



Summary of Regional Works Councils' Reports

November 2013

Executive Summary

Understanding employers' needs. Many Works Councils discussed in their reports how critical it is to engage employers in the region to understand what types of skills are in demand. Some regions have already conducted extensive surveys or interview sessions, some intend to hold “listening sessions” in the coming months with key employers, and as one region stated as a next step: “Create a more systematic communication and partnership with key industry sectors and our educational community and make sure that our community buys into our new “plan A.” Consider how the Works Council can take a lead in ensuring these partnerships happen.”

Creating more awareness about CTE opportunities in our schools. Many Works Councils articulated the importance of ensuring students understand the career opportunities available through career and technical education. One Works Council stated the issue for advanced manufacturing clearly, saying: “For several years, school corporations have been directed to produce students that are focused on a post-secondary education with an emphasis that does not point to manufacturing.”

Strategies include:

- Communicating the vision about the value of a CTE education to all stakeholders, especially parents.
- Developing better guidance tools to students on what CTE programs are available and the career pathways to which they lead.
- Providing staff development for guidance counselors about CTE programs and pathways.

Building employability skills into curriculum. Many Works Councils referenced the reality that many students are graduating without the employability (soft) skills necessary to be successful on the job. Most are interested in finding ways to embed these skills into CTE curriculum. Some suggested using existing assessments and training tools like the National Career Readiness Certificate or WIN software. One Works Council suggested using a work ethic certification model that was used in the past under the Department of Workforce Development.

Examine how well industry requirements for STEM knowledge align with high school diploma requirements. Some science, technology, and math requirements to earn a high school diploma may not align as well with industry needs and/or postsecondary study. As an example, the Region 7 Works Council is interested in ensuring that foundational math skills for students are well developed and contextualized to meet industry needs.

Innovative Curricula. Many works councils expressed in their respective regions that they wanted to explore more deeply the innovative curriculum models that exist in CTE. Some councils talked about statewide projects like Project Lead the Way or HIRE Technology through Conexus. Others talked about regional innovations like process engineering, energy, or advanced manufacturing curricula. All of the Works Councils articulated a desire to dig more deeply into regional offerings to determine what types of additional curriculum offerings they may want to suggest.

Career and Technical Education Regional Snapshots

	Regions											Statewide
	1	2	3	4	5	6	7	8	9	10	11	
High School Graduation Rate	87%	87%	90%	91%	88%	91%	89%	89%	88%	91%	87%	86%
Total Public High School Population	51,817	25,995	40,815	23,248	99,095	17,328	19,834	14,178	20,853	17,191	14,509	344,863
CTE Graduation Rate	95%	97%	97%	96%	96%	97%	95%	95%	96%	94%	96%	94%
Total CTE Certifications Awarded/Assessments Passed	416	390	627	336	717	347	114	117	502	315	267	4,148

% of Statewide

Total Public High School Population	15.0%	7.5%	11.8%	6.7%	28.7%	5.0%	5.8%	4.1%	6.0%	5.0%	4.2%	100.0%
Total CTE Certifications Awarded/Assessments Passed	10.0%	9.4%	15.1%	8.1%	17.3%	8.4%	2.7%	2.8%	12.1%	7.6%	6.4%	100.0%

Total Participants	16,767	14,204	18,919	13,019	36,447	9,329	6,754	6,285	10,137	6,566	9,378	147,805
Number Earning Dual Credits	2,355	1,699	2,270	2,355	5,028	1,204	1,353	809	2,156	848	1,812	21,407
Number Earning/Passing Certifications	327	314	556	327	569	276	94	98	380	210	244	3,332

% of Statewide

Total Participants	11.3%	9.6%	12.8%	8.8%	24.7%	6.3%	4.6%	4.3%	6.9%	4.4%	6.3%	100.0%
Number Earning Dual Credits	11.0%	7.9%	10.6%	11.0%	23.5%	5.6%	6.3%	3.8%	10.1%	4.0%	8.5%	100.0%
Number Earning/Passing Certifications	9.8%	9.4%	16.7%	9.8%	17.1%	8.3%	2.8%	2.9%	11.4%	6.3%	7.3%	100.0%

