



**Region 8 Works Council
Evaluation of Career and Technical Education Opportunities
November 1, 2013**

Members

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EXECUTIVE SUMMARY

According to Works Council legislation, each regional Works Council must evaluate Career and Technical Education (CTE) opportunities within their region by November 1, 2013. The Works Council addressed the following issues in developing this report: CTE pathways alignment, articulation of CTE secondary to postsecondary, overview of secondary CTE data, regional employment sector information, and an analysis that includes next steps for the Works Council.

1. CTE Pathways and Data

Please summarize the data that best illustrates the current state of CTE in your region.

CTE Pathways in Region 8

Region 8 encompasses four Career and Technical Education Districts. Two of the districts have career centers and two have cooperative programs. These career centers and cooperatives have a total of 80 career pathways (Table A) in the 11 career clusters listed on the Indiana Department of Education College and Career Readiness website. Total enrollment in these pathways is 6,710 (Table B) with an additional enrollment of 1,088 in foundational courses. Following Table B is the breakdown of specific pathways at each school in the Region.

CTE Articulation to Postsecondary Opportunities

The high schools affiliated with the career centers and cooperative programs in Region 8 offer 116 different dual credit courses with either Ivy Tech Community College or Vincennes University.

2. Regional Employment Sector Information

Please summarize the data that best illustrates industry partnerships or economic sector growth in your region.

Regional Employment Sectors

Table C lists the Hoosier Hot 50 Jobs in Region 8. The top 10 jobs in terms of numbers of employees in 2010 are highlighted in red. The categories listed are Rank, Job, 2010 Employment, 2020 Projection, 2020 Growth, 2020 Percent Change, Openings, and 2011 Wage. Below Table C is listed the top 10 jobs in terms of numbers of employed in 2010. Though it lists only seven, several categories, such as education and nursing, contain multiple top-10 ratings.

Taking Region 8's top 10 jobs from Table C, and cross referencing in red with several DWD lists – including “Hoosiers By The Numbers Region 8 Labor Market Reviews,” “Top 20 Occupations Desired by Active Applicants on Their Resumes in the Past 12 Months” and “Top 20 Job Listings by Number of Openings in Region 8 for the Month of August 2013” – it is possible to correlate the most prevalent jobs in the region with those most desired by applicants and the number of openings. Further, the DWD's

Career and Technical Education District Dashboards for each CTE district list each district's top 10 jobs. Those jobs are also correlated with Region 8's top 10 listed in the Top 50 Hot Jobs.

3. Analysis and Next Steps

Please summarize the findings from the analysis conducted and recommend next steps for the Works Council.

Based on data collected so far, the Region 8 Works Council members have concluded that more research is necessary to determine more specifically what the skills gaps are among *all* major industries in the region and where CTE pathways need to be improved or developed. The biggest workforce challenges center on effective communication among all stakeholders, old mindsets that tend to devalue any post-secondary options other than four-year college, and the inability of too many high school graduates to be flexible and adaptable in a rapidly changing workplace. While current CTE pathways appear to align fairly well to some industry needs, the Works Council needs a more comprehensive understanding about what industry requires both now and in the future. The scope of the challenge is simply incomplete at this stage. Therefore, the Region 8 Works Council will continue its research to understand more fully current and future industry needs, to discover programs and innovations across the state and around the nation that might be employed in Region 8 to meet those needs, and to understand how students perceive their opportunities and make their career choices.

CTE PATHWAYS IN REGION 8

Please develop a comprehensive list of CTE clusters and pathways offered at high schools and/or CTE centers in your region. A regional map with CTE locations would also be helpful. The Works Council needs to convey what pathways (and corresponding enrollments) are prevalent in the region.

**TABLE A
Region 8 Career Center and Cooperative Pathways/Programs**

Pathway/Program	N. Lawrence CC	Lost River	Twin Rivers	Hoosier Hills CC
Agriculture	X	X	X	X
Animal Science	X	X		X
Auto Collision	X		X	X
Auto Tech	X	X	X	X
Business		X	X	
Construction Tech	X	X	X	X
Cosmetology	X		X	X
C.I.M.			X	
Comp. Networking			X	
Comp. Program	X		X	
Diesel Mechanics			X	
Culinary Arts		X	X	X
Drafting	X		X	X
Early Childhood Ed	X	X		X
Electronics	X	X	X	
FACS	X	X	X	
Food Science				
Graphic Arts	X			
Fire and Rescue		X	X	X
Health Sci. Ed	X	X	X	X
Heavy Equipment		X		
Law Enforcement			X	
ICE	X			X
Information Tech	X		X	X
Intro to Transport		X		X
Interactive Media		X		
LEAP	X			
PLTW-Eng.	X	X	X	X
PLTW-Biomed.			X	X
Prec. Mach. Trade	X		X	X
Radio and TV	X	X		
Surveying			X	
Truck Driving			X	
Web Development		X	X	
Welding	X	X	X	X
Total Programs/ Pathways 80	20	18	25	17

The Indiana Department of Education has identified 11 Career Clusters out of 16 National Career Clusters to implement in Indiana. Those are Agriculture, Arts & AV Technology & Communication, Education and Training, Hospitality & Human Services, Manufacturing, Transportation, Architecture & Construction, Business & Marketing, Health Science, Information Technology and Public Safety. Within each of these Career Clusters are related Career Pathways.

In Region 8, Career Centers and Co-Ops have a total of 80 Career Pathways.

TABLE B
Region 8 Career Clusters Per Career Center, Cooperative and High School

Clusters/ School	Ag.	Arts AV/Tec Comm	Ed.& Training	Hosp/ Human Service	Manuf	Trans	Arch/ Const	Bus/ Mkt	Health Sci	IT	Public Safety
Hoosier Hills CC	X		X	X	X	X	X		X	X	X
BHSN					X			X	X		
BHSS					X			X	X		
Edge.HS					X						
E.Greene	X				X						
Owen Valley	X				X						
BAES					X			X			
North Lawrence CC	X	X	X	X	X	X	X		X	X	
Browns-Town											
Medora											
Mitchell											
Orleans											
Shoals											
Lost River Coop	X	X	X	X	X	X	X	X	x		
Paoli											
Springs Valley											
West Wash.											

Twin Rivers CTE Area	X	X	X	X	X	X	X	X	X	X	X
Barr Reeve											
Bloomfield											
Linton-Stockton											
Loogootee											
N. Daviess											
Shakamak											
Washington											
W. River Valley											
C4 CC											
Brown County											
Totals	1186	155	1307	1470	369	869	141	576	534	84	19

Source: CTE Director Generated Listing, Totals DWD Duplicated Enrollment Count from Chris Deaton

Total Enrollment = **6710** in Career Pathways within the 11 Career Clusters with an additional enrollment of **1088** in foundational courses (Preparing for College and Careers with a student enrollment 978 and Adult Roles and Responsibilities with a student enrollment 110).

Specific pathways at each school include:

Hoosier Hills Career Center

- Agriculture:** Horticulture and Landscape Management, Life Science/Animals
- Architecture & Construction:** Drafting & Design/Mechanical Drafting, Drafting & Design/Architectural, Construction Trades
- Education & Training:** Education and Early Childhood
- Health Science:** Health Care Specialties- Concentration in Health Care Support Services, Pharmacy, Physical Therapy, Veterinary, Health Care Specialties-Concentration in Nursing, Biomedical
- Hospitality & Human Services:** Culinary Arts, Cosmetology
- Information Technology:** PC Networking & Support-Concentration in Networking, PC
- Networking & Support:** Concentration in PC Support
- Manufacturing:** Welding Technology, Precision Machining, Engineering/Engineering Technology
- Public Safety:** Fire and Rescue
- Transportation:** Automotive Service Technology, Auto Collision Technology

Bloomington High School North

- Manufacturing:** Engineering/Engineering Technology,
- Business & Marketing:** Business Administration

Bloomington High School South

Manufacturing: Engineering/Engineering Technology,
Business & Marketing: Business Administration

Edgewood High School

Eastern Greene High School

Agriculture:

Owen Valley High School

Agriculture: Horticulture and Landscape Management, Life Science/Animals
Manufacturing: Engineering/Engineering Technology,

Bloomington Academy of Science and Entrepreneurship

Manufacturing: Engineering/Engineering Technology

North Lawrence Career Center

Brownstown High School

Medora High School

Mitchell High School

Orleans High School

Shoals High School

Lost River Coop

Paoli High School

Springs Valley High School

West Washington High School

Twin Rivers CTE Area

Barr-Reeve High School

Manufacturing: Engineering/Engineering Technology

Bloomfield High School

Agriculture:

Business & Marketing:

Health Science: Biomedical

Manufacturing: Engineering/Engineering Technology

Linton-Stockton High School

Agriculture:

Architecture & Construction: Construction Trades

Health Science:

Manufacturing: Engineering/Engineering Technology

Transportation: Automotive Service Technology

Loogootee High School

Manufacturing: Engineering/Engineering Technology

North Daviess High School

Agriculture:

Business & Marketing:

Manufacturing: Engineering/Engineering Technology

Shakamak High School

Agriculture:

Manufacturing: Engineering/Engineering Technology Business & Marketing

Washington High School

White River Valley High School

Agriculture:

Business & Marketing: Business Administration

Manufacturing: Engineering/Engineering Technology

C4 Career Center

Brown County High School

Region 8 Combined Clusters and Pathways Enrollments

Agriculture: Horticulture and Landscape Management, Life Science/Animals (1186) Total 1186

Arts & AV Technology & Communication: Digital Communications (125), Visual Arts (30) Total 155

Architecture & Construction: Drafting & Design/Mechanical Drafting, Drafting & Design/Architectural (39), Construction Trades (102) Total 141

Business & Marketing (576) Total 576

Education & Training: Education and Early Childhood (1370) Total 1370

Health Science: Health Care Specialties- Concentration in Health Science Careers (89) Health Care Specialties- Comprehensive Health Science Careers/Emerging Career Focus (107), Biomedical (338) Total 534

Hospitality & Human Services: Culinary Arts (1413), Cosmetology (57) Total 1470

Information Technology: PC Networking & Support-Concentration in Networking (65), PC Networking & Support-Concentration in PC Support (2), Programming (17) Total 84

Manufacturing: Welding Technology (134), Precision Machining (37), Engineering/Engineering Technology (648), Electronics (50) Total 869

Public Safety: Fire and Rescue (16), Criminal Justice (3) Total 19

Transportation: Automotive Service Technology (291), Auto Collision Technology (78) Total 369

Source: Table B Totals

CTE ARTICULATION TO POSTSECONDARY OPPORTUNITIES

Please consider the dual credit data provided by the State in conjunction with existing workforce partnership plans to determine how well aligned existing pathways are with postsecondary CTE programs.

