Illinois’ Career Cluster Model

Illinois Community College Board
Illinois State Board of Education
This publication was prepared pursuant to a grant from the Illinois State Board of Education and Illinois Community College Board and is funded 100% through the federal Carl D. Perkins Career and Technical Education Improvement Act of 2006. The total amount of federal funding involved is $3,000.00, which represents 100% percent of the cost of producing the publication. Printed by the Authority of the State of Illinois June 2009 (10,000 copies; ICCB Grant Agreement Number CTEL09002).

Acknowledgements

Published June 2009 by the Office of Community College Research and Leadership, Department of Educational Organization and Leadership, College of Education, University of Illinois at Urbana-Champaign. In addition to the Office of Community College Research and Leadership staff, special thanks go to Brian Durham and the professional staff of the Illinois Community College Board who are committed to making significant changes to enhance career and technical education. Similarly we thank Mark Williams and the professional staff of the Illinois State Board of Education whose work is dedicated to improving career and technical education.

The suggested citation for this report is:
Dear Colleague:

The Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Perkins IV) promises to foster significant changes in Illinois’ educational landscape. Central to these changes is the goal of enhancing career opportunities for Illinois students. Through a long standing and committed partnership, the Illinois State Board of Education and the Illinois Community College Board are dedicated to implementing programs of study in ways that benefit all Illinois students. Illinois educators have the opportunity to help students develop the knowledge and skills that will allow them to be successful in their careers and throughout their lives.

As a part of this effort, our two education agencies have adopted the States Career Cluster Framework, an important step for our state. This framework is consistent with other state level efforts that enhance workforce and career development. This document lays the groundwork for common language and themes, presents the Illinois Career Cluster Model, and creates a shared understanding of programs of study by offering definitions and examples. It also contains a link to a PowerPoint that can be copied and used locally.

Our agencies strive to make sound decisions and implement effective policy. The responsibility of local educational leaders is to shape decisions utilizing local expertise that support the success of all students. Collaboration between secondary and postsecondary educational leaders is more important now than ever.

Sincerely,

J. Mark Williams
Division Administrator
Career Development and Preparation
Illinois State Board of Education

Brian Durham
Senior Director
Academic Affairs and CTE
Illinois Community College Board

The Illinois’ Career Cluster Model booklet provides information to multiple stakeholders on the implementation of career clusters in Illinois. This booklet is an extension of the previous edition titled An Introduction to Illinois CTE Programs of Study (2008), and provides a resource for partners to understand Illinois’ Career Cluster Model as its own adaptation of the States Career Cluster Framework. It is intended for individuals familiar with career clusters and programs of study and those beginning to learn about them. We encourage readers to share this resource with all partners for implementation of the framework. The booklet is divided into seven sections:

- Key Concepts – terms, definitions and benefits of the career cluster approach, to help partners become familiar with the States Career Cluster Framework.
- Career Cluster Framework - graphic representation of the essential knowledge and skills, the 5 career and technical education areas at the secondary level, the 16 career clusters, and the 79 career pathways.
- Implementation – information useful to preparing partners to implement programs of study, including the six guiding principles and partner roles in the process.
- Acronyms – list for reference and ease of communication between multiple partners on programs, initiatives, and organizations.
- Resources - links to tools, research, and national organizations related to Perkins IV, career development, career clusters, and other information specific to Illinois.

The Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Perkins IV) is intended to provide students with the academic and technical skills necessary to succeed in the 21st Century knowledge- and skills-based economy. Perkins IV facilitates seamless transitions for students from secondary to postsecondary education* and careers. Career and technical education programs under Perkins IV are held to specific, valid, and reliable accountability standards as well as industry-based standards.

Perkins IV requires secondary and postsecondary education to work with numerous constituency groups including business and industry, local communities, counselors, principals, parents, and students including special populations in order to educate students for high-wage, high-skill, or high-demand occupations.

New Themes
Several themes are evident in Perkins IV:
• Accountability for results and program improvement at all education- al levels
• Coordination of the career and technical education system with the entire P-20 system
• Integration of academic and career and technical education
• Alignment and connections between secondary and postsecondary education, including baccalaureate level
• Involvement of business and industry and community-based partners

*Perkins IV indicates under Section 3 – Definitions – (22) Postsecondary Education Institution – The term ‘postsecondary educational institution’ means:
A. an institution of higher education that provides not less than a 2-year program of instruction that is acceptable for credit toward a bachelor's degree;
B. a tribally controlled college or university; or
C. a nonprofit educational institution offering certificate or apprentice- ship programs at the postsecondary level.

