Workforce Analysis

Dearborn County, Indiana

Data Snapshot
October 2018

PURDUE UNIVERSITY

Center for Regional Development
Advancing Collaboration : Energizing Regions

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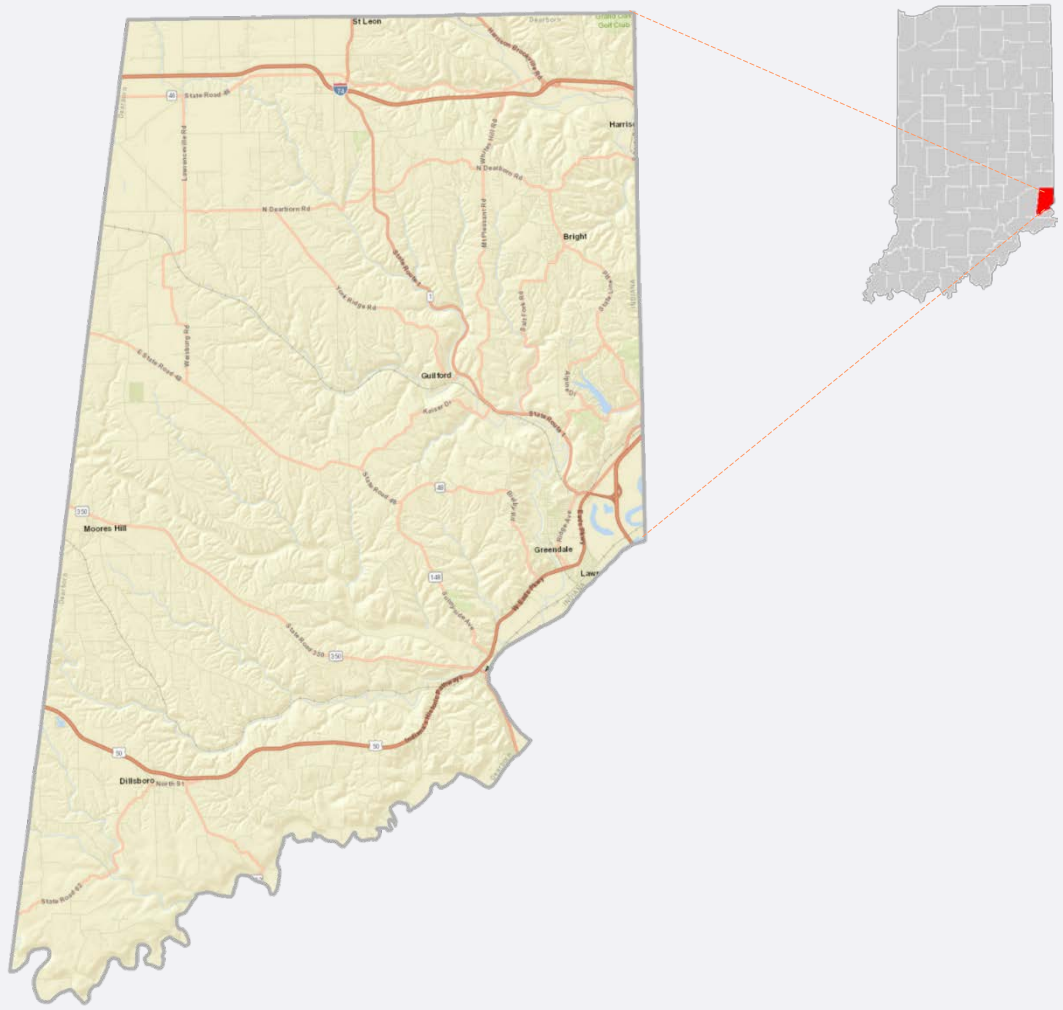
Section 01

Introduction

Dearborn County, Indiana

Dearborn County is located in the southeastern portion of the state of Indiana, adjacent to the Ohio state border. Interstate 74 and U.S. highways 52 pass through the northern part of the county. Interstate 275 and U.S. highways 50 pass close to Lawrenceburg, the county seat. CSX, a Class I railroad traverses through Dearborn County.

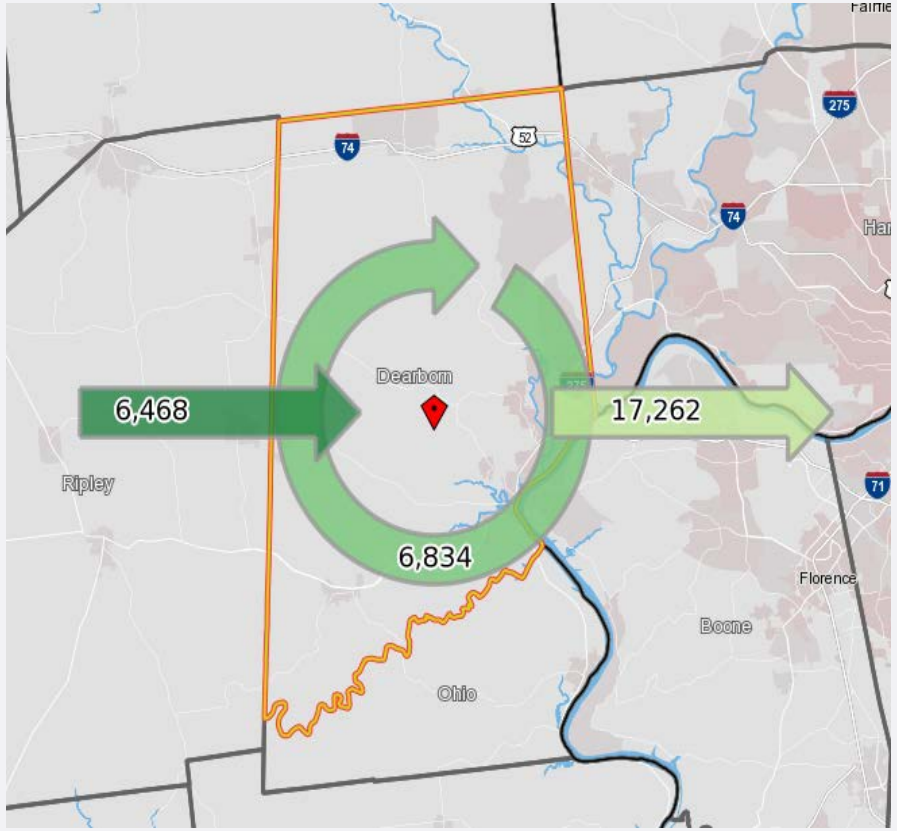
Dearborn County has a small number of air fields and barge ports. Interstates 74 and 275 connect to Hamilton County, the central county of the Cincinnati metropolitan area.



Section 02

Labor Market

Inflow and Outflow, 2015



A county's commuteshed is the geographic area to which its resident labor force travels to work.

Nearly 72 percent of employed residents in Dearborn County commute to jobs located outside of the region (as of 2015). Hamilton County, Ohio is the major destination for most commuters from Dearborn County, accounting for almost 29 percent of the total employed residents of Dearborn County. Dearborn County, Indiana, follows as the second largest destination with more than 28 percent of commuters from Dearborn County.

Nearly 17,300 (or 72%) local commuters work in counties outside of Dearborn County.

A region's laborshed is the geographic area from which it draws employees.

Nearly 49 percent of individuals working in Dearborn County commute from another county (as of 2015). Hamilton County, Ohio, is the largest source of workers, representing 9 percent of the total employees in Dearborn County.

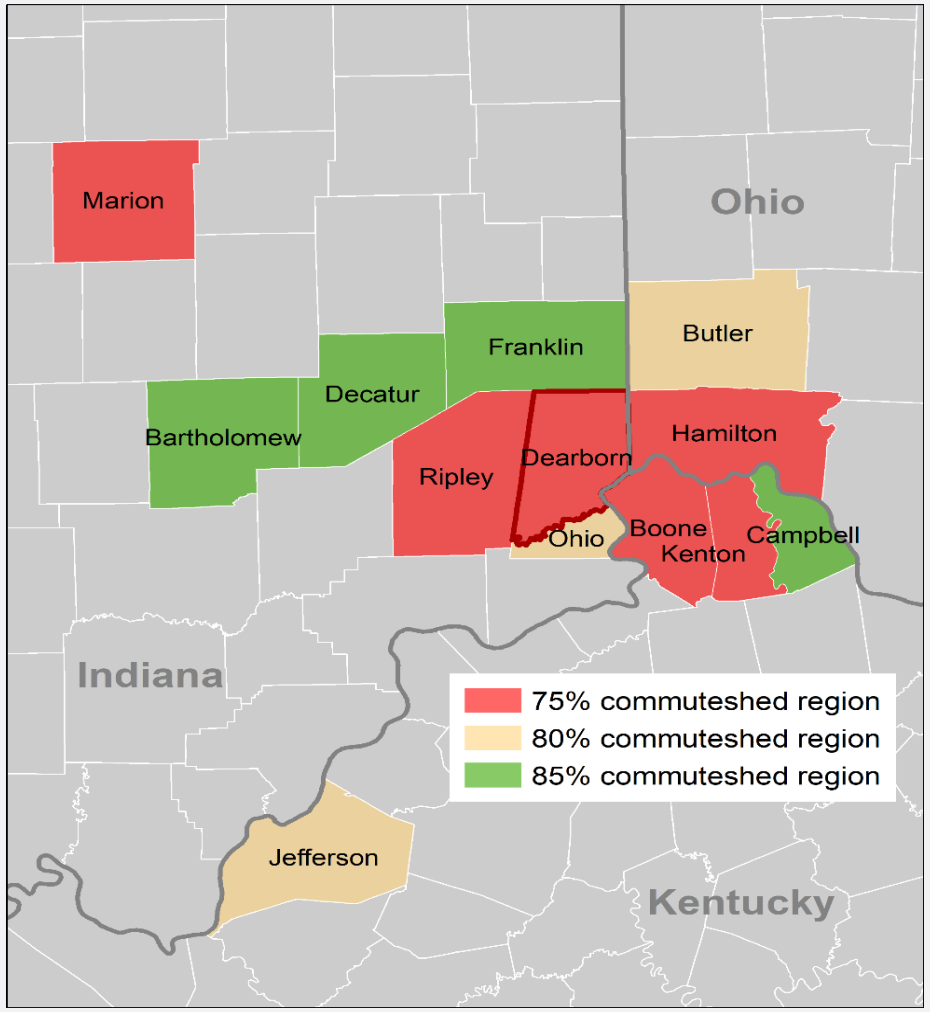
Ripley and Ohio counties in Indiana, along with Boone County in Kentucky complete the top five sources of outside workers in Dearborn County .

Almost 6,500 (or 49%) of the employed labor force commute from counties outside of Dearborn County.

Source: OTM, LEHD

Commuteshed, 2015

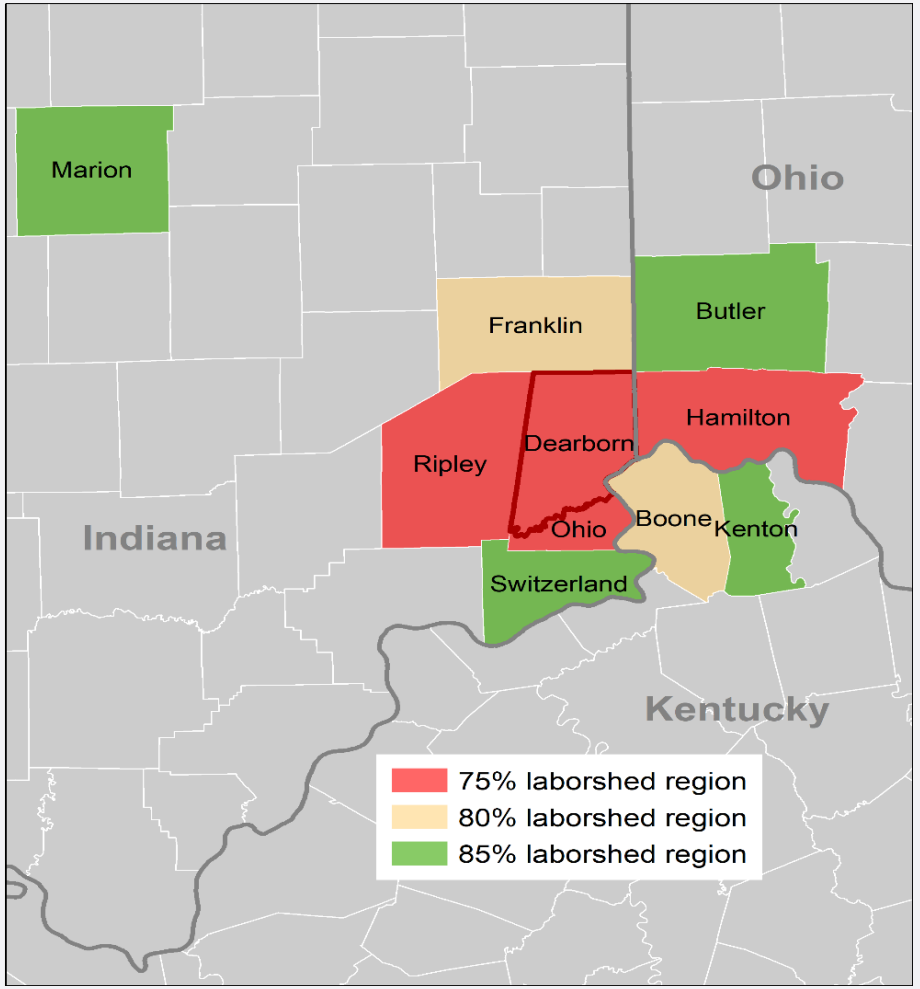
	Commuters	Proportion
Hamilton County, OH	6,963	28.9%
Boone County, KY	1,669	6.9%
Ripley County, IN	1,188	4.9%
Marion County, IN	927	3.8%
Kenton County, KY	623	2.6%
Butler County, OH	621	2.6%
Jefferson County, KY	375	1.6%
Ohio County, IN	279	1.2%
Franklin County, IN	276	1.1%
Decatur County, IN	266	1.1%



Source: OTM

Laborshed, 2015

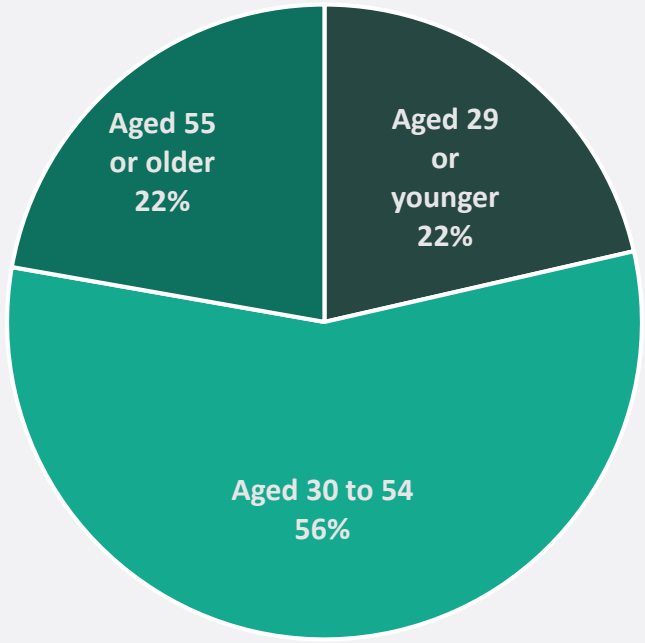
	Labors	Proportion
Hamilton County, OH	1,220	9.2%
Ripley County, IN	1,017	7.6%
Ohio County, IN	688	5.2%
Boone County, KY	406	3.1%
Franklin County, IN	347	2.6%
Switzerland County, IN	282	2.1%
Kenton County, KY	244	1.8%
Marion County, IN	167	1.3%
Butler County, OH	166	1.2%



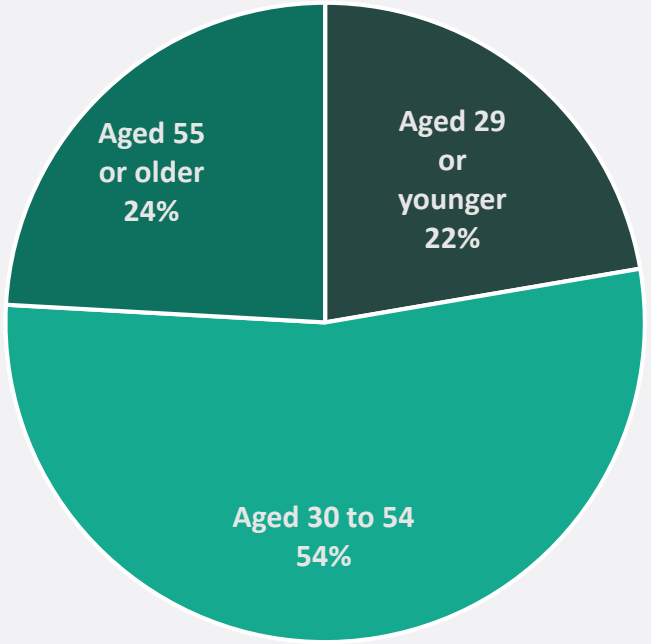
Source: OTM

Inflow and Outflow (2015): Age Groups

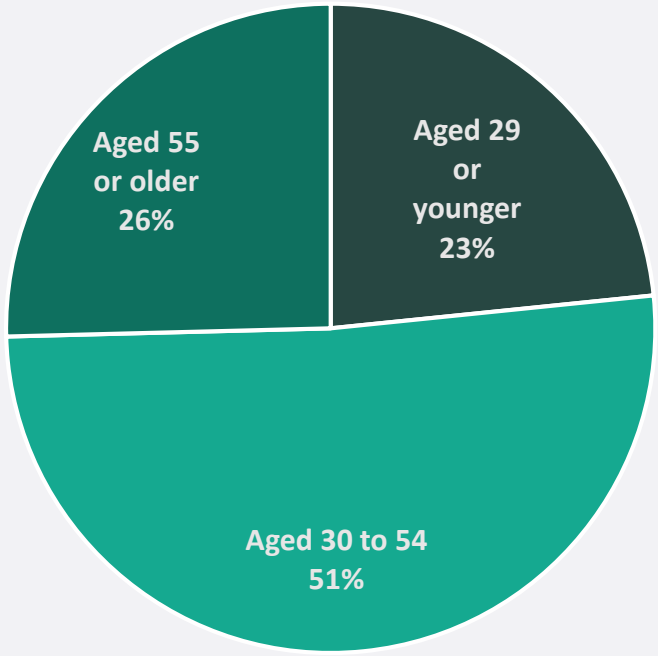
Outflow from Dearborn County



Inflow into Dearborn County



Within Dearborn County

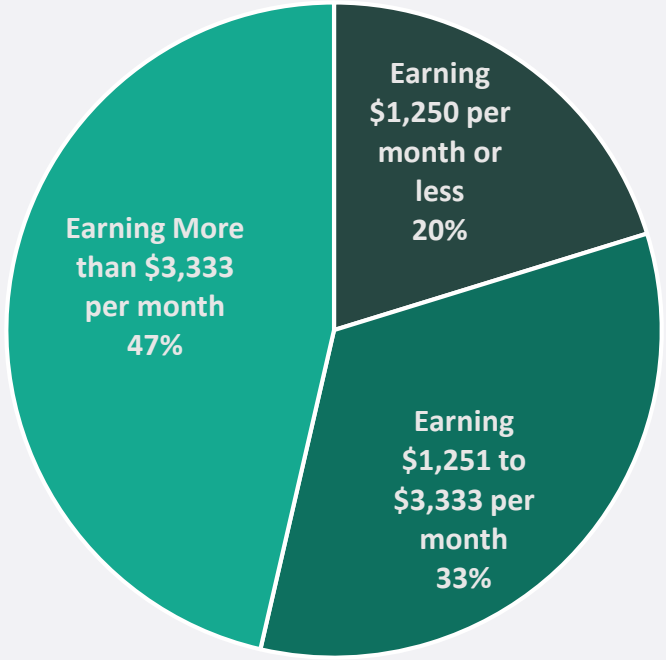


- Over 56 percent of out-commuters (or 9,726 workers) from Dearborn County are 30 to 54 years old. On the other hand, this age grouping constitutes 53.6 percent of the workforce (or 3,465 individuals) commuting into Dearborn County for work.
- Proportionally speaking, Dearborn County is sending a slightly smaller share (22%) of mature worker (55 years or older) out of the county for jobs than is entering into Dearborn County from surrounding counties for employment (24%).

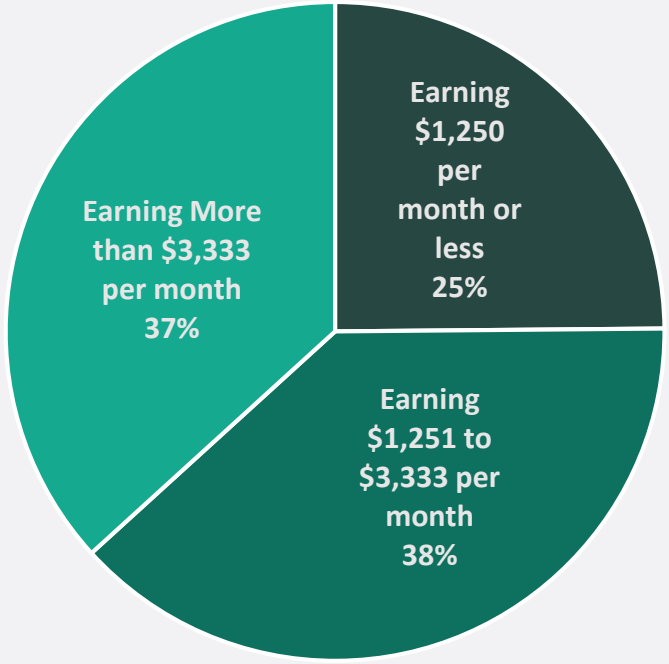
Data source: On the Map

Inflow and Outflow (2015): Earnings Groups

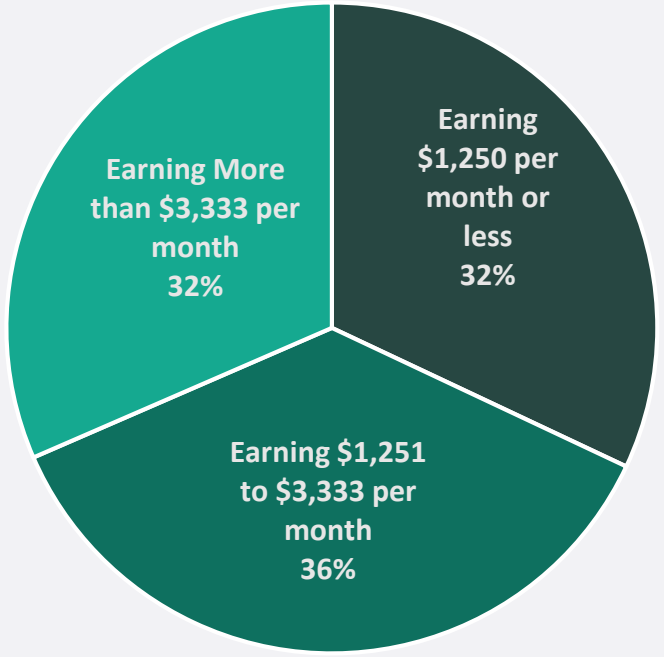
Outflow from Dearborn County



Inflow into Dearborn County



Within Dearborn County

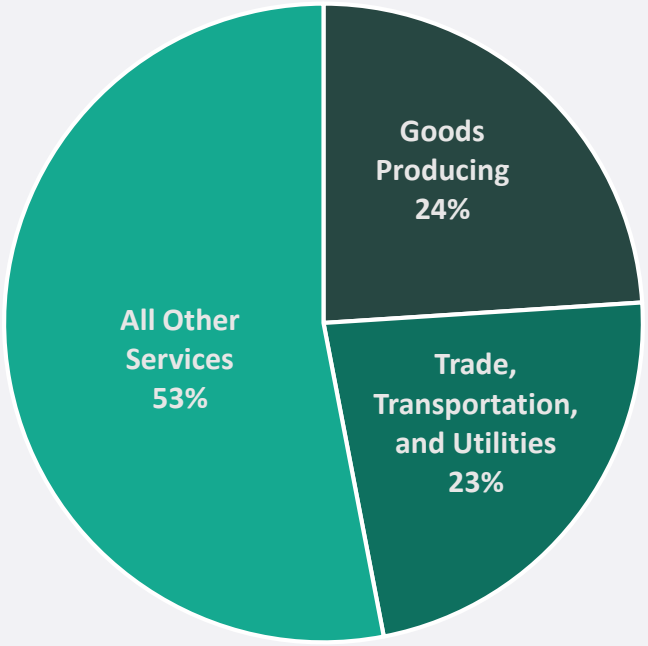


- The largest percentage of workers from Dearborn County (47%) who commute to jobs outside of the county earn more than $3,333 per month. About one in five earn $1,250 per month or less.
- On the other hand, the largest proportion of workers who commute into Dearborn County from outside the county earn between $1,251 and 3,333 per month (38%). As for residents who work in the county, a near equal percentage are distributed across the three earning categories highlighted in the chart.

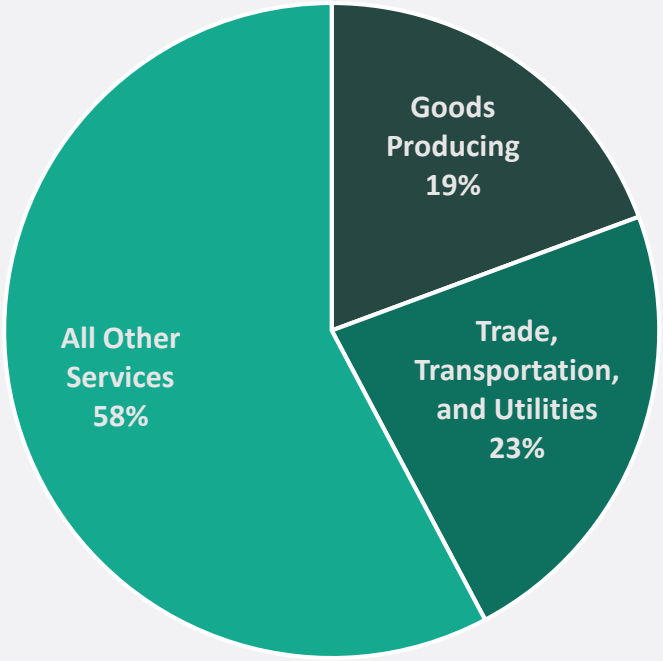
Data source: On the Map

Inflow and Outflow (2015): Industry Types

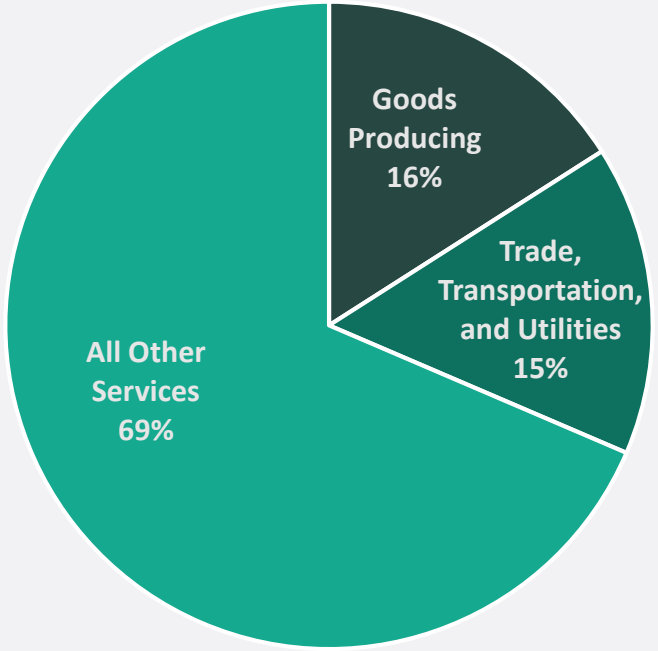
Outflow from Dearborn County



Inflow into Dearborn County



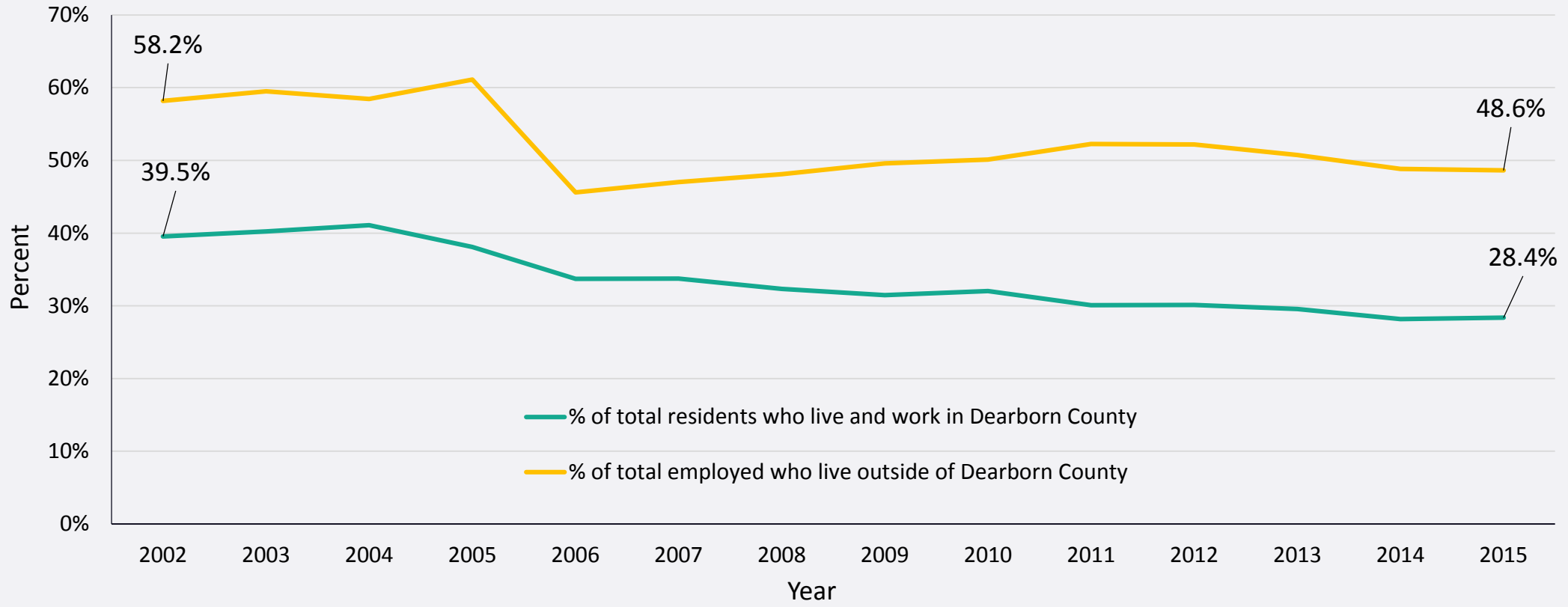
Within Dearborn County



- More than half of workers (9,153 workers, or 53%) commuting out of Dearborn County for work are engaged in jobs associated with the "other services" sector.
- Similarly, a lion's share of workers commuting into Dearborn County (3,736 workers, 58%) are engaged in work associated with this industry type. For those who live and work in Dearborn County, more than 2 out of 3 are engaged in jobs in the "other services" sector.

Data source: On the Map

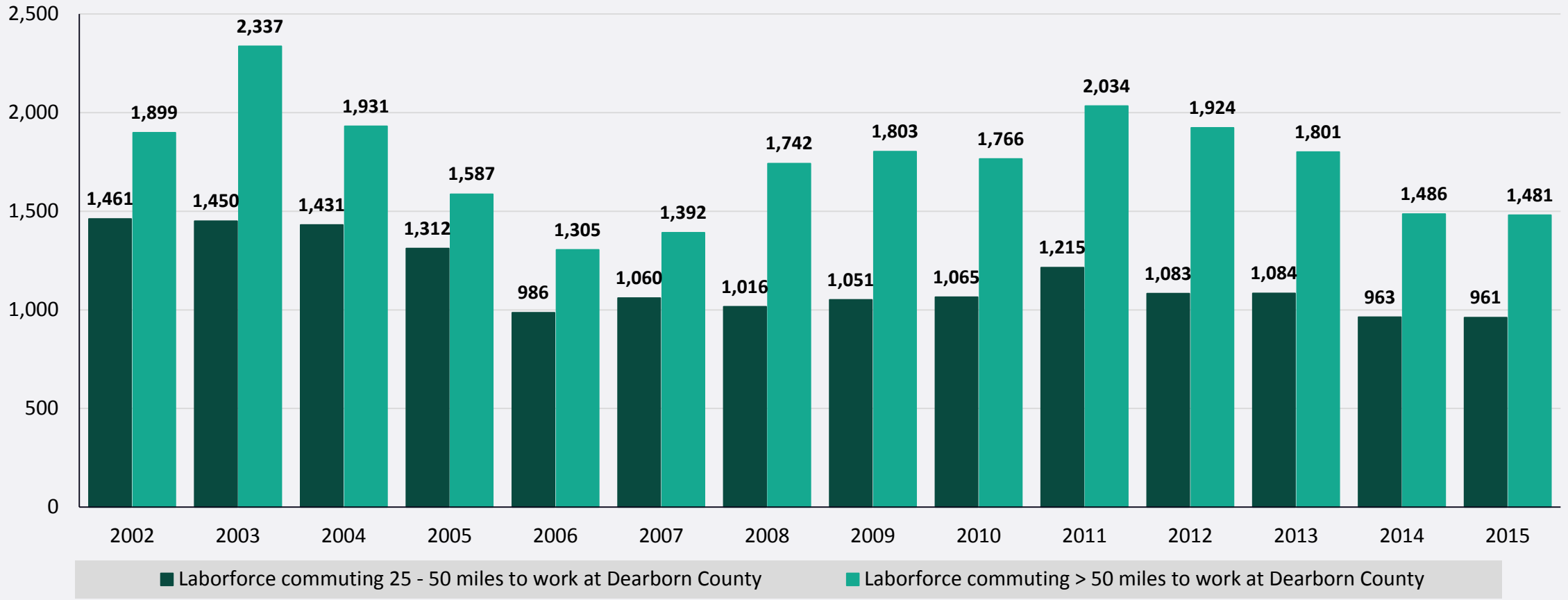
Commuting Patterns of Dearborn County Workers, 2002 - 2015



- The percent of total employed who commute from outside of Dearborn County decreased between 2002 and 2015, from 58.2% to 48.6% (a 9.6 percentage points drop), over that time period.
- The proportion of residents employed and living in Dearborn County decreased by more than 11 percentage points (39.5% to 28.4%) over the 14 year period.

Source: LEHD, OTM

Commuting Large Distances, 2002-2015



- Overall, the number of workers commuting several miles for work in Dearborn County fluctuated from 2002 to 2015. In 2002, 1,461 workers commuting into Dearborn County travelled 25-50 miles, and this number decreased to 961 by 2015.
- Similarly, workers commuting 50 miles or more decreased from 2002 to 2015 – slipping from a high of 2,337 workers in 2003 to 1,481 in 2015, the most recent data available on this measure.

Source: LEHD, OTM

Origin-Destination Analysis: All Types of Jobs (2015)

80% commute and laborshed of Dearborn County

Origin County	Destination County (Number)								
	Hamilton, OH	Dearborn	Boone, KY	Ripley	Marion	Kenton, KY	Butler, OH	Jefferson, KY	Total
Dearborn	6,963	6,834	1,669	1,188	927	623	621	375	19,200
Hamilton, OH	259,850	1,220	10,582	297	422	7,941	30,124	1,767	312,203
Ripley	1,133	1,017	214	4,656	503	96	243	205	8,067
Ohio	467	688	190	63	101	55	64	45	1,673
Boone, KY	10,645	406	24,823	94	48	10,205	601	3,099	49,921
Franklin	1,991	347	121	1,741	732	96	784	18	5,830
Total	281,049	10,512	37,599	8,039	2,733	19,016	32,437	5,509	396,894

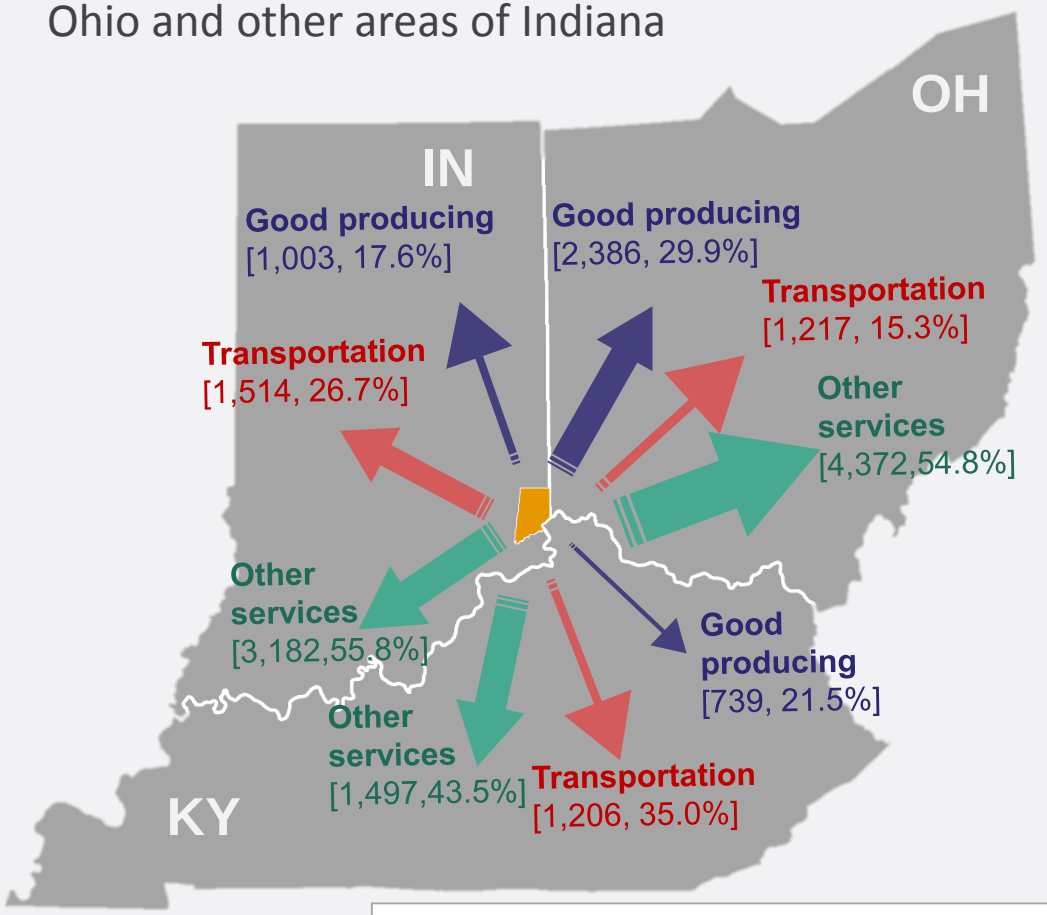
Origin County	Destination County (Percent)								
	Hamilton, OH	Dearborn	Boone, KY	Ripley	Marion	Kenton, KY	Butler, OH	Jefferson, KY	Total
Dearborn	1.8%	1.7%	0.4%	0.3%	0.2%	0.2%	0.2%	0.09%	4.8%
Hamilton, OH	65.5%	0.3%	2.7%	0.1%	0.1%	2.0%	7.6%	0.45%	78.7%
Ripley	0.3%	0.3%	0.1%	1.2%	0.1%	0.0%	0.1%	0.05%	2.0%
Ohio	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.01%	0.4%
Boone, KY	2.7%	0.1%	6.3%	0.0%	0.0%	2.6%	0.2%	0.78%	12.6%
Franklin	0.5%	0.1%	0.0%	0.4%	0.2%	0.0%	0.2%	0.00%	1.5%
Total	70.8%	2.6%	9.5%	2.0%	0.7%	4.8%	8.2%	1.4%	100%

- The counties are either neighboring to Dearborn or included in both, commute and labor sheds at least at the level of 80 percent with the exception of Marion County. For example, Marion County appears in 80% commuteshed but not in the laborshed. Boone County, KY appears within the 80 percent level both, in commuteshed as well as laborshed.

Source: LEHD, OTM
Note: Percent of total commuters in the region

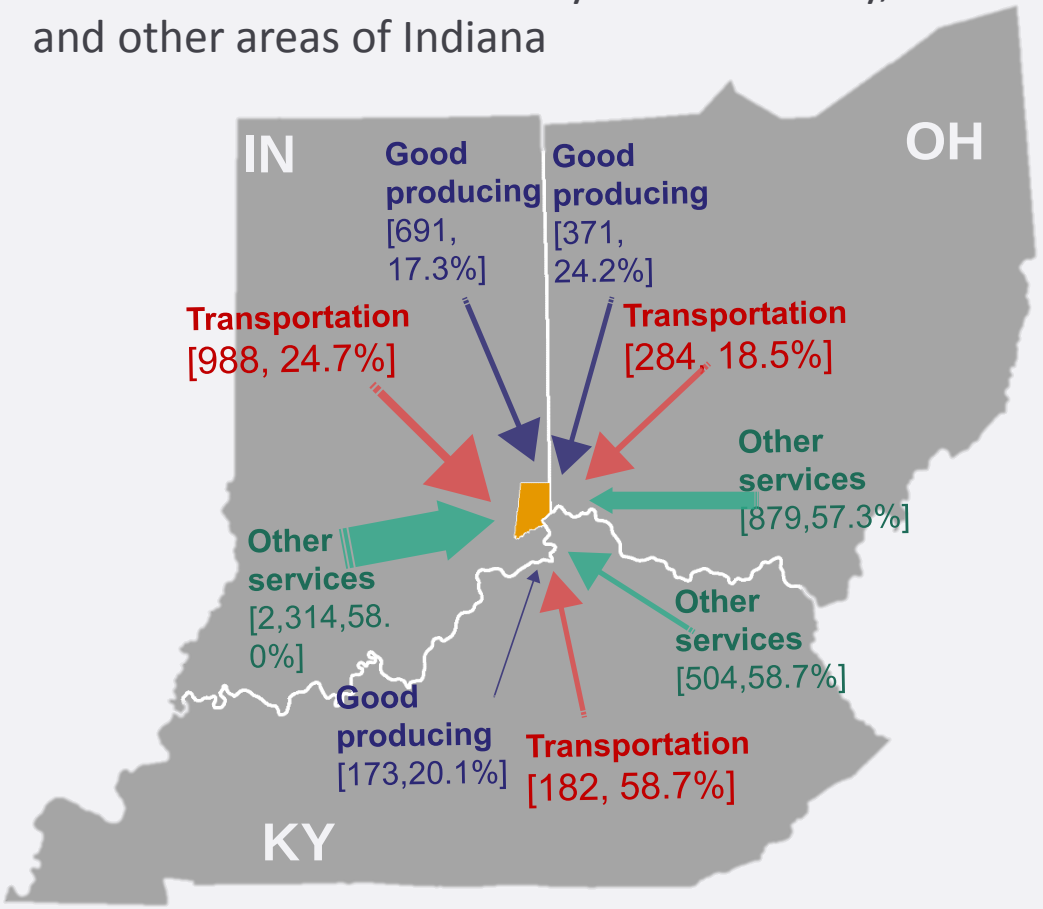
Origin-Destination Analysis, 2015

Outflow from Dearborn County Into Kentucky, Ohio and other areas of Indiana



Workers to Indiana: 5,699
Workers to Ohio: 7,975
Workers to Kentucky: 3,445

Inflow into Dearborn County from Kentucky, Ohio and other areas of Indiana



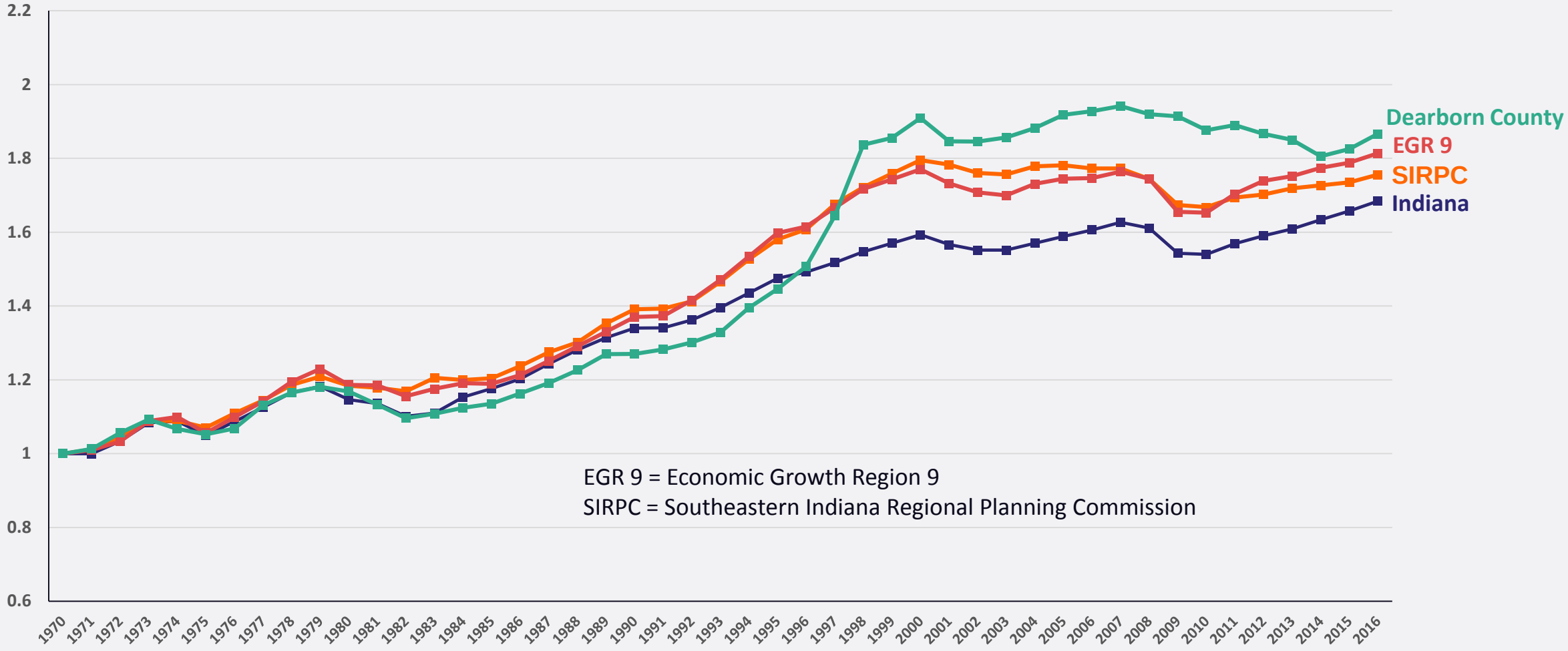
Labor force from Indiana: 3,993
Labor force from Ohio: 1,534
Labor force from Kentucky: 859