Agriculture

HHCC

Auto Collision Repair I	Ivy Tech TH	AUBR 101, Auto Body Repair 1	3cr
		AUBR 103, Automotive Paint Essentials	3cr
		AUBR 110, Auto Body Power Tools	3cr
Auto Collision Repair II	Ivy Tech TH	AUBR 104, Coll. Damage Analy Repair	3cr
		AUBR 105, Conv. Frame Diag & Repair	3cr
Auto Service Tech I	Ivy Tech TH	AUTC 101, Steering and Suspension	3cr
		AUTC 121, Breaking Systems	3cr
Auto Service Tech II	Ivy Tech TH	AUTC 109, Engine Performance I	3cr
		AUTC 113, Electrical Systems	3cr
Agribusiness Man.	Ivy Tech TH	AGRI 102, Ag Business & Farm Man	3cr
Horticultural Science	Ivy Tech TH	AGRI 116, Survey of Horticulture	3cr
Natural Res Man.	Ivy Tech TH	AGRI 115, Natural Res Man.	3cr
Early Childhood Ed I	Ivy Tech Bl	ECED 100, Introduction to ECE	3cr
Early Childhood Ed II	Ivy Tech Bl	ECED 101, Health Safety and Nutrition	3cr
Arch Drft & Des I & II	Ivy Tech Bl	TECH 102, Technical Graphic	3cr
PLTW POE	Ivy Tech Bl	DESN 104, Technical Graphics	3cr
PLTW CEA	Ivy Tech Bl	DESN 105, Architectural Design	3cr
PLTW IED	Ivy Tech Bl	DESN 102, Graphics	3cr
Mech Draft & Des I & II	Ivy Tech Bl	DESN 103, CAD Fundamentals	3cr
Health Science Ed I	Ivy Tech TH	HLHS 100, Health Careers	3cr
Health Science EdII	Ivy Tech Bl	HLHS 101, Medical Terminology	3cr
	Ivy Tech TH	HLHS 111, Nutrition & Wellness	3cr
Cul Arts & Hos Mgt	Ivy Tech Bl	HOSP 101, Sanitation & First Aid	3cr
Ad Culinary Arts	Ivy Tech Bl	HOSP 102, Basic Food Theory	3cr
		HOSP 105, Introduction to Baking	3cr
Fire and Rescue I & II	Ivy Tech Bl	FIRE 100, Fire Suppression	3cr
		PSAF 115, Hazmat Awareness & Ops	3cr
		PSAF 116, Fire Fighter I	3cr
		PSAF 117, Fire Fighter II	3cr
		PSAF 120, First Responder	3cr
Welding I	Ivy Tech TH	WELD 108, Shield Metal Arc Welding I	3cr
		WELD 207, Gas Metal Arc Welding	3cr
Welding II	Ivy Tech TH	WELD 208, Tungsten Gas Arc Welding	3cr

NLCC Agriculture

ALS Animals Purdue University 3cr
ALS Plant & Soil Purdue University 3cr
ALS Foods Purdue University 3cr
Agribusiness Management Ivy Tech TH AGRI 102 Ag Business & Farm Mgt. 3cr
Horticultural Science Ivy Tech TH AGRI 116 Survey of Horticulture 3cr
Natural Resources Ivy Tech TH AGRI 115 Natural Resource Mgt. 3cr

Auto Service Technology I & II

Ivy Tech
AUTC 100 3cr
AUTO 101 3cr
AUTC 102 3cr
AUTC 121 3cr
AUTC 109 3cr
AUTC 113 3cr
Vincennes University:
AUTO 105 2cr
AUTO 110 2cr
AUTO 110L 4cr

Architectural Drafting

Ivy Tech
DESN 103 CAD Fundamentals 3cr
DESN 102 Technical Graphics 3cr
ADMF 115 Materials & Processes for Marketing 3cr

Electronics & Computer Technology

Vincennes University Project Excel
ELEC 100 Basic Electricity & Electronics 5cr
ELEC 110 Basic Components & Circuits 6cr
ELEC 130 Digital Logic I 3cr

Engineering PLTW

Ivy Tech
Intro to Eng Design 4812 Ivy Tech TH DESN 102 Technical Graphics 3cr
Princ of Engineering 4814 Ivy Tech TH DESN 104 Mechanical Graphics 3cr

Vincennes University
Digital Electronics ELEC 130 Digital Logic 3cr
Graphic Imaging Technology 3cr
Vincennes University Project Excel

DESIGN 155/155L Computer Page Layout 3cr
DESIGN 120/120L Computer Illustration 3cr
Louisville Tech
Computer Graphic Design 115 3cr
Welding 3cr
Ivy Tech
INDT 114 Intro to Welding 3cr