Total Concentrators	5,140	1,911	4,923	2,634	10,604	1,387	1,160	1,059	1,479	1,984	2,426	34,707
Number Earning Dual Credits	1,561	1,009	1,323	799	2,643	548	570	385	612	785	763	10,998
Number Earning/Passing Certifications	300	285	402	140	460	246	74	84	191	208	177	2,567
Placement in Workforce*	1,533	574	1,891	773	2,385	569	519	362	592	727	1,194	11,119
Placement in Postsecondary*	29	14	26	25	64	7	8	10	10	15	36	344
Placement in Related Postsecondary*	9	1	5	6	11	7	3	2	7	5	5	61

% of Statewide

Total Concentrators	14.8%	5.5%	14.2%	7.6%	30.6%	4.0%	3.3%	3.1%	4.3%	5.7%	7.0%	100.0%
Number Earning Dual Credits	14.2%	9.2%	12.0%	7.3%	24.0%	5.0%	5.2%	3.5%	5.6%	7.1%	6.9%	100.0%
Number Earning/Passing Certifications	11.7%	11.1%	15.7%	5.5%	17.9%	9.6%	2.9%	3.3%	7.4%	8.1%	6.9%	100.0%
Placement in Workforce*	13.8%	5.2%	17.0%	7.0%	21.4%	5.1%	4.7%	3.3%	5.3%	6.5%	10.7%	100.0%
Placement in Postsecondary*	8.4%	4.1%	7.6%	7.3%	18.6%	2.0%	2.3%	2.9%	2.9%	4.4%	10.5%	100.0%
Placement in Related Postsecondary*	14.8%	1.6%	8.2%	9.8%	18.0%	11.5%	4.9%	3.3%	11.5%	8.2%	8.2%	100.0%

Region 1

CTE Pathways Offered at Each CTE Center or High School in Region 1

- Challenge to have sufficient enrollment to have entire pathway available to students

Regional Employment Sector Information

- Ready Northwest Indiana Initiative to accelerate progress of workforce readiness
- Specify the skill needs of employers to CTE programs; sector based skill needs
- Need for local secondary education pathways that articulate to post-secondary programs
- Shortage of workers with mechanical and electrical skills; impacting manufacturing and utilities
- Engineers, mechanics, electricians, and welders, are in high demand and high wage jobs
- Infrastructure upgrades needing skills in construction, electrical, and agribusiness and natural gas infrastructure upgrades
- Economy driven by industries requiring high level of technical skill; few students enrolling in these programs; lack of awareness by the students of the programs
- Lack of skilled workers negatively impacting ability to attract new businesses to the region

Analysis of Pathways Alignment

- To be Identified by Region 1 Works Council: Existing Career Clusters not providing students with information of the high wage high demands jobs in region; weak career counseling; opportunities for students to complete a core 40 diploma at the career centers to foster greater CTE enrollment; career clusters and Pathways do not align with regions highest demanded jobs
- Poor alignment of CTE pathways to jobs in region
- Need for Clusters in Energy, engineering and engineering technology
- CTE enrollments do not match future job demands
- Guidance Counselors need professional development for CTE programming
- Lack of funding to restructure resources and to expand pilot programs until sufficient interest is maintained
- No alignment of funding priorities for course offerings and regional needs; accountability toward funding

Obstacles

- Barrier toward meaningful credentials is the cost of testing
- Shortage of trained teachers in some areas
- Concern of quality pathways offered by differing CTE districts

Next Steps/Recommendations

- Realignment of Career Clusters and Pathways
- Build industry partnerships between K-12 and post-secondary to provide CTE
- Explore barriers that keep students from participating in CTE
- Educate Parents and improve communication and awareness with and for parents and students

Innovation

- Regional Education/Employer Alliance for Development of Youth in NW Indiana Initiative

