS	Description	2014 Jobs	'04-'14 Change	CE '04- '14	'14-'19 Change	CE '14- '19	'14 LQ	Average Earnings
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	285	27	130	39	57	2.69	\$35,668
3219	Other Wood Product Manufacturing	624	(20)	190	163	208	1.86	\$40,404
3261	Plastics Product Manufacturing	912	(959)	(671)	78	110	1.13	\$43,992
3323	Architectural and Structural Metals Manufacturing	837	121	183	41	0	1.56	\$51,882
3324	Boiler, Tank, and Shipping Container Manufacturing	748	289	255	130	114	5.11	\$66,122
3326	Spring and Wire Product Manufacturing	668	(52)	170	(20)	98	10.29	\$52,041
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	1,256	(7)	(150)	56	6	2.22	\$50,309
3329	Other Fabricated Metal Product Manufacturing	803	(18)	(32)	38	20	1.89	\$50,760
3342	Communications Equipment Manufacturing	75	65	68	38	49	0.51	\$48,198
3344	Semiconductor and Other Electronic Component Manufacturing	263	(401)	(276)	63	73	0.48	\$64,542
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	477	(431)	(330)	(99)	(97)	0.82	\$52,471
3353	Electrical Equipment Manufacturing	504	(426)	(365)	(113)	(88)	2.33	\$72,320
3359	Other Electrical Equipment and Component Manufacturing	303	(192)	(149)	(190)	(182)	1.61	\$63,727

White County has strengths in a majority of these target industries, making up over a quarter of the jobs in the 14-county region for Veneer, Plywood, and Engineered Wood Product Manufacturing; Architectural and Structural Metals Manufacturing; Boiler, Tank, and Shipping Container Manufacturing; Other Fabricated Metal Product Manufacturing; and Navigational, Measuring, Electromedical, and Control Instruments Manufacturing. As can be seen in job prevalence and the levels of recent and projected growth, these Advanced Materials industries provide an impressive base for growth.

White County's Advanced Materials industries include:

NAICS	Description	2014 Jobs	'04-'14 Change	CE '04- '14	'14-'19 Change	CE '14- '19	'14 LQ	Average Earnings
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	154	154	155	62	72	33.24	\$30,931
3261	Plastics Product Manufacturing	109	25	38	(5)	(1)	3.10	\$36,329
3323	Architectural and Structural Metals Manufacturing	277	98	114	49	35	11.85	\$50,522
3324	Boiler, Tank, and Shipping Container Manufacturing	264	74	60	58	53	41.29	\$89,960
3326	Spring and Wire Product Manufacturing	90	(12)	19	(10)	6	31.58	\$48,200
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	17	1	(1)	(3)	(3)	0.67	\$33,822
3329	Other Fabricated Metal Product Manufacturing	291	5	(0)	(21)	(27)	15.64	\$52,396
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	193	40	57	0	1	7.60	\$32,482

The data on White County's Advanced Materials industries shows its unique position of strength in the 14-county region. Diverse industries such as Boiler, Tank, and Shipping Container Manufacturing; Veneer, Plywood, and Engineering Wood Product Manufacturing; and Spring and Wire Product Manufacturing have a very strong Location Quotient (LQ) in the region, meaning the concentration of the industry is extremely high as compared to the rest of the United States. These industries are interesting for White County, as most of them are export-oriented industries, bringing money into the region rather than circulating existing money in the region. The industries with a high LQ and high employment also indicates these industries form the region's economic base and provide a foundation of crossover support for other regional industries.

#### **Economic Impact**

If the 14-county region attracts 150 new jobs within this industry cluster, the region can expect a total impact of 204 new jobs (including the initial +150) and \$9.9 million in combined annual earnings for the region.<sup>15</sup>



#### **Associated Occupations**

The following table displays the top 10 occupations that are most often required to staff companies within the Advanced Materials industry cluster.

Description	Jobs (2014)	Annual Openings <sup>16</sup>	Median Earnings <sup>17</sup>	Education and Training
Team Assemblers	690	563	\$38,369	High school diploma or equivalent, Moderate-term on-the-job training
Machinists	479	111	\$39,948	High school diploma or equivalent, Long-term on-the-job training
Welders, Cutters, Solderers, and Brazers	337	139	\$34,684	High school diploma or equivalent, Moderate-term on-the-job training
First-Line Supervisors of Production and Operating Workers	298	86	\$57,825	Postsecondary non-degree award, Less than 5 years' experience
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	290	63	\$26,207	High school diploma or equivalent, Moderate-term on-the-job training
Inspectors, Testers, Sorters, Samplers, and Weighers	273	96	\$40,924	High school diploma or equivalent, Moderate-term on-the-job training
Computer-Controlled Machine Tool Operators, Metal and Plastic	261	67	\$33,488	High school diploma or equivalent, Moderate-term on-the-job training
Electrical and Electronic Equipment Assemblers	217	34	\$23,866	High school diploma or equivalent, Short-term on-the-job training
HelpersProduction Workers	194	87	\$23,539	Less than high school, Short-term on-the-job training
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	160	36	\$36,549	High school diploma or equivalent, Moderate-term on-the-job training

<sup>&</sup>lt;sup>15</sup> Economic impact measures the total direct, indirect, and induced effects on jobs and earnings in the region as a result of adding or subtracting a number of jobs in one particular industry. As this effect is measured at the 6-digit NAICS level, this model includes all 6-digit industries that make up the 4-digit industry groups in this cluster, providing they employ at least one worker in the region. The added 100 jobs were then distributed across these industries, weighted by employment to include the weighted effect of the range of included multipliers.

<sup>&</sup>lt;sup>16</sup> For this, and all other references to Average Annual Openings, the figures refer to openings across all industries, while employment is industry-specific.

 $<sup>^{17}</sup>$  Median Hourly Earnings multiplied by 40 hours for workweek and 52 for weeks in a year

Wages for these occupations in the 14-county region range from \$23,539 per year at the low end for Helpers—Production Workers to \$57,825 per year at the high end for First-Line Supervisors of Production and Operating Workers. The values represent the wage levels for occupations across all industries, not just in the Advanced Materials industry cluster. Nine of the top 10 occupations require a high school diploma or less accompanied by short- or moderate-term on the job training. Only one, First-Line Supervisors of Production and Operating Workers, requires any previous experience.

#### Supply Requirements

Combining the thirteen industries in this cluster, the Advanced Materials Cluster in the region purchases more than \$811 million in goods and services for its operations. The top three industries from which the group purchases are Iron and Steel Mills and Ferroalloy Manufacturing (\$78.5 million), Plastics Material and Resin Manufacturing (\$48 million), and Corporate, Subsidiary, and Regional Managing Offices (\$35 million).