Lost River Career Cooperative

Ivy Tech TH AGRI 102 Ag Business & Farm Mgt. 3cr
Vincennes Univ. Intro to Agribusiness Mgt. 3cr
Natural Resources Ivy Tech TH AGRI 115 Natural Resource Mgt. 3cr
Horticultural Science Ivy Tech TH AGRI 116 Survey of Horticulture 3cr
ALS Animals Purdue University 3cr
Ivy Tech HOSP 101 Sanitation and First Aid 3cr
Ivy Tech HOSP 102 Basic Food Theory and Skills 3cr
Ivy Tech HOSP 104 Nutrition 3cr
Ivy Tech HOSP 105 Intro to Baking 3cr
Ivy Tech DESN 220 Advanced CAD 3cr
Ivy Tech DESN 103 CAD Fundamentals 3cr
Intro to Eng Design 4812 Ivy Tech DESN 102 Technical Graphics 3cr
Princ of Engineering 4814 Ivy Tech ADMF 115 Materials & Processes 3cr
CIM 4810 Ivy Tech TH ADMF 116 Automation and Robotics in Manufacturing 3cr
Health Science Ed I 5282 Ivy Tech HLHS 100 Intro to Health Careers 3cr
Medical Terminology 5247 Ivy Tech HLHS 101 Medical Terminology 3cr
Anatomy and Physiology 5276 Ivy Tech APHY 101 Anatomy and Physiology 3cr
Design Fundamentals 4834 Ivy Tech VISC 101 Fundamentals of Design 3cr
Web Design 4574 Ivy Tech VISC 110 Web Design 3cr
Computer Illustration & Graphics 4516 Ivy Tech VISC 115 Intro to Comp Graphics 3cr
Interactive Media 5232 Ivy Tech VISC 103 Interactive Media 3cr
Welding II 5778 Ivy Tech INDT 114 Intro to Welding 3cr
Ivy Tech Weld 103 Arc Welding 3cr
Fire and Rescue I 5280 Ivy Tech FIRE 100 Fire Suppression 3cr
Ivy Tech FIRE 116 Fire Fighter I 3cr
Ivy Tech FIRE 117 Fire Fighter II 3cr
Ivy Tech Fire 115 Hazmat Awareness and Ops 3cr
Fire and Rescue II 5826 Ivy Tech PSAF 120 First Responder 3cr
Ivy Tech PARM 012 EMT Basic 3cr
Health Careers 5282 Ivy Tech TH HLHS 100 Health Careers Health Careers 5282 3cr
Medical Terminology 5274 Ivy Tech TH HLHS 101 Medical Terminology 5274 3cr
Health Sci, Ed. II 5284 Ivy Tech TH HLHS 107 CNA Preparation 3cr
Human Dev. & Wellness 5366 Ivy Tech TH HLHS 111 Health & Wellness for Life 3cr

Twin Rivers Career and Technical Area

Intro to Eng Design 4812 Ivy Tech TH DESN 102 Technical Graphics 3cr
Princ of Engineering 4814 Ivy Tech TH DESN 104 Mechanical Graphics 3cr
Civil Arch & Engineering 4820 Ivy Tech TH DESN 105 Arch Design I 3cr
Auto Service Tech I 5510 Ivy Tech TH AUTC 100 Intro to Automotive 3cr
Auto Service Tech II 5546 Ivy Tech TH AUTOC 109 Engine Performance I 3cr
Ivy Tech TH AUTC 113 Electricity/Electronics 3cr
Welding I 5776 Ivy Tech TH INDT 102 Intro to Print Reading 3cr
Ivy Tech TH INDT 106 Intro to Workplace & Safety 3cr
Ivy Tech TH INDT 114 Intro to Welding 3cr
Ivy Tech TH WELD 108 ARC Welding 3cr
Ivy Tech TH WELD 207 MIG 3cr
Welding II 5778 Ivy Tech TH WELD 208 TIG 3cr
Ivy Tech TH WELD 100 Welding Process 3cr
Machine Trades 5776 Ivy Tech TH INDT 102 Intro to Print Reading 3cr
Ivy Tech TH MTTC 101 Intro to Machining 3cr
Ivy Tech TH INDT 106 Intro to Workplace & Safety 3cr
Machine Trades 5782 Ivy Tech TH MTTC 102 Turning Processes 3cr
Ivy Tech TH MTTC 103 Milling Processes 3cr
Machine Trades 4796 Ivy Tech TH MTTC 110 Turning & Milling Processes 3cr
Vincennes University Dual Credit:
Arch Drafting
Computer Integrated Manufacturing
Collision Repair
Computer Repair
Computer Networking
Computer Programming
Diesel Technology
Electronics
Fire Science
Hospitality
Industrial Drafting
Information Technology
Law Enforcement
Precision Machining
Surveying
Web Development
Welding Technology
Project Excel

Cooperatives and the Career Centers in Region 8 offer 116 different courses for dual credit courses for 352 credit hours of college coursework with either Ivy Tech or Vincennes University.

Numbers of Student Earning Dual Credits

(PLTW) Biomedical Innovation	0
(PLTW) Computer Integrated Manufacturing	1
(PLTW) Digital Electronics	13
(PLTW) Human Body Systems	0
(PLTW) Intro to Engineering Design	201
(PLTW) Medical Interventions	0
(PLTW) Principles of Biomedical Science	0
Adult Roles and Responsibilities	0
Advanced Business Management	0
Advanced Child Development	0
Advanced Life Science Animals	12
Advanced Life Science Foods	1
Advanced Life Science Plants and Soils	2
Advanced Nutrition and Wellness	0
Agribusiness Management	10
Agriculture Power, Structure & Technology	0
Animal Science	2
Architectural Drafting & Design	13
Auto Collision Repair Technology I	15
Auto Collision Repair Technology II	103
Biotechnical Engineering	0
Business Cooperative Experiences	2
Business Technology Lab I	0
Business Technology Lab II	13
Child Development	0
Civil Engineering & Architecture	12
Computer Programming II	0
Computer Repair & Maintenance	0
Computer Tech Support	0
Construction Technology I	4
Consumer Economics	0
Cosmetology I	0
Culinary Arts & Management	9
Digital Electronics Tech. (non-PLTW)	8
Early Childhood Education I	19
Education Professions I	0
Electronics and Computer Technology	7