Secondary and Postsecondary Alignment
Secondary and postsecondary alignment is very important to Perkins IV and the National Career Cluster Framework. In Illinois, this alignment includes secondary education, community colleges, and four-year institutions through:
• Seamless transition
• Reduced remediation
• Non-duplicated courses
• Integrated academic and career and technical education curricula
• Standards-based curricula aligned with industry credentials and/or certification
• Dual credit opportunities
• Career development
• Professional development
• Articulation agreements
• Data-sharing agreements
• Partnerships and collaboration
• Continuous improvement

“The premise of this legislation [Perkins IV] is that high schools, industry, and higher education institutions need to work together to provide our workforce with the skills they need in order to achieve and compete in the 21st century. This bill works to ensure that American students are not just getting a world class education, but the best education in the world.”

Senator Christopher J. Dodd, Connecticut

http://www.acteonline.org/content.aspx?id=1686
**Why a Career Clusters Framework?**

The framework of career pathways, career clusters, and programs of study organizes educational preparation and occupational choices into a unified concept. By combining rigorous academics with career and technical education, students have a clear path to their future. Career clusters:

- Are for all students
- Create distinct educational plans of study students can follow from secondary to postsecondary education to the workplace
- Help create smooth transitions in the educational pipeline and reduce duplication
- Empower students through information and experiences they need to make informed educational choices
- Help counselors, teachers, parents, and students design individual plans of study
- Comprise a key element in enhancing economic development by connecting schools with business and industry

**Who Benefits from Career Pathways and Programs of Study?**

- **Students** benefit when there are links between education and careers. Career pathways provide career guidance and a framework for students to plan their future. Students are more motivated when they can see the relevance of their education and are provided with smooth transitions to college and careers.

- **Educators** (teachers, counselors, and administrators) benefit when they integrate academic and career and technical education curricula, partake in professional development, align with other school reform efforts, and receive support. Programs of study also connect educators with local business and industry to ensure that what students learn connects to current and emerging careers.

- **Employers** benefit when they have the opportunity to partner with educators to prepare future employees by determining necessary skills, certifications, and current knowledge to succeed in the workforce.

- **Communities** benefit when business and industry partners with education for local economic development and educational planning. Higher levels of educational attainment contribute to a healthier local economy.
This example of the Illinois Career Cluster Model shows the relationship between one of Illinois' five secondary career and technical education areas (Health Sciences Technology), the related career cluster (Health Science), the five pathways within that cluster, and sample programs of study within the pathway. It also illustrates the essential knowledge and skills that are shared by all clusters, the cluster level knowledge and skills shared by all occupations within the pathways in the cluster, the pathway level knowledge and skills specific to each of the five pathways, and the programs of study which represent courses that are taken at multiple education levels which lead to employment in related pathway occupations. Career exploration and development are infused at all levels of the model. The model also shows an entry point for adults by including bridge programs that infuse cluster level knowledge and skills with adult education and remedial education course content.

Career Cluster
At the career cluster level, students are exposed to the breadth of essential and cluster level knowledge and skills needed for multiple careers. The career cluster framework provides multiple entry and exit points for students as they progress through a program of study. For example, a K-12 student may participate and acquire cluster level knowledge and skills and dual credit while in the secondary system, and adults may acquire cluster level knowledge and skills as they progress through an adult bridge program.

Career Pathway
At the career pathway level, students make choices about occupations in terms of their career interests, and start to acquire pathway level knowledge and skills at either the secondary or postsecondary levels of the educational system. Pathway level knowledge and skills are more specialized than those at the cluster level, preparing students to enter occupations that they have identified in their individualized plan of study. This means students become more specialized in their pursuit of occupational and career areas.

Program of Study
Through the program of study, students are provided with the opportunity to receive stackable credentials, secure credentials aligned with segments of the curriculum, and acquire certificates and degrees at multiple completion points from secondary school through the baccalaureate degree. Career clusters and career pathways offer the knowledge and skills required to complete a program of study that leads to the community college and/or university level and provide students with opportunities for certification and degree attainment.
**Six Guiding Principles**

Practitioners are encouraged to use these six guiding principles and associated design elements to aid local implementation and evaluate programs of study. For additional information on the guiding principles see: http://occrl.illinois.edu/projects/perkins/principles/.

**A Framework for Local Implementation and Evaluation of Programs of Study**

<table>
<thead>
<tr>
<th>Principle</th>
<th>Principle Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Leadership, organization and support</td>
<td>Programs of study are developed, supported and led with guidance from collaborative partners.</td>
</tr>
<tr>
<td>2. Access, equity and opportunity</td>
<td>Each and every student has access to educational opportunities and services that enable their success.</td>
</tr>
<tr>
<td>3. Alignment and transition</td>
<td>Education and training providers, with input from business and industry, enhance alignment that facilitates student preparation and transition through the educational pipeline.</td>
</tr>
<tr>
<td>4. Enhanced curriculum and instruction</td>
<td>Curriculum and pedagogy involve rigorous and relevