Recommendation to the Career Council

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REGION 1

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The Career Council has developed five strategic objectives for the development of the strategic plan due to the General Assembly on July 1, 2014. In response to their request for input on three of these objectives, the Region 1 Works Council submits the following input.

- **Address the shortage of qualified workers for current employment opportunities**
  - **Strategic Imperative – Increase the skill and education levels of Indiana's workforce in order to meet the needs of the State's employer community**
    - Supporting the work of READY NWI which advocates for 60% of the workforce to have a credential, associates, or bachelor's degree by 2025
    - Supporting the work of the NWIWB in their investment in education and training of job seekers in alignment with jobs in demand, particularly high wage, high growth positions. (Certifications and credentials such as welding are also included in this investment)
    - Promote Adult College Completion activity to reconnect adults with post-secondary education for occupations in demand. Being spearheaded in the WorkOne offices in conjunction with NWIWB
    - Build a culture of Business/Secondary Education/Post-secondary Education Partnerships, which includes Trade Union participation as being done by READY NWI.
    - Investigate other possible reasons jobs go unfilled
    - Work with veteran groups to find candidates with similar skill sets that could have reduced training time. Support the work of the Local Veterans Employment Representatives in the WorkOne offices who have contact with these individuals.
    - Add resources to build upon successful CTE programs where regional skill gaps exist
    - Assess education and training opportunities for relevance to job market
    - Get the "word" out. Potential applicants may be out there, and don't know about these opportunities
- **Prepare Indiana's workforce, students, and incumbent workers for high value jobs of the future**
  - **Strategic Imperative – Increase the alignment between the education and training provided through the use of public funds with high paying occupations and careers that are projected for growth**
    - Provide employer incentives to train current workforce (grants or tax incentives, such as TAG)
    - Establish a statewide re-training fund tied to in-demand occupations
    - Provide additional support to Workforce Boards to further expand efforts to train the workforce in high demand jobs.
    - Provide tax credits to businesses that employ students who have participated in a course of study that includes a cooperative arrangement between the business and an educational institution for the training of students in high wage, high demand jobs that require industry certifications
    - Build new innovative Regional Pathways and Clusters to attract students to high demand jobs

- Create statewide marketing and information plan for career awareness
- Regional implementation of state funded plan
- Revamp CTE funding model
  - Provide incentives for the right outcomes
  - Provide funding for needed Certifications (A+, CNA, and others)

- **Make Indiana a Leader in STEM Talent Development and Employment Opportunities**
- **Strategic Imperative – Make Indiana a global leader in science, technology, engineering, and math (STEM) talent development and employment opportunities**
  - Provide incentive for teachers to employ project-based learning
  - Provide professional development funding
  - Provide incentive for business and industry to provide technical experts to teach
  - Implement a marketing and information plan to build support and participation
  - Everyone needs to understand what this could mean for them

1) **How can the Career Council assist in ensuring that local career pathway providers are responsive to the dynamic needs of employers? What strategies would the Work Councils recommend to ensure that employers are engaged more seamlessly in the process?**

Local career pathways providers in Northwest Indiana are the local public high school programs which are served through cooperative structures or through area career centers. Regional workforce development board also serves to foster the career pathways. While area career centers frequently have advisory boards, it is believed that the engagement between these providers could be enhanced with more involvement and collaboration on shared outcomes with local employers. Students need relevant career exploration opportunities that also engage their commitment to pathways. Such opportunities are best obtained through internships. Barriers to internship include employer's ability to commit to providing meaningful opportunities and oversight to the student's experience. The Career Council can facilitate outcomes that lead meaningful opportunities for students by ensuring that industries participate in the approval of career curriculums. There is an understanding that meaning oversight can come with a personal expense to employers that most often do not see an immediate benefit from the internship experience. For this reason, the Career Council can best assist by promoting legislative changes to permit tax credits to businesses to help fund student internships. In tandem with the internship and tax credit, there needs to be established requirements for the business partnership.

A second area of assistance for the Career Council is to implement sector strategies with the flexibility to adapt on a regional basis that also permits adherence to quality programming. Each region needs to be able to independent identify, enhance, and focus local programs to align with regional needs. Each region needs to be an authority for which to focus pathways of the high demand jobs for that area. Similarly, there needs to be a regionalized system to developing standards for quality programming with alignment between adherence to quality programming and funding. Each region needs the flexibility to identify and endorse the regional certificates based on a determination of the high demand areas. Given that that industry participation requires employee time away from primary business goals, incentives for industry participation is needed.

A third way the Career Council can assist with local pathway providers is to establish a re-training fund. The retraining funds would be focused on high demand occupations. Finally, the Career Council can widely distribute public reports concerning the completion rates with regional industries.

2) **What assistance can the State offer to the Works Councils as members work to develop:**

A. Quality work-based learning experiences -

All too often, students who are placed in internships, job shadowing, or other work experiences, do not have a positive experience. Many employers do not have the resources to plan activities and supervise the student. This can result in a haphazard learning experience and exposure to individuals who lack education and training experience. To address this issue, we recommend the following actions be taken:

- Professional educators establish Learning Templates, Employer Guides
- Develop a training program for Mentors and require completion
- Establish employer Training Agreements; include use of Indiana Intern.net
- State to provide Worker's Compensation coverage for students. This is a common roadblock to employers providing student work experiences
- Provide incentives for employers to offer high quality workplace internships

B. More awareness about CTE opportunities in schools-

CTE in Indiana has a serious image problem. It is seen as a lesser option for students who are not able to handle the rigor of an academic honors diploma. It is viewed as the option for students who are not going to college. Most parents, and many educators and counselors, do not encourage the CTE avenue to the students they impact. This must change in order for the state to have the technical talent it needs to successfully attract companies to our state. A major roadblock to CTE awareness falls within our own middle and high schools. Teachers and counselors lack fundamental knowledge of the industries and businesses in their region and state. They use a Top 50 Jobs list that does not accurately portray the need for critical skill gaps when guiding a student to a lifelong career. We desperately need to provide awareness training and opportunities to our counselors and teachers. It needs to be **mandated with funding for support.** The business community is willing to assist in this effort, if the education community will actively promote career learning opportunities.

The following additional actions also need to be taken:

- Establish a statewide online CTE portal, with the ability for each region to customize their own sub site or page. The Energy industry has done this on a national and state level and could easily be replicated. Career interest surveys, videos, and job openings could reside here
- Create a marketing campaign with brochures, banners, posters, billboards, social media, interactive website, etc.

- Engage employers (particularly those in the high demand sectors) to determine internal strategies to promote career awareness for employees to share with their children.
- Provide funding to plan and hold Parent Information Sessions. Without their support and encouragement the image of CTE will remain unchanged.
- Increase student field trip opportunities to industries in their region

C. Appropriate supportive services for students-

At-risk students have a critical need for additional services in Region 1, as well as across the state. We must seek innovative ways to engage and support these students who do not receive the support and encouragement they need at home. CTE can often provide a hands-on learning environment that sparks the interest of students who struggle in the standard high school environment. It will be critical to our economy to provide engaging learning experiences and skilled counselors and mentors to these students. Online learning options should be considered to address remediation needs. Jobs for America's Graduates (JAG) is one successful program that works with at-risk junior and senior high school students. Unfortunately, it is often too late for these students to gain any significant exposure to Career and Tech Education opportunities. Research should be undertaken to see if it is possible to add more professional development options to these students earlier in high school.

Career interests and choices need to become an integral part of middle school curriculums. When these discussions are delayed until the high school years, often course selection decisions made earlier limit career options. Funding is needed to add a Careers class at the middle school level. Career Pathway Advisors need to be trained and added to the school staff. Active partnerships with local business and industry need to be established and actively maintained to ensure the availability of class speakers and field trips. The Virginia Career Coach Model warrants further investigation. It is a successful model where Career Coaches from community colleges are placed within the high school to coach students on career options. The majority of the program's funding is provided by the State. A version of the Virginia Model is being used in East Chicago Central High School. Calumet College has placed an Advisor in the school to give guidance to the students on what is needed in order to be successful in college.

3) What recommendations do Work Councils have for the Career Council on CTE definitions, courses, funding and how performance should be measured and tied to funding?

*CTE Definitions are clear and mandated by Federal guidelines. However, disaggregate exploratory and introductory courses from CTE Definitions for completer and concentrators. Find a way to eliminate one hour student data from gender equity standards. Recommend utilizing more, and better, ways to promote and articulate the College & Career Pathways for K-12 education. This fairly new initiative needs some time to work.

*We spend too much time and money on one-period electives, such as Preparing for College & Career and introductory classes in almost every area which students are taking in many cases, just to fill their schedule. Introductory classes in career cluster areas should receive some funding to encourage high schools to offer them, but not classes that are more life skill or hobby in nature. A review of availability of State courses reveals that often students have too many

choices. Also, there have been too many one hour courses that have been CTE funded that a local high school can offer which creates a barrier to a student enrolling in a program that would lead to more concentrators, student outcomes (dual credit/credentials), and students being employable. The original intent of Indiana providing CTE funding was to off-set the cost of programs having smaller class sizes and fund industry standards (expensive hands-on equipment), not as a funding source for courses that school districts could offer to generate more revenue. There needs to be a close examination leading to the elimination of duplicated services. Consider providing additional transportation funds to districts that bus students to alternate locations for CTE programming. In many cases, districts limit the number of students that can attend a district career center or cooperative program. Increase the funding for districts that work in collaboration with other school district to provide expanded opportunities to their students.

*The CTE ROI legislation says funding could be tied to industry recognized credentials. Industry recognized is the key, so let the Works Councils state what is and is not recognized. Vendors are creating what they call industry recognized credentials but these credentials are not industry recognized.. In many cases, as they do in academics, teaching to a credential that is made up by a vendor or "content expert" is limiting the teacher's flexibility with doing creative and real-world experiments, including meeting the needs of local employers and advisory committees. Even PLTW could be put in that category because of their strong emphasis on an ECA. If construction or manufacturing do not really have a credential that is recognized, why should we require one? Some certifications on the books now are made up for legislation and do not mean anything – such as those used and developed by the American Association of Family and Consumer Science Teachers or many of the one-hour CTE classes. We need to focus on where Indiana needs help. Or perhaps we should go back to recognizing credentials that could get a student a job, such as ServSafe or OSHA certifications. Programs that have relatively expensive equipment, expensive materials and are truly in the highest demand should be funded at a higher level than programs that do not have the same expense or greatest demand. There needs to be more emphasis placed on quality of CTE program requirements in order for a school to receive any funding. There needs to be a State level evaluation process for any new program to ensure it is of high quality.

Educational programming follows the contours of where funding can be optimized. If funding is unfocused or misdirected, the opportunities to students suffer. The state needs to design a funding model that corrects current funding patterns. Funding needs to focus on programs that are aligned to outcomes. Also, funding needs to reinforce programs with the best long term interests of the students. In order to properly fund high quality programs, some duplicate courses may need to be eliminated.

<u>Recommendations and Clarifications on some areas of the CTE Funding Crosswalk</u>

A. The following courses are not on any pathway and should be eliminated from CTE funding as soon as possible:

a. Chemistry of Food 5344
b. Consumer Economics 5334

B. The following courses, while on a State pathway, are more life skill in nature and in many cases are classes students take to fill up their schedule with no clear intention of completing a pathway. While these courses cover skills which everyone should have, in most cases they are not articulating to career related skills that meet the skills gap. A further analysis is needed to determine if these courses should continue to receive additional funding for CTE:

1. Adult Roles and Responsibilities 5330
2. Advanced Child Development 5360
3. Advanced Nutrition and Wellness 5340
4. Business Law & Ethics 4560
5. Child Development 5362
6. Human Development and Wellness 5366
7. Interpersonal Relationships 5364
8. Preparing for College and Careers 5394

C. An analysis of the course offerings in Business & Marketing needs to be conducted. While we want to continue to encourage students to pursue business careers and become entrepreneurs, many of these courses do not require specialized equipment and/or are courses that result in lower teacher to student ratios. In addition, students wanting to pursue a Business or Marketing career will require further post-secondary education. Perhaps their time could be better spent in additional math or writing classes to prepare them for college.

D. An Analysis needs to be conducted of all technology courses. Some have dual credit and certifications on the crosswalk while others may not, even if the teacher has the university requirements. In some cases, because schools have local flexibility to offer only 1 hour of a course versus 3 hours, some of these courses may be used with the intent to get more students in there for funding with no true intention of completing a pathway. An example of this would be offering Graphic Design and Layout for 1 hour versus offering it in a multiple hour block class where there would be more of an industry focus and an advisory committee involved.

E. Here is an example of a course that is on a pathway, but because it can be counted for something else, many students are enrolled in this course but there is no clear intention of completing a pathway:

1. Anatomy and Physiology 5276 is a course that counts as a Core 40 science credit requirement. Prior to two years ago, most Area Districts were only counting this course for funding if it was taught by a CTE Teacher. The DOE made a clarification that as long as a teacher was licensed to teach a class on the CTE Funding Crosswalk, the school district could claim this course for additional funding. Many schools were already offering Anatomy & Physiology without the additional funding and since this ruling, many have added this by making modifications in their science curriculum. There is no clear intention of starting or completing a pathway with most students taking this class at a local high school that could lead to a student getting additional dual credit and/or becoming a CNA or EMT. Suggestion would be either to eliminate this course from additional funding or to allow funding to districts only if this a student continues on a path leading to additional courses on the pathway.

F. Consider creating Introduction courses only for career cluster areas that expose students to career pathways in which they could specialize in later in their high school career. School districts only receive additional funding for courses that continue in a pathway as a way of rewarding schools for guiding students on a pathway. There are several career clusters that have no true Introduction course (i.e. Education, Public Safety, etc.).

