GREATER FORT WAYNE INC.

NORTHEAST INDIANA REGIONAL PARTNERSHIP

Northeast Indiana Target Report

June 2016

Authored by:
Community Research Institute at IPFW

An analysis of business development opportunities for Fort Wayne-Allen County and the 11-county Northeast Indiana region

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

Greater Fort Wayne Inc. commissioned the Community Research Institute at IPFW to complete a target industry analysis for Allen County and Northeast Indiana. Prior to this study, a comprehensive review of target industries had not been done since 1999 for Allen County and not since 2007 for the Northeast Indiana region.

Funding for the study was provided by the Greater Fort Wayne Chamber Foundation and the English, Bonter, Mitchell Foundation. The initial scope of the project was to review industry in Allen County but was transitioned to a regional study to assist with the broader business development strategy of the region.

The results of the analysis will be used to drive the business attraction, talent attraction and marketing strategies of Greater Fort Wayne, the Northeast Indiana Regional Partnership and regional partners. This is a living document and the strategies outlined here should respond to market opportunities. The names of targets, supportive marketing language, and niche subsectors should be customized as the strategies progress to best convey the value proposition of Allen County and Northeast Indiana.

EXECUTIVE SUMMARY

This Northeast Indiana Target Report explores what has happened in the regional economy since the end of the Great Recession and what opportunities exist to strengthen and focus economic growth and diversification efforts. The target industries pursued by Greater Fort Wayne Inc. and the Northeast Indiana Regional Partnership have not been revisited since prior to the Great Recession, and with the economic changes that have occurred some targets may not make sense to maintain while other emerging opportunities should be examined for economic development investments. This Report takes a comprehensive approach and includes a review of post-recession trends in Allen County and Northeast Indiana, the post-recession performance of the region's existing targets, and recommendations for updated target industry sectors.

Post-Recession Trends

- **Northeast Indiana is reaching pre-recession employment levels, and the labor force supply is tightening.** Post-recession job growth within the region (10 percent) has outpaced the nation (9 percent); although, Allen County has fallen behind compared to the rest of the region (7 percent). Strong job growth combined with historically low unemployment rates and higher labor force participation rates (65.6 percent in Northeast Indiana compared to 63.9 percent nationwide) point to increasing pressures to supply talent to satisfy existing and prospective new employers' demand.

- **Population growth dynamics will complicate workforce growth momentum in the coming years**. Net-migration continues to be an area where many Midwestern communities struggle. Retaining our best and brightest workers and their families is a competitive concern, as Allen County and the Northeast Indiana continue to experience a net loss of domestic migrants. Still, population growth occurs through other mechanisms: foreign migration and birth of new babies. With the retirement of the Baby Boomers, Northeast Indiana will need an infusion of additional workers to replace those leaving the workforce and satisfy the demands of employers that will create new jobs. Developing quality of place assets and high wage jobs must occur in tandem to create a compelling case for Northeast Indiana as a place to live, work, and play.

- **Wage growth is a concern**. Over the last decade, average wages grew by 29 percent nationwide. In Metro Fort Wayne, wages grew by only 15 percent placing it in the bottom 10 of all metro areas nationwide, according to a recent study by Garner Economics. While areas like finance and insurance, management of companies, manufacturing, and health care have done well post-recession, key high-wage areas like professional and technical services actually lost jobs in Allen County. Additionally, Defense-related job cuts have hurt the region, as average annual wages approached nearly $100,000. Defense has lost at least 2,000 jobs and $178 million in annual payroll in Allen County.

- **These dynamics slow our progress in boosting per capita income:** In the 11-county Northeast Indiana region, after decades-long erosion of per capita income due to the loss of high-wage manufacturing jobs and PCI bottoming out in 2009 (80.2% of the U.S. PCI), per capita income has registered modest and consistent growth each of the five years post-recession. However, disaggregating Fort Wayne-Allen County from the rest of the region shows that our urban core (which accounts for nearly half of all regional employment) has struggled. It is the only county in Northeast Indiana to register slower PCI growth than the nation. Allen County is down1% over same period and is currently 86.2 percent of national PCI.

Again, the loss of high-wage defense jobs played a major role in this dynamic. Additionally, the regional counties are showing little sign of economic diversification to provide additional higher-wage job opportunities, besides manufacturing.

Recommended Target Updates

Discussions with area economic development leadership, examination of the data, and regional aspirations for per capita income growth and continued economic diversification have all influenced the recommendations to reframe target industry efforts. At this time, one cohesive set of target industries is presented for both the urban core and the region. Greater Fort Wayne Inc. and the Northeast Indiana Regional Partnership should determine strategies that are appropriate for each organization to pursue in support of target industry growth. Seven targets are recommended: three established targets and four emerging targets. Together, these targets account for one-third of jobs in Northeast Indiana.

	Old Targets	Old Targets		
	Northeast Indiana Region	**Fort Wayne-Allen County**	**Recommended Update**	
Maintained	Vehicles Medical Devices Insurance	Advanced Manufacturing Life & Material Sciences Financial Services	**Vehicles** **Medical Device and Technology** **Specialty Insurance**	*Established Targets*
Repositioned or Added	Food Processing Logistics	Agri-Processing Transportation	**Food and Beverage** **Logistics** **Design and Craftsmanship** **Advanced Materials**	*Emerging Targets*
Dropped	Defense	Communications & Defense Airport Development		

Established targets are those with a large, multi-dimensional employment base, an established specialization/concentration in Northeast Indiana, above average wages, and regional post-recession growth that has outpaced the national growth rate for the industry.

Emerging targets are those that have a smaller employment base, present opportunities for growth and diversification, leverage strengths of Northeast Indiana, offer at or above average wage jobs, and may also contain aspirational elements.

It is recommended that two targets be dropped from formal target development efforts.

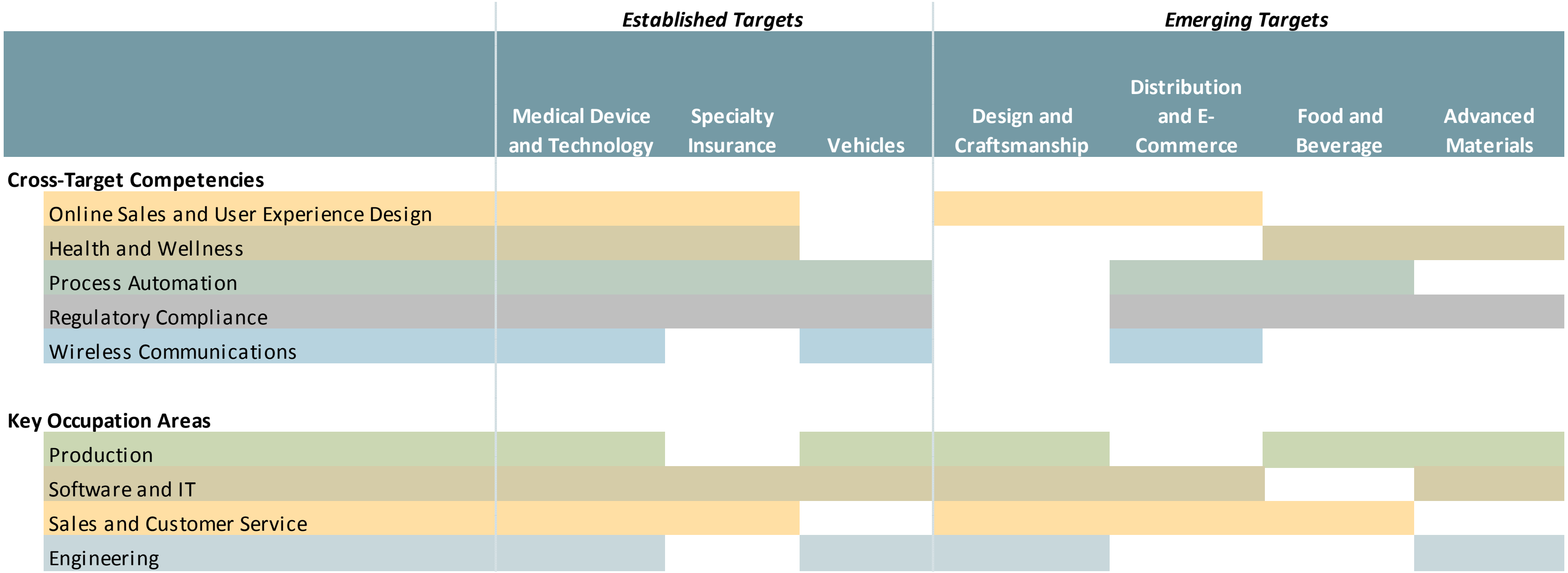
- The first is **Airport Development**. Greater Fort Wayne Inc. should continue to fully leverage FWA as an asset for business growth. However, Airport Development is not necessarily a targeted industry sector, but more a specific locational strategy that may be used to promote growth in specific industries as would other infrastructure assets like multimodal facilities, Broadband, or Interstate access.

- The second is **Communications and Defense**. As previously mentioned, the Defense sector has lost thousands of jobs in Northeast Indiana. The impacts of Federal spending sequestration, along with Fort Wayne's position as a location for corporate branch offices, have made the community vulnerable to downsizing. Defense should be a continued priority industry for business retention and expansion (BRE) services. However, because of the current Federal spending environment, a heavy local focus on recruitment and marketing to Defense firms would likely yield a relatively low return on investment. Additionally, commercial aerospace activities in the region are limited to handful of employers. Wireless communications remains a core competency, and it is recommended that this be maintained through a focus of niche areas in other target industries. The region should continue to support statewide development activities via IEDC and, if a cohesive action-oriented strategy around Communications and Defense is developed locally then supportive economic development activities should be reconsidered at that time.

In addition to the identified targets **core industries** exist within the region, including **Health Care** and **Communications and Defense.** Health Care is the number one employer in Allen County and the second largest employing sector in the 11-county region. The Health Care sector prospers as the region's population base and economy prospers. Supporting growth in export-oriented, high-wage sectors (via the target industries) yields ripple effects in locally serving sectors, like Health Care. As previously discussed, the viability of the Defense sector is subject to market forces that are difficult to influence locally. However, Communications and Defense is a historically significant sector in Allen County and one that pays high-wages and promotes innovation. Economic development efforts should look to retain and expand existing assets and assist with talent development needs of employers. These core industries should be supported by economic development activities, but not necessarily from a prioritized, targeted marketing standpoint.

There are **key occupational areas** in Fort Wayne-Allen County and Northeast Indiana's workforce. They include production, engineering, software and IT, and sales and customer service. These are priority areas to understand in order to maintain and build workforce competitiveness. **Cross-target competencies** are core capabilities also exist across a spectrum of industries. They include online sales and user experience design, health and wellness, process automation, regulatory compliance, and wireless communications. Bolstering Northeast Indiana's reputation and excellence around these areas will more cohesively define what makes our region different, from a target development standpoint.

In the past, economic developers have positioned **Information Technology** as its own industry. IT has become engrained into most industry sectors as it drives increased business productivity and innovation. Approaching IT from the standpoint of workforce skills and core competency areas like online sales and wireless communications define key areas within IT that are driving innovation and growth among Northeast Indiana's employers.



Next Steps

As Greater Fort Wayne Inc. and the Northeast Indiana Regional Partnership proceed with collaborative efforts around the Major Markets Strategy to visit 500 out-of-market businesses, specific focus should be paid to honing in on strategies that align with these target industries. Additionally, as each organization pursues its own work plan, target development strategies must be collaboratively approached with other community partners to ensure growth opportunities are supported from multiple angles: business retention and expansion, internal and external marketing, research and development, entrepreneurship support, infrastructure, industrial and commercial site development, and downtown and quality of place enhancement.

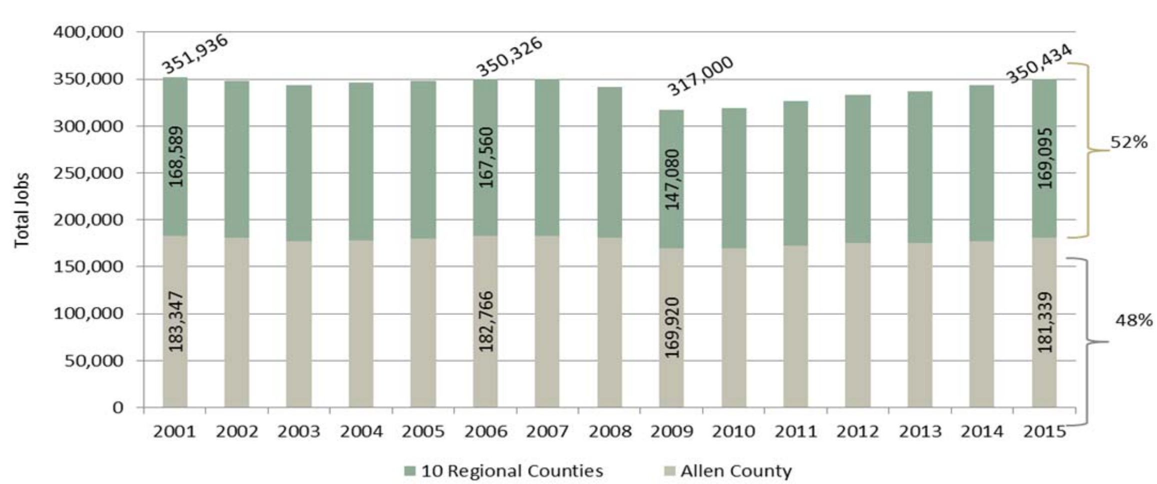
POST-RECESSION TRENDS

National and global changes in the manufacturing sector have been the dominant force shaping employment growth within Northeast Indiana over the last several decades. In the period leading up to the Great Recession (2001 – 2007), the region's manufacturing sector was in steady decline with an average annual loss of about 2,000 jobs. These losses offset growth in other areas and resulted in flat job growth prior to 2007, as shown in the graph to the right. During the recession (2007-2009), the region's average annual manufacturing job loss reached 7,800 jobs. Post-recession, the region has entered into a period of strong recovery with the creation of 31,129 new jobs. Manufacturing has registered an average of 3,100 new jobs per year since 2010.

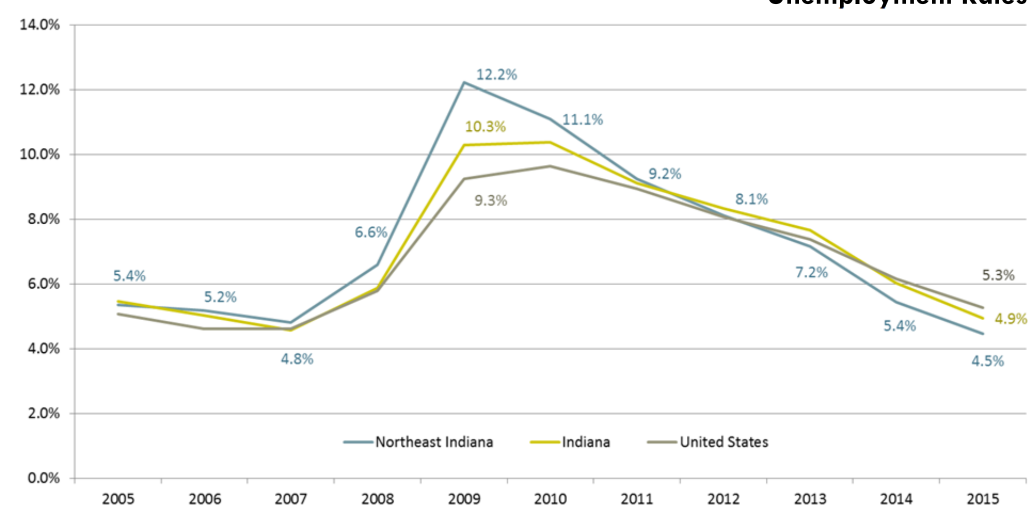
Even with this recovery, the region has just reached pre-recessionary employment levels. In 2015, total employment within the 11-county area reached 350,434 with 52 percent of these jobs located within the 10 regional counties and 48 percent in Fort Wayne-Allen County.

Post-recession job growth within the region (10 percent) has outpaced the nation (9 percent); although, Allen County has fallen behind compared to the rest of the region (7 percent). Strong job growth combined with historically low unemployment rates and higher labor force participation rates (65.6 percent in Northeast Indiana compared to 63.9 percent nationwide) point to increasing pressures to supply talent existing and prospective new employers' demand.

Total Employment Change



Unemployment Rates



Source: EMSI 2015.4 Class of Worker. Bureau of Labor Statistics

Post-Recession Employment Change by Industry

This table illustrates where jobs have been added and lost within Northeast Indiana's regional economy over the last five years and is sorted by industry size.

Overall, the region has added 31,129 jobs with 19,377 of these jobs added in the 10 regional counties and 11,752 in Allen County. Strongest gains were registered within manufacturing (accounting for nearly half of all new jobs), health care, accommodation and food services, and retail trade.

Within the 10 regional counties, job growth was 1.5 times that of the nation at 13 percent. Nearly 60 percent of jobs created were in manufacturing. Logistics (wholesale trade, transportation, and warehousing) also did quite well; however, economic diversification in very limited.

In Allen County, growth occurred at a slower rate. While areas like finance and insurance and management of companies did well, key areas like professional and technical services actually lost jobs.

	2015 Average Annual Wage	*2015 Jobs*			*5-year change*						
		Northeast Indiana	**Allen County**	**10 Regional Counties**	**Northeast Indiana**		**Allen County**		**10 Regional Counties**		**United States**
Manufacturing	$52,751	92,307	28,934	63,372	19%	14,715	13%	3,365	22%	11,350	7%
Health Care and Social Assistance	$40,991	46,654	31,213	15,441	10%	4,061	13%	3,660	3%	401	14%
Retail Trade	$24,414	36,392	20,266	16,126	6%	2,142	6%	1,232	6%	910	8%
Government	$37,090	36,135	17,787	18,348	-1%	(362)	-1%	(187)	-1%	(175)	-2%
Accommodation and Food Services	$13,302	28,333	16,242	12,091	11%	2,757	11%	1,602	11%	1,155	16%
Administrative, Support and Waste Services	$24,675	17,517	11,028	6,489	9%	1,478	4%	470	18%	1,008	20%
Wholesale Trade	$54,680	15,907	9,266	6,641	9%	1,252	2%	210	19%	1,043	8%
Construction	$46,037	12,757	7,819	4,938	2%	305	-2%	(123)	9%	427	15%
Finance and Insurance	$58,329	11,683	8,514	3,170	6%	711	8%	636	2%	76	5%
Transportation and Warehousing	$43,272	11,632	6,643	4,989	11%	1,130	0%	(6)	29%	1,136	15%
Other Services (except Public Administration)	$25,201	9,743	5,084	4,658	9%	843	7%	326	12%	518	-1%
Professional, Scientific, and Technical Services	$50,188	8,208	5,740	2,468	-2%	(139)	-7%	(400)	12%	261	16%
Educational Services (Private)	$27,607	5,901	3,329	2,572	11%	606	9%	268	15%	338	9%
Information	$49,983	4,378	2,713	1,666	-5%	(230)	-5%	(156)	-4%	(74)	3%
Arts, Entertainment, and Recreation	$15,615	3,246	2,276	970	6%	194	9%	187	1%	7	13%
Management of Companies and Enterprises	$75,382	3,161	1,831	1,330	39%	890	39%	512	40%	377	19%
Real Estate and Rental and Leasing	$33,542	2,980	1,877	1,104	13%	333	7%	130	22%	202	9%
Crop and Animal Production	$33,016	2,325	214	2,111	21%	402	47%	69	19%	334	8%
Utilities	$80,116	926	473	453	2%	17	-2%	(12)	7%	29	2%
Mining, Quarrying, and Oil and Gas Extraction	$53,901	243	89	154	9%	19	-25%	(29)	46%	48	16%
Total	**$40,104**	**350,434**	**181,339**	**169,095**	**10%**	**31,129**	**7%**	**11,752**	**13%**	**19,377**	**9%**

Source: EMSI 2015.4 Class of Worker, Bureau of Labor Statistics

Note: Allen County's air service subsector within Transportation and Warehousing showed 1,615 jobs in 2012 and 132 jobs in 2013. This appears to be an anomaly in the data, as there were never 1,600 jobs at Fort Wayne International Airport. It is likely due to one of two issues – either an employer had been erroneously classifying itself in this sub-sector and began reporting in a new sub-sector in 2013 or the merger of major airlines impacted how flight crew assignments are reported in the Midwest region. Either way, even if Allen County's Transportation and Warehousing sector was about 1,000 greater, overall job growth for Allen County during the 2010 – 2015 period would only reach 7.5 percent.

Top 15 Growing and Contracting Industry Sub-Sectors, Allen County (Post-Recession)

		2010	2015	5-Year Change		Location Quotient	Average Annual Wage	Number of Estab.
Growth								
1	Motor Vehicle Manufacturing	3,189	4,910	1,721	54%	17.47	$80,616	1
2	General Medical and Surgical Hospitals	10,199	11,565	1,366	13%	1.95	$52,374	7
3	Restaurants and Other Eating Places	12,524	13,405	881	7%	1.03	$13,781	547
4	Services to Buildings and Dwellings	2,506	3,160	654	26%	1.22	$21,166	259
5	Home Health Care Services	1,160	1,789	629	54%	1.04	$24,495	37
6	Insurance Carriers	3,356	3,946	590	18%	2.52	$70,844	52
7	Motor Vehicle Parts Manufacturing	816	1,371	555	68%	1.88	$49,069	7
8	Management of Companies and Enterprises	1,318	1,831	513	39%	0.64	$76,279	64
9	General Freight Trucking	2,984	3,470	486	16%	2.70	$50,524	116
10	Electronic Shopping and Mail-Order Houses	400	846	446	112%	1.87	$44,222	22
11	Traveler Accommodation	786	1,221	435	55%	0.52	$17,622	55
12	Plastics Product Manufacturing	1,706	2,069	363	21%	2.88	$41,972	24
13	Education and Hospitals (Local Government)	7,058	7,399	341	5%	0.69	$36,944	136
14	Colleges, Universities, and Professional Schools	759	1,086	327	43%	0.70	$37,562	5
15	Special Food Services	460	784	324	70%	0.94	$17,994	37
Loss								
1	Communications Equipment Manufacturing	2,981	1,575	(1,406)	(47%)	13.61	$98,819	3
2	Scheduled Air Transportation**	1,359	126	(1,233)	(91%)	0.23	$34,534	4
3	Investigation and Security Services	1,319	797	(522)	(40%)	0.69	$25,271	28
4	Management, Scientific, and Technical Consulting Services	997	647	(350)	(35%)	0.38	$59,916	177
5	Scientific Research and Development Services	462	135	(327)	(71%)	0.16	$56,446	17
6	Household Appliances and Electronic Goods Merchant Wholesalers	723	457	(266)	(37%)	1.07	$70,435	35
7	Residential Disability, Mental Health, Substance Abuse Facilities	700	437	(263)	(38%)	0.54	$25,554	9
8	Commercial and Service Industry Machinery Manufacturing	373	125	(248)	(66%)	1.11	$46,107	8
9	Federal Government, Civilian	2,044	1,821	(223)	(11%)	0.51	$69,683	40
10	HVAC and Commercial Refrigeration Equipment Manufacturing	834	626	(208)	(25%)	3.82	$64,378	6
11	Clothing Stores	1,400	1,215	(185)	(13%)	0.90	$16,414	89
12	Junior Colleges	249	90	(159)	(64%)	1.79	$40,792	1
13	Local Government, Excluding Education and Hospitals	5,663	5,517	(146)	(3%)	0.76	$39,823	55
14	Depository Credit Intermediation	2,048	1,904	(144)	(7%)	0.87	$47,220	146
15	Highway, Street, and Bridge Construction	659	517	(142)	(22%)	1.31	$67,183	10

Source: EMSI 2015.4 Class of Worker, out of 302 total 4-digit NAICS industry sub-sectors
** See note on previous page. This is likely a data anomaly and not an accurate reflection of employment change in this sub-sector.

There are 300+ subsectors (or 4-digit NAICS classifications) that together add up to total employment in Allen County. The top subsectors which experienced job growth and job loss post-recession are presented in this table.

Vehicles, health care, logistics, and quality of life/tourism supporting services are broad areas that all registered solid growth. There are two areas of differentiation that should be noted. First, specialty insurance has fared very well post-recession, growing 18 percent and adding 590 jobs in a subsector that pays 1.75 times the county's average annual wage. Second, the electronic shopping and mail-order houses subsector (e.g. catalog and online retail) more than doubled employment in Allen County. Again, this is a sector with higher than average wages. These two areas should be explored for additional economic diversification opportunities.

Among job loss sectors, communications equipment manufacturing, management R&D services, and (to some extent) management/scientific consulting together account for contraction within the region's defense sector. The loss of these jobs must be underscored: defense has lost at least 2,000 jobs and $178 million in annual payroll in Allen County.

The impacts of federal sequestration and local defense related job losses can be best understood by examining per capita income trends in Allen County and the region. The federal government began collecting per capita income in 1969. There are three broad areas of income that are included in this measurement, which is divided by total population:

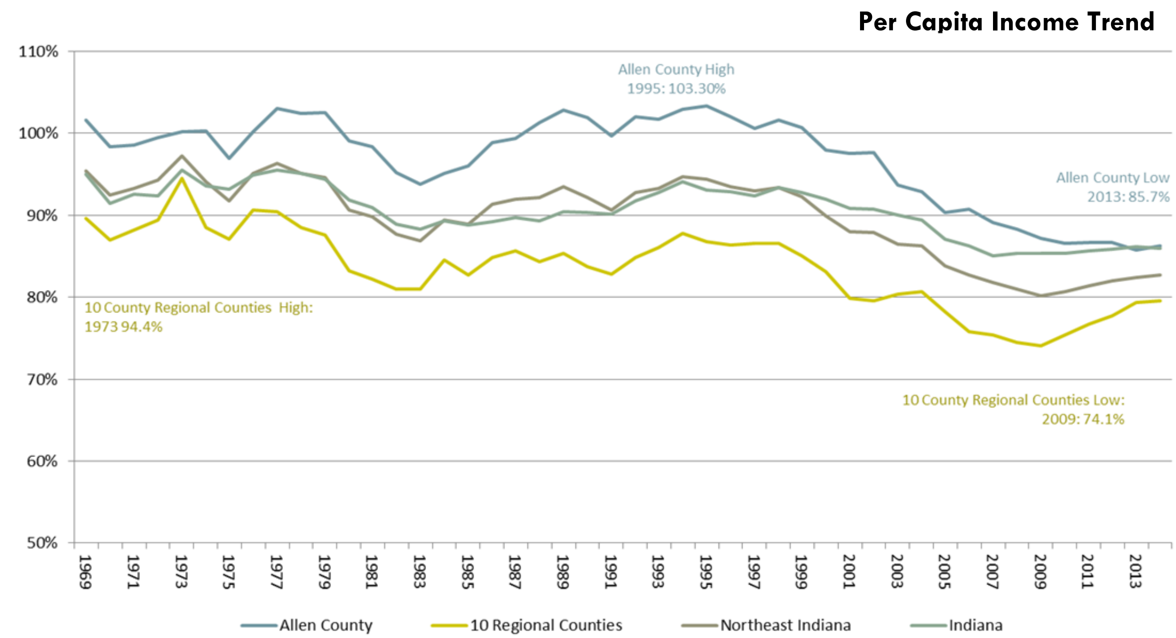
1. Wages, which account for about two-thirds of all income and are thus the primary driver of PCI;
2. Investment income including dividends, rental income, and interest; and
3. Transfer receipts from government including Social Security, medical, veterans', and unemployment benefits.

In the 11-county Northeast Indiana region, after decades-long erosion of per capita income due to the loss of high-wage manufacturing jobs and PCI bottoming out in 2009 (80.2% of the U.S. PCI), per capita income has registered modest and consistent growth each of the five years post-recession. Northeast Indiana's PCI is now 82.7% of the national PCI ($38,086 regionally, $46,049 nationally), gaining 2.5 percent on the nation in the last five years.

However, disaggregating Fort Wayne-Allen County from the rest of the region shows that our urban core (which accounts for nearly half of all regional employment) has struggled. It is the only county in Northeast Indiana to register slower PCI growth than the nation. Allen County is down1% over same period and is currently 86.2 percent of national PCI. A driving factor behind this dynamic is the loss of high-wage defense jobs combined with lackluster growth in other high-wage service areas, like professional and technical services which includes engineering services, R&D, design, marketing and advertising, accounting and legal service consulting and other higher wage jobs.

	PCI 2014	5-Year Change	
Adams	$ 33,424	$ 7,516	29%
Allen	$ 39,712	$ 5,407	16%
DeKalb	$ 37,014	$ 6,793	22%
Huntington	$ 36,507	$ 5,932	19%
Kosciusko	$ 40,469	$ 8,266	26%
Lagrange	$ 31,081	$ 9,796	46%
Noble	$ 33,107	$ 6,544	25%
Steuben	$ 36,000	$ 6,478	22%
Wabash	$ 40,011	$ 9,122	30%
Wells	$ 39,244	$ 8,308	27%
Whitley	$ 37,099	$ 5,421	17%
10 Regional Counties	$ 36,622	$ 7,445	26%
Northeast Indiana	$ 38,086	$ 6,514	21%
Indiana	$ 39,578	$ 5,990	18%
United States	$ 46,049	$ 6,673	17%

Every quarter the U.S. Bureau of Labor Statistics



Source: Bureau of Economic Analysis

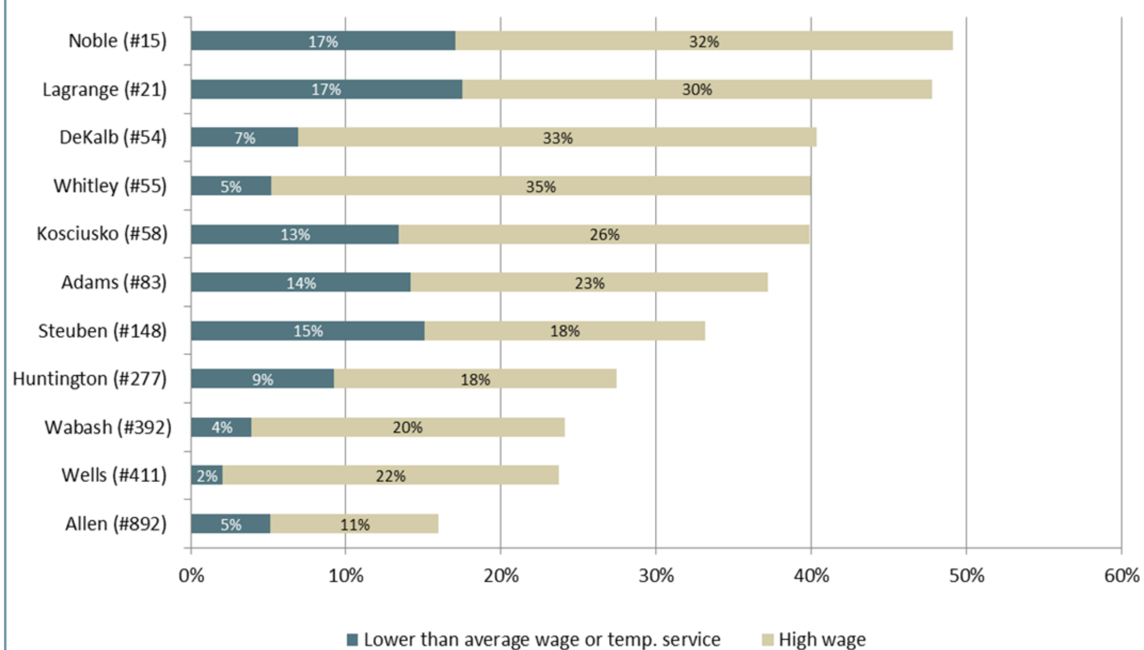
releases average wage estimates for the 380 metro areas nationwide. Examining Metro Fort Wayne's (Allen, Whitely, and Wells counties) over the last five and ten year periods further illuminates why per capita income growth has stalled. **Over the last decade, average wages grew by 29 percent nationwide. In Metro Fort Wayne, wages grew by only 15 percent, placing it in the bottom 10 of all metro areas nationwide.** Top 25 metros include San Jose, CA (60%); Bismarck, ND (51%); Morgantown, WV (46%); Baton Rouge, LA (40%); Oklahoma City, OK (39%); Houston, TX (37%), and others. The bottom line is that it more difficult for Northeast Indiana to make progress in raising the per capita income when wages are comparatively stagnant.

- 370: Fort Myers, FL
- **371: Fort Wayne**
- 372: Warner Robins, GA
- 373: Monroe, MI
- 374: Ocean City, NJ
- 375: Salisbury, MD
- 376: Flint, MI
- 377: Las Vegas, NV
- 378: Mansfield, OH
- 379: Saginaw, MI
- 380: Kokomo, IN

Further complicating the per capita income growth issue is our region's dependence on manufacturing. The region's post-recession job growth has been spurred by gains in manufacturing. However, the national manufacturing outlook for 2016 is sluggish. It could mean the difference between maintaining momentum in per capita income growth and plateauing.

This chart shows all counties sorted by the proportion of local jobs in manufacturing. Noted next to the county name is its national ranking, in terms of concentration of manufacturing jobs, out of over 3,200 counties nationwide. Rankings between 1 and 160 put that county among the top five percent of counties nationwide for manufacturing employment concentration. In Northeast Indiana, seven of 11 counties are in the top five percent: Noble, Lagrange, DeKalb, Whitley, Kosciusko, Adams, and Steuben. This specialization is a recognized strength and differentiator of Northeast Indiana's manufacturers' and their ability to innovate processes to become more productive in the global economy. At the same time, it heightens the urgency of buoying underperforming service sub-sectors, particularly in Allen County.

Percent of Jobs in Manufacturing (high and low wage), by County



Source: EMSI 2015.4 Class of Worker

Note: classified by county's average annual wage of $40,104

	2014 Population	2010-2014 Population Change		*Components of Population Change* Natural Change	Domestic Migration	International Migration
Wabash County	32,252	(636)	-1.9%	(265)	(438)	45
Huntington County	36,706	(418)	-1.1%	131	(618)	81
Noble County	47,618	82	0.2%	595	(584)	22
Whitley County	33,403	111	0.3%	353	(269)	54
Steuben County	34,308	125	0.4%	256	(121)	11
DeKalb County	42,383	160	0.4%	521	(397)	52
Wells County	27,862	226	0.8%	420	(232)	27
Adams County	34,791	404	1.2%	1,652	(1,265)	27
Kosciusko County	78,564	1,208	1.6%	1,511	(464)	274
LaGrange County	38,436	1,306	3.5%	2,096	(823)	47
Allen County	365,918	10,591	3.0%	10,151	(2,572)	3,370
10 Regional Counties	406,323	2,568	0.6%	7,270	(5,211)	640
Northeast Indiana	772,241	13,159	1.7%	17,421	(7,783)	4,010
Indiana	6,596,855	112,663	1.7%	107,197	(33,629)	41,995

Source: U.S. Census Bureau

As previously mentioned, strong job growth combined with historically low unemployment rates and higher labor force participation rates (65.6 percent in Northeast Indiana compared to 63.9 percent nationwide) point to increasing pressures to supply talent existing and prospective new businesses demand. These dynamics tend to push wages higher as employers compete for needed talent.

Demographers and labor economists have long braced for the Baby Boomers' exit from the workforce, dubbed by some as "the Silver tsunami." The drop in labor force participation will only intensify regional competition for highly skilled workers. As workers place increased value in living in desirable communities, placemaking is now the driving strategy of economic development. This concept underpins the state's Regional Cities initiative and Northeast Indiana's "Road to One Million" regional development plan.

With this in mind, it is important to understand that population changes over time via three mechanisms: natural change (births minus deaths), international migration, and domestic migration. Since 2010 in Northeast Indiana, population has grown by 13,159 with +17,421 in natural change, +4,010 in international migration, and -7,783 in domestic migration. Policy questions to better understand how these dynamics impact the region's economic competitiveness include:

- From what markets does Northeast Indiana successfully attract a positive net number of new residents?
- To what markets does Northeast Indiana lose its greatest number of residents?
- What are the skill and education levels of international migrants and do they have access to needed services?
- How successful is our region at genuinely welcoming newcomers? Are we inclusive?

As shown in the above table, there are divergent population growth dynamics within the region with southwestern Huntington and Wabash counties with net population loss since 2010. Adams and LaGrange counties, both with strong Amish communities, have registered notable growth as have the region's primary employment centers: Kosciusko and Allen counties.

TARGET RECOMMENDATIONS

Performance of Existing Targets

The Northeast Indiana Regional Partnership's target industries were established in 2007 and have not had any notable changes since they were established. Greater Fort Wayne Inc.'s targets have changed somewhat with the merger of the Chamber and the Alliance; however, a wholesale examination of both core county and regional targets has never before been undertaken in a coordinated manner.

The following graphic shows the alignment of priority economic development targets pursued at the state, regional, and core city/county levels. Because there is relative alignment between the regional and Fort Wayne-Allen County targets, this section focuses in on the performance of existing regional targets. In the pages that follow, each of the region's existing six target industries is profiled in terms of its five-year post-recessionary performance, average annual wages and total payroll, total employment (for 11-county Northeast Indiana and broken out by Allen County and the other 10 regional counties), and comparative national growth dynamics.