Of the \$811 million in goods and services sourced by this cluster, 87.5 percent, or \$710 million, is purchased from outside of the region. **Bolded** industries in the list below fall within the Advanced Materials cluster while *italicized* industries fall within other target clusters.

Industry	Amount	In-Region
Iron and Steel Mills and Ferroalloy Manufacturing	\$78,501,488	0.0%
Plastics Material and Resin Manufacturing	\$48,260,140	0.8%
Corporate, Subsidiary, and Regional Managing Offices	\$35,354,804	1.5%
Other Aluminum Rolling, Drawing, and Extruding	\$22,868,413	39.2%
Machine Shops	\$19,259,051	9.3%
Aluminum Sheet, Plate, and Foil Manufacturing	\$18,187,314	0.0%
Wholesale Trade Agents and Brokers	\$13,209,102	4.5%
Sawmills	\$12,355,442	15.3%
Iron and Steel Pipe and Tube Manufacturing from Purchased Steel	\$12,186,177	3.7%
Copper Rolling, Drawing, Extruding, and Alloying	\$9,927,534	20.5%
Rolled Steel Shape Manufacturing	\$9,795,072	0.0%
Semiconductor and Related Device Manufacturing	\$9,249,467	0.5%
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	\$8,917,039	16.0%
Printed Circuit Assembly (Electronic Assembly) Manufacturing	\$8,846,584	13.9%
Metal Can Manufacturing	\$7,621,751	55.2%

### Supply Leakage

Over 87 percent, or approximately \$710 million, of goods and services required for the Advanced Materials manufacturing cluster, are purchased outside of the 14-county region. Approximately 36 percent of this supply leakage is concentrated in the ten industries in the table below. Highlighted industries could be suitable targets for expansion of the Advanced Materials supply chain in the region. Others, such as Corporate, Subsidiary, and Regional Managing Offices and Crop Production, are often location-constricted and, therefore, would not be suitable for attraction. **Bolded** industries are part of the Advanced Materials cluster.

Industry	Supply Leakage	Leakage Percent
Iron and Steel Mills and Ferroalloy Manufacturing	\$78,481,370.94	100.0%
Plastics Material and Resin Manufacturing	\$47,878,029.73	99.2%
Corporate, Subsidiary, and Regional Managing Offices	\$34,830,343.97	98.5%
Other Aluminum Rolling, Drawing, and Extruding	\$13,895,133.60	60.8%
Machine Shops	\$17,459,485.78	90.7%
Aluminum Sheet, Plate, and Foil Manufacturing	\$18,187,314.19	100.0%
Wholesale Trade Agents and Brokers	\$12,614,849.59	95.5%
Sawmills	\$10,469,870.49	84.7%
Iron and Steel Pipe and Tube Manufacturing from Purchased Steel	\$11,737,650.56	96.3%
Copper Rolling, Drawing, Extruding, and Alloying	\$7,892,532.97	79.5%

The associated occupations typically required to staff these seven attractable industries described above (highlighted) as supply targets are detailed below.<sup>18</sup>

Description	Median Earnings	Education and Experience
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$53,974	High school diploma or equivalent, Moderate-term on-the-job training
Machinists	\$39,503	High school diploma or equivalent, Long-term on-the-job training
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	\$74,026	Bachelor's degree, Moderate-term on-the-job training
Office Clerks, General	\$28,114	High school diploma or equivalent, Short-term on-the-job training
General and Operations Managers	\$96,038	Bachelor's degree, Less than 5 years' experience
Customer Service Representatives	\$30,920	High school diploma or equivalent, Short-term on-the-job training
Laborers and Freight, Stock, and Material Movers, Hand	\$24,098	Less than high school, Short-term on-the-job training
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	\$32,832	High school diploma or equivalent, Short-term on-the-job training
Computer-Controlled Machine Tool Operators, Metal and Plastic	\$35,901	High school diploma or equivalent, Moderate-term on-the-job training
First-Line Supervisors of Production and Operating Workers	\$54,228	Postsecondary non-degree award

<sup>&</sup>lt;sup>18</sup> Based on national data.



### Agri & Life Sciences Cluster

The Agri & Life Sciences Cluster is an **aspirational target** for the County and region. Indiana is a national leader in agricultural production of crops and livestock, and White County is the 2<sup>nd</sup> highest producers of corn and 10<sup>th</sup> highest producer of soybean.<sup>19</sup> The state's food and agriculture sector provides more than \$16 billion to the Gross State Product and employs 19 percent of talent in the sectors.<sup>20</sup>

White County is within close proximity to Purdue University where key research is occurring within both agri-sciences and life sciences. White County has the potential to attract a start-up manufacturer tied to the University's research as well as a company that may choose to locate in order to take advantage of Purdue's R&D assets.

# AGRI & LIFE SCIENCES AT A GLANCE

Employment 3,000

Establishments 160

Average Earnings \$80,565

Job Growth 2009-2014 **-6.4%** 

The anchor industry for this cluster is Scientific Research and Developmental Services, which grew by over 31 percent between 2004 and 2014. Despite some decreases in regional employment in target industries, the overall national growth trends of these industries — particularly for Pharmaceutical and Medicine Manufacturing; Medical Equipment and Supplies Manufacturing; Architectural, Engineering, and Related Services; and Scientific Research and Development Services — high earnings, and collaboration opportunities with Purdue University suggest this cluster will grow in White County.

BioTown Seeds is a representative company that is currently located in White County.

The Agri & Life Sciences Manufacturing cluster contains the following industries:

- Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing (3253) includes establishments manufacturing fertilizer and agricultural and household pest control chemicals.
- Pharmaceutical and Medicine Manufacturing (3254) includes establishments manufacturing biological and medicinal products, botanical drugs and herbs, and any other pharmaceutical product for internal or external consumption.
- Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (3345) includes establishments manufacturing navigational, measuring electromedical, and control instruments such as analytical laboratory instruments, instruments for measuring, displaying, and controlling industrial process variables, and aeronautical instruments.
- Medical Equipment and Supplies Manufacturing (3391) Includes establishments manufacturing medical equipment and supplies such as surgical medical instruments and appliances and dental laboratories.
- Architectural, Engineering, and Related Services (5413) includes establishments providing architectural services for buildings and landscapes; engineering services such as civil, mechanical,

http://www.nass.usda.gov/Statistics by State/Indiana/Publications/Ag Report/2015/iar1503.pdf

<sup>&</sup>lt;sup>19</sup> 2014 Indiana Agriculture Report,

Innovative Agbioscience in Indiana: A Baseline Assessment, <a href="http://ecirp.org/Energize/media/Energize/Secondary%20Pages/Example%20Downloads/Innovative-Agbioscience-in-Indiana-Executive-Summary.pdf?ext=.pdf">http://ecirp.org/Energize/media/Energize/Secondary%20Pages/Example%20Downloads/Innovative-Agbioscience-in-Indiana-Executive-Summary.pdf?ext=.pdf</a>

- and construction engineering; and related services including drafting, building inspection, surveying, and testing services.
- Scientific Research and Development Services (5417) includes establishments conducting research in biotechnology; physical, engineering, and life sciences, and other key research areas.