4) **What recommendations do Works Councils have related to industry requirements for STEM knowledge and how will those requirements do (or do not) align to high school diploma requirements?**

A. There is STEM in lots of CTE programs but it is not always aligned with industry needs. Technology and Engineering topics need to be designed to be engaging and relevant. The Works Council has identified the following high demand skills and jobs critical to the economic success of Region 1. Many of these skills cross numerous industries in the region and state:

- Electrical and Mechanical Technicians
- Engineers
- Machinists
- Process Technicians
- Welders Transportation Workers w/ CDL
- Healthcare – Lab Technicians

B. K-12 or CTE needs to bring back basic shop classes with the use of tools and hands on technology. The funding for the equipment and the courses needs to be provided. The CORE 40 diploma caused schools to take those labs out.

C. Students need to get more exposure to the STEM careers in middle school.

D. There needs to be an emphasis on collaborative learning between traditional courses and CTE courses that focus on relevance. There needs to be more project based learning and a more relevant curriculum in science and math.

E. Establish and fund a teacher training institute to train teachers to incorporate relevance into their teaching.

5) What recommendations do Works Councils have on more fully integrating career counseling and employability skills in the middle school and high school curriculum?

A) Create Middle School Career Explorer Curriculum to Better Educate Students and Parents of CTE Options and the In-need Careers that exist with Significant Earning Potential

Create a curriculum for the 6th, 7th, or 8th grade to explain career options to both students and their parents. The curriculum should be structured in such a way to not only expose students, but also their parents, to the various career opportunities and how best to approach them as they develop their high school educational experience. Encourage more students, at an earlier age, to complete an interest survey/program

that will help them identify their strengths and weaknesses and focus on some career possibilities.

B) Develop State Teaching Standards and Assessments that result in a Work Ethic Certificate
- Define existence and value to students and parents
- Reported to parents in same way as report cards
- Applicability for students pursuing part time jobs

C) Incorporate Career Counseling into teacher and counselor training

An important step toward integrating career counseling should be to make sure that the local colleges and universities understand this should be a part of their curriculum when teaching/training teachers and counselors. This should be introduced at every level of education because all teachers influence children and the more teachers know the more than can share. Teachers must be purposely taught how to teach relevancy of core subjects as they relate to skills needed in the work force.

D) Improve Professional Development for Counselors by creating a Career Academy for Counselors

There needs to be funding set aside to enable professional development for counselors. Professional development that focuses on career counseling and the skills needed to get jobs, particularly in our communities. There should be meetings with WorkOne and any agencies that can share with the counselors the expectations for the jobs in Northwest Indiana. Encourage on-site field trips for them. Make webinars available for counselors and teachers.

E) Field Trips to Local Employers for Students, Counselors and Key CTE Instructors

At the local level, meaningful field trips should be encouraged. For example, many students, counselors, and CTE instructors don't really know the types of job opportunities available in the health arena. A visit to a hospital can cover a vast array of possible opportunities. The average young student just reflects on whether or not they can become a nurse or doctor because that is possibly all that they have ever been introduced to. That is usually all that is talked about at the elementary level.

F) Grow Partnerships with Local Businesses

Most of the large companies in our area have a community representative. Schools should work with them and have them visit the middle and high schools to discuss the types of jobs that are available and the type of background needed to be successful. We should encourage the development of more outreach programs like Steelworker for the Future® and similar programs.

G) Use of Social Media as well as other Traditional Communication Paths

We must reach parents through all types of communication. The social media sources should be utilized as much as possible. However, the students needing the most direction may not have parents who are into technology. Information should circulate in various ways, particularly in communities with lower than average social economic demographics. Send information to churches, community centers, clinics and agencies such as the local township offices. Take advantage of large gatherings such as parent

orientation nights, athletic events, Christmas musicals, etc. to share, via brochures and other literature, information regarding job opportunities, informational meetings, etc.

Several schools now have monitors in the hallways, cafeterias, etc. This would be a good opportunity to share information regarding careers. It would be great to have a relationship with the movie theatres. Short snapshots of career opportunities could be shown prior to the movie showing so that parents and students have an opportunity to be exposed to possible career opportunities.

H) Internships

Encourage schools and businesses to provide internships and/or service hour opportunities so that students will have more exposure at an early age.

I) Resource Libraries at Each School

Help schools develop a good resource base that can be shared with teachers, parents and students. This would include career videos, pamphlets, etc.

6) What credentials, certifications, or certificates, if any, are needed or demanded by your region's high value jobs and employers?

Certifications & Apprenticeships from PY 2013 Occupations in Demand Guidance

Healthcare

Dietetic Technicians: Dietetic Technician
Emergency Medical Technician and Paramedics: EMT-B
Home Health Aide: Home Health Aide; Health Support Specialist; HHA Disabilities Specialty; HHA Mentor Specialty; HHA Dementia Care Specialty
Medical Records and Health Information Technicians: Certified Medical Coder
Nursing Assistant: Certified Nursing Assistant
Occupational Therapy Aide: Certified Occupational Rehabilitation Aide; Occupational Therapy Technician
Patient Representative/Community Health Worker: Certified Healthcare Access Associate
Pharmacy Technicians: Pharmacy Technician; Pharmacist Assistant
Physical Therapy Aide: Certified Physical Therapy Aide; Rehabilitation Aide; Restorative Aide
Radiologic Technologists and Technicians: Radiology Technology; Diagnostic Imaging Specialist; MRI Technician; CT Technologist
Registered Nurses: Certified Critical Care Nurse; Certified Medical-Surgical Registered Nurse; Certified Hospice and Palliative Nurse; Certified Nurse Educator; Certified Occupational Health Nurse; Certified Pediatric Nurse; Certified Registered Nurse Practitioner; Certified Ambulatory Perianesthesia Nurse; Certified Forensic Nurse; Certified Nurse; Operating Room
Respiratory Therapy Technicians: Certified Respiratory Technician
Surgical Technicians: Surgical Technologist

Certification in Cardio Resuscitation: Cardio Resuscitation (CPR); Basic Life Support (BLS); Advanced Cardiac Life Support (ACLS)

Transportation, Distribution, and Logistics (TDL)

Ambulance Drivers, and Attendants, Except Emergency Medical Technicians:
Crane and Tower Operators: Truck-Crane Operator
Dredge Operators: Dredge Operator
Industrial Truck and Tractor Operators; Heavy and Tractor Trailer Truck Drivers: Commercial Driver's License.
Laborers and Material Movers, Hand: Certified Logistics Technician
Tanker and Hazmat: Tanker and Hazmat Endorsement

Advanced Manufacturing

Aircraft Structure, Surfaces, Rigging, and System Assemblers: Aircraft Mechanic; Aircraft Assembler
Chemical Processing Machine Setters, Operators, and Tenders: Chemical Operator
Computer Controlled Machine Tool Operators, Metal and Plastic: CNC Machine Operator
Dental Laboratory Technicians: Certified Dental Technician
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators and Tenders: Forming Machine Operators
Machinist: Machining
Welders, Solderers, and Braziers: AWS Certified Welder

Professional and Financial Services

Accountants and Auditors: Certified Public Accountant
Computer Support Specialist: Help Desk Technician
Engineers, All: Professional Engineer
Personal Financial Advisors: Chartered Financial Analyst; Chartered Financial Consultant; Chartered Life Underwriter
Social and Human Service Assistants: Direct Support Specialist

Construction Trades

Note: the following are mostly apprenticeships.

Boilermakers: Boilermaker, Boilermaker Fitter
Bricklayers, Block masons, and Stonemasons: Bricklayer, Marble Setter, Stonemason,
Carpenters: Lather, Carpenter
Construction and Building Inspector: Building Inspection
Construction Laborers: General Construction Labor
Hazardous Material Mover Workers: Hazardous Material Certification
Plumbers, Pipefitters, and Steamfitters: Plumbers, Pipefitters, Insulators

Hospitality, Entertainment, Amusement, Recreation, and Tourism (HEART)

Restaurant Cooks: Certified chef.

Food Safety: HACCP

Other Occupations Not Elsewhere Classified

Building Cleaning Workers: Landscape Technician, Landscape Management Technician, Greenskeeper, Tree Surgeon
Industrial Machinery Mechanics: Heating and Air Condition Installer/Servicer; Furnace Installer/Servicer; Air and Hydronic Balancing Technician; Refrigeration Mechanic; Electrical Appliance Servicer
Pest Control: Exterminator
OSHA

7) **If the Works Council could redesign its overall CTE system structure for optimal results, what might it look like?**

a. Integration of Academic Courses in CTE
    i. Freshman 9-12 availability
    ii. Graphic design as an art course
b. Provide incentives for schools to introduce CTE courses sooner
c. Middle school opportunities
d. Funding goes to programs that have employment outcomes
    i. Elevate funding the further the student is into the program
e. Revise High Demand/High Wage structure
f. Licensing flexibility
    i. Hire experts from the community
g. Create a Business Education Partnership
    i. Mandate formal collaborate partnerships for schools with regional businesses and industries
    ii. Require attendance at these advisory committees with not only the secondary schools but also post-secondary institutions.
h. Career and Technical Education image makeover.
i. Re-evaluate regional state funding for certificates and testing
    i. The State needs to re-evaluate the certificates and testing that they are currently funding
j. Consider how to incentivize the schools to do what is right for the kids rather than what would bring them the most money
k. Provide curriculum and/or opportunities to teach students to be continuous learners throughout their lifetimes
l. Need more courses that cross train students in multiple areas of studies. Hands on classes need to include theory as well
m. Scheduling kids to keep them in their career pathways
    i. Career awareness at the Elementary Level
n. Increase Transportation funds for schools that participate in Career Center courses

- o. Reimburse schools so they may provide technology to students
    - i. Debt service to pay for computers

8) Please include any other recommendations the Works Council would like to make

The Region 1 Work Council has engaged in careful review of area programs that lead to certificated or associated degree programs or four year college programs. This review also included an examination of high demand jobs. Of the above, three overall priorities emerge:

1) Alignment between funding and comprehensive secondary programming that begins with career exploration in middle school, continues through increased numbers of "completers" transition to advancement to certification or completion of a post-secondary degree, and ending with employment within the region in a high demand job

2) Regionalize the ability to differentiate funding priorities with program priorities based on employment demands

3) Increased collaboration between businesses, institutions of post-secondary education, and K-12 schools

REGION 2

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Considering both the issues that arose out of the Works Councils' reports and the strategic objectives of the Career Council, please consider and respond to the following questions with substantive recommendations.

1) How can the Career Council assist in ensuring that local career pathway providers are responsive to the dynamic needs of employers? What strategies would the Works Councils recommend to ensure that employers are engaged more seamlessly in the process?

In the attached document, we have recommended a number of steps, including the formal recognition of a "neutral convener" (or employer council) in each county to lead efforts to link employers and educators. This may be an already existing body such as economic development offices, WorkOne or organizations such as OrthoWorx. There needs to be a streamlined way for employers to engage and having a single point of contact would be efficient. We further propose a county-level Employer Council connected to this activity.

As it relates to creating employment opportunities through STEM and CTE, incentives (with as little reporting and administrative burden as is responsible to taxpayers) for hiring Indiana graduates and engaging with educators would seem to have great potential. Most employers are indifferent when it comes to where their employees grew up, went to school or even live. If the State wants them to care (and I think it does), it will need to incentivize the behavior it is seeking.

2) What assistance can the State offer to the Works Councils as members work to develop:

- **a.** Quality work-based learning experiences
- **b.** More awareness about CTE opportunities in schools
- **c.** Appropriate supportive services for students
- **d.** Employability skills/soft skills/work ethic
- **e.** Ability to provide the regions with the support and resources (i.e. financial, training, etc.) to pull it all together

The attached document describes a number of tools that are responsive to these areas. Among other examples, we believe there needs to be far greater emphasis in schools on career exploration and career counseling. Employability skills are critical—perhaps more so than technical skills—which is why we have a focus on career exploration and project-based learning as a tool for instilling accountability, teamwork, problem-solving and communication.

3) What recommendations do Works Councils have for the Career Council on CTE definitions, courses, funding, and how performance should be measured and tied to funding?

Our work has focused on high value, high wage, high demand jobs and we believe that should be the focus of the Career Councils efforts. STEM and CTE represent great opportunities for

Indiana to assure that it is competitive and/or distinguish itself from its competitors—but unless companies are incented to hire Indiana graduates and engage with educators, Indiana will lose its advantage to jurisdictions that are willing to provide that encouragement. We believe that Career Counselors are critical to this effort.

4) What recommendations do Works Councils have related to industry requirements for STEM knowledge and how well those requirements do (or do not) align to high school diploma requirements?

We have identified elements of pathways that relate to the high value, high demand job categories in our region. Where possible we have include STEM elements, which include project-based learning as a foundation, but also incorporate Project Lead The Way and other curricula where relevant. Because our region is so heavily manufacturing oriented, future "middle skill" positions will all have significant STEM elements to them.

5) What recommendations do Works Councils have on more fully integrating career counseling and employability skills into the middle school and high school curriculum?

As stated above, our view is that career exploration and career counseling are vital to helping students identify a pathway and become engaged. Employability skills are most often mentioned by employers as their most critical workforce need. We have suggested project-based learning and other programs that foster these skills. Promising programs such as the CEO Student Entrepreneurship program are being evaluated in our region and we will monitor the performance of those programs. We also believe that both students and employers need incentives to engage.

6) What credentials, certifications, or certificates, if any, are needed or demanded by your region's high value jobs and employers?

We have identified these as elements of ideal pathways for the high value, high demand job categories in our region. They are specific to the skills required.

7) If the Works Council could redesign its overall CTE system structure for optimal results, what might it look like?

Our definition of the highest priority job categories and the ideal pathways for each is our attempt to do just that.

8) Please include any other recommendations the Works Council would like to make.

Create consistent, on-going messaging about career opportunities (in the region and within each county) and their pathways so students can make the best career choice. **Awareness** of the career opportunities and what they are and what training is required is KEY to this entire process. Awareness for all educators, counselors, students and their parents, etc.