Source: LEHD, OTM

Section 03

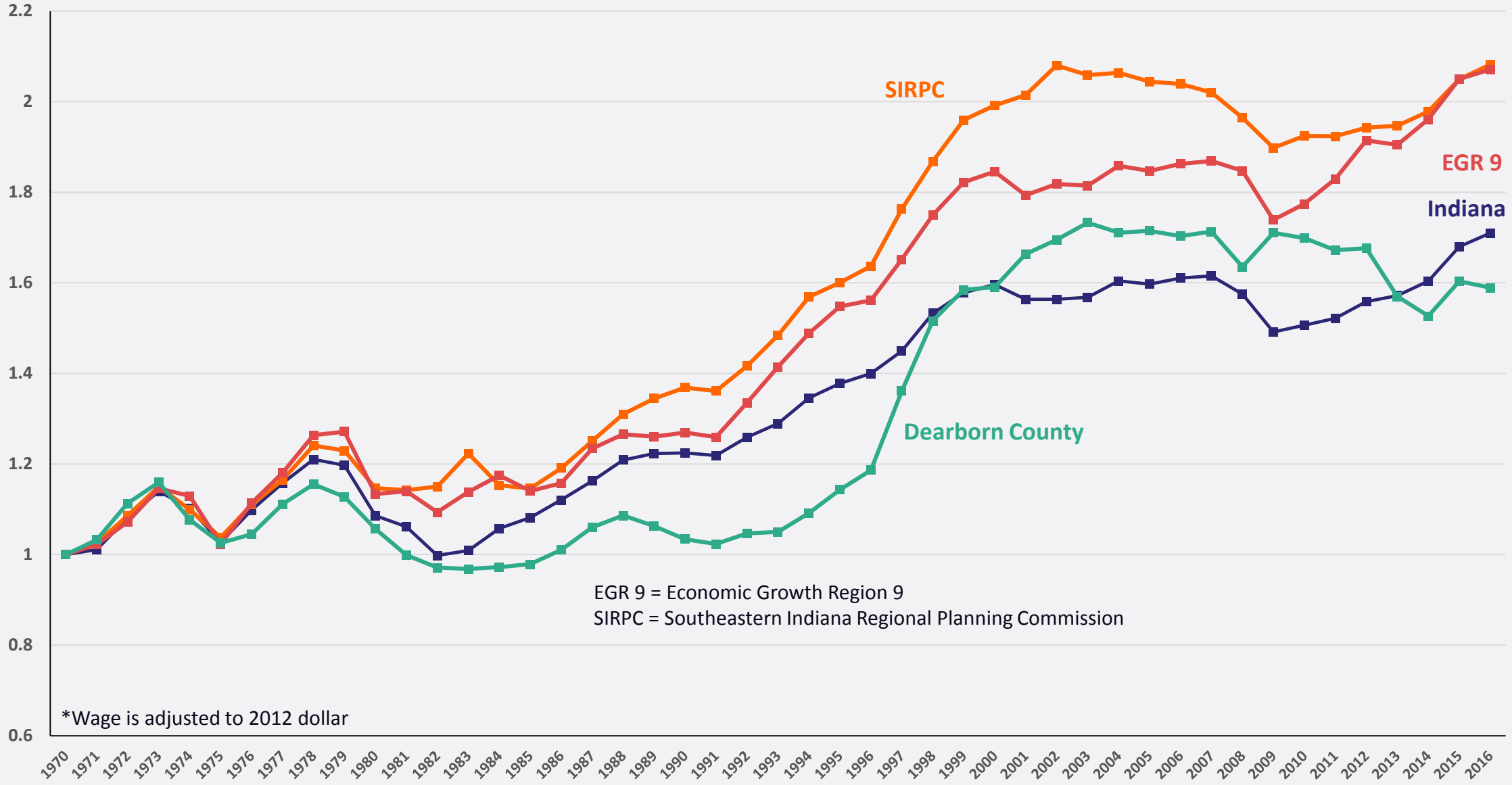
Industries

Long Term Employment Growth Trend, 1970-2016



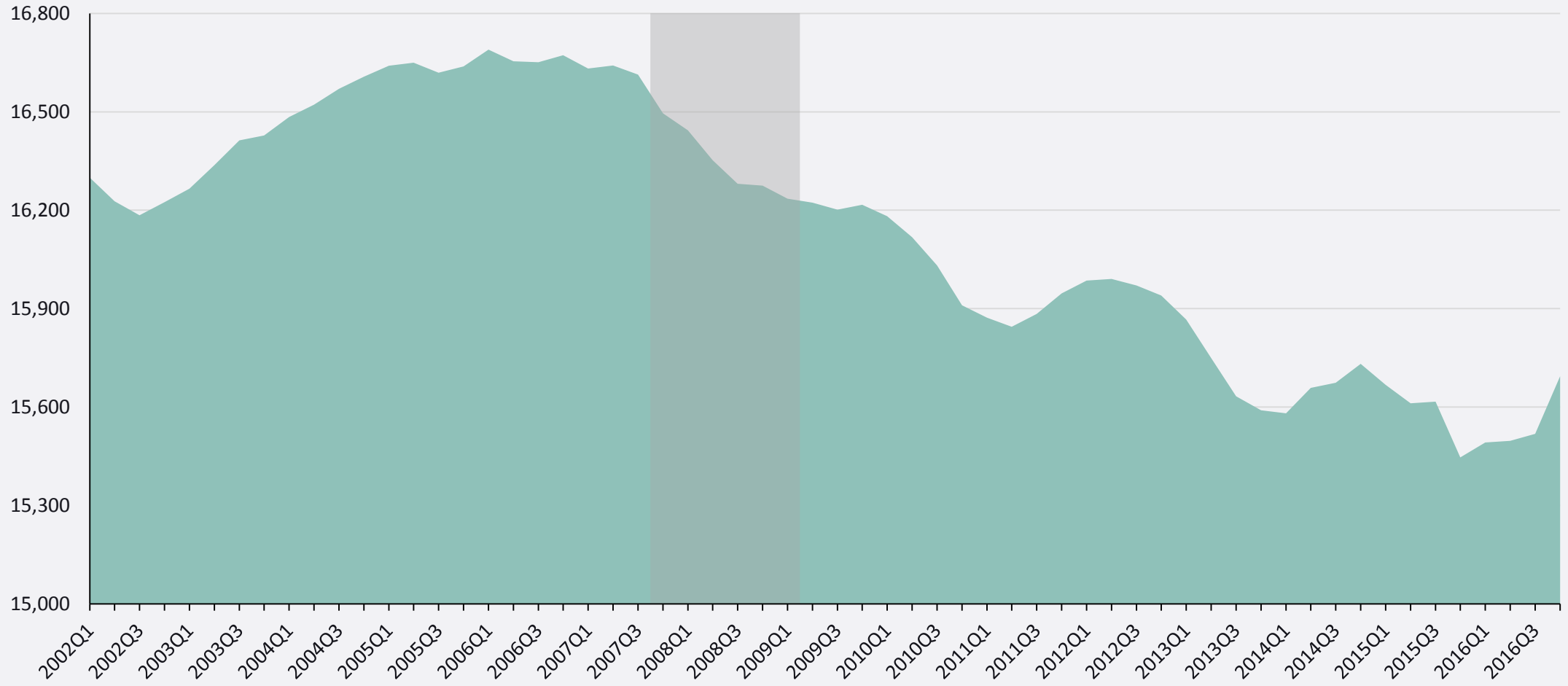
Source: BEA Economic Profile data

Long Term Wage Growth Trend, 1970-2016



Source: BEA Economic Profile data

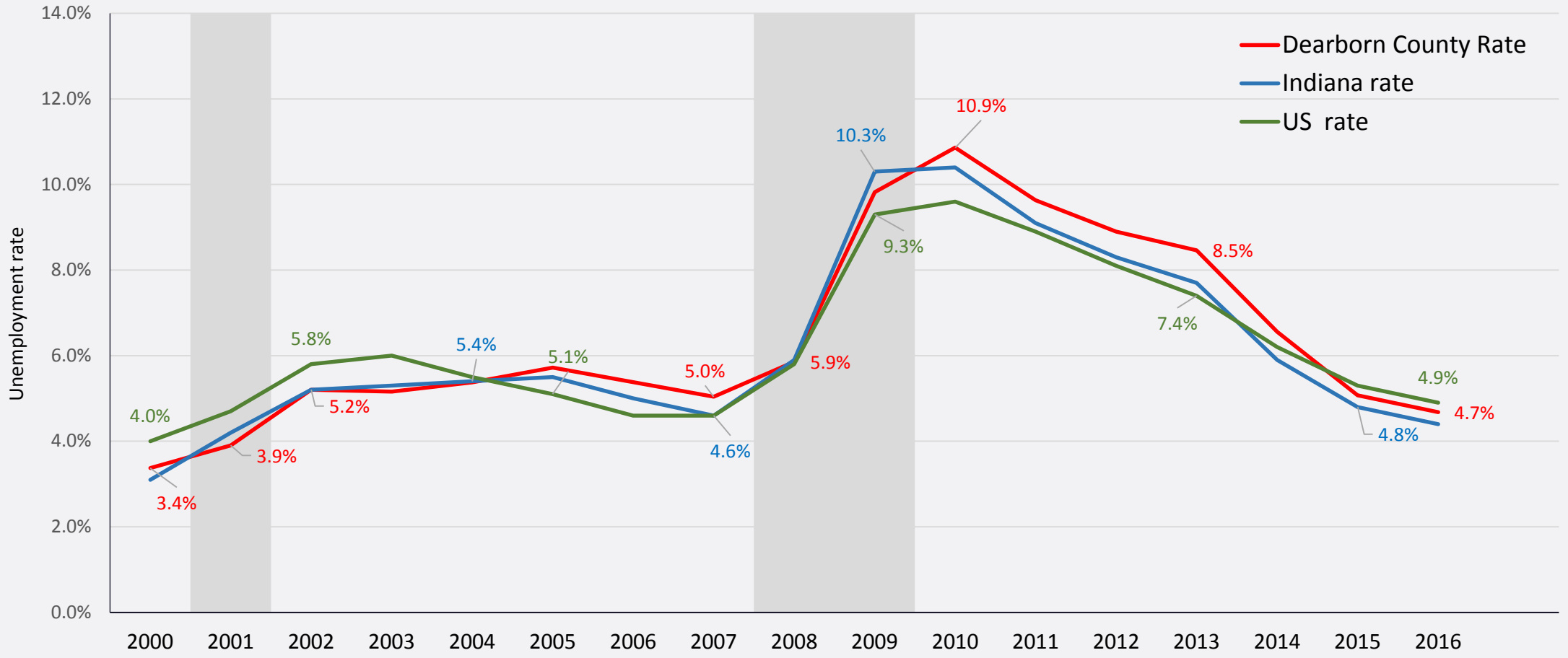
Total Employment, 2012 – 2016 (four-quarter moving average)



Source: Job EQ Database Chmura. Shaded area represents recession

Unemployment, 2000 – 2016

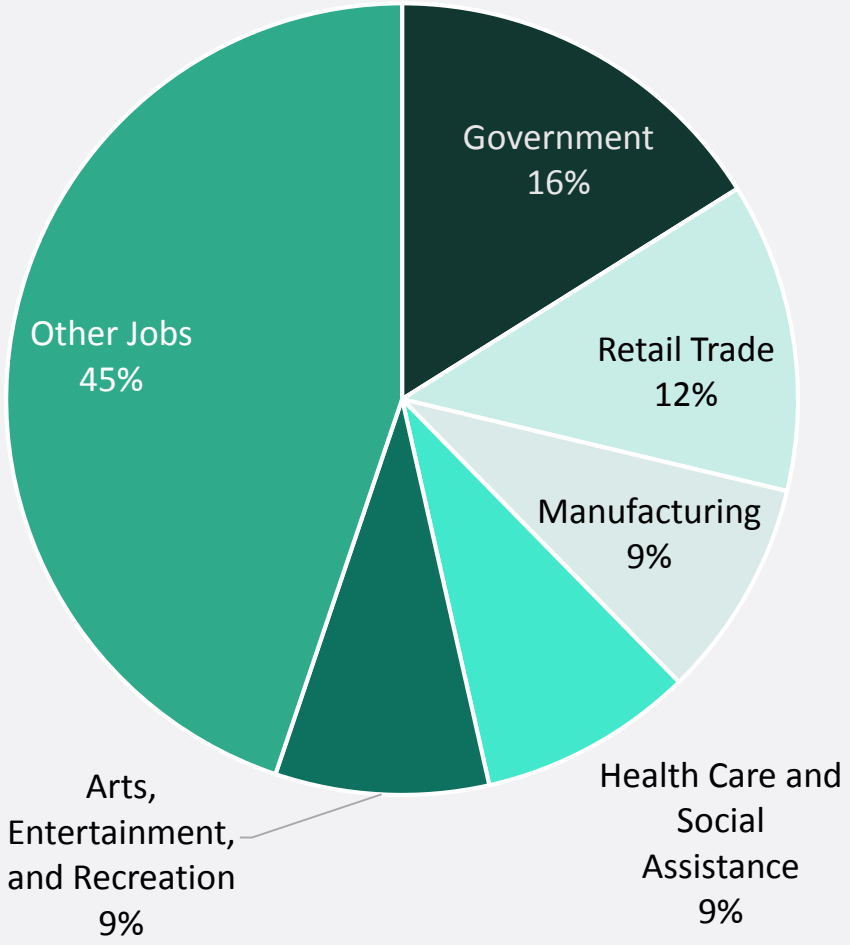
The unemployment rate increased dramatically in the 2000s, peaking at 10.9 percent in 2010. Since that time, the rate has been on a steady decline, dropping to 4.7 percent by 2016.



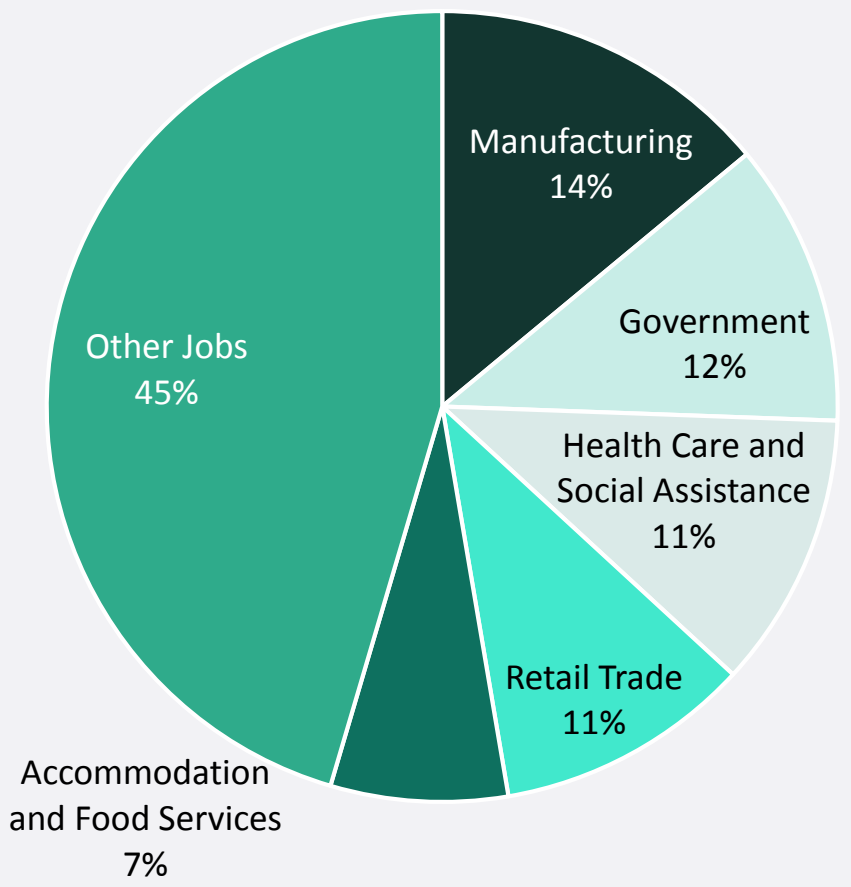
Data source: BLS data

Top Five Industries, 2016

Dearborn County, IN



Indiana State



Source: Economic Modeling Specialists International (EMSI) – 2018.1 – QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors

Industry Distribution and Change, 2011-2016

NAICS Code	Description	Jobs 2011	Jobs 2016	Job 2016 (QCEW only)	Change (2011-2016)	% Change (2011-2016)
11	Agriculture, Forestry, Fishing and Hunting	539	531	<10	-8	-1%
21	Mining, Quarrying, and Oil and Gas Extraction	18	28	16	10	56%
22	Utilities	250	130	118	-120	-48%
23	Construction	1,359	1,083	491	-276	-20%
31	Manufacturing	1,691	1,758	1,643	67	4%
42	Wholesale Trade	324	370	254	46	14%
44	Retail Trade	2,481	2,488	1,989	7	0%
48	Transportation and Warehousing	647	500	269	-147	-23%
51	Information	192	216	136	24	13%
52	Finance and Insurance	643	656	344	13	2%
53	Real Estate and Rental and Leasing	811	872	180	61	8%
54	Professional, Scientific, and Technical Services	738	758	308	20	3%
55	Management of Companies and Enterprises	45	12	<10	-33	-73%
56	Administrative and Support and Waste Management and Remediation Services	585	777	473	192	33%
61	Educational Services	61	152	27	91	149%
62	Health Care and Social Assistance	1,700	1,729	1,508	29	2%
71	Arts, Entertainment, and Recreation	2,416	1,715	1,528	-701	-29%
72	Accommodation and Food Services	1,342	1,578	1,478	236	18%
81	Other Services (except Public Administration)	1,038	1,154	322	116	11%
90	Government	3,037	3,162	3,008	125	4%
	Total	**19,916**	**19,667**	**14,104**	**-249**	**-1%**

Source: Economic Modeling Specialists International (EMSI) – 2018.1 – QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors

Industry Distribution by Age, 2011-2016

NAICS Code	Description	Young Workers (14-21 Years old)	Prime Workers (22-54 Years old)	Matured Workers (2011-2016)	Average Indiana Matured Workers	Matured Workers > IN Average?
11	Agriculture, Forestry, Fishing and Hunting	0%	53%	44%	41%	Y
21	Mining, Quarrying, and Oil and Gas Extraction	0%	0%	38%	37%	Y
22	Utilities	0%	74%	23%	31%	N
23	Construction	1%	70%	28%	24%	Y
31	Manufacturing	2%	70%	28%	24%	Y
42	Wholesale Trade	0%	58%	37%	30%	Y
44	Retail Trade	11%	62%	27%	24%	Y
48	Transportation and Warehousing	0%	52%	47%	28%	Y
51	Information	6%	62%	26%	22%	Y
52	Finance and Insurance	2%	61%	37%	30%	Y
53	Real Estate and Rental and Leasing	0%	52%	47%	47%	Y
54	Professional, Scientific, and Technical Services	1%	65%	33%	28%	Y
55	Management of Companies and Enterprises	0%	0%	0%	24%	N
56	Administrative and Support and Waste Management and Remediation Services	6%	69%	24%	21%	Y
61	Educational Services	0%	59%	37%	28%	Y
62	Health Care and Social Assistance	5%	68%	26%	24%	Y
71	Arts, Entertainment, and Recreation	11%	66%	23%	23%	N
72	Accommodation and Food Services	42%	47%	11%	12%	N
81	Other Services (except Public Administration)	4%	62%	34%	30%	Y
90	Government	3%	68%	29%	28%	Y
	Total	8%	63%	29%	28%	Y

- Matured workers are of ages 55 years and older. Matured workers in professional services exceed Indiana's average by 5 percentage points. Utilities is faring better in matured workers compared to Indiana's average.

Source: Economic Modeling Specialists International (EMSI) – 2018.1 – QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors

Industry Distribution by Gender, 2016 (NAICS 6 digits level)

Industry by percent of male

100%	Siding Contractors
100%	Other Building Equipment Contractors
100%	Flooring Contractors
100%	Welding and Soldering Equipment Manufacturing
100%	Masonry Contractors
100%	Land Subdivision
100%	Framing Contractors
100%	Tile and Terrazzo Contractors
100%	Finish Carpentry Contractors
100%	Telecommunications Resellers

Industry by percent of female

98%	Child Day Care Services
95%	Assisted Living Facilities for the Elderly
94%	Home Health Care Services
92%	Museums
91%	Beauty Salons
89%	Other Community Housing Services
88%	Florists
88%	Nursing Care Facilities (Skilled Nursing Facilities)
87%	Office of Certified Public Accountants
86%	Office of Dentists

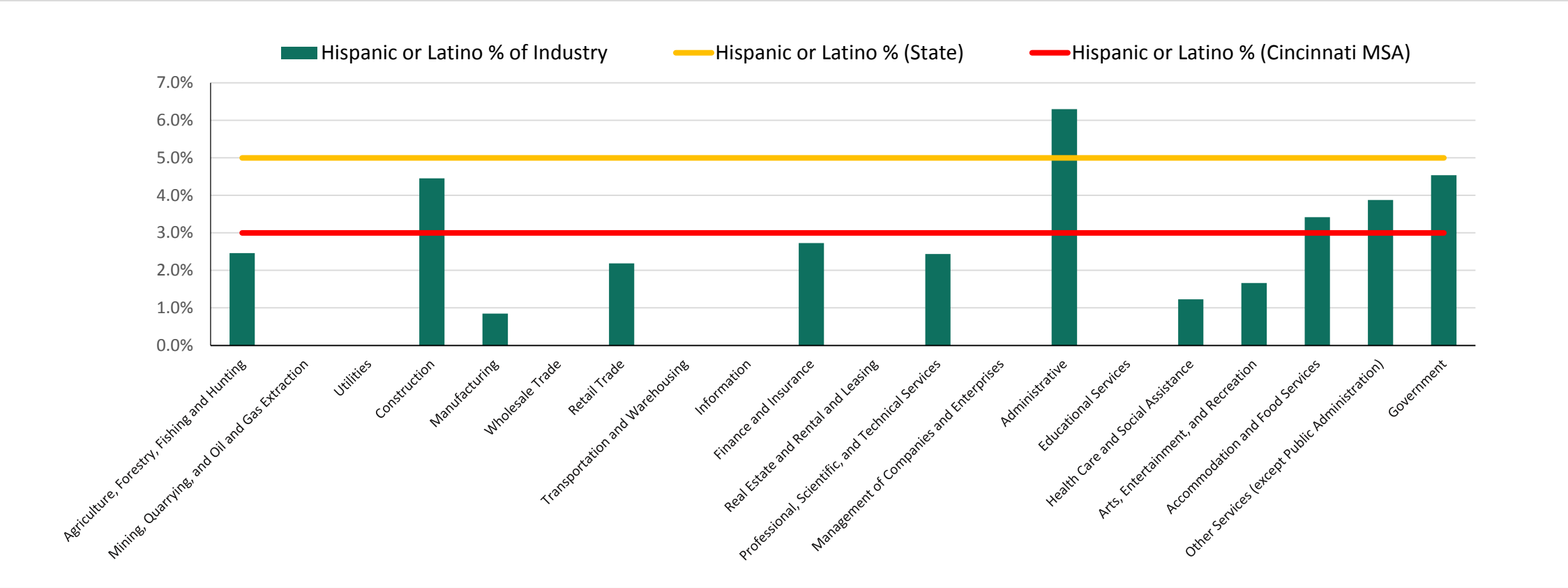
Top Industry by Gender (NAICS 2 digits level)

Male		Female
97%	Mining *(28 Jobs)*	3%
94%	Construction *(1,083 Jobs)*	6%

Male		Female
14%	Health Care and Social Assistance *(1,729 Jobs)*	**86%**
26%	Educational Services *(152 Jobs)*	**26%**

Source: *Economic* Modeling Specialists International (EMSI) – 2018.1 – QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors

Industry Distribution by Ethnicity, 2016



>2%

Agriculture, Forestry, Fishing and Hunting

>6%

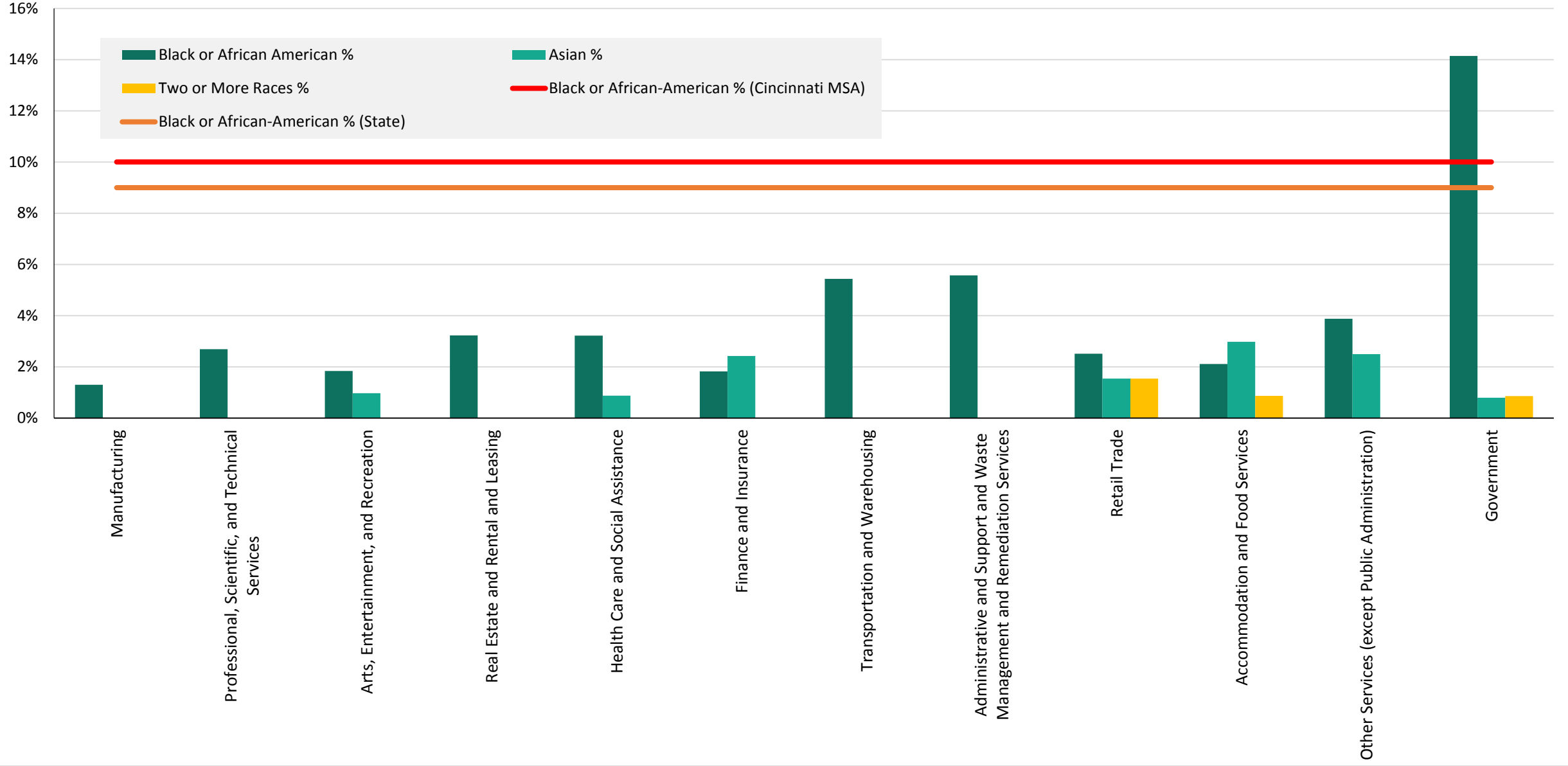
Administration

Maybe present

Mining; Utility (Insufficient data); Information (Insufficient data); Wholesale Trade (Insufficient data); Management (Insufficient data); Transportation (Insufficient data); Real Estate (Insufficient data); Management (Insufficient data); Education (Insufficient data);

Source: Economic Modeling Specialists International (EMSI) – 2018.1 and 2018.3 – QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors

Industry Distribution by Race, 2016



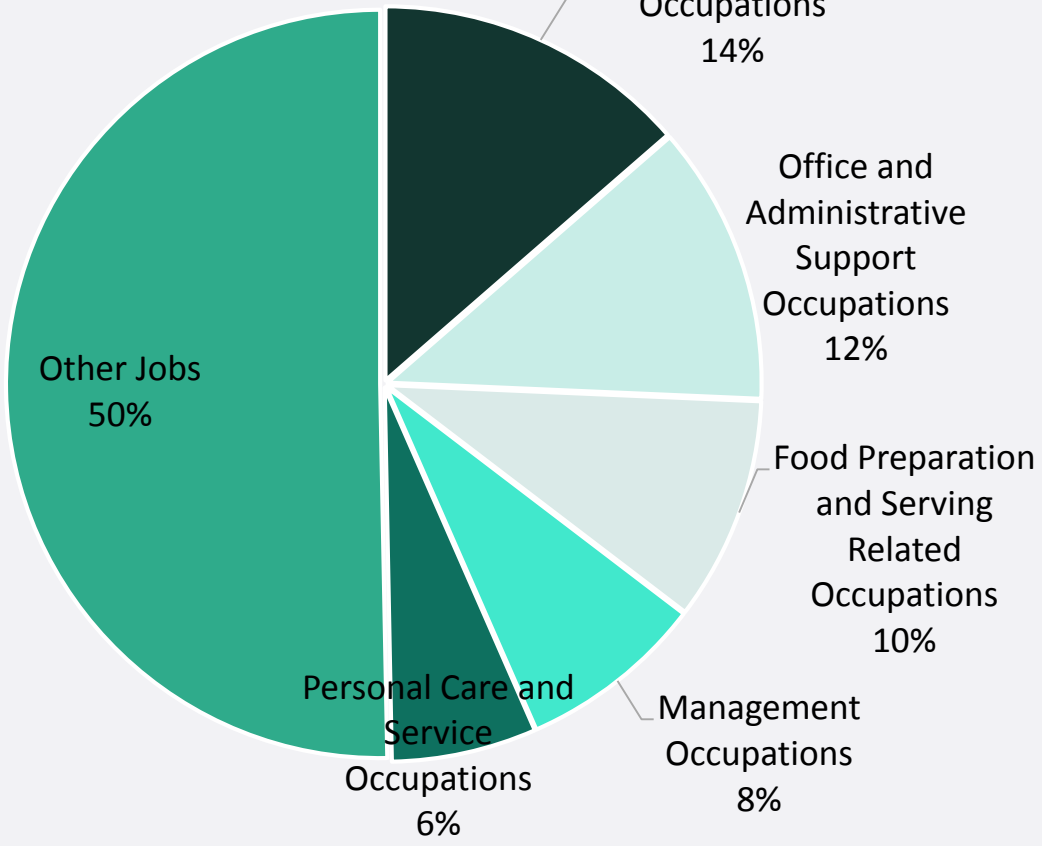
Source: Economic Modeling Specialists International (EMSI) – 2018.1 and 2018.3 QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors

Section 04

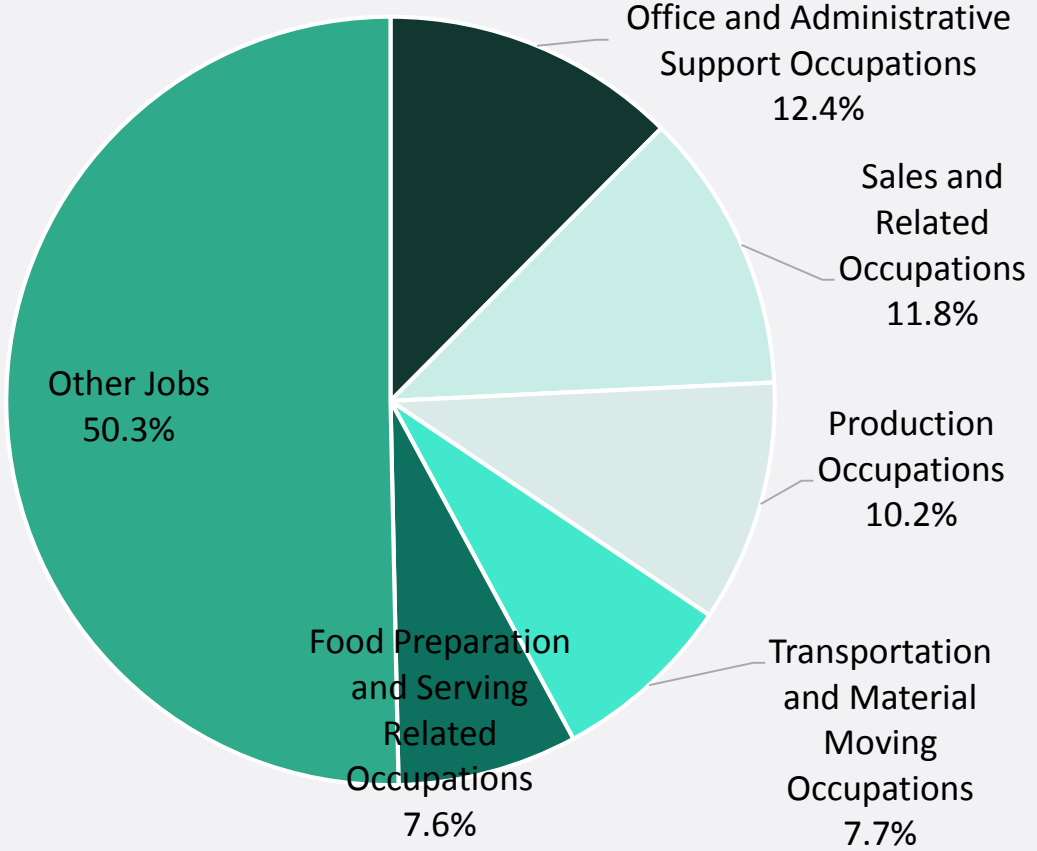
Occupations

Top Five Occupations, 2016

Dearborn County



Indiana State



Source: Economic Modeling Specialists International (EMSI) – 2018.1 – QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors

Occupation Distribution and Change, 2011-2016

SOC	Description	Jobs 2011	Jobs 2016	Jobs 2016 (QCEW Only)	Change (2011-2016)	% Change (2011-2016)	Median Hourly Earnings 2016 (Total Jobs)
11	Management Occupations	1,607	1,585	639	-22	-1%	$19.99
13	Business and Financial Operations Occupations	689	702	351	13	2%	$27.77
15	Computer and Mathematical Occupations	131	113	68	-18	-14%	$28.45
17	Architecture and Engineering Occupations	182	185	146	3	2%	$32.19
19	Life, Physical, and Social Science Occupations	70	66	35	-4	-6%	$27.08
21	Community and Social Service Occupations	378	402	297	24	6%	$20.10
23	Legal Occupations	81	81	41	0	0%	$33.79
25	Education, Training, and Library Occupations	792	871	727	79	10%	$18.11
27	Arts, Design, Entertainment, Sports, and Media Occupations	469	518	106	49	10%	$13.90
29	Healthcare Practitioners and Technical Occupations	894	903	841	9	1%	$27.20
31	Healthcare Support Occupations	517	574	525	57	11%	$12.89
33	Protective Service Occupations	336	356	345	20	6%	$18.49
35	Food Preparation and Serving Related Occupations	1,890	1,904	1,857	14	1%	$10.02
37	Building and Grounds Cleaning and Maintenance Occupations	761	717	463	-44	-6%	$10.23
39	Personal Care and Service Occupations	1,431	1,233	800	-198	-14%	$10.77
41	Sales and Related Occupations	2,683	2,676	1,535	-7	0%	$14.39
43	Office and Administrative Support Occupations	2,420	2,376	2,145	-44	-2%	$17.15
45	Farming, Fishing, and Forestry Occupations	34	65	12	31	91%	$9.81
47	Construction and Extraction Occupations	1,094	910	432	-184	-17%	$15.56
49	Installation, Maintenance, and Repair Occupations	788	769	590	-19	-2%	$19.40
51	Production Occupations	1,252	1,341	1,218	89	7%	$17.24
53	Transportation and Material Moving Occupations	1,224	1,147	930	-77	-6%	$15.01
55	Military occupations	169	154	0	-15	-9%	$18.15
	Total	**19,916**	**19,667**	**14,104**	**-249**	**-1%**	

*Management occupations include farm managers, so jobs may be related to the farm proprietorships.

Source: Economic Modeling Specialists International (EMSI) – 2018.1 – QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors

Occupation Distribution by Age, 2011-2016

SOC	Description	Young Workers (14-21 Years old)	Prime Workers (22-54 Years old)	Mature Workers (2011-2016)	Average Indiana Matured Workers	Matured Workers > IN Average?
11	Management Occupations	0%	61%	39%	35%	Y
13	Business and Financial Operations Occupations	0%	63%	37%	31%	Y
15	Computer and Mathematical Occupations	0%	79%	14%	15%	N
17	Architecture and Engineering Occupations	0%	62%	34%	28%	Y
19	Life, Physical, and Social Science Occupations	0%	43%	25%	28%	N
21	Community and Social Service Occupations	0%	68%	31%	30%	Y
23	Legal Occupations	0%	54%	25%	31%	N
25	Education, Training, and Library Occupations	2%	69%	28%	29%	N
27	Arts, Design, Entertainment, Sports, and Media Occupations	2%	69%	27%	27%	Y
29	Healthcare Practitioners and Technical Occupations	2%	70%	28%	24%	Y
31	Healthcare Support Occupations	7%	70%	22%	19%	Y
33	Protective Service Occupations	11%	68%	21%	22%	N
35	Food Preparation and Serving Related Occupations	38%	50%	12%	12%	N
37	Building and Grounds Cleaning and Maintenance Occupations	6%	63%	31%	30%	Y
39	Personal Care and Service Occupations	9%	65%	26%	26%	Y
41	Sales and Related Occupations	9%	57%	34%	31%	Y
43	Office and Administrative Support Occupations	5%	64%	31%	28%	Y
45	Farming, Fishing, and Forestry Occupations	0%	44%	24%	27%	N
47	Construction and Extraction Occupations	1%	72%	27%	22%	Y
49	Installation, Maintenance, and Repair Occupations	2%	68%	29%	26%	Y
51	Production Occupations	4%	69%	27%	23%	Y
53	Transportation and Material Moving Occupations	5%	60%	35%	26%	Y
55	Military occupations	0%	92%	0%	5%	N
	Total	**8%**	**63%**	**29%**	**26%**	Y

Matured workers are of ages 55 years and older. Matured workers in life, physical and social sciences is lower than Indiana's average by 3 percentage points. Farming, fishing and forestry occupations are faring better in matured workers compared to Indiana's average.

Source: Economic Modeling Specialists International (EMSI) – 2018.1 – QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors

Occupation Distribution by Gender, 2016 (SOC 5-digit level)

Occupation by percent of male

100%	Roofers
100%	Structural Metal Fabricators and Fitters
100%	Computer, Automated Teller, and Office Machine Repairers
100%	Telecommunications Equipment Installers and Repairers, Except Line Installers
100%	Automotive Body and Related Repairers
100%	Electrical Power-Line Installers and Repairers
100%	Drywall and Ceiling Tile Installers
100%	Brickmasons and Blockmasons
100%	Engineers, All Other
100%	Tile Repairers and Changers

Occupation by percent of female

100%	Dental Assistants
100%	Legal Secretaries
100%	Dental Hygienists
97%	Childhood Workers
96%	Preschool Teachers, Except Special Education
96%	Executive Secretaries and Executive Administrative Assistants
96%	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive
94%	Home Health Aides
94%	Medical Secretaries

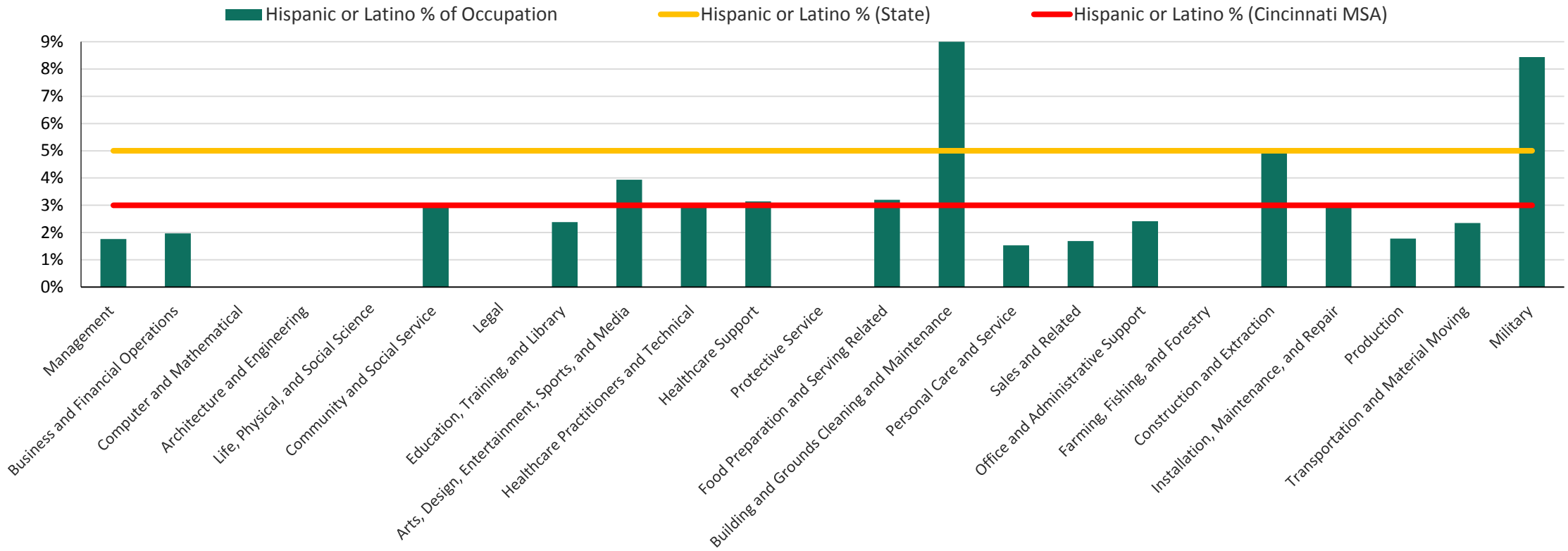
Top Occupations by Gender (SOC 2 digits level)

Male		Female
99%	Construction and Extraction Occupations *(910 Jobs)*	1%
97%	Installation, Maintenance, and Repair Occupations *(769 Jobs)*	3%

Male		**Female**
9%	Healthcare Support Occupations *(574 Jobs)*	**91%**
20%	Education, Training, and Library Occupations *(871 Jobs)*	**80%**

Source: Economic Modeling Specialists International (EMSI) – 2018.1 – QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors

Occupation Distribution by Ethnicity, 2016



9%

Building and Grounds Cleaning and Maintenance

8%

Military

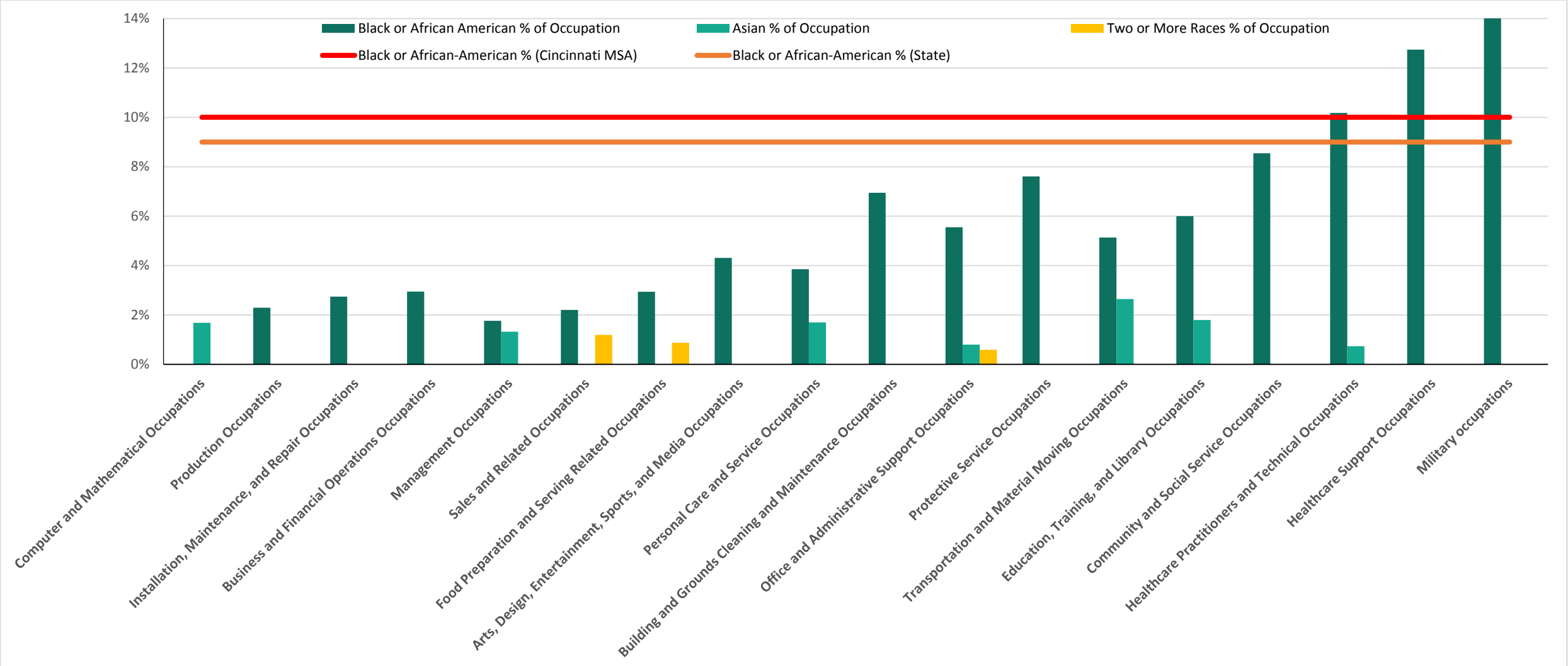
Maybe present

Computer and Mathematical (Insufficient data); Architecture and Engineering (Insufficient data); Life, Physical, and Social Science (Insufficient data); Legal (Insufficient data); Protective Service (Insufficient data) ; Farming, Fishing, and Forestry (Insufficient data)

Source: Economic Modeling Specialists International (EMSI) – 2018.1 – QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors

Occupations

Occupation Distribution by Race, 2016



Source: Economic Modeling Specialists International (EMSI) – 2018.1 and 2018.3

QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors

Section 05

Job Postings

Job Demand: Job Posting Analysis

Job postings provide some assessment of labor force demand

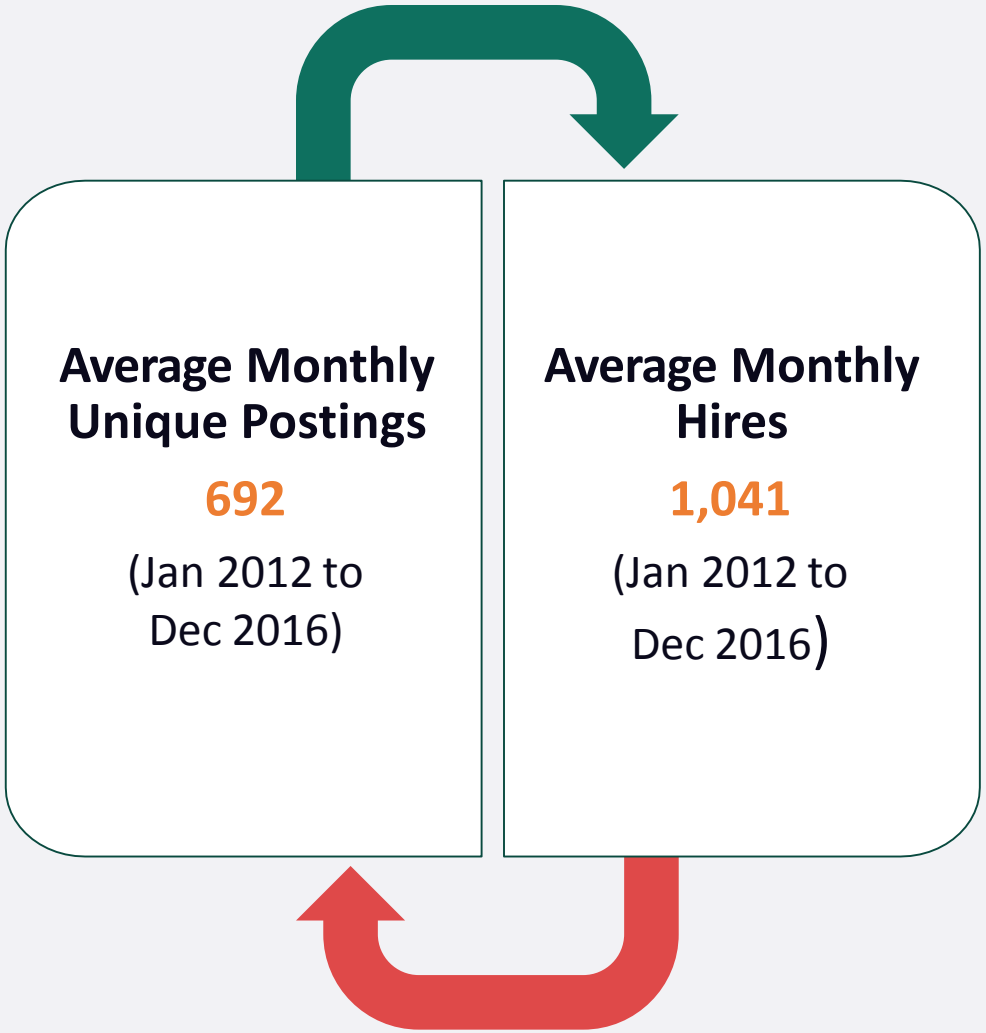
Total jobs postings: The total number of online job advertisements listed by different career sites and job boards. These postings have been paid-for and are not free postings.

Unique job postings: The number of de-duplicated job advertisements. The reason this process is important because employers can list the same job posting on a variety of career sites and job boards. The de-duplication process helps in determining the demand for certain jobs or occupations.

Intensity: The ratio of total job postings to unique job postings. The higher the posting intensity, the more effort employers are putting towards hiring.

Job Posting

Overview: Job Posting Analytics



- From January 2012 to December 2016, on average, 692 unique job postings were made every month.
- Over the same time period 1,041 monthly hires were made each month.
- For every unique job posting, there was approximately, more than 1 hire. This indicates that all job vacancies are not being posted online.
- Job postings came out for several dozen different job titles during that period.

Source: Economic Modeling Specialists International (EMSI) – 2018.1 – Job Postings Analytics

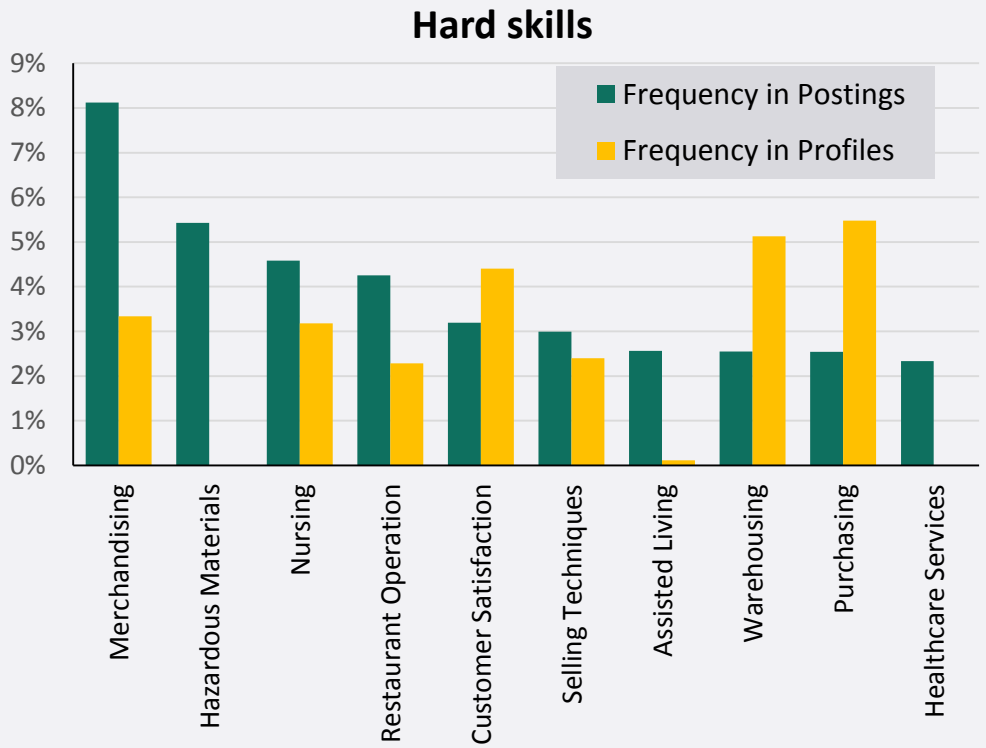
Top Jobs Titles by Different Posting Types

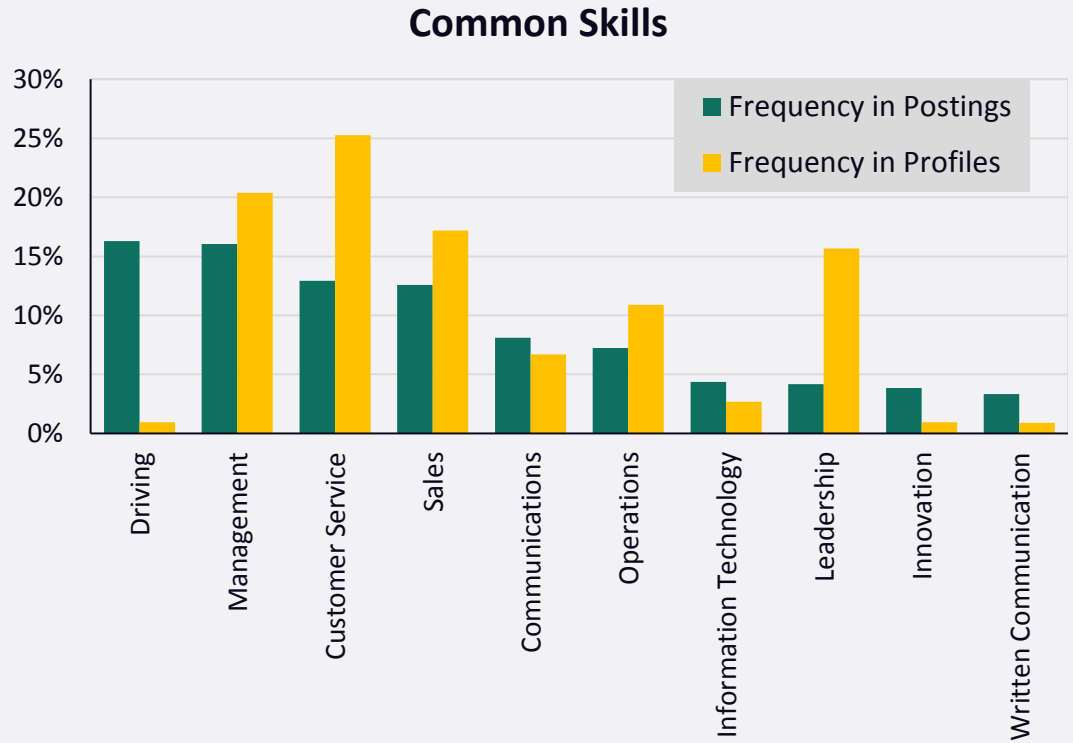
By Total Postings	By Unique Postings	By Posting Intensity
1. Truck Drivers	1. Truck Drivers	1. Powertrain Engineers
2. Commercial Driver's License (CDL) Drivers	2. Commercial Driver's License (CDL) Drivers	2. Manufacturing Engineers
3. Flatbed Drivers	3. Flatbed Drivers	3. Automotive Body Engineers
4. Over the Road (OTR) Drivers	4. Owner Operators	4. Vehicle Engineers
5. Regional Truck Drivers	5. Regional Truck Drivers	5. Controls Engineers
6. Owner Operators	6. Customer Service Representatives	6. Satellite TV Technicians
7. Restaurant Crew Team members	7. Retail Sales Associates	7. Product Development Engineers
8. Retail Sales Associates	8. Over the Road (OTR) Drivers	8. Account Executives
9. Design Engineers	9. Sales Managers	9. Truck Drivers
10. Restaurant Managers	10. Restaurant Crew Team members	10. Product Sales Specialists

Source: Economic Modeling Specialists International (EMSI) – 2018.1 – Job Postings Analytics

Job Posting

Skills Frequency in Postings versus Profiles, 2012-2016*





For hard skills, the largest gap (demand exceeded supply) appeared in Merchandising, while the largest surplus (supply exceeded demand) appeared in Purchasing.

For common skills, the largest gap (demand exceeded supply) appeared in driving, while the largest surplus (supply exceeded demand) appeared in customer service.

Frequency in postings comes from the de-duplicated jobs postings database. Frequency in profiles comes from the Career Builder resume database (100 million resumes).

*Skill frequency based on Jan 2012 to Dec 2016. Skills in profiles based on 2016 to 2018.

Source: Economic Modeling Specialists International (EMSI) – 2018.1 – Job Postings Analytics

Top Postings by Companies (sorted by average total postings), 2012-2016

Description	Total Unique Postings (Jan 2012-Dec 2016)	Monthly Average Unique Postings (Jan 2012 – Dec 2016)	Average Posting Intensity (Total Posting /Unique Posting) (Jan 2012-Dec 2016)
Ford Motor Company	2,701	45	17:1
CRST International, Inc.*	1,603	27	16:1
Penn National Gaming, Inc.	2,363	39	6:1
Hogan Transports Inc	439	7	25:1
USA Truck, Inc.	318	5	31:1
Trilogy Health Services, LLC	823	14	9:1
McLeod Express, LLC	253	4	25:1
Gordon Trucking, Inc.	253	4	24:1
Barr-Nunn Transportation, Inc.	435	7	13:1
Roehl Transport, Inc.	513	9	10:1
Lowe's Companies, Inc.	671	11	8:1
CVS Health Corporation	1,004	17	5:1
Dollar General Corporation	562	9	7:1
Taco Bell Corp	683	11	6:1
C.R. England, Inc.	471	8	7:1

* CRST International Inc. posts advertisements for jobs nationally and may not be located in Dearborn County. Ford Motor Company is located in Hamilton County, Ohio. Companies in Hamilton County, Ohio draw their labor force from Dearborn County.

Source: Economic Modeling Specialists International (EMSI) – 2018.1 – Job Postings Company Table

Overview: Top Qualifications and Certifications, 2012-2016

By Total Postings

1	Commercial Driver's License (CDL)
2	Registered Nurse
3	Licensed Practical Nurse
4	Transportation Worker Identification Credential Card
5	Nurse Practitioner
6	Licensed Vocational Nurses
7	Certified Safety Auditor
8	Master of Business Administration (MBA)
9	Certified Benefits Professional
10	Certified Nursing Assistant

Source: Economic Modeling Specialists International (EMSI) – 2018.1 – Job Postings Analytics

Section 06

CIP Analysis

Supply of Jobs: CIP Completion

CIP helps analyze labor force supply

The Classification of Instructional Programs (CIP) is a code system of the instructional programs with the purpose to facilitate the organization, collection, and reporting of fields of study and program completions.

- Most of the CIP titles correspond to academic and occupational instructional programs offered for credit at the postsecondary level.
- These programs result in recognized completion points and awards, including degrees, certificates, and other formal awards.
- The CIP also includes other types of instructional programs, such as residency programs in various dental, medical, podiatric, and veterinary specialties that may lead to advanced professional certification; personal improvement and leisure programs; and instructional programs that lead to diplomas and certificates at the secondary level only.