NAICS	Description	2014 Jobs	'04 -'14 Change	CE '04- '14	'14-'19 Change	CE '14- '19	'14 LQ	Average Earnings
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	237	(121)	(89)	(44)	(31)	4.15	\$113,329
3254	Pharmaceutical and Medicine Manufacturing	561	(479)	(455)	(189)	(213)	1.33	\$112,863
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	477	(431)	(330)	(99)	(97)	0.82	\$52,471
3391	Medical Equipment and Supplies Manufacturing	248	(11)	(16)	18	7	0.53	\$64,698
5413	Architectural, Engineering, and Related Services	721	70	9	82	25	0.32	\$59,701
5417	Scientific Research and Development Services	755	180	88	56	(12)	0.77	\$89,148

The current strength in White County, as touched upon in the Advance Materials cluster, is Navigational, Measuring, Electromedical, and Control Instruments Manufacturing with growth occurring in the specific areas of Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables (334513) and Analytical Laboratory Instrument Manufacturing (334516).

NAICS	Description	2014 Jobs	'04 – '14 Change	CE '04- '14	'14 – '19 Change	CE '14- '19	2014 LQ	Average Earnings
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	193	40	57	0	1	7.60	\$32,482
3391	Medical Equipment and Supplies Manufacturing	15	(10)	(10)	(1)	(2)	0.75	\$44,719

### **Economic Impact**

If the 14-county region attracts 150 new jobs within this industry cluster, the region can expect a total impact of 244 new jobs (including the initial +150) and \$14.0 million in combined annual earnings for the region.<sup>21</sup>



#### **Associated Occupations**

The top 10 occupations that are most often required to staff companies within the Agri-Sciences industry cluster are:

Description	Jobs (2014)	Annual Openings <sup>22</sup>	Median Earnings <sup>23</sup>	Education and Training
Team Assemblers	129	375	\$38,369	High school diploma or equivalent, Moderate-term on-the-job training
Inspectors, Testers, Sorters, Samplers, and Weighers	116	74	\$40,924	High school diploma or equivalent, Moderate-term on-the-job training
Chemists	96	7	\$67,593	Bachelor's degree, None
Biological Technicians	82	12	\$37,604	Bachelor's degree, None
Mechanical Engineers	82	59	\$80,265	Bachelor's degree, None
Architects, Except Landscape and Naval	71	7	\$50,150	Bachelor's degree, Internship/residency
Industrial Engineers	70	61	\$73,069	Bachelor's degree, None
Electrical and Electronic Equipment Assemblers	64	27	\$23,866	High school diploma or equivalent, Short-term on-the-job training
First-Line Supervisors of Production and Operating Workers	64	62	\$57,825	Postsecondary non-degree award, Less than 5 years' experience
Architectural and Engineering Managers	59	21	\$128,887	Bachelor's degree, 5 years of experience or more

Wages for these occupations in the region range from \$23,866 per year at the low end for Electrical and Electronic Equipment Assemblers to \$128,887 per year at the high end for Architectural and Engineering

<sup>&</sup>lt;sup>21</sup> Economic impact measures the total direct, indirect, and induced effects on jobs and earnings in the region as a result of adding or subtracting a number of jobs in one particular industry. As this effect is measured at the 6-digit NAICS level, this model includes all 6-digit industries that make up the 4-digit industry groups in this cluster, providing they employ at least one worker in the region. The added 100 jobs were then distributed across these industries, weighted by employment to include the weighted effect of the range of included multipliers.

<sup>&</sup>lt;sup>22</sup> For this, and all other references to Average Annual Openings, the figures refer to openings across all industries, while employment is industry-specific.

<sup>&</sup>lt;sup>23</sup> Median Hourly Earnings multiplied by 40 hours for workweek and 52 for weeks in a year

Managers. The values represent wage levels for these occupations across all industries, not just in the Agri-Sciences industry cluster. Three of the top 10 occupations require a high school diploma and short- or medium-term on the job training, while six of the top 10 require a Bachelor's degree.

### **Supply Requirements**

Combining the six industries in this cluster, the Agri-Sciences Cluster in the region purchases more than \$314 million in goods and services for its operations. The top three industries from which the group purchases are:

- Corporate, Subsidiary, and Regional Managing Offices (\$42 million),
- Medicinal and Botanical Manufacturing (\$19 million), and
- Biological Product (except Diagnostic) Manufacturing (\$12 million).

Of the \$314 million in goods and services sourced by this cluster, 83 percent, or \$261 million, is purchased from outside of the region. **Bolded** industries in the list below fall within the transportation equipment cluster.

Industry	Amount	In-Region
Corporate, Subsidiary, and Regional Managing Offices	\$42,166,611	2.7%
Medicinal and Botanical Manufacturing	\$19,356,999	0.0%
Biological Product (except Diagnostic) Manufacturing	\$12,692,672	0.0%
Offices of Lawyers	\$12,624,678	13.4%
Administrative Management and General Management Consulting Services	\$9,707,897	15.6%
All Other Basic Organic Chemical Manufacturing	\$8,477,778	0.0%
Engineering Services	\$6,451,489	24.2%
Wholesale Trade Agents and Brokers	\$4,605,436	5.3%
Temporary Help Services	\$4,471,988	78.7%
All Other Professional, Scientific, and Technical Services	\$4,130,329	42.1%
Pharmaceutical Preparation Manufacturing	\$3,956,048	41.3%
Commercial Banking	\$3,796,318	38.0%
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	\$3,651,575	36.3%
Office Administrative Services	\$3,450,741	23.0%
Lessors of Residential Buildings and Dwellings	\$3,341,743	71.4%

#### Supply Leakage

Over 83 percent, or \$314 million, of goods and services required for the Agri & Life Sciences cluster, are purchased outside of the 14-county region. Approximately 44 percent of this supply leakage is concentrated in the ten industries in the table below. Highlighted industries could be suitable targets for expansion of the Agri & Life Sciences supply chain in the region. Others, such as Corporate, Subsidiary, and Regional Managing Offices and Crop Production, are often location-constricted and, therefore, are not suitable for attraction. Bolded industries in the list below fall within the Agri-Sciences Manufacturing cluster.