Please see attachment for our complete list of recommendations.

REGION 3

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1) **How can the Career Council assist in ensuring that local career pathway providers are responsive to the dynamic needs of employers? What strategies would the Works Councils recommend to ensure that employers are engaged more seamlessly in the process?**

- ✓ Develop a comprehensive inventory of required courses/curricula for completion of pathways, including elective or supplemental courses that would be value-added based on employer demand. This will require significant contributions from employers who would provide the information required to ensure that pathways and all associated courses are relevant to the labor market. This process will necessitate a review of all CTE courses in the region but in some cases may identify the need for a complete overhaul of a CTE program or course.
- ✓ Require regional Works Councils to establish criteria (based on industry needs) for approving or denying CTE programs. Criteria should include such items as alignment of programs with industry needs, dual credit opportunities available to students, the quality and labor market relevance of embedded industry-recognized certifications, the quality and level of work based learning opportunities, instructor standards and credentials, facilities/equipment standards and required levels of employer engagement with program activities. Once these criteria have been adopted and communicated, a subcommittee of the Works Council should then be placed in position to oversee the approval/denial of CTE programs. This process of approving/denying CTE courses/programs would apply to all 1-hour and multi-hour courses to ensure that outcomes are achieved from every course being offered.
- ✓ Create a regional evaluation process where CTE programs are evaluated on an ongoing basis. In addition to data reviews of program performance, this evaluation process should also include such items as site visits the quality of work based learning programs and interviews with employer advisory committees (to confirm the skill sets being taught in the classroom).
- ✓ While logistics would need to be worked out, there is a real opportunity to build a bridge/connection between advisory councils at the high school CTE level and the postsecondary level. For instance, while a high school CTE welding program has an employer advisory council the same can be said about the Ivy Tech welding program. Finding a way to bridge/connect these advisory councils in a meaningful would enhance and make more consistent the activities of employer advisory councils.
- ✓ With Career Council support, Local Works Councils could develop a formal communication plan to build upon and expand existing relationships with employers and employer associations. Examples of items that could be included in such a communication plan would include the development of teacher externships for CTE and postsecondary instructional staff, formal outreach plans to employer associations and specific curriculum support.

2) **What assistance can the State offer to the Works Councils as members work to develop:**

a. **Quality work-based learning experiences**

- ✓ Work based learning experiences must be incorporated in all multi-credit hour CTE programs to ensure that students have the opportunity to apply their academic and technical skills in a work based setting.
- ✓ Because work based learning programs are such an important component of an effective CTE model, incentivizing these experiences through additional funding should be a priority. For programs providing high quality work based learning experiences (this would need to defined of course), these funds could be used for a variety of items designed to further improve the quality of work based learning programs (such as covering the cost of a work based learning coordinator).
- ✓ To ensure the quality of work based learning experiences, regionally agreed upon standards must be identified to clearly communicate expectations for all such experiences. Local Works Councils can play a key role in developing and implementing these standards with appropriate input from employers and high education partners (for transferability to 2 and 4-year degree programs).

b. **More awareness about CTE opportunities in schools**

- ✓ CTE districts have little or no marketing dollars available to support activities designed to increase student/parent/employer awareness about CTE opportunities. Supporting CTE districts with resources to develop and implement effective marketing and outreach programs would be a critical first step in creating broader awareness of CTE opportunities. This must include supporting both middle school and high school counselors so they can accurately promote CTE opportunities to students and parents. This could also involve the inclusion of formal CTE awareness activities into the 9th grade careers class, creating an awareness of CTE opportunities with many freshman students.
- ✓ Engaging regional industry in promoting CTE programs is also a key component to increasing broader awareness about program opportunities. Industry leaders can speak directly to the relevance of a CTE education with a specific focus on the career opportunities that such an education and work based learning experience can provide. Industry leaders could potentially also make themselves available to host student/parent activities at their facility to provide a first hand exposure to career opportunities in the appropriate pathway.

c. **Appropriate supportive services for students**

- ✓ Currently, CTE districts are at the mercy of member schools, Perkins funding levels, local business support and grants to provide what their district believes are appropriate supportive services. Rather than leave this important program component to chance, "appropriate supportive services" must be defined by each regional Works Council to

establish a regional consensus on what is needed. Examples of what could be considered "appropriate" would include career counseling, general and academic advising, assessment and employability coaching, work based learning coordinators, program retention specialists and tutoring programs. Prioritizing these supportive services by region/district must be done, but available funding must then be evaluated to identify opportunities for investing the resources required to effectively deliver these services.

d. Employability skills

- ✓ There should be a clear expectation that employability and work readiness skills must be embedded in every CTE course. In fact, as discussed in question #1 above, CTE courses that fail to embed these skills into the curriculum should not be approved. To be even more clear, the Region 3 Works Council believes that every CTE course must provide practical and experiential opportunities for students to apply these skills while working on class projects.
- ✓ As part of the ongoing program evaluation discussed in #1 above, programs must be evaluated on their ability to effectively integrate work readiness skills in curricula and day-to-day coursework.
- ✓ The Career Council should also support the reinvention of the Work Ethic program to validate critical work readiness skill sets in CTE graduates. The Region 3 Works Council is particularly fond of this approach given the number of employers who have shared their concerns about this issue.

3) What recommendations do Works Councils have for the Career Council on CTE definitions, courses, funding, and how performance should be measured and tied to funding?

- ✓ An overhaul of the funding formula would require Works Councils and CTE districts to evaluate the importance of each course and program to be offered. If done right, the funding formula would reward CTE courses and programs that produce meaningful certifications/licensures and greater levels of dual credit. Tying substantial dollars to CTE programming that achieves these results is a must-do.
- ✓ Single credit CTE courses that do not produce a meaningful result (such as dual credit or a certification, license or critical skill set required by industry) should not be incentivized in the funding formula. Rather, CTE courses supported in the funding formula must support the career pathway being pursued. This means that resources currently used to support some 1-hour CTE courses would be redeployed to support new or expanded multi-hour programs required by industry.

- ✓ It would be appropriate to attach additional funding as an incentive for CTE districts who accomplish extraordinary results within their programs. This type of an incentive based approach would create a dollars and cents motivation for districts to meet the needs of regional industry and improve program quality.

4) What recommendations do Works Councils have related to industry requirements for STEM knowledge and how well those requirements do (or do not) align to high school diploma requirements?

- ✓ STEM is certainly not a one-size-fits-all concept and the implementation of STEM-based CTE programs must be customized to the specific needs of regional industry. As such, there is a need for each region to clearly define the STEM skills required by industry and then establish standards for ensuring these skills are appropriately embedded in CTE courses and programs. Additionally, the STEM skills standards that are developed should be incorporated in the regional approval/denial process for CTE programs.
- ✓ As indicated in #1 above, a strong regional evaluation process is needed to ensure the quality of CTE programming over the long term. As part of this evaluation process, CTE programs should be evaluated for their ability to teach the STEM skills that have been identified as critical to supporting regional industry.

5) What recommendations do Works Councils have on more fully integrating career counseling and employability skills into the middle school and high school curriculum?

- ✓ Currently, the work load on middle and high school counselors interferes with the ability of a CTE district to fully integrate career counseling into CTE programs and curricula. Nonetheless, it is understood that full integration of career counseling into CTE activities is exactly what needs to be done. Additional or dedicated funding to support Academic and Career Counselors for CTE programs would be an excellent first step. This could also include the integration of career counseling activities between secondary and postsecondary partners.
- ✓ In addition, structuring the funding formula to emphasize outcomes and results from CTE programs would also likely drive CTE districts and school systems to provide this kind of integrated career counseling and support.
- ✓ In terms of ensuring that integrated career counseling programs are of quality, there should also be an expectation that career counselors interact with regional employers and higher education partners on a regular basis. This could be done through counselor externships, employer site visits and a wide range of other employer interactions. In Region 3, this could also be done through partnerships with the Workforce Investment Board and local economic developers, both of whom interact with employers on a daily basis. Regardless of how it occurs, however, for counselors to provide effective career counseling to students there must be a formal process which ensures that these counselors remain engaged with regional employers and aware of their skill and hiring needs.

6) **What credentials, certifications, or certificates, if any, are needed or demanded by your region's high value jobs and employers?**

- ✓ An exact list of credentials valued by regional employers has never been formally published; however, through a wide range of employer conversations there is good insight into the kinds of credentials which employers in the region value. For example, there are many advanced manufacturing certifications (Lean Six Sigma, ISO, AWS welding, NIMS machining and others) that industrial employers recognize and value. And there are similar lists of credentials for health care, information technology and other industry sectors.
- ✓ Given the information that is known, establishing regional CTE program standards and ensuring that the funding formula supports programming which results in these specific certifications make a great deal of sense.
- ✓ Many times, students may lack access to the funding which will pay for the actual certification test or exam. Ensuring that funding is available for student testing is another challenge which must be addressed.
- ✓ While there are many employers in northeast Indiana who do value specific certifications, the reality is that there are many who remain unaware of these credentials and the skill sets students must possess to earn them. As such, working in partnership with the Workforce Investment Board and local economic developers, there must be an effort to engage employers in conversations about specific certifications, what they mean and how they can be used to source, identify and retain new talent.
- ✓ To fully implement a system of technical education in the region, there must be a true collaboration between CTE school districts and post-secondary institutions. Specifically, there must be agreement on what certifications need to be embedded in curricula, how stackable certifications can be achieved through this collaboration and how these certifications can enhance dual credit opportunities. The goal would be to allow students to move seamlessly from high school to post-secondary coursework because the curricula used at both levels are purposefully tied together.

7) **If the Works Council could redesign its overall CTE system structure for optimal results, what might it look like?**

- ✓ The delivery of CTE courses in the majority of school districts is done with good intentions and under the premise that students must be well served. Nonetheless, the Career Council should support the establishment of an on-the-ground regional oversight body to ensure that CTE resources are used in the best possible way to support both students and regional employers. Tying qualified, appropriately licensed instructors to approved CTE courses that lead to true pathway completion and employment are courses that deserve funding. Conversely, offering a CTE course simply because funding is attached should not be allowed to happen.

- ✓ As noted earlier, it is recommended that regional Works Councils be given the authority to establish standards for CTE programs and then review and approve/deny all CTE programs based on these standards. In essence, then, the Works Council becomes the oversight body at the regional level to ensure that CTE resources are spent on programs that meet industry needs. It is further recommended, however, that this authority be put in place prior to the development of a new funding formula.

8) Please include any other recommendations the Works Council would like to make.

REGION 4

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The Career Council understands that the Works Councils recently delivered preliminary reports to the Governor and the Education Roundtable on the current state of Career and Technical Education programming in their respective regions. Five themes emerged from these reports:

- Understanding employers' needs
- Creating more awareness about CTE opportunities in schools
- Building employability skills into curriculum
- Examining how well industry requirements for STEM knowledge align with high school diploma requirements
- Existing innovative curriculum

The Career Council has developed five strategic objectives for the development of the strategic plan due to the General Assembly on July 1, 2014. Three require the input of the Works Councils. They are:

- **Address the shortage of qualified workers for current employment opportunities**
- **Prepare Indiana's Workforce, Students, and incumbent workers for high-value jobs of the future**
- **Make Indiana a leader in STEM talent development and employment opportunities.**

Considering both the issues that arose out of the Works Councils' reports and the strategic objectives of the Career Council, please consider and respond to the following questions with substantive recommendations.

1) How can the Career Council assist in ensuring that local career pathway providers are responsive to the dynamic needs of employers? What strategies would the Works Councils recommend to ensure that employers are engaged more seamlessly in the process?

Region 4 Works Council has identified the need to shift perceptions that career and technical education pathways are of less value than pathways that lead to traditional 4-year degrees.

Career Councils should:

- Provide models for effective partnerships that engage local employers, secondary schools, post-secondary schools for effective Career Pathway programs.
- Provide guidance for effective advisory committees that encourage active business participation from local business representative on program advisory committees and the district general advisory committee.
- Support the local functions of advisory committees to facilitate the curriculum integration of community resources, employment opportunities, and curriculum design including technical and employability skills.

Effective strategies could be:

- Include CTE representatives in local workforce development activities with local employers to determine how local CTE programs can assist in meeting employer needs.
- Communicate specific technical/hard skills that are needed in the industry, hiring and employment information, and entry-level jobs profiles.
- Develop a consistent curriculum for soft skills (employability skills) that should be included in Preparing for College and Careers as well as any CTE class.
- Include broad-based employment representation.
- Develop a system to promote local employment needs to school personnel and students.
- Use existing program advisory committees to support strategies for using business representatives in the classroom, developing mentor programs, expanding WBL opportunities, and reviewing curriculum. The advisory committee should work with the teacher to provide appropriate training for WBL activities.
- Use district and school level advisory committees to review career planning, CTE curriculum offering, and WBL experiences.
- Increase communication between schools, industries, and legislators.

2) What assistance can the State offer to the Works Councils as members work to develop:

a. Quality work-based learning experiences

Funding for internships is critical for employers to justify non-productive headcount on the payroll. Internships allow students the needed exposure to learn more about their future opportunities.

In order to provide quality internships, the Career Council should:

- Develop criteria for a standardized WBL (Work Based Learning) program that can be adapted for local needs and work sites.
- Provide training so that all CTE teachers can provide some type of WBL experience in the senior-level class.
- Provide incentive for employers who support WBL activities such as internships and cooperative experiences.

b. More awareness about CTE opportunities in schools

Career liaison and/or counselors would play a large part in awareness of the opportunities, as well as helping focus the student's career plan.