Source: National Center for Education Statistics (NCES)

CIP Analysis: 2011-2016 (CIP 2 digits)

CIP Code	Program Description	Regional Completions (2016)	Regional Average Annual Openings (2011-2016)	Median Hourly Earnings
52	Business, management, marketing, and related support services	0	939	$18.07
12	Personal and Culinary Services	0	449	$10.25
51	Health professions and related programs	0	324	$18.82
01	Agriculture, Agriculture Operations, and Related Sciences	0	270	$12.00
19	Family and Consumer Sciences/Human Sciences	0	174	$12.79
46	Construction Trades	0	164	$16.08
13	Education	0	134	$18.47
49	Transportation and Materials Moving	0	132	$17.89
43	Homeland Security, Law Enforcement, Firefighting and Related Protective Services	0	124	$19.16
44	Public administration and social service professions	0	113	$23.65
47	Mechanic and Repair Technologies/Technicians	0	90	$18.35
15	Engineering Technologies and Engineering-Related Fields	0	85	$21.85
04	Architecture and Related Services	0	77	$22.00
31	Parks, Recreation, Leisure, and Fitness Studies	0	73	$19.62
48	Precision Production	0	69	$19.57

- Regional completion by CIP program is computed by using the Integrated Postsecondary Education Data System (IPEDS). Zero completion does not mean there were no graduates from any academic program. It could be because there is no college in Dearborn County or data for colleges are reported by their flagship campus to the IPEDS.
- Indiana University East and Ivy Tech Community College have locations in Lawrenceburg, the county seat for Dearborn County.

Source: Economic Modeling Specialists International (EMSI) – 2018.1

Section 07

Gap Analysis

Labor Force and Unemployment, 2004 & 2016

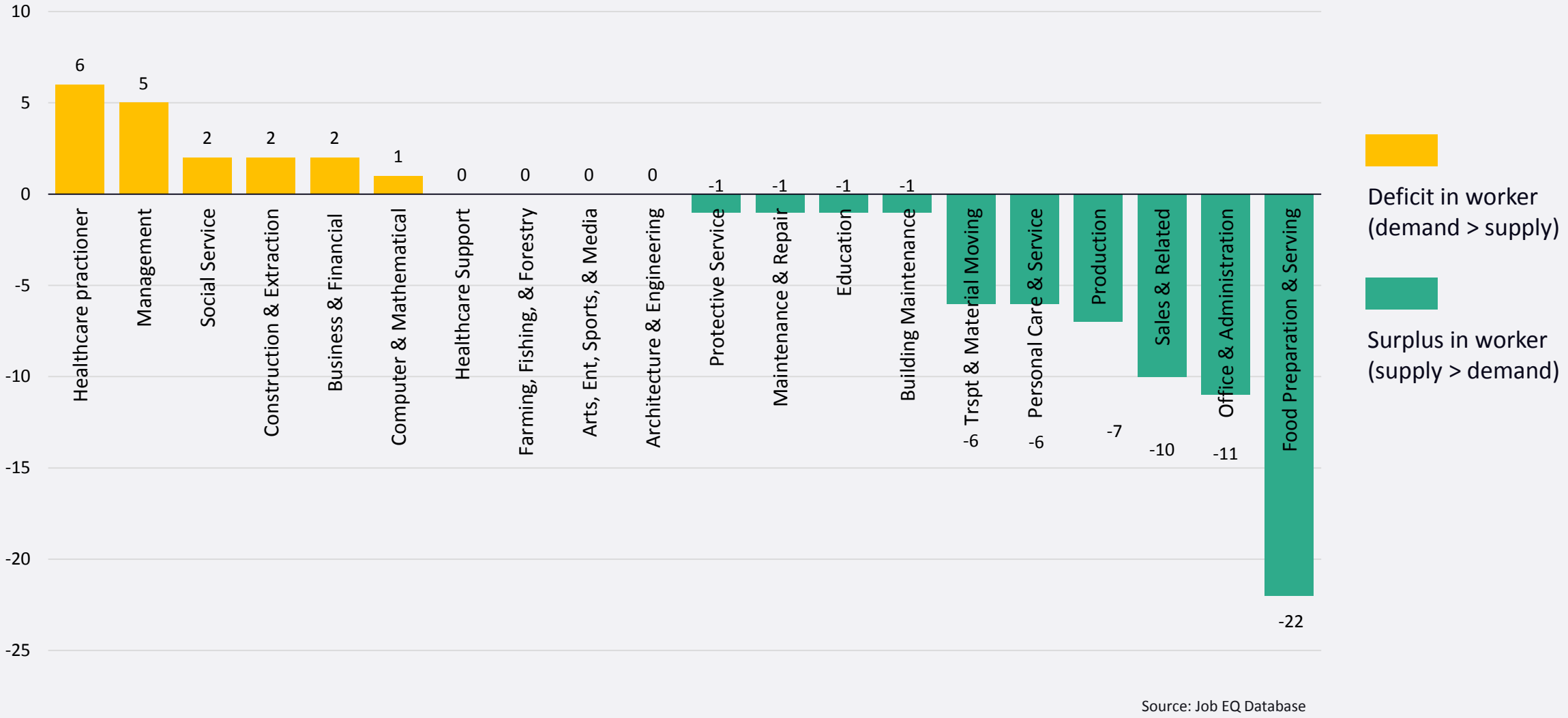
	2004	2016
Labor Force	26,016	25,719
Unemployment Rate	5.4%	4.7%
Labor participation rate	87.5%	85.7%

The number of individuals in the labor force in Dearborn County decreased by 1.1 percent between 2004 and 2016.

The number of individuals in the county's labor force decreased by 297 individuals between 2004 and 2016. Among all the individuals in the labor force, 95.3 percent were employed in 2016, whereas 94.6 percent were employed in 2004. The labor participation rate decreased by 1.8 percentage points in 2016 relative to 2004. The labor participation rate is higher than Indiana's rate of 81.7% in 2004 and 81.9% in 2016, respectively

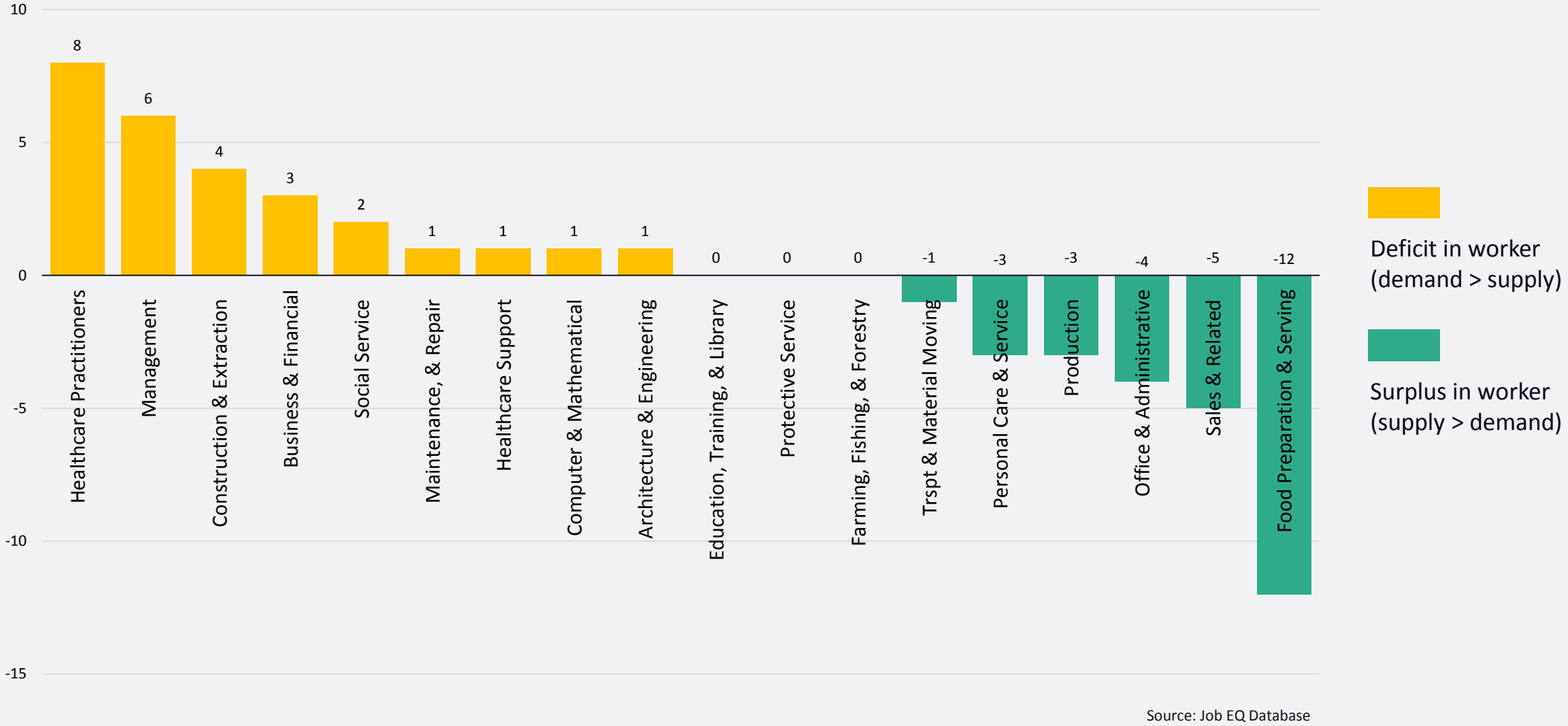
Data source: Stats Indiana and BLS database

Annual Average Occupation Gap: Five-year Projection (by 2-digits SOC code)



Source: Job EQ Database

Annual Average Occupation Gap: Ten-year Projection (by 2-digits SOC code)



Source: Job EQ Database

Gap Analysis

Gap analysis compares labor force supply and demand

- Total annual demand includes estimates for new job growth plus replacements.
- Annual growth demand shows estimates for new job growth.
- Replacement jobs reflect retirements and individuals permanently leaving the occupation. It is known as the annual separation demand.
- Projected employment shows 10-year projections for occupations as estimated by CHMURA Economics.
- Annual supply gap/surplus shows deficits. If it is positive then there is an occupation supply gap or resident workforce cannot meet the demand. For example, registered nurses gap or deficit is positive and the demand has to be met from outside the region. If it is negative. It means that there is a surplus and there are more workers available than there are demands for a specific occupation.

SOC 6-digit occupations with major gaps

- Registered nurses; Farmers, ranchers, and other agricultural managers; General and operations managers; Carpenters; Software developers, applications; Managers, all other; Licensed practical and licensed vocational nurses; etc., have the largest gaps in Dearborn County.

- In knowledge occupations, Registered nurses; General and operations managers; Software developers, applications; Managers, all other; Medical and health services managers; Construction managers, etc., have the largest gaps.

Economy - Industry Distribution and Change, Cost of Living adjusted Wages

NAICS Code	Description	Dearborn, IN 2018	Cincinnati MSA 2018	Hamilton, OH 2018
		COL. Adj. Average Earnings Per Job	COL. Adj. Average Earnings Per Job	COL. Adj. Average Earnings Per Job
11	Agriculture, Forestry, Fishing and Hunting	$30,023	$26,189	$31,473
21	Mining, Quarrying, and Oil and Gas Extraction	$27,870	$80,111	$82,937
22	Utilities	$125,379	$133,499	$129,702
23	Construction	$42,586	$58,204	$63,062
31	Manufacturing	$72,732	$89,299	$99,852
42	Wholesale Trade	$44,207	$81,451	$84,811
44	Retail Trade	$32,073	$33,239	$32,773
48	Transportation and Warehousing	$44,235	$54,180	$46,602
51	Information	$41,930	$85,643	$92,684
52	Finance and Insurance	$52,227	$85,378	$91,750
53	Real Estate and Rental and Leasing	$38,640	$33,028	$34,891
54	Professional, Scientific, and Technical Services	$44,015	$69,181	$75,940
55	Management of Companies and Enterprises	$104,834	$139,331	$135,065
56	Administrative and Support and Waste Management and Remediation Services	$23,047	$37,695	$39,542
61	Educational Services	$9,491	$28,931	$33,015
62	Health Care and Social Assistance	$41,834	$61,810	$64,569
71	Arts, Entertainment, and Recreation	$31,685	$31,298	$43,556
72	Accommodation and Food Services	$17,043	$20,842	$21,259
81	Other Services (except Public Administration)	$21,978	$31,988	$35,539
90	Government	$59,834	$68,478	$71,300
All	Total	$41,640	$58,229	$63,292

Note: Average total earnings include wages, salaries, supplements and earnings from investments and proprietorships.

Source: Emsi 2018.3

Section 08

Compatibility

Compatible Occupations

Compatibility helps identify related occupations that one can move with minimal training

- Which are the related occupations for jobs that are in high demand?
- The higher the compatibility index, less is the training and preparation required to move into the new occupation.
- One of the aspects to determine career ladder and career pathways strategies.
- In absence of workers with specific skills, employers look into compatibility scores to retrain and retool workers from allied and related occupations.
- Employees can use these scores for career pathways and career prospects. Future employees or students and counsellors can use these scores for career interests and pathways.

Occupation or Job Compatibility: Employer Perspective

Potential recruitment sources

Labor market size

Applicability of applicant's past experience

Skills to focus on when determining if a candidate is a good match for a given job

Human resource tool

Source: Carroll, B. and Sturman, M. C. (2009)

Compatibility

Occupation or Job Compatibility: Employee Perspective

Appropriateness of personal skills-fit with other jobs

Opportunities to gain more compensation for current skill set

Personal areas for development to further career goals

Source: Carroll, B. and Sturman, M. C. (2009)

Top Compatible Occupations: First-Line Supervisors of Retail Sales Workers

O*NET	O*NET Occupation	Median Hourly Earnings*	2011 Jobs*	2016 Jobs*	2017 Jobs*	2011-2016 Change*	2011-2016 Estimated Annual Openings*	Compatibility Index
35-1012.00	First-Line Supervisors of Food Preparation and Serving Workers	$15.04	131	138	140	9	22	96
53-1021.00	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	$25.91	11	11	11	0	1	95
11-9051.00	Food Service Managers	$8.67	40	44	46	6	7	95
39-1021.01	Spa Managers	$15.57	78	55	55	-23	7	95
39-1021.00	First-Line Supervisors of Personal Service Workers	$15.57	78	55	55	-23	7	95
53-1021.01	Recycling Coordinators	$25.91	11	11	11	0	1	94
13-1121.00	Meeting, Convention, and Event Planners	$16.35	16	19	19	3	3	94
11-3011.00	Administrative Services Managers	$37.37	15	16	16	1	2	94
43-1011.00	First-Line Supervisors of Office and Administrative Support Workers	$23.89	174	167	167	-7	17	94
37-1011.00	First-Line Supervisors of Housekeeping and Janitorial Workers	$12.43	40	36	36	-4	5	94
37-1012.00	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	$13.81	20	19	18	-2	3	93
41-2031.00	Retail Salespersons	$11.65	535	551	548	13	85	93
25-2032.00	Career/Technical Education Teachers, Secondary School	$26.91	<10	<10	<10	0	0	93
11-1021.00	General and Operations Managers	$45.07	226	228	227	1	22	93
29-2051.00	Dietetic Technicians	$22.87	<10	<10	<10	0	0	93

According to total unique jobs postings by occupations (5-digit SOC) or demand, first-line supervisors of retail sales workers have the second highest total postings trailing one rank behind the heavy and tractor-trailer truck drivers.

There are several middle skill first-line supervisor occupations that have higher compatibility for this occupation.

Source: EMSI

Top Compatible Occupations: Retail Salespersons

O*NET	O*NET Occupation	Median Hourly Earnings*	2011 Jobs*	2016 Jobs*	2017 Jobs*	2011-2016 Change*	2011-2016 Estimated Annual Openings*	Compatibility Index
39-1012.00	Slot Supervisors	$17.66	17	19	17	0	3	96
41-4012.00	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	$26.06	186	218	214	28	30	96
41-9011.00	Demonstrators and Product Promoters	$13.63	18	21	22	4	4	96
39-9011.00	Childcare Workers	$9.40	161	126	120	-41	23	96
41-2021.00	Counter and Rental Clerks	$12.51	47	44	45	-2	6	96
43-4081.00	Hotel, Motel, and Resort Desk Clerks	$10.42	32	25	26	-6	4	96
39-9021.00	Personal Care Aides	$10.69	231	240	239	8	43	95
43-3071.00	Tellers	$12.89	78	64	63	-15	9	95
39-6012.00	Concierges	$16.18	<10	<10	<10	-1	1	95
35-9031.00	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	$9.69	67	60	62	-5	15	95
43-4111.00	Interviewers, Except Eligibility and Loan	$17.59	10	<10	<10	-1	2	95
25-4031.00	Library Technicians	$15.36	<10	<10	<10	2	1	95
43-5051.00	Postal Service Clerks	$29.41	10	<10	<10	-1	1	95
43-4151.00	Order Clerks	$15.02	15	16	16	1	2	95
39-3012.00	Gaming and Sports Book Writers and Runners	$14.54	12	<10	<10	-10	1	95

According to total unique jobs postings by occupations (5-digit SOC) or demand, retail salespersons have the third highest total postings, behind heavy and tractor-trailer truck drivers and the first-line supervisors of retail sales workers.

There are several middle skill occupations that have higher compatibility for the retail salespersons.