Location quotients (LQ) for each subsector are also provided. Location quotients are a measure of local industry concentration compared to national dynamics. An LQ = 1.0 means our local industry concentration reflects that of the average community whereas an LQ=2.5 would mean our local industry concentration is two-and-a-half times that of the average American community. A location quotient less than 1.0 is not necessarily bad; it may reflect lower demand for services or an area of potential growth within the local market. Summary issues, opportunities, and the target promotion experiences of our economic development professionals are included for each industry summary. Taken together, this quantitative and qualitative data – along with economic data from other sub-sectors of the economy not captured here - inform recommendations for updated target industries for both the Northeast Indiana Regional Partnership and Greater Fort Wayne Inc.

Existing Targets: State, Region, and Core County

Indiana Economic Development Corporation	Northeast Indiana Region	Fort Wayne-Allen County
Aerospace and Aviation	-	-
Advanced Manufacturing	Vehicles	Advanced Manufacturing
Agribusiness	Food Processing	Agri-Processing
Defense and National Security	Defense	Communications & Defense
Energy	-	-
Film	-	-
Information Technology (IT)	-	-
Life Sciences	Medical Devices	Life & Material Sciences
Logistics and Transportation	Logistics	Transportation
Motorsports	-	-
-	Insurance	Financial Services
-	-	Airport Development

Industry Sub-Sectors: Quick Glance Guide
Job Growth
Red= Negative growth
Yellow = 0-200 jobs created in 5-year period
Green = 200+ jobs created in 5-year period
Average Annual Wage
Red = Less than 90% of the average annual wage ($36,092)
Yellow = 90% - 110% of the average annual wage ($36,093 - $44,113)
Green = Greater than 110% of the average annual wage ($44,114)
Total Payroll:
Red = Payroll less than $25m
Yellow=Payroll between $25m and $100m
Green=Payroll greater than $100m

Defense

Post-recession dynamics: Defense Target

		Northeast Indiana						*10 Regional Counties*		*Allen County*		*U.S.*
	Industry	**2015 Jobs**	**5-year Job Growth**		**Average Annual Wage**	**LQ**	**Total Payroll**	**2015 Jobs**	**5-year Growth**	**2015 Jobs**	**5-year Growth**	**U.S. Growth**
3329	Other Fabricated Metal Product Manufacturing	2,390	1,292	118%	$45,184	3.45	$107,968,714	1,793	1,183	597	109	12%
3335	Metalworking Machinery Manufacturing - duplicate	1,975	211	12%	$50,320	4.27	$99,366,708	788	44	1,186	167	19%
3359	Other Electrical Equipment and Component Manufacturing	862	385	81%	$38,219	2.69	$32,952,815	763	312	99	73	8%
5415	Computer Systems Design and Related Services - duplicate	1,267	258	26%	$66,845	0.27	$84,659,676	301	98	965	160	31%
3345	Navigational, Measure, Electromedical, Control Inst. Mfg. - duplicate	2,829	(102)	-3%	$52,323	2.86	$148,037,820	1,500	(288)	1,330	185	-3%
3344	Semiconductor and Other Electronic Component Manufacturing	400	(140)	-26%	$37,953	0.43	$15,173,281	266	(54)	133	(86)	0%
5417	Scientific Research and Development Services	230	(267)	-54%	$68,025	0.14	$15,633,319	94	59	135	(327)	6%
3342	Communications Equipment Manufacturing	1,575	(1,426)	-48%	$98,819	7.04	$155,687,473	0	(20)	1,575	(1,406)	-23%
	Defense Target Total	**11,527**	**210**	**2%**	**$57,210**	**1.15**	**$659,479,806**	**5,506**	**1,336**	**6,021**	**(1,125)**	**15%**

Source: EMSI 2015.4 Class of Worker

Note: Three duplicate sub-sectors are also contained within the definition of the Medical Device target

Issues:

- Regional offices vulnerable to relocation and downsizing
- Loss of manufacturing as well as high value engineering and R&D
- Sector performance driven by national policies and federal government spending
- Acute losses in Allen County have had a dramatic effect on per capita income

Opportunities:

- Alignment with IEDC state target priorities
- Leverage commercial products and services in competitive areas like aerospace, acoustics, sensors, and geospatial imaging
- Engineering occupations included in Defense are also commonly employed in Medical Device and Vehicles manufacturing within Northeast Indiana. These sectors have likely absorbed some engineering talent from Defense downsizings.
- Nationally, additional industries that employ high proportions of these engineers included engineering consultancies, aerospace, R&D and testing laboratories, and computer systems design

Northeast Indiana's Experience:

- Limited activities at the IPFW Center for Wireless Technology
- Northeast Indiana Defense Industry Association (NIDIA) has limited resources and leadership relocations have impacted momentum
- Procurement Technical Assistance Center (PTAC) has been a valuable resource connecting businesses with government contracting opportunities
- Opportunities largely dependent on federal appropriations and are outside of local influence

Food Processing

Post-recession dynamics: Food Processing Target

	Northeast Indiana						10 Regional Counties		Allen County		U.S
Industry	2015 Jobs	5-year Job Growth		Average Annual Wage	LQ	Total Payroll	2015 Jobs	5-year Growth #	2015 Jobs	5-year Growth #	U.S. Growth
1120 Animal Production and Aquaculture	1,418	263	23%	$32,175	2.28	$45,633,453	1,400	261	19	2	10%
3116 Animal Slaughtering and Processing	1,301	175	16%	$37,445	1.07	$48,730,073	1,283	172	19	3	0%
3119 Other Food Manufacturing	680	113	20%	$41,269	1.41	$28,075,012	513	77	167	35	18%
3118 Bakeries and Tortilla Manufacturing	973	103	12%	$34,219	1.31	$33,289,107	391	48	581	55	7%
3121 Beverage Manufacturing	153	97	171%	$31,349	0.29	$4,807,878	147	91	<10	N/A	25%
3112 Grain and Oilseed Milling	309	(8)	-3%	$59,302	2.10	$18,313,875	309	(8)	0	0	0%
314 Fruit and Vegetable Preserving and Specialty Food Manufacturing	206	(35)	-14%	$35,551	0.48	$7,340,121	206	(35)	0	0	-2%
3113 Sugar and Confectionery Product Manufacturing	493	(47)	-9%	$32,747	2.82	$16,130,120	481	(11)	12	(36)	5%
3115 Dairy Product Manufacturing	1,089	(167)	-13%	$41,854	3.18	$45,573,689	312	(286)	777	119	5%
Food Processing Target Total	**6,623**	**494**	**8%**	**$37,430**	**1.41**	**$247,893,329**	**5,042**	**309**	**1,575**	**179**	**7%**

Source: EMSI 2015.4 Class of Worker

Living Essentials employment is likely not contained within the above table. It is believed the company reports employment in an unusual NAICS sector not captured by this above definition.

Issues:

- Most subsectors included in Food Processing pay below the region's average annual wage of $40,104
- Concentrated feeding operations have the potential to create conflict between Food Processing employers, residents, and quality of place driven initiatives
- Not an industry recognized for training and advancement opportunities

Opportunities:

- Potential for increased entrepreneurship opportunities with the proposed Bluffton Food Innovation Center which would include a test kitchen, technical assistance providers, storage and warehousing, and farm-to-table services
- Indiana's water supply, relative to other areas of the country
- Potential for to broaden focus to include higher-value areas like ag-innovation, specialty foods and beverages, packaging, and distribution
- Synergies with health and wellness (organics, probiotics, etc.)

Northeast Indiana's Experience:

- Target industries relevant to the region's rural communities are essential
- This has been an area with Foreign Direct Investment activity within the region
- Indiana's Department of Agriculture is investing in resources that could be leveraged locally
- Dairy supply is strong and wages are comparatively higher – this has been a successful niche for Northeast Indiana

Logistics

Post-recession dynamics: Logistics Target

		Northeast Indiana						*10 Regional Counties*		*Allen County*		*U.S*
	Industry	**2015 Jobs**	**5-year Job Growth**		**Average Annual Wage**	**LQ**	**Total Payroll**	**2015 Jobs**	**5-year Growth #**	**2015 Jobs**	**5-year Growth #**	**U.S. Growth**
4842	Specialized Freight Trucking	1,803	624	53%	$46,237	1.57	$83,343,118	1,042	476	761	148	20%
4841	General Freight Trucking	5,087	402	9%	$48,446	2.05	$246,450,945	1,617	(85)	3,470	486	13%
4885	Freight Transportation Arrangement	195	58	42%	$44,700	0.38	$8,727,711	57	36	138	22	20%
4244	Grocery and Related Product Merchant Wholesalers	1,954	41	2%	$42,094	1.04	$82,234,447	683	(58)	1,271	99	5%
4931	Warehousing and Storage	2,210	515	30%	$37,528	1.13	$82,928,569	1,455	318	755	197	23%
	Logistics Target Total	**11,248**	**1,639**	**17%**	**$44,779**	**1.41**	**$503,684,789**	**4,854**	**687**	**6,394**	**952**	**15%**

Source: EMSI 2015.4 Class of Worker

Issues:

- Lacking adequate supply of warehouses and modern shell buildings
- Performance of the Logistics target is tied to overall health of the national economy, specifically the manufacturing sector and consumer confidence levels
- Attractive place to do business with favorable business climate (esp. compared to Illinois and Ohio) however, there are no unique assets that significantly differentiate this region from many others like it
- National shortage of truck drivers

Opportunities:

- Competitive advantage of shipment times to the national market for small packages with FedEx and UPS presence at FWA
- Opportunities for additional distribution centers that rely on small package delivery services (similar to Vera Bradley)
- Many trucks arrive in Fort Wayne empty to pick up manufactured goods – potential to improve the inbound/outbound truck ratio
- Development of additional intermodal facilities
- Improvements to U.S. 24 and U.S. 30 bring additional opportunities in Logistics

Northeast Indiana's Experience:

- Negative perceptions existing, particularly that this is a low-wage industry
- Northeast Indiana Logistics Council is a sub-group of Conexus Indiana. While this structure provides opportunity, in reality participation has been poor and the group has been slow to gain momentum.
- Political support to improve the available warehouse inventory through investments in shell buildings has been inconsistent.

Medical Devices

Post-recession dynamics: Medical Devices Target

		Northeast Indiana						*10 Regional Counties*		*Allen County*		*U.S*
	Industry	2015 Jobs	5-year Job Growth		Average Annual Wage	LQ	Total Payroll	2015 Jobs	5-year Growth #	2015 Jobs	5-year Growth #	U.S. Growth
3391	Medical Equipment and Supplies Manufacturing	8,462	936	12%	$81,367	10.69	$688,563,736	8,082	764	380	172	4%
3261	Plastics Product Manufacturing	5,475	683	14%	$42,751	3.94	$234,045,317	3,405	319	2,069	364	10%
5415	Computer Systems Design and Related Services- duplicate	1,267	258	26%	$66,845	0.27	$84,659,676	301	98	965	160	31%
3321	Forging and Stamping	884	237	37%	$42,769	3.53	$37,819,632	653	157	232	80	13%
3335	Metalworking Machinery Manufacturing - duplicate	1,975	211	12%	$50,320	4.27	$99,366,708	788	44	1,186	167	19%
3312	Steel Product Manufacturing from Purchased Steel	768	174	29%	$43,938	5.18	$33,731,772	129	18	639	156	13%
3345	Navigational, Measure, Electromedical, Control Inst. Mfg. - duplicate	2,829	(102)	-3%	$52,323	2.86	$148,037,820	1,500	(288)	1,330	185	-3%
	Medical Device Target Total	**21,660**	**2,397**	**12%**	**$61,230**	**2.47**	**$1,326,224,661**	**14,859**	**1,113**	**6,801**	**1,284**	**18%**

Source: EMSI 2015.4 Class of Worker

Note: Three duplicate sub-sectors are also contained within the definition of the Defense target

Issues:

- Mergers of major orthopedic employers have resulted in some job losses and restructuring
- Enhancing quality of place amenities in Warsaw and strengthening connections with Fort Wayne market seen as key issues for workforce recruitment and retention
- Venture capital funding availability somewhat constrains potential for entrepreneurial growth
- Impact of retirements will be significant, particularly in technical occupations like machinists
- University IT and engineering programming not well aligned with needs of industry

Opportunities:

- Increased collaborations between industry and higher education
- Growth potential in small and midsized companies, both those located here already and recruitment from out of market
- Specialization in additive manufacturing and material science
- Expanding focus of target to include other areas of medical devices and health care technology, besides orthopedics
- Leveraging local expertise in federal regulations from Medical Device and Defense workforce

Northeast Indiana's Experience:

- With corporate restructuring, attention should be paid to preventing production from relocating out of region
- Success at Parkview Mirro Center for Research and Innovation connecting innovations in care and medical discovery to improve patient care
- IU's School of Medicine on IPFW's campus is an under-utilized local asset
- Kosciusko County joining the Regional Partnership more closely aligns

Insurance

Post-recession dynamics: Insurance Target

		Northeast Indiana						*10 Regional Counties*		*Allen County*		*U.S*
	Industry	**2015 Jobs**	**5-year Job Growth**		**Average Annual Wage**	**LQ**	**Total Payroll**	**2015 Jobs**	**5-year Growth #**	**2015 Jobs**	**5-year Growth #**	**U.S. Growth**
5241	Insurance Carriers	4,037	626	18%	$70,746	1.34	$285,635,820	92	37	3,946	589	3%
5242	Agencies, Brokerages, and Other Insurance Related Activities	2,407	163	7%	$52,137	0.92	$125,470,839	775	87	1,631	76	19%
	Insurance Target Total	**6,444**	**789**	**14%**	**$63,797**	**1.14**	**$411,106,659**	**867**	**124**	**5,577**	**665**	**10%**

Source: EMSI 2015.4 Class of Worker

Issues:

- A decade ago, the sector suffered significant setbacks with the loss of Lincoln Life's headquarters and Aetna's claim processing center
- Need to heighten awareness of the opportunities and options careers in the industry provide, particularly among local high school and college students
- The Insurance industry employs the highest proportion of IT professionals in the region, a critical workforce need with competition for talent in other sectors like health care and corporate headquarters
- University offered IT programming not well aligned with needs of employers

Opportunities:

- Marketing the region to external audiences as a thriving specialty insurance hub
- Business development opportunities with firms headquartered in locations with non-stop service from FWA including Charlotte, Minneapolis, Atlanta, Philadelphia, Detroit, Chicago, and Dallas
- Investment by Ash Brokerage into downtown headquarters heightens awareness of industry, locally and beyond
- Talent attraction programming and strategies to fill new jobs resulting from growth and those vacated by retirees
- Cross-target development potential in areas like crop insurance

Northeast Indiana's Experience:

- National reputation for life and annuity, specialty insurance, and reinsurance products
- Formation of the Northeast Indiana Specialty Insurers (NISI) provides needed structure for industry collaboration and advancement
- Local partners in higher education have been relatively responsive to the industry's needs
- Positive reputation for back office operations because of work ethic, customer service, and cost of doing business

Vehicles

Post-recession dynamics: Vehicles Target

		Northeast Indiana						10 Regional Counties		Allen County		U.S
	Industry	2015 Jobs	5-year Job Growth		Average Annual Wage	LQ	Total Payroll	2015 Jobs	5-year Growth #	2015 Jobs	5-year Growth #	U.S. Growth
3363	Motor Vehicle Parts Manufacturing	8,140	2,020	33%	$46,962	5.78	$382,286,911	6,769	1,464	1,371	556	35%
3361	Motor Vehicle Manufacturing	4,929	1,677	52%	$80,454	9.07	$396,517,004	19	(43)	4,910	1,720	41%
3362	Motor Vehicle Body and Trailer Manufacturing	4,446	1,599	56%	$51,425	11.92	$228,645,244	4,251	1,511	195	88	36%
3272	Glass and Glass Product Manufacturing	1,326	742	127%	$44,752	6.21	$59,320,362	1,326	742	0	0	8%
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturi	3,332	737	28%	$47,507	3.59	$158,282,720	2,760	581	572	156	19%
3328	Coating, Engraving, Heat Treating, and Allied Activities	1,899	425	29%	$39,667	5.48	$75,324,353	1,467	526	432	(102)	14%
3366	Ship and Boat Building	836	378	83%	$39,967	2.44	$33,413,248	733	358	103	20	10%
3262	Rubber Product Manufacturing	2,821	183	7%	$59,606	8.38	$168,138,920	1,004	(25)	1,817	209	10%
	Vehicles Target Total	**27,728**	**7,761**	**39%**	**$54,166**	**6.17**	**$1,501,928,761**	**18,327**	**5,114**	**9,402**	**2,647**	**25%**

Source: EMSI 2015.4 Class of Worker

Issues:

- Performance of the Vehicles target is tied to overall health of the national economy and consumer confidence levels
- As the largest industry of employment with nearly 28,000 jobs and $1.5 billion in annual payrolls, the region is susceptible to significant impacts during recessionary periods
- Process innovations reduce the number of workers needed over the long-term
- Some automotive industry suppliers within Northeast Indiana are transitioning product lines in favor of Medical Device

Opportunities:

- Historic $1.2 billion investment by GM in its Fort Wayne Assembly Plant provides security and opportunities for additional investment via suppliers and logistics
- Significant foreign direct investment opportunities with supply chain and potential for related service/office job recruitment opportunities
- Leveraging marketing opportunities afforded via IEDC

Northeast Indiana's Experience:

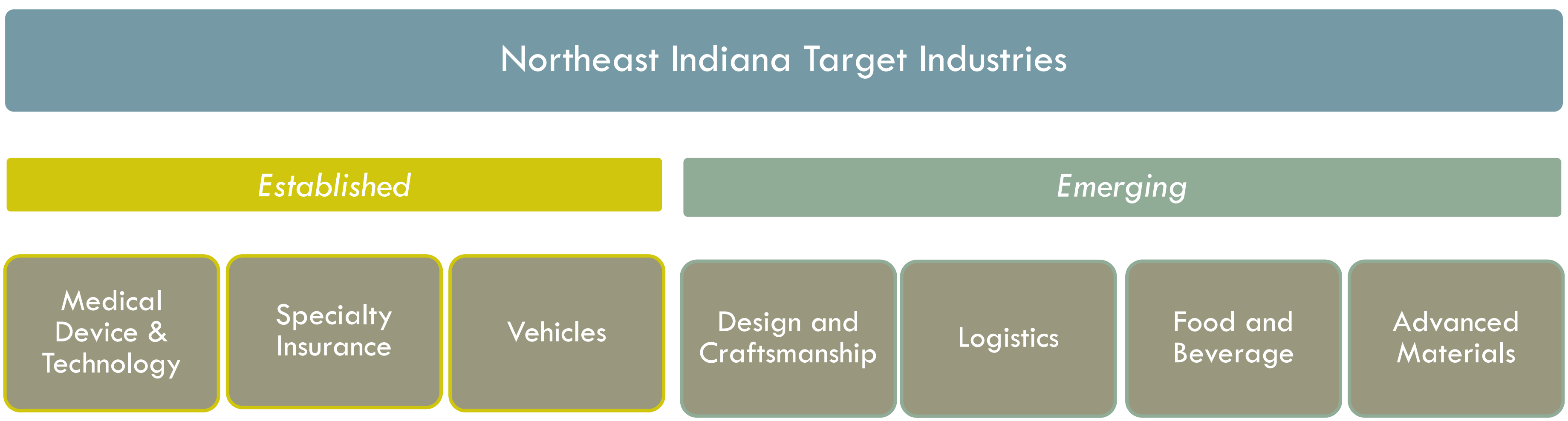
- Specialization via a target in Vehicles over a broader Advanced Manufacturing target has been an effective strategy, from the perspective of regional LEDOs
- However, because of the local presence of GM and Chrysler in nearby Kokomo, the region will likely not land another significant plant
- Indiana ranks 3rd nationally for vehicle manufacturing, behind Michigan and Ohio, accounting for 13 percent of the state's labor force
- Strong support from the State and IEDC

Recommended Target Updates

Discussions with area economic development leadership, examination of the data, and regional aspirations for per capita income growth and continued economic diversification have all influenced the recommendations to reframing target industry efforts. At this time, one cohesive set of target industries is presented for both the urban core and the region. Greater Fort Wayne Inc. and the Northeast Indiana Regional Partnership should determine strategies that are appropriate for each organization to pursue in support of target industry growth. Seven targets are recommended: three established targets and four emerging targets. Together, these targets account for one-third of jobs in Northeast Indiana.

- **Established targets** are those with a large, multi-dimensional employment base, an established specialization/concentration in Northeast Indiana, above average wages, and regional post-recession growth that has outpaced the national growth rate for the industry.
- **Emerging targets** are those that have a smaller (or one-dimensional) employment base, present opportunities for growth, promote economic diversification within the region, leverage the occupational strengths of Northeast Indiana's workforce and industry core capabilities that cross multiple industries, and may contain aspirational elements. The targets also offer at or above average wage job opportunities to promote per capita income growth.

As highlighted in the analysis contained within this report, there are **key occupational areas** in Fort Wayne-Allen County and Northeast Indiana's workforce. They include **production, engineering, software and IT, and sales and customer service.** These are priority areas to understand in order to maintain and build workforce competitiveness. **Cross-target competencies** are core capabilities also exist across a spectrum of industries. They include **online sales and user experience design, health and wellness, process automation, regulatory compliance, and wireless communications.** Bolstering Northeast Indiana's reputation and excellence around these areas will more cohesively define what makes our region different, from a target development standpoint.



Medical Device & Technology

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Northeast Indiana's
Cross-Target Competencies

Online sales and user experience design
Health and wellness
Process automation
Regulatory compliance
Wireless communications
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TARGET DESCRIPTION

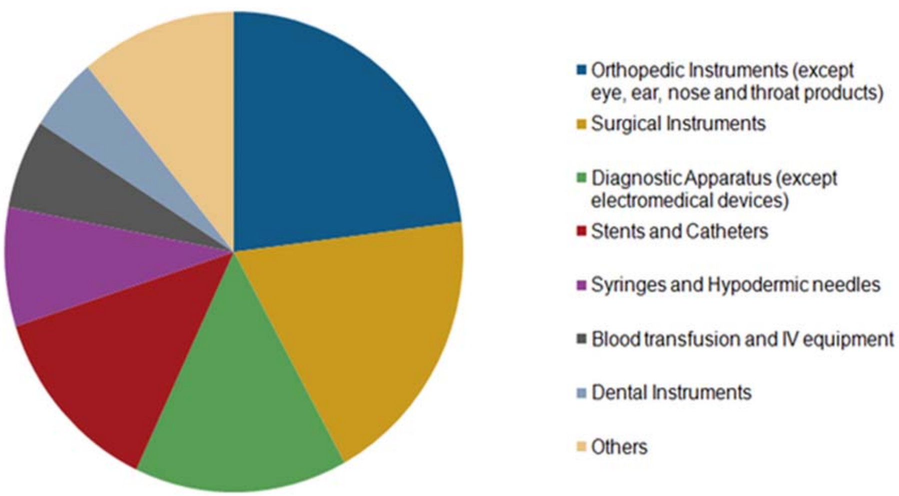
The Medical Device and Technology target includes three areas:

- **Medical Devices and Equipment (NAICS 3312, 3391, 3345, 3359):** These are the primary establishments engaged in manufacturing medical devices, and in Northeast Indiana this includes orthopedic implants, surgical instrumentation, cardiovascular, endoscopy, implant cases, medical grade wire, and other devices.
    - Surgical and medical instruments and supplies
    - Electromedial and irradiation apparatuses
    - Dental and ophthalmic instruments
    - Batteries

- **Strategic Suppliers (NAICS 3315, 3321, 3323, 3327, 3328):** Tracking local employment dynamics and existing studies commissioned by Orthoworx have established key supplier industries to medical device and equipment manufacturers. Many of these suppliers historically served the automotive industries and have diversified to include products needed by the Medical Device and Technology industry.
    - Machine shops
    - Additive/3D printing
    - Heat treating, coating, plating, and other finishing services
    - Sheet metal manufacturing

- **Research and Professional Services (NAICS 5413, 5415, 5417):** This segment is comprised of establishments engaged in supportive research, engineering, and IT services necessary to the design, development, and manufacture of Medical Device and Technology.
    - Engineering
    - Computer systems design
    - Research and development services

U.S. Medical Device Industry by Revenue and Segment



Source: IBIS World 2014

TRENDS

Key trends in the Medical Device and Technology industry include:

- **Growth segments reflect ongoing health and wellness issues among the populous:** To manage the complexity of the medical device industry, the Food and Drug Administration categorizes over 1, 7000 types of devices into 17 so-called Classification Panels (e.g. anesthesiology, cardiovascular, general surgery, dental, etc.). The FDA's Center for Devices and Radiological Health (CDRH) produces an annual Regulatory Science Report, which outlines key trends within the device industry and how the FDA's regulatory compliance framework must adapt in order to protect the health and safety of the public. This report outlines a multitude of advances in medical imaging, cardio devices, computational modeling, biomarkers and personalized medicine, regenerative medicine and new materials, minimally invasive devices, and other areas. Cardiovascular, spinal, diabetes, oncology, and neurology are cited as growth segments (among others) crossing a range of device and technology type.[i]

- **Smart Implants and Wearables:** Mobile health applications and wearable devices allow consumers to manage their own health and wellness more effectively. The practice is gaining acceptance among clinicians who will have to change "business as usual" to accommodate treating patients in new ways. For example, according to a recent survey conducted by Pricewaterhouse Coopers Health Research Institute, 74 percent of clinicians said they would be willing to use data received from a mobile app to check for an ear infection.[ii]

- **Data Management and Security**: Within the coming five-year period, internet-connected healthcare products will be worth an estimated $285 billion in value worldwide. At home devices that can measure vital signs and capture images will allow patients send self-checked health stats to their doctors in real time. Exchange of health information via telemedicine treatment and from smart implants and wearables must be handled with extreme care.[iii] Several challenges to the management and security of this evolving system exist. Interoperability will become more complex as multiple users using multiple systems seek to exchange data seamlessly. With the exchange of wireless data, hacking threatens not only sensitive personal information, but also the safety and wellbeing of those connected to some types of devices. For example, wireless infusion pumps that deliver medications could be hacked to alter the prescribed dosage schedule.[iv] These dynamics also change the insurance needs of healthcare providers.

- **Cost Pressures:** Profitability pressures are reported by mid-size and larger companies to be a greater challenge, as opposed to smaller firms. Issues including reimbursement rates, competition from generic (and, more recently, biosimilar) drugs and devices, compliance, research and development costs, and other issues contribute to an ever more expensive environment in which companies compete. Even with these dynamics, a recent global poll of more than 4,000 medical device industry professionals shows that 82 percent have a positive outlook for the industry in 2016. Only seven percent of respondents reported decreased year-over-year sales, down from 19 percent in 2015. Approximately 60 percent cited regulatory environment as their biggest challenge. With changes in service delivery and new wireless, 3-D printing, and other technologies come new regulations to which manufactures and care providers must comply.

EMPLOYMENT AND WAGES

Medical Device and Technology account for over 17,000 or 5 percent of regional jobs. These jobs typically pay 60 percent more than the regional average annual wage, at $63,969 compared to $40,140. NAIC 339113 Surgical Appliance and Supplies Manufacturing is the largest subsector within this target, with five-year growth well above national trends (15 percent compared to six percent). Home to global orthopedic firms like Zimmer, Depuy, and Biomet, **Kosciusko County has the largest employment count (7,147) and highest employment concentration (as measured by a location quotient of 257.41) among every county nationwide – it ranks #1**. Other top counties (by employment include Shelby County, TN ((Memphis) 5,241); Los Angeles County, CA (3,337), Kalamazoo County, MI (2,722), Coconino County, AZ ((Flagstaff) 2,763), and Bergen County, NJ (2,494).

NAICS Code and SubSector		2015 Jobs: Northeast Indiana	2015 Jobs: 10 Regional Counties	2015 Jobs: Allen County	Northeast Indiana: 5-Year Job Growth		Northeast Indiana: Average Annual Wage	Northeast Indiana: Supplements	Northeast Indiana: Total Earnings	United States: U.S. Total Earnings	United States: U.S. Growth	LQs: Northeast Indiana	LQs: Allen County
Medical Devices and Equipment													
331222	Steel Wire Drawing	631	<10	628	181	40%	$43,972	$9,000	$52,973	$62,888	32%	23.06	44.32
339112	Surgical and Medical Instrument Manufacturing	457	433	24	(167)	(27%)	$43,732	$16,303	$60,035	$109,337	6%	1.48	0.15
339113	Surgical Appliance and Supplies Manufacturing	7,765	7,501	264	1,024	15%	$84,577	$31,530	$116,107	$96,790	6%	29.92	1.97
339114	Dental Equipment and Supplies Manufacturing	0	0	0	0	0%	$0	$0	$0	$82,458	6%	0.00	0.00
339115	Ophthalmic Goods Manufacturing	69	<10	64	45	188%	$89,929	$33,526	$123,455	$82,231	(7%)	1.00	1.79
339116	Dental Laboratories	171	143	29	34	25%	$32,801	$12,228	$45,030	$55,084	0%	1.51	0.49
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing	0	0	0	0	0%	$0	$0	$0	$117,520	(4%)	0.00	0.00
334516	Analytical Laboratory Instrument Manufacturing	38	38	0	N/A	N/A	$57,213	$14,858	$72,070	$110,259	12%	0.44	0.00
334517	Irradiation Apparatus Manufacturing	0	0	0	0	0%	$0	$0	$0	$126,139	4%	0.00	0.00
335911	Storage Battery Manufacturing	138	131	<10	14	11%	$60,043	$23,172	$83,215	$81,429	10%	3.81	0.37
Strategic Suppliers													
331512	Steel Investment Foundries	38	38	0	(18)	(32%)	$41,138	$8,420	$49,558	$64,597	9%	1.31	0.00
332119	Metal Crown, Closure, and Other Metal Stamping (not automotive)	754	653	101	178	31%	$40,916	$8,982	$49,898	$61,522	9%	5.63	1.46
332322	Sheet Metal Work Manufacturing	682	460	222	134	24%	$43,885	$9,634	$53,520	$59,744	13%	2.64	1.66
332710	Machine Shops	1,833	1,349	484	310	20%	$46,074	$10,115	$56,189	$62,148	20%	2.53	1.29
332721	Precision Turned Product Manufacturing	712	652	60	115	19%	$39,969	$8,775	$48,744	$60,909	18%	6.89	1.13
332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing	787	759	28	312	66%	$57,668	$12,660	$70,328	$71,766	14%	7.87	0.53
332811	Metal Heat Treating	347	270	77	111	47%	$49,510	$10,869	$60,379	$70,153	23%	7.04	3.03
332812	Metal Coating, Engraving, and Allied Services to Manufacturers	720	601	119	98	16%	$42,497	$9,330	$51,827	$53,974	15%	5.11	1.63
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	831	596	236	215	35%	$33,102	$7,267	$40,369	$53,532	10%	5.31	2.91
Research and Professional Services													
541330	Engineering Services	753	160	594	(82)	(10%)	$59,317	$10,673	$69,990	$106,453	8%	0.32	0.49
541512	Computer Systems Design Services	430	150	280	107	33%	$69,375	$12,483	$81,858	$118,076	36%	0.19	0.24
541712	R&D in the Physical, Engineering, and Life Sciences	191	93	98	(285)	(60%)	$65,646	$11,812	$77,457	$140,711	4%	0.17	0.17
		17,349	**14,035**	**3,313**	**2,360**	**16%**	**$63,969**	**$19,987**	**$83,956**	**$103,735**	**15%**	**2.02**	**0.75**

Source: EMSI 2015.4 Class of Worker

Supplements estimate the value of contributions for pensions, profit sharing, retirement plans and private health insurance.

Strategic suppliers, which include machine shops, heat treating, plating, and other associated manufacturing activities, account for over 6,700 within the region. Many of these businesses provide parts to multiple industries, including Vehicles. However, LEDO relationships with employers have helped establish a broader understanding of how these employers have adapted to serve Northeast Indiana's unique asset in its orthopedic cluster.

As shown in the previous, regional growth has outpaced national growth rates in the majority of the subsectors Medical Devices and Equipment and Strategic Suppliers. In the area of Research and Professional Services, Northeast Indiana has lost jobs in R&D and engineering services (likely Defense related employment) while growth in computer systems design has grown at a rate slower than the national average.

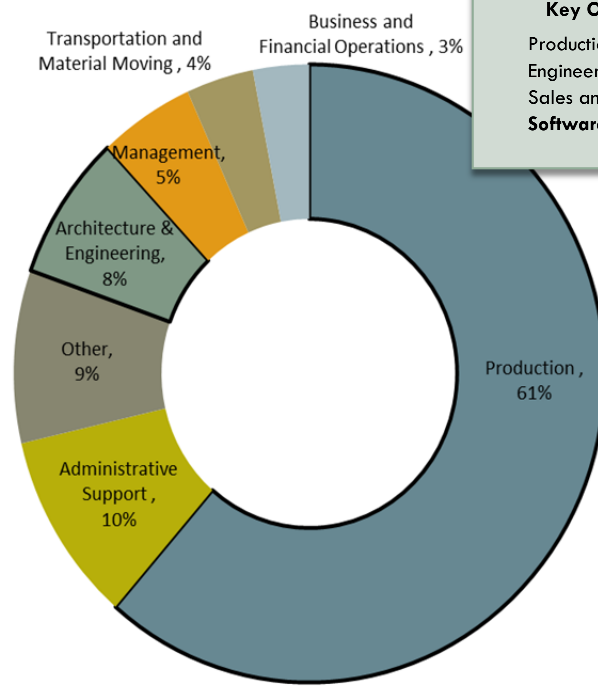
OCCUPATIONAL SUMMARY

The workers employed within this target industry include each of the region's key occupational areas: production, engineering, sales and customer service, and software and information technology. Medical Device and Technology is the only recommended target that is inclusive of every key occupational area in Northeast Indiana and cross-target competency areas: online sales and user experience design, health and wellness, process automation, regulatory compliance, and wireless communications.

Sixty-one percent of occupations related to Medical Device and Technology are within production, eight percent in architecture and engineering, and eight percent in sales positions. **Together, these critical occupation areas account for nearly 69 percent of the Medical Device and Technology workforce.**

Within Northeast Indiana, this target industry is the number one employing sector for the following occupations. It is also a secondary employer to key occupations within the Vehicles cluster, as many suppliers serve both industries: team assemblers, machinists, welders, and CNC operators.

- Industrial engineers
- Mechanical engineers
- Biomedical engineers
- Inspectors, testers, sorters, samplers, and weighers
- General and operations managers



Northeast Indiana's

Key Occupation Areas

Production
Engineering
Sales and Customer Service
Software and IT

Medical Device and Technology Industry in Northeast Indiana: Key Occupations

SOC	Description	Employed in this Industry (2015)	Change (2010-2015)		Median Hourly Earnings	Typical Entry Level Education
Limited Training						
51-2092	Team Assemblers	1,917	248	14.9%	$14.67	High school diploma or equivalent
51-4041	Machinists	1,252	260	26.2%	$19.70	High school diploma or equivalent
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	810	131	19.3%	$15.46	High school diploma or equivalent
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	634	156	32.6%	$15.54	High school diploma or equivalent
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	400	62	18.3%	$13.45	High school diploma or equivalent
51-9198	Helpers--Production Workers	376	63	20.1%	$12.34	Less than high school
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders	336	57	20.4%	$15.49	High school diploma or equivalent
43-9061	Office Clerks, General	311	29	10.3%	$12.18	High school diploma or equivalent
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	308	75	32.2%	$13.87	High school diploma or equivalent
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	289	74	34.4%	$17.96	High school diploma or equivalent
43-5071	Shipping, Receiving, and Traffic Clerks	278	44	18.8%	$13.36	High school diploma or equivalent
51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	273	45	19.7%	$13.16	High school diploma or equivalent
51-4121	Welders, Cutters, Solderers, and Brazers	255	46	22.0%	$16.60	High school diploma or equivalent
51-2022	Electrical and Electronic Equipment Assemblers	249	38	18.0%	$13.36	High school diploma or equivalent
49-9071	Maintenance and Repair Workers, General	236	34	16.8%	$18.07	High school diploma or equivalent
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	227	27	13.5%	$13.94	High school diploma or equivalent
43-3031	Bookkeeping, Accounting, and Auditing Clerks	205	26	14.5%	$15.78	High school diploma or equivalent
More Intensive Training Required						
51-1011	First-Line Supervisors of Production and Operating Workers	606	95	18.6%	$24.82	Postsecondary non-degree award
17-2112	Industrial Engineers	352	40	12.8%	$32.69	Bachelor's degree
11-1021	General and Operations Managers	246	23	10.3%	$47.30	Bachelor's degree
17-2141	Mechanical Engineers	226	9	4.1%	$31.60	Bachelor's degree
11-3051	Industrial Production Managers	195	30	18.2%	$38.07	Bachelor's degree
17-2031	Biomedical Engineers	129	24	22.9%	$31.61	Bachelor's degree
17-3026	Industrial Engineering Technicians	121	15	14.2%	$21.53	Associate's degree
13-2011	Accountants and Auditors	99	7	7.6%	$28.59	Bachelor's degree
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	99	8	8.8%	$35.60	Bachelor's degree
11-9041	Architectural and Engineering Managers	95	1	1.1%	$50.40	Bachelor's degree
17-2051	Civil Engineers	83	-7	-7.8%	$31.75	Bachelor's degree
15-1132	Software Developers, Applications	69	2	3.0%	$35.11	Bachelor's degree
13-1161	Market Research Analysts and Marketing Specialists	68	8	13.3%	$21.70	Bachelor's degree
15-1131	Computer Programmers	60	8	15.4%	$31.33	Bachelor's degree
15-1142	Network and Computer Systems Administrators	58	5	9.4%	$28.19	Bachelor's degree

The top occupations for this target industry are included in the table on the previous page. Nationally, while the typical educational level for many top occupations may be a high school diploma, Northeast Indiana employers show preference for workers with experiential learning (e.g. apprenticeships or internships) and/or a high-quality credential, like a degree or certificate. This is due to the technologies used by area manufacturers and the skills needed to be a productive team member.

BUSINESS DEVELOPMENT STRATEGIES TO EXPLORE

Mergers and acquisitions are straining short-term growth opportunities with large medical device and orthopedic companies. However, business development opportunities exist not only for recruitment but also for locally-based strategies to strengthen Northeast Indiana's Medical Device and Technology industry.

Enhance Innovation

- Support OrthoWorx's new business accelerator, AccLinx, increased venture capital funding, and other ecosystem development strategies that will support entrepreneurship in this target industry.
- Prioritize BRE visits to include connections with entrepreneurs, patent producers, and growing small businesses related to this target.
- Align entrepreneurship resources to better support innovation in Medical Device and Technology.
- Improve collaborations with higher education.
  - IU's School of Medicine on IPFW's campus is an under-utilized local asset.
  - Wireless research capabilities existing at IPFW could potentially be leveraged for the benefit of Medical Device growth, as the Defense industry has stalled.
  - Engineering and IT programs within Northeast Indiana are not well aligned with the needs of the region's existing orthopedic manufacturers.

Recruit Small and Midsized companies

- Focus on businesses that can serve as supplier firms to meet the local supply chain needs of existing employers. The table to on the following page shows the estimated supply chain for Northeast Indiana's Medical Device and Technology industry. Only suppling industries with at least $15 million in inputs are included, and the list is sorted by the percent satisfied within the region.
- Recruit businesses in complementary areas like additive manufacturing, advanced materials, and wireless technology.

- Explore Foreign Direct Investment opportunities with complementary overseas businesses.
- Integrate Orthoworx leadership into recruitment and development efforts to leverage industry expertise and relationships.

NAICS	Industry	Amount Required	% Satisfied In-Region	% Satisfied Out of Region
339113	Surgical Appliance and Supplies Manufacturing	$49,771,040	86.5%	13.5%
331511	Iron Foundries	$26,801,577	35.0%	65.0%
522110	Commercial Banking	$27,979,319	30.4%	69.6%
484121	General Freight Trucking, Long-Distance, Truckload	$15,252,422	25.1%	74.9%
331110	Iron and Steel Mills and Ferroalloy Manufacturing	$169,760,240	19.6%	80.4%
541330	Engineering Services	$18,764,185	18.7%	81.3%
493110	General Warehousing and Storage	$16,995,224	16.3%	83.7%
541110	Offices of Lawyers	$35,643,523	14.0%	86.0%
541990	All Other Professional, Scientific, and Technical Services	$26,841,768	13.9%	86.1%
425120	Wholesale Trade Agents and Brokers	$50,510,673	12.1%	87.9%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	$17,124,084	11.9%	88.1%
332710	Machine Shops	$36,878,976	11.4%	88.6%
518210	Data Processing, Hosting, and Related Services	$16,756,421	11.1%	88.9%
326199	All Other Plastics Product Manufacturing	$22,154,413	10.8%	89.2%
541611	Administrative Management and General Management Consulting Services	$18,935,077	10.1%	89.9%
533110	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	$42,668,051	8.5%	91.5%
339112	Surgical and Medical Instrument Manufacturing	$57,213,034	7.6%	92.4%
325510	Paint and Coating Manufacturing	$20,032,908	7.4%	92.6%
322211	Corrugated and Solid Fiber Box Manufacturing	$15,621,308	5.9%	94.1%
551114	Corporate, Subsidiary, and Regional Managing Offices	$197,884,563	4.3%	95.7%
331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding	$17,086,813	2.5%	97.5%
333314	Optical Instrument and Lens Manufacturing	$17,879,938	1.8%	98.2%
331210	Iron and Steel Pipe and Tube Manufacturing from Purchased Steel	$17,745,055	1.6%	98.4%
325520	Adhesive Manufacturing	$18,351,360	1.3%	98.7%
332114	Custom Roll Forming	$24,702,749	1.0%	99.0%
325211	Plastics Material and Resin Manufacturing	$21,866,689	0.3%	99.7%
325220	Artificial and Synthetic Fibers and Filaments Manufacturing	$19,138,487	0.0%	100.0%

Source: EMSI Q1 2016 Data Set

Specialty Insurance

Northeast Indiana's
Cross-Target Competencies

Online sales and user experience design
Health and wellness
Process automation
Regulatory compliance
Wireless communications

TARGET DESCRIPTION

The Specialty Insurance industry includes two broad sub-segments:

- **Insurance Carriers (NAICS 5241):** This segment puts the "specialty" in Specialty Insurance. It includes major employers like Lincoln Financial, Brotherhood Mutual Insurance, MedPro Group, K&K Insurance Group, Swiss re, and American Specialty.
  - Direct life, health, and medical insurance carriers
  - Direct property and casualty insurance carriers
  - Direct title insurance carriers
  - Reinsurance carriers
  - Other carriers

- **Agencies, Brokerages, and Other Insurance Related Activities (NAICS 5242) :** This segment is present in nearly every American community, as it contains your local insurance agencies and other activities. In Northeast Indiana, Ash Brokerage is included within this grouping. However, most employment is more related to serving local residents. Unfortunately, brokerages cannot be disaggregated from the Agencies, Brokerages, and Other Insurance Related Activities subgroup.
  - Agencies and brokerages
  - Claims adjusting
  - Third party administration of insurance and pension funds
  - Other related activities

When analyzing the specific occupational trends and recruitment opportunities of the Specialty Insurance target, Community Research Institute recommends focusing in on Insurance Carrier dynamics as it zeros in on export-oriented activities and growth-oriented segments of the market.

Key trends in the Specialty Insurance Industry include:

- **Mergers and Acquisitions:** This year has seen a record number of mergers and acquisitions within the insurance industry, with (1) increased interest from foreign markets, and (2) acquisition of fintech companies (financial technology) that make financial transactions more efficient.[v]

- **User Experience Design:** As summarized by a leading insurance expert in a recent Deloitte report on 2016 trends, "One structural change we have seen in some companies that I expect to spread more widely is the creation of a function responsible for that intersection of digital technology, customer experience, and innovation, possibly reporting to the CIO or CEO directly, charged partly with being an evangelist for innovation."[vi]

- **Technology Trends:**
  - *Mobility*: aim is to provide mobile apps that improve the user experience for employees, agencies, and customers.
  - *Big Data and Analytics:* applications are broad and include employee performance analysis, use of predictive modeling to optimize underwriting and claims processing, and social media analysis for PR and brand management strategies.
  - *Telematics:* advances in telematics (or the cross-section of telecommunications and informatics) is paving the way for usage based insurance (UBI), a new approach to auto insurance which uses technology installed in vehicles to customize insurance policies based on a customer's actual driving patterns.
  - *Automating Regulatory Compliance*: using IT solutions to manage a myriad of regulatory compliance issues more efficiently.[vii]

- **Other:** Drone operators may soon need liability insurance. Cyber insurance is a rapidly growing area to protect businesses against the costs associated with security breaches. Changing regulations with Frank Dodd, the proposed Department of Labor rule regarding conflict of interest in providing retirement advice, and other areas demand continual attention and shift market opportunities.

EMPLOYMENT AND WAGES

		2015 Jobs			Northeast Indiana					United States		LQs	
NAICS Code and SubSector		Northeast Indiana	10 Regional Counties	Allen County	5-Year Job Growth		Average Annual Wage	Supplements	Total Earnings	U.S. Total Earnings	U.S. Growth	Northeast Indiana	Allen County
Insurance Carriers													
524113	Direct Life Insurance Carriers	2,487	0	2,487	467	23%	$62,994	$12,538	$75,532	$116,044	(7%)	3.85	7.45
524114	Direct Health and Medical Insurance Carriers	154	<10	146	11	8%	$67,100	$13,355	$80,455	$94,798	11%	0.16	0.30
524126	Direct Property and Casualty Insurance Carriers	1,058	64	995	135	15%	$79,326	$15,789	$95,115	$99,032	2%	0.88	1.60
524127	Direct Title Insurance Carriers	54	20	33	13	32%	$51,066	$10,164	$61,230	$93,847	4%	0.37	0.45
524128	Other Direct Insurance Carriers	30	0	30	14	88%	$94,975	$18,903	$113,879	$77,406	11%	0.86	1.67
524130	Reinsurance Carriers	255	0	255	(15)	(6%)	$114,210	$22,732	$136,941	$163,547	(4%)	3.99	7.70
Agencies, Brokerages, and Other Insurance Related Activities													
524210	Insurance Agencies and Brokerages	2,185	760	1,425	223	11%	$51,646	$10,279	$61,925	$83,179	15%	1.19	1.49
524291	Claims Adjusting	58	0	58	(29)	(33%)	$59,460	$11,834	$71,294	$85,852	13%	0.42	0.81
524292	Third Party Administration of Insurance & Pension Funds	124	<10	119	(38)	(23%)	$61,774	$12,295	$74,069	$79,079	33%	0.28	0.53
524298	All Other Insurance Related Activities	39	11	28	6	18%	$38,173	$7,598	$45,771	$92,952	39%	0.21	0.29
		6,444	**867**	**5,577**	**789**	**14%**	**$63,797**	**$12,698**	**$76,494**	**$93,477**	**10%**	**1.14**	**1.91**

Source: EMSI 2015.4 Class of Worker

Supplements estimate the value of contributions for pensions, profit sharing, retirement plans and private health insurance.

As shown in the previous table, Northeast Indiana's insurance industry employs 6,444 and 87 percent of those jobs are located within Allen County. In the 10 regional counties, insurance activity is largely concentrated in the locally-serving insurance agency subsector. Post-recession, insurance has added nearly 800 new jobs to the regional economy growing at a rate of 14 percent, compared to 10 percent nationwide. The local average annual wage is $63,797, which is 1.5x the county's overall average annual wage of $40,104. Location quotients for some subsectors in Allen County approach 8.0, reflecting significant concentration and specialization.

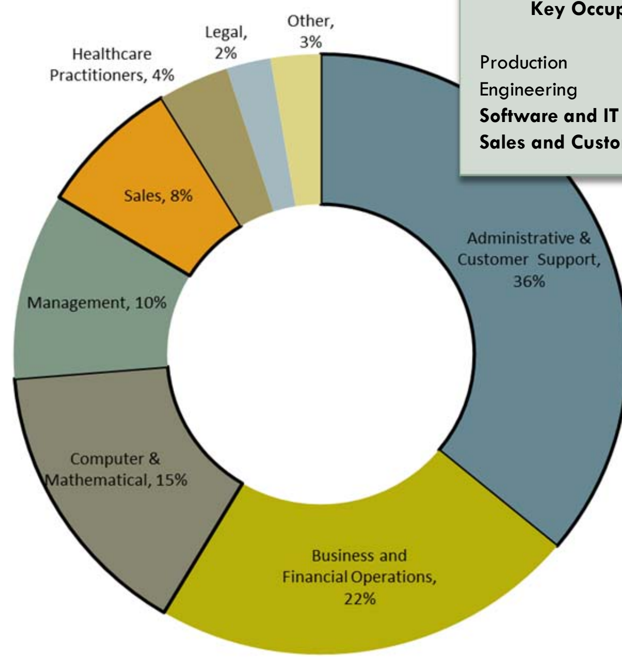
Nationally, there are 1.1 million people employed in the Insurance Carriers (NAICS 5241) subsector, which contains most of the specialty and export oriented insurance employment. One third of this activity is contained with a select number of major markets employing greater than 20,000: New York (79,923), Dallas (37,761), Philadelphia (36,188), Minneapolis (35,871), Chicago (34,455), Boston (33,648), Hartford (33,382), Los Angeles (31,441), Atlanta (23,630), Phoenix (20,840), and Columbus (20,030). Another third is contained within about 40 metros with employment ranging between 7,500 and 19,999 including Des Moines, Louisville, Indianapolis, Denver, Milwaukee, Madison, Bloomington, Omaha, and others. The remaining third of the market is contained in approximately 100 smaller employment centers, metro areas with 750 – 7,499 jobs related to specialty insurance. Fort Wayne-Allen County would be included with this group. Examining these metros by location quotient, growth rate, and other dynamics did not reveal any marketing "hook" (e.g. top 10 ranking) or significant differentiating quality.

OCCUPATIONAL SUMMARY

Thirty-six percent of occupations within the Specialty Insurance segment (NAICS 5241 Insurance Carriers) are within administrative and customer support, 15 percent in computer and math, and eight percent in sales positions. **Together, these critical occupation areas account for nearly 60 percent of the Specialty Insurance workforce.**

Within Northeast Indiana, Specialty Insurance is the number one employing sector for the following occupations:

- Customer service representatives
- Computer systems analysts
- Computer and information systems managers
- Actuaries
- Claims adjusters and investigators



Northeast Indiana's Key Occupation Areas

Production
Engineering
Software and IT
Sales and Customer Service

Serving the workforce needs of existing Specialty Insurers and potential future new employers to the region means understanding the specific needs for these critical occupation areas. The following table shows key occupations within the industry. Two-thirds of occupations employing at least 10 people within Specialty insurance pay above the $20 regional average wage threshold.

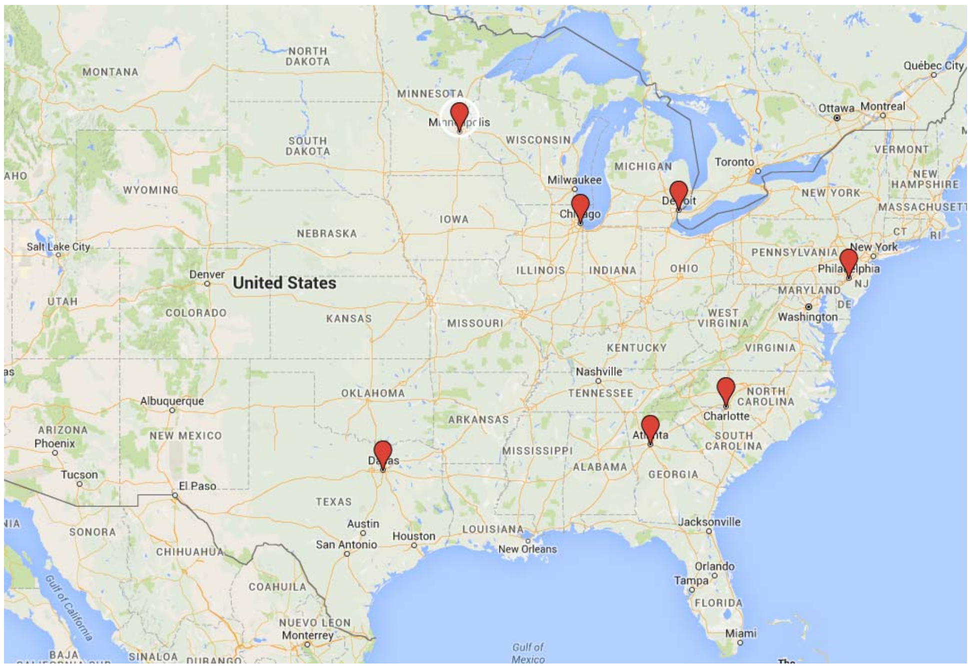
Specialty Insurance Industry in Northeast Indiana: Key Occupations

SOC	Occupation	Employed in This Industry (2015)	Change (2010 - 2015)		Median Hourly Earnings	Typical Entry Level Education
Limited Training						
43-4051	Customer Service Representatives	553	82	17%	$15.71	High school diploma or equivalent
41-3021	Insurance Sales Agents	211	29	16%	$26.81	High school diploma or equivalent
13-1031	Claims Adjusters, Examiners, and Investigators	206	26	14%	$26.13	High school diploma or equivalent
43-9041	Insurance Claims and Policy Processing Clerks	198	29	17%	$15.22	High school diploma or equivalent
43-1011	First-Line Supervisors of Office and Administrative Support Workers	143	22	18%	$22.33	High school diploma or equivalent
43-9061	Office Clerks, General	94	12	15%	$12.18	High school diploma or equivalent
43-6014	Secretaries and Administrative Assistants	77	13	20%	$14.94	High school diploma or equivalent
13-1199	Business Operations Specialists, All Other	74	10	16%	$24.72	High school diploma or equivalent
43-3031	Bookkeeping, Accounting, and Auditing Clerks	73	11	18%	$15.78	High school diploma or equivalent
43-6011	Executive Secretaries and Executive Administrative Assistants	47	5	12%	$19.56	High school diploma or equivalent
43-3021	Billing and Posting Clerks	43	7	19%	$15.11	High school diploma or equivalent
More Intensive Training Required						
15-1121	Computer Systems Analysts	140	34	32%	$30.69	Bachelor's degree
13-2053	Insurance Underwriters	124	12	11%	$25.65	Bachelor's degree
15-1132	Software Developers, Applications	108	23	27%	$35.11	Bachelor's degree
29-1141	Registered Nurses	107	15	16%	$25.04	Associate's degree
13-2011	Accountants and Auditors	99	15	18%	$28.59	Bachelor's degree
13-1111	Management Analysts	98	14	17%	$29.80	Bachelor's degree
15-2011	Actuaries	85	19	29%	$43.65	Bachelor's degree
11-1021	General and Operations Managers	76	11	17%	$47.30	Bachelor's degree
11-3031	Financial Managers	69	11	19%	$45.27	Bachelor's degree
11-3021	Computer and Information Systems Managers	64	16	33%	$46.53	Bachelor's degree
13-1161	Market Research Analysts and Marketing Specialists	49	10	26%	$21.70	Bachelor's degree
13-2052	Personal Financial Advisors	47	7	18%	$32.34	Bachelor's degree
15-1131	Computer Programmers	42	5	14%	$31.33	Bachelor's degree
15-1151	Computer User Support Specialists	41	9	28%	$18.36	Some college, no degree
15-1142	Network and Computer Systems Administrators	39	9	30%	$28.19	Bachelor's degree

BUSINESS DEVELOPMENT STRATEGIES TO EXPLORE

Markets with non-stop flight service at FWA

Local employers have been strategic in their support for and loyalty to Fort Wayne International Airport, particularly within Specialty Insurance. The addition of service to Philadelphia was a huge win for the region and directly impacts employers like Lincoln Financial that have offices in Philadelphia and in other cities on the east coast. Zeroing in on the Great Lakes (relocation) and markets with direct flight service (relocation or expansions) would focus business development efforts and support continued efforts to bolster air service at FWA. Cross referencing against market opportunities identified by the Regional Partnership's Digital Marketing Campaign may help to illuminate priorities within these market areas. In addition to focusing in on recruiting fast-growth small to midsized insurance firms, in general, it would be strategic to also identify (1) firms in a complementary IT focus such as customer service processes automation, and (2) firms with specializations that cross into other target areas, like crop insurance and freight insurance.



Metro Area	2015 Jobs	2010 - 2015 Change		Average Annual Wage	Location Quotient
Dallas-Fort Worth	37,517	7,933	27%	$79,712	1.34
Philadelphia	35,948	1,850	5%	$99,688	1.57
Minneapolis	35,902	(154)	(0%)	$116,505	2.28
Chicago	33,840	(4,493)	(12%)	$107,101	0.90
Atlanta	22,945	4,656	25%	$84,165	1.10
Detroit	12,969	463	4%	$87,379	0.82
Charlotte	7,624	(197)	(3%)	$83,331	0.82
Fort Wayne	**3,882**	**513**	**15%**	**$71,187**	**2.23**

Source: EMSI Q1 2016 Data Set

The above table compares each metro area. Fort Wayne is not the entire 11-county Northeast Indiana region in this instance, only the 3-county metro.

Data captures NAICS 5241 Insurance Carriers inclusive of direct life/health/medical, reinsurance, property and casualty, title, and other direct insurance carriers

Talent Recruitment

University of Saint Francis and Ivy Tech have partnered with local employers to develop degree and certificate programming to meet the needs of this growing industry. Other regions formed this alignment years ago and have built a cohesive higher-education pipeline to serve major insurance employers. For example, Atlanta (23,000 jobs) and Philadelphia (36,000 jobs) are both top 10 insurance markets in terms of total employment and post-recession growth, and both metros benefit from the presence of multiple top-ranked undergraduate insurance programs (University of Georgia and Georgia State University; Temple, St. Joseph, and Penn).

Despite solid progress in building a local pipeline, Northeast Indiana's specialty employers still must recruit talent from out of market. Opportunities for talent recruitment exist close to home where top-ranked programs at Illinois State University and University of Illinois support Bloomington-based State Farm Insurance and Chicagoland-based Allstate Insurance and in Madison where programming at University of Wisconsin supports American Family Insurance.

Within the Iowa, Wisconsin, Illinois, Indiana, Michigan, Ohio, and Kentucky area, Insurance Carriers (NAICS 5241) employ over 300,000 and the sector has actually shed nearly 6,700 jobs post-recession. As shown in the table to the right, among the metro areas with at least 750 jobs in this sector, Chicago, Madison, St. Louis, Cincinnati, and Milwaukee have all lost at least about 1,000 jobs or more. Wisconsin and Illinois in particular have been hit hard. Examining these Great Lakes area markets for talent recruitment is another opportunity.

Marketing Messages

There may be potential to produce marketing materials with employer-specific spotlights that add excitement and dimension to an industry that is not well understood.

Metro Area	2015 Jobs	2010 - 2015 Change		Average Annual Wage	Location Quotient
Chicago-Naperville-Elgin, IL-IN-WI	33,840	(4,493)	(12%)	$107,101	0.90
Madison, WI	9,376	(2,666)	(22%)	$75,587	2.96
St. Louis, MO-IL	7,643	(2,111)	(22%)	$81,257	0.70
Cincinnati, OH-KY-IN	14,320	(1,226)	(8%)	$79,933	1.66
Milwaukee-Waukesha-West Allis, WI	12,277	(988)	(7%)	$89,790	1.77
Wausau, WI	2,400	(744)	(24%)	$65,502	3.98
Eau Claire, WI	1,116	(649)	(37%)	$55,282	1.62
Omaha-Council Bluffs, NE-IA	10,451	(590)	(5%)	$75,586	2.61
Springfield, IL	2,259	(433)	(16%)	$63,960	2.00
Cedar Rapids, IA	4,460	(354)	(7%)	$75,003	3.68
Davenport-Moline-Rock Island, IA-IL	1,289	(310)	(19%)	$74,958	0.84
Indianapolis-Carmel-Anderson, IN	15,159	(285)	(2%)	$82,235	1.82
Canton-Massillon, OH	1,383	(185)	(12%)	$50,922	0.97
Toledo, OH	995	(161)	(14%)	$54,459	0.40
Columbus, OH	19,942	(156)	(1%)	$82,891	2.37
Minneapolis-St. Paul-Bloomington, MN-WI	35,902	(154)	(0%)	$116,505	2.28
Appleton, WI	2,773	(35)	(1%)	$67,298	2.68
Lexington-Fayette, KY	760	(35)	(4%)	$81,573	0.34
Cleveland-Elyria, OH	13,684	(33)	(0%)	$83,588	1.59
Kalamazoo-Portage, MI	792	(21)	(3%)	$69,471	0.67
Duluth, MN-WI	1,584	(10)	(1%)	$42,608	1.47
Waterloo-Cedar Falls, IA	824	9	1%	$65,108	1.08
Peoria, IL	1,609	70	5%	$79,797	1.09
Flint, MI	1,019	134	15%	$70,986	0.89
Merrill, WI	843	181	27%	$64,966	9.07
Kankakee, IL	812	235	41%	$40,732	2.26
Bloomington, IL	9,675	270	3%	$97,966	12.46
Sheboygan, WI	1,148	272	31%	$71,942	2.24
Green Bay, WI	4,847	295	6%	$57,735	3.35
Akron, OH	3,417	385	13%	$57,942	1.25
Detroit-Warren-Dearborn, MI	12,969	463	4%	$87,379	0.82
Fort Wayne, IN	3,882	513	15%	$71,187	2.23
Oshkosh-Neenah, WI	1,529	590	63%	$65,221	1.95
Stevens Point, WI	3,502	695	25%	$70,934	12.03
Dayton, OH	2,666	752	39%	$66,029	0.86
Des Moines-West Des Moines, IA	19,712	828	4%	$91,713	6.50
Grand Rapids-Wyoming, MI	6,110	866	17%	$61,731	1.36
Lansing-East Lansing, MI	5,579	1,137	26%	$72,206	3.18
Louisville/Jefferson County, KY-IN	16,885	4,215	33%	$80,182	3.21

Source: EMSI Q1 2016 Data Set

The above table compares each metro area within the Great Lakes footprint with at least 750 employees in NAICS 5241 Insurance Carriers

Potential examples include:

- American Specialty's role in insuring Major League Baseball
- Brotherhood Mutual' s mission and connecting to Millennials' desire to do good and make a difference
- Why Berkshire Hathaway invested in Medical Protective and cross-promotion of a general theme of Health and Wellness
- Lincoln Financial and user experience design (online sales, excellence in customer service) – using IT innovations to make the customer's experience a good one
    - This message could also be positioned across the target to include all regional Specialty Insurance employers

Employer interviews done as part of talent initiative work spearheaded by the Big Goal Collaborative provides some background on the activities of our region's Specialty Employers. The Northeast Indiana Specialty Insurers (NISI) cluster council provides a strategic framework for refining marketing messages related to industry relocation and talent recruitment.

Vehicles

Northeast Indiana's
Cross-Target Competencies

Online sales and user experience design
Health and wellness
Process automation
Regulatory compliance
Wireless communications

TARGET DESCRIPTION

The Vehicles industry includes three broad sub-segments:

- **Rubber and Glass Products (NAICS 3262 and 3272):** This segment includes establishments that are engaged in coating, laminating, and tempering glass as well as manufacturing natural and synthetic rubber into commercial products.
    - Tires
    - Hoses, belts, and other products
    - Glass products

- **Fabricated Metal Products (NAICS 3327 and 3328):** This segment includes businesses that design, manufacture, and finish metal parts on an order basis through a variety of processes including the use of computer numerically controlled (CNC) machinery.
    - Machine shops
    - Precision turned product manufacturing
    - Nuts and bolts manufacturing
    - Metal treating, coating, engraving, coloring, etc.

- **Transportation Equipment Manufacturing (NAICS 3363 and 3366):** This segment comprises establishments engaged in manufacturing and/or rebuilding components and parts for use in automobiles, trucks, recreational vehicles, trailers, and other transportation equipment.
    - Light truck and utility vehicles
    - Heavy duty trucks
    - Motor vehicle bodies
    - Truck trailers, motor homes, and boats
    - Components and parts for engines, electronics, suspension systems, brakes, transmissions, seating, etc.

Key trends in the Vehicles industry include:

- **Regulatory Compliance:** From fuel economy standards to safety features, complying with mandates are driving design changes and adding additional costs.

- **Increased Electronics and Software Content:** Telematics systems (e.g. semiautonomous driving aids), infotainment systems, and other electronics contribute more than 80 percent of innovations and up to 35 percent of total vehicle costs.

- **Big Data:** With sensors and telematics systems proliferating, more and more data is being collected on driver behavior and vehicle usage. This data is being used by businesses at all points of the supply chain to influence a myriad of strategies and services from design to marketing to insurance and warranty sales.[viii]

- **Record Sales:** Factors like an improving labor market, affordable loan rates, and low gasoline prices are stoking demand for new vehicles. A sustained period of lower oil prices has spurred growth in SUVs and truck sales.[ix]

- **Mobility Preferences and Diversification Opportunities:** According to McKinsey and Company, "It is necessary to segment markets by city types based on population density, economic development, and prosperity."[x] A recent New York Times article reported on Ford's relationship with Chicago-based consultancy, Ideo, to develop products focused on multimodal transportation (e.g. buses, subways, bike shares, water taxis, ride hailing apps, and walking) appropriate for dense cities. "Anticipating a future when Ford will have to do much more to survive than sell cars, the company asked Ideo to develop products focused on multi-modal transportation…How can Ford patriciate in that future opportunity space?" [xi]

- **Improving Battery Technology, but Adoption Slow:** It is estimated that electric vehicles will account for 10 – 50 percent of new vehicle sales by 2030; however, adoption rates will widely across communities due to requisite infrastructure investments. Battery technology costs are coming down, bringing electric vehicles closer to achieving competitiveness with conventional vehicles.[xii]

EMPLOYMENT AND WAGES

As shown in the table on the following page, the Vehicles industry employs nearly 28,000 workers in Northeast Indiana accounting for eight percent of all jobs within the region. While Allen County is home to the industry's largest employers with the GM plant, which manufactures the Chevy Silverado and GMC Sierra, and the BF Goodrich tire plant, two-thirds of the industry's jobs are actually located in the 10 regional counties. Northeast Indiana's Vehicles industry has a location quotient of 6.17 and an average annual wage of $54,166 (vs. the county's overall average annual wage of $40,104).

Nationally, there are 1.8 million people employed in Vehicle manufacturing. The chart to the right shows the top 25 metro areas for vehicle manufacturing. If all of Northeast Indiana is considered (11 counties, not just the 3-county metro), it ranks seventh nationally and fourth in the Midwest. A key issue is how the traditional view of vehicles manufacturing will be redefined in the coming years as trends in electronics continue to exert change.

	Metro/Region Name	2015 Jobs	2010 - 2015 Change		Average Annual Wage	LQ
1	Detroit, MI	133,180	42,417	47%	$78,172	5.59
2	Los Angeles, CA	48,411	1,816	4%	$52,161	0.65
3	Chicago, IL	47,165	6,290	15%	$57,152	0.84
4	Elkhart-Goshen, IN	32,524	9,379	41%	$50,981	20.22
5	Virginia Beach-Norfolk, VA	30,556	4,230	16%	$66,828	3.29
6	Nashville, TN	30,008	13,451	81%	$65,425	2.68
7	**Northeast Indiana**	**27,728**	**7,761**	**39%**	**$54,166**	**6.17**
8	Dallas, TX	26,005	5,966	30%	$57,991	0.62
9	Grand Rapids, MI	25,670	7,687	43%	$53,230	3.82
10	Houston, TX	24,290	2,558	12%	$62,180	0.66
11	Cleveland, OH	24,016	2,861	14%	$57,595	1.87
12	Louisville, KY	20,013	9,146	84%	$65,327	2.54
13	Toledo, OH	19,795	6,764	52%	$66,312	5.31
14	Columbus, OH	19,039	1,948	11%	$58,810	1.52
15	Charlotte, NC	16,840	4,026	31%	$54,971	1.21
16	Minneapolis, MN'	16,688	2,586	18%	$56,080	0.71
17	Philadelphia, PA	16,239	(1,134)	(7%)	$60,910	0.47
18	Cincinnati, OH	16,013	3,189	25%	$58,473	1.23
19	Kansas City, MO-KS	15,907	3,342	27%	$69,988	1.25
20	New York, NY	15,855	280	2%	$53,274	0.14
21	Indianapolis, IN	15,144	1,645	12%	$62,128	1.22
22	Atlanta, GA	14,234	4,029	39%	$51,780	0.46
23	Boston, MA	14,028	2,074	17%	$58,683	0.43
24	San Francisco, CA	12,708	3,488	38%	$67,060	0.44
25	Greenville, SC	12,267	3,022	33%	$57,321	2.53

NAICS Code and SubSector		2015 Jobs			Northeast Indiana					United States		LQs	
		Northeast Indiana	10 Regional Counties	Allen County	5-Year Job Growth		Average Annual Wage	Supplements	Total Earnings	U.S. Total Earnings	U.S. Growth	Northeast Indiana	Allen County
Rubber and Glass Products													
326211	Tire Manufacturing (except Retreading)	1,808	0	1,808	244	16%	$65,245	$15,214	$80,459	$76,950	6%	15.02	29.02
326220	Rubber and Plastics Hoses and Belting Manufacturing	330	326	<10	64	24%	$36,127	$8,424	$44,551	$66,616	13%	5.43	0.12
326291	Rubber Product Manufacturing for Mechanical Use	562	562	<10	(152)	(21%)	$53,615	$12,502	$66,117	$60,916	19%	7.50	0.02
326299	All Other Rubber Product Manufacturing	120	116	<10	27	29%	$67,340	$15,703	$83,043	$59,857	9%	1.88	0.13
327215	Glass Product Manufacturing Made of Purchased Glass	1,326	1,326	0	744	128%	$44,752	$10,337	$55,088	$58,857	15%	12.18	0.00
Fabricated Metal Products													
332710	Machine Shops	1,833	1,349	484	310	20%	$46,074	$10,115	$56,189	$62,148	20%	2.53	1.29
332721	Precision Turned Product Manufacturing	712	652	60	115	19%	$39,969	$8,775	$48,744	$60,909	18%	6.89	1.13
332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing	787	759	28	312	66%	$57,668	$12,660	$70,328	$71,766	14%	7.87	0.53
332811	Metal Heat Treating	347	270	77	111	47%	$49,510	$10,869	$60,379	$70,153	23%	7.04	3.03
332812	Metal Coating, Engraving, and Allied Services to Manufacturers	720	601	119	98	16%	$42,497	$9,330	$51,827	$53,974	15%	5.11	1.63
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	831	596	236	215	35%	$33,102	$7,267	$40,369	$53,532	10%	5.31	2.91
Transportation Equipment Manufacturing													
336112	Light Truck and Utility Vehicle Manufacturing	4,910	0	4,910	1,836	60%	$80,616	$18,425	$99,041	$96,231	65%	32.91	63.60
336120	Heavy Duty Truck Manufacturing	19	19	0	(33)	(63%)	$38,483	$8,795	$47,278	$80,107	19%	0.27	0.00
336211	Motor Vehicle Body Manufacturing	566	473	93	126	29%	$49,239	$11,254	$60,493	$63,310	21%	3.88	1.23
336212	Truck Trailer Manufacturing	573	471	102	405	241%	$39,930	$9,126	$49,056	$54,648	64%	6.03	2.08
336213	Motor Home Manufacturing	1,265	1,265	0	164	15%	$43,390	$9,917	$53,307	$62,345	37%	30.37	0.00
336214	Travel Trailer and Camper Manufacturing	2,042	2,042	0	902	79%	$60,235	$13,767	$74,003	$56,853	40%	22.58	0.00
336310	Motor Vehicle Gasoline Engine and Engine Parts Manufacturing	355	355	0	55	18%	$45,096	$10,307	$55,404	$78,762	34%	2.23	0.00
336320	Motor Vehicle Electrical and Electronic Equipment Manufacturing	606	432	174	(251)	(29%)	$51,831	$11,846	$63,678	$64,586	11%	4.21	2.33
336330	Motor Vehicle Steering and Suspension Components Manufacturing	150	150	0	28	23%	$49,726	$11,365	$61,092	$66,169	36%	1.67	0.00
336340	Motor Vehicle Brake System Manufacturing	257	257	0	(55)	(18%)	$41,377	$9,457	$50,834	$69,103	8%	4.00	0.00
336350	Motor Vehicle Transmission and Power Train Parts Manufacturing	2,483	2,186	298	387	18%	$46,495	$10,627	$57,122	$82,608	46%	12.41	2.88
336360	Motor Vehicle Seating and Interior Trim Manufacturing	1,404	1,093	311	769	121%	$47,453	$10,846	$58,298	$60,440	65%	8.17	3.49
336370	Motor Vehicle Metal Stamping	532	532	0	165	45%	$53,995	$12,341	$66,336	$70,103	44%	2.58	0.00
336390	Other Motor Vehicle Parts Manufacturing	2,353	1,764	589	921	64%	$45,034	$10,293	$55,326	$64,480	30%	6.32	3.06
336612	Boat Building	836	733	103	378	83%	$39,967	$11,203	$51,170	$55,794	26%	9.80	2.34
		27,728	**18,327**	**9,402**	**7,761**	**39%**	**$54,166**	**$12,400**	**$66,566**	**$69,801**	**25%**	**6.17**	**4.04**

Source: EMSI 2015.4 Class of Worker

Supplements estimate the value of contributions for pensions, profit sharing, retirement plans and private health insurance.