To support the career liaison and/or counselor, the Career Council should:

- Develop a state-wide career cluster market system to promote all career clusters, career pathways, and employment opportunities.
- Provide marketing materials that include digital media awareness, social media, posters, brochures, and recruitment activities.

c. Appropriate supportive services for students
Employers need assistance arranging programs/schedules for employers to have the ability to speak with students about their industry and opportunities. This will provide the opportunity for students to better understand work culture, career options and advancement opportunities.

To support industry and student connections, the Career Council should:

- Support regional employment of a Career Liaison and/or Counselor for each CTE Districts, five for Region 4, to work with individual schools and employers.
- Provide opportunities for students to participate in experiences such as work-site tours, job shadowing experiences, summer work experiences, paid work experiences, and non-paid work experiences.
- Connect with schools with cooperative projects such as work-based panel discussions, industry videos, demonstrations, presentations, project-based learning judges, job search activities, and mock interviews.

d. Employability Skills
Align a consistent CTE curriculum to include employer work expectations such as attendance, punctuality, problem solving, adaptability, critical thinking, professionalism, and interpersonal skills.

Some current best practices are EcO15 and Ready NW Indiana, which are currently in place in a variety of other economic development regions.

The Career Council should:

- Survey local industry to determine specific employability skills.
- Coordinate business and industry activities for effective job search strategies.
- Align internships and other WBL experiences with CTE programs to provide the "relevance to a rigorous" curriculum.
- Provide funding for all CTE students to take the WorkKeys ® National Career Readiness Certificate.
- Provide WIN Soft Skills access for all CTE students.

3) What recommendations do Works Councils have for the Career Council on CTE definitions, courses, funding, and how performance should be measured and tied to funding?

Definitions. Clear definitions of CTE terms, performance measures and data collection is vital to communicate CTE programming and achievements. Review of current definitions should:

- Align with the schedule for the reauthorization of the federal Perkins Grant legislation, the development of the state five-year plan, and the submission of the local plans. Continued use of the current definitions is critical to provide consistent data for longitudinal date analysis that demonstrates student performance and program effectiveness at the school, district, and state level.

- Include development of a task force representing the Department of Education, Department of Workforce Development, business representatives, and local directors to review and revise definitions for terms such as concentrators and completers to reflect the Indiana Career Pathway system.

Funding.

- Continue current funding for all Career Pathways to support schools and enable offerings for a broad base career scope.
- Review current Career Pathways to ensure courses are aligned with regional employer needs.
- Provide funding for all Career Pathway courses including exploration classes in the 8th and 9th grade, introduction classes in the 9th and 10th grade, and specific skill classes in the 11th and 12th grade. Please note that elective classes that are not funded may be eliminated in some local schools making it difficult for students to participate in career pathways.
- Validate the Career Pathway course sequence, which contains employability, life and content skills, with district and school business and industry committees.

Performance Measures. Provide additional CTE funding based on performance measures such as pathway completers, certifications and transcripted dual credits, technical skill assessments that have been validated by industry panels, end-of-course assessments, and successful work-based learning (WBL) experiences evaluated with a state-model WBL rubric.

4) What recommendations do Works Councils have related to industry requirements for STEM knowledge and how well those requirements do (or do not) align to high school diploma requirements?

STEM – Science Technology Engineering Mathematics

Based upon the Regional Works Council's focus for manufacturing employment needs, member employers were surveyed to determine recommendations and/or needs related to STEM. Responses were broken into two sectors of skills and knowledge: Quantitative ("hard" skills and knowledge) and Qualitative ("soft" skills).

Quantitative Skills and Knowledge:

- Safety Practices
- Introduction to Industrial Safety
- OSHA – What is it, Why it is important
- Quality Practices & Measurement
- Manufacturing Quality Systems and Standards ex/ ISO/TS 1692
- Precision Measuring Method
- Manufacturing Production Systems & Processes
- Principles of Lean Manufacturing
- One Piece Flow
- Continuous improvement principles
- Material Science
- Maintenance Awareness

- Preventive Maintenance
- Machining Skills
- PLC's and Electronics
- Skilled Trades Overview
- Logistics Management
- Production to Delivery Systems
- Sales and Marketing of products
- Information Technology applications in manufacturing
- Green Production
- Environmental Awareness
- Waste Reduction
- Regulatory compliance

Qualitative Skills and Knowledge:

- Teamwork
- Reliability and dependability
- Positive attitude
- Participation and involvement
- Listening Skills
- Articulating Thoughts
- Ability to speak in front of a group
- Attendance and punctuality
- Business ethics and integrity
- Problem solving methodology
- First Aid/AED
- Workplace standards & expectations
- Workplace harassment, equal employment opportunity, etc.

STEM Alignment of Diplomas with employer needs:

Upon analysis of Indiana Core 40, Indiana Core 40 with Technical Honors Diploma (THD), and Indiana Core 40 with Academic Honors Diploma (AHD) requirements (courses and associate standards) cross-walked with the Industry "hard skills" needs/recommendations, the following was found:

Science: The Core 40 requirements, as well as the requirements for a THD and AHD, require Biology, and Integrated Chemistry-Physics, Chemistry, or Physics, as well as one additional Core 40 Science course, all of which are lacking "Materials Science" concepts, which are thought to be highly valuable in potential employees.

Technology: Unless a student chooses to enter the Career and Technical Education (CTE) path towards a Core 40 or Core 40 with Technical Honors diploma, valued "hard" skills/knowledge such as Machining Skills, Manufacturing Quality Systems and Standards, Principles of Lean Manufacturing and Logistics may fall short. Those that enter a CTE Career Pathway that isn't within the Manufacturing Pathway will also not be exposed to said knowledge and skills.

Engineering: Engineering principles are presented in many design-oriented courses which may be associated with any of the three diploma tracks. Additionally, students that elect to take Integrated Chemistry/Physics and/or Physics may be exposed to some of these concepts

Mathematics: The ability to compute, and utilize basic principles of Algebra and Geometry, are skills presented across all diploma tracks. The area of problem solving processes and methodologies are skills and aptitudes that are prevalent across all four STEM areas, but an increased utilization of these principles in "real-world" applications is greatly needed.

Upon examining the Qualitative needs, many of them are thought to be intrinsic, and not able to be taught, but reinforced over the student's academic career.

5) What recommendations do Works Councils have on more fully integrating career counseling and employability skills into the middle school and high school curriculum?

In support of the liaison and/or career counselor the Career Council should:

- Integrate employability skills in all CTE classes.
- Standardize the Preparing for College and Careers (PCC) curriculum in the region.
- Require liaison and/or career counselors in the Region 4 to assist middle school students with the preparation of the four-year plan with a career focus. Liaison/career counselors should develop activities and programs focused on gaining career awareness, exploration, and experiences.
- Implement foundation classes to the middle school, such as PCC, Finance and Project Lead the Way gateway classes.
- Engage schools and administration to support work-based learning and employer informational tours outside the traditional curriculum.

6) What credentials, certifications, or certificates, if any, are needed or demanded by your region's high value jobs and employers?

The following credentials, certifications, or certificates identified for Region 4 are as follows:

- Certified Production Technician - MSSC
- OSHA - Health & Safety Basics
- Technician Basics - PLC, Hydraulics, Schematics, Electronics, Computers
- Certified Logistics Coordinator - MSSC
- Machinist/ Tool & Die
- Leadership Certificate
- Maintenance Basics
- Welding - AWS
- WorkKeys Certificate
- Apprenticeship Programs - Plumber, Pipefitters, Electrician

7) If the Works Council could redesign its overall CTE system structure for optimal results, what might it look like?

Providing students with options in all career cluster areas is critical to meet the needs of students and area economic development. The Career Council has identified the need for

balanced opportunities for educational programs so young adults can be trained and employed in a variety of areas with a focus on manufacturing careers.

- Review future job trends when determining new CTE course offerings. Future pathways should align with job/career opportunities and expand as new careers are demanded in a region.
- Identify and communicate job expectations, job duties, job growth opportunities, and pay levels.
- Quantitative account of students who are participating in the CTE programs.
- Employment tracking post graduation.
- Tracking of newly implemented gateway classes with middle school students
- Identify barriers for middle school students transitioning to high school CTE classes

8) Please include any other recommendations the Works Council would like to make.

The Work Councils would like to provide the additional recommendations:

- Support schools with funding for replacement and modernization of secondary CTE equipment.
- Coordinate CTE program administration at the state level with CECI, DOE, and DWD. Current guidance is unclear as different directions and guidelines are being set by each agency.

REGION 5

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1) **How can the Career Council assist in ensuring that local career pathway providers are responsive to the dynamic needs of employers? What strategies would the Works Councils recommend to ensure that employers are engaged more seamlessly in the process?**

Region 5 Response: The principal challenges are attention, communication & coordination

- Expand local career pathway providers to increase responsiveness to employer needs and student choice.
- Smaller to mid-size employers are not connected in a formal way to the K-12 career pathways system. Work to find ways – including but not limited to listening to them, increasing their awareness, partnering with them in aggregate, and granular targeting of their needs and interests – to reach out and connect to and engage them. This process would be formalized to create consistency with both data gathering and constituent input to create actionable output from the process. This would not be an ad-hoc, anecdote gathering process. Some concrete examples include:
    - Offering more opportunities for CTE instructors, counselors, etc. to tour businesses, have summer internships, or partner with employers for work-based learning.
- Works Councils can roll up the individual needs for collections of smaller employers.
- Some of the career centers have created employer councils to advise and support their career pathways work; from the employer side, Hire Technology has done the same thing; this may be an effective model for general use.
- Focus more clearly for certain industry leading employers on meeting the needs of all the employers in their whole, relevant supply chain.
- Where associations & societies & chambers (trade, regional, even neighborhood) exist, partner with them
- Even where the system is working for one school or pathway, work to communicate the success, the results, the opportunity more broadly
- Create and leverage opportunities to showcase the career-ready students as they finish effective programs
- Ensure employers are engaged in the development of curriculum and diploma requirements; provide incentives for businesses who support cooperative education, advisory committees, etc.

2) **What assistance can the State offer to the Works Councils as members work to develop:**
    a. **More awareness about CTE opportunities in schools**
    b. **Appropriate supportive services for students**
    c. **Quality work experiences (internships, apprenticeships, etc.)**
    d. **Employability skills**

Region 5 Response:

- **Quality work-based learning experiences**
    - Work with unions to create more opportunities for transitions into apprenticeship programs for CTE youth.
    - Create a summer job placement model targeted to highly skilled CTE Youth
    - Develop criteria for a standardized work-based learning program that can be adapted for local needs and work sites.

    - Provide training so that all CTE teachers can provide some type of capstone work-based learning experience in a student's senior year.

- **More awareness about CTE opportunities**
    - Create a cultural change that states that professional skilled trades are as important and valued as a university degree.
    - Encourage businesses to get engaged and partner with high schools (consider Conexus A+ model). Have business representatives act as guest speakers at schools, parent nights, recruitment events. Promote successes to local media.
    - Encourage the DOE to "quit talking about college, PSAT, SAT, ACT, FAFSA, NCAA Clearinghouse, AP classes, dual credits, and anything else that sends the message that [traditional] college is all we value."
    - Focus on career counseling rather than college counseling
    - Develop a statewide career cluster market system to promote all career clusters, career pathways, and employment opportunities.

- **Supportive services**
    - Provide training to CTE instructors on how to meet the diverse learning needs of students enrolled in CTE programs
    - Consider Illinois STEP program model: coordinating with Voc Rehab to provide for high school based programs focused on developing basic employability skills for youth with disabilities.
    - Focus on everything surrounding soft skills except admission to universities.
    - Create a career counselor and placement coordinator position for each CTE district to work in individual schools.

- **Employability skills**
    - Assess the current status of work-study programs to encourage a combination of work-study and high rigor curriculum.
    - Develop a consistent curriculum using models currently in place in a variety of other economic development regions.
    - Develop rules and regulations that will allow students into internship, apprenticeships, or job shadowing situations in which they are currently denied access because of OSHA regulations.
    - Consider Illinois STEP program model: coordinating with Voc Rehab to provide for high school based programs focused on developing basic employability skills for youth with disabilities.
    - Focus on everything surrounding soft skills except admission to universities.
    - Create a career counselor and placement coordinator position for each CTE district to work in individual schools.

3) **What recommendations do Works Councils have for the Career Council on CTE definitions, courses, funding, and how performance should be measured and potentially tied to funding?**

Region 5 Responses:

- Practicality – what do employers need that they are not getting and fast, effective response to provide it

- Local flexibility and control – leverage direct work experience (internships, apprenticeships, measured and safe work experiences)
- Customizable and regional definitions of courses rather than statewide
- Don't regulate much – don't tell the regions what they need; let them tell themselves what they need
- Career readiness, basic work ethic, fundamentals applicable to all
- Consider regional panels of employers by cluster/industry to provide input on needs and on students and their successes and issues – real-time, real-life, regionally based – empirical data from the students employers are hiring over time – longitudinal
- No quick solution – have to try things out, monitor, accept failure, adjust, move forward with what works
- Need sustainability and the effort to keep employers engaged (avoid "flavor of the month" syndrome)
- Give and seek employer ownership and communication as to whether their needs are being met – their ownership of the process
- The ultimate measure of results is do the students take advantage of the courses and gain placement in an employer or post-secondary program in the sector – are we really creating a pipeline?
- Follow-up surveys
- Create and analyze (drill down into) participation and results data – constantly tune to improve
- Create "employer clubs" to help spread the word about programs (subject matter and/or geographic) – study, drill down, expand, replicate
- Could tax incentives be used to drive participation by employers?
- Use Perkins funding (post-secondary), e.g., to create career coaches, etc.
- Focus funding away from one period electives, such as Career Planning classes and introductory classes
- Incentivize schools to place students with employers for both internships, job shadowing and jobs. The positions must be in the student's field of study. The incentive should be for the number of employers participating each year and the number of students participating each year with the goal of maximizing each number. This will provide an incentive for schools to both maintain existing employers and expand employers. Additional points should be provided for small employers.