- The mission of Ready NWI (Northwest Indiana) is to accelerate year to year progress in achieving our workforce readiness goals by engaging students in exploration of a wide array of educational and occupational choices that lead to success in employment and with post-high school degree and credential attainment.
- Primary strategy of Ready NWI is assessment and counseling process being implemented in 13 school districts in Region 1 linked to increased exploration of a wide range of career options.
- Ready NWI implementing a Math Improvement Project funded through spring 2014 by an Innovation Fund Grant from DOE. It is aimed to improve student achievement in STEM disciplines.
- Innovative Partnership between Ivy Tech Northwest and Whiting High School
 - Students attend Ivy Tech in East Chicago in the morning and have the opportunity to earn 30 credits and a Technical Certificate in Industrial Technology in two years. This can lead to an Associate's degree into other high demand program areas.
- Innovative partnership between Vincennes University and Area Career Center in Hammond which has launched an Early College program focused on CTE.
 - This initiative is attempting to overcome misconception that career centers are limited to technical preparation and not geared to high performing high school students by shifting the focus to college programming
 - Coursework leads to completing 1-2 years of college credit upon graduating from high school. Students can potentially earn a high school diploma concurrent with an associate's degree.

Region 2

CTE Pathways in Region 2

- Awareness and interest in CTE by students and parents is a problem

CTE Articulation to Postsecondary Opportunities

- Advanced Manufacturing Pathway too vague; needs greater specificity
- Work needs to be done with employers to determine if pathways are meaningful to them
- Region wide effort to promote CTE education

Analysis of Pathways Alignment

- Regional industry needs not understood as well as they could be
- Talent pipeline through CTE doesn't match the demand
- Guidance counseling is inadequate to support prospective CTE students and might discourage CTE altogether

Innovative Ideas

- Innovative example- Plymouth Welding Class; Plymouth School opened Weidner School of Inquiry; HIRE program; Warsaw Area Career Center , Project Lead the Way being advised by industry committee (OrthoWorx Advanced Manufacturing Committee)

Next Steps/Recommendations

- Soft skill improvement and appreciation for the role they play in CTE programs and beyond
- Need to work with employers to define their needs and develop pathways
- Need to develop tools to demonstrate to students the range of vocations available
- Need to encourage region wide implementation of programs to promote manufacturing careers to students and parents
- Career counseling rather than guidance counseling

Region 3

CTE Pathways and Data

- Concerns over absence of programs associated with pathways in advanced manufacturing, health care, IT, and transportation/logistics
- Develop an understating of employer skill and certifications needed

Analysis and Next Steps

- Expand advanced manufacturing CTE programs
- Expand adult education programs at CTE locations
- Explore offering technical education programs at employer sites through apprenticeship programs
- Staff development for Guidance Counselors about CTE programs; regional approach to professional development to ensure consistency

CTE Pathways in Region 3

- Dual credit opportunities significantly increased over last 2 years ; strong alignment with engineering pathways supporting Project Lead the Way
- CTE programs focusing on automotive and construction technology appear to have been aligned well with postsecondary programs in these areas and the region has done a solid job of offering dual credit opportunities within these pathways.
- Expand dual credit opportunities in advanced manufacturing; CTE programs of welding, precision machining, and industrial maintenance
- Expanding technology and IT based career pathways in region
- Enhance alignment of health care programs in CTE and pathways

Regional Employment Sectors

- Investment in talent development for a workforce with advanced STEM skills for advanced manufacturing
- Look at specific skills sets required by employment sectors such as Advanced Manufacturing
- Importance of soft skills and proper work ethic
- STEM skills in demand and soft skills

Analysis of Pathway Alignment

- Skill development is crucial and greater development of greater skills is needed
- Effective alignment of CTE programs with regional industry needs, greater alignment is needed
- Improve manufacturing alignment of CTE pathways and health care employer needs to CTE pathways
- Work with CTE providers and schools to identify CTE programs that focus on high demand careers in region

Innovative Ideas

- Impact institute very successful as well as Anthis Career Center and Area 18
- Region wide commitment to embed key certifications in appropriate CTE and postsecondary education programs

- Make employers more aware of certifications that CTE students can earn
- Expand technical education for advanced manufacturing occupations: expand Conexus and create experiential learning opportunities
- Explore early college and full day CTE models

Next Steps/Recommendations

- Develop a comprehensive understanding of employer skill and certification need
 - o There is a strong need to develop a true understanding of employer needs in the region. The recommended approach is to enhance the ExecutivePulse system.
 - o The Region must develop a regional focus and commitment to key certifications
 - o make employers more aware of certifications (MSSC, NIMS, AWS, various logistics certifications and others) that technical education students can earn
- Expand Advanced Manufacturing CTE Programs
- Expand adult technical education programs at CTE Locations
- Expand dual credit options wherever possible
- Provide staff development for guidance counselors about CTE Programs/Pathways