Industry	Supply Leakage	Leakage Percent
Corporate, Subsidiary, and Regional Managing Offices	\$41,045,806.18	97.3%
Medicinal and Botanical Manufacturing	\$19,356,998.56	100.0%
Biological Product (except Diagnostic) Manufacturing	\$12,692,671.90	100.0%
Offices of Lawyers	\$10,928,848.78	86.6%
All Other Basic Organic Chemical Manufacturing	\$8,477,778.11	100.0%
Administrative Management and General Management Consulting Services	\$8,196,468.47	84.4%
Engineering Services	\$4,890,875.75	75.8%
Wholesale Trade Agents and Brokers	\$4,359,344.90	94.7%
Office Administrative Services	\$2,656,911.52	77.0%
All Other Professional, Scientific, and Technical Services	\$2,391,112.48	57.9%

The associated occupations typically required to staff these eight attractable industries described above (highlighted) as supply targets are detailed below.<sup>24</sup>

Description	Median Earnings	Education and Experience
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$53,974	High school diploma or equivalent, Moderate-term on-the-job training
Management Analysts	\$75,752	Bachelor's degree, Less than 5 years' experience
Civil Engineers	\$79 <i>,</i> 717	Bachelor's degree
Office Clerks, General	\$28,114	High school diploma or equivalent, Short-term on-the-job training
Customer Service Representatives	\$30,920	High school diploma or equivalent, Short-term on-the-job training
General and Operations Managers	\$96,038	Bachelor's degree, Less than 5 years' experience
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	\$32,832	High school diploma or equivalent, Short-term on-the-job training
Bookkeeping, Accounting, and Auditing Clerks	\$35,729	High school diploma or equivalent, Moderate-term on-the-job training
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	\$74,026	Bachelor's degree, Moderate-term on-the-job training
Accountants and Auditors	\$64,100	Bachelor's degree

<sup>&</sup>lt;sup>24</sup> Based on national data.

# **Labor Force Analysis**

### Geography

The White County labor force and the 14-county labor force operates within a diverse area of north-central Indiana containing a major research university, large urban environments, rural farmland, and a key highway corridor. The MACP has the Genesee and Wyoming railroad line while the County has rail access to both Norfolk Southern and CSX to provide additional support to the interstate infrastructure of I-65. The county is 25 miles from Purdue University and large agricultural research opportunities. A high concentration of agricultural inputs for food manufacturing, as well as existing employers with a trained and skilled workforce support the truck trailer manufacturing, beverage can manufacturing, and precision bearings manufacturing industries, to name a few.

### **Population**

The White County labor shed consists of 14 counties, including White county, which lie within the 14-county region. Over 540,000 people live in the region, with approximately 264,000<sup>25</sup> individuals participating in the labor force.

Between 2004 and 2014, the 14-county region's population grew by 5 percent, from just over 516,500 to over 540,000 people. This trend will continue, although at a slower rate, over the next five years, with the population of the 14-county region growing by 3,350 (0.62 percent).

White County and the 14-county region have grown at a slower pace compared to both the state and the country, and are projected to do so over the next five years.

COUNTY	2014
	Population
Benton	8,752
Carroll	20,004
Cass	38,266
Clinton	32,836
Fulton	20,712
Howard	82,554
Jasper	33,693
Miami	36,176
Newton	13,878
Pulaski	12,923
Starke	23,123
Tippecanoe	184,762
Warren	8,245
White	24,237
Total	540,159

Population Change, Past 10 Years					
Area	2004 Population	2014 Population	Change '04-'14	%Change 04-14	
White County	24,976	24,237	(739)	(2.96%)	
14 County Region	516,536	540,159	23,623	4.57%	
Indiana	6,233,008	6,605,867	372,859	5.98%	
U.S.	292.8 M	319.1 M	26.2 M	8.97%	

Projected Population Change, Next 5 Years				
Area	2014 Population	2019 Population	Change '14-'19	%Change 14-19
White County	24,237	23,989	(248)	(1.02%)
14 County Region	540,159	543,507	3,348	0.62%
Indiana	6,605,867	6,717,299	111,432	1.69%
U.S.	319.1 M	328.3 M	9.2 M	2.89%

<sup>&</sup>lt;sup>25</sup> ACS, Jan 2015.

### Age Demographics

Data shows that White County and the 14-county region have aging populations. Between 2004 and 2014, the largest population growth by percentage was in the 55 to 64 age group. In 2014, the 55 and older population comprised 34 percent of the total population, as compared to 27 percent for the 14-county region. Between 2014 and 2019, the only population group projected to grow in White County is the 65 and up age bracket.

While the 14-county region's population is growing, its workforce is facing a similar aging issue. Between 2014 and 2019, the age brackets from 5 to 54 are projected to decrease while those 55 and over are projected to grow. A projected increase in the youngest age bracket of Under 5 years old offers some opportunities, but the issue of an aging workforce will increasingly become an issue for both the county and the 14-county region.

Population by Age, White County					
Age Group	'14 Population	Change	'04-'14	Chang '1	
Under 5	1,467	(233)	(14%)	(53)	(4%)
5 to 19	4,744	(372)	(7%)	(128)	(3%)
20 to 34	3,639	(532)	(13%)	(103)	(3%)
35 to 54	6,133	(1,001)	(14%)	(568)	(9%)
55 to 64	3,696	799	28%	0	0%
65 and up	4,558	601	15%	605	13%
Total	24,237	(739)	(3%)	(248)	(1%)

Population by Age, 14-County Area					
Age Group	'14 Population				
Under 5	32,476	(928)	(3%)	1,459	4%
5 to 19	112,582	1,395	1%	(3,216)	(3%)
20 to 34	117,727	2,477	2%	(665)	(1%)
35 to 54	130,523	(9,428)	(7%)	(7,054)	(5%)
55 to 64	67,409	15,926	31%	2,331	3%
65 and up	79,442	14,180	22%	10,491	13%
Total	540,159	23,623	5%	3,348	1%

### Income

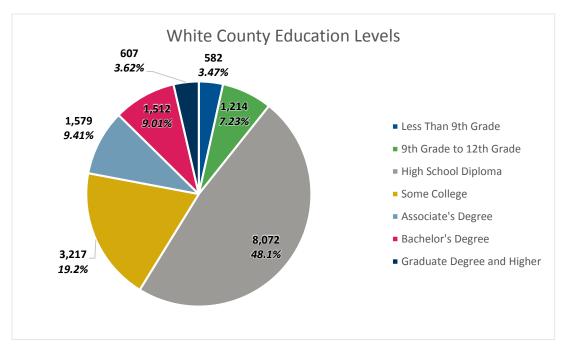
Median household income for White County was nearly \$51,500 in 2014. While the County's average wage is higher than the state median of \$48,250, it is below the national median of \$53,000. Median household income for the 14-county region ranged from just over \$40,000 to \$57,500.

Another important measure of an area's economic well-being is the poverty rate, which was 12.1% in 2014 for White County, placing it below both the rate for Indiana (15.9 percent), as well as the U.S. (14.5 percent). Four counties in the 14-county region had lower poverty rates than White County, and the highest rate was Tippecanoe County's 20.4 percent. Details outlined by county can be seen in the chart below.

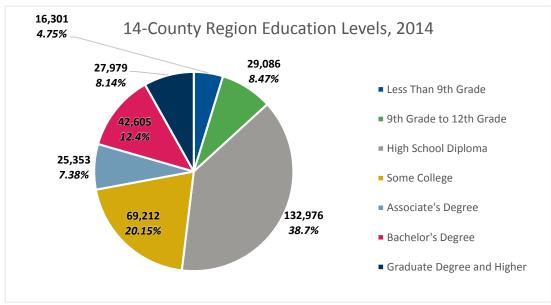
Area	Median	Poverty
	Income	Rate
Benton County	\$48,711	11.3%
Carroll County	\$50,542	10.7%
Cass County	\$41,940	15.6%
Clinton County	\$48,953	13.8%
Fulton County	\$40,168	15.5%
Howard County	\$43,590	17.2%
Jasper County	\$57,500	10.2%
Miami County	\$42,023	17.2%
Newton County	\$50,262	11.8%
Pulaski County	\$44,764	13.9%
Starke County	\$40,126	16.5%
Tippecanoe County	\$44,246	20.4%
Warren County	\$52,317	9.0%
White County	\$51,444	12.1%
INDIANA	\$48,248	15.9%
UNITED STATES	\$53,046	14.5%

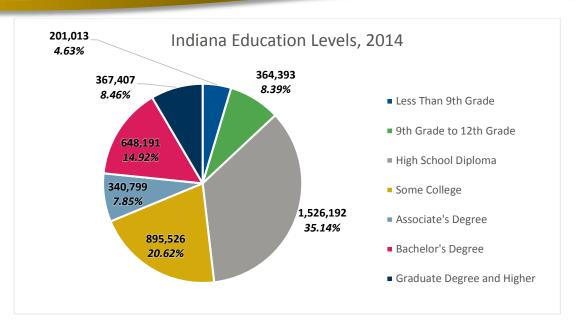
### Education

Within White County, 89 percent of the population over the age of 25 has at least a high school diploma, exceeding both the state and the national rates. While another 19 percent have gone through some college, and 9.4 percent have an associate's degree, only 9 percent of those over 25 in White County have a Bachelor's Degree; this is compared to 15 percent of Indiana's population over 25 having a bachelor's degree and 18 percent of the U.S. population.



Within the 14-county region, over 86 percent of the 321,000 people over the age of 25 have at least a high school diploma, exceeding the national average and falling closely in line with the average for the state of Indiana.

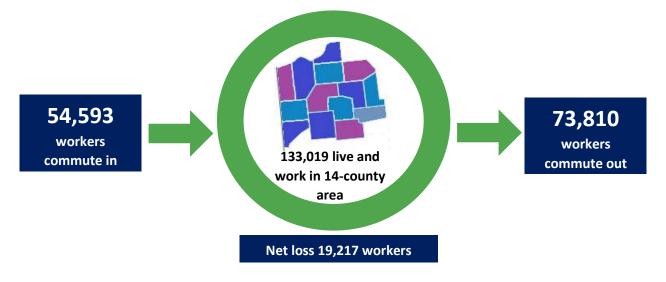




As the chart indicates, education levels within the State of Indiana are very similar to the 14-county region. As compared to 89 percent of White County's residents, 87 percent Indiana residents over the age of 25 have a High School Diploma.

### Commuting Patterns and Labor Force Availability

Over 187,500 workers are employed in the region, with over 133,000 workers both living and working in the area, and over 54,500 commuting in from outside the region other counties. With over 54,500 workers commuting into the 14-county region and just under 73,800 commuting out, the 14-county region is a net exporter of workers. Most commuters traveling outside of the 14-count region travel to work in Marion County (12,605, 6.1 percent) and Lake County (7,583, 3.7 percent). Conversely, almost 5,000 people commute from Marion County to the 14-county region.



<sup>&</sup>lt;sup>26</sup> U.S. Census Bureau, OnTheMap, 2012 (most recently available). http://onthemap.ces.census.gov/

### Overall Labor Analysis

Below are the top 20 occupations, based on total employment, for all industries in the 14-county region. The top occupation, Team Assemblers, is a top 10 occupation in three of the target clusters: Transportation Equipment, Advanced Materials, and Agri and Life Sciences. One other occupation, Laborers and Freight, Stock, and Material Movers, Hand, falls in a target industry, the Food and Beverage cluster, although Heavy and Tractor-Trailer Truck Drivers is a target for the Food and Beverage supply leakage targets. **Bolded** industries are those that fall into a target cluster's top occupations, while the *italicized* industry is a target

Occupation	2014 Jobs	2013 Median Wage
Team Assemblers	8,243	\$38,376
Combined Food Preparation and Serving Workers, Including Fast Food	7,353	\$17,763
Retail Salespersons	6,116	\$19,885
Cashiers	5,222	\$18,366
Postsecondary Teachers	4,718	\$64,272
Office Clerks, General	4,712	\$22,818
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	4,176	\$21,195
Heavy and Tractor-Trailer Truck Drivers	4,167	\$38,397
Laborers and Freight, Stock, and Material Movers, Hand	3,991	\$25,314
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	3,968	\$28,371
Waiters and Waitresses	3,656	\$17,992
Registered Nurses	3,294	\$53,394
Stock Clerks and Order Fillers	2,767	\$21,195
Bookkeeping, Accounting, and Auditing Clerks	2,743	\$32,074
Farmers, Ranchers, and Other Agricultural Managers	2,728	\$28,288
Teacher Assistants	2,693	\$21,424
Nursing Assistants	2,344	\$22,714
Customer Service Representatives	2,340	\$27,019
First-Line Supervisors of Retail Sales Workers	2,288	\$31,720
Maintenance and Repair Workers, General	2,267	\$33,155

industry for the supply leakage target for the Food and Beverage Industry cluster.

### **Target Market Labor Analysis**

The target market study identified the top 10 in-demand occupations for each industry cluster. When examining these altogether, there are 25 unique occupations. Two of these occupations are in-demand across all four industry clusters: First First-Line Supervisors of Production and Operating Workers, and Inspectors, Testers, Sorters, Samplers, and Weighers. Team Assemblers are in demand across three of the four industry clusters, and seven occupations are in the top 10 occupations twice.