4) What recommendations do Works Councils have related to industry requirements for STEM knowledge and how well those requirements do (or do not) align to high school diploma requirements?

Region 5 Responses:

- Need for connections – courses are very segregated (biology, chemistry, physics, etc.) and knowledge is very specific to the course – how do we find a way of blending/integrating across discrete subject matter?
- How do we connect information technology (and statistics, for example) into the study of the various STEM disciplines and across them?
- The current system perpetuates its deficiencies and fails to meet either employer or student needs – industry needs to say it needs (1) lifelong learners, students prepared to master evolving skills; (2) specific graduation requirements that prepare for STEM success in industry; (3) scale that prepares vastly more students for success across STEM disciplines.

- The institute model – embed the STEM disciplines (and English, etc.) into the institute curriculum, contextualized for it – think, e.g., welding with English & math standards built in; real world, relevant problems to solve; relevant to students (Ivy Tech's institute model shows promising learning gains)
- Consider blending school & work – bringing employers into the schools & vice versa – capstone projects – internships, with course credits as the reward – even allow a semester off to go to work (regulatory issues)
- Use local advisory committee to clearly define the skills needed for STEM careers
- Use industry resources to teach STEM
- Consider eliminating the single Core 40 silo approach and implementing greater flexibility – core foundation of knowledge with flexibility to move in different directions – students need options and schools need flexibility to provide them
- If the high school diploma is to continue as the gateway credential, ensure it comes with minimum baseline knowledge and competencies, cross-training and the ability to continue to learn
- Use flexible and extra time tied to college level work to get to necessary levels of preparation

5) What recommendations do Works Councils have on more fully integrating career counseling and employability skills into the middle school and high school curriculum?

Region 5 Responses:

- Perception remains a major problem (i.e., if you don't go to a 4-year school you're not a success) – how do we change the perception? How do we get the middle majority of students to consider the career pathways and see the jobs as success (earnings, satisfaction, career, etc.)?
- Key issue is a student visioning problem – it's cultural – need to give students the full range of possibilities and the vision to find the effective match – break through the cultural poverty and self-imposed constraints on possibilities
- Do guidance counselors know, appreciate and have the capacity to act on how much work generally and in specific careers has changed and is changing?
- Consider state-wide opportunities (e.g., in the summer) for counselors (& teachers) to meet with industry leaders & representatives
- Use funding (e.g., federal) to hire career counselors and use them to educate guidance counselors
- Shift or supplement guidance counselors (over assigned and over worked and numerically under matched to student need) to create capacity for effective career counseling as part of guidance

6) What credentials, certifications, or certificates, if any, are needed or demanded by your region's high value jobs and employers?

Region 5 Responses:

- These would include:
    - Auto Services Technology: ASE, ICAR
    - Construction Trades: HVAC: HVAC Certifications
    - Emergency Medical Services: First Responder & EMT
    - Fire & Rescue: Firefighter I & II
    - Health Science: CNA, Occupational/Physical Therapist Assistant, Radiology Technician, Respiratory Therapist
    - Information Technology: Cisco, A+, Net+, Security+, MOUS, IC3

    - Tractor/Trailer Operator: CDL
    - OSHA – 10 hour
    - WorkKeys
    - Apprenticeship Programs - plumber, pipefitters, electrician
- Most state approved credentials are not demanded by our area employers

7) If the Works Council could redesign its overall CTE system structure for optimal results, what might it look like?

Region 5 Responses:

- review the status of counseling: are counselors adequately prepared to guide youth to pathways that will lead them to high value jobs, including post-secondary training/education
- Providing students with options in all career cluster areas is critical to meet the needs of students and area economic development. We need balanced opportunities for educational programs so young adults can be trained and employed in a variety of areas
- Review future job trends when determining new course offerings
- Future pathways should align with job/career opportunities and expand as new careers are demanded in a region
- Attention to students in the middle continues to be concern
- Students should be encouraged to explore pathways even if they may not continue down the pathway
- Good intentions are reflected in the work of lawmakers and DOE; however, if support is not forthcoming, schools will be unable to change the cultural mind-set associated with CTE

8) Please include any other recommendations the Works Council would like to make?

Region 5 Responses:

- Good intentions are reflected in the work of lawmakers and DOE; however, if support is not forthcoming, schools will be unable State funding should be available for the startup of new programs and be provided for the replacement and modernization of secondary CTE equipment

REGION 6

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Region 6 Works Council approved the Answers and Recommendations found below by a Consensus of a Majority of its Members

At The Works Council Meeting on March 13, 2014.

Region 6 Work Council Members

William Bradley, Jay County Development Corporation

Timothy Conley, Indiana/Kentucky/Ohio Reg. Council of Carpenters

Scot Croner, Blackford County Schools

John Fallon, Ball State University

James Hensley, Richmond Community Schoools

Gregory Hinshaw, Randolph Central School Corporation

Emily Jerman-Brown, IU Health Ball Memorial & Blackford Hospitals

Kathy McCarty, East Central Education Service Center

Judson Motsenbocker, Jud Construction

Kirk Robbins, Magna Machine & Tool

Michael Wickersham, Wicks Pies, Inc.

Bonnie Willy, ITCC

Jim Hiester, WM Manufacturing

Rick Barnett, Marajun

Rhona Everhart, Pioneer

The Region 6 Works Council understand that the Career Council has developed five strategic objectives for the development of their strategic plan due to the General Assembly on July 1, 2014. We further understand that three of the objectives require our input. They are:

- **Address the shortage of qualified workers for current employment opportunities**
- **Prepare Indiana's Workforce, Students, and incumbent workers for high-value jobs of the future**
- **Make Indiana a leader in STEM talent development and employment opportunities.**

Considering these 3 strategic objectives of the Career Council, Region 6 Works Council offers the answers and recommendations to the following questions:

1) How can the Career Council assist in ensuring that local career pathway providers are responsive to the dynamic needs of employers? What strategies would the Works Councils recommend to ensure that employers are engaged more seamlessly in the process?

   To ensure that employers are more engaged in the process there needs to be better communication between the career pathway providers and the employers. This can be done by connecting the employers with the providers in a variety of ways. Providers should promote the role and availability to participate on their Advisory Boards. Employers should be invited and encouraged to visit the local providers on a regular basis and provider teachers and counselors should be encouraged to visit the local employers. This increased communication will create an environment where each group will have a better understanding of what the other offers and does so that each group can be in a better position to respond to the other's need.

   The Career Council can assist in this effort by offering funding or offering assistance in finding funding to help create this program of visitation and the promotion of the career pathway providers. In addition the Career Council can offer assistance in helping the providers gain more flexibility in the way education is delivered and more flexibility in instructor credentialing to allow the shifting of educators to meet workforce needs.

2) What assistance can the State offer to the Works Councils as members work to develop:
   a. Quality work-based learning experiences
      The State can offer to Work Council members more funding for Work Based Learning Programs. This can be done by returning to a time when Work Based Learning Programs were priority classes. In additional promoting and communicating with employers throughout the state that there are opportunities in the industry setting to use cooperative student employees who are under 18.

   b. More awareness about CTE opportunities in schools
      The State can offer Works Councils funding for the CTE Awareness Grant Application. Our grant application is an attempt to create awareness of the CTE opportunities by a two-way visitation between employers in the region and counselors and teachers within the region.

   c. Appropriate supportive services for students
      The State can offer assistance in counselor training at both the High School and Middle School level. The State can also offer solutions to transportation issues in the rural areas where CTE opportunities are not close to the student's home. The State can develop a State-Wide mentoring program that connects a CTE student with a local employer mentor or college student mentor.

d. Employability skills

The State can offer assistance in making the Work Based Learning Programs a priority class so that students will have more hands on opportunity to learn employable skills. The State can offer assistance in developing more flexibility in education.

3) What recommendations do Works Councils have for the Career Council on CTE definitions, courses, funding, and how performance should be measured and tied to funding?

It is our recommendation that performance should be outcome based on an assessment similar to Work Keys and appropriate funding should be offered for the assessment. For CTE there needs to be more relevant testing and at the same time less testing. All testing cannot continue to be geared toward 4 year college students. Should there be a transition and change in the metrics Schools need at least 3 years notice to properly implement the change.

4) What recommendations do Works Councils have related to industry requirements for STEM knowledge and how well those requirements do (or do not) align to high school diploma requirements?

We would recommend that as there is a Core 40 cluster for a high school diploma a Core 40 cluster be developed for a CTE cluster. As an example a Core 40 cluster for manufacturing would begin as the core 40 cluster would begin but as the student progressed the higher level STEM classes would be applied classes and not theoretical classes. This would require greater flexibility in the education delivery, but would allow for the curriculum to match the local employer needs. Ultimately the Core 40 Manufacturing cluster would be an equivalent to the current Core 40 cluster.

5) What recommendations do Works Councils have on more fully integrating career counseling and employability skills into the middle school and high school curriculum?

We would recommend that careers and career choice become a priority with school counselors regardless if the student desires to be an electrician or a doctor. To do this will require that the counselors get out and visit the local employers at their place of business and invite the local employers into the schools for tours and presentations about career opportunities. The earlier this starts the better.

6) What credentials, certifications, or certificates, if any, are needed or demanded by your region's high value jobs and employers?

Through the Alliance for Strategic Growth, we offered an employer survey throughout the region and obtained 49 responses. Of those that responded, the following certifications are required:

Work Keys (9)
Manufacturing Skills Standards (8)

Society of Manufacturing Engineers (2)
American Welding Society (2)
National Institute of Metal Working Skills (1)
Association of Operational Management (1)
Medical License (5)
Medical/Health Services (4)
Teaching License (1)
Information Technology (7)

7) If the Works Council could redesign its overall CTE system structure for optimal results, what might it look like?
Our redesign would offer more flexibility in the delivery of education, instructor credentialing, and course approval. This would allow more local innovation at the local level to meet the needs of the local employers. Currently there are Special Topic courses allowed within the Science and Social Studies areas and we would like to see a CTE Special Topics offered. Currently our focus in education ignores the middle. A lot of time is spent on the academic honor student and a lot of time is spent on remediation, which leaves very little time and effort left for the middle. More flexibility in education would allow more time and effort for the middle.

8) Please include any other recommendations the Works Council would like to make.
Our last recommendation at this time is for more funding not only for new programs, but for the replacement and modernization of existing equipment that supports existing programs.

REGION 7

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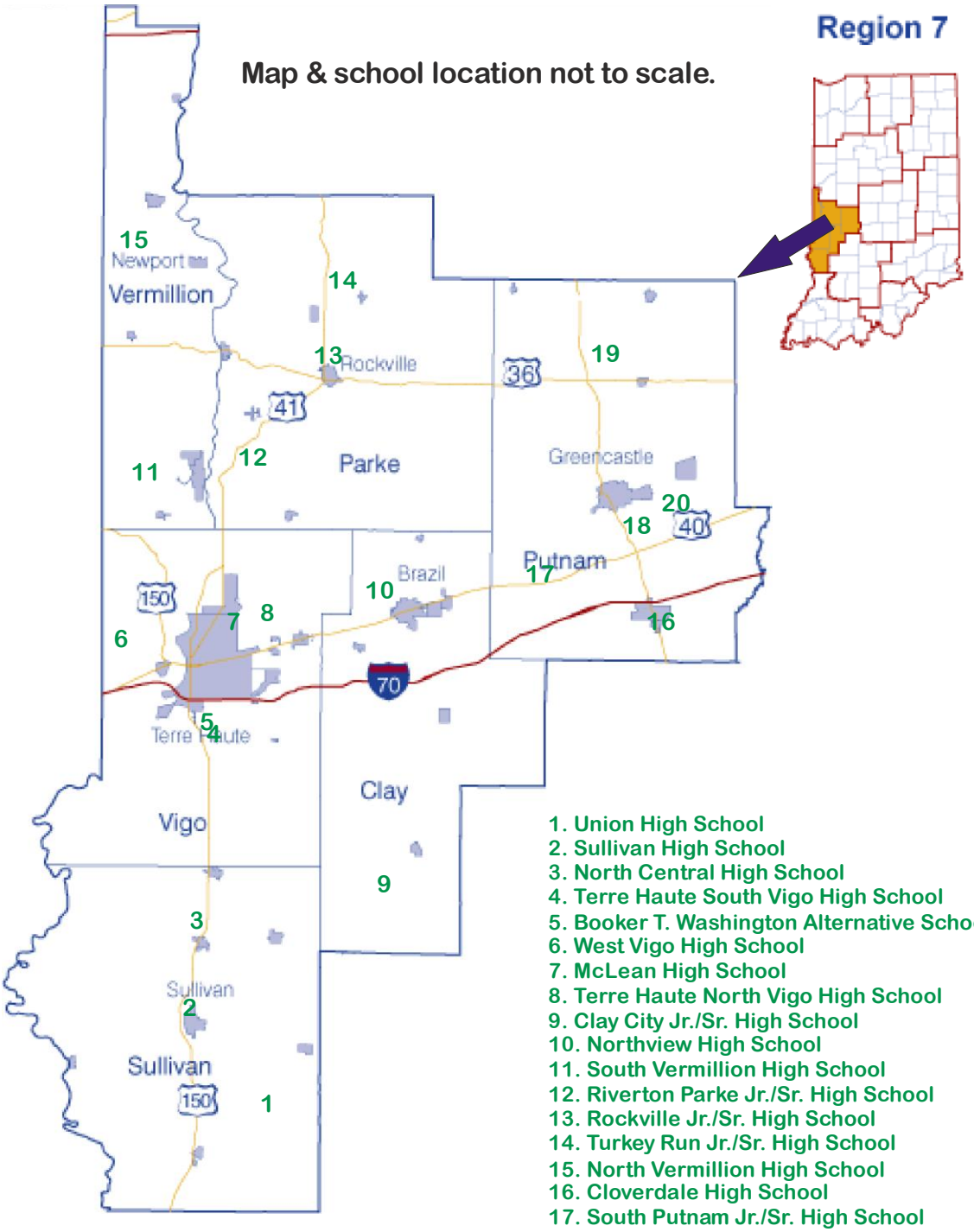