Region 4

CTE Articulation to Postsecondary Opportunities

- Better aligning with Industry and identifying gaps for making sure that curriculum elements: content, instruction, and assessment – are designed and implemented to bring about industry-relevant outcomes

Analysis of Pathways Alignment

- Challenges faced by region 4
 - o Mismatch between the abilities of employers seek in filling positions and the abilities that candidates offer
 - o Soft Skills
 - o Occupational Skill Training
 - o Work Readiness Training

Innovative Ideas

- Clinton County is developing an Advanced Manufacturing program as a partnership between the schools, Ivy Tech Community College, Region 4 Workforce Board to give students an opportunity to earn dual credits, become a Certified Production Technician, and participate in internships.
- Advancing Manufacturing Certification (Certified Production Technician)
- Jobs for America's Graduates (JAG) program is in its third year at Jefferson High School in Lafayette, IN (Also in Crawfordsville, Logansport, Frankfort, Twin Lakes, Oakland, Kokomo, Peru)
- Youth Summit in Howard County (Soft Skills Focus)
- Industry Academy in Tippecanoe County - Internship Opportunities
- Patient Access Certification initiative with Ivy Tech Community College
- Certified Production Technician initiative with Ivy Tech Community College

Next Steps

- Gain a better understanding of how Industry values CTE certifications
- Identify data and analysis to determine gaps related to CTE programs within Industry and projection of what the talent pipeline will look like in 5-10 years
- Better aligning with Industry and identifying gaps for making sure that curriculum elements – content, instruction, and assessment – are designed and implemented to bring about industry-relevant outcomes (student proficiency on industry-relevant knowledge and skills).

Next/Steps Recommendations

- Industry will need to create a partnership with educators to provide more “learn-by-doing” opportunities.
- Help to identify job readiness i.e. soft skills
 - o “Soft” skills are also often cited as hard to find. These refer to traits such as flexibility and adaptability, interpersonal skills, critical thinking, problem solving and professionalism.
- Create new Industry CTE Pathways - Alternative CTE curriculum
- Connect through schools and parents to build awareness

Region 5

CTE Pathways in Region 5

- More review of data to test alignment of CTE pathways and employment opportunities

CTE Articulation to Postsecondary Opportunities

- More dual credit options need to be offered and used by students
- Needs to less program-centric and more student-centric

Data Issues

- Is the data tied to courses that are tied to funding not the full range of offerings?

Regional Employment Sectors

- Region lacks a complete, active , and developing articulation of sectors

Analysis of Pathway Alignment

- More alignment of CTE to business opportunities
- Talent pipeline does not align with regions employers
- Region 5 needs to understand the needs of businesses in region to assist in development of clusters and pathways
- Need clarity on existing CTE opportunities; supply and demand of opportunities

Next Steps/Recommendations

- Listen hard to employers and intermediaries in the region to understand the demand side of the opportunity. Work to understand how they organize themselves, so the sectors and clusters addressed match organically the perspectives and self-interests of the employers themselves.
- Look for and define cross-sector and cross-cluster needs common to all or to enough to form a critical mass for attention.
 - o baseline knowledge and skills that are needed for success across sectors;
 - o The personal ability to be an active participant, with counseling as appropriate, in the individual's own educational path toward career and life, i.e., to own the process and drive it.
 - o The aptitudes and attitudes and other dimensions that are required across sectors, including but not limited to the developing clarity that there is a large degree of convergence toward multi-disciplinary capability that individuals will need to succeed in an environment where technology is driving cross-functional work to rise as a need and opportunity;
- Understand supply and demand by employers

Region 6

CTE Pathways and Data

- Ag has the highest amount of CTE courses offered, then Education, Health Science, and Manufacturing
- Additional access to existing programs is needed – smallest and most remote schools have least access to CTE courses
- There are a large number of additional dual credit courses offered within the region that do not qualify as CTE courses but remain important for post-secondary opportunities for students in the education and health sciences fields