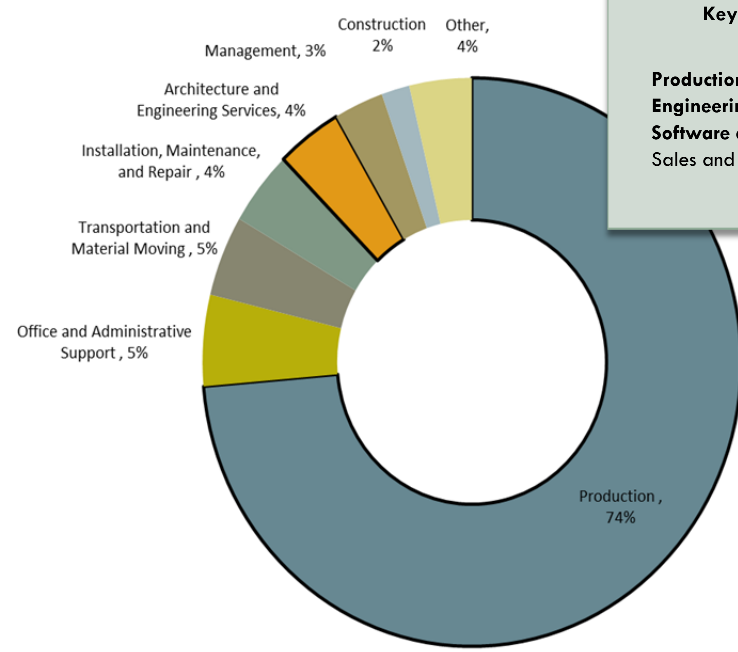
OCCUPATIONAL SUMMARY

Within Northeast Indiana, Vehicles manufacturing is the number one employing sector for the following key occupations:

- Team assemblers
- Machinists
- Welders
- CNC operators

This industry tends to compete most heavily with the Medical Device and Technology target for workers, as many skillsets demanded are applicable in both industries. From a growth perspective, this creates a challenge for the two largest target industries in terms of total employment and payroll.

Overall, production workers account for 74 percent of the industry's workforce. The remaining 26 percent are segmented across office and administrative support, transportation and material moving, installation and maintenance, engineering, management, construction, and other occupations. Nationally, while the typical educational level for many top occupations may be a high school diploma, Northeast Indiana employers show preference for workers with experiential learning experiences (e.g. apprenticeships or internships) and/or a high-quality credential, like a degree or certificate. This is due to the technologies used by area manufacturers and the skills needed to be a productive team member.



Northeast Indiana's Key Occupation Areas

Production
Engineering
Software and IT
Sales and Customer Service

Workforce gaps caused by retirement are an acute issue that will challenge the manufacturing sector earlier than others. According to a Community Research Institute analysis completed as part of the 2013 Northeast Indiana Manufacturing Study, the average ages of all regional workers is 42.7. However, the average age of production workers is 43.8 years. Among workers employed in so-called critical occupations in the manufacturing sector, the average age is 45.8.

Vehicles Industry in Northeast Indiana: Key Occupations

SOC	Description	Employed in this Industry (2015)	Change (2010 - 2015)		Median Hourly Earnings	Typical Entry Level Education
Limited Training						
51-2092	Team Assemblers	7,361	2,444	50%	$14.67	High school diploma or equivalent
51-4041	Machinists	1,382	349	34%	$19.70	High school diploma or equivalent
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	1,080	311	40%	$15.46	High school diploma or equivalent
51-1011	First-Line Supervisors of Production and Operating Workers	949	250	36%	$24.82	Postsecondary non-degree award
51-4121	Welders, Cutters, Solderers, and Brazers	887	286	48%	$16.60	High school diploma or equivalent
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	841	253	43%	$15.54	High school diploma or equivalent
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	720	168	30%	$13.45	High school diploma or equivalent
51-9198	Helpers--Production Workers	443	125	39%	$12.34	Less than high school
53-7051	Industrial Truck and Tractor Operators	419	107	34%	$16.55	Less than high school
51-4111	Tool and Die Makers	418	120	40%	$22.05	High school diploma or equivalent
51-9199	Production Workers, All Other	412	122	42%	$28.08	High school diploma or equivalent
49-9071	Maintenance and Repair Workers, General	394	106	37%	$18.07	High school diploma or equivalent
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	388	74	24%	$13.94	High school diploma or equivalent
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	382	94	33%	$16.40	High school diploma or equivalent
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	381	105	38%	$13.87	High school diploma or equivalent
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	376	92	32%	$11.37	Less than high school
43-5071	Shipping, Receiving, and Traffic Clerks	339	79	30%	$13.36	High school diploma or equivalent
51-2022	Electrical and Electronic Equipment Assemblers	339	93	38%	$13.36	High school diploma or equivalent
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	335	85	34%	$15.49	High school diploma or equivalent
51-2099	Assemblers and Fabricators, All Other	329	82	33%	$12.77	High school diploma or equivalent
49-9041	Industrial Machinery Mechanics	306	98	47%	$20.84	High school diploma or equivalent
More Extensive Training Required						
17-2112	Industrial Engineers	434	126	41%	$32.69	Bachelor's degree
17-2141	Mechanical Engineers	299	77	35%	$31.60	Bachelor's degree
11-3051	Industrial Production Managers	294	75	34%	$38.07	Bachelor's degree
11-1021	General and Operations Managers	215	43	25%	$47.30	Bachelor's degree
17-3026	Industrial Engineering Technicians	113	29	35%	$21.53	Associate's degree
13-2011	Accountants and Auditors	94	23	32%	$28.59	Bachelor's degree
53-3032	Heavy and Tractor-Trailer Truck Drivers	82	23	39%	$18.24	Postsecondary non-degree award
17-3013	Mechanical Drafters	62	14	29%	$20.36	Associate's degree
11-9041	Architectural and Engineering Managers	79	20	34%	$50.40	Bachelor's degree
13-1071	Human Resources Specialists	59	13	28%	$22.05	Bachelor's degree
17-3027	Mechanical Engineering Technicians	51	13	34%	$23.91	Associate's degree
11-3031	Financial Managers	44	9	26%	$45.27	Bachelor's degree
11-1011	Chief Executives	44	11	33%	$73.55	Bachelor's degree
13-1081	Logisticians	39	13	50%	$28.66	Bachelor's degree

BUSINESS DEVELOPMENT STRATEGIES TO EXPLORE

Realistically, the presence of the GM assembly plant heavily influences what Northeast Indiana can compete for due to workforce availability. Additional competition for talent is generated by the Medical Device and Technology target. However, complementary business development opportunities exist in several areas.

- Recruitment of supplier firms can be targeted to **meet local supply chain needs.**
  - An initial **cluster gap analysis** completed as part of CRI's 2013 Northeast Indiana Manufacturing Study identified input needs by major manufacturing group, including Vehicles, and the proportion of those inputs that are met by local firms. While this data can be used in a variety of ways for business development efforts, one example is provided here: machine shops.

Machine Shops	332710	
	NEI % Satisfied in-region	Average of Comparison Regions
Ind mach	13%	32%
Med inst	15%	34%
Motor vehicles	18%	26%
Chemical	10%	Not enough similar regions
Engine	14%	29%
Computer Elec	20%	33%
Cable	14%	30%
Steel	10%	27%

  - **Machine shops** were identified as an industry subsector that supplies needed inputs into each of the manufacturing groups examined in that report. Based on modeled industry supply-chain data, the proportion of manufacturing inputs supplied by Machine Shops was estimated by manufacturing group. For Vehicles, it is estimated that local Machine Shops satisfy 18 percent of local employer demand in Northeast Indiana. When communities similar in size to Northeast Indiana (Peoria, South Bend, Grand Rapids, Rockford, and Dayton), that proportion was 26 percent, on average.

  - Among the 381 metro areas nationwide, 46 MSAs have at least 500 jobs in the Machine Shop subsector and a location quotient that suggests employment is more highly concentrated (greater than 1.5). The top 20 metros meeting these criteria are included in the table to the right. Peoria has a high concentration of Machine Shop employment; however, employment in this subsector has remained relatively flat. Furthermore, overall job growth within the region has also remained flat post-recession. Peoria would be a strategic market to explore further for recruitment purposes, as Machine Shops serve several facets of the regional manufacturing sector (esp. Vehicles and Medical Device and Technology).

		Machine Shops					*Total Employment*	
		2015 Jobs	2010 - 2015 Change		Average Annual Wage	LQ	2010 - 2015 Change	
1	Talladega-Sylacauga, AL	546	163	43%	$41,363	8.54	3,747	14%
2	Manitowoc, WI	596	10	2%	$42,852	8.51	438	1%
3	Battle Creek, MI	930	96	12%	$47,558	7.86	3,751	7%
4	Racine, WI	1,145	164	17%	$43,839	7.56	2,014	3%
5	Muskegon, MI	956	391	69%	$47,805	7.41	5,727	10%
6	Odessa, TX	1,040	344	49%	$83,000	6.42	18,989	32%
7	Jackson, MI	746	(5)	(1%)	$47,345	6.36	5,563	11%
8	Rockford, IL	1,816	423	30%	$47,801	6.11	6,102	4%
9	Ottawa-Peru, IL	688	262	62%	$42,973	5.87	668	1%
10	Waterloo-Cedar Falls, IA	883	223	34%	$47,091	4.80	4,103	5%
11	Niles-Benton Harbor, MI	599	120	25%	$45,265	4.71	3,282	6%
12	**Peoria, IL**	**1,543**	**36**	**2%**	**$46,753**	**4.34**	**(300)**	**0%**
13	Terre Haute, IN	571	130	29%	$36,303	4.12	228	0%
14	Longview, TX	857	175	26%	$63,706	4.07	8,172	9%
15	Erie, PA	1,021	146	17%	$43,927	3.94	3,574	3%
16	Lafayette, LA	1,706	550	48%	$57,629	3.86	11,103	5%
17	Torrington, CT	501	140	39%	$56,172	3.86	3,811	6%
18	Greeley, CO	770	439	133%	$48,749	3.63	23,825	30%
19	Houma-Thibodaux, LA	726	227	45%	$61,175	3.62	6,033	7%
20	Appleton, WI	866	193	29%	$51,079	3.49	8,776	8%

    - This provides an example of the type of analysis that can be leveraged for future Business Development leads in Vehicles.

- Regional economic developers see **foreign direct investment (FDI)** opportunities as they relate to vehicle and automotive suppliers, particularly with German, Italian, and Japanese firms.

- Potential to recruit **office functions** for manufacturers.

- **Satellite and wireless communications expertise** from the Defense industry could potentially be tapped for future vehicle telematics applications and in partnership with insurers.

- Potential to position Fort Wayne as a mid-size test market for **mobility preference research.**

Design and Craftsmanship

Northeast Indiana's
Cross-Target Competencies

Online sales and user experience design
Process automation
Health and wellness
Regulatory compliance
Wireless communications

TARGET DESCRIPTION

The Design and Craftsmanship target includes three areas:

- **Specialty Consumer Products (NAICS 3169, 3219, 3323, 3371, 3372, 3399, 4541):** These firms are engaged in the design and manufacture of specialty items for consumers including clothing and handbags (fashion), musical instruments, furniture, wood products, and decorative arts.

- **Spatial Design (NAICS 5413, 5414):** These firms build and renovate indoor and outdoor spaces to improve their enjoyment, use, and productivity. Services include architecture, engineering, landscape design, industrial design, interior design, urban planning and design, and other specialized design services.

- **Creative and Technology Services (NAICS 512, 541,551, 711):** These providers of business-to-business services provide IT and creative services to understand what customers want, improve customer experiences, and enhance sales.
  - User experience (UX design)
  - E-Commerce
  - Mobile and web development
  - Marketing and advertising
  - Graphic design
  - Photography

Key trends related to Design and Craftsmanship include:

- **Optimizing Customer Experience**: As reported by Adobe's top trends for 2016, retail is undergoing a major transformation. "Just as advertising has shifted from hard sell to relevant content, retail has shifted into relevant brand experience. Sephora offers product discovery through technology, make-up tutorials, and personalization in stores. Even Amazon has opened a physical store, seeing the value of proving an immersive consumer experience. Any transaction can happen with a click, but brand love will be built 'IRL' (in real life)".[xiii] Still, online sales continue to account for a growing market share. User or customer experience design is all about optimizing a person's 360-degree experience when using a product or service, in person, on the phone, or online.

- **Independent Contracting and Business-to-Business Services:** The World Economic Forum's Global Agenda Council on the Creative Economy estimates that creative industries represent up to 12 percent of global GDP.[xiv] Many of those participating in the creative economy do so as freelancers, increasingly with the help of online platforms that connect contractors to customers. For example, 99designs.com is a hosting site for businesses looking for logos, web design, art and illustration, packaging, and other design services that allows them to post design contents for creative talent to submit bids. Laurel and Wolf provides online interior design services in an affordable and transparent pricing structure. Etsy.com has diversified and now connects craftsmen with scalable manufacturing options to they may expand their enterprises.

- **Personalization:** According to Accenture, a global consultancy, whether its specialty consumer products or the retail shopping experience itself, consumers increasingly show preference for personalization.[xv] As was recently reported, "These days, consumers aren't coming to brick-and-mortar stores for the prices or the selection – they can usually find better alternatives to both online. They're coming for the experience. Libraries, museums and other public buildings are seeing this shift, too. These industries are feeling increased pressure to provide something that can't be reproduced online, something that's worthy of a trip. That something is personalization." [xvi] Big data and consumer analytics allow for the personalization of services among large businesses, whereas smaller businesses can build personal relationships with consumers and quickly pivot to meet their needs.

EMPLOYMENT AND WAGE SUMMARY

As shown in the following table, the Design and Craftsmanship target employs approximately 11,200 in Northeast Indiana paying an average annual wage of $50,633. The region has registered stronger post-recession job growth (42 percent, +3,284 jobs) relative to the nation (20 percent). Wood product manufacturing, which employs over 2,000 workers, has more than doubled its payrolls and employment. However, average wages are comparatively low. It should be noted that these are businesses with a high proportion of Amish owners and workers. So-called "non-store retailers" or those selling goods online or via catalogs, experienced rapid growth in Allen County, also doubling payrolls and employment. Mail-order retailers pay higher than average wages at $44,620, and registered 89% post-recessionary growth while growth nationally during this time remained flat. Handbag and jewelry manufacturing have also prospered regionally.

Northeast Indiana's concentration of activity in Specialty Consumer Products (via manufacturing and sales) is reflected in the high location quotients of each subsector. Spatial Design services are concentrated in Allen County, with a strong presence in architect and landscape architect services. However, areas like engineering services and industrial design are comparatively underrepresented (as reflected by lower location quotients) and have experienced no positive growth. Some larger architectural firms employ in-house engineers. However, given Northeast Indiana's concentration of manufacturing activities, it is surprising the region is weak in these design service areas.

Similar dynamics exist within the Creative and Technology Services area with low location quotients in each subsector. While areas like computer systems design and marketing services have experienced growth, the rates lag behind the nation. The corporate, subsidiary, and regional managing offices sub-sector is a catch-all for headquarters and regional offices. Businesses self-report their NAICS industry classification, so some headquarters are captured in this category while many others are captured in the NAICS that reflects their business's core function. The activity contained here may reflect some activity related to Vera Bradley and Sweetwater Sound.

		2015 Jobs			Northeast Indiana					United States		LQs	
NAICS Code and SubSector		Northeast Indiana	10 Regional Counties	Allen County	5-Year Job Growth		Average Annual Wage	Supplements	Total Earnings	U.S. Total Earnings	U.S. Growth	Northeast Indiana	Allen County
Specialty Consumer Products													
316992	Women's Handbag and Purse Manufacturing	795	0	795	204	35%	$48,507	$11,321	$59,828	$84,015	19%	185.52	358.51
321911	Wood Window and Door Manufacturing	231	223	<10	107	86%	$37,254	$9,516	$46,770	$54,750	3%	1.98	0.14
321999	All Other Miscellaneous Wood Product Manufacturing	612	608	<10	283	86%	$29,551	$7,549	$37,100	$46,554	13%	10.54	0.15
332323	Ornamental and Architectural Metal Work Manufacturing	94	89	<10	37	65%	$29,627	$6,504	$36,131	$59,058	18%	1.00	0.10
337110	Wood Kitchen Cabinet and Countertop Manufacturing	1,212	715	497	491	68%	$29,794	$6,057	$35,851	$45,705	12%	4.33	3.43
337121	Upholstered Household Furniture Manufacturing	637	618	19	39	7%	$30,006	$6,100	$36,106	$42,359	15%	4.28	0.24
337122	Nonupholstered Wood Household Furniture Manufacturing	402	321	81	175	77%	$34,178	$6,949	$41,127	$42,684	(3%)	4.30	1.67
337124	Metal Household Furniture Manufacturing	110	110	0	12	12%	$32,735	$6,655	$39,391	$48,716	4%	7.42	0.00
337125	Household Furniture (except Wood and Metal) Manufacturing	249	249	0	192	337%	$56,050	$11,395	$67,445	$50,889	5%	18.74	0.00
337127	Institutional Furniture Manufacturing	343	87	256	141	70%	$38,538	$7,835	$46,373	$54,330	4%	6.02	8.67
337212	Custom Architectural Woodwork and Millwork Manufacturing	30	<10	29	2	7%	$36,898	$7,502	$44,400	$59,406	24%	0.62	1.16
339910	Jewelry and Silverware Manufacturing	112	111	<10	25	29%	$29,554	$11,018	$40,572	$64,753	(3%)	1.58	0.03
339992	Musical Instrument Manufacturing	26	23	<10	N/A	N/A	$24,696	$9,207	$33,902	$62,968	6%	0.95	0.23
454111	Electronic Shopping	268	205	63	190	244%	$27,405	$5,649	$33,054	$71,021	108%	0.56	0.25
454113	Mail-Order Houses	892	110	783	420	89%	$44,620	$9,198	$53,818	$56,205	0%	2.45	4.15
Spatial Design													
541310	Architectural Services	293	13	279	22	8%	$65,913	$11,860	$77,773	$91,686	11%	0.68	1.25
541320	Landscape Architectural Services	55	<10	52	18	49%	$25,412	$4,572	$29,984	$60,933	10%	0.65	1.20
541330	Engineering Services	753	160	594	(82)	(10%)	$59,317	$10,673	$69,990	$106,453	8%	0.32	0.49
541410	Interior Design Services	44	<10	41	N/A	N/A	$26,007	$4,680	$30,687	$63,987	27%	0.47	0.83
541420	Industrial Design Services	<10	<10	<10	N/A	N/A	N/A	N/A	N/A	$99,626	35%	0.17	0.05
541490	Other Specialized Design Services	<10	<10	<10	N/A	N/A	N/A	N/A	N/A	$77,868	31%	0.06	0.03
Creative and Technology Services													
541512	Computer Systems Design Services	430	150	280	107	33%	$69,375	$12,483	$81,858	$118,076	36%	0.19	0.24
541613	Marketing Consulting Services	144	20	124	39	37%	$47,540	$8,554	$56,094	$87,469	39%	0.27	0.45
541810	Advertising Agencies	229	39	190	(26)	(10%)	$58,156	$10,464	$68,620	$109,765	19%	0.46	0.74
541820	Public Relations Agencies	0	0	0	0	0%	$0	$0	$0	$114,677	18%	0.00	0.00
512110	Motion Picture and Video Production	22	<10	12	(19)	(46%)	$39,931	$17,579	$57,510	$115,430	12%	0.04	0.04
541430	Graphic Design Services	90	12	78	6	7%	$37,791	$6,800	$44,591	$70,847	6%	0.57	0.95
541922	Commercial Photography	12	<10	12	N/A	N/A	$25,928	$4,665	$30,594	$59,592	13%	0.50	0.91
551114	Corporate, Subsidiary, and Regional Managing Offices	3,030	1,237	1,793	809	36%	$73,405	$16,109	$89,514	$133,387	20%	0.57	0.65
711510	Independent Artists, Writers, and Performers	46	20	26	31	207%	$36,573	$5,684	$42,257	$147,784	24%	0.33	0.36
		11,169	**5,142**	**6,027**	**3,284**	**42%**	**$50,633**	**$10,679**	**$61,313**	**$110,431**	**20%**	**0.77**	**0.80**

Source: EMSI 2015.4 Class of Worker

Supplements estimate the value of contributions for pensions, profit sharing, retirement plans and private health insurance.

Community partners have been active in studying the breadth and composition of the creative economy in Northeast Indiana. These existing reports should be leveraged, as what is provided here in the Target Industry Study does not attempt to "recreate the wheel." Understanding the unique dynamics of this industry's workforce is a critical first step to forming effective economic development strategies to support creative sector job growth. Last year, Wunderkammer Company in Fort Wayne spearheaded a survey to better understand the creative workforce in Northeast Indiana. Called the Creative Census, its findings revealed a concentration of creatives living close to downtown Fort Wayne, alignment with the Big Goal, and high levels of activity in design services.

- 84 percent of creatives have a certificate or degree
- 69 percent of creative talent living here earned their higher education degree or certificate from institutions outside of Northeast Indiana
- 43 percent are not native to Northeast Indiana
- 43 percent live in the 46802, 46805, and 46807 area codes
- 30 percent of creatives in Northeast Indiana work in design, including fashion, code, industrial design, graphic design, and other areas[xvii]

Arts United's Creative Economic Impact Report examined creative industries (NAICS codes) as well as creative occupations (SOC codes, regardless of industry of employment). This analysis estimated approximately 18,551 individuals engaged in creative work in Northeast Indiana, approximately half of which work in traditional "payroll employment" jobs and half as self-employed or "side-job" "1099" contractors (in reference to the IRS 1099 tax form for miscellaneous income). Interestingly, while the post-recession growth of workers employed in creative occupations in traditional payroll jobs grew by 3.0 percent, independent contractors grey by 7.3 percent.

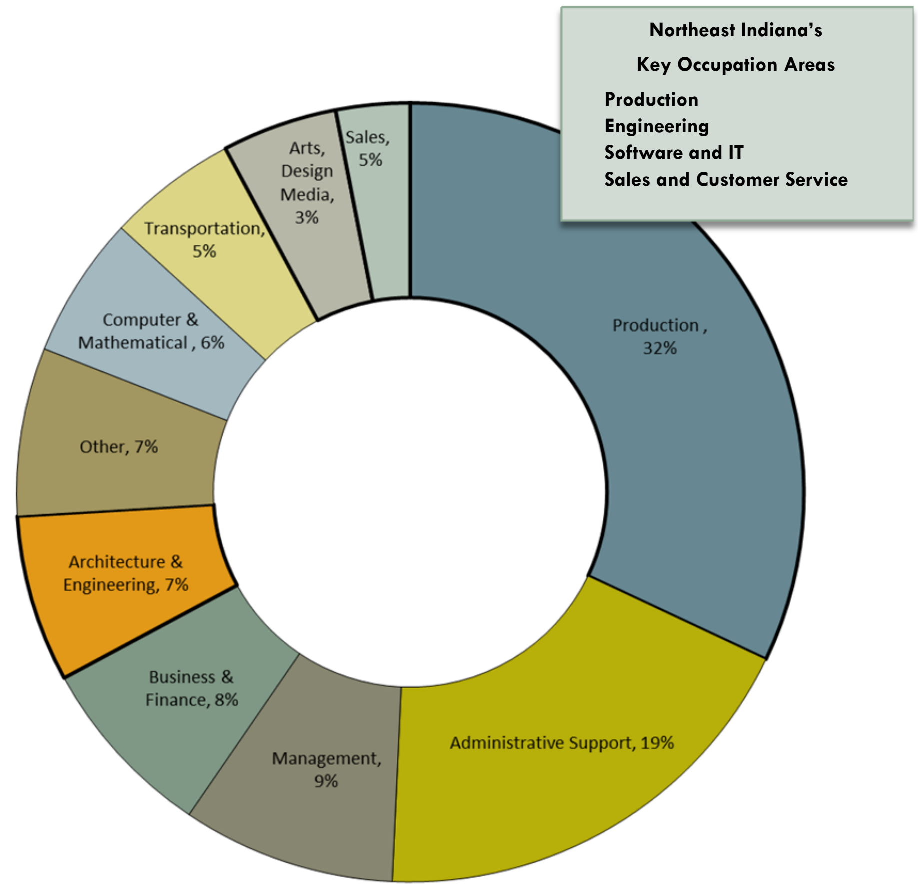
OCCUPATIONAL SUMMARY

Many of the target's top occupations are related to manufacturing activities, customer service, and order fulfillment. However, as shown in the graphic to the right, Design and Craftsmanship offers a wide variety of occupational opportunities and includes all four of Northeast Indiana's key occupation areas: production, engineering, software and IT, and sales and customer service. The role of online sales is critical to this industry and is reflected in the need for computer systems analysts, applications developers, financial managers, graphic designers, market research analysts, sales representatives, and computer programmers.

As previously discussed, many workers active in the creative economy participate as self-employed contractors or via "side jobs" on top of their regular "9-5". According to an analysis by Community Research Institute and Arts United, the highest proportions of 1099 workers in creative areas are:

- Photographers (1,194 reporting 1099 income)
- Writers and authors (581)
- Musicians and singers (528)
- Translators (360)
- Graphic designers (336)
- Fine artists including painters, sculptors, and illustrators (316)

The following table examines, to a limited degree, traditional payroll occupation activity versus 1099 activity. Arts United has sponsored research which provides a comprehensive analysis of creative activity in Northeast Indiana. Again, understanding these dynamics and weighting the appropriate information will be key to supporting this target industry moving forward.



Design and Craftsmanship Industry in Northeast Indiana: Key Occupations

SOC	Description	Employed in this Industry (2015)	Change (2010 - 2015)		Median Hourly Earnings	Typical Entry Level Education
Traditional Payroll Employment Jobs -Limited Training						
51-7011	Cabinetmakers and Bench Carpenters	682	254	59%	$16.31	High school diploma or equivalent
51-2092	Team Assemblers	510	200	65%	$14.67	High school diploma or equivalent
51-7042	Woodworking Machine Setters, Operators, and Tenders	342	141	70%	$14.55	High school diploma or equivalent
43-4051	Customer Service Representatives	329	121	58%	$15.71	High school diploma or equivalent
43-3031	Bookkeeping, Accounting, and Auditing Clerks	270	79	41%	$15.78	High school diploma or equivalent
43-9061	Office Clerks, General	229	55	32%	$12.18	High school diploma or equivalent
51-7021	Furniture Finishers	208	74	55%	$12.33	High school diploma or equivalent
43-5071	Shipping, Receiving, and Traffic Clerks	194	84	76%	$13.36	High school diploma or equivalent
43-6014	Secretaries and Administrative Assistants	188	47	33%	$14.94	High school diploma or equivalent
43-4151	Order Clerks	145	66	84%	$15.59	High school diploma or equivalent
Traditional Payroll Employment Jobs -More Extensive Training Required						
11-1021	General and Operations Managers	241	61	34%	$47.30	Bachelor's degree
51-1011	First-Line Supervisors of Production and Operating Workers	200	71	55%	$24.82	Postsecondary non-degree award
13-2011	Accountants and Auditors	183	47	35%	$28.59	Bachelor's degree
13-1161	Market Research Analysts and Marketing Specialists	117	35	43%	$21.70	Bachelor's degree
15-1121	Computer Systems Analysts	109	29	36%	$30.69	Bachelor's degree
15-1132	Software Developers, Applications	103	24	30%	$35.11	Bachelor's degree
11-3031	Financial Managers	99	24	32%	$45.27	Bachelor's degree
17-3011	Architectural and Civil Drafters	98	0	0%	$21.84	Associate's degree
27-1024	Graphic Designers	92	26	39%	$17.54	Bachelor's degree
17-2141	Mechanical Engineers	91	3	3%	$31.60	Bachelor's degree
15-1131	Computer Programmers	88	21	31%	$31.33	Bachelor's degree
17-1011	Architects	85	10	13%	$34.11	Bachelor's degree
1099 Activity - Only in Design and Craftsmanship						
27-2042	Musicians and Singers	333	45	16%	-	High school diploma or equivalent
27-3043	Writers and Authors	305	39	15%	-	Bachelor's degree
99-9999	Unclassified Occupation	266	55	26%	-	N/A
27-1024	Graphic Designers	206	18	10%	-	Bachelor's degree
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	164	10	6%	-	High school diploma or equivalent
27-1025	Interior Designers	131	11	9%	-	Bachelor's degree
27-4021	Photographers	108	(11)	(9%)	-	High school diploma or equivalent
51-7011	Cabinetmakers and Bench Carpenters	90	(12)	(12%)	-	High school diploma or equivalent
27-1012	Craft Artists	86	5	6%	-	`
17-1011	Architects, Except Landscape and Naval	79	(9)	(10%)	-	Bachelor's degree
27-1014	Multimedia Artists and Animators	66	5	8%	-	Bachelor's degree
27-1011	Art Directors	66	7	12%	-	Bachelor's degree

BUSINESS DEVELOPMENT STRATEGIES TO EXPLORE

Business Recruitment

- With the success of homegrown companies like Sweetwater Sound and Vera Bradley, an opportunity for Allen County appears to be at the **intersection of creative services/products, online sales, and logistics**. Cost of doing business, infrastructure, workforce competitiveness, and the ability to attract and retain workers with quality of life amenities all contribute to Allen County's success in this regard.

- Low location quotients in areas like engineering services, industrial design, and IT services suggest that many Northeast Indiana businesses may be utilizing firms in larger markets, like Chicago or Indianapolis, for these needs. Recruitment of larger employers, via the **location of a branch offic**e, may be a prudent strategy.

- Since so many workers in creative industries bring with them their own side-businesses, the **integration of talent recruitment with a focus on young, creative entrepreneurs** may yield benefits.

Retention and Expansion Services

- With a diverse array of Specialty Consumer Goods manufactured in Northeast Indiana, and the rapid post-recession employment growth in many of these areas, strategies to **provide assistance to scale up sales and production** should be explored.

- Related to this, and entrepreneur assistance more broadly, is the **integration of online sales assistance** into future incubator and co-working space programming. With so many new university and non-profit backed entrepreneur support resources that have sprouted in the last three years, assessing these for relevant and aligned programming is critical to the continued cultivation of a comprehensive entrepreneurial ecosystem.

Collaborative Partnerships

- Leverage the activities, research, and networks of Arts United, Wunderkammer, American Institute of Architects-Fort Wayne, and other local groups serving designers, craftsman, and creative workers.

Northeast Indiana's
Cross-Target Competencies

Online sales and user experience design
Process automation
Health and wellness
Regulatory compliance
Wireless communications

Logistics

TARGET DESCRIPTION

The Logistics target includes four segments:

- **Nonstore Retailers (NAICS 454):** Establishments included in this subsector include online, catalog, and related retailers and fulfillment centers.
- **Wholesalers (NACIS 423 and 424):** In the distribution of merchandise, wholesaling is an intermediate step arranging the sale of goods to other wholesalers or retailers and raw materials used in the production process. Wholesale includes the distribution of durable goods (for use of 3 years or more, like cars, furniture, and appliances) and nondurable goods, as well as the agents and brokers that arrange sales.
- **Warehousing (NAICS 493):** Establishments include storage facilities for general merchandise, refrigerated goods, and other products. They also provide a range of logistics services including labeling, breaking bulk, inventory control and management, light assembly, order entry and fulfillment, packaging, pick and pack, price marking and ticketing, and transportation arrangement.
- **Trucking, Transportation, and Support Activities (NAICS 484, 485, and 541614):** While logistics includes all forms of transportation, Northeast Indiana's employment is concentrated in trucking. This sub-sector includes general freight trucking (e.g. palletized goods on a trailer), specialized freight trucking (e.g. requiring specialized equipment like refrigeration or alternative containers), and freight arrangement and supply chain management consulting services.

Key trends in the Logistics industry include:

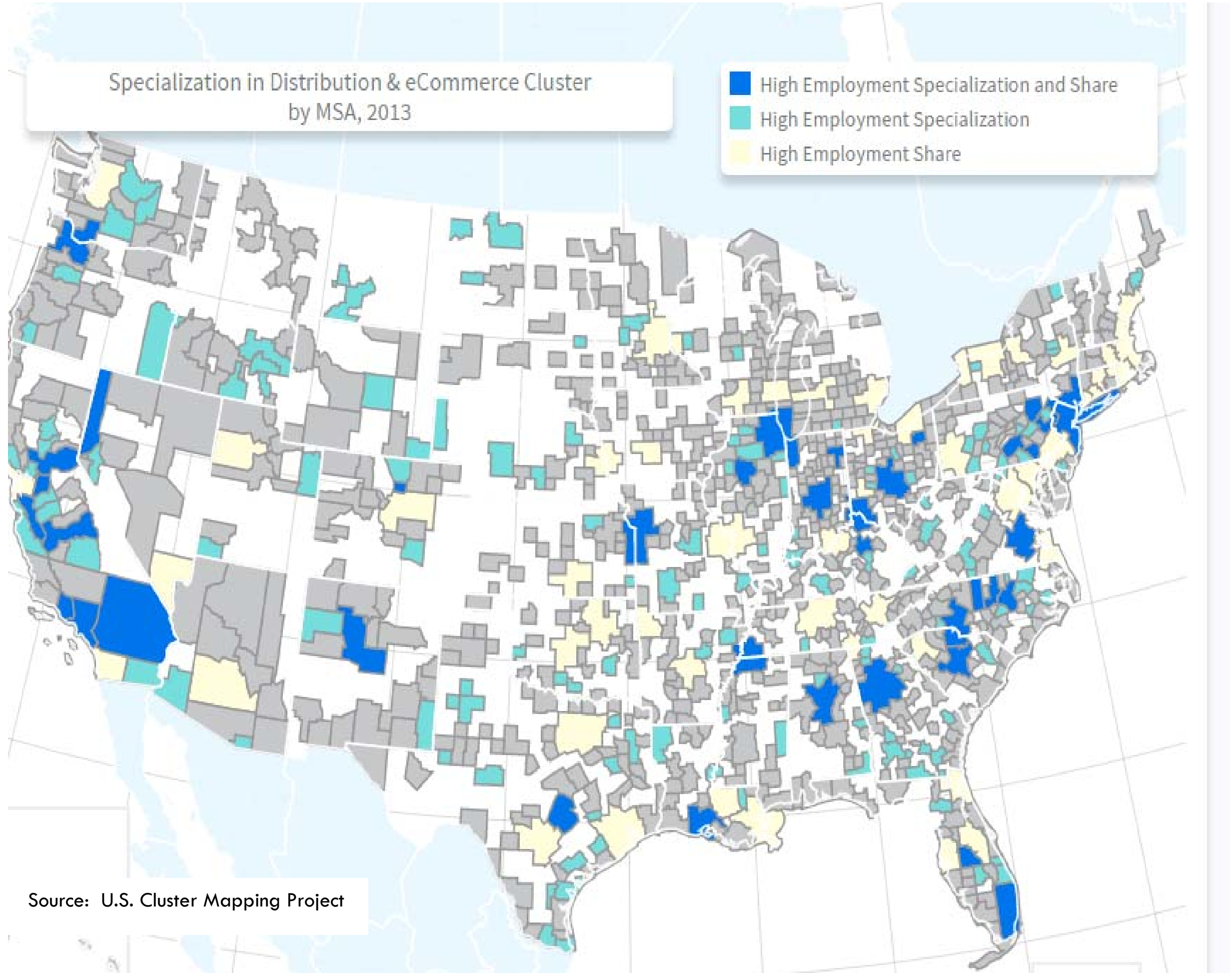
- **Mobile Device Access**: User experience for both business-to-consumer and business-to-business sales must be optimized to drive web users to retailer sites and allow for the quick and easy purchase of goods. According to a recent report from Inbound Logistics, "Mobile commerce transactions exceeded $115 billion in 2015, and will reach $142 billion in 2016… smartphones are the source for one-third of retail web traffic, but only 11 percent of sales."[xviii]
- **Multi- Channel (or Omni-Channel) Distribution**: As online sales account for a growing share of retail sales, distributors will be under pressure to add distribution centers closer to consumer for faster delivery. Retailers will also increasingly fulfill orders from stores, allowing for pick-up for direct shipping. [xix] Amazon is pioneering new avenues for distribution via its Amazon Lockers (self-service kiosks where customers can pick up and

return Amazon packages) and Amazon@universities. Since2015, Amazon has opened staffed pickup locations at nine universities including Purdue, Georgia Tech, University of California at Berkley, and University of Texas at Austin.

- **Robotics in Warehouse Management:** Robotic capabilities are increasingly leveraged by warehouse operators as a way to increase efficiencies. They function to rearrange shelves, deliver goods to human workers, and other activities to efficiently stack, arrange, deliver, and pack orders.

- **Sustainability:** Corporate social responsibility programs, government mandates, and cost pressures are forcing distribution firms to implement sustainable practices and multiple points in the freight management process including packaging, fleet management, reusing materials, use of alternative energy at warehousing facilities, and adoption of recycling practices and landfill reduction benchmarks.[xx]

Top Metro Areas for Logistics by Specialization and Employment Share, 2013



Source: U.S. Cluster Mapping Project

EMPLOYMENT AND WAGES

As shown in the above map, the Fort Wayne area is recognized nationally for its employment concentration and specialization in Logistics. This target accounts for nearly 36,000 jobs in Northeast Indiana. Allen County accounts for approximately 21,000 of these jobs with higher concentrations in durable good wholesalers, agents and brokers, and truck transportation. The regional counties have a proportionally higher share of jobs in warehousing. Availability of modern warehousing facilities is a key challenge to continuing to grow this sector.