1. Union High School
2. Sullivan High School
3. North Central High School
4. Terre Haute South Vigo High School
5. Booker T. Washington Alternative School
6. West Vigo High School
7. McLean High School
8. Terre Haute North Vigo High School
9. Clay City Jr./Sr. High School
10. Northview High School
11. South Vermillion High School
12. Riverton Parke Jr./Sr. High School
13. Rockville Jr./Sr. High School
14. Turkey Run Jr./Sr. High School
15. North Vermillion High School
16. Cloverdale High School
17. South Putnam Jr./Sr. High School
18. Greencastle Senior High School
19. North Putnam Senior High School
20. Area 30 Career Center

Region 7 Works Council Members

Doug Dillion, Chair, CTED 35 Director
June Pickens, Crown Equipment
Heather Moffat, Vincennes University
Pat Moore, Continental Welding
Andy Hendricks, Distributors Terminal
Tom Slater, Timberland Lumber
Lisa Pepperworth, Secretary, Clabber Girl
Lea Anne Crooks, Ivy Tech Community College
Heather Baker, Indiana Department of Education
Danny Tanoos, Superintendent, VCSC
Mark Fuson, Fuson Automotive
Shelley Edmondson, Sony DADC

Region 7 Works Council Recommendations

Eight Critical Questions

1) ***How can the Career Council assist in ensuring that local career pathway providers are responsive to the dynamic needs of employers? What strategies would the Works Councils recommend to ensure that employers are engaged more seamlessly in the process?***

Recommendations for Question 1

- Provide funding to each region for an "Outreach Coordinator" to act as a liaison between industry and education per high school. Responsibilities would include:
    - Coordinate a minimum of three meetings per year between content teachers and industry representatives for any career pathways that have unmet demands.
        - The first meeting of year one will be a review of the high school facilities, equipment, and curriculum for the identified pathway.
        - The second meeting in year one will be a review of post-secondary facilities, equipment, and curriculum for the identified pathway.
        - The third meeting in year one will be the development of an action plan to improve the pipeline of workers.
        - The first meeting of year two will take place at a local related industry. This will include a review of progress on the action plan.
    - The liaison will continue to assist with the coordination of the future meetings and monitoring of the action plan until the demand is met.
    - The liaison will regularly meet with the CTE Directors in the region to ensure buy-in and implementation of the action plan.
    - Meeting attendance, minutes, and action plans will be kept on file with each CTE Director in the region for review and documentation to meet federal requirements.
    - Each region should have a minimum of one full-time person for this project. Larger regions may need additional support to help coordinate.
- The "Outreach Coordinator" will educate parents and community on current opportunities and new developments with the CTE pathways.
- The "Outreach Coordinator" will also act as a conduit, with post-secondary education, to develop new dual credit opportunities and support existing opportunities.

- The liaison will keep track of industry certifications that are valued in the region, and help facilitate providing certifications to high school students.

2) What assistance can the State offer to the Works Councils as members work to develop:

a. Quality work-based learning experiences

b. More awareness about CTE opportunities in schools

c. Appropriate supportive services for students

d. Employability skills

Recommendations for Question 2

a. Utilize the "Outreach Coordinator" referred to in Question One, as a person to help develop high quality placements for students in industry. This activity fits hand-in-hand with the activities described in the previous question's recommendations.

a. Provide appropriate funding to establish a "Work-Based Experience Coordinator" at each school for students. The duties of this person would include:
   - Assisting with high quality job placements for CTE Concentrators.
   - Monitoring of students in the workplace.
   - Employability skills training and reinforcement for students participating in Work Based Learning. This can be partially done with the WIN software currently utilized by Work One.
   - Provide a participation and placement log to the CTE Director and "Outreach Coordinator" on a monthly basis.

a. Provide additional protection to industry allowing 16 -18 year old students to participate in processes without fear of liability.

b. Create a Statewide CTE Education campaign. Include electronic media with a nationally recognized spokesperson. Provide printed media materials that carry a consistent message that targets parents and students, and is easily customizable to every CTE District. If everyone continues to utilize the same basic format of materials, with the same basic message, it will have a more significant impact.

b. Use caution when changing names of courses and pathways. It is sometimes better to stick with a basic "easily recognizable" name for a course. This would allow school districts to build on name recognition. Input should be solicited statewide prior to making any decisions on names to make sure it is a title that is marketable. Every time a name of a course or a pathway is changed, it is like starting over again. There are CTE courses that have had their name changed multiple times in a year and the title got worse each time it was changed.

b. Each school district needs to host a mandatory "Counselor Academy" and include all school personnel involved in the student scheduling process. This will help ensure that everyone on the school side will have the same basic knowledge about graduation requirements and career pathways.

b. Include industry in “Open Houses” and “High School Orientations.” This will allow parents to ask industry professionals about careers related to specific career pathways. It will also help give credibility to future opportunities related to each pathway.
c. The primary job of a person is their priority. With that in mind, the following recommendations would enhance supportive services:
    - A minimum of one full time “Outreach Coordinator” per school corporation or career center region.
    - A minimum of one full time “Work-Based Experience Coordinator” per high school or career center of 1,300 students or more, with at least eight career pathways.
    - A minimum of one half time “Work-Based Experience Coordinator” per high school or career center with less than 1,300 students with at least four career pathways.
    - Each CTE District should include (number of positions would be contingent upon student population, number of career pathways, and additional responsibilities):
        - CTE Director
        - Assistant CTE Director
        - Data Entry person (INTERS)
        - Administrative Clerical personnel
    - Provide financial support to lower the student to counselor ratio at the middle and high school levels to ensure time for college and career counseling.
c. Increase funding support for the Jobs for America’s Graduates (JAG) program, which focuses on “at risk students,” to a level that will allow this program to exist in every high school.
    - 2012-2013 State JAG graduation rate is 83.64%.
    - 2012-2013 Region 7graduation rate is 90.62%.
    - The JAG program targets “at risk students” and incorporates summer internship opportunities and intensive student guidance.
d. Develop summer programs and employment opportunities for students.
d. The WIN (Worldwide Interactive Network) Career Readiness Courseware, currently used by the Indiana Department of Workforce Development to prepare incumbent workers for the Work Keys exam (National Career Readiness Certification), is already being utilized by some industry and Work One in Indiana. For this reason, it makes sense to at least pilot this software with high school age students and see if it can help reinforce “Employability Skills.”
    - The students will also take the Work Keys exam so industry partners will know at what level a student resides. The levels are platinum, gold, silver, and bronze. The number of graduates and adults at each level can be used to help market a community and the state.
    - The following WIN modules are tested by Work Keys and relate directly to the National Career Readiness Certificate.
        - Applied Mathematics
        - Locating Information
        - Reading for Information
    - The following WIN modules are also available, and are used by industry to identify good potential employees for specific positions.

- Applied Technology
- Listening
- Observation
- Teamwork
- Writing
- Business Writing
- Work Habits
- Contextual Modules (specific content related to Career Clusters)

d. Civic organizations, like Junior Achievement and 4-H, can play an integral role by helping reinforce good "Employability Skills" to children starting at a young age. Participation by organizations like this should be encouraged in schools.

3) What recommendations do Works Councils have for the Career Council on CTE definitions, courses, funding, and how performance should be measured and tied to funding?

Recommendations for Question 3

- Provide low level funding for middle school programs that feed into career pathways. This would include; Engineering/Technology Education, Family and Consumer Sciences, Business, Marketing and Information Technology. At a funding level of $50 per student enrolled in the feeder class, it would help offset the expense of the middle school program and the cost of the teacher. Partial funding would help show the importance of this feeder system.
- Funding should be provided for Personal Financial Literacy and a College and Careers Preparation class at the middle and high school levels. College and Career plans should be created prior to starting high school whenever possible. By providing funding at the middle school level it will encourage schools to create these plans at an earlier age. This funding can be at a lower level and it will still provide an incentive for these classes to be a priority.
- Indiana Career Explorer is a state-funded software used by Work One and high schools for the College and Careers classes. This would be a way to monitor the College and Careers classes, as well as College and Careers plan development.
- If a course within a pathway does not have funding at some level, it most likely will not be offered in most places. It is critical that all identified foundational level and main pathway courses have an appropriate level of funding.
- Consider limiting the foundational level classes per pathway to one introductory course that is truly an introduction to the pathway. This will encourage sites to offer an entire pathway.
- In many pathways in the manufacturing cluster the funding does not offset the cost of the technology, equipment, facility, and teacher. This technology and equipment are the very things that will appeal to students. The cost to maintain a Machining or Welding pathway, similar to industry, is far greater than a Business Management or Education Professions

pathway. In addition, the consumable cost is far greater for a Machining or Welding Pathway. One alternative funding model could consider the cost of pathway maintenance and consumables.

- Another alternative could be to partially base the funding on the regional demand data. If a pathway or cluster is on the Workforce Investment Board's (WIB) demand list, then additional reimbursement should be provided for the pathway or cluster. This will encourage targeted industry need.
- Measuring performance is difficult with the multiple school structures and pathways. Though Core Indicators are a standard measurement, in many cases, the indicator has no relevance to the career pathway. In some cases, it is measured and valued before the student is in the pathway. It also takes a long time to finalize the data and publish it, which is beyond school districts control. The next school year is half-way completed and scheduling has begun for the following year, before you are aware that there is a problem. This means that any significant changes to make improvements may not show for two more years. In the case of 1s1 and 1s2, the improvements will not be seen for 3 - 4 years respectively. Though this is a Federal Perkins requirement, it does not provide an accurate picture for several years in some cases. The State and school districts have little control over the way this data is measured and reported. For this reason, core indicators should not be used as a mechanism to determine funding.
- Performance could be based on individual pathways at their location by considering the following factors.
    - The total enrollment in the pathway.
        - This provides a baseline of funding for the program.
    - The number of students that earned six or more high school credits in the pathway by the end of the previous year.
        - This does not work for a new pathway.
        - It could take additional years for schools to get credit for students if the school is on an alternative schedule model.
        - Include incentive funds for keeping students in the pathway.
    - The number of students that earned college credit or industry certification the previous year, in some cases, would also be a good performance indicator.
        - This would be incentive for making sure a pathway is well articulated.
    - Provide a bonus for high quality work-based learning placements of students that have completed six or more high school credits in a pathway.
    - Track pathway offerings compared to the regional WIB's high demand list to ensure pathway offerings match regional demand.

4) ***What recommendations do Works Councils have related to industry requirements for STEM knowledge and how well those requirements do (or do not) align to high school diploma requirements?***

Recommendations for Question 4

- Diploma requirements should only be adjusted if post-secondary institutions agree with the adjustments. In many cases, students do not know what type of post-secondary education they will be pursuing to bridge the gap to industry. Requirement modifications that close off some post-secondary avenues would not be viewed as two "Plan A's."
    - Incorporating a STEM diploma could be the solution that will be advised by both secondary institutions and post-secondary institutions to help bridge the gap from institutions to industries. This change would require "buy in" from all post-secondary institutions, including certificate focused, 2 year, and 4 year institutions.
- Some council members questioned perceived requirements and if they were critical to the skills needed to be successful in the workforce. After much discussion, it is also recognized that changing requirements without "buy-in" at the post-secondary level could position Indiana students at a disadvantage. There is a consensus that the structure cannot change at one level without it changing at all levels.
    - Educate parents on Indiana Career Explorer. This would help the parents understand requirements for various careers and compare the cost to help reach college and career goals.

5) ***What recommendations do Works Councils have on more fully integrating career counseling and employability skills into the middle school and high school curriculum?***

Recommendations for Question 5

- Indiana Career Explorer is a resource provided by the State that pays for a statewide license to enable students to research careers, and the education needed to achieve their career goals. It provides interest inventories and a place for students to start building a college and career plan.
    - All Indiana students should have access to Indiana Career Explorer or an equivalent resource starting at the middle school level.
    - The State should continue to pay the annual license fee for this resource, relieving the burden from individual districts and eliminating funding as a reason not to create "College and Career Plans."
    - There needs to be a marketing campaign encouraging more engagement from parents in the career counseling process. This campaign can include how a parent can access Indiana Career Explorer and review their child's information. Parental

usage of this resource will increase parents understanding of current opportunities in Indiana.

- Assist with the revitalization of community support organizations, like Junior Achievement and 4-H. These help reinforce employability skills, financial responsibility, and career exploration.
- Make the WIN software and the Work Keys exam available to all Indiana high schools. The WIN software can be used to help educate employability skills. The National Career Readiness Certificate can show how prepared a student is for workforce entry.
- Employability skills need to be integrated into everyday life of students starting at the elementary level. Below are some simple examples that can be done to reinforce those skills.
    - The teacher standing at the door and requiring the student to speak to them prior to entering and leaving the room at the elementary level.
    - The teacher standing at the door can work with students on conducting professional conversations upon entering and exiting the door at the middle school level.
    - In high school, students can actually shake the teachers hand upon entry while practicing good introductory skills.
- Cell phone and social media usage should be considered for integration at schools. There needs to be related standards to educate students about appropriate usage in relation to employability skills. These standards would help teach students appropriate times and ways these powerful resources can be used in their adult life.
    - If students are taught other purposes for these devices, like using them to locate information or for peer tutoring, it could also help reduce less productive uses of electronic media.

6) What credentials, certifications, or certificates, if any, are needed or demanded by your region's high value jobs and employers?