One Target Cluster	Two Target Clusters	Three Target Clusters	Four Target Clusters
<ul> <li>Meat, Poultry, and Fish Cutters and Trimmers</li> <li>Slaughterers and Meat Packers</li> <li>Packers and Packagers, Hand</li> <li>Packaging and Filling Machine Operators and Tenders</li> <li>Food Batchmakers</li> <li>Industrial Truck and Tractor Operators</li> <li>Electricians</li> <li>Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders</li> <li>Machinists</li> <li>Computer-Controlled Machine Tool Operators, Metal and Plastic</li> <li>Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic</li> <li>Chemists</li> <li>Biological Technicians</li> <li>Architects, Except Landscape and Naval</li> <li>Architectural and Engineering Managers</li> </ul>	<ul> <li>HelpersProduction Workers</li> <li>Laborers and Freight, Stock, and Material Movers, Hand</li> <li>Welders, Cutters, Solderers, and Brazers</li> <li>Industrial Engineers</li> <li>Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic</li> <li>Mechanical Engineers</li> <li>Electrical and Electronic Equipment Assemblers</li> </ul>	• Team Assemblers	<ul> <li>First-Line Supervisors of Production and Operating Workers</li> <li>Inspectors, Testers, Sorters, Samplers, and Weighers</li> </ul>

In order to provide new workers from the area for these positions, opportunities to upskill current workers must be utilized. Upskilling workers can take a variety of forms, but is based first and foremost on where workers' current skills and education lie. In addition to the education information above, the following data on current jobs will provide an important base for labor decisions.

### Crossover and Upskilling

To break into the top 10 occupations with crossovers in multiple industries, the following education and/or On-the-Job Training (OJT) is needed:

	Industry	Median Salary	Education	OJT or Experience
Four Target	First-Line Supervisors of Production and Operating Workers	\$54,228	Postsecondary non- degree award	None
Clusters	Inspectors, Testers, Sorters, Samplers, and Weighers	\$35,264	High school diploma or equivalent	Moderate-term on-the-job training
Three Target Clusters	Team Assemblers	\$28,215	High school diploma or equivalent	Moderate-term on-the-job training
	Industrial Engineers	\$80,322	Bachelor's degree	None
	Mechanical Engineers	\$81,838	Bachelor's degree	None
	Electrical and Electronic Equipment Assemblers	\$29,141	High school diploma or equivalent	Short-term on-the- job training
Two Target	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	\$29,952	High school diploma or equivalent	Moderate-term on-the-job training
Clusters	Welders, Cutters, Solderers, and Brazers	\$36,567	High school diploma or equivalent	Moderate-term on-the-job training
	HelpersProduction Workers	\$23,150	Less than high school	Short-term on-the- job training
	Laborers and Freight, Stock, and Material Movers, Hand	\$24,098	Less than high school	Short-term on-the- job training

To better understand how White County could target their recruitment and retention efforts around the Agri and Life Sciences Industry, TPMA analyzed the connections between the six identified Agri and Life Sciences Industries and the Supply Industries for the 14-county region's target clusters. When identifying industry crossover, in-region purchasing percentages paired with the amount of goods/services a target industry cluster purchases from each Agri and Life Sciences Industry were considered.

As expected, most of the Agri and Life Sciences Industries with a stronger regional presence<sup>27</sup> were also those that have strong levels of industry crossover<sup>28</sup>. Crossover is especially strong between the Agri and Life Sciences Industries and the Transportation Manufacturing target industry clusters. Transportation and Manufacturing companies in the region purchase more than \$45.8 million from the six Agri and Life Sciences industries, and spends on-average \$5.3 million within the region. This data signals a strong and healthy foundation of crossover purchasing within the region, which should be exapnded to better support key target industry clusters. In addition to these crossovers, the Food and Beverage Manufacturing Cluster and the Advanced Materials Cluster spend over \$1 million each in the 14-county region on industries in the Agri and Life Sciences Cluster. The largest amount of money is spent on the Architectural, Engineering, and Related Services industry to source goods and services for each target cluster

<sup>&</sup>lt;sup>27</sup> A stronger regional presence is defined by employing more than 10 employees within the region.

<sup>&</sup>lt;sup>28</sup> Dollar amount spent in region.

# White County Assets

To complement the labor market and target industry analyses, TPMA outlined White County's noteworthy assets in order to paint an accurate picture of the region's opportunities. While the data analyses provides a foundation for WEDC to market itself effectively, the valuable characteristics described below provide an attractive platform for business and talent to relocation to White County.

### Mid-America Commerce Park

Located within 1.5 miles of Interstate 65, the Mid-America Commerce Park (MACP) is a newly developed industrial park with superior infrastructure assets, rail access, and a shell building. The MACP's positioning halfway between Chicago and Indianapolis, as well as its proximity to Lafayette, provides ideal access to large markets. Furthermore, the Genesee-Wyoming and TP&W rail line adjacent to the property, the Norfolk Southern and CSX rail lines in the county, and close proximity to Burns Harbor port in northern Indiana make the MACP a prime location for industry to locate.

Located at 11703 W. US Hwy 24, Wolcott IN 47995, key features include:

- Shovel Ready Certified
- Type of space: Flex,
   Warehouse/Distribution, Heavy
   Mfg, Industrial, Business Park, Light
   Mfg, Mixed Use, Whse/Dist
- Shovel Ready
- Phase I: 600+ acres
- MEGA site TIF district of 2,200 acres
- Toledo, Peoria, & Western Railway Corp. access
- Site can accommodate virtually any industrial need



### White County Shell Building

Within the Mid-America Commerce Park is the newly completed construction of the White County Shell Building. Focused on speed-to-market development construction, the White County Shell Building offers flexible industrial space for manufacturers to install equipment less than 120 days from the execution of letter of intent to purchase or lease. The Shell Building includes features designed for today's manufacturing standards, including:

- 60,000 square feet
- Expandable to 240,000 square feet
- 32' ceiling height
- Intersection of US Hwy 24 and CR 1200
- 50 x 50 bay spacing
- Parcel 21 acres



Furthermore, White has County successfully applied to have the MACP certified Shovel Ready Gold, making it the second Gold certification site in the entire state of Indiana. Certified Shovel Ready, Silver, and Gold sites are featured on Indiana's Site Selector Database and are included in the Indiana Economic Corporation's Development (IEDC) marketing materials.<sup>29</sup> Shovel Ready Gold certification confirms sites that have the aforementioned attributes, but also that the site is located less than five miles from a two-lane highway, has seismic data, soil borings, is a minimum of 20 acres, and has no environmental concerns.30

### **Broadband Assets**

Supporting these strong target industries and aspirational industries are very low electric power costs and the wide availability of fiber access in the 14-county region. The Mid-America Commerce Park (MACP) has fiber on-site and connects to the Indiana Fiber Network (IFN), providing access to a large fiber optic network comprised of over 3,500 miles of fiber throughout Indiana. First-rate fiber infrastructure means

<sup>&</sup>lt;sup>29</sup> HWC Engineering assisted White County Economic Development organization in the preparation of the Indiana Shovel Ready application.