Entrepreneurship and New Ventures	0
Fire & Rescue I	10
Food Science	0
Graphic Imaging Technology	10
Health Career Practicum	13
Health Science Education I	0
Health Science Education II	0
Horticultural Science	13
Human and Social Services I	0
Human Development and Family Wellness	0
Interactive Media	37
Interdisciplinary Cooperative Education	0
Interpersonal Relationships	0
Intro to Health Care Systems	31
Intro to Agriculture, Food & Natural Resources	0
Intro to Culinary Arts & Hospitality	0
Intro to Fashion & Textiles	0
Intro to Housing & Interior Design	0
Landscape Management	0
Marketing Management Seminar	0
Medical Terminology	4
Natural Resources	0
Networking Fundamentals	0
Nutrition and Wellness	9
Personal Resource Mgt. & Fam. Finance	0
Plant & Soil Science	0
Precision Machining I	0
Preparing for College and Careers	7
Principles of Engineering PLTW	67
Professional Career Internship	0
Sports and Entertainment Marketing	0
Strategic Marketing	0
Welding Technology	<u>63</u>
Total Number of Students	706 x 3cr. = 2,118 cr

Source: DWD document from Chris Deaton

Students in Career and Technical Education classes in Region 8 have earned 2,118.

Source: DWD document from Chris Deaton

REGIONAL EMPLOYMENT SECTORS

Please describe the primary employment sectors in your region.

**TABLE C
Hoosier Hot 50 Jobs – Region 8**

Rank	Hot Job	2010 Employment	2020 Projection	2020 Growth	2020% Change	Openings	2011 Wage
1	Registered Nurse	2394	2999	605	25%	103	\$54,481
2	Software Developer	210	297	87	41%	11	\$79,713
3	Pharmacists	284	352	68	24%	14	\$110,699
4	Management Analyst	404	497	93	23%	16	\$75,671
5	Engineers	1068	1215	147	14%	41	\$81,843
6	Network/Computer Systems Analyst	247	328	81	33%	12	\$62,671
7	Pre/Primary/Second. Spec. Ed. Teachers	5185	5919	734	14%	201	\$49,648
8	Physicians & Surgeons	241	297	56	23%	11	\$144,978
9	Physical Therapists	159	215	56	35%	8	\$77,003
10	Medical & Health Services Manager	279	342	63	23	13	\$70,173
11	Computer Systems Analyst	303	379	76	25	14	\$58,682
12	Postsecondary Teachers	2399	2823	424	18	81	\$44,139
13	Information Security Analyst, Web Dev	186	243	57	31%	9	\$66,824
14	Dental Hygienist	123	175	52	42%	7	\$64,872
15	Cost Estimator	182	244	62	34	10	\$53,993
16	Lawyers	438	504	66	15%	15	\$72,721
17	First-Line Supervisor of Constriction Trades	469	557	88	19%	20	\$52,168
18	Market Analysts and Marketing Specialists	171	245	74	43%	12	\$42,380
19	Public Relations Specialist	208	261	53	25%	11	\$55,792
20	Heavy and Tractor Trailer Truck Drivers	1556	1885	329	21%	64	\$34,592
21	Licensed Practical and	875	1059	184	21%	41	\$36,178

	Vocational Nurses						
22	Training and Development Specialist	208	270	62	30%	10	\$48,417
23	Operating Engineers	506	621	115	23%	24	\$39,225
24	Accountants & Auditors	843	942	99	12%	28	\$56,378
25	Managers All Other	860	934	74	9%	26	\$77,449
26	Plumbers, Pipefitters	426	505	79	19%	20	\$46,668
27	Sales Reps, Wholesale, Manufacturing	1023	1153	130	13%	37	\$47,399
28	Construction Managers	529	597	68	13%	10	\$71,560
29	Occupational Therapists	91	121	30	33%	5	\$71,397
30	Sales Reps, Services	937	1092	155	17%	42	\$36,975
31	Educational, Guidance, School & Voc. Counselor	316	372	56	18%	13	\$51,175
32	Software Developers, Systems Software	123	157	34	28%	4	\$80,646
33	Electricians	415	483	68	16%	18	\$46,264
34	Radiological Technologist	184	233	49	27%	8	\$48,030
35	Industrial Machinery Mechanic	295	357	62	21%	12	\$42,810
36	Computer & Information Systems Manager	140	168	28	20%	5	\$86,039
37	Computer Support Specialist	356	425	69	19%	16	\$38,995
38	1st Line Supervisor of Office and Admin Support Workers	947	1067	120	13%	37	\$41,312
39	Healthcare Social Worker	106	144	38	36%	6	\$47,806
40	Family & General Practitioners	47	97	21	28%	4	\$147,547
41	Veterinarians	60	85	25	42%	3	\$76,546
42	Medical Secretaries	379	544	165	44%	21	\$26,368
43	Architects, Surveyors	125	161	36	29%	7	\$46,731

	Cartographers						
44	Business Operations Specialists	484	530	46	10%	14	\$65,055
45	Construction Laborers	867	1034	167	19%	24	\$30,824
46	Respiratory Therapists	120	153	33	28%	5	\$52,419
47	Dentists, General	67	83	16	24%	4	\$131,924
48	Pharmacy Technicians	388	521	133	34%	20	\$26,167
49	Social & Community Service Managers	110	138	28	25%	5	\$49,922
50	Personal Finance Advisor	93	122	29	31%	4	\$53,196