		2015 Jobs			Northeast Indiana					United States		LQs	
NAICS Code and SubSector		Northeast Indiana	10 Regional Counties	Allen County	5-Year Job Growth		Average Annual Wage	Supplements	Total Earnings	U.S. Total Earnings	U.S. Growth	Northeast Indiana	Allen County
423	Merchant Wholesalers, Durable Goods	9,686	3,681	6,005	947	11%	$ 60,682	$ 10,892	$ 71,574	$ 81,634	8%	1.31	1.57
423930	Recyclable Material Merchant Wholesalers	1,130	320	810	247	28%	$ 59,477	$ 10,676	$ 70,153	$ 53,973	7%	3.93	5.45
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	1,058	897	161	317	43%	$ 99,302	$ 17,825	$ 117,127	$ 105,604	3%	2.18	0.64
423830	Industrial Machinery and Equipment Merchant Wholesalers	986	255	731	185	23%	$ 56,313	$ 10,108	$ 66,422	$ 83,808	15%	1.24	1.78
423710	Hardware Merchant Wholesalers	779	122	658	113	17%	$ 60,088	$ 10,786	$ 70,873	$ 66,760	10%	3.95	6.45
423510	Metal Service Centers and Other Metal Merchant Wholesalers	686	493	193	-13	-2%	$ 62,708	$ 11,256	$ 73,964	$ 75,478	15%	2.17	1.18
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	639	259	381	152	31%	$ 45,155	$ 8,105	$ 53,260	$ 69,476	5%	2.18	2.51
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	528	215	313	-30	-5%	$ 32,578	$ 5,848	$ 38,426	$ 59,421	12%	1.24	1.42
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	466	408	59	74	19%	$ 48,731	$ 8,747	$ 57,478	$ 62,911	9%	1.77	0.43
423610	Electrical Apparatus, Wiring Supplies, and Related Equip Merchant Wholesalers	455	108	346	151	50%	$ 67,044	$ 12,034	$ 79,079	$ 85,790	15%	1.16	1.70
423440	Other Commercial Equipment Merchant Wholesalers	426	44	381	24	6%	$ 49,086	$ 8,811	$ 57,896	$ 66,843	9%	3.30	5.72
424	Merchant Wholesalers, Nondurable Goods	5,164	2,624	2,540	60	1%	$ 45,276	$ 8,127	$ 53,403	$ 74,293	6%	1.00	0.95
424410	General Line Grocery Merchant Wholesalers	957	542	415	-88	-8%	$ 39,438	$ 7,079	$ 46,517	$ 65,763	3%	1.63	1.37
424910	Farm Supplies Merchant Wholesalers	832	766	66	115	16%	$ 51,802	$ 9,298	$ 61,100	$ 65,930	8%	2.84	0.44
424490	Other Grocery and Related Products Merchant Wholesalers	609	37	572	39	7%	$ 43,235	$ 7,761	$ 50,996	$ 65,181	6%	1.09	1.98
424510	Grain and Field Bean Merchant Wholesalers	422	340	82	-63	-13%	$ 47,954	$ 8,608	$ 56,562	$ 70,080	3%	3.47	1.30
425	Wholesale Electronic Markets and Agents and Brokers	1,058	337	721	246	30%	$ 45,621	$ 8,189	$ 53,810	$ 108,489	12%	0.46	0.61
454	Nonstore Retailers	1,659	705	954	631	61%	$ 37,195	$ 7,667	$ 44,862	$ 63,125	27%	1.26	1.39
484	Truck Transportation & Support Activities	6,890	2,659	4,231	1026	17%	$ 47,869	$ 12,275	$ 60,143	$ 59,698	15%	1.90	2.25
484121	General Freight Trucking, Long-Distance, Truckload	3,096	918	2,178	-11	0%	$ 46,896	$ 12,025	$ 58,921	$ 57,326	10%	2.42	3.28
484122	General Freight Trucking, Long-Distance, Less Than Truckload	1,596	448	1,148	277	21%	$ 52,157	$ 13,375	$ 65,531	$ 67,123	18%	2.65	3.68
484230	Specialized Freight (except Used Goods) Trucking, Long-Distance	828	577	251	362	78%	$ 50,949	$ 13,065	$ 64,014	$ 67,621	24%	2.46	1.44
484220	Specialized Freight (except Used Goods) Trucking, Local	775	464	311	183	31%	$ 44,714	$ 11,466	$ 56,180	$ 61,313	19%	1.36	1.06
484110	General Freight Trucking, Local	395	250	145	135	52%	$ 45,612	$ 11,696	$ 57,308	$ 56,896	17%	0.66	0.47
488510	Freight Transportation Arrangement	195	57	138	58	42%	$ 44,700	$ 10,826	$ 55,525	$ 72,990	20%	0.38	0.52
541614	Process, Physical Distribution, and Logistics Consulting Services	136	53	83	25	23%	$ 50,426	$ 9,073	$ 59,500	$ 83,753	17%	0.49	0.59
493	Warehousing and Storage	2,210	1,455	755	515	30%	$ 37,528	$ 7,318	$ 44,846	$ 50,966	23%	1.13	0.75
493110	General Warehousing and Storage	2,097	1,395	703	610	41%	$ 36,740	$ 7,165	$ 43,905	$ 49,913	26%	1.25	0.81
493120	Refrigerated Warehousing and Storage	69	32	36	1	1%	$ 48,088	$ 9,377	$ 57,465	$ 54,139	13%	0.50	0.51
493190	Other Warehousing and Storage	32	17	16	-90	-74%	$ 62,176	$ 12,125	$ 74,301	$ 62,419	4%	0.29	0.27
		35,826	**14,476**	**21,350**	**3582**	**11%**	**$ 50,014**	**$ 9,835**	**$ 59,849**	**$ 87,216**	**14%**	**0.79**	**0.91**

Source: EMSI 2015.4 Class of Worker

Supplements estimate the value of contributions for pensions, profit sharing, retirement plans and private health insurance. Subsectors of wholesale with fewer than 400 employees not represented in this chart.

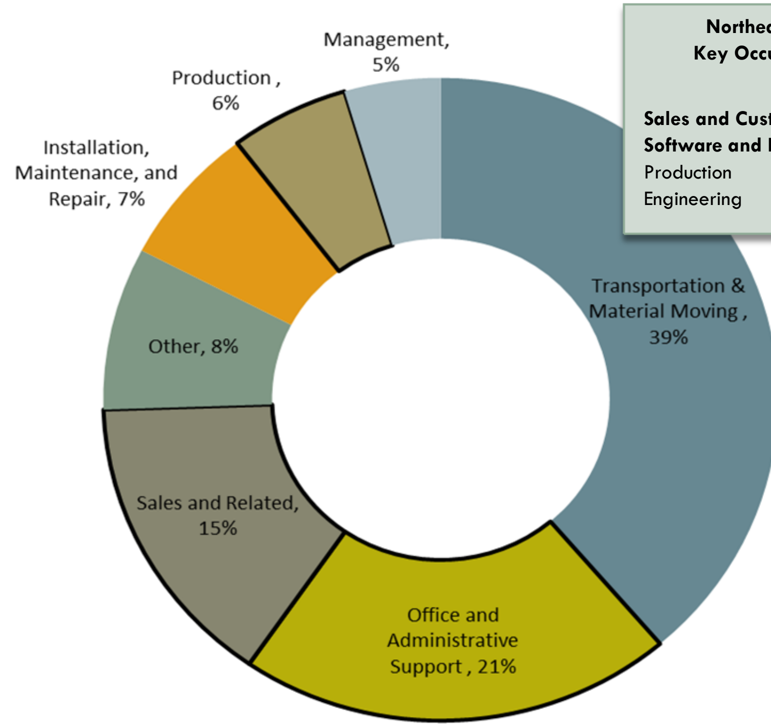
Economic developers in the region have noted that a misperception about this sector is that the jobs pay lower wages. Across the industry, the average wage for Northeast Indiana is $50,014, or about $10,000 higher than the overall average wage for the region.

This target definition broadens the existing Logistics target to explicitly include opportunities related to e-commerce. In Northeast Indiana, non-store retail employment has grown by 61 percent in five-year post-recessionary period, compared to 27 percent nationwide. While they are dispersed among various NAICS codes and not totally contained in the previous chart, sales and order fulfillment activities at Sweetwater Sound, Vera Bradley, Matilda Jane, and other retailers has contributed to this growth. This is a highly entrepreneurial subsector and the regional location quotient of 1.26 suggests Northeast Indiana is primed for a growing competitive advantage.

OCCUPATIONAL SUMMARY

As would be expected, a high proportion (39 percent) of workers in this industry work in transportation or material moving occupations, office and administrative support – including customer service (21 percent), and sales (15 percent). While the proliferation of radio frequency identification (RFID) tagging, online sales, and other process innovations demand proper IT infrastructure and support, IT workers account for a comparatively smaller share of this industry's workers.

The following table shows key occupations for this target industry. The median hourly earnings are lower in many occupational areas. The influence of seasonal employment may impact these wage estimates. Higher paid occupations in management, consulting, finance, and other areas are not captured in this chart as they account for a smaller share of the industry's workforce. Additionally, feedback from Northeast Indiana Works suggests that once employees are in the door, they tend to benefit from structured incentive plans and commiserate pay increases.



Northeast Indiana's Key Occupation Areas

Sales and Customer Service
Software and IT
Production
Engineering

Indiana Department of Workforce Development reports that Freight Movers is among the top five in-demand occupations in Northeast Indiana and truck drivers falls within the top 20. Distribution is tied heavily to manufacturing output, and as manufacturing has rebounded post-recession so too has employment in logistics.

Logistics Industry in Northeast Indiana: Key Occupations

SOC	Description	Employed in this Industry (2015)	Change (2010 - 2015)		Median Hourly Earnings	Typical Entry Level Education
Limited Training						
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	2,337	212	10%	$27.65	High school diploma or equivalent
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1,897	241	15%	$11.37	Less than high school
53-7051	Industrial Truck and Tractor Operators	1,243	165	15%	$16.55	Less than high school
43-5071	Shipping, Receiving, and Traffic Clerks	788	129	20%	$13.36	High school diploma or equivalent
43-5081	Stock Clerks and Order Fillers	741	71	11%	$10.19	Less than high school
43-4051	Customer Service Representatives	702	129	23%	$15.71	High school diploma or equivalent
43-9061	Office Clerks, General	700	83	13%	$12.18	High school diploma or equivalent
53-3033	Light Truck or Delivery Services Drivers	697	70	11%	$13.52	High school diploma or equivalent
43-3031	Bookkeeping, Accounting, and Auditing Clerks	575	80	16%	$15.78	High school diploma or equivalent
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	563	89	19%	$18.94	High school diploma or equivalent
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	413	62	18%	$14.94	High school diploma or equivalent
51-2092	Team Assemblers	393	53	16%	$14.67	High school diploma or equivalent
53-3031	Driver/Sales Workers	386	34	10%	$9.25	High school diploma or equivalent
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	381	55	17%	$25.67	High school diploma or equivalent
53-7064	Packers and Packagers, Hand	339	57	20%	$11.13	Less than high school
More Intensive Training Required						
53-3032	Heavy and Tractor-Trailer Truck Drivers	4,612	627	16%	$18.24	Postsecondary non-degree award
11-1021	General and Operations Managers	535	58	12%	$47.30	Bachelor's degree
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	374	33	10%	$35.60	Bachelor's degree
13-2011	Accountants and Auditors	176	23	15%	$28.59	Bachelor's degree
11-2022	Sales Managers	148	13	10%	$48.71	Bachelor's degree
13-1161	Market Research Analysts and Marketing Specialists	137	30	28%	$21.70	Bachelor's degree
51-1011	First-Line Supervisors of Production and Operating Workers	112	12	12%	$24.82	Postsecondary non-degree award
49-2011	Computer, Automated Teller, and Office Machine Repairers	103	11	12%	$15.76	Some college, no degree
15-1151	Computer User Support Specialists	98	15	18%	$18.36	Some college, no degree
41-9031	Sales Engineers	90	12	15%	$40.53	Bachelor's degree

BUSINESS DEVELOPMENT STRATEGIES TO EXPLORE

Out of Market Recruitment

Consumer analytics firms (e.g. Buxton) provide retail demand analysis and advise (1) private sector employers on site selection and expansion strategies as well as (2) communities interested in attracting certain retailers either to downtown or in other commercial shopping districts. There would be potential to conduct a retail demand analysis for a set drive time/extended market area from Fort Wayne to **identify competitive warehousing segments**. Additionally, Northeast Indiana has found success in Logistics businesses that ship small packages and require fast shipping to Central and East Coast markets. There may be potential to determine online retailers with additional distribution need to serve these markets. Such an analysis would be supportive of other business development activities and research, as federally produced data related to Logistics does not provide the consumer data needed to fully understand the dynamics of this sector.

Supportive Local Efforts

According to local economic development stakeholders, the **Northeast Indiana Logistics Council** provides opportunity for more cohesive strategies around marketing, lobbying, and workforce development. However, poor participation in meetings has stalled momentum. The group provides a regional connection to the statewide Conexus effort and should be supported so that its potential may be realized.

Discussion surrounding **long-term investments in multi-modal facilities** continues, particularly around key sites in Allen County. Identifying funding and navigating the complex relationships with railroads, state and federal departments of transportation have slowed progress. Despite this, support for multi-modal is strong and could allow for additional employment opportunities in Logistics.

Finally, numerous site selectors have conveyed to Northeast Indiana's leadership the need for **additional, modern warehousing facilities** within the region. Compared to similar regions, Northeast Indiana has a limited supply of product that aligns with the expectations of employer (e.g. square footage, height of ceiling, cross-docking).

Food and Beverage

Northeast Indiana's Cross-Target Competencies
Online sales and user experience design
Process automation
Health and wellness
Regulatory compliance
Wireless communications

TARGET DESCRIPTION

The Food and Beverage target includes three related segments:

- **Food and Beverage Production (NAICS 111,112, 311 and 312):** Establishments in this subsector convert crops and animals into intermediate products or food and beverage for final consumption.
- **Packaging and Machinery Manufacturing (NACIS 322, 326, 327, 332, and 333):** These businesses supply the packaging to support food and beverage producers including glass containers, cardboard boxes, plastic bags, metal cans, and other containers. Food product machinery manufacturing is also included.
- **Ag-Innovation (NAICS 541):** While producers help to develop and implement innovations to improve process efficiencies, reduce waste, and increase crop yields, service providers in industrial design, research and development, and process and distribution channels are also key players. Ag-Innovation really covers the full spectrum of Food and Beverage activities, not just these service providers included within these NAICS codes.

Key trends in the Food and Beverage industry include:

- **Brand Mergers and Diversification**: Recent mega-mergers, including Kraft/Heinz and AB InBev/SABMiller, highlight the pressures food and beverage manufacturers are under to boost sales volumes and cut costs. According to Food Processing magazine's 2016 outlook, " Consumer packaged goods companies are losing market share to private labels and smaller, healthier companies…One statistic reveals that the major packaged-food companies lost $4 billion in market share in 2014, as shoppers chose more fresh and organic alternatives."[xxi] Packaged good giants are moving to reverse declining sales volume by acquiring high-growth natural and organic brands.
- **Natural Ingredients and Clear Labels**: Consumer preferences are shifting toward natural ingredients and clear labeling, meaning labels that offer a simple list of understandable ingredients and common-sense nutrition information. The FDA's new Dietary Guidelines will drive some of the changes in labeling. Major restaurant chains like Panera Bread, Papa John's, Subway, Noodles & Company, Taco Bell, and Pizza Hut all committed to removing artificial ingredients from their menus.[xxii]
- **Intelligent Packaging:** With customers demanding fresh and safe food products, intelligent packaging is a growing niche within the Food and Beverage industry. This type of packaging contains an inside or outside indicator that monitors and communicates information about the product related to its history or quality.[xxiii]

- **Ag-Innovation**: Driven by population growth, an increasing number of global citizens reaching middle class, and limits on land, water, and labor, ag-innovation seeks to make the process of growing crops, raising animals, and processing food more efficient through the use of technologies in variety of areas. These include robotics and drones, satellite imagery, irrigation methods, moisture sensors, waste conversion, food safety, and genetic sequencing.[xxiv]

- **Animal Welfare**: Consumers are more aware than ever of how their food is produced, increasingly showing preference for natural and minimally processed options. Focus on the life quality of farm animals and their ethical treatment is a trend that is here to stay. In fact, 56 percent of American consumers stop buying brands they believe to be unethical. The humane treatment of farm animals is promoted through legal or voluntary measures to improve pen/cage conditions, provide access to natural light and fresh air, limit the use of antibiotics, and other related activities. [xxv]

EMPLOYMENT AND WAGES

As shown in the following table, the Food and Beverage industry of Northeast Indiana employs over 10,000 workers, predominately in the regional counties. In the five years post-recession, employment has grown by 14 percent regionally compared to six percent nationally and jobs pay an average annual wage of $40,965. In Food and Beverage Production, poultry and eggs, dairy, and bakeries are have substantial employment in Northeast Indiana. Although they represent a smaller impact (in terms of jobs and wages), breweries, wineries, distilleries, and coffee roasters are heightening the profile of craft food activities in the region.

The recently completed Northeast Indiana Local Food Network study (commissioned by the Northeast Indiana Regional Partnership) examined these dynamics in addition to the specific products and operations of local farms. The study highlighted that the region produces$1.4 billion each year in farm products and imports $1.9 billion of food (at retail prices) that is sourced outside of the region. A forthcoming strategy will highlight areas that can potentially strengthen the local food network within the region.

Subsectors supporting Packaging and Machinery production employ approximately 2,000 workers. Areas like corrugated box manufacturing, coated and treated paper bags, plastic bottles, and food machinery have all posted stronger growth regionally than what was reported nationally. It should be noted that all subsectors in this area also pay higher than the region's average annual wage.

Ag-Innovation includes areas like research and development, consulting services, and design to improve product quality, output, and efficiency. While many of Northeast Indiana farming operating have aspects of Ag-Innovation built into their business models, there is consensus among many stakeholders that this is an area that could receive more concentrated, strategic focus. Leveraging the region's existing assets and their networks will be critical. For example, Kosciusko County's Tom Farms was featured at the Forbes AgTech Summit, a global invite-only event integrating the technology assets of Silicon Valley with the needs of agriculture. Connecting potential opportunities with Northeast Indiana could further define the region's competitive advantages in Food and Beverage development and manufacturing.

NAICS Code and SubSector		2015 Jobs			Northeast Indiana					United States		LQs	
		Northeast Indiana	10 Regional Counties	Allen County	5-Year Job Growth		Average Annual Wage	Supplements	Total Earnings	U.S. Total Earnings	U.S. Growth	Northeast Indiana	Allen County
Food and Beverage Production													
111000	Crop Production	694	528	166	144	26%	$35,254	$3,737	$38,991	$33,668	6%	0.49	0.23
112000	Animal Production and Aquaculture	1,418	1,400	19	263	23%	$32,175	$3,410	$35,585	$39,060	10%	2.28	0.06
311211	Flour Milling	47	47	0	(3)	(6%)	$48,472	$11,890	$60,361	$78,492	6%	1.39	0.00
311224	Soybean and Other Oilseed Processing	262	262	0	(5)	(2%)	$61,235	$15,021	$76,256	$74,969	0%	12.45	0.00
311340	Nonchocolate Confectionery Manufacturing	479	479	0	(12)	(2%)	$33,190	$8,141	$41,331	$59,648	15%	10.20	0.00
311412	Frozen Specialty Food Manufacturing	87	87	0	8	10%	$39,590	$9,711	$49,302	$52,106	3%	0.60	0.00
311421	Fruit and Vegetable Canning	119	119	0	(44)	(27%)	$32,582	$7,992	$40,574	$62,944	(5%)	0.79	0.00
311511	Fluid Milk Manufacturing	815	58	758	259	47%	$43,218	$10,601	$53,819	$73,175	2%	6.09	10.93
311513	Cheese Manufacturing	65	65	0	49	306%	$34,531	$8,470	$43,001	$64,402	7%	0.59	0.00
311520	Ice Cream and Frozen Dessert Manufacturing	208	189	19	(475)	(70%)	$38,802	$9,518	$48,320	$55,852	3%	3.97	0.71
311611	Animal (except Poultry) Slaughtering	158	153	<10	1	1%	$47,341	$11,613	$58,954	$45,996	(5%)	0.46	0.03
311612	Meat Processed from Carcasses	56	42	14	2	4%	$38,954	$9,555	$48,509	$52,318	7%	0.19	0.09
311615	Poultry Processing	1,088	1,088	0	203	23%	$35,934	$8,814	$44,748	$38,246	(0%)	1.93	0.00
311812	Commercial Bakeries	676	262	414	93	16%	$37,143	$9,111	$46,253	$52,926	2%	2.05	2.43
311821	Cookie and Cracker Manufacturing	84	0	84	(19)	(18%)	$31,002	$7,605	$38,607	$57,968	6%	1.01	1.95
311919	Other Snack Food Manufacturing	594	428	166	114	24%	$40,583	$9,955	$50,538	$61,542	15%	6.07	3.28
311920	Coffee and Tea Manufacturing	<10	0	<10	N/A	N/A	N/A	N/A	N/A	$65,425	32%	0.01	0.03
311999	All Other Miscellaneous Food Manufacturing	86	86	0	2	2%	$46,206	$11,334	$57,540	$62,417	19%	1.12	0.00
312111	Soft Drink Manufacturing	25	25	0	N/A	N/A	$34,979	$14,095	$49,075	$73,190	2%	0.13	0.00
312112	Bottled Water Manufacturing	13	13	0	N/A	N/A	$59,503	$23,978	$83,481	$70,039	10%	0.36	0.00
312120	Breweries	20	18	<10	N/A	N/A	$25,005	$10,076	$35,081	$79,416	76%	0.18	0.02
312130	Wineries	26	26	0	(1)	(4%)	$19,913	$8,024	$27,937	$57,391	37%	0.18	0.00
Packaging and Machinery													
322211	Corrugated and Solid Fiber Box Manufacturing	668	339	329	124	23%	$47,029	$12,096	$59,126	$73,445	(2%)	2.92	2.78
322220	Paper Bag and Coated and Treated Paper Manufacturing	434	351	84	30	7%	$52,842	$13,592	$66,434	$71,436	(3%)	2.86	1.06
326112	Plastics Packaging Film and Sheet (including Laminated) Mfg	41	0	41	21	105%	$48,505	$11,311	$59,816	$73,601	47%	0.90	1.75
326113	Unlaminated Plastics Film and Sheet (except Packaging) Mfg	111	111	0	(58)	(34%)	$54,621	$12,737	$67,358	$70,166	5%	1.10	0.00
326160	Plastics Bottle Manufacturing	373	373	0	24	7%	$42,670	$9,950	$52,620	$62,650	(3%)	4.79	0.00
327213	Glass Container Manufacturing	0	0	0	N/A	N/A	$0	$0	$0	$84,362	(3%)	0.00	0.00
327215	Glass Product Manufacturing Made of Purchased Glass	1,326	1,326	0	744	128%	$44,752	$10,337	$55,088	$58,857	15%	12.18	0.00
332431	Metal Can Manufacturing	0	0	0	0	0%	$0	$0	$0	$84,477	(5%)	0.00	0.00
333241	Food Product Machinery Manufacturing	44	0	44	18	69%	$52,120	$11,344	$63,464	$78,097	14%	0.98	1.89
Ag-Innovation													
541420	Industrial Design Services	<10	<10	<10	N/A	N/A	N/A	N/A	N/A	$99,626	35%	0.17	0.05
541614	Process, Physical Distribution, and Logistics Consulting Services	136	53	83	25	23%	$50,426	$9,073	$59,500	$83,753	17%	0.49	0.59
541712	R&D in the Physical, Engineering, and Life Sciences (except Biotech)	191	93	98	(285)	(60%)	$65,646	$11,812	$77,457	$140,711	4%	0.17	0.17
		10,350	**8,024**	**2,326**	**1,267**	**14%**	**$40,965**	**$8,967**	**$49,932**	**$65,975**	**6%**	**1.41**	**0.61**

Source: EMSI 2015.4 Class of Worker

Supplements estimate the value of contributions for pensions, profit sharing, retirement plans and private health insurance.

OCCUPATIONAL SUMMARY

The occupational profile of the Food and Beverage industry is dominated by farming and production oriented jobs and covers fewer of Northeast Indiana's key occupational areas. Promoting growth in Ag-Innovation and through entrepreneurship could continue to diversity the sector and broaden the participation of a wider swath of workers.

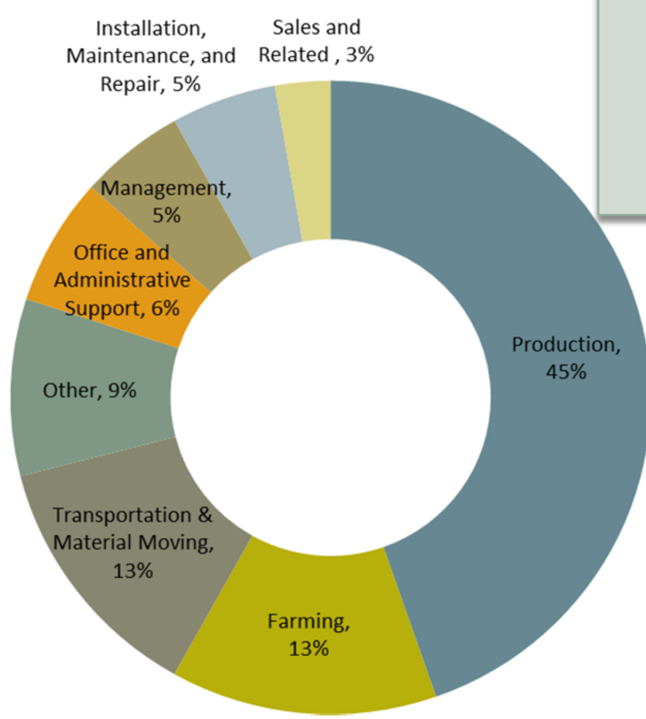
Taken together, the jobs that comprise this target pay at the region's average annual wage of about $40,000 annually. However, there are lower wage occupations prevalent. These wages can vary depending on the level of skill and the industry in which workers are employed. Focusing on employers that pay living wages is critical from an economic development standpoint.

It should also be noted that some top occupations in this target rely to a greater degree on temporary agencies. While not an exhaustive list, these include the following. Again, concentrating efforts on improving the quality jobs in this sector should remain the focus of target development efforts in the coming years.

- Team assemblers
- Helpers – production workers
- Industrial truck and tractor operators
- Production workers – all other
- Packers and packagers, hand
- Packaging and filling machine operators and tenders

According to an analysis completed by the Center for Adult and Experiential Learning (CAEL) and the Community Research Institute, this industry has five critical occupations which multiple industries compete for talent and that have "aging out" concerns associated with retirement. These include:

- Industrial machinery mechanics
- Heavy and tractor-trailer truck drivers
- Sales representatives, wholesale and manufacturing
- Maintenance and Repair workers, general
- First-line supervisors of production and operating workers



Northeast Indiana's Key Occupation Areas

Production
Software and IT
Sales and Customer Service
Engineering

Food and Beverage Industry in Northeast Indiana: Key Occupations

SOC	Description	Employed in This Industry (2015)	Change (2010 - 2015)		Median Hourly Earnings	Typical Entry Level Education
Limited Training						
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	1,019	186	22%	$9.13	Less than high school
51-9111	Packaging and Filling Machine Operators and Tenders	552	28	5%	$11.91	High school diploma or equivalent
51-2092	Team Assemblers	458	139	44%	$14.67	High school diploma or equivalent
51-3092	Food Batchmakers	356	7	2%	$12.35	High school diploma or equivalent
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	315	50	19%	$13.37	Less than high school
51-9198	Helpers--Production Workers	314	48	18%	$12.34	Less than high school
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	305	79	35%	$15.46	High school diploma or equivalent
53-7051	Industrial Truck and Tractor Operators	304	32	12%	$16.55	Less than high school
51-9196	Paper Goods Machine Setters, Operators, and Tenders	280	39	16%	$16.57	High school diploma or equivalent
53-7064	Packers and Packagers, Hand	275	37	16%	$11.13	Less than high school
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	232	21	10%	$11.37	Less than high school
49-9071	Maintenance and Repair Workers, General	223	30	16%	$18.07	High school diploma or equivalent
11-9013	Farmers, Ranchers, and Other Agricultural Managers	218	43	25%	$25.70	High school diploma or equivalent
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	183	81	79%	$16.40	High school diploma or equivalent
49-9041	Industrial Machinery Mechanics	177	32	22%	$20.84	High school diploma or equivalent
51-3093	Food Cooking Machine Operators and Tenders	140	3	2%	$14.41	High school diploma or equivalent
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	125	23	23%	$13.54	Less than high school
43-5071	Shipping, Receiving, and Traffic Clerks	122	15	14%	$13.36	High school diploma or equivalent
53-7063	Machine Feeders and Offbearers	117	20	21%	$14.45	Less than high school
More Intensive Training Required						
51-9111	Packaging and Filling Machine Operators and Tenders	552	28	5%	$11.91	High school diploma or equivalent
51-1011	First-Line Supervisors of Production and Operating Workers	322	44	16%	$24.82	Postsecondary non-degree award
53-3032	Heavy and Tractor-Trailer Truck Drivers	123	12	11%	$18.24	Postsecondary non-degree award
11-3051	Industrial Production Managers	90	11	14%	$38.07	Bachelor's degree
11-1021	General and Operations Managers	85	4	5%	$47.30	Bachelor's degree
17-2112	Industrial Engineers	69	13	23%	$32.69	Bachelor's degree
13-2011	Accountants and Auditors	47	4	9%	$28.59	Bachelor's degree
19-4011	Agricultural and Food Science Technicians	42	(1)	(2%)	$16.88	Associate's degree
19-1012	Food Scientists and Technologists	31	(2)	(6%)	$29.02	Bachelor's degree

Source: EMSI 2015.4 Class of Worker

Industries competing for these workers that have faster projected growth than those in Food and Beverage (thus, may be inclined to pay higher rates to meet growth demands) include: general and specialized freight trucking, vehicles manufacturing, grocery wholesalers, plastics product manufacturing, and architectural and structural metals manufacturing.

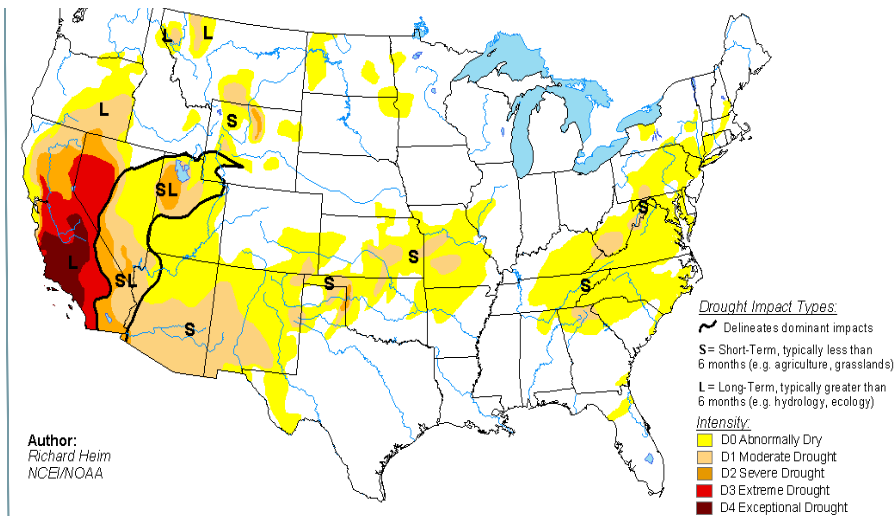
BUSINESS DEVELOPMENT STRATEGIES TO EXPLORE

Entrepreneurship

- Potential for increased entrepreneurship opportunities with the proposed **Bluffton Food Innovation Center** which would include a test kitchen, technical assistance providers, storage and warehousing, and farm-to-table services.
- Assess and support aligned strategies contained within the forthcoming **Northeast Indiana Local Food Network Plan.**

Business Recruitment

- Explore areas that leverage existing Defense capabilities in **satellite and wireless technology** for commercial application in Ag-Innovation.
- Hone in on **water-intensive subsectors** of Food and Beverage operating in areas of water instability.
- Investigate recruitment opportunities around **package innovations including advanced materials.**
- Continue to market Northeast Indiana's commodities for **value added processing opportunities**. Dairy has been a strong niche for Northeast Indiana.
- Work to establish relationships with **Food Processing's top 100 food and beverage companies** in the United States. Northeast Indiana is already a location that many of these companies have invested. Explore filling the gaps, prioritizing firms with activities that would complement the existing landscape of employers.
- Continue to leverage IEDC and other relationships that promote **Foreign Direct Investment**, as this industry has a positive track record of FDI in the region.



Source: National Drought Mitigation

Supportive Local Efforts

- DeKalb County has explored the feasibility of developing a **certified agricultural business park.** This is only one example of local efforts that are occurring to enhance the competitiveness of the Food and Beverage industry in Northeast Indiana.

Advanced Materials

Northeast Indiana's Cross-Target Competencies
Online sales and user experience design
Process automation
Health and wellness
Regulatory compliance
Wireless communications

TARGET DESCRIPTION

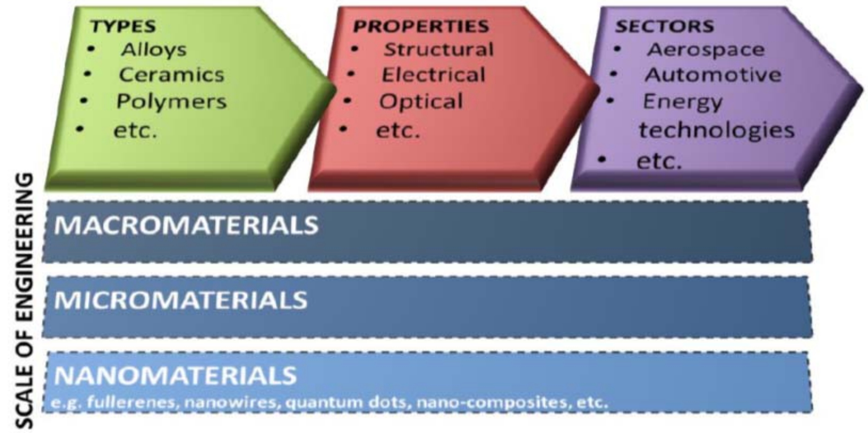
A recent review of advanced materials development strategies employed by cities worldwide shows that they are "a strategic priority within all major knowledge economies. Not only are advanced materials considered to be critical drivers of innovation across a range of important technologies and industrial sectors, but they are also seen as essential for underpinning key areas of high value manufacturing, as well as addressing a range of important societal 'grand challenges' in areas such as mobility, healthcare and energy." [xxvi] Materials can be categorized by their type, their properties, the sector in which they are used, and the necessary scale of engineering.

1. **Materials types** – (chemical compositions) include categories such as metals and alloys, polymers, ceramics, biological materials, and composites.

2. **Properties** – (base structure properties) including structural (mass, strength, etc.) and functional properties (conductivity, absorptivity, etc.).

3. **Sector** – (industrial application) for example aerospace, automotive, health care, energy, etc.

4. **Scale of engineering** – materials can also be manipulated at varying scales including the macro, micro and nano levels. [xxvii]



Source: A Review of International Public Sector Strategies and Roadmaps: A Case Study in Advanced Materials. 2014.

For this report, the definition of Advanced Materials recently adopted by Purdue University's Center for Regional Development (PCRD) was used. PCRD identified Advanced Materials as a "star cluster" – second only to manufacturing in Northeast Indiana – as defined by those industries that are more concentrated (higher LQs) and are growing. PCRD notes that star clusters help define a region's economic competitive advantages. The Advanced Materials target includes three areas:

- **Raw Materials (NAICS 325, 331):** These are business engaged in material and resin manufacturing including plastics, rubber, iron, steel, aluminum, and other nonferrous metals that do not contain iron (copper, brass, alloys, etc.).

- **Manufactured Goods (multiple NAICS, see chart):** Includes a wide swath of employers that use or apply advanced materials – packaging, consumer goods, metal work and materials manipulation, industrial goods, machinery, vehicles, medical devices, etc.

- **Research and Testing (NAICS 5413, 5417):** This area includes R&D activities in all industry sectors.