Recommendations for Question 6

- Industry credentials are not a high priority in most career pathways. In many cases, the individual companies prefer to do their own proficiency testing. Research and surveys showed that industry certifications had a high value when they were a requirement of the industry. In most cases, these certifications are not appropriate for high school students and are earned at the post-secondary level.
- Health Careers is a cluster where certifications are highly valued and required to secure employment. At the high school level, Certified Nursing Assistant (CNA) and CPR/AED both have high value in the profession, but are not necessarily viewed as high value by the State. These certifications have high industry relevance and are examples of certifications that should be given high value and support by the State.
- In Hospitality and Culinary Arts, the ServSafe Certification is a necessity for any establishment serving food, but this certification is not valued by the State because it is not considered high

skill. This certification has high industry relevance and is an example of a certification that should be given high value and support by the State.

- There are additional certifications that are considered not as high value, but can be used to show a baseline of proficiency. An example of this is the IC3 (Internet & Computing Core) certification which is not recognized as high value by the State, but is a good general certification that could apply to all Business, Marketing, and Information Technology Career Pathways as a way to show a base level of proficiency with a computer and is industry-recognized.
- Some of the industry certifications on The Approved to Pay for list for Indiana are not industry generated certifications. In some cases, these certifications were created by companies that their primary business is education. In other cases, the certification was created by educators directly and then branded by a professional organization. Certification testing and standardized testing have become a big money making business with little industry input. In some cases, only industry certifications and assessments that have high industry value in a region should be mandated. If the majority of industry in the region does not have knowledge of the assessment, does not value the certification, or does not think it should be the focus of a high school program, it should not be promoted by the State.
- Dual College Credit has suddenly been deemphasized in career pathways. Dual College Credit is critical in pathways, where post-secondary training is necessary for the career. This credit helps bridge the gap from the secondary to the post-secondary level and forces secondary and post-secondary pathways to "sit at the table" and make sure their curriculum seamlessly aligns from one level to the next. In the case of college credits that align with career pathways, it encourages students to continue training in that field. Devaluing Dual College Credit could significantly reduce articulation between secondary and post-secondary institutions.
- All pathways in the Manufacturing Cluster are priorities in this region. There has been much discussion about industry certifications in the various pathways in this cluster. It is clear that there is not one high-valued certification in each pathway, but instead a variety of certifications that depending on the specific company, carries different weight. Most of these certifications are offered as part of a post-secondary program, corporate college program, or specific industry designed training. It is our consensus that the priority needs to be placed on increasing enrollment in all manufacturing related pathways, starting additional pathways in this cluster, focusing on mastering foundational level skills, integrating industry-recognized technology, and providing opportunities for students to explore and make mistakes in the classroom. If excitement is created at the high school level, students can earn specific certifications at the post-secondary level or upon entry into the workforce. Teaching skills not toward a specific certification should be the priority at high school.

7) ***If the Works Council could redesign its overall CTE system structure for optimal results, what might it look like?***

Recommendations for Question 7

- One system is not going to provide optimal results statewide. The design and structure that is needed for a remote site career center to thrive is very different than what is needed for a comprehensive high school with a large CTE program. Smaller schools that are geographically isolated have a different set of challenges. Below are some structural things that can be harmful to CTE and should be eliminated or not considered for implementation.
    - Per year credit requirements should never be implemented on CTE classes. This type of unnecessary requirement makes it very difficult for a school district on an alternative scheduling model like Block 8 or trimesters to meet an annual credit requirement. Frequently, pathways in schools with alternative schedules, stretch the pathway over additional years.
    - With alternative schedules allowed, all post-secondary institutions that receive State funding should be required to accept credits earned below the junior year if all other requirements are met. Currently, some institutions accept them and others do not.
    - Common sense with teacher licensing must be used. In many cases, pathways are lost at sites because a qualified teacher cannot be found. There should always be the flexibility and mechanism to develop an individual into someone that meets the qualifications to teach the pathway and provide dual college credit. This can be a multi-year process.
    - Smaller schools that are geographically isolated need additional flexibility in relation to teacher licensing. For example, a school may only have enough students to populate a half-day machining program, but it would be extremely difficult to hire a half-day teacher in this high demand area. The school should be allowed to provide a Technology Education teacher additional industry training and allow them to teach that pathway if they can show the teacher is competent, instead of having to close the program.
    - Allow for more dual credit classes to be offered to high school students. Schools need to discuss with local colleges about dual credit options for more classes. By acquiring more CTE dual credit classes, schools would have an easier time in recruiting students to go towards the CTE pathways. Post-secondary institutions and high schools need to have flexibility to resolve licensing issues between secondary and post-secondary at a local level.
- Allow school districts to select the titling for courses within a pathway. This will allow districts to better market in individual communities and reduce the negative impact of frequent course title changes at the State level.

    - All districts could be required to put the IDOE number on transcripts, so that when a student transfers in, the new district knows what the official State title is by the IDOE number and can crosswalk it to their title.
    - Districts wanting to use alternative titles can be required to convert the title to the official State title on reports to the State. This will reduce the negative impact of multiple title changes at the State level on individual programs.
- Change the way standards are viewed. Currently standards are viewed as minimum requirements for a program. This hinders innovation and progressive industry alignment. It also sends a message that minimum is the vision. In CTE, standards could be viewed as visions for the future and schools could be working to get ahead of industry, instead of working to meet what industry needed in the past. Content should be pushed to the maximum of a schools capability and should not have standards that hold some schools back, because schools do not have the technology. Why is it not okay if a school cannot meet every standard when they relate to rapidly changing technology?
    - The Machining Career pathway is a perfect example. If you review the current standards, there are very few standards that address CNC machine programming, set-up, and operations. This was minimized because many schools are just now getting their first CNC machine. This is acceptable because these machines are very expensive and it is a slow process to secure several. Many standards for traditional processes of 50 years ago were left on the books, meaning that schools that could secure the new CNC machine technology have to leave them sit while they address standards on machines that most industries do not have anymore. CNC machines should be the majority of the standards, because that is what is in industry. Understanding traditional manual machines and the foundation that the modern machines operate are important, but it should not be the main focus. Spending significant time on skills and machines that no longer actively used in industry when the new technology is available only increases the skills gap. In cases like this, standards need to align with industry and meet all of their standards. These standards should be a goal for schools to work towards, but not a requirement. This allows for schools to evolve as funds become available.
- It will be difficult to meet some workforce demands in key areas of Manufacturing and Construction without creating additional programs in comprehensive high schools and/or career centers. It is critical that secondary offerings are aligned with workforce demands. The greater the needs in a specific sector of the workforce, the more programs will be needed in the high schools and/or career centers to meet those needs.

8) Please include any other recommendations the Works Council would like to make.

Recommendations for Question 8

- The following outside forces impact student's ability to complete a career pathway. In most cases, these circumstances are beyond an individual district's control.
    - Remediation- For a student to qualify for a waiver, they must take advantage of all remediation opportunities. Adding new required test as a remediation tool will help eliminate the student's ability to complete a pathway, because a high school diploma has to be the first priority.
- Standardized Testing- Testing is necessary to help track students progress, but in some cases additional tests are added without removing another test. The new Accuplacer Diagnostic Exam, with emphasis put on the PSAT and teacher evaluation tests, are both examples of tests that take away from student's time on task with nothing being eliminated. The mandated ECA's in Mathematics and English already provide adequate feedback on students' performance. Each time a standardized testing requirement is added or a new evaluation tool is implemented without eliminating something else, it takes time away from student learning.
    - Perceived post-secondary requirements limit the ability for a student to complete a pathway. What are the true basic requirements to graduate from high school and the tools to be successful? What are the base entrance requirements for college? These two sets of requirements should not be intermingled, but instead be advertised for what they are.

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Region 8 Work Council Recommendations to ICC—Worksheet
David St. John, Chair
Tom Kinzer, Secretary
February 23, 2014

Considering both the issues that arose out of the Works Councils' reports and the strategic objectives of the Career Council, please consider and respond to the following questions with substantive recommendations.

1. **How can the Career Council assist in ensuring that local career pathway providers are responsive to the dynamic needs of employers? What strategies would the Works Councils recommend to ensure that employers are engaged more seamlessly in the process?**

    a. Collect skilled job titles that would help developers of CTE pathways know the high priority jobs across the state and in each economic region, and develop a centralized, statewide website that could be used for easy reference. This listing needs to be more specific or precise than the kind of listing available through Workforce Development.

    b. Utilize the Works Council structure for facilitating and fostering ongoing conversations among the secondary, postsecondary and industry partners about each other's current needs. It is essential that all stakeholders are aware of current regulations and standards in all sectors involved in CTE pathways, especially those that can erect barriers to making the pathways seamless.

    c. Provide support for regular outreach initiatives of the Works Councils to assess current workforce needs and availability. These initiatives may be in the form of surveys or other reporting methods to help us monitor changing trends. This is a way to ensure that specific CTE pathways are still relevant. This information then could be shared with pathway providers, including high schools, career centers and colleges.

    d. Identify the most important five to eight CTE pathways at the state level to serve as statewide models. This would help the state identify up-to-date skill sets, or competencies, that would help career pathway providers develop curriculum at the local level, without needing to reinvent the wheel. These CTE models would address up-to-date industry skill standards and competencies that then could be easily applied and adapted in individual schools and colleges as local industry partners identify their particular needs.

    e. Create a regional website that fosters networking among employers, educators, students and parents in relevant CTE career pathways. This would create easier lines of communication and information streams to help students make wiser career choices.

    f. Create a Work-based Learning Director for Region 8. This person who would be a central point of contact for both education and industry partners to collect, organize and disseminate information about regional employment needs, changing industry certification standards, work-based educational opportunities (i.e. co-ops, internships, job shadowing, mentorships, etc.) and opportunities for new partnerships among educators and industry employees (i.e. summer teacher internships, professional development opportunities for teachers, and teaching opportunities for industry employees).

g. Create more career information specialist (career counselor) positions for CTE pathway providers. While employed by the CTE providers, these people would have a close working relationship with the Work-based Learning Director.

2. What assistance can the State offer to the Works Councils as members work to develop:

a. Quality work-based learning experiences

i. Compile a statewide database of current best practices already in place: internships, ICE, etc.

ii. Provide sufficient funding streams to help pay for developing and sustaining CTE pathways. It is essential to demonstrate to industry the state's commitment to these initiatives.

iii. Provide funding and resources for professional development for high school educators to help them be more aware of industry regulations, protocols and constraints. It is essential that secondary educators understand the parameters for working with industry. They need to be sensitive to industry needs and limitations while developing work-based educational opportunities for students.

b. More awareness about CTE opportunities in schools

See Question 1, responses e-g.

c. Appropriate supportive services for students

i. Provide sufficient funding streams for professional development for counselors and career information specialists.

ii. Provide more career information specialists (career counselors) to work with students at upper elementary, middle and secondary schools to explore and identify career opportunities. Students need to be engaged in strategic career exploration activities all the way through schools. The career information specialists are essential if resources the state already has in place, such as Learn More Indiana, are fully utilized. These specialists can also support teachers' efforts to integrate career exploration components into their regular curriculum.

d. Employability skills

i. Define essential soft skills and ensure that high schools and colleges are teaching them. The state needs to reevaluate the importance of elective programs that foster the development of workplace skills (i.e. self-management, sociability and problem-solving skills).

ii. Promote partnerships with community youth organizations (i.e. 4-H, Boy Scouts, Girls Scouts, Boys and Girls Clubs, etc.) where students learn the soft skills inherent in their activities. One way to do this is for the state to encourage partnerships with the College Success Coalitions in each region.

iii. Develop systems that foster state-level communication with industry to participate in employability training. The message needs to come from the highest levels that industry needs to collaborate more actively with educators and local organizations that work with youth. They need to hear that it is to their benefit to develop these relationships locally.

3. **What recommendations do Works Councils have for the Career Council on CTE definitions, courses, funding, and how performance should be measured and tied to funding?**

    a. Define more precisely the procedures for developing hybrid CTE pathway options. Hybrid pathways are those that include courses that are both career-technical courses and college-bound academic courses. For example, CTE providers should be able to blend Biomed PLTW with traditional math and science courses to give students the choice to pursue either a two-year associates of applied science degree or four-year bachelor's degree. What's important is that providers need to be able to include any STEM option in their innovative CTE pathways.

    b. By extension, create sufficient funding mechanisms to compensate providers for students taking these hybrid pathways.

    c. Prioritize CTE pathway options, such as biosciences, advanced manufacturing and health services, to optimize funding streams for developing and implement innovative curriculum.

4. **What recommendations do Works Councils have related to industry requirements for STEM knowledge and how well those requirements do (or do not) align to high school diploma requirements?**

    a. Organize statewide competencies around high-demand industry needs, including workplace hard and soft skills and priority STEM requirements. These need to be aligned to industry certifications more precisely and then clearly communicated to all stakeholders. Secondary diploma requirements, especially CTE and Technical Honors diploma requirements, need to be redesigned to align with these statewide competencies.

    b. Define alignment of core STEM courses, especially math and science, between secondary and postsecondary. For example, there are some discrepancies emerging as Ivy Tech Community College redesigns and realigns its math requirements for each program division. Not only are there some possible misalignments with secondary Core 40 requirements, but there may also be some misalignments with other postsecondary schools, should students choose to transfer and pursue higher degrees.