Analysis of Pathways Alignment

- Better guidance to students to become a concentrator and understand CTE opportunities
- Challenge is with shift from manufacturing employment to health care and education sector jobs, to align with those changes
- Industry sectors do not have a well-established and mapped career pathway to develop the skilled and trained individuals that are in demand. The educational system lacks the ease of entry and exit from education to work and work to education.
- Need CTE certifications to match the employment demand in the region
 - o There are two emerging industries in Region 6: Data/Technology Centers & Chemicals & Chemical Based Products. There are CTE courses that may support Data/Tech Centers. More information is needed in this area.
 - o There seems to be many courses, but few CTE certifications to match the demand for many of the employment sectors within the region

Innovative Ideas

- PLTW at Delaware Community School Corporation; Liberty Perry Community School Corporation, Muncie Community Schools, Whitewater Valley, Richmond Area career Centers and others.
- Health Occupations courses are available at numerous schools.
- Advanced Manufacturing at Winchester Community High School.
- MPRO/Conexus at several schools.
- ST82WK at Union City Community High School.
- Apprenticeships through IKORCC Carpenters and Millwrights at New Castle Career Center

Next Steps/Recommendations

- Determine needs of employers what skills are needed and certifications
- Determine if certifications need to be offered that are currently not
- Understand from industry and workforce partnerships the best CTE certifications

Region 7

Initial Recommendations

- Core 40 requirements, some, do not align with industry
- Math skills not meeting industry needs
- Develop a “Multi-Craft” pathway with flexible teacher licensing to allow an avenue for needed industry skills to be delivered in small schools and schools with remote geographic locations.
- Develop a “Robotics and Automation” pathway to help fill the gap in programming, operators, maintenance, and logistics.
- Solicit approval for a separate “Process Engineering” pathway and recognition of an “Advanced Manufacturing” pathway alternative with revised titling to differentiate from existing pathway focus.
- Provide high school access to the WorkOne WIN software and the National Career Readiness Certificate with a younger age restriction to allow all seniors access at a minimum.
- Re-establish middle level introductory CTE classes where they have been eliminated.
- Create a deliberate mechanism to increase industry-education partnerships that can help fill skills gaps and educate the community on career opportunities

Pathways in Region

- Health Science Cluster highly used; Manufacturing Cluster unclear of value by industry; AWS Sense Certification not viewed as important by industries in Region
- STEM skills, especially math is an issue the region is having; especially applied math
- CTE pathways for manufacturing and enrolment into the pathway doesn't match the demand of that sector

Innovative Ideas

- Process engineering- a higher level of manufacturing pathway
 - o The students use computer controlled machines and automated processes to make real products. Students learn to use the latest hi-tech equipment and software. Students learn to use Computer-Aided-Design (CAD) and Computer-Aided-Manufacturing (CAM) to take a product from concept to production. These students can earn up to 9 dual college credits and multiple industry certifications including NIMS CNC Milling & Turning Programming Setup and Operations Level 1.
- Schools in region struggling with Advanced Manufacturing
 - o possibly use a different title to attract students
- For middle school and high school counselors developing a “counselor academy” so they can better understand Career opportunities in the pathways
- Expand industry participation with internships, job fairs, etc.

Recommendations/Next Steps

- More marketing is needed to educate communities on CTE opportunities
- Need more soft skills that is a challenge faced by the region
- Multi-craft training important to manufacturing
 - o It will allow schools with limited resources to provide skills that will help students transition into the workforce and be successful. A multi-craft pathway can be taught in smaller and larger schools. This path should include basic welding, machining, fluid

power, electronics, engine fundamentals, simple machines, jigs & fixtures, and tool/machine identification, usage & safe operation.

Region 8

CTE Pathways Analysis

- More research necessary to determine what the skills gaps among all industries

Analysis of Pathway Alignment

- Challenge of effective communication among stakeholders (employers, educators, community leaders, parents, and students)
- Current CTE pathways appear to be aligning well to industry needs
- Possible difficulty of setting up dual credit 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.
- Marketing that a technical school is just as important; like a four year college pathway
- 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.
- Increase soft skills that are needed to adapt to a rapidly changing workplace.