Unmet Needs Spurred by Global Trends Addressed Through Advanced Materials Innovation

AMS innovation	Global trends
Alternative sources of carbon-based materials (alternatives to oil: biobased molecules, biomass, and biofuels)	Climate change, environment, and sustainability; Rapidly growing demand for energy; Shifting centers of economic activity
Alternative fuel and propulsion systems (adsorbed natural gas, hybrid vehicles, and fuel cells)	Climate change, environment, and sustainability; Demographics, including shifting populations and mobility; Shifting centers of economic activity
Alternative vehicle frame design and construction to reduce weight and downsize vehicles (reduce CO_2 emissions, improve fuel-efficiency, and reduce energy for manufacturing)	Climate change, environment, and sustainability; Demographics, including shifting populations and mobility; Shifting centers of economic activity
Improved systems to manage energy flow in buildings (insulation, active and passive solar, and airflow)	Climate change, environment, and sustainability; Demographics, including shifting populations and mobility
New energy storage and transport systems (e.g., supercapacitors, batteries, power management electronics, and superconductors)	Climate change, environment, and sustainability; Rapidly growing demand for energy; Limited resources*; Demographics, including shifting populations and mobility
New technologies to increase resource productivity and efficiency and reduce consumption	Climate change, environment, and sustainability; Rapidly growing demand for energy; Limited resources*
New technologies and solutions for recycling and reusing materials, components, and devices	Climate change, environment, and sustainability; Corporate global citizenship
New technologies to scale up renewable energy solutions and reduced dependencies on strategic materials (e.g., rare earth elements)	Climate change, environment, and sustainability; Rapidly growing demand for energy; Limited resources*; Shifting centers of economic activity
Better technologies to extract resources and raw materials economically (e.g., shale gas)	Rapidly growing demand for energy; Limited resources*; Corporate global citizenship
More-efficient systems for use of water in agriculture, industry, and households (desalination, purification, waste management, and irrigation)	Increasing scarcity and unequal distribution of water
Advanced technologies to improve food preservation and transport (often in the absence of a cold chain).	Growing demand for food, nutrition, and health
Breakthrough technologies in diagnostics, monitoring, therapeutic administration, and medical devices to provide high quality healthcare outside hospital settings	Growing demand for food, nutrition, and health; Demographics, including shifting populations and mobility
Technologies that enable more targeted and localized solutions (for energy, telecommunications, etc.)	Demographics, including shifting populations and mobility; Shifting centers of economic activity; Social life in a technological world
New materials to build larger "mega cities" such as lighter and fast-drying materials	Shifting centers of economic activity
New electronic systems for advanced manufacturing (e.g., new, high-performance semiconductor technology, robotics, interactive applications, artificial intelligence, smarter solutions that use external information to make judgments, and use sensing technologies to provide feedback)	Limited resources*; Shifting centers of economic activity; Social life in a technological world
Information technology and media solutions to enable more targeted and localized connectivity	Social life in a technological world
New interfaces between humans and electronics — tactile, auditory, and optical stimulation and feedback	Social life in a technological world

Global trends
Climate change, environment, and sustainability
Rapidly growing demand for energy
Limited resources*
Increasing scarcity and unequal distribution of water
Growing demand for food, nutrition, and health
Demographics, including shifting populations and mobility
Shifting centers of economic activity
Social life in a technological world
Corporate global citizenship

* Note: Resource demand rapidly outpaces supply (oil, gas, coal, water, biomass, and other raw materials), price volatility.

Source: DTTL Global Manufacturing Industry group analysis of World Economic Forum data

Key trends in the Advanced Materials industry include:

- **Broad unmet market needs:** As shown in the graphic on the previous page, advanced material science (AMS) innovations can meet unmet needs induced by global trends.

- **Chemical companies struggle**: As highlighted in a series of reports by Deloitte consulting, *Chem2020*, the global chemical industry is struggling to create value. Of the 200+ companies included in the study, 30 percent did not show returns greater than the cost of capital. Cyclicality, legacy assets, and hardwired cultures were cited as key challenges. Mergers and acquisition activity in the U.S. is expected to gain momentum and is evidenced by the Dow/DuPont merger. [xxviii]

- **A focus on value-added:** According to an analysis of over 6,000 companies, those that only supplied advanced materials had a lower rate of return than those that developed and/or purchased and applied materials into production cycles.[xxix]

- **Education/industry partnerships bridge the gap between technology and markets**: In particular, interdisciplinary public-private sector partnerships emphasizing systems engineering and start-ups help to find commercial applications for new innovations.

EMPLOYMENT AND WAGE SUMMARY

As shown in the following tables, over 41,000 workers are employed in Northeast Indiana industries involved with the development, production, or application of Advanced Materials. It is important to note that many of the subsectors represented here are also included in other target definitions.

In the last five years, Advanced Materials related employment has grown by 10 percent (+3,745), compared to 9 percent growth nationwide, reaching a regional location quotient of 3.92. While there is a high level of variation among the subsectors, the average annual wage across the target industry is $57,728 (43 percent greater than the average annual wage across all industry sectors in Northeast Indiana). Notable areas experiencing rapid growth include: plastics, aluminum, iron and steel, machine shops, industrial mold manufacturing, measuring and controlling device manufacturing, and medical devices and orthopedics.

Within Northeast Indiana, the 10 regional counties account for three-quarters of Advanced Manufacturing related jobs with particular strengths in raw materials and manufactured goods. While researching and testing activities are limited, what does exist is concentrated in Allen County. Understanding the specific industrial applications and the scale of engineering cannot be gleaned from examining federal employment data. Interviewing regional employers to better understand the existing activities will be necessary to more fully illuminate Advanced Materials capabilities in Northeast Indiana.

NAICS Code and SubSector		2015 Jobs			Northeast Indiana					United States		LQs	
		Northeast Indiana	10 Regional Counties	Allen County	5-Year Job Growth		Average Annual Wage	Supplements	Total Earnings	U.S. Total Earnings	U.S. Growth	Northeast Indiana	Allen County
Raw Materials													
325211	Plastics Material and Resin Manufacturing	20	20	0	(22)	(52%)	$55,474	$14,775	$70,249	$114,693	10%	0.14	0.00
325212	Synthetic Rubber Manufacturing	164	162	<10	(17)	(9%)	$49,629	$13,218	$62,847	$102,080	(2%)	6.18	0.15
331110	Iron and Steel Mills and Ferroalloy Manufacturing	1,571	1,324	247	260	20%	$91,242	$18,676	$109,918	$101,337	4%	7.00	2.13
331511	Iron Foundries	848	848	0	(137)	(14%)	$44,044	$9,015	$53,059	$72,242	3%	8.53	0.00
331512	Steel Investment Foundries	38	38	0	(18)	(32%)	$41,138	$8,420	$49,558	$64,597	9%	1.31	0.00
331523	Nonferrous Metal Die-Casting Foundries	289	289	0	141	95%	$50,036	$10,242	$60,278	$58,974	31%	4.44	0.00
331524	Aluminum Foundries (except Die-Casting)	445	329	116	(189)	(30%)	$39,764	$8,139	$47,903	$57,723	11%	10.46	5.27
331529	Other Nonferrous Metal Foundries (except Die-Casting)	66	65	<10	1	2%	$32,013	$6,553	$38,566	$70,730	6%	2.21	0.09
Manufactured Goods													
322220	Paper Bag and Coated and Treated Paper Manufacturing	434	351	84	30	7%	$52,842	$13,592	$66,434	$71,436	(3%)	2.86	1.06
322299	All Other Converted Paper Product Manufacturing	21	<10	17	(17)	(45%)	$61,533	$15,827	$77,359	$63,080	(0%)	0.54	0.86
324191	Petroleum Lubricating Oil and Grease Manufacturing	90	63	27	30	50%	$56,531	$27,974	$84,505	$115,031	18%	3.22	1.87
325130	Synthetic Dye and Pigment Manufacturing	119	119	<10	(82)	(41%)	$53,047	$14,128	$67,175	$106,885	1%	3.37	0.01
325180	Other Basic Inorganic Chemical Manufacturing	13	13	0	N/A	N/A	$59,312	$15,797	$75,109	$116,021	(2%)	0.14	0.00
325193	Ethyl Alcohol Manufacturing	213	213	0	89	72%	$50,591	$13,474	$64,065	$100,059	10%	7.87	0.00
325199	All Other Basic Organic Chemical Manufacturing	79	70	<10	60	316%	$71,669	$19,088	$90,756	$120,567	11%	0.86	0.20
325320	Pesticide and Other Agricultural Chemical Manufacturing	33	0	33	21	175%	$56,802	$15,128	$71,931	$115,759	3%	0.94	1.81
325510	Paint and Coating Manufacturing	121	120	<10	(31)	(20%)	$45,463	$12,108	$57,572	$89,938	8%	1.22	0.02
325612	Polish and Other Sanitation Good Manufacturing	355	354	<10	42	13%	$54,213	$14,439	$68,651	$103,572	4%	5.97	0.04
325620	Toilet Preparation Manufacturing	54	54	0	34	170%	$65,055	$17,326	$82,381	$74,266	3%	0.42	0.00
325991	Custom Compounding of Purchased Resins	24	0	24	(59)	(71%)	$40,260	$10,722	$50,982	$71,919	11%	0.55	1.07
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	23	0	23	N/A	N/A	$37,706	$10,042	$47,748	$92,995	8%	0.25	0.48
326112	Plastics Packaging Film and Sheet (including Laminated) Manufacturing	41	0	41	21	105%	$48,505	$11,311	$59,816	$73,601	47%	0.90	1.75
326113	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing	111	111	0	(58)	(34%)	$54,621	$12,737	$67,358	$70,166	5%	1.10	0.00
326121	Unlaminated Plastics Profile Shape Manufacturing	92	<10	83	64	229%	$58,629	$13,672	$72,301	$64,593	8%	1.53	2.68
326140	Polystyrene Foam Product Manufacturing	149	149	0	73	96%	$36,391	$8,486	$44,877	$54,612	15%	2.05	0.00
326150	Urethane and Other Foam Product (except Polystyrene) Manufacturing	529	333	196	111	27%	$48,926	$11,409	$60,335	$57,416	13%	6.17	4.42
326199	All Other Plastics Product Manufacturing	3,827	2,358	1,469	500	15%	$42,337	$9,873	$52,210	$56,804	11%	5.31	3.94
326291	Rubber Product Manufacturing for Mechanical Use	562	562	<10	(152)	(21%)	$53,615	$12,502	$66,117	$60,916	19%	7.50	0.02
326299	All Other Rubber Product Manufacturing	120	116	<10	27	29%	$67,340	$15,703	$83,043	$59,857	9%	1.88	0.13
327120	Clay Building Material and Refractories Manufacturing	22	22	0	(1)	(4%)	$63,490	$14,665	$78,154	$64,965	1%	0.36	0.00
327910	Abrasive Product Manufacturing	67	44	24	45	205%	$52,942	$12,228	$65,170	$69,227	10%	2.57	1.76
327993	Mineral Wool Manufacturing	414	260	154	147	55%	$39,571	$9,140	$48,711	$73,461	5%	9.75	7.01
331221	Rolled Steel Shape Manufacturing	126	126	0	15	14%	$45,810	$9,377	$55,186	$84,955	5%	2.36	0.00
331222	Steel Wire Drawing	631	<10	628	181	40%	$43,972	$9,000	$52,973	$62,888	32%	23.06	44.32
331314	Secondary Smelting and Alloying of Aluminum	485	413	72	341	237%	$43,129	$8,828	$51,957	$64,245	8%	36.22	10.43
331318	Other Aluminum Rolling, Drawing, and Extruding	525	378	146	54	11%	$44,865	$9,183	$54,049	$65,818	10%	7.72	4.15
331420	Copper Rolling, Drawing, Extruding, and Alloying	941	215	726	179	23%	$54,564	$11,168	$65,732	$74,223	9%	12.93	19.28
331491	Nonferrous Metal Rolling, Drawing, and Extruding	58	58	0	(4)	(6%)	$64,862	$13,276	$78,138	$84,680	7%	1.73	0.00
332111	Iron and Steel Forging	130	0	130	59	83%	$53,498	$11,745	$65,243	$76,549	15%	2.12	4.10

NAICS Code and SubSector		2015 Jobs			Northeast Indiana					United States		LQs	
		Northeast Indiana	10 Regional Counties	Allen County	5-Year Job Growth		Average Annual Wage	Supplements	Total Earnings	U.S. Total Earnings	U.S. Growth	Northeast Indiana	Allen County
Manufactured Goods (continued)													
332119	Metal Crown, Closure, and Other Metal Stamping (except Automotive)	754	653	101	178	31%	$40,916	$8,982	$49,898	$61,522	9%	5.63	1.46
332313	Plate Work Manufacturing	906	655	252	223	33%	$45,577	$10,006	$55,583	$66,292	14%	7.33	3.94
332322	Sheet Metal Work Manufacturing	682	460	222	134	24%	$43,885	$9,634	$53,520	$59,744	13%	2.64	1.66
332618	Other Fabricated Wire Product Manufacturing	260	226	33	(1)	(0%)	$37,820	$8,303	$46,123	$56,684	(10%)	3.94	0.98
332710	Machine Shops	1,833	1,349	484	310	20%	$46,074	$10,115	$56,189	$62,148	20%	2.53	1.29
332812	Metal Coating, Engraving, and Allied Services to Manufacturers	720	601	119	98	16%	$42,497	$9,330	$51,827	$53,974	15%	5.11	1.63
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	831	596	236	215	35%	$33,102	$7,267	$40,369	$53,532	10%	5.31	2.91
332911	Industrial Valve Manufacturing	53	0	53	18	51%	$59,554	$13,074	$72,628	$79,035	21%	0.75	1.45
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	450	196	253	222	97%	$41,794	$9,175	$50,970	$61,736	11%	2.33	2.54
333249	Other Industrial Machinery Manufacturing	122	101	21	(63)	(34%)	$45,751	$9,958	$55,709	$78,236	18%	0.92	0.30
333318	Other Commercial and Service Industry Machinery Manufacturing	222	103	119	(207)	(48%)	$49,035	$10,673	$59,707	$77,888	(2%)	1.48	1.54
333511	Industrial Mold Manufacturing	488	218	270	116	31%	$46,132	$10,041	$56,173	$67,962	22%	4.98	5.33
333514	Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	1,033	469	564	28	3%	$46,406	$10,101	$56,506	$70,163	14%	6.25	6.59
333515	Cutting Tool and Machine Tool Accessory Manufacturing	195	68	127	23	13%	$62,820	$13,673	$76,493	$67,873	25%	2.92	3.67
333517	Machine Tool Manufacturing	99	27	72	10	11%	$55,532	$12,087	$67,619	$74,202	21%	0.98	1.38
333519	Rolling Mill and Other Metalworking Machinery Manufacturing	160	<10	154	34	27%	$69,925	$15,220	$85,145	$81,006	14%	5.15	9.57
333912	Air and Gas Compressor Manufacturing	34	34	0	5	17%	$50,476	$10,986	$61,462	$93,279	16%	0.64	0.00
334220	Radio and TV Broadcasting and Wireless Communications Equip. Mfg	1,505	0	1,505	(1,413)	(48%)	$99,351	$25,800	$125,151	$127,025	(24%)	11.84	22.89
334416	Capacitor, Resistor, Coil, Transformer, and Other Inductor Manufacturing	137	137	0	(90)	(40%)	$43,797	$11,373	$55,170	$65,955	(4%)	3.03	0.00
334417	Electronic Connector Manufacturing	60	0	60	(9)	(13%)	$32,413	$8,417	$40,831	$77,315	9%	1.20	2.33
334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing	12	0	12	(3)	(20%)	$60,797	$15,788	$76,586	$64,948	9%	0.09	0.17
334419	Other Electronic Component Manufacturing	185	129	56	(11)	(6%)	$34,162	$8,872	$43,034	$83,944	2%	1.12	0.65
334511	Search, Detection, Navigation, Aeronautical Instrument Manufacturing	557	557	0	42	8%	$43,602	$11,323	$54,924	$128,239	(16%)	1.78	0.00
334512	Automatic Environmental Control Manufacturing	891	891	0	104	13%	$44,658	$11,597	$56,255	$88,228	3%	18.92	0.00
334513	Instruments Manufacturing for Controlling Industrial Process Variables	37	13	24	(172)	(82%)	$79,097	$20,540	$99,637	$95,140	13%	0.23	0.29
334514	Totalizing Fluid Meter and Counting Device Manufacturing	24	0	24	(316)	(93%)	$72,434	$18,810	$91,245	$81,730	(3%)	0.93	1.79
334519	Other Measuring and Controlling Device Manufacturing	1,276	0	1,276	207	19%	$60,117	$15,612	$75,728	$88,220	9%	14.13	27.31
335110	Electric Lamp Bulb and Part Manufacturing	37	37	0	37	N/A	$31,016	$11,970	$42,986	$96,051	(11%)	1.84	0.00
335314	Relay and Industrial Control Manufacturing	43	13	29	18	72%	$71,129	$27,449	$98,578	$106,563	4%	0.37	0.49
335931	Current-Carrying Wiring Device Manufacturing	244	228	16	76	45%	$37,486	$14,466	$51,952	$86,759	5%	3.02	0.38
336320	Motor Vehicle Electrical and Electronic Equipment Manufacturing	606	432	174	(251)	(29%)	$51,831	$11,846	$63,678	$64,586	11%	4.21	2.33
336390	Other Motor Vehicle Parts Manufacturing	2,353	1,764	589	921	64%	$45,034	$10,293	$55,326	$64,480	30%	6.32	3.06
339112	Surgical and Medical Instrument Manufacturing	457	433	24	(167)	(27%)	$43,732	$16,303	$60,035	$109,337	6%	1.48	0.15
339113	Surgical Appliance and Supplies Manufacturing	7,765	7,501	264	1,024	15%	$84,577	$31,530	$116,107	$96,790	6%	29.92	1.97
339991	Gasket, Packing, and Sealing Device Manufacturing	2,074	1,409	665	848	69%	$45,950	$17,130	$63,081	$75,515	15%	26.35	16.32
Research and Testing													
541380	Testing Laboratories	211	28	183	45	27%	$47,939	$8,626	$56,565	$83,155	20%	0.49	0.82
541711	Research and Development in Biotechnology	15	<10	15	N/A	N/A	$111,217	$20,012	$131,229	$174,313	11%	0.04	0.07
541712	Research and Development in the Physical, Engineering, and Life Sciences	191	93	98	(285)	(60%)	$65,646	$11,812	$77,457	$140,711	4%	0.17	0.17
541720	Research and Development in the Social Sciences and Humanities	24	<10	23	9	60%	$59,783	$10,757	$70,540	$82,193	6%	0.15	0.29
		41,400	**29,023**	**12,377**	**3,745**	**10%**	**$57,238**	**$15,868**	**$73,106**	**$88,192**	**9%**	**3.92**	**2.27**

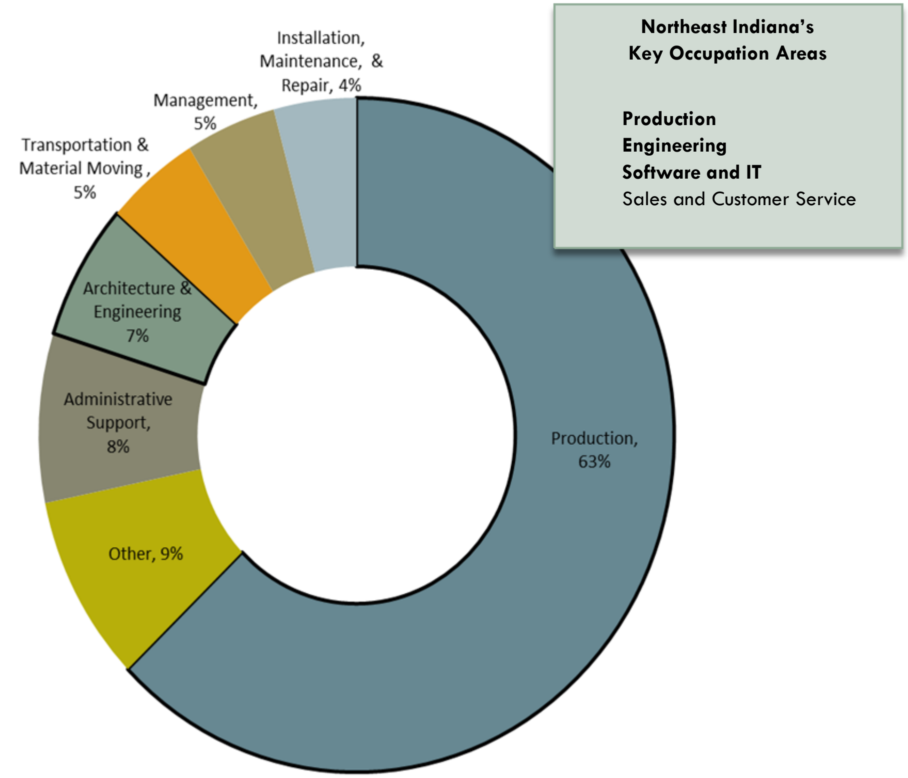
Source: EMSI 2015.4 Class of Worker

Supplements estimate the value of contributions for pensions, profit sharing, retirement plans and private health insurance.

OCCUPATIONAL SUMMARY

Seventy percent of the occupations associated with Advanced Materials are in production or engineering, two of Northeast Indiana's key occupation areas. As shown in the following table, very few occupational areas in Northeast Indiana suggest robust R&D capabilities. Several key challenges to building this capacity exist, first and foremost the lack of upper-level degree programming in materials engineering and the alignment of university research activities with Northeast Indiana employers.

The Community Research Institute and the Center for Adult and Experiential Learning (CAEL) recently analyzed the alignment of Northeast Indiana's educational institutions with key employment industries. Technical engineering was an area examined and includes R&D services; management, scientific, and technical consulting; computer systems design, and specialized design services. While not specific to Advanced Materials, these are areas that align with the research and testing activities of this target.



The analysis showed that approximately 3,500 workers in the region are employed in these areas with several industries competing for their talent including insurance, defense, vehicles, health care, and finance. While the region's workforce in technical engineering is younger than average, growth projections lag the state and the nation. Northeast Indiana must be able to retain its existing talent base in technical engineering to not only sustain existing employers' needs but also to grow into new areas of Advanced Materials.

Advanced Materials Industry in Northeast Indiana: Key Occupations

SOC	Description	Employed in Industry Group (2015)	Change (2010 - 2015)		Median Hourly Earnings	Typical Entry Level Education
Limited Training						
51-2092	Team Assemblers	4,578	670	17%	$14.67	High school diploma or equivalent
51-4041	Machinists	1,837	286	18%	$19.70	High school diploma or equivalent
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	1,696	179	12%	$15.46	High school diploma or equivalent
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders	1,681	217	15%	$13.94	High school diploma or equivalent
51-2022	Electrical and Electronic Equipment Assemblers	1,441	(152)	(10%)	$13.36	High school diploma or equivalent
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders	1,155	254	28%	$16.97	High school diploma or equivalent
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders	1,109	163	17%	$13.45	High school diploma or equivalent
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	1,059	214	25%	$15.54	High school diploma or equivalent
51-9198	Helpers--Production Workers	808	98	14%	$12.34	Less than high school
49-9071	Maintenance and Repair Workers, General	688	81	13%	$18.07	High school diploma or equivalent
43-5071	Shipping, Receiving, and Traffic Clerks	649	66	11%	$13.36	High school diploma or equivalent
51-4121	Welders, Cutters, Solderers, and Brazers	636	95	18%	$16.60	High school diploma or equivalent
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders	617	57	10%	$15.49	High school diploma or equivalent
51-4111	Tool and Die Makers	612	110	22%	$22.05	High school diploma or equivalent
53-7051	Industrial Truck and Tractor Operators	529	95	22%	$16.55	Less than high school
41-4012	Sales Representatives, Wholesale and Manufacturing	506	49	11%	$27.65	High school diploma or equivalent
43-9061	Office Clerks, General	502	36	8%	$12.18	High school diploma or equivalent
49-9041	Industrial Machinery Mechanics	486	87	22%	$20.84	High school diploma or equivalent
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	453	42	10%	$11.37	Less than high school
51-4191	Heat Treating Equipment Setters, Operators, and Tenders	434	101	30%	$17.96	High school diploma or equivalent
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	421	82	24%	$13.87	High school diploma or equivalent
More Intensive Training Required						
51-1011	First-Line Supervisors of Production and Operating Workers	1,500	177	13%	$24.82	Postsecondary non-degree award
17-2112	Industrial Engineers	787	35	5%	$32.69	Bachelor's degree
17-2141	Mechanical Engineers	509	13	3%	$31.60	Bachelor's degree
11-1021	General and Operations Managers	494	8	2%	$47.30	Bachelor's degree
11-3051	Industrial Production Managers	492	41	9%	$38.07	Bachelor's degree
17-3026	Industrial Engineering Technicians	278	10	4%	$21.53	Associate's degree
13-2011	Accountants and Auditors	229	1	0%	$28.59	Bachelor's degree
17-2072	Electronics Engineers, Except Computer	198	(69)	(26%)	$33.21	Bachelor's degree
11-9041	Architectural and Engineering Managers	193	(19)	(9%)	$50.40	Bachelor's degree
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Produ	169	(20)	(11%)	$35.60	Bachelor's degree
17-3023	Electrical and Electronics Engineering Technicians	162	(54)	(25%)	$26.13	Associate's degree
17-2071	Electrical Engineers	146	(50)	(26%)	$33.74	Bachelor's degree
17-2031	Biomedical Engineers	135	23	21%	$31.61	Bachelor's degree
53-3032	Heavy and Tractor-Trailer Truck Drivers	126	21	20%	$18.24	Postsecondary non-degree award
13-1161	Market Research Analysts and Marketing Specialists	121	(1)	(1%)	$21.70	Bachelor's degree
15-1132	Software Developers, Applications	119	(58)	(33%)	$35.11	Bachelor's degree
11-1011	Chief Executives	109	6	6%	$73.55	Bachelor's degree
17-2131	Materials Engineers	105	15	17%	$28.70	Bachelor's degree
17-3013	Mechanical Drafters	100	2	2%	$20.36	Associate's degree

Source: EMSI 2015.4 Class of Worker

BUSINESS DEVELOPMENT STRATEGIES TO EXPLORE

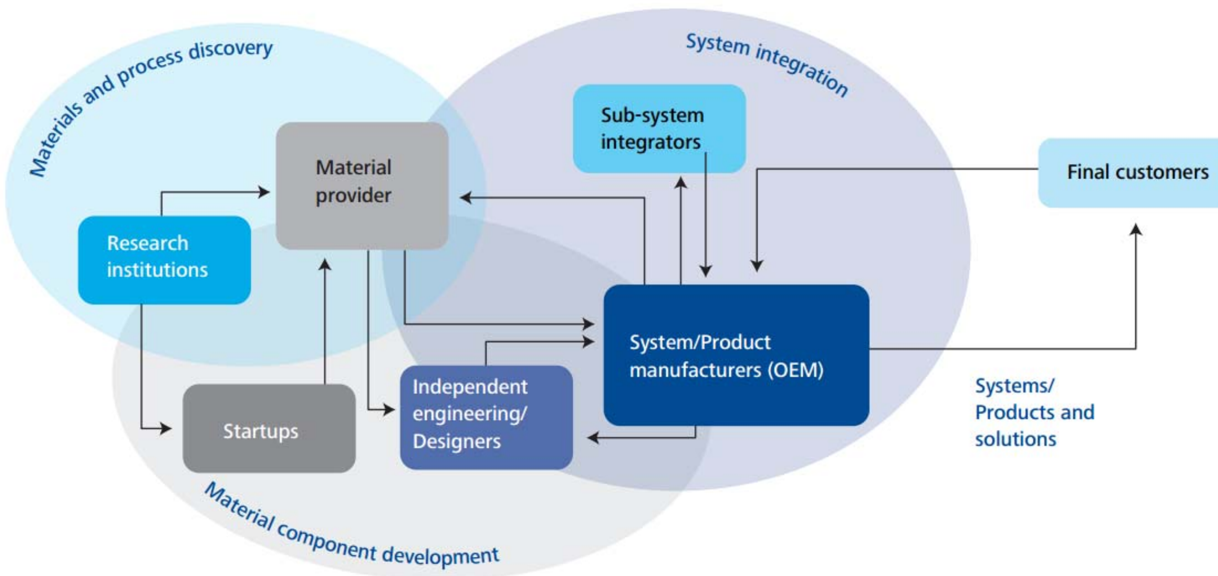
- **Leveraging LEDO's business visits and relationships:** Understanding Northeast Indiana's existing advantages in Advanced Materials will help to define effective business development strategies. The activities span a multitude of industry subsectors and it is critical to tease out which employers are leading the region in materials innovation. For example, the Carolinas have leveraged core capabilities in textiles, automotive manufacturing, and defense to grow into specific niche areas of advanced materials including nonwoven textiles and photonics (light technology).

- **Convening regional leaders in Advanced Materials:** Much like the Partnership has helped to launch an industry council around specialty insurance, it may make sense to provide similar support around Advanced Materials, particularly if a cohesive development strategy is desired. Using patent, venture capital, and other data will help to identify known and emerging innovators.

- **Bolstering education and industry partnerships:** While existing relationships exist among IPFW, Indiana Tech, and Trine faculty, there is no shared strategy or vision around supporting growth in Advanced Materials. Resources at Purdue and other universities should also be explored and leveraged, if mutually beneficial.

- **Recruitment and relationship building out-of-market:** How can the Northeast Indiana Regional Partnership connect those involved with material component development with the region's manufacturers to promote innovation? Leverage patent data to understand key innovators and reach out to them during business development travel. Pursue recruitment opportunities that align with the needs of Northeast Indiana employers, as directed by LEDO feedback.

The Advanced Materials Ecosystem

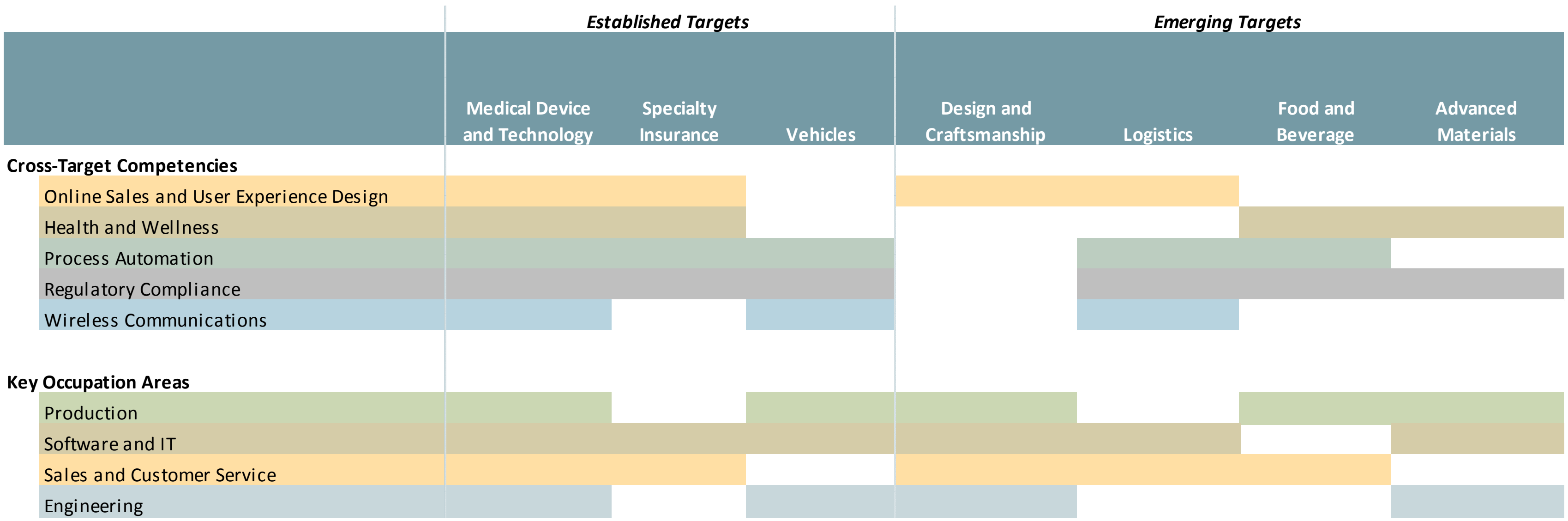


Source: Deloitte (2012). Reigniting Growth: Advanced Materials Systems

CONCLUSION

This Target Industry Report provides an analysis of business development opportunities for Fort Wayne-Allen County and the 11 county Northeast Indiana region. Because of the unique assets of communities throughout the region, the highest value targets, niches areas, and supportive development strategies will vary. In a region that is "Amish to Urban," there clearly is no one-size-fits-all approach. However, the reality is that there are limited resources for marketing the region and priorities must be established for cohesive, long-term messaging and out-of-market recruitment strategies. This Target Industry Reports advises Greater Fort Wayne Inc. and the Northeast Indiana Regional Partnership on strategic prioritization. These organizations will encounter ever shifting opportunities and challenges in implanting target development strategies that will require adjustments over time to optimize results.

As Greater Fort Wayne Inc. and the Northeast Indiana Regional Partnership refocus target development efforts, marketing strategies must also be reconsidered to ensure that compelling and consistent messages about the region's competitive advantages are being communicated. The matrix below provides some initial suggestions of key competencies and occupational skillsets that cross multiple target areas, which may be useful for branding and marketing purposes.



As business development strategies are developed to promote target industry growth, high wage job creation, and economic diversification, continued close collaboration with local economic development organizations (LEDOS), the Indiana Economic Development Corporation (IEDC), Northeast Indiana Works, Regional Chamber of Northeast Indiana, and local civic and business leadership will be critical.