5. **What recommendations do Works Councils have on more fully integrating career counseling and employability skills into the middle school and high school curriculum?**

    a. Develop a speakers bureau of local industry professionals, collaborating with local agencies, organizations and schools that already provide these kinds of resources (i.e. the Monroe County Chamber of Commerce Franklin Initiative and the Monroe County High School Plus (College Success) Coalition) and augmenting them where needed. This might also involve expanding the use of such programs as the Reality Store currently offered in the Monroe County middle schools throughout Region 8.

    b. Be advocates for using resources already available to schools, such as Indiana Career Explorer, Learn More Indiana and Career Cruiser. Use those resources more widely and effectively in middle school and high school especially. Make sure school counselors and teachers have full access to those resources and the training to use them effectively.

    c. Make counselors, teachers and administrators more aware of the high-priority career pathways identified by the state to help students become more aware of them. (See responses to question 1 above.)

d. Place more emphasis on hands-on technical courses, even for students who may be bound for four-year colleges. These kinds of courses can help students gain both technical and soft workplace skills that make them work-ready, even as they start college.

e. Develop skills alignments between current CTE courses and other industries where the same skills could be used. Students and educators need to be fully aware of how skill sets in one industry sector can transfer to others. For example, what skills in auto mechanics also qualify someone for the biotech industry? We need to develop collaborations among industry and educators to identify and communicate to students and their parents the transferability of these skills.

f. Provide professional development for middle and high school counselors, career information specialists and teachers to help them understand current and future middle-skill job opportunities in their communities and across the state. There needs to be a collaborative, coordinated effort among educators at the middle schools, high schools and CTE providers to ensure students understand how CTE pathways in general and their courses in particular (both core academic and technical courses) lead to specific career options.

6. What credentials, certifications or certificates, if any, are needed or demanded by your region's high value jobs and employers?

The Works Council needs more specific information from Career Council about what they have in mind.

a. We need to know what the priority pathways are, and then we can know what credentials will be required. This process is continuing as we invite more industry partners to participate in Works Council activities, but we all need more specific guidance from the Career Council to understand statewide priorities.

b. We need a list of standard industry-specific degree and certification credentials, especially for the priority industries identified by the Career Council. What are some of the priority industries and career pathways beyond what we have identified locally: biosciences, advanced manufacturing and health services.

c. Reassess and clearly define essential workplace competencies (e.g. soft skills). Which skills are the essential threshold skills for entry-level employment? What would industry like to see for entry-level employment, besides the industry-specific credentials already required? We need assessment instruments to evaluate student preparedness and program success. Would we use some kind of soft skills assessment, in addition to the Work Keys?

7. If the Works Council could redesign its overall CTE system structure for optimal results, what might it look like?

8. Please include any other recommendations the Works Council would like to make. All

a. Explain how recommended innovative pathways will be approved at both local and state levels. In other words clearly define the procedures for recommending innovative CTE pathways and curriculum, and identify the local and state entities responsible for approving and funding them.

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1. How can the Career Council assist in ensuring that local career pathway providers are responsive to the dynamic needs of the employers? What strategies would the Works Council recommend to ensure that employers are engaged more seamlessly in the process.?
    a. Support an alignment strategy using a model for employer/educator engagement, needs to include target growth industries in the region that align with the career pathways
    b. Support incentivizing employer participation in co-ops and internships
    c. The model developed must include economic development at the state level and regional level as stakeholders
    d. Funding for implementation and sustainability of our model such as ECO15 coordinators, Co-op/CTE Coordinators, Infrastructure, and incentives for stakeholders

2. What assistance can the State offer to the Works Councils as members work to develop?
    a. Quality work-based learning experiences
        i. Initiate a sub-group to create standards (templates) for each CTE pathway (clusters) tied to high growth industry to ensure consistency and quality of experiences throughout the State
    b. More awareness about CTE opportunities in schools
        i. Develop state-wide marketing campaign
            1. Target K-12 and adult learners to promote CTE/STEM as a great choice and a delivery model that lead to success
            2. Develop demonstration sites at successful CTE schools to help new or struggling centers
            3. Highlight successful business partnerships that have lead to student success
            4. Provide a mechanism to retain internships and work-based learning during tough economic times
            5. Start promoting CTE in elementary schools
    c. Appropriate supportive services for students
        i. Address regulation and safety concerns to support and not unduly limit work-based learning
        ii. Create a career placement metric for high schools with student recognition, scholarships, etc.
        iii. Fund infrastructure for CTE counseling - personnel
        iv. Support student support programs like iGrad, JAG, etc.
    d. Employability skills
        i. Standardize definitions of employability skills: what does it mean and how should they be group (by cluster?)

3. What recommendations do Works Councils have for the Career Council on CTE definitions, courses, funding, and how performance should be measured and tied to funding?

    a. CTE definitions, in conjunction with federal requirements tied to funding, certifications should be competency-based, align courses to competencies - define competencies by career pathways
    b. Develop funding source for students who can't afford competency based certification – fund certifications in all pathways
    c. Reward schools for regional employment or post-secondary enrollment outcomes within career pathways
    d. Clarify certification competency

4. What recommendations do Works Councils have related to industry requirements for STEM knowledge and how well do those requirements do (or do not) align to high school diploma requirements?
    a. Continue to develop STEM related modules with contextualized learning and assessments
    b. Project-based learning across STEM curriculum

5. What recommendations do Works Councils have on more fully integrated career counseling and employability skills into the middle school and high school curriculum?
    a. Continue currently successful programs in the region
    b. Career counseling needs to include parents at the middle school and high school and would include topics like employer expectations and employability skills
    c. Align middle school curriculum with CTE opportunities

6. What credentials, certifications, or certificates, if any, are needed or demanded by your region's high value jobs and employers?
    a. See attached for relevant cluster certifications
    b. This list can be used as feedback to the employers to see what they care about
    c. Develop a program to educate industry, specifically HR reps about certification competencies

7. If the Works Council could redesign its overall CTE system structure for optimal results, what might it look like?
    a. Businesses need to engage the schools from general support to specific support like internships, mentoring, etc.
    b. Student driven ventures partnered with businesses and organizations
    c. Reassess the school day to accommodate CTE programs and traditional programs
    d. Draw upon strengths in the current CTE system
    e. More contextualized learning and assessments

8. Please include any other recommendations the Works Council would like to make.
    a. Align State programs and business expectations to facilitate ease of internshipand part time employment
    b. Need to address the cost of post secondary education
    c. Develop a matrix of jobs with earnings compared to career paths with the cost of the career path - include paths showing multiple options and distribute, and update through industry engagement

d. Schools should provide alternative delivery methods for CTE courses to ensure they can be accessed by traditional program students like Academic Honors, etc.

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1. **Create Statewide CTE Promotion and Promotional Resources**-Provide a centralized effort to promote the value of CTE education and careers using various media sources, and provide various resources that can be used by CTE staff and counselors in local school corporations to deliver the message.

2. **Create Regional CTE Coordinators**-Provide funding for each region to create a position for a CTE Outreach Coordinator who will work with all the school corporations in the region to educate counselors and other staff on CTE, support efforts in schools to promote CTE to students, and connect CTE programs to industry and community stakeholders.

3. **Create a Funding Mechanism for Facilities and Equipment**-Most school corporations are limited in their ability to offer up to date and high quality CTE programs because most of these programs require significant equipment and space. Many other states have created mechanisms for funding or partially funding this aspect.

4. **Eliminate CTE/Academic High School Diploma Distinction-**Many parents see a CTE or Technical Honors Diploma as having less value than an Academic Honors Diploma. We recommend that the State consider adopting a single "Honors Diploma," with more than one set of criteria, so students aren't deterred from following a CTE program path.

5. **Require one or two CTE courses for high school diploma-**Require that every high school student take an in-person college and career readiness course in grade 8 or 9 and take one CTE course that is part of a pathway. The college and career readiness course has proved to be a valuable experience to students in our region. However, not all schools require it of their students and some are considering making it an online course, which could reduce its effectiveness. In addition, we believe that students will get value from taking at least one CTE course that is part of a pathway, and it is likely more students will continue on that pathway by taking that first course.

6. **Consolidate CTE Courses-**Encourage or require schools to focus their menu of CTE courses around pathways so students are not taking dead-ended courses and limited dollars can be concentrated to do a better job. CTE reimbursement funding could possibly be used as a method to encourage schools to take this approach.

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1. **How can the Career Council assist in ensuring that local career pathway providers are responsive to the dynamic needs of employers? What strategies would the Works Councils recommend to ensure that employers are engaged more seamlessly in the process?**
    - There are various programs that engage the employers and local career pathway providers for an associate's degree such as:
        - The CAP Career Advancement Partnership program between Dubois County employers and VUJC
        - The ATM Advanced Mfg. Technician program with Toyota and VU
    - Supporting initiatives such as Brainpower to have a more regional focus.
    - Do Advisory Boards still exist? If so, are they at every regional school? VU had one at one time, is it still in existence?
    - On National Manufacturing Day, have a regional event to involve media, schools, employers, considering having tours of businesses to see technology. (This would pertain to question #5 also).
    - Where does Conexus Indiana fit into this from a state level? What is the link to what we are working to achieve?

2. **What assistance can the State offer to the Works Councils as members work to develop:**
    a. **Quality work-based learning experiences**
        i. Capacity to assist in coordinating and monitoring work based experiences. Marketing such experiences. Perhaps requiring an experience as a part of the new CTE diploma.
    b. **More awareness about CTE opportunities in schools**
        i. Assist in creating the urgency around marketing and promoting CTE opportunities. Employers can market opportunities to parents. The State Board can mandate parents and students be made aware of such opportunities through career awareness and exploration counseling and also mandate such counseling take place. Furthermore, the State Board can follow up to insure compliance. Such compliance could be reflected in the school's report card.
    c. **Appropriate supportive services for students**
        i. Student support would be determined through the critical conversation mandated around careers. If a student is interested in a certain pathway, what opportunities exist to ensure that pathway is available to him/her? A plan needs to be developed which involves the parents. Periodic communication needs to take place to identify challenges and to work through them. Coordination with teachers, parents, development of work place learning experiences, communication with employers, and if needed, social and emotional support.

d. Employability skills

i. Employability skills or foundational skills should be a part of every CTE curriculum and could/should start as early as middle level. There are resources available. Communication with employers to assist in developing such curriculum would be extremely beneficial.

3. **What recommendations do Works Councils have for the Career Council on CTE definitions, courses, funding, and how performance should be measured and tied to funding?**
   - The CTE definitions are clear. We recommend utilizing more and better ways to promote and articulate the Pathways for K-12 education. This fairly new initiative needs some time to work.
   - As we think about marketing/putting the Pathways in the spotlight, it would be helpful to examine other models in other states—like Tennessee. Within Indiana, look at what works/what needs attention. Examine the ways that STEM has marketed educational values.
   - Career Centers, such as the one in Vanderburgh Co., will attract the spotlight as actual facilities. Rural communities, however, cannot support a Career Center. CTE options to excite the imagination for students in remote/small systems need more attention and support, for example, mini-Centers. With any off-site option, affordable transportation for all students needs attention, too.
   - Pathway fairs/career showcase opportunities are an option for promoting CTE.
   - The general education piece of CTE needs attention as well.
   - As students need help academically, tutor and teacher may be tied together; embed in curriculum.
   - We are concerned about the ways CTE students are counted. If Pathways to Jobs is truly a value, then corporations should be supported for connecting students to CTE courses/opportunities. Too many dis-incentives for CTE currently exist, punishing corporations, students, and prospective employers.
   - We would like to propose a model whereby corporations that participate actively in CTE and demonstrate completion would be rewarded; bonuses and/or a new formula for APC (additional pupil count). We respect the need to link funding with assessment; we recommend that the areas for evaluation and assessment be re-considered.
   - We need to be mindful of the criteria or parameters to target kids for CTE.

4. **What recommendations do Works Councils have related to industry requirements for STEM knowledge and how well those requirements do (or do not) align to high school diploma requirements?**
   - STEM needs to be linked to career pathways.
   - Quantitative reasoning, technical math and college algebra: it is not appropriate to require “college prep” math and language arts courses for everyone. Pathways and Core 40 should give us more flexibility. Rigorous math and communication courses may be offered as alternatives to college prep options without “dumbing down” the curriculum. Examine models within and outside of Indiana. Courses should be mapped to Pathways. Note: No one involved in CTE believes in "less rigor"-- just more relevance.

- When we define STEM we need to be more sensitive to Career Pathways. STEM definition should be broader, re: problem-solving and learning.
- Today, we see educators helping kids where the tests make a difference. Looking forward, if the pathways are important, then we will test those areas and help kids succeed on those tests.
- Testing, continued: assess students in ways that require them to apply what is learned. One assessment goal: increase percentage of students who stay in a pathway.
- Look closely at "concentrators" and "completers": measure student performance for tech writing, tech math.

5. **What recommendations do Works Councils have on more fully integrating career counseling and employability skills into the middle school and high school curriculum?**
    - Career & Technical Education Diploma
    - Brainpower
    - Bring back funding for programs to the middle school level.
    - Marketing to attract Middle School students at an earlier age.
    - Promote more things at the middle school level. SBAIC goes to the Elementary & middle school levels to get the kids excited about science.
    - Have students take field trips to businesses to see today's technology in the workplace.
    - Have middle and high school educators job shadow for a day.
    - Have educators get involved in lean events held at employers' locations to get involved.
    - Resurrect the Dream It, Do It Program for our Region.
    - Look at what Tell City, Perry Central, & North High School are doing, along with New Tech and follow suit.

6. **What credentials, certifications, or certificates, if any, are needed or demanded by your region's high value jobs and employers?**
    - Conexus Indiana, where do they fit into this with the HIRE program, 4 semesters of curriculum, dual credit, etc.?
    - National Institute of Metalworking, NIM, can be at the secondary & post-secondary levels
    - ASE, Automotive Service Excellence
    - Journeyman certificate is available on the federal level, is there one on a state level?
    - AWS, Welding.
      Each discipline there are National Organizations we need to consider.

7. **If the Works Council could redesign its overall CTE system structure for optimal results, what might it look like?**
    - Access is an issue, re-all pathways.
    - Awareness is crucial, educating students, families, and communities about CTE in terms of genuine opportunity (not "fall-back" for an elusive 4-year degree that may or may not yield a job).
    - Attention to students in the middle continues to be concern.

- Students should be encouraged to select explore pathways AND select a starting place: choose even if they may change their minds.
- Good intentions are reflected in the work of lawmakers and DOE; however, if support is not forthcoming, schools cannot change a cultural mind-set on their own.

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