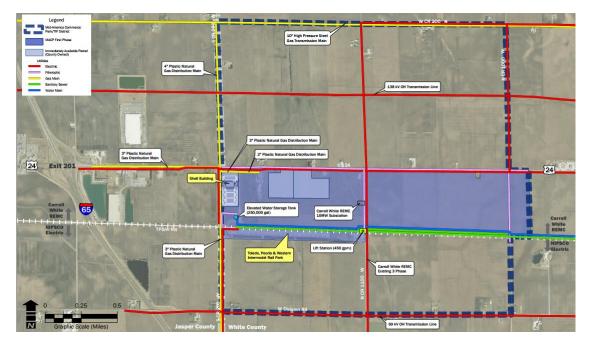
<sup>&</sup>lt;sup>30</sup> Shovel Ready Program <a href="http://www.in.gov/ocra/2622.htm">http://www.in.gov/ocra/2622.htm</a>

that businesses relocating to the MACP will not be limited by connectivity options. Due to the global economy, being connected physically and through information technology is vital to the region's economic competitiveness.

# **Energy Assets**

Complementing its fiber infrastructure, White County and the MACP have plentiful, reliable, and affordable electric power serviced by both Northern Indiana Public Service Company (NIPSCO) and Carroll-White Rural Electric Member Cooperative REMC. Recently, the Carroll-White (REMC) invested \$2 million in a new substation and increased the conductor size in order to better serve the MACP site and surrounding region. The County's additional energy assets, such as the Liberty Landfill near Buffalo, produces Green Power – an environmentally friendly electricity, providing renewable energy resources. The partnership between Carroll-White County REMC, Wabash Valley Power Association, and Waste Management committed to its constituents a reliable, sustainable, and affordable source of power, thus encouraging all types of businesses to relocate within the region.

Recently, Wabash Valley Power Association has requested a permit to add on to the existing Liberty Landfill generation. In order to easily handle more generation at this site, Wabash Valley Power Association has opted to build a substation. The Liberty substation has been engineered and is in the process of construction to be completed in approximately 10 months with an estimated total cost of \$3.6 million in additional infrastructure. In addition, Wabash Valley Power Association is working to construct a 6.4 MW Landfill Gas to Energy (LFGTE) power plant, with four CAT 3520 engine-generators. Pending approval, the \$9 million project will likely begin construction in summer of 2015 and be on-line in first quarter 2016.



To complement Wabash Valley Power Association's investment, NIPSCO has also initiative several high-level projects and upgrades totaling over \$150 million through 2018. In regards to the MACP, NIPSCO installed 2", 3" and 4" natural gas distribution main as well as a 10" high pressure steel gas transmission main for industrial users. Another one of NIPSCO's large investment projects is the construction of a 70 mile electric transmission line from Greentown to Reynolds, Indiana, a joint project between NIPSCO and Pioneer Transmission, and associated upgrades to the substation. Not only will the Greentown-Reynolds project improvement the electric delivery system's reliability for the region, but it will also increase users' access to regional sources of power (thus, lowering costs), and create new construction jobs other indirect impacts to the economy.

Furthermore, NIPSCO is making improvements to the Norway Hydroelectric Dam and other electric and natural gas infrastructure upgrades throughout White County.

# Purdue University - College of Agriculture

Purdue University's College of Agriculture is one of the world's leading colleges of agricultural, food, life, and natural resource sciences. As a major land-grant university, Purdue University conducts prominent academic agbioscience Research and Development, producing 99 percent of any university-based agbioscience in the state.<sup>31</sup>

According to Quacquarelli Symonds, a British firm specializing in higher education and careers researching, Purdue University's College of Agriculture is fifth-best among colleges of agriculture and forestry worldwide.<sup>32</sup> The university assessment was based on academic reputation, employer reputation, and research citations per paper. The Employment Opportunities for College Graduates report<sup>33</sup> announced that job opportunities in food, agriculture, renewable natural resources, and environment occupations is expected to grow by approximately 5 percent between 2015-2020 for those with a bachelor's degree or higher.

Because of White County's agriculture and life science strengths, as well as its close proximity to Purdue University, TPMA recommends the county develop a strong, mutually beneficial partnership with Purdue to increase collaboration on agbioscience production, Research and Development, and a talent pipeline.

<sup>&</sup>lt;sup>31</sup> Innovative Agbioscience in Indiana: A Baseline Assessment,

http://ecirp.org/Energize/media/Energize/Secondary%20Pages/Example%20Downloads/Innovative-Agbioscience-in-Indiana-Executive-Summary.pdf?ext=.pdf

<sup>&</sup>lt;sup>32</sup>http://www.topuniversities.com/university-rankings/university-subject-rankings/2015/agriculture-forestry#sorting=rank+region=+country=+faculty=+stars=false+search=

<sup>33</sup> https://www.purdue.edu/usda/employment/

# AgriNovus Indiana

Indiana is undeniably a leading agricultural state, with an economic impact of more than \$16 billion. The state has productive crop and livestock farms, and home to specialized talent, and imaginative and visionary entrepreneurs.

Building on these strengths, AgriNovus Indiana (<a href="http://www.agrinovusindiana.com/">http://www.agrinovusindiana.com/</a>) is a catalyst for innovation in the food and agriculture industry. AgriNovus Indiana is part of the Central Indiana Corporate Partnership, an effort dedicated to Indiana's continued prosperity and growth. The organization will further position the State as a nationally recognized leader in the development of new, innovative products and services through:

- Strategic collaboration among corporations, industry associations, government and universities;
- The creation and support of new companies; and
- Branding and targeted promotion of the innovation throughout the industry.

AgriNovus Indiana's stakeholders include business, university and government leaders from Indiana's diverse food and agricultural sector.

A recent report conducted by the Battelle Institute<sup>35</sup> showed the following:

- Indiana ranks 10th among the states in the value of agricultural production, with \$11 billion in farm gate sales in 2012.
- The food and ag sectors in Indiana employ 19 percent of the state's workforce, or about 134,000 people.
- Purdue University's ag and bioscience research spending jumped 33 percent from 2003 to 2012, to \$118 million.