APPENDIX A: REGIONAL EMPLOYMENT DATA – ALL 4-DIGIT NAICS SORTED BY SECTOR GROWTH

		Northeast Indiana						*10 Regional Counties*		*Alen County*		*U.S*
NAICS	**Industry**	**2015 Jobs**	**5-year Job Growth**		**Average Annual Wage**	**LQ**	**Total Payroll**	**2015 Jobs**	**5-year Growth**	**2015 Jobs**	**5-year Growth**	**U.S. Growth**
	Total Employment	**350,434**	**31,129**	**10%**	**$40,104**	**-**	**$14,053,811,029**	**169,095**	**19,377**	**181,339**	**11,752**	**9%**
3363	Motor Vehicle Parts Manufacturing	8,140	2,020	33%	$46,962	5.78	$382,286,911	6,769	1,464	1,371	556	35%
7225	Restaurants and Other Eating Places	23,629	1,722	8%	$12,844	0.94	$303,496,739	10,224	841	13,405	881	18%
3361	Motor Vehicle Manufacturing	4,929	1,677	52%	$80,454	9.07	$396,517,004	19	(43)	4,910	1,720	41%
3362	Motor Vehicle Body and Trailer Manufacturing	4,446	1,599	56%	$51,425	11.92	$228,645,244	4,251	1,511	195	88	36%
3329	Other Fabricated Metal Product Manufacturing	2,390	1,292	118%	$45,184	3.45	$107,968,714	1,793	1,183	597	109	12%
3371	Household and Institutional Furniture and Kitchen Cabinet Mfg	2,952	1,048	55%	$33,775	4.86	$99,715,981	2,101	979	852	69	9%
3391	Medical Equipment and Supplies Manufacturing	8,462	936	12%	$81,367	10.69	$688,563,736	8,082	764	380	172	4%
5617	Services to Buildings and Dwellings	4,310	892	26%	$21,100	0.86	$90,942,957	1,150	238	3,160	654	15%
5511	Management of Companies and Enterprises	3,161	890	39%	$75,382	0.57	$238,260,752	1,330	377	1,831	512	19%
3399	Other Miscellaneous Manufacturing	2,696	879	48%	$44,357	3.79	$119,600,731	1,599	668	1,098	211	7%
5613	Employment Services	10,025	863	9%	$22,652	1.12	$227,091,463	4,422	666	5,603	197	31%
6221	General Medical and Surgical Hospitals	14,158	837	6%	$51,060	1.23	$722,896,028	2,593	(529)	11,565	1,366	5%
3219	Other Wood Product Manufacturing	2,097	745	55%	$36,834	3.96	$77,230,114	1,990	710	106	35	8%
3272	Glass and Glass Product Manufacturing	1,326	742	127%	$44,752	6.21	$59,320,362	1,326	742	0	0	8%
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Mfg	3,332	737	28%	$47,507	3.59	$158,282,720	2,760	581	572	156	19%
3323	Architectural and Structural Metals Manufacturing	3,602	726	25%	$52,507	3.95	$189,139,185	2,873	563	729	163	14%
3261	Plastics Product Manufacturing	5,475	683	14%	$42,751	3.94	$234,045,317	3,405	319	2,069	364	10%
6113	Colleges, Universities, and Professional Schools	3,028	659	28%	$30,791	1.01	$93,238,657	1,942	332	1,086	326	5%
5241	Insurance Carriers	4,037	626	18%	$70,746	1.34	$285,635,820	92	37	3,946	589	3%
4842	Specialized Freight Trucking	1,803	624	53%	$46,237	1.57	$83,343,118	1,042	476	761	148	20%
4541	Electronic Shopping and Mail-Order Houses	1,161	611	111%	$40,629	1.33	$47,184,997	315	165	846	446	43%
6216	Home Health Care Services	2,097	603	40%	$25,264	0.63	$52,989,152	308	(27)	1,789	630	22%
7211	Traveler Accommodation	2,146	590	38%	$16,146	0.47	$34,655,454	925	154	1,221	435	8%
3339	Other General Purpose Machinery Manufacturing	1,896	580	44%	$48,852	2.87	$92,632,973	1,271	361	625	220	17%
6243	Vocational Rehabilitation Services	3,018	578	24%	$19,717	3.59	$59,502,405	1,708	508	1,310	70	2%
4931	Warehousing and Storage	2,210	515	30%	$37,528	1.13	$82,928,569	1,455	318	755	197	23%
6214	Outpatient Care Centers	1,983	488	33%	$36,685	1.07	$72,750,013	783	314	1,200	174	24%
8111	Automotive Repair and Maintenance	2,634	468	22%	$32,748	1.19	$86,255,484	1,208	251	1,426	217	11%
4471	Gasoline Stations	2,708	462	21%	$15,684	1.19	$42,477,751	1,744	293	964	169	11%
6231	Nursing Care Facilities (Skilled Nursing Facilities)	6,972	449	7%	$25,935	1.68	$180,827,530	3,943	166	3,029	283	0%
6211	Offices of Physicians	4,771	437	10%	$86,123	0.74	$410,927,939	1,016	119	3,756	318	10%
3328	Coating, Engraving, Heat Treating, and Allied Activities	1,899	425	29%	$39,667	5.48	$75,324,353	1,467	526	432	(102)	14%
4841	General Freight Trucking	5,087	402	9%	$48,446	2.05	$246,450,945	1,617	(85)	3,470	486	13%
4234	Professional and Commercial Equipment Wholesalers	2,007	390	24%	$89,570	1.29	$179,786,117	1,061	398	946	(8)	2%
3359	Other Electrical Equipment and Component Manufacturing	862	385	81%	$38,219	2.69	$32,952,815	763	312	99	73	8%
3366	Ship and Boat Building	836	378	83%	$39,967	2.44	$33,413,248	733	358	103	20	10%
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	2,065	377	22%	$53,094	1.21	$109,649,659	775	156	1,290	221	12%

		Northeast Indiana							10 Regional Counties		Alen County		U.S
NAICS	Industry	2015 Jobs	5-year Job Growth		Annual Wage	LQ	Total Payroll	2015 Jobs	5-year Growth	2015 Jobs	5-year Growth	U.S. Growth
3313	Alumina and Aluminum Production and Processing	1,010	355	54%	$44,043	6.89	$44,477,840	792	364	218	(9)	8%
6213	Offices of Other Health Practitioners	1,710	348	26%	$35,273	0.83	$60,305,803	665	73	1,044	275	22%
7223	Special Food Services	1,079	332	44%	$17,748	0.67	$19,144,981	294	7	784	325	20%
4921	Couriers and Express Delivery Services	973	325	50%	$36,567	0.73	$35,572,846	134	91	839	234	11%
9036	Education and Hospitals (Local Government)	18,799	314	2%	$34,772	0.90	$653,676,519	11,400	(27)	7,399	341	-2%
4411	Automobile Dealers	3,015	296	11%	$44,877	0.98	$135,313,323	1,125	42	1,890	254	21%
2382	Building Equipment Contractors	4,636	272	6%	$50,894	0.97	$235,928,569	1,548	203	3,088	69	17%
1120	Animal Production and Aquaculture	1,418	263	23%	$32,175	2.28	$45,633,453	1,400	261	19	2	10%
4413	Automotive Parts, Accessories, and Tire Stores	1,557	262	20%	$28,717	1.13	$44,720,745	712	144	845	118	12%
3311	Iron and Steel Mills and Ferroalloy Manufacturing	1,571	260	20%	$91,242	7.00	$143,356,456	1,324	102	247	157	4%
5611	Office Administrative Services	367	260	242%	$48,785	0.31	$17,891,556	141	97	226	163	16%
5415	Computer Systems Design and Related Services	1,267	258	26%	$66,845	0.27	$84,659,676	301	98	965	160	31%
6222	Psychiatric and Substance Abuse Hospitals	389	249	177%	$29,388	1.41	$11,441,636	318	216	72	32	9%
3169	Other Leather and Allied Product Manufacturing	840	248	42%	$47,756	28.47	$40,103,517	<10	N/A	837	247	7%
4251	Wholesale Electronic Markets and Agents and Brokers	1,058	245	30%	$45,621	0.46	$48,263,399	337	141	721	105	12%
6242	Community Food and Housing, and Emergency Services	454	240	112%	$24,878	1.16	$11,305,175	40	(13)	414	253	10%
3321	Forging and Stamping	884	237	37%	$42,769	3.53	$37,819,632	653	157	232	80	13%
5313	Activities Related to Real Estate	804	217	37%	$32,729	0.50	$26,299,342	170	24	633	193	18%
4239	Miscellaneous Durable Goods Merchant Wholesalers	1,425	216	18%	$54,841	1.89	$78,138,433	368	141	1,057	75	8%
3335	Metalworking Machinery Manufacturing - duplicate	1,975	211	12%	$50,320	4.27	$99,366,708	788	44	1,186	167	19%
3335	Metalworking Machinery Manufacturing - duplicate	1,975	211	12%	$50,320	4.27	$99,366,708	788	44	1,186	167	19%
3279	Other Nonmetallic Mineral Product Manufacturing	522	203	64%	$41,534	2.78	$21,661,835	339	98	183	105	14%
6212	Offices of Dentists	2,334	199	9%	$47,451	1.02	$110,736,350	894	52	1,440	147	10%
4412	Other Motor Vehicle Dealers	641	196	44%	$34,008	1.75	$21,786,944	509	165	131	30	14%
4441	Building Material and Supplies Dealers	3,112	194	7%	$27,513	1.13	$85,631,396	1,494	73	1,618	121	8%
6111	Elementary and Secondary Schools	1,957	184	10%	$25,168	1.02	$49,250,741	308	36	1,649	148	15%
3262	Rubber Product Manufacturing	2,821	183	7%	$59,606	8.38	$168,138,920	1,004	(25)	1,817	209	10%
8129	Other Personal Services	417	183	78%	$16,562	0.56	$6,898,387	161	48	255	135	25%
4237	Hardware, and Plumbing and Heating Equipment Wholesalers	1,185	180	18%	$57,060	1.97	$67,613,437	174	82	1,011	99	9%
3149	Other Textile Product Mills	408	180	79%	$36,806	2.63	$15,025,534	309	182	100	(2)	0%
3314	Nonferrous Metal (except Aluminum) Production and Processin	999	175	21%	$55,164	6.37	$55,131,312	273	55	726	120	8%
3116	Animal Slaughtering and Processing	1,301	175	16%	$37,445	1.07	$48,730,073	1,283	172	19	3	0%
2381	Foundation, Structure, and Building Exterior Contractors	1,699	175	11%	$38,667	0.87	$65,683,104	683	75	1,016	100	16%
3312	Steel Product Manufacturing from Purchased Steel	768	174	29%	$43,938	5.18	$33,731,772	129	18	639	156	13%
6239	Other Residential Care Facilities	671	172	35%	$22,762	1.64	$15,270,444	266	(58)	405	231	1%
5222	Nondepository Credit Intermediation	503	168	50%	$57,168	0.34	$28,759,559	109	31	394	137	5%
5412	Accounting, Tax Preparation, Bookkeeping, Payroll Services	1,537	167	12%	$42,164	0.61	$64,814,105	624	(4)	913	171	14%
5242	Agencies, Brokerages, and Other Insurance Related Activities	2,407	163	7%	$52,137	0.92	$125,470,839	775	87	1,631	76	19%
4442	Lawn and Garden Equipment and Supplies Stores	475	154	48%	$28,046	1.26	$13,315,713	338	119	137	35	16%
3351	Electric Lighting Equipment Manufacturing	423	147	53%	$47,956	3.59	$20,272,492	415	195	<10	N/A	3%

		Northeast Indiana						*10 Regional Counties*		*Alen County*		*U.S*
NAICS	**Industry**	**2015 Jobs**	**5-year Job Growth**		**Annual Wage**	**LQ**	**Total Payroll**	**2015 Jobs**	**5-year Growth**	**2015 Jobs**	**5-year Growth**	**U.S. Growth**
1110	Crop Production	694	144	26%	$35,254	0.49	$24,481,059	528	85	166	60	6%
4533	Used Merchandise Stores	564	141	33%	$17,333	1.34	$9,781,626	102	8	462	133	33%
8134	Civic and Social Organizations	1,822	138	8%	$9,565	1.84	$17,423,387	1,025	122	797	16	1%
5172	Wireless Telecommunications Carriers (except Satellite)	342	130	61%	$47,852	0.88	$16,350,063	64	45	278	85	-10%
3222	Converted Paper Product Manufacturing	1,281	130	11%	$48,556	1.91	$62,203,600	792	99	489	31	-5%
4451	Grocery Stores	3,997	129	3%	$19,428	0.60	$77,659,465	2,041	(20)	1,956	149	8%
4231	Motor Vehicle and Motor Vehicle Parts Wholesalers	1,275	125	11%	$39,489	1.51	$50,352,504	554	151	721	(26)	9%
7212	RV (Recreational Vehicle) Parks and Recreational Camps	298	125	72%	$16,913	1.99	$5,048,342	298	125	0	0	14%
4529	Other General Merchandise Stores	6,654	119	2%	$20,901	1.42	$139,078,899	3,551	(69)	3,104	188	25%
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	1,315	119	10%	$45,703	1.57	$60,111,483	833	101	482	18	2%
8113	Commercial and Industrial Machinery Repair and Maintenance	659	118	22%	$39,449	1.29	$25,998,264	316	39	343	79	18%
2383	Building Finishing Contractors	1,347	118	10%	$37,498	0.73	$50,500,830	433	62	914	56	14%
3273	Cement and Concrete Product Manufacturing	489	116	31%	$46,542	1.07	$22,741,438	262	73	226	43	7%
3119	Other Food Manufacturing	680	113	20%	$41,269	1.41	$28,075,012	513	77	167	35	18%
5619	Other Support Services	555	113	25%	$34,229	0.73	$18,988,369	304	73	251	40	10%
3372	Office Furniture (including Fixtures) Manufacturing	229	111	93%	$40,207	0.86	$9,226,769	198	110	31	0	10%
5311	Lessors of Real Estate	824	107	15%	$27,384	0.56	$22,559,149	356	88	468	19	3%
3118	Bakeries and Tortilla Manufacturing	973	103	12%	$34,219	1.31	$33,289,107	391	48	581	55	7%
4889	Other Support Activities for Transportation	264	103	63%	$42,544	3.37	$11,241,312	237	112	27	(10)	21%
3121	Beverage Manufacturing	153	97	171%	$31,349	0.29	$4,807,878	147	91	<10	N/A	25%
3325	Hardware Manufacturing	272	95	54%	$63,953	4.46	$17,394,784	270	95	<10	N/A	3%
4881	Support Activities for Air Transportation	174	89	104%	$32,225	0.38	$5,603,971	110	66	64	22	18%
3369	Other Transportation Equipment Manufacturing	162	87	117%	$39,350	1.98	$6,376,374	86	70	76	17	-2%
7113	Promoters of Performing Arts, Sports, and Similar Events	162	87	116%	$16,953	0.51	$2,745,789	136	63	26	N/A	36%
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturi	409	77	23%	$55,631	1.55	$22,774,601	408	77	<10	N/A	4%
3251	Basic Chemical Manufacturing	429	74	21%	$55,567	1.17	$23,841,267	419	68	<10	N/A	4%
4482	Shoe Stores	354	73	26%	$18,525	0.67	$6,563,679	97	41	258	32	16%
3324	Boiler, Tank, and Shipping Container Manufacturing	418	73	21%	$35,061	1.71	$14,657,577	390	45	28	N/A	15%
3379	Other Furniture Related Product Manufacturing	148	65	79%	$38,981	1.67	$5,781,655	14	N/A	135	53	-3%
4247	Petroleum and Petroleum Products Merchant Wholesalers	464	61	15%	$53,731	1.84	$24,946,285	277	60	188	1	8%
4922	Local Messengers and Local Delivery	151	58	63%	$31,409	1.09	$4,727,165	40	26	110	32	28%
4885	Freight Transportation Arrangement	195	58	42%	$44,700	0.38	$8,727,711	57	36	138	22	20%
3352	Household Appliance Manufacturing	70	58	477%	$60,042	0.46	$4,217,823	51	39	19	N/A	4%
4511	Sporting Goods, Hobby, and Musical Instrument Stores	976	58	6%	$16,700	0.75	$16,291,983	304	38	672	20	13%
4859	Other Transit and Ground Passenger Transportation	117	57	96%	$17,742	0.47	$2,067,045	26	N/A	91	38	23%
6233	Continuing Care Retirement Communities and Assisted Living	2,662	57	2%	$22,767	1.22	$60,610,959	1,408	(171)	1,254	227	17%
5239	Other Financial Investment Activities	379	56	17%	$75,796	0.34	$28,703,799	133	29	246	27	33%
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Mfg	74	55	288%	$54,342	0.80	$4,002,778	41	N/A	33	21	3%
5414	Specialized Design Services	143	50	54%	$34,490	0.43	$4,939,892	23	N/A	121	35	17%
7112	Spectator Sports	362	50	16%	$14,051	1.00	$5,086,769	<10	N/A	353	60	12%

		Northeast Indiana						10 Regional Counties		Alen County		U.S
NAICS	Industry	2015 Jobs	5-year Job Growth		Annual Wage	LQ	Total Payroll	2015 Jobs	5-year Growth	2015 Jobs	5-year Growth	U.S. Growth
4461	Health and Personal Care Stores	2,072	50	2%	$29,182	0.80	$60,466,774	807	(4)	1,265	54	5%
4884	Support Activities for Road Transportation	269	49	22%	$30,589	1.13	$8,221,531	120	9	149	40	17%
3331	Agriculture, Construction, and Mining Machinery Manufacturing	812	48	6%	$66,455	1.33	$53,949,597	365	(63)	447	112	19%
3111	Animal Food Manufacturing	182	44	32%	$47,326	1.32	$8,617,698	173	47	<10	N/A	7%
5322	Consumer Goods Rental	451	44	11%	$27,383	1.12	$12,341,220	213	33	238	11	-18%
4244	Grocery and Related Product Merchant Wholesalers	1,954	41	2%	$42,094	1.04	$82,234,447	683	(58)	1,271	99	5%
8114	Personal and Household Goods Repair and Maintenance	216	38	21%	$31,353	1.15	$6,758,587	142	52	74	(14)	11%
4246	Chemical and Allied Products Merchant Wholesalers	352	37	12%	$55,785	1.07	$19,657,289	64	(10)	288	48	9%
5419	Other Professional, Scientific, and Technical Services	954	37	4%	$32,602	0.58	$31,112,636	430	35	525	2	13%
6223	Specialty (except Psychiatric and Substance Abuse) Hospitals	171	36	27%	$47,807	0.31	$8,182,463	0	0	171	36	9%
4855	Charter Bus Industry	54	34	177%	$24,683	0.71	$1,329,094	<10	N/A	49	37	1%
7111	Performing Arts Companies	253	31	14%	$20,668	0.83	$5,237,321	64	9	189	22	11%
7115	Independent Artists, Writers, and Performers	46	31	201%	$36,573	0.33	$1,676,729	20	N/A	26	N/A	24%
7139	Other Amusement and Recreation Industries	2,105	31	1%	$13,719	0.69	$28,876,154	705	(38)	1,400	68	11%
8132	Grantmaking and Giving Services	160	30	23%	$38,733	0.47	$6,181,460	73	24	86	5	8%
2379	Other Heavy and Civil Engineering Construction	88	27	44%	$45,747	0.33	$4,045,768	81	26	<10	N/A	13%
5171	Wired Telecommunications Carriers	1,639	27	2%	$65,626	1.08	$107,582,505	325	31	1,314	(4)	1%
8122	Death Care Services	482	24	5%	$29,753	1.41	$14,327,999	240	(4)	242	28	4%
4542	Vending Machine Operators	272	23	9%	$20,037	2.79	$5,447,805	241	42	31	(19)	1%
2123	Nonmetallic Mineral Mining and Quarrying	239	23	11%	$54,096	1.10	$12,954,837	150	45	89	(22)	0%
3326	Spring and Wire Product Manufacturing	386	20	5%	$35,882	3.58	$13,842,010	352	33	33	(14)	1%
4483	Jewelry, Luggage, and Leather Goods Stores	230	19	9%	$30,405	0.65	$7,006,187	62	(2)	168	21	8%
3221	Pulp, Paper, and Paperboard Mills	342	19	6%	$52,319	1.33	$17,886,621	229	(42)	113	61	-9%
4853	Taxi and Limousine Service	44	18	73%	$18,859	0.21	$821,635	17	N/A	27	12	20%
2211	Electric Power Generation, Transmission and Distribution	796	18	2%	$82,375	0.80	$65,610,666	369	11	427	7	0%
5413	Architectural, Engineering, and Related Services	1,441	18	1%	$55,451	0.41	$79,922,039	264	40	1,178	(23)	11%
3133	Textile and Fabric Finishing and Fabric Coating Mills	96	17	22%	$44,515	1.16	$4,267,576	58	4	38	14	-9%
7224	Drinking Places (Alcoholic Beverages)	1,170	17	2%	$12,123	1.24	$14,181,917	339	57	831	(39)	9%
4431	Electronics and Appliance Stores	987	16	2%	$32,164	0.78	$31,752,232	343	33	644	(17)	-4%
7132	Gambling Industries	58	16	37%	$13,785	0.18	$799,411	0	0	58	16	3%
5323	General Rental Centers	83	16	23%	$31,802	0.85	$2,650,247	51	18	32	(3)	-2%
5321	Automotive Equipment Rental and Leasing	163	14	10%	$43,608	0.34	$7,115,736	29	11	134	3	19%
2212	Natural Gas Distribution	44	14	44%	$130,142	0.15	$5,717,842	43	14	<10	N/A	4%
5612	Facilities Support Services	26	12	83%	$28,597	0.08	$732,649	0	0	26	12	0%
3241	Petroleum and Coal Products Manufacturing	143	11	9%	$65,964	0.51	$9,459,429	116	26	27	(15)	0%
5629	Remediation and Other Waste Management Services	278	11	4%	$38,790	0.81	$10,778,446	120	12	157	(1)	13%
1152	Support Activities for Animal Production	91	10	12%	$19,822	1.28	$1,798,902	67	7	24	3	4%
6115	Technical and Trade Schools	214	9	4%	$27,177	0.69	$5,827,045	71	0	143	9	-1%
2361	Residential Building Construction	1,297	7	1%	$35,046	0.76	$45,468,798	630	76	667	(69)	17%
1151	Support Activities for Crop Production	104	7	7%	$40,504	0.13	$4,221,868	104	7	0	0	12%

		Northeast Indiana						10 Regional Counties		Alen County		U.S
NAICS	Industry	2015 Jobs	5-year Job Growth		Annual Wage	LQ	Total Payroll	2015 Jobs	5-year Growth	2015 Jobs	5-year Growth	U.S. Growth
4422	Home Furnishings Stores	562	4	1%	$27,791	0.91	$15,620,523	156	(0)	406	4	11%
3271	Clay Product and Refractory Manufacturing	24	1	4%	$60,696	0.24	$1,441,494	24	1	0	0	-1%
2372	Land Subdivision	20	1	4%	$45,355	0.18	$898,720	<10	N/A	18	1	-16%
8112	Electronic and Precision Equipment Repair and Maintenance	270	0	0%	$37,083	1.03	$9,997,150	125	8	145	(7)	7%
4811	Scheduled Air Transportation	152	N/A	N/A	$34,876	0.15	$5,294,024	26	N/A	126	N/A	2%
3211	Sawmills and Wood Preservation	85	(0)	0%	$32,429	0.37	$2,759,672	78	7	<10	N/A	10%
8123	Drycleaning and Laundry Services	751	(1)	0%	$34,826	0.98	$26,151,969	312	32	439	(33)	1%
4871	Scenic and Sightseeing Transportation, Land	21	(1)	-6%	$2,514	0.60	$51,781	16	N/A	<10	N/A	32%
3346	Manufacturing and Reproducing Magnetic and Optical Media	13	(2)	-16%	$66,937	0.32	$873,962	0	0	13	(2)	-36%
4421	Furniture Stores	606	(3)	0%	$29,586	1.10	$17,915,515	264	15	342	(17)	2%
3152	Cut and Sew Apparel Manufacturing	117	(3)	-3%	$24,251	0.41	$2,828,904	24	7	93	(10)	-10%
4543	Direct Selling Establishments	226	(3)	-1%	$40,193	0.64	$9,084,263	149	(36)	77	33	5%
3132	Fabric Mills	75	(4)	-5%	$47,543	0.55	$3,566,067	75	(4)	0	0	1%
4812	Nonscheduled Air Transportation	25	(4)	-15%	$65,387	0.26	$1,644,482	18	0	<10	N/A	-6%
4233	Lumber and Other Construction Materials Merchant Wholesale	393	(4)	-1%	$46,414	0.76	$18,258,183	96	44	297	(49)	9%
2371	Utility System Construction	571	(6)	-1%	$49,564	0.48	$28,295,348	224	(78)	347	72	24%
3112	Grain and Oilseed Milling	309	(8)	-3%	$59,302	2.10	$18,313,875	309	(8)	0	0	0%
5324	Commercial and Industrial Machinery and Equipment Rental	158	(8)	-5%	$61,087	0.44	$9,643,311	105	14	53	(22)	29%
7121	Museums, Historical Sites, and Similar Institutions	250	(9)	-4%	$24,047	0.67	$6,019,663	35	(20)	216	10	17%
4243	Apparel, Piece Goods, and Notions Merchant Wholesalers	91	(10)	-10%	$39,128	0.24	$3,552,341	55	44	35	(54)	9%
5223	Activities Related to Credit Intermediation	256	(11)	-4%	$61,067	0.35	$15,661,818	26	(11)	230	0	15%
4248	Beer, Wine, and Distilled Alcoholic Beverage Wholesalers	90	(13)	-12%	$53,664	0.19	$4,837,372	19	(44)	71	31	16%
5191	Other Information Services	62	(13)	-18%	$76,047	0.11	$4,751,650	<10	N/A	57	(10)	65%
8139	Business, Professional, Labor, Political, and Similar Orgs	644	(14)	-2%	$23,719	0.59	$15,286,815	321	21	324	(35)	2%
4521	Department Stores	2,206	(14)	-1%	$14,783	0.66	$32,604,451	488	38	1,717	(52)	-11%
2213	Water, Sewage and Other Systems	85	(14)	-14%	$33,341	0.68	$2,849,624	41	5	45	(19)	7%
4882	Support Activities for Rail Transportation	26	(14)	-36%	$38,589	0.31	$1,002,488	0	0	26	(14)	50%
3159	Apparel Accessories and Other Apparel Manufacturing	0	(17)	-100%	$0	0.00	$0	0	0	0	(17)	-17%
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	686	(17)	-2%	$62,708	2.13	$43,037,245	493	22	193	(40)	15%
6117	Educational Support Services	20	(18)	-46%	$40,057	0.06	$816,927	11	(1)	<10	N/A	23%
6116	Other Schools and Instruction	472	(18)	-4%	$12,761	0.50	$6,021,981	170	(50)	301	32	23%
1133	Logging	16	(19)	-54%	$31,489	0.13	$509,637	11	(23)	<10	N/A	4%
5182	Data Processing, Hosting, and Related Services	137	(20)	-13%	$62,753	0.19	$8,590,641	14	N/A	122	(34)	21%
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	125	(23)	-16%	$32,451	0.69	$4,048,642	114	(34)	11	11	14%
8131	Religious Organizations	93	(24)	-21%	$18,702	0.20	$1,745,008	55	(11)	38	(13)	4%
5179	Other Telecommunications	100	(26)	-21%	$62,843	0.47	$6,266,097	90	(13)	<10	N/A	-30%
4232	Furniture and Home Furnishing Merchant Wholesalers	49	(27)	-35%	$49,370	0.19	$2,399,852	17	(19)	32	(8)	12%
6215	Medical and Diagnostic Laboratories	130	(27)	-17%	$55,680	0.20	$7,255,339	45	(10)	86	(17)	14%
8121	Personal Care Services	1,247	(27)	-2%	$17,517	0.76	$21,848,476	487	(29)	760	2	9%
7213	Rooming and Boarding Houses	11	(30)	-74%	$33,000	0.34	$349,044	11	(30)	0	0	17%

		Northeast Indiana						10 Regional Counties		Alen County		U.S
NAICS	Industry	2015 Jobs	5-year Job Growth		Annual Wage	LQ	Total Payroll	2015 Jobs	5-year Growth	2015 Jobs	5-year Growth	U.S. Growth
3259	Other Chemical Product and Preparation Manufacturing	61	(30)	-33%	$42,759	0.30	$2,608,599	15	(36)	46	6	-2%
9039	Local Government, Excluding Education and Hospitals	10,716	(30)	0%	$34,892	0.77	$373,907,675	5,199	116	5,517	(146)	0%
4245	Farm Product Raw Material Merchant Wholesalers	639	(32)	-5%	$35,231	3.39	$22,498,223	557	(66)	82	35	1%
9026	Education and Hospitals (State Government)	2,430	(32)	-1%	$36,297	0.42	$88,197,590	0	0	2,430	(32)	4%
5621	Waste Collection	527	(33)	-6%	$48,585	1.29	$25,582,796	167	(33)	360	(0)	17%
6244	Child Day Care Services	1,251	(33)	-3%	$19,155	0.61	$23,954,846	229	59	1,022	(92)	4%
5615	Travel Arrangement and Reservation Services	131	(33)	-20%	$36,017	0.26	$4,731,447	35	(17)	97	(16)	5%
4242	Drugs and Druggists' Sundries Merchant Wholesalers	112	(34)	-23%	$76,429	0.22	$8,588,763	75	(8)	37	(25)	6%
3114	Fruit and Vegetable Preserving and Specialty Food Mfg	206	(35)	-14%	$35,551	0.48	$7,340,121	206	(35)	0	0	-2%
6219	Other Ambulatory Health Care Services	754	(38)	-5%	$35,080	1.04	$26,458,295	136	(60)	618	23	15%
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers Mfg	184	(39)	-17%	$50,270	0.78	$9,266,890	182	(25)	<10	N/A	5%
5112	Software Publishers	78	(39)	-33%	$56,808	0.10	$4,415,424	25	(10)	53	(29)	22%
8133	Social Advocacy Organizations	92	(41)	-31%	$22,954	0.18	$2,107,927	57	8	35	(50)	7%
5151	Radio and Television Broadcasting	586	(41)	-7%	$43,377	1.06	$25,433,316	155	(2)	431	(40)	4%
2389	Other Specialty Trade Contractors	1,126	(42)	-4%	$37,294	0.76	$42,011,811	583	30	544	(73)	15%
4539	Other Miscellaneous Store Retailers	739	(44)	-6%	$19,180	0.96	$14,182,100	338	30	401	(74)	14%
8141	Private Households	258	(46)	-15%	$17,663	0.37	$4,548,610	136	(42)	121	(5)	-56%
3113	Sugar and Confectionery Product Manufacturing	493	(47)	-9%	$32,747	2.82	$16,130,120	481	(11)	12	(36)	5%
3255	Paint, Coating, and Adhesive Manufacturing	122	(48)	-28%	$45,592	0.81	$5,561,428	121	(44)	<10	N/A	8%
4531	Florists	171	(52)	-23%	$13,298	1.09	$2,272,553	57	(35)	114	(17)	-7%
5411	Legal Services	1,402	(52)	-4%	$46,153	0.50	$64,713,336	428	(22)	974	(30)	1%
5312	Offices of Real Estate Agents and Brokers	492	(54)	-10%	$38,886	0.66	$19,114,605	177	11	315	(64)	7%
5121	Motion Picture and Video Industries	238	(59)	-20%	$12,542	0.25	$2,980,973	92	(44)	145	(16)	8%
6114	Business Schools and Computer and Management Training	110	(61)	-35%	$33,190	0.63	$3,667,135	60	12	51	(72)	-11%
2373	Highway, Street, and Bridge Construction	807	(68)	-8%	$65,883	1.06	$53,134,906	290	75	517	(143)	6%
5614	Business Support Services	447	(69)	-13%	$29,191	0.20	$13,035,249	96	(23)	351	(46)	12%
3141	Textile Furnishings Mills	88	(75)	-46%	$34,709	0.68	$3,067,889	72	(27)	17	(48)	-9%
4453	Beer, Wine, and Liquor Stores	477	(76)	-14%	$16,248	1.25	$7,748,378	218	(10)	259	(66)	11%
3322	Cutlery and Handtool Manufacturing	26	(79)	-75%	$26,529	0.27	$690,755	25	(63)	<10	N/A	-3%
5231	Securities and Commodity Contracts Brokerage	242	(81)	-25%	$125,253	0.21	$30,371,947	81	(38)	162	(43)	-2%
5418	Advertising, Public Relations, and Related Services	363	(83)	-19%	$50,611	0.30	$18,383,023	82	(46)	282	(37)	20%
4532	Office Supplies, Stationery, and Gift Stores	624	(90)	-13%	$19,582	0.85	$12,211,071	195	(92)	429	2	-7%
4512	Book Stores and News Dealers	207	(90)	-30%	$16,527	0.96	$3,426,707	36	(9)	171	(81)	-28%
3332	Industrial Machinery Manufacturing	183	(98)	-35%	$47,057	0.67	$8,616,611	118	(72)	65	(26)	11%
3345	Navigational, Measuring, Electromedical, and Control Instrume	2,829	(102)	-3%	$52,323	2.86	$148,037,820	1,500	(288)	1,330	185	-3%
4452	Specialty Food Stores	284	(106)	-27%	$17,845	0.49	$5,065,898	141	(58)	143	(48)	9%
4241	Paper and Paper Product Merchant Wholesalers	146	(111)	-43%	$50,368	0.47	$7,365,846	62	(66)	85	(45)	0%
3344	Semiconductor and Other Electronic Component Manufacturing	400	(140)	-26%	$37,953	0.43	$15,173,281	266	(54)	133	(86)	0%
6241	Individual and Family Services	2,276	(143)	-6%	$24,750	0.44	$56,338,761	676	(111)	1,600	(32)	69%

		Northeast Indiana						10 Regional Counties		Alen County		U.S
NAICS	Industry	2015 Jobs	5-year Job Growth		Annual Wage	LQ	Total Payroll	2015 Jobs	5-year Growth	2015 Jobs	5-year Growth	U.S. Growth
6112	Junior Colleges	99	(149)	-60%	$41,332	1.03	$4,101,571	<10	N/A	90	(159)	-24%
3334	HVAC and Commercial Refrigeration Equipment Manufacturing	699	(157)	-18%	$64,395	2.21	$45,038,995	73	50	626	(207)	0%
9029	State Government, Excluding Education and Hospitals	1,620	(164)	-9%	$36,360	0.28	$58,902,191	1,000	(37)	620	(127)	-4%
3115	Dairy Product Manufacturing	1,089	(167)	-13%	$41,854	3.18	$45,573,689	312	(286)	777	119	5%
2362	Nonresidential Building Construction	1,167	(179)	-13%	$52,576	0.65	$61,333,016	465	(40)	701	(139)	10%
4481	Clothing Stores	1,514	(188)	-11%	$15,776	0.58	$23,879,358	299	(3)	1,215	(185)	-3%
5111	Newspaper, Periodical, Book, and Directory Publishers	1,190	(194)	-14%	$35,519	1.19	$42,257,641	894	(91)	295	(102)	-20%
3315	Foundries	1,687	(201)	-11%	$43,400	5.39	$73,231,828	1,570	(94)	117	(107)	12%
5221	Depository Credit Intermediation	3,857	(202)	-5%	$43,253	0.91	$166,844,938	1,954	(57)	1,904	(145)	-2%
3231	Printing and Related Support Activities	3,790	(214)	-5%	$38,203	3.41	$144,801,945	2,951	(178)	839	(36)	-9%
3336	Engine, Turbine, and Power Transmission Equipment Mfg	308	(257)	-46%	$69,507	1.25	$21,375,280	180	(187)	128	(71)	8%
5416	Management, Scientific, and Technical Consulting Services	870	(266)	-23%	$54,888	0.27	$47,755,948	223	85	647	(351)	28%
5417	Scientific Research and Development Services	230	(267)	-54%	$68,025	0.14	$15,633,319	94	59	135	(327)	6%
4236	Household Appliances and Electronic Wholesalers	600	(293)	-33%	$64,175	0.73	$38,523,070	143	(27)	457	(266)	6%
6232	Residential Mental Health and Substance Abuse Facilities	851	(390)	-31%	$24,262	0.55	$20,644,912	414	(127)	437	(263)	10%
3333	Commercial and Service Industry Machinery Manufacturing	613	(420)	-41%	$52,010	2.83	$31,887,468	489	(171)	125	(249)	-7%
9011	Federal Government, Civilian	2,570	(449)	-15%	$64,419	0.37	$165,559,237	749	(227)	1,821	(223)	-8%
3353	Electrical Equipment Manufacturing	577	(506)	-47%	$50,224	1.61	$28,982,754	388	(380)	189	(126)	6%
5616	Investigation and Security Services	846	(529)	-38%	$26,146	0.38	$22,118,828	48	(8)	797	(522)	15%
3342	Communications Equipment Manufacturing	1,575	(1,426)	-48%	$98,819	7.04	$155,687,473	0	(20)	1,575	(1,406)	-23%

Source: EMSI 2015.4 Class of Worker

APPENDIX B: REGIONAL EMPLOYMENT DATA – ALL 4-DIGIT NAICS SORTED BY NAICS CODE

		Northeast Indiana						*10 Regional Counties*		*Alen County*		*U.S*
NAICS	**Industry**	**2015 Jobs**	**5-year Job Growth**		**Average Annual Wage**	**LQ**	**Total Payroll**	**2015 Jobs**	**5-year Growth**	**2015 Jobs**	**5-year Growth**	**U.S. Growth**
	Total Employment	**350,434**	**31,129**	**10%**	**$40,104**	**-**	**$14,053,811,029**	**169,095**	**19,377**	**181,339**	**11,752**	**9%**
1110	Crop Production	694	144	26%	$35,254	0.49	$24,481,059	528	85	166	60	6%
1120	Animal Production and Aquaculture	1,418	263	23%	$32,175	2.28	$45,633,453	1,400	261	19	2	10%
1133	Logging	16	(19)	-54%	$31,489	0.13	$509,637	11	(23)	<10	N/A	4%
1151	Support Activities for Crop Production	104	7	7%	$40,504	0.13	$4,221,868	104	7	0	0	12%
1152	Support Activities for Animal Production	91	10	12%	$19,822	1.28	$1,798,902	67	7	24	3	4%
2123	Nonmetallic Mineral Mining and Quarrying	239	23	11%	$54,096	1.10	$12,954,837	150	45	89	(22)	0%
2211	Electric Power Generation, Transmission and Distribution	796	18	2%	$82,375	0.80	$65,610,666	369	11	427	7	0%
2212	Natural Gas Distribution	44	14	44%	$130,142	0.15	$5,717,842	43	14	<10	N/A	4%
2213	Water, Sewage and Other Systems	85	(14)	-14%	$33,341	0.68	$2,849,624	41	5	45	(19)	7%
2361	Residential Building Construction	1,297	7	1%	$35,046	0.76	$45,468,798	630	76	667	(69)	17%
2362	Nonresidential Building Construction	1,167	(179)	-13%	$52,576	0.65	$61,333,016	465	(40)	701	(139)	10%
2371	Utility System Construction	571	(6)	-1%	$49,564	0.48	$28,295,348	224	(78)	347	72	24%
2372	Land Subdivision	20	1	4%	$45,355	0.18	$898,720	<10	N/A	18	1	-16%
2373	Highway, Street, and Bridge Construction	807	(68)	-8%	$65,883	1.06	$53,134,906	290	75	517	(143)	6%
2379	Other Heavy and Civil Engineering Construction	88	27	44%	$45,747	0.33	$4,045,768	81	26	<10	N/A	13%
2381	Foundation, Structure, and Building Exterior Contractors	1,699	175	11%	$38,667	0.87	$65,683,104	683	75	1,016	100	16%
2382	Building Equipment Contractors	4,636	272	6%	$50,894	0.97	$235,928,569	1,548	203	3,088	69	17%
2383	Building Finishing Contractors	1,347	118	10%	$37,498	0.73	$50,500,830	433	62	914	56	14%
2389	Other Specialty Trade Contractors	1,126	(42)	-4%	$37,294	0.76	$42,011,811	583	30	544	(73)	15%
3111	Animal Food Manufacturing	182	44	32%	$47,326	1.32	$8,617,698	173	47	<10	N/A	7%
3112	Grain and Oilseed Milling	309	(8)	-3%	$59,302	2.10	$18,313,875	309	(8)	0	0	0%
3113	Sugar and Confectionery Product Manufacturing	493	(47)	-9%	$32,747	2.82	$16,130,120	481	(11)	12	(36)	5%
3114	Fruit and Vegetable Preserving and Specialty Food Mfg	206	(35)	-14%	$35,551	0.48	$7,340,121	206	(35)	0	0	-2%
3115	Dairy Product Manufacturing	1,089	(167)	-13%	$41,854	3.18	$45,573,689	312	(286)	777	119	5%
3116	Animal Slaughtering and Processing	1,301	175	16%	$37,445	1.07	$48,730,073	1,283	172	19	3	0%
3118	Bakeries and Tortilla Manufacturing	973	103	12%	$34,219	1.31	$33,289,107	391	48	581	55	7%
3119	Other Food Manufacturing	680	113	20%	$41,269	1.41	$28,075,012	513	77	167	35	18%
3121	Beverage Manufacturing	153	97	171%	$31,349	0.29	$4,807,878	147	91	<10	N/A	25%
3132	Fabric Mills	75	(4)	-5%	$47,543	0.55	$3,566,067	75	(4)	0	0	1%
3133	Textile and Fabric Finishing and Fabric Coating Mills	96	17	22%	$44,515	1.16	$4,267,576	58	4	38	14	-9%
3141	Textile Furnishings Mills	88	(75)	-46%	$34,709	0.68	$3,067,889	72	(27)	17	(48)	-9%
3149	Other Textile Product Mills	408	180	79%	$36,806	2.63	$15,025,534	309	182	100	(2)	0%
3152	Cut and Sew Apparel Manufacturing	117	(3)	-3%	$24,251	0.41	$2,828,904	24	7	93	(10)	-10%
3159	Apparel Accessories and Other Apparel Manufacturing	0	(17)	-100%	$0	0.00	$0	0	0	0	(17)	-17%
3169	Other Leather and Allied Product Manufacturing	840	248	42%	$47,756	28.47	$40,103,517	<10	N/A	837	247	7%
3211	Sawmills and Wood Preservation	85	(0)	0%	$32,429	0.37	$2,759,672	78	7	<10	N/A	10%
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	125	(23)	-16%	$32,451	0.69	$4,048,642	114	(34)	11	11	14%
3219	Other Wood Product Manufacturing	2,097	745	55%	$36,834	3.96	$77,230,114	1,990	710	106	35	8%
3221	Pulp, Paper, and Paperboard Mills	342	19	6%	$52,319	1.33	$17,886,621	229	(42)	113	61	-9%