Source: HoosierHot50.com

TOP 10 HOOSIER HOT 50 JOBS BY NUMBER OF EMPLOYED IN 2010

<u>Hot Job</u>	<u>2010 Empl</u>	<u>2020 Proj</u>	<u>2020 Grow</u>	<u>2020% Cnge</u>	<u>Open</u>	<u>2011 Wage</u>
1. Pre/Primary/Secondary Spec. Ed. Teachers	5185	5919	734	14%	201	\$49,648
Postsecondary Teachers	2399	2823	424	18	81	\$44,139
2. Registered Nurse	2394	2999	605	25%	103	\$54,481
Licensed Practical and Vocational Nurses	875	1059	184	21%	41	\$36,178
3. Heavy and Tractor Trailer Truck Drivers	1556	1885	329	21%	64	\$34,592
4. Engineers	1068	1215	147	14%	41	\$81,843
5. Sales Reps, Wholesale,	1023	1153	130	13%	37	\$47,399
6. 1st Line Supervisor of Office and Admin Support Workers	947	1067	120	13%	37	\$41,312
7. Sales Reps, Services	937	1092	155	17%	42	\$36,975
8. Construction Laborers	867	1034	167	19%	24	\$30,824

**Top 20 Occupations Desired by
Active Applicants on Their
Resumes in the Past 12 Months
in Region 8**

- 1 Assemblers and Fabricators, All Other-164
 - 2 Customer Service Representatives-150*
 - 3 Administrative Services Managers-99*
 - 4 Cashiers-98
 - 5 Office Clerks, General-97
 - 6 Production Workers, All Other-83
 - 7 Laborers and Freight, Stock, and Material Movers, Hand-81
 - 8 Retail Salespersons-71
 - 9 Managers, All Other-70
 - 10 Construction Laborers-69*
 - 11 Receptionists and Information Clerks-68
 - 12 Nursing Assistants-66*
 - 13 Executive Secretaries and Executive Administrative Assistants-63
 - 14 Stock Clerks- Stockroom, Warehouse, or Storage Yard-62
 - 15 Office and Administrative Support Workers, All Other-59
 - 16 Maintenance and Repair Workers, General-58
 - 17 Bookkeeping, Accounting, and Auditing Clerks-56
 - 18 Helpers—Production Workers-53
 - 19 Secretaries and Administrative Assistants, Except Legal, Medical, and Executive-51
 - 20 Combined Food Preparation and Serving Workers, Including Fast Food-40
- *Red indicates correlation with Hoosier Hot 50 jobs for Region 8*

Source: Indiana Department of Workforce Development
Indiana Career Connect

**Top 20 Job listings by
number of openings in
Region 8 for the month of Aug 2013**

- 1 Assemblers and Fabricators, All
- 2 Team Assemblers
- 3 Helpers--Production Workers
- 4 Home Health Aides*
- 5 Cashiers
- 6 Insurance Sales Agents

- 7 Healthcare Practitioners and Technical Workers, All Other*
- 8 Customer Service Representatives
- 9 Material Moving Workers, All
- 10 Education, Training, and Library Workers, All Other*
- 11 Merchandise Displayers and Window Trimmers
- 12 Tellers
- 13 Cooks, Restaurant
- 14 Production Workers, All Other
- 15 Registered Nurses*
- 16 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders
- 17 Food Service Managers
- 18 Helpers, Construction Trades, All Other*
- 19 Light Truck or Delivery Services Drivers
- 20 Maintenance and Repair Workers, General

**Red indicates correlation with Hoosier Hot 50 jobs for Region 8*

Source: Indiana Department of Workforce Development
Indiana Career Connect

AREA CAREER AND TECHNICAL EDUCATION

Top Ten Hoosier Hot Jobs for the Region 8

CIP Code and CTE Program

Area District #36 - Hoosier Hills Career Center

Occupation

- 1 NURSING (R.N. TRAINING) Registered Nurses \$47,072*
- 2 TRUCK AND BUS DRIVER/COMMERCIA Bus Drivers, Transit and Intercity \$32,128*
- 3 BUILDING/CONSTRUCTION SITE MANAGEMENT/MANAGER
First-Line Supervisors/Managers of Construction \$31,071*
- 4 JUNIOR HIGH/INTERMEDIATE/MIDDL Middle School Teachers, Except Special and Vo \$45,814*

- 5 PUBLIC ADMINISTRATION Emergency Management Specialists \$82,066
- 6 MEDICAL ADMINISTRATIVE/EXECUTI Medical Assistants \$33,324
- 7 PRACTICAL NURSE (L.P.N. TRAINI Licensed Practical and Licensed Vocational Nu \$33,250*
- 8 CONSTRUCTION/HEAVY EQUIPMENT/E Paving, Surfacing, and Tamping Equipment Oper \$38,670*
- 9 FIRE SCIENCE/FIREFIGHTING Fire Inspectors and Investigators \$36,810
- 10 LAW ENFORCEMENT/POLICE SCIENCE Criminal Justice and Law Enforcement Teachers \$34,805