Innovative Ideas

- Interdisciplinary Cooperative Education (ICE) program at Owen Valley High School in Owen County
- Twin Rivers Co-Op:
 - o Clinical rotations for the Health Sciences programs located in Greene and Daviess counties
 - o Dual college credit options if the student qualifies

Next Steps/Recommendations

- Continue researching the middle-skills gap in Region 8
- Learning about innovative programs. Some examples include:
 - o The ICE program at Owen Valley High School
 - o 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
 - o 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
 - o The emerging partnership between the Bloomington Academy of Science and Entrepreneurship with Ivy Tech Community College – Bloomington
 - o Other Early College High School and New Technical High School partnerships with Ivy Tech Community College and Vincennes University in other parts of Indiana

Region 9

CTE Pathways

- Sector growth seen in Manufacturing & Logistics/Transportation, Healthcare, Construction, Hospitality & Tourism, and Education.
- Not nearly enough students, though, in the pipeline to address the needs of employers (skilled and unskilled) in the region.
- Multitude of partnerships relative to innovative CTE curricula across the Region
- \$38 million Lilly Endowment grant that in 2008 launched EcO15I (Economic Opportunities through Education by 2015); the grant focused on economic growth clusters most important to economic growth: Manufacturing, Health Science, and Hospitality & Tourism.

CTE Articulation to Postsecondary Opportunities

- Students in Region 9 are earning dual credit and industry certifications in their respective CTE field.
- Need to train the existing workforce due to a decline in labor force
- Manufacturing leads the number of job openings of in the region

Challenges

- Need more technically skilled workforce
- Get students at a young age into the curriculum required for technology and interested in staying or moving back.
- Financial ability of families and individuals to pay for educational opportunities.
- Recruiting engineers and grads to the region
- Lack of soft skills in region
- As represented by the survey down by Eco 15, Mechanical Technology was the most needed skill field required for employees over the next 24 to 48 months, followed by Electrical then Industrial Technology. Similar surveys need to be completed throughout the region

Innovative Ideas

- Seamless pathway through the Columbus Community Education Coalition; Students will move through STEM-focused programs in engineering, design, technology, production process, and logistics education programs. Students will then be assisted in obtaining employment in well-paying STEM based career pathways, especially advanced manufacturing and logistics.
- Cummins provides work-based learning for students in Manufacturing, Business and Transportation and has offered these experiences for 20 years
- Honda working with C4 Southeastern Career Center to provide work-based learning sites for students.
- Precise Mold offers work-based learning sites for Machining students.
- Toyota seeks C4 Welding students due to their training in SMAW and GMAW.
- Batesville community partnership (co-op) between the high school, Ivy Tech and four businesses using curriculum developed in conjunction with Conexus and the Manufacturing Institute.

Next Steps/Recommendations

- Better coordination for business leaders, industry leaders, CTE organizations, educators and post-secondary educators to more effectively coordinate within communities and across the Region
- A survey of employers, focused on the employment sectors identified, needs to be created and executed for a more keen and crisp understanding of very localized/regional needs.
- Better marketing of CTE opportunities
- Development of hybrid systems in assessing current delivery of CTE education

Region 10

CTE Pathways

- Limited pathways in CTE career paths in the region
- Manufacturing is the largest sector and firms want to relocate there, but need skilled workers from the CTE pipeline

Analysis

- Many of the CTE pathway programs appear to be well aligned with the needs of industry in these five sectors, but the Council did find a number of pathways that did not exist, such as advanced manufacturing

Next Steps

- Business involvement needs to be strengthened
- Improve existing pathways and design new pathways to fill gaps
- Better development of soft skills/work ethic into curriculum
- Determine how to expose students to CTE earlier; adding introductory courses at high schools that connect with pathways, involving business through work-based learning and other methods, and marketing outreach.
- More communication with industry leaders and education community

CTE Articulation to Postsecondary Opportunities

- Dual Credit opportunities with health careers and manufacturing; The major gap in manufacturing dual credits lies in the area of industrial maintenance
- Construction and Transportation/Logistics/Warehousing also offers dual credit
- All those previous mentioned sectors are growing in the region