AgriNovus Indiana's steering committee includes officials from Beck's Hybrids, Clabber Girl, Dow AgroSciences, Elanco, Indiana Soybean Alliance/Indiana Corn Marketing Council, Indiana State Fair Commission, Purdue Agriculture, National FFA, and several state agencies.

TPMA recommends for White County to enhance its partnership with AgriNovus Indiana and continue to engage its private industry partners, government, and research university relations for increased development of its Agri and Life Sciences cluster.

# Lilly Endowment Planning Grant

Announced January 29, 2015, the Central Indiana Corporate Partnership (CICP) was awarded a \$495,000 planning grant from Lilly Endowment Inc. to the Greater Lafayette region, including White County, to assist in the identification of opportunities, assets, and resources for economic opportunities. Similar to

<sup>34</sup> http://www.agrinovusindiana.com/

<sup>&</sup>lt;sup>35</sup> Innovative Agbioscience in Indiana: A Baseline Assessment content/uploads/2014/10/Innovative-Agbioscience-in-Indiana.Final-Report-2.pdf

http://agrinovusindiana.com/wp-

previous Lilly Endowment grants provided to other Indiana communities, the Greater Lafayette region will focus on strategic planning efforts.

Comprised of 10 of the region's stakeholders and thought leaders, the steering committee will meet regularly to review input and data from local and regional leaders, economic and workforce development experts, community foundations and the public. Once assessed, the steering committee will then develop a set of recommendations for the region. The plan is expected to be finalized by early 2016.<sup>36</sup>

In order to elevate implementation and marketing efforts of White County in the region, TPMA recommends strong engagement with CICP and the region in the strategic planning process.

### **Site Location Consultants**

In addition to the Target Market Analysis, White County EDC requested strategic connections to site location consultants to market the economic development organization's overall strategic plans and target industries. TPMA's ultimate goal is to help White County market its manufacturing strengths, ideal logistical linkages, and attractive economic and workforce assets. Site selectors provide an opportunity for White County to present its key assets, such as the Mid-America Commerce Park, to consultants that assist their corporate clients with facility location decisions.

Based on White County's attributes, the Chicago, Cleveland, and Detroit markets were identified as primary targets for marketing to site location consultants. Pulled from proprietary databases, TPMA identified and verified over 330 consultants, brokers, and other organizations with potential relocation and investment portfolios and provided detailed contact information to the White County EDC.

### **Lead Generation**

Similar to the site location consultant assessment, TPMA worked with the White County EDC to develop lead generation strategies based on the unique assets and strengths of the region. Using proprietary data sources with information on over 87 million national and international companies, TPMA matched White County's attributes to those companies that are most likely to be in an expansion mode and/or to benefit from a location in the region. Companies were analyzed based on the following:

- Industry type
- NAICS code
- Employment and revenue size
- Geographic location
- Location type (headquarters, branches and subsidiaries)
- Ownership type (public and private), competitors

These companies were then contacted to determine if they would have an interest in learning more about the advantages of doing business in White County and/or if they are likely to be considering expansion

<sup>&</sup>lt;sup>36</sup> CICP Press Release: <a href="http://cicpindiana.com/regional-leaders-develop-economic-development-strategy-greater-lafayette-region/#.VV43GvlViko">http://cicpindiana.com/regional-leaders-develop-economic-development-strategy-greater-lafayette-region/#.VV43GvlViko</a>

over the next two to three years. Detailed information on each company was compiled and includes: company name, verified contacts, detailed company information, and conversation notes. As the companies are identified, White County personnel will have the opportunity to contact and develop relationships with these companies.

# Appendix A: Building Requirements for Target Industries

With the impending development of a shell building at the MACP, it is paramount that the facility include assets and characteristics to meet the standard building codes and federal regulations for the specifics. Because White County EDO is particularly interested in pursuing food processing or life science R&D as a target for the MACP, TPMA recommends the following "check list" and information to consider.

### **Food Processing**

For any facility that processes, repackages, and/or warehouses foods, it is subject to health regulations guiding the facility's construction, sanitation, product standards, and package labeling. The full list of regulations and parameters can be found on the State of Indiana's website: http://www.in.gov/isdh/21643.htm.

#### Below is a brief overview:

- Adequate water and sewage systems
- Equipment designed, constructed, and installed properly
- Facility secure from insects, birds, and rodents
- Physical Facility
  - o Floors, walls, and ceilings may be adequately cleaned and maintained in good repair,
  - Drip or condensate from fixtures, ducts and pipes does not contaminate food, food contact surfaces, or food-packaging materials.
  - Aisles or working spaces are provided between equipment and walls and food products and walls are adequately unobstructed and have adequate width to permit employees to perform their duties and to protect against contaminating food or food-contact surfaces with clothing or personal contact.
- Foods/ingredients obtained from approved sources
- Lighting
- Processing or repackaging areas separated from other operations
- Refrigeration/freezer equipment to meet the needs of the operation
- Sinks for hand washing, equipment/utensil washing, and floor clean-up
- Transportation
- Ventilation

### Life Science R&D and Manufacturing

Due to the nature of the life science research and manufacturing industry, facilities are apt to need higher ceiling height than office buildings, and utility systems that support high demand. Most physical features of life science facilities include a variety of rooms, including:

- Wet labs
- Dry Labs
- Cold Rooms (walk in and built in)
- Warm Rooms (walk in and built in)
- Satellite Control Rooms (i.e. rooms in which flammable or hazardous materials are stored)
- Common Control Rooms

Most life science facilities include a variety of types of spaces, such as lab space, lab support space, and office space. Manufacturing of market-ready goods and products typically occurs at a separate lower cost facility nearby. And because research functions often take place within close proximity to higher education, other research institutes, and similar life science or pharmaceutical facilities, White County holds a particular advantage to attract life sciences companies to the region. With Purdue University being located in a neighbor community, its academic talent, scientific advisor committees, and qualified employee base provides a strong workforce pipeline for the industry, as well.

When pursuing the development of life science buildings, TPMA recommends reviewing the regulatory and development guidelines outlined below.<sup>37</sup>

- Zoning Restrictions
  - o Uses
  - Animals
  - Building Height
  - Gross Floor Area and Leasable Area
  - Parking Ratios
- Other Regulations
  - Building Codes, especially related to flammable liquids
  - Environmental Impact Review Regimes
  - Noise Ordinances
  - Wastewater Discharge
  - Air Permitting
  - o Local Licensing (Rdna and Animal Research)
  - Licensing for Use of Radioactive WRA Materials
  - Other Permits and Licenses

https://www.wilmerhale.com/uploadedFiles/Shared Content/Editorial/Publications/Documents/microbes-mice-minefields-unique-issues-developing-leasing-life-science-facilities.pdf