**Red indicates correlation with Hoosier Hot 50 jobs for Region 8*

Source: Indiana Department of Workforce Development

Secondary Dashboard Reports

Area District 36 Hoosier Hills Career Center

<http://www.in.gov/dwd/2444.htm>

AREA CAREER AND TECHNICAL EDUCATION

Top Ten Hoosier Hot Jobs for the Region 8

CIP Code and CTE Program

Area District #40 - North Lawrence Voc/Tech Center

Occupation

- 1 TRUCK AND BUS DRIVER/COMMERCIAL Bus Drivers, Transit and Intercity \$35,296
- 2 NURSING (R.N. TRAINING) Registered Nurses \$49,121*
- 3 BUILDING/CONSTRUCTION SITE MANAGEMENT/MANAGER
First-Line Supervisors/Managers of Construction \$33,134*
- 4 OPERATIONS MANAGEMENT AND SUPE
- 5. Business Teachers, Postsecondary \$45,885*
- 6. ELEMENTARY EDUCATION AND TEACH Elementary School Teachers, Except Special Ed \$47,195*
- 7. PUBLIC ADMINISTRATION Emergency Management Specialists \$81,199
- 8. PRACTICAL NURSE (L.P.N. TRAINI Licensed Practical and Licensed Vocational Nurse \$30,969*
- 9. MACHINE TOOL TECHNOLOGY/MACHIN Multiple Machine Tool Setters, Operators, and \$29,405
- 10. JUNIOR HIGH/INTERMEDIATE/MIDDLE School Teachers, Except Special and Vo \$45,718*

**Red indicates correlation with Hoosier Hot 50 jobs for Region 8*

Source: Indiana Department of Workforce Development

Secondary Dashboard Reports

Area District 40 North Lawrence Career Center

<http://www.in.gov/dwd/2444.htm>

AREA CAREER AND TECHNICAL EDUCATION

Top Ten Hoosier Hot Jobs for the Region 8

CIP Code and CTE Program

Area District #44 - Lost River Career Coop.

Occupation

- 1 TRUCK AND BUS DRIVER/COMMERCIA Bus Drivers, Transit and Intercity \$33,272
- 2 ELEMENTARY EDUCATION AND TEACH Elementary School Teachers, Except Special Ed \$45,200*
- 3 NURSING (R.N. TRAINING) Registered Nurses \$50,100*
- 4 JUNIOR HIGH/INTERMEDIATE/MIDDLE School Teachers, Except Special and Vo \$43,610*
- 5 WELDING TECHNOLOGY/WELDER Welders, Cutters, Solderers, and Brazers \$30,450
- 6 BUILDING/CONSTRUCTION SITE MANAGEMENT/MANAGER*
First-Line Supervisors/Managers of Construction \$31,953
- 7 PUBLIC ADMINISTRATION Emergency Management Specialists \$76,864
- 8 OPERATIONS MANAGEMENT AND SUPE Business Teachers, Postsecondary \$43,940
- 9 SALES, DISTRIBUTION AND MARKET Sales Representatives, Wholesale and Manufact \$43,526*
- 10 CONSTRUCTION/HEAVY EQUIPMENT/E Paving, Surfacing, and Tamping Equipment Oper \$37,289*

**Red indicates correlation with Hoosier Hot 50 jobs for Region 8*

Source: Indiana Department of Workforce Development

Secondary Dashboard Reports

Area District 44 Lost River Career Cooperative

<http://www.in.gov/dwd/2444.htm>

AREA CAREER AND TECHNICAL EDUCATION

Top Ten Hoosier Hot Jobs for the Region 8

CIP Code and CTE Program

Area District #43 - Twin Rivers Area Voc Career Center

Occupation

- 1 NURSING (R.N. TRAINING) Registered Nurses \$41,885*
- 2 TRUCK AND BUS DRIVER/COMMERCIA Bus Drivers, Transit and Intercity \$31,810
- 3 BUILDING/CONSTRUCTION SITE MANAGEMENT/MANAGER*
First-Line Supervisors/Managers of Construction \$33,837*
- 4 ELEMENTARY EDUCATION AND TEACH Elementary School Teachers, Except Special Ed \$45,907*
- 5 SALES, DISTRIBUTION AND MARKET Sales Representatives, Wholesale and Manufacturing \$44,270*

- 6 PUBLIC ADMINISTRATION Emergency Management Specialists \$85,586
 - 7 OPERATIONS MANAGEMENT AND SUPE Business Teachers, Postsecondary \$45,575
 - 8 BUSINESS, MANAGEMENT, MARKETIN Social and Community Service Managers \$44,105
 - 9 ELECTRICIAN Signal and Track Switch Repairers \$49,275
 - 10 PRACTICAL NURSE (L.P.N. TRAINI Licensed Practical and Licensed Vocational Nu \$31,963*
- *Red indicates correlation with Hoosier Hot 50 jobs for Region 8*

**Source: Indiana Department of Workforce Development
Secondary Dashboard Reports
Area District 43 Twin Rivers Area Voc Career Center
<http://www.in.gov/dwd/2444.htm>**