Source: EMSI

Top Compatible Occupations: Registered Nurse

O*NET	O*NET Occupation	Median Hourly Earnings*	2011 Jobs*	2016 Jobs*	2017 Jobs*	2011-2016 Change*	2011-2016 Estimated Annual Openings*	Compatibility Index
29-1141.03	Critical Care Nurses	$31.95	280	281	286	6	17	97
29-2061.00	Licensed Practical and Licensed Vocational Nurses	$22.46	126	144	143	17	15	96
29-1141.01	Acute Care Nurses	$31.95	280	281	286	6	17	95
29-1123.00	Physical Therapists	$43.20	14	14	14	0	1	95
29-9099.01	Midwives	$27.89	18	19	19	1	1	94
29-1071.01	Anesthesiologist Assistants	$48.68	<10	<10	<10	-1	0	94
29-1128.00	Exercise Physiologists	$19.88	<10	<10	<10	-1	0	94
31-2021.00	Physical Therapist Assistants	$28.33	<10	<10	<10	1	1	94
29-1171.00	Nurse Practitioners	$49.17	18	18	17	-1	1	94
29-1071.00	Physician Assistants	$48.68	<10	<10	<10	-1	0	94
29-9091.00	Athletic Trainers	$22.99	<10	<10	<10	1	0	94
29-1161.00	Nurse Midwives	$41.49	0	0	0	0	0	94
29-1122.00	Occupational Therapists	$41.09	<10	11	11	1	1	94
31-2011.00	Occupational Therapy Assistants	$29.41	<10	<10	<10	1	0	94
29-1126.00	Respiratory Therapists	$27.47	<10	<10	<10	0	0	93

According to 10-year average annual gaps by occupations (detailed 6-digit SOC), registered nurses have the highest gap followed by farmers and ranchers, medical assistants, and general and operation managers.

There are several high skill health practitioners that have higher compatibility for the registered nurses.

Source: EMSI and JobsEQ

Section 09

Automation

Occupations Gap and Automation Probability

SOC	Title		Annual Supply Gap (or Surplus)	Automation Probability (%)
29-1141	Registered Nurses	Top gaps	3	0.90
11-9013	Farmers, Ranchers, and Other Agricultural Managers		1	4.70
47-2031	Carpenters		1	72.0
11-1021	General and Operations Managers		1	16.0
49-9071	Maintenance and Repair Workers, general		1	64.0
51-2092	Team Assemblers	Top surpluses	-1	97.0
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop		-1	97.0
39-3091	Amusement and Recreation Attendants		-1	72.0
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food		-3	92.0
35-3031	Waiters and Waitresses		-4	94.0
41-2011	Cashiers		-5	97.0

Health-related occupations not only have gaps (demand exceeding resident workforce supply) but also have very low automation probabilities. Registered nurses have less than 1 percent probability for automation.

The automation probabilities are estimated based on tasks and activities that are repetitive and can be automated through AI (artificial intelligence) or other means.

Source: JobsEQ, Frey and Osborne (2017)

Section 10

Takeaways

Labor Market

Dearborn County is home and workplace to 6,834 residents.

There are 5,699 workers commuting from Dearborn County to the rest of Indiana on a daily basis. On the other hand, 3,993 labor force or workers are commuting from the rest of Indiana to Dearborn County for work.

There are more workers commuting from Dearborn to Ohio (7,975) than workers commuting from Ohio to Dearborn County (1,534). The majority of inflow workers (nearly 60 percent) commuting into Dearborn County are engaged in other services sectors.

Almost half of workers commuting out from Dearborn County are earning more than $3,333 per month. Nearly 3 out of 5 workers commuting out of Dearborn County are of ages 30 to 54 years.

Industry

The long-term jobs growth since 1970 shows considerable increase in jobs during the 1990s and a decline during the recession periods. As of 2016, the job growth rate in Dearborn County has been on par with the pre-recession period of 2007.

Government; retail trade; manufacturing; health care and social assistance; and arts, entertainment, and recreation are the major industry sectors in the county. Together, these five industries employ more than 50 percent of all workers in Dearborn County.

Almost 1 in 3 workers in government and 1 in 4 workers in retail trade are in the mature worker (55 years old or older) category

A larger proportion of females are employed in child day care services and living facilities for the elderly. Hispanic employees make up 6 percent of all workers in Administrative and Support and Waste Management and Remediation Services, higher than the average for Indiana.

Occupation

More than 1 in 7 persons are employed in Sales and Related occupations, and 1 in 10 persons are employed in Office and Administrative Support occupations in Dearborn County.

Food Preparation and Serving Related Occupations also employ 1 in 10 persons. Production occupations grew by 7 percent from 2011 to 2016 and now have a labor force of 1,341 individuals.

Mature workers (55 years and more) represent a larger share of the workforce in many occupational groups in Dearborn County. A large proportion of females are employed as dental assistants, legal secretaries and dental hygienists. Hispanic employees make up 9 percent of all workers in building and grounds cleaning and maintenance occupation, higher than the average for the state.

Job Postings

Jobs postings look into numbers and intensity of de-duplicated postings for available jobs, gleaned from the online advertisements.

During the 2012-2016 period, the highest total and unique postings, on an average month, occurred for job titles related to transportation services (such as truck drivers, CDL and flatbed drivers, over the road drivers, owner operators, and so forth).

Hard skills in demand include merchandising, hazardous materials, nursing, restaurant operation, and customer satisfaction. The common skills in highest demand include driving, which is consistent with the observed patterns in job postings.

CIP Analysis

The Classification of Instructional Programs (CIP) is a code system of degree courses and other instructional programs offered by educational institutions. CIP helps to identify the educational training and skills of young and matured students graduating from Dearborn County educational institutions.

In Dearborn County, during the time period from 2011 to 2016, the Integrated Postsecondary Education Data System (IPEDS) data show no programs had regional completions. The primary reason is that the community college (Ivy Tech) is not reporting any completion data to IPEDS. The satellite branch of the IU East is reporting their completion data through the main IU institution. Lawrenceburg, county seat for Dearborn, has some post associate degree educational opportunities, especially in the areas of management and nursing. The data show that there are job opportunities in these disciplines.

Gap Analysis

The region experienced a decline in the labor force (a loss of 297 labors) between 2004 and 2016. At the same time, the labor participation rate declined from 87.5 percent to 85.7 percent, still higher than the state average of around 82 percent.

Dearborn County may not have issues of lower labor participation rates. However, in light of commuting patterns, the county needs to strategize to retain some of the workers that are commuting out for jobs to Cincinnati and other areas. Currently, Dearborn County serves as a residential area for the Cincinnati labor market. Creating local jobs would make it a place for living as well as work.

Based on a Gap Analysis of the county's capacity to meet the future demand for occupations (caused by new jobs and vacancies created from separations or changeover), the top occupations in the county that may be difficult to fill in the next five years are those related to healthcare practitioners and management occupations.

Compatibility

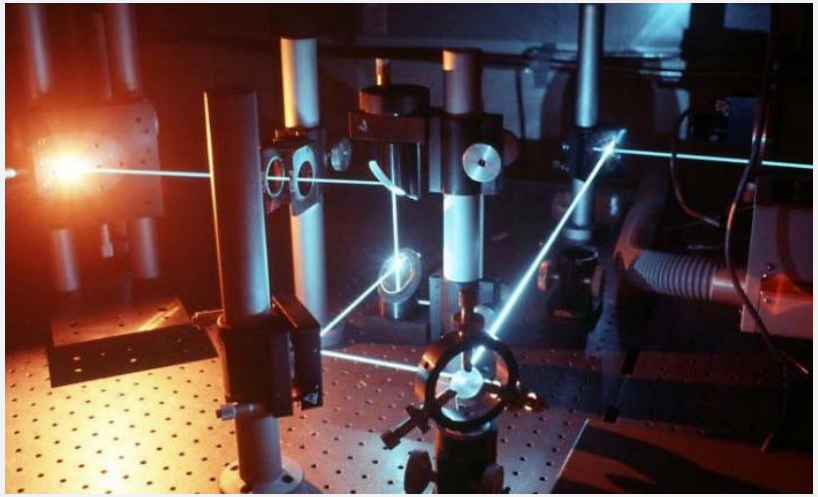
Compatibility scores help identify related occupations that will require minimal training to move into an occupation that is in higher demand, such as jobs with high numbers of unique postings or jobs where the demand exceeds the supply of workers.

An applicant or an employee can use compatibility scores to assess the level of preparation and training needed for a type of job in high demand in the region.

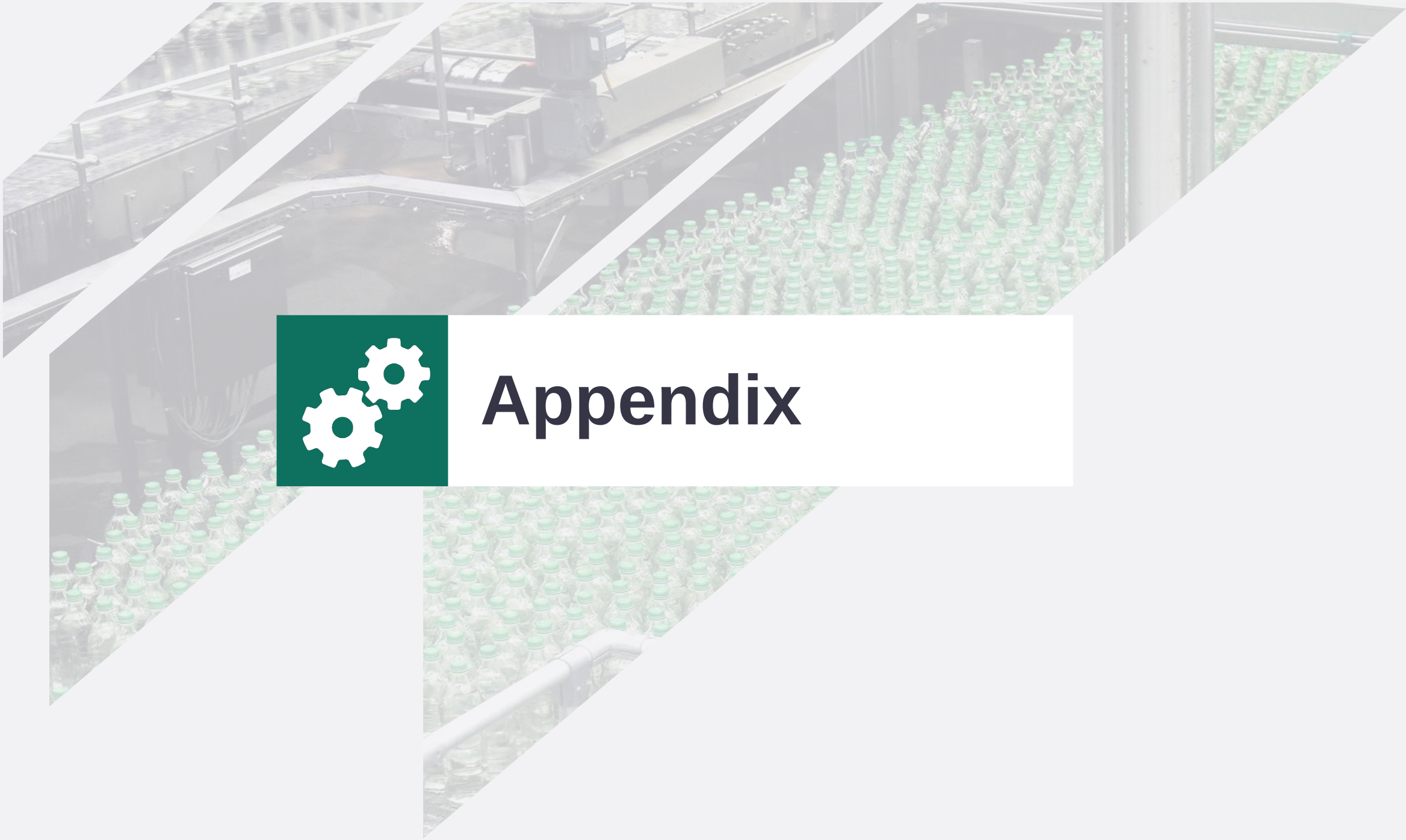
Dearborn County has related occupations in the area of retail sales and healthcare with compatibility scores of more than 90. Truck drivers are usually the occupations with the highest demand but the most difficult-to-fill in nearly all Indiana counties. Please see the Appendix for compatible occupations for truck drivers and two high skilled occupations.

Automation

Automation is a way of assessing if robots and artificial intelligence might replace a given occupation at some point in the near future. The probability of automation is assessed by identifying tasks and their repetitiveness. Registered nurses, for example, are expected to have less supply than demand in Dearborn County. In addition, they have very low levels of automation probability. Similarly, farmers, ranchers and other agricultural managers have less than 5 percent probability for automation. On the other hand, lower-skilled occupations that are in surplus, such as team assemblers, have a high probabilities for automation.



Source: https://www.energy.gov/workshops-focus-groups-and-important-documents



Appendix

Top Compatible Occupations: Heavy and Tractor-trailer Truck Drivers

O*NET	O*NET Occupation	Median Hourly Earnings*	2011 Jobs*	2016 Jobs*	2017 Jobs*	2011-2016 Change*	2011-2016 Estimated Annual Openings*	Compatibility Index
53-4013.00	Rail Yard Engineers, Dinkey Operators, and Hostlers	$27.60	<10	<10	<10	0	0	97
53-4012.00	Locomotive Firers	$25.23	<10	0	0	0	0	97
53-4041.00	Subway and Streetcar Operators	$22.61	<10	<10	<10	1	0	96
53-3033.00	Light Truck or Delivery Services Drivers	$14.13	130	139	136	6	17	96
53-7021.00	Crane and Tower Operators	$21.87	<10	<10	<10	-2	1	96
53-4021.00	Railroad Brake, Signal, and Switch Operators	$23.25	<10	<10	<10	-1	0	96
47-4071.00	Septic Tank Servicers and Sewer Pipe Cleaners	$19.24	<10	<10	<10	1	0	96
53-5011.00	Sailors and Marine Oilers	$18.77	<10	<10	<10	-1	0	95
53-3041.00	Taxi Drivers and Chauffeurs	$10.02	135	113	109	-26	19	95
47-5081.00	Helpers--Extraction Workers	$20.83	<10	<10	<10	1	1	95
53-7032.00	Excavating and Loading Machine and Dragline Operators	$20.94	<10	<10	<10	-3	1	95
53-4011.00	Locomotive Engineers	$25.59	<10	<10	<10	-1	1	95
53-6011.00	Bridge and Lock Tenders	$26.63	<10	<10	<10	0	0	95
51-4023.00	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	$18.99	<10	<10	<10	0	0	94
47-4091.00	Segmental Pavers	$14.43	0	0	0	0	0	94

Source: EMSI

Top Compatible Occupations: Software Developer and Application

O*NET	O*NET Occupation	Median Hourly Earnings*	2011 Jobs*	2016 Jobs*	2017 Jobs*	2011-2016 Change*	2011-2016 Estimated Annual Openings*	Compatibility Index
15-1121.00	Computer Systems Analysts	$31.51	18	13	13	-5	1	96
15-1199.06	Database Architects	$22.15	<10	<10	<10	1	1	96
15-1134.00	Web Developers	$15.66	16	15	16	0	2	94
15-1199.01	Software Quality Assurance Engineers and Testers	$22.15	<10	<10	<10	1	1	94
15-1131.00	Computer Programmers	$24.88	12	<10	<10	-4	1	93
15-1199.02	Computer Systems Engineers/Architects	$22.15	<10	<10	<10	1	1	93
15-1141.00	Database Administrators	$43.16	<10	<10	<10	-1	0	92
15-1199.03	Web Administrators	$22.15	<10	<10	<10	1	1	91
11-3021.00	Computer and Information Systems Managers	$48.45	<10	<10	<10	-1	1	91
15-1143.00	Computer Network Architects	$49.22	<10	<10	<10	0	0	91
15-1111.00	Computer and Information Research Scientists	$46.90	0	0	0	0	0	90
15-1142.00	Network and Computer Systems Administrators	$35.77	15	12	13	-2	1	89
17-2072.01	Radio Frequency Identification Device Specialists	$47.41	<10	<10	<10	1	0	89
15-1133.00	Software Developers, Systems Software	$44.77	<10	<10	<10	-1	1	88
17-2061.00	Computer Hardware Engineers	$22.07	<10	0	0	0	0	88

According to five year occupation gap projection, computer and mathematical occupations (SOC 2-digit level occupation) in Dearborn County will have deficits in workers (annual demand for workers will exceed the supply).

Within this category, software developers and applications (SOC 6-digit level) have the largest total annual demand and requires higher STEM skills.

Computer system analysts have a higher compatibility index. The median hourly earnings is $ 31.51.

Source: EMSI

Top Compatible Occupations: Operation Research Analysts

O*NET	O*NET Occupation	Median Hourly Earnings*	2011 Jobs*	2016 Jobs*	2017 Jobs*	2011-2016 Change*	2011-2016 Estimated Annual Openings*	Compatibility Index
13-2099.01	Financial Quantitative Analysts	$15.27	11	<10	<10	-3	1	95
15-2041.00	Statisticians	$43.06	<10	<10	<10	0	0	94
19-3011.00	Economists	$31.63	0	<10	<10	0	0	93
15-2011.00	Actuaries	$0.00	0	0	0	0	0	93
15-2021.00	Mathematicians	$46.24	0	0	0	0	0	93
13-2051.00	Financial Analysts	$29.76	27	29	30	3	3	92
15-1199.08	Business Intelligence Analysts	$22.15	<10	<10	<10	1	1	92
43-9111.00	Statistical Assistants	$23.12	<10	<10	<10	0	0	92
13-2099.02	Risk Management Specialists	$15.27	11	<10	<10	-3	1	92
15-2041.02	Clinical Data Managers	$43.06	<10	<10	<10	0	0	91
15-1199.06	Database Architects	$22.15	<10	<10	<10	1	1	91
13-1161.00	Market Research Analysts and Marketing Specialists	$26.98	29	29	31	2	4	91
13-1081.02	Logistics Analysts	$34.28	<10	<10	<10	0	1	91
15-1133.00	Software Developers, Systems Software	$44.77	<10	<10	<10	-1	1	90
41-3099.01	Energy Brokers	$18.78	63	59	61	-2	8	90

According to five year occupation gap projection, business and financial (2 digit level occupation) in Dearborn County will have deficits in workers (annual demand of workers would exceed the supply).

Within this category, Operation Research Analysts (6 digits level) have positive total annual demand and requires higher skills.

Financial Quantitative Analysts have a higher compatibility index. The median hourly earnings is $ 15.27.

Source: EMSI

Report Contributors

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