		Northeast Indiana						10 Regional Counties		Alen County		U.S
NAICS	Industry	2015 Jobs	5-year Job Growth		Average Annual Wage	LQ	Total Payroll	2015 Jobs	5-year Growth	2015 Jobs	5-year Growth	U.S. Growth
3222	Converted Paper Product Manufacturing	1,281	130	11%	$48,556	1.91	$62,203,600	792	99	489	31	-5%
3231	Printing and Related Support Activities	3,790	(214)	-5%	$38,203	3.41	$144,801,945	2,951	(178)	839	(36)	-9%
3241	Petroleum and Coal Products Manufacturing	143	11	9%	$65,964	0.51	$9,459,429	116	26	27	(15)	0%
3251	Basic Chemical Manufacturing	429	74	21%	$55,567	1.17	$23,841,267	419	68	<10	N/A	4%
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers Mfg	184	(39)	-17%	$50,270	0.78	$9,266,890	182	(25)	<10	N/A	5%
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Mfg	74	55	288%	$54,342	0.80	$4,002,778	41	N/A	33	21	3%
3255	Paint, Coating, and Adhesive Manufacturing	122	(48)	-28%	$45,592	0.81	$5,561,428	121	(44)	<10	N/A	8%
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturi	409	77	23%	$55,631	1.55	$22,774,601	408	77	<10	N/A	4%
3259	Other Chemical Product and Preparation Manufacturing	61	(30)	-33%	$42,759	0.30	$2,608,599	15	(36)	46	6	-2%
3261	Plastics Product Manufacturing	5,475	683	14%	$42,751	3.94	$234,045,317	3,405	319	2,069	364	10%
3262	Rubber Product Manufacturing	2,821	183	7%	$59,606	8.38	$168,138,920	1,004	(25)	1,817	209	10%
3271	Clay Product and Refractory Manufacturing	24	1	4%	$60,696	0.24	$1,441,494	24	1	0	0	-1%
3272	Glass and Glass Product Manufacturing	1,326	742	127%	$44,752	6.21	$59,320,362	1,326	742	0	0	8%
3273	Cement and Concrete Product Manufacturing	489	116	31%	$46,542	1.07	$22,741,438	262	73	226	43	7%
3279	Other Nonmetallic Mineral Product Manufacturing	522	203	64%	$41,534	2.78	$21,661,835	339	98	183	105	14%
3311	Iron and Steel Mills and Ferroalloy Manufacturing	1,571	260	20%	$91,242	7.00	$143,356,456	1,324	102	247	157	4%
3312	Steel Product Manufacturing from Purchased Steel	768	174	29%	$43,938	5.18	$33,731,772	129	18	639	156	13%
3313	Alumina and Aluminum Production and Processing	1,010	355	54%	$44,043	6.89	$44,477,840	792	364	218	(9)	8%
3314	Nonferrous Metal (except Aluminum) Production and Processin	999	175	21%	$55,164	6.37	$55,131,312	273	55	726	120	8%
3315	Foundries	1,687	(201)	-11%	$43,400	5.39	$73,231,828	1,570	(94)	117	(107)	12%
3321	Forging and Stamping	884	237	37%	$42,769	3.53	$37,819,632	653	157	232	80	13%
3322	Cutlery and Handtool Manufacturing	26	(79)	-75%	$26,529	0.27	$690,755	25	(63)	<10	N/A	-3%
3323	Architectural and Structural Metals Manufacturing	3,602	726	25%	$52,507	3.95	$189,139,185	2,873	563	729	163	14%
3324	Boiler, Tank, and Shipping Container Manufacturing	418	73	21%	$35,061	1.71	$14,657,577	390	45	28	N/A	15%
3325	Hardware Manufacturing	272	95	54%	$63,953	4.46	$17,394,784	270	95	<10	N/A	3%
3326	Spring and Wire Product Manufacturing	386	20	5%	$35,882	3.58	$13,842,010	352	33	33	(14)	1%
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Mfg	3,332	737	28%	$47,507	3.59	$158,282,720	2,760	581	572	156	19%
3328	Coating, Engraving, Heat Treating, and Allied Activities	1,899	425	29%	$39,667	5.48	$75,324,353	1,467	526	432	(102)	14%
3329	Other Fabricated Metal Product Manufacturing	2,390	1,292	118%	$45,184	3.45	$107,968,714	1,793	1,183	597	109	12%
3331	Agriculture, Construction, and Mining Machinery Manufacturing	812	48	6%	$66,455	1.33	$53,949,597	365	(63)	447	112	19%
3332	Industrial Machinery Manufacturing	183	(98)	-35%	$47,057	0.67	$8,616,611	118	(72)	65	(26)	11%
3333	Commercial and Service Industry Machinery Manufacturing	613	(420)	-41%	$52,010	2.83	$31,887,468	489	(171)	125	(249)	-7%
3334	HVAC and Commercial Refrigeration Equipment Manufacturing	699	(157)	-18%	$64,395	2.21	$45,038,995	73	50	626	(207)	0%
3335	Metalworking Machinery Manufacturing - duplicate	1,975	211	12%	$50,320	4.27	$99,366,708	788	44	1,186	167	19%
3335	Metalworking Machinery Manufacturing - duplicate	1,975	211	12%	$50,320	4.27	$99,366,708	788	44	1,186	167	19%
3336	Engine, Turbine, and Power Transmission Equipment Mfg	308	(257)	-46%	$69,507	1.25	$21,375,280	180	(187)	128	(71)	8%
3339	Other General Purpose Machinery Manufacturing	1,896	580	44%	$48,852	2.87	$92,632,973	1,271	361	625	220	17%
3342	Communications Equipment Manufacturing	1,575	(1,426)	-48%	$98,819	7.04	$155,687,473	0	(20)	1,575	(1,406)	-23%
3344	Semiconductor and Other Electronic Component Manufacturing	400	(140)	-26%	$37,953	0.43	$15,173,281	266	(54)	133	(86)	0%
3345	Navigational, Measuring, Electromedical, and Control Instrume	2,829	(102)	-3%	$52,323	2.86	$148,037,820	1,500	(288)	1,330	185	-3%

		Northeast Indiana						10 Regional Counties		Alen County		U.S
NAICS	Industry	2015 Jobs	5-year Job	Growth	Average Annual Wage	LQ	Total Payroll	2015 Jobs	5-year Growth	2015 Jobs	5-year Growth	U.S. Growth
3346	Manufacturing and Reproducing Magnetic and Optical Media	13	(2)	-16%	$66,937	0.32	$873,962	0	0	13	(2)	-36%
3351	Electric Lighting Equipment Manufacturing	423	147	53%	$47,956	3.59	$20,272,492	415	195	<10	N/A	3%
3352	Household Appliance Manufacturing	70	58	477%	$60,042	0.46	$4,217,823	51	39	19	N/A	4%
3353	Electrical Equipment Manufacturing	577	(506)	-47%	$50,224	1.61	$28,982,754	388	(380)	189	(126)	6%
3359	Other Electrical Equipment and Component Manufacturing	862	385	81%	$38,219	2.69	$32,952,815	763	312	99	73	8%
3361	Motor Vehicle Manufacturing	4,929	1,677	52%	$80,454	9.07	$396,517,004	19	(43)	4,910	1,720	41%
3362	Motor Vehicle Body and Trailer Manufacturing	4,446	1,599	56%	$51,425	11.92	$228,645,244	4,251	1,511	195	88	36%
3363	Motor Vehicle Parts Manufacturing	8,140	2,020	33%	$46,962	5.78	$382,286,911	6,769	1,464	1,371	556	35%
3366	Ship and Boat Building	836	378	83%	$39,967	2.44	$33,413,248	733	358	103	20	10%
3369	Other Transportation Equipment Manufacturing	162	87	117%	$39,350	1.98	$6,376,374	86	70	76	17	-2%
3371	Household and Institutional Furniture and Kitchen Cabinet Mfg	2,952	1,048	55%	$33,775	4.86	$99,715,981	2,101	979	852	69	9%
3372	Office Furniture (including Fixtures) Manufacturing	229	111	93%	$40,207	0.86	$9,226,769	198	110	31	0	10%
3379	Other Furniture Related Product Manufacturing	148	65	79%	$38,981	1.67	$5,781,655	14	N/A	135	53	-3%
3391	Medical Equipment and Supplies Manufacturing	8,462	936	12%	$81,367	10.69	$688,563,736	8,082	764	380	172	4%
3399	Other Miscellaneous Manufacturing	2,696	879	48%	$44,357	3.79	$119,600,731	1,599	668	1,098	211	7%
4231	Motor Vehicle and Motor Vehicle Parts Wholesalers	1,275	125	11%	$39,489	1.51	$50,352,504	554	151	721	(26)	9%
4232	Furniture and Home Furnishing Merchant Wholesalers	49	(27)	-35%	$49,370	0.19	$2,399,852	17	(19)	32	(8)	12%
4233	Lumber and Other Construction Materials Merchant Wholesale	393	(4)	-1%	$46,414	0.76	$18,258,183	96	44	297	(49)	9%
4234	Professional and Commercial Equipment Wholesalers	2,007	390	24%	$89,570	1.29	$179,786,117	1,061	398	946	(8)	2%
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	686	(17)	-2%	$62,708	2.13	$43,037,245	493	22	193	(40)	15%
4236	Household Appliances and Electronic Wholesalers	600	(293)	-33%	$64,175	0.73	$38,523,070	143	(27)	457	(266)	6%
4237	Hardware, and Plumbing and Heating Equipment Wholesalers	1,185	180	18%	$57,060	1.97	$67,613,437	174	82	1,011	99	9%
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	2,065	377	22%	$53,094	1.21	$109,649,659	775	156	1,290	221	12%
4239	Miscellaneous Durable Goods Merchant Wholesalers	1,425	216	18%	$54,841	1.89	$78,138,433	368	141	1,057	75	8%
4241	Paper and Paper Product Merchant Wholesalers	146	(111)	-43%	$50,368	0.47	$7,365,846	62	(66)	85	(45)	0%
4242	Drugs and Druggists' Sundries Merchant Wholesalers	112	(34)	-23%	$76,429	0.22	$8,588,763	75	(8)	37	(25)	6%
4243	Apparel, Piece Goods, and Notions Merchant Wholesalers	91	(10)	-10%	$39,128	0.24	$3,552,341	55	44	35	(54)	9%
4244	Grocery and Related Product Merchant Wholesalers	1,954	41	2%	$42,094	1.04	$82,234,447	683	(58)	1,271	99	5%
4245	Farm Product Raw Material Merchant Wholesalers	639	(32)	-5%	$35,231	3.39	$22,498,223	557	(66)	82	35	1%
4246	Chemical and Allied Products Merchant Wholesalers	352	37	12%	$55,785	1.07	$19,657,289	64	(10)	288	48	9%
4247	Petroleum and Petroleum Products Merchant Wholesalers	464	61	15%	$53,731	1.84	$24,946,285	277	60	188	1	8%
4248	Beer, Wine, and Distilled Alcoholic Beverage Wholesalers	90	(13)	-12%	$53,664	0.19	$4,837,372	19	(44)	71	31	16%
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	1,315	119	10%	$45,703	1.57	$60,111,483	833	101	482	18	2%
4251	Wholesale Electronic Markets and Agents and Brokers	1,058	245	30%	$45,621	0.46	$48,263,399	337	141	721	105	12%
4411	Automobile Dealers	3,015	296	11%	$44,877	0.98	$135,313,323	1,125	42	1,890	254	21%
4412	Other Motor Vehicle Dealers	641	196	44%	$34,008	1.75	$21,786,944	509	165	131	30	14%
4413	Automotive Parts, Accessories, and Tire Stores	1,557	262	20%	$28,717	1.13	$44,720,745	712	144	845	118	12%
4421	Furniture Stores	606	(3)	0%	$29,586	1.10	$17,915,515	264	15	342	(17)	2%
4422	Home Furnishings Stores	562	4	1%	$27,791	0.91	$15,620,523	156	(0)	406	4	11%

		Northeast Indiana						*10 Regional Counties*		*Alen County*		*U.S*
NAICS	**Industry**	**2015 Jobs**	**5-year Job Growth**		**Average Annual Wage**	**LQ**	**Total Payroll**	**2015 Jobs**	**5-year Growth**	**2015 Jobs**	**5-year Growth**	**U.S. Growth**
4431	Electronics and Appliance Stores	987	16	2%	$32,164	0.78	$31,752,232	343	33	644	(17)	-4%
4441	Building Material and Supplies Dealers	3,112	194	7%	$27,513	1.13	$85,631,396	1,494	73	1,618	121	8%
4442	Lawn and Garden Equipment and Supplies Stores	475	154	48%	$28,046	1.26	$13,315,713	338	119	137	35	16%
4451	Grocery Stores	3,997	129	3%	$19,428	0.60	$77,659,465	2,041	(20)	1,956	149	8%
4452	Specialty Food Stores	284	(106)	-27%	$17,845	0.49	$5,065,898	141	(58)	143	(48)	9%
4453	Beer, Wine, and Liquor Stores	477	(76)	-14%	$16,248	1.25	$7,748,378	218	(10)	259	(66)	11%
4461	Health and Personal Care Stores	2,072	50	2%	$29,182	0.80	$60,466,774	807	(4)	1,265	54	5%
4471	Gasoline Stations	2,708	462	21%	$15,684	1.19	$42,477,751	1,744	293	964	169	11%
4481	Clothing Stores	1,514	(188)	-11%	$15,776	0.58	$23,879,358	299	(3)	1,215	(185)	-3%
4482	Shoe Stores	354	73	26%	$18,525	0.67	$6,563,679	97	41	258	32	16%
4483	Jewelry, Luggage, and Leather Goods Stores	230	19	9%	$30,405	0.65	$7,006,187	62	(2)	168	21	8%
4511	Sporting Goods, Hobby, and Musical Instrument Stores	976	58	6%	$16,700	0.75	$16,291,983	304	38	672	20	13%
4512	Book Stores and News Dealers	207	(90)	-30%	$16,527	0.96	$3,426,707	36	(9)	171	(81)	-28%
4521	Department Stores	2,206	(14)	-1%	$14,783	0.66	$32,604,451	488	38	1,717	(52)	-11%
4529	Other General Merchandise Stores	6,654	119	2%	$20,901	1.42	$139,078,899	3,551	(69)	3,104	188	25%
4531	Florists	171	(52)	-23%	$13,298	1.09	$2,272,553	57	(35)	114	(17)	-7%
4532	Office Supplies, Stationery, and Gift Stores	624	(90)	-13%	$19,582	0.85	$12,211,071	195	(92)	429	2	-7%
4533	Used Merchandise Stores	564	141	33%	$17,333	1.34	$9,781,626	102	8	462	133	33%
4539	Other Miscellaneous Store Retailers	739	(44)	-6%	$19,180	0.96	$14,182,100	338	30	401	(74)	14%
4541	Electronic Shopping and Mail-Order Houses	1,161	611	111%	$40,629	1.33	$47,184,997	315	165	846	446	43%
4542	Vending Machine Operators	272	23	9%	$20,037	2.79	$5,447,805	241	42	31	(19)	1%
4543	Direct Selling Establishments	226	(3)	-1%	$40,193	0.64	$9,084,263	149	(36)	77	33	5%
4811	Scheduled Air Transportation	152	N/A	N/A	$34,876	0.15	$5,294,024	26	N/A	126	N/A	2%
4812	Nonscheduled Air Transportation	25	(4)	-15%	$65,387	0.26	$1,644,482	18	0	<10	N/A	-6%
4841	General Freight Trucking	5,087	402	9%	$48,446	2.05	$246,450,945	1,617	(85)	3,470	486	13%
4842	Specialized Freight Trucking	1,803	624	53%	$46,237	1.57	$83,343,118	1,042	476	761	148	20%
4853	Taxi and Limousine Service	44	18	73%	$18,859	0.21	$821,635	17	N/A	27	12	20%
4855	Charter Bus Industry	54	34	177%	$24,683	0.71	$1,329,094	<10	N/A	49	37	1%
4859	Other Transit and Ground Passenger Transportation	117	57	96%	$17,742	0.47	$2,067,045	26	N/A	91	38	23%
4871	Scenic and Sightseeing Transportation, Land	21	(1)	-6%	$2,514	0.60	$51,781	16	N/A	<10	N/A	32%
4881	Support Activities for Air Transportation	174	89	104%	$32,225	0.38	$5,603,971	110	66	64	22	18%
4882	Support Activities for Rail Transportation	26	(14)	-36%	$38,589	0.31	$1,002,488	0	0	26	(14)	50%
4884	Support Activities for Road Transportation	269	49	22%	$30,589	1.13	$8,221,531	120	9	149	40	17%
4885	Freight Transportation Arrangement	195	58	42%	$44,700	0.38	$8,727,711	57	36	138	22	20%
4889	Other Support Activities for Transportation	264	103	63%	$42,544	3.37	$11,241,312	237	112	27	(10)	21%
4921	Couriers and Express Delivery Services	973	325	50%	$36,567	0.73	$35,572,846	134	91	839	234	11%
4922	Local Messengers and Local Delivery	151	58	63%	$31,409	1.09	$4,727,165	40	26	110	32	28%
4931	Warehousing and Storage	2,210	515	30%	$37,528	1.13	$82,928,569	1,455	318	755	197	23%
5111	Newspaper, Periodical, Book, and Directory Publishers	1,190	(194)	-14%	$35,519	1.19	$42,257,641	894	(91)	295	(102)	-20%
5112	Software Publishers	78	(39)	-33%	$56,808	0.10	$4,415,424	25	(10)	53	(29)	22%

		Northeast Indiana						10 Regional Counties		Alen County		U.S
NAICS	Industry	2015 Jobs	5-year Job Growth		Average Annual Wage	LQ	Total Payroll	2015 Jobs	5-year Growth	2015 Jobs	5-year Growth	U.S. Growth
5121	Motion Picture and Video Industries	238	(59)	-20%	$12,542	0.25	$2,980,973	92	(44)	145	(16)	8%
5151	Radio and Television Broadcasting	586	(41)	-7%	$43,377	1.06	$25,433,316	155	(2)	431	(40)	4%
5171	Wired Telecommunications Carriers	1,639	27	2%	$65,626	1.08	$107,582,505	325	31	1,314	(4)	1%
5172	Wireless Telecommunications Carriers (except Satellite)	342	130	61%	$47,852	0.88	$16,350,063	64	45	278	85	-10%
5179	Other Telecommunications	100	(26)	-21%	$62,843	0.47	$6,266,097	90	(13)	<10	N/A	-30%
5182	Data Processing, Hosting, and Related Services	137	(20)	-13%	$62,753	0.19	$8,590,641	14	N/A	122	(34)	21%
5191	Other Information Services	62	(13)	-18%	$76,047	0.11	$4,751,650	<10	N/A	57	(10)	65%
5221	Depository Credit Intermediation	3,857	(202)	-5%	$43,253	0.91	$166,844,938	1,954	(57)	1,904	(145)	-2%
5222	Nondepository Credit Intermediation	503	168	50%	$57,168	0.34	$28,759,559	109	31	394	137	5%
5223	Activities Related to Credit Intermediation	256	(11)	-4%	$61,067	0.35	$15,661,818	26	(11)	230	0	15%
5231	Securities and Commodity Contracts Brokerage	242	(81)	-25%	$125,253	0.21	$30,371,947	81	(38)	162	(43)	-2%
5239	Other Financial Investment Activities	379	56	17%	$75,796	0.34	$28,703,799	133	29	246	27	33%
5241	Insurance Carriers	4,037	626	18%	$70,746	1.34	$285,635,820	92	37	3,946	589	3%
5242	Agencies, Brokerages, and Other Insurance Related Activities	2,407	163	7%	$52,137	0.92	$125,470,839	775	87	1,631	76	19%
5311	Lessors of Real Estate	824	107	15%	$27,384	0.56	$22,559,149	356	88	468	19	3%
5312	Offices of Real Estate Agents and Brokers	492	(54)	-10%	$38,886	0.66	$19,114,605	177	11	315	(64)	7%
5313	Activities Related to Real Estate	804	217	37%	$32,729	0.50	$26,299,342	170	24	633	193	18%
5321	Automotive Equipment Rental and Leasing	163	14	10%	$43,608	0.34	$7,115,736	29	11	134	3	19%
5322	Consumer Goods Rental	451	44	11%	$27,383	1.12	$12,341,220	213	33	238	11	-18%
5323	General Rental Centers	83	16	23%	$31,802	0.85	$2,650,247	51	18	32	(3)	-2%
5324	Commercial and Industrial Machinery and Equipment Rental	158	(8)	-5%	$61,087	0.44	$9,643,311	105	14	53	(22)	29%
5411	Legal Services	1,402	(52)	-4%	$46,153	0.50	$64,713,336	428	(22)	974	(30)	1%
5412	Accounting, Tax Preparation, Bookkeeping, Payroll Services	1,537	167	12%	$42,164	0.61	$64,814,105	624	(4)	913	171	14%
5413	Architectural, Engineering, and Related Services	1,441	18	1%	$55,451	0.41	$79,922,039	264	40	1,178	(23)	11%
5414	Specialized Design Services	143	50	54%	$34,490	0.43	$4,939,892	23	N/A	121	35	17%
5415	Computer Systems Design and Related Services	1,267	258	26%	$66,845	0.27	$84,659,676	301	98	965	160	31%
5416	Management, Scientific, and Technical Consulting Services	870	(266)	-23%	$54,888	0.27	$47,755,948	223	85	647	(351)	28%
5417	Scientific Research and Development Services	230	(267)	-54%	$68,025	0.14	$15,633,319	94	59	135	(327)	6%
5418	Advertising, Public Relations, and Related Services	363	(83)	-19%	$50,611	0.30	$18,383,023	82	(46)	282	(37)	20%
5419	Other Professional, Scientific, and Technical Services	954	37	4%	$32,602	0.58	$31,112,636	430	35	525	2	13%
5511	Management of Companies and Enterprises	3,161	890	39%	$75,382	0.57	$238,260,752	1,330	377	1,831	512	19%
5611	Office Administrative Services	367	260	242%	$48,785	0.31	$17,891,556	141	97	226	163	16%
5612	Facilities Support Services	26	12	83%	$28,597	0.08	$732,649	0	0	26	12	0%
5613	Employment Services	10,025	863	9%	$22,652	1.12	$227,091,463	4,422	666	5,603	197	31%
5614	Business Support Services	447	(69)	-13%	$29,191	0.20	$13,035,249	96	(23)	351	(46)	12%
5615	Travel Arrangement and Reservation Services	131	(33)	-20%	$36,017	0.26	$4,731,447	35	(17)	97	(16)	5%
5616	Investigation and Security Services	846	(529)	-38%	$26,146	0.38	$22,118,828	48	(8)	797	(522)	15%
5617	Services to Buildings and Dwellings	4,310	892	26%	$21,100	0.86	$90,942,957	1,150	238	3,160	654	15%

		Northeast Indiana						*10 Regional Counties*		*Alen County*		*U.S*
NAICS	**Industry**	**2015 Jobs**	**5-year Job Growth**		**Average Annual Wage**	**LQ**	**Total Payroll**	**2015 Jobs**	**5-year Growth**	**2015 Jobs**	**5-year Growth**	**U.S. Growth**
5619	Other Support Services	555	113	25%	$34,229	0.73	$18,988,369	304	73	251	40	10%
5621	Waste Collection	527	(33)	-6%	$48,585	1.29	$25,582,796	167	(33)	360	(0)	17%
5629	Remediation and Other Waste Management Services	278	11	4%	$38,790	0.81	$10,778,446	120	12	157	(1)	13%
6111	Elementary and Secondary Schools	1,957	184	10%	$25,168	1.02	$49,250,741	308	36	1,649	148	15%
6112	Junior Colleges	99	(149)	-60%	$41,332	1.03	$4,101,571	<10	N/A	90	(159)	-24%
6113	Colleges, Universities, and Professional Schools	3,028	659	28%	$30,791	1.01	$93,238,657	1,942	332	1,086	326	5%
6114	Business Schools and Computer and Management Training	110	(61)	-35%	$33,190	0.63	$3,667,135	60	12	51	(72)	-11%
6115	Technical and Trade Schools	214	9	4%	$27,177	0.69	$5,827,045	71	0	143	9	-1%
6116	Other Schools and Instruction	472	(18)	-4%	$12,761	0.50	$6,021,981	170	(50)	301	32	23%
6117	Educational Support Services	20	(18)	-46%	$40,057	0.06	$816,927	11	(1)	<10	N/A	23%
6211	Offices of Physicians	4,771	437	10%	$86,123	0.74	$410,927,939	1,016	119	3,756	318	10%
6212	Offices of Dentists	2,334	199	9%	$47,451	1.02	$110,736,350	894	52	1,440	147	10%
6213	Offices of Other Health Practitioners	1,710	348	26%	$35,273	0.83	$60,305,803	665	73	1,044	275	22%
6214	Outpatient Care Centers	1,983	488	33%	$36,685	1.07	$72,750,013	783	314	1,200	174	24%
6215	Medical and Diagnostic Laboratories	130	(27)	-17%	$55,680	0.20	$7,255,339	45	(10)	86	(17)	14%
6216	Home Health Care Services	2,097	603	40%	$25,264	0.63	$52,989,152	308	(27)	1,789	630	22%
6219	Other Ambulatory Health Care Services	754	(38)	-5%	$35,080	1.04	$26,458,295	136	(60)	618	23	15%
6221	General Medical and Surgical Hospitals	14,158	837	6%	$51,060	1.23	$722,896,028	2,593	(529)	11,565	1,366	5%
6222	Psychiatric and Substance Abuse Hospitals	389	249	177%	$29,388	1.41	$11,441,636	318	216	72	32	9%
6223	Specialty (except Psychiatric and Substance Abuse) Hospitals	171	36	27%	$47,807	0.31	$8,182,463	0	0	171	36	9%
6231	Nursing Care Facilities (Skilled Nursing Facilities)	6,972	449	7%	$25,935	1.68	$180,827,530	3,943	166	3,029	283	0%
6232	Residential Mental Health and Substance Abuse Facilities	851	(390)	-31%	$24,262	0.55	$20,644,912	414	(127)	437	(263)	10%
6233	Continuing Care Retirement Communities and Assisted Living	2,662	57	2%	$22,767	1.22	$60,610,959	1,408	(171)	1,254	227	17%
6239	Other Residential Care Facilities	671	172	35%	$22,762	1.64	$15,270,444	266	(58)	405	231	1%
6241	Individual and Family Services	2,276	(143)	-6%	$24,750	0.44	$56,338,761	676	(111)	1,600	(32)	69%
6242	Community Food and Housing, and Emergency Services	454	240	112%	$24,878	1.16	$11,305,175	40	(13)	414	253	10%
6243	Vocational Rehabilitation Services	3,018	578	24%	$19,717	3.59	$59,502,405	1,708	508	1,310	70	2%
6244	Child Day Care Services	1,251	(33)	-3%	$19,155	0.61	$23,954,846	229	59	1,022	(92)	4%
7111	Performing Arts Companies	253	31	14%	$20,668	0.83	$5,237,321	64	9	189	22	11%
7112	Spectator Sports	362	50	16%	$14,051	1.00	$5,086,769	<10	N/A	353	60	12%
7113	Promoters of Performing Arts, Sports, and Similar Events	162	87	116%	$16,953	0.51	$2,745,789	136	63	26	N/A	36%
7115	Independent Artists, Writers, and Performers	46	31	201%	$36,573	0.33	$1,676,729	20	N/A	26	N/A	24%
7121	Museums, Historical Sites, and Similar Institutions	250	(9)	-4%	$24,047	0.67	$6,019,663	35	(20)	216	10	17%
7132	Gambling Industries	58	16	37%	$13,785	0.18	$799,411	0	0	58	16	3%
7139	Other Amusement and Recreation Industries	2,105	31	1%	$13,719	0.69	$28,876,154	705	(38)	1,400	68	11%
7211	Traveler Accommodation	2,146	590	38%	$16,146	0.47	$34,655,454	925	154	1,221	435	8%
7212	RV (Recreational Vehicle) Parks and Recreational Camps	298	125	72%	$16,913	1.99	$5,048,342	298	125	0	0	14%
7213	Rooming and Boarding Houses	11	(30)	-74%	$33,000	0.34	$349,044	11	(30)	0	0	17%

		Northeast Indiana						*10 Regional Counties*		*Alen County*		*U.S*
NAICS	**Industry**	**2015 Jobs**	**5-year Job Growth**		**Average Annual Wage**	**LQ**	**Total Payroll**	**2015 Jobs**	**5-year Growth**	**2015 Jobs**	**5-year Growth**	**U.S. Growth**
7223	Special Food Services	1,079	332	44%	$17,748	0.67	$19,144,981	294	7	784	325	20%
7224	Drinking Places (Alcoholic Beverages)	1,170	17	2%	$12,123	1.24	$14,181,917	339	57	831	(39)	9%
7225	Restaurants and Other Eating Places	23,629	1,722	8%	$12,844	0.94	$303,496,739	10,224	841	13,405	881	18%
8111	Automotive Repair and Maintenance	2,634	468	22%	$32,748	1.19	$86,255,484	1,208	251	1,426	217	11%
8112	Electronic and Precision Equipment Repair and Maintenance	270	0	0%	$37,083	1.03	$9,997,150	125	8	145	(7)	7%
8113	Commercial and Industrial Machinery Repair and Maintenance	659	118	22%	$39,449	1.29	$25,998,264	316	39	343	79	18%
8114	Personal and Household Goods Repair and Maintenance	216	38	21%	$31,353	1.15	$6,758,587	142	52	74	(14)	11%
8121	Personal Care Services	1,247	(27)	-2%	$17,517	0.76	$21,848,476	487	(29)	760	2	9%
8122	Death Care Services	482	24	5%	$29,753	1.41	$14,327,999	240	(4)	242	28	4%
8123	Drycleaning and Laundry Services	751	(1)	0%	$34,826	0.98	$26,151,969	312	32	439	(33)	1%
8129	Other Personal Services	417	183	78%	$16,562	0.56	$6,898,387	161	48	255	135	25%
8131	Religious Organizations	93	(24)	-21%	$18,702	0.20	$1,745,008	55	(11)	38	(13)	4%
8132	Grantmaking and Giving Services	160	30	23%	$38,733	0.47	$6,181,460	73	24	86	5	8%
8133	Social Advocacy Organizations	92	(41)	-31%	$22,954	0.18	$2,107,927	57	8	35	(50)	7%
8134	Civic and Social Organizations	1,822	138	8%	$9,565	1.84	$17,423,387	1,025	122	797	16	1%
8139	Business, Professional, Labor, Political, and Similar Orgs	644	(14)	-2%	$23,719	0.59	$15,286,815	321	21	324	(35)	2%
8141	Private Households	258	(46)	-15%	$17,663	0.37	$4,548,610	136	(42)	121	(5)	-56%
9011	Federal Government, Civilian	2,570	(449)	-15%	$64,419	0.37	$165,559,237	749	(227)	1,821	(223)	-8%
9026	Education and Hospitals (State Government)	2,430	(32)	-1%	$36,297	0.42	$88,197,590	0	0	2,430	(32)	4%
9029	State Government, Excluding Education and Hospitals	1,620	(164)	-9%	$36,360	0.28	$58,902,191	1,000	(37)	620	(127)	-4%
9036	Education and Hospitals (Local Government)	18,799	314	2%	$34,772	0.90	$653,676,519	11,400	(27)	7,399	341	-2%
9039	Local Government, Excluding Education and Hospitals	10,716	(30)	0%	$34,892	0.77	$373,907,675	5,199	116	5,517	(146)	0%

Source: EMSI 2015.4 Class of Worker

APPENDIX C: OLD PARTNERSHIP TARGET DEFINITIONS

Northeast Indiana Regional Partnership
NAICS Codes and Titles by Target Industry

Defense
3329 Other Fabricated Metal Product Manufacturing
3335 Metalworking Machinery Manufacturing
3342 Communications Equipment Manufacturing
3344 Semiconductor and Other Electronic Component Manufacturing
3345 Navigational, Measuring, Electromedical, and Control Instruments

Manufacturing
3359 Other Electrical Equipment and Component Manufacturing
5415 Computer Systems Design and Related Services
5417 Scientific Research and Development Services

Food Processing
1120 Animal Production and Aquaculture
3112 Grain and Oilseed Milling
3113 Sugar and Confectionery Product Manufacturing
3114 Fruit and Vegetable Preserving and Specialty Food Manufacturing
3115 Dairy Product Manufacturing
3116 Animal Slaughtering and Processing
3118 Bakeries and Tortilla Manufacturing
3119 Other Food Manufacturing
3121 Beverage Manufacturing

Insurance
5241 Insurance Carriers
5242 Agencies, Brokerages, and Other Insurance Related Activities

Logistics
4244 Grocery and Related Product Merchant Wholesalers
4821 Rail Transportation
4841 General Freight Trucking
4842 Specialized Freight Trucking
4885 Freight Transportation Arrangement
4931 Warehousing and Storage

Medical Devices
3261 Plastics Product Manufacturing
3312 Steel Product Manufacturing from Purchased Steel
3321 Forging and Stamping
3335 Metalworking Machinery Manufacturing
3345 Navigational, Measuring, Electromedical, and Control Instruments
3391 Medical Equipment and Supplies Manufacturing
5415 Computer Systems Design and Related Services

Vehicles
3262 Rubber Product Manufacturing
3272 Glass and Glass Product Manufacturing
3327 Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing
3328 Coating, Engraving, Heat Treating, and Allied Activities
3361 Motor Vehicle Manufacturing
3362 Motor Vehicle Body and Trailer Manufacturing
3363 Motor Vehicle Parts Manufacturing
3366 Ship and Boat Building

ENDNOTES

Medical Device and Technology

[i] Federal Drug and Food Administration (2016). Regulatory Science in FDA's Center for Devices and Radiological Health: A Vital Framework for Protecting and Promoting Public Health.
[ii] Pricewaterhouse Coopers. (2015). Top Health Industry Issues of 2016.
[iii] East West Manufacturing. (2016). Three Medical Device Trends to Watch Out for in 2016.
[iv] Ibid.

Specialty Insurance

[v] Deloitte. 2016 Insurance Trends: Taking a Closer Look.
[vi] Ibid.
[vii] Vertafore – *leader in modern insurance technology*. (2013). 7 Technology Trends Transforming the Insurance Industry.

Vehicles

[viii] Pricewaterhouse Coopers (2015). 2015 Auto Industry Trends.
[ix] Wall Street Journal (2016). Auto Industry Looks for Bumper Year in 2016.
[x] McKinsey and Company. (2016). Disruptive Trends that Will Transform the Auto Industry.
[xi] The New York Times. (2016). The Commute of the Future? Ford is Working on It.
[xii] McKinsey and Company. (2016). Disruptive Trends that Will Transform the Auto Industry.

Design and Craftsmanship

[xiii] CMO by Adobe. (2015). Top Trends to Shape 2016.
[xiv] World Economic Forum. (2016). Global Agenda Council on the Creative Economy.
[xv] Accenture. (2015). U.S. Consumers Want More Personalized Retail Experience and Control Over Personal Information, Accenture Survey Shows.
[xvi] Traf-sys. (2015). Why Personalized Retail is the Future of Brick-and-Mortar Stores.
[xvii] Wunderkammer Company. (2015). Creative Census key findings.

Logistics

[xviii] Inbound Logistics (2016). Trends- March 2016.
[xix] Unex (2016). Top Trends for Distribution in 2016.
[xx] Logistics Viewpoints. (2016). Logistics and Supply Chain Trends to Monitor in 2016.

Food and Beverage

[xxi] Food Processing (2016). Food and Beverage Industry Outlook: Five Important Issues for 2016.
[xxii] Nation's Restaurant News (2015). 12 Global Food and Beverage Trends for 2016.
[xxiii] After Market News (2016). Active and Smart Packaging on the Rise.
[xxiv]The Californian (2016). Ag Innovation and Technology: the Future is Now.
[xxv] Ibid xii.

Advanced Materials

[xxvi] University of Cambridge. (2014). A Review of International Public Sector Strategies and Roadmaps: A Case Study in Advanced Materials.
[xxvii] Ibid.
[xxviii] Deloitte. (2016). 2016 Global Chemical Industry Mergers and Acquisitions Outlook.
[xxix] Deloitte. (2014). Reigniting growth: Advanced Materials Systems.