ANALYSIS OF PATHWAYS ALIGNMENT

1. What is the degree and magnitude of the workforce challenges faced in the region?

- a. Communication among the stakeholders – employers, educators, community leaders, parents and students – is of primary concern. Just having initial dialogs about the needs of industry, the secondary career centers, community colleges, parents and students has demonstrated the need to understand the issues, challenges and hopes more deeply. It has also begun to reveal the need for a common understanding of how the stakeholders should even relate to one another.
- b. The current system of education may pose some challenges in making transitions from secondary CTE programs to post-secondary education and ultimately the workforce seamless. Difficulties in setting up dual credits with credentialed career center teachers and strict technical certification requirements that sometimes prevent secondary students from attaining the necessary credentials for specific entry-level positions begin to reveal some of the barriers in the current educational system. There is a critical need to develop a model or vision of the process to remove the barriers and make the transitions truly seamless.
- c. There still appears to be an old mindset that the four-year college pathway is preferred for all students. Many still undervalue such options as technical schools, community college or apprenticeships and fail to recognize the vital importance of the middle-skill pathways. So one of the challenges is to change that mindset and to target the students who would be suited for the mid-level-skills careers. They need to hear a two-fold message. First, there are many jobs going unfilled in Region 8 and students should understand that they are valued and fulfilling occupations. Second, all kinds of post-secondary educational options should be considered valid and valued. This may entail reeducating many stakeholders, especially parents, teachers and counselors, so that students hear a consistent message that no matter what pathway they choose, that are all important to the economic vitality of the region and to the opportunities the individual students presumably seek.
- d. It is important to target the students best suited for industry needs. They need to be engaged proactively in a process of discerning the career pathways that best suit their individual interests, talents, workplace values and personalities and of matching their unique qualities to the needs of the employers in the region, both now and in the future. Maybe this needs to be done through the K-12 school system more effectively, but it also needs to be done through such efforts as county College Success Coalitions, local school-improvement programs and similar initiatives.
- e. Too many students graduating from high school lack the soft skills needed to adapt to a rapidly changing workplace. In addition to needing entry-level employees who show up on time and possess the basic reading and communication skills to learn how to do their jobs well, employers need people who can be organized, think critically, solve problems and be

adaptable to change. They need people who are committed to their jobs and flexible in the face of the changing demands on industry and business.

2. How well do secondary CTE outcomes align with regional industry needs?

Current CTE pathways appear to align pretty well to current industry needs. The nearly 80 pathways high school students can follow through the career centers and coops in Region 8 lead pretty well into related occupations or post-secondary programs of study.

However, it is clear that further study is required because there is some evidence that not all industry needs are being met. There may be a need for some additional pathways to be developed for a few high-need industries, especially in the future. For example, the data available to the Region 8 Works Council does not specifically identify the biotechnical and biomedical sector and its needs. The job data for such companies as Cook Pharmica, Boston Scientific, Baxter and others are not delineated, and the Works Council cannot draw definitive conclusions about how well current CTE programming serves their needs.

3. Does the talent pipeline available through CTE match the demand that exists in the region?

Again, more study is required to answer this question completely. While some of the demand is being met, it is simply unclear what the full scope of the industry demand is.

As more research is done and more information becomes available, the hope is to target industries with the greatest unmet demand. The Region 8 Works Council also hopes to gather information from the student perspective to discover how students might need to be better educated about future employment opportunities as they make decisions about career pathways.

4. What innovative examples from the CTE curricula (internships, apprenticeships, certifications, etc.) are already happening within the region?

- a. Interdisciplinary Cooperative Education (ICE) program at Owen Valley High School in Owen County
- b. A variety of examples exists in Region 8 career centers and coops.
 - Hoosier Hills Career Center:
 - *(Information not available at time of submission.)*
 - North Lawrence Career Center:
 - GAERF Certification (Graphic Arts Education and Research Foundation)
 - NATEF Certification
 - ICE Cooperative Education
 - ETA Certification (Electronics Technician Certification)
 - 3 PLTW classes
 - AWS Certification (American Welding Society)
 - Indiana Cosmetology License
 - Information Technology:

- A+ Certification for Computer Service and Repair
 - Network Pro Certification
 - Adobe ACA – Dreamweaver – CS5
 - Adobe ACA – Flash – CS5
 - Adobe ACA – Photoshop – CS5
 - Adobe ACA – Premier – CS5
 - MOS 2010 Excel Core
 - MOS 2010 Word Core
 - MOS 2010 PowerPoint Core
 - MTA HTML 5 Development Fundamentals
 - MTA Networking Fundamentals
 - MTA Security Fundamentals
 - MTA Software Development Fundamentals
 - MTA Web Development Fundamentals
- Twin Rivers Co-Op:
 - Clinical rotations for the Health Sciences programs located in Greene and Daviess counties
 - Dual college credit options if the student qualifies
 - Mandatory CPR certification for all Auto, Health Sciences and Construction Technology Twin Rivers students
 - Lost River Co-Op:
 - Internships and certifications in many areas that lead to entry-level employment

5. What are the next steps that the Works Council needs to take to improve CTE opportunities?

- a. Continue researching the middle-skills gap in Region 8, perhaps using Thomas P. Miller and Associates.
- b. Continue learning about innovative programs. Some examples include:
 - The ICE program at Owen Valley High School
 - CTE-focused school-to-work partnerships between higher education and industry, such as the Toyota-Vincennes University program and the newly-launched Career Advancement Program offered in partnership between seven Dubois County manufacturers and Vincennes University Jasper Campus
 - CTE partnerships between post-secondary and secondary schools offering pathways that lead to both high school completion and A.S. degree completion, such as Vincennes University's Early Colleges at Area 31 Career Center (West side of Indianapolis) and Hammond Career Center in Northwest Indiana
 - The emerging partnership between the Bloomington Academy of Science and Entrepreneurship with Ivy Tech Community College – Bloomington
 - Other Early College High School and New Technical High School partnerships with Ivy Tech Community College and Vincennes University in other parts of Indiana

- c. Research the student perspective on issues being addressed by the Indiana Works Council initiative. What career opportunities do students perceive? How do they choose their career pathways and subsequent programs of study through high school and beyond?
- d. Research other best practices and model programs throughout the state and the nation.