Pathway Alignment Analysis

- Current manufacturers and the new companies looking to locate in Region 10 are successful today because they are automating and modernizing their processes at a blazing pace. As a result, some jobs, like industrial maintenance technician, are in much higher demand than ever before and other jobs like welding and assembly require high level skills sets
- incumbent workforce has not been up-skilled at the rate necessary to meet this need and the pipeline of new workers coming through our educational institutions is not sufficient
- most of the new jobs that will be created in the coming years will require workers with some type of modern CTE training provided by either a secondary vocational program or a post-secondary program of two years or less like that provided by a community college
- To affect comprehensive change across our region, we must engage many educational entities.
- Need advanced manufacturing pathway
- Current worker shortage is the lack of pathways for key occupations, such as industrial maintenance technician. In pathways that do exist, we still have a shortage due to low program enrollment.

Innovation

- Job shadowing in the region at Prosser and extended lab hours as well as mock interviews

- Apprenticeship programs in heavy equipment and maintenance/construction technology
- Nationally portable, industry recognized certifications for many of its programs.
- Career Academies (mostly geared toward 4-year programs) also do job shadowing/paid internship toward junior/senior year of high school. Student needs to choose career path. Silver Creek HS has implemented these extensively, although they are geared toward 4-year programs
- Jeffersonville has recently implemented an online curriculum from Conexus called the HIRE Technology Program. It is designed to provide an introductory advanced manufacturing and logistics program that is easy to implement and provides both dual credit and industry certifications through APICS and MSSC.

Recommendations

- The Region needs to: analyze the engineering track and determine how it fits in with CTE and the community. Review facilities and equipment to identify needs and then find ways to fund the programs. Consider how they can reduce duplication of effort and leverage technology tools like online delivery.
- Research how we can incorporate soft skills/work ethic into curriculum. Consider leveraging the effort by the State Workforce Innovation Council to re-establish the DWD Works Ethics Certification.
- Investigate further introductory courses and/or programs that might align in the manufacturing area and other pathways—look further at programming. Find a better way to connect these high school programs to pathways, either at the high school itself or Prosser.
- Create a more systematic communication and partnership with key industry sectors and our educational community. Consider how the Works Council can take a lead in ensuring these partnerships happen
- Investigate how we get students engaged earlier in their education so we can interest them in CTE, middle school or earlier? We must find ways to expand the pipeline.

Region 11

CTE Pathways

- Labor market predominately consists of a manufacturing base.
- Improve perception by students of manufacturing jobs

Analysis/Recommendations

- The region is missing a labor force qualified to work in today's manufacturing and technical environment
- Need to education parents, students, teachers, counselors, regarding CTE opportunities associated with skilled trades and advanced manufacturing
- A focus on partnerships with business and industry is essential in updating and creating curriculum and opportunities for students as well as recommending changes that need to be implemented in the current educational structure
- There must be an increased emphasis on career exploration at the middle school level so that early on, students recognize the importance of thinking about their career paths
- Current Core 40 graduation requirements should be examined and a determination made regarding a "one size fits all" plan for students.
- It is necessary for the Commission for Higher Education to examine and address issues regarding credentialing secondary teachers for teaching dual credit courses
- Promotion of work ethic and professional skills as well as soft skills.

CTE Articulation to Postsecondary Opportunities

- Partnerships between CTE and postsecondary are adequate

Regional Employment Sectors

- Manufacturing and Transportation, distribution and logistics are sector growing in the region along with healthcare and energy

Analysis of Pathway Alignment

- One major challenge is a lack of demonstrated skills, not only technical skills such as welding or CNC operation, but students and potential employees in this region lack professional skills such as problem solving, communication, team building, and a focus on attendance
- Region 11 still struggle to produce enough graduates to meet the demand; increasing access to training for these individuals.
- The talent pipeline available through CTE does not match the demand that exists in the region

Innovation

- CTE Early College, Toyota Project, Career Advancement Partnerships, new certifications for students such as NIMS, AWS, ASE, partnership with power plants, CELL grant to promote manufacturing, Industry Advisory Task Force, Tri-state Manufacturers Alliance, Brainpower, STEP program, internships, apprenticeships, Employer Series, LEAF (Learning Experiences in Applied Fields), Robotics Competitions, PLTW including Gateway, SEA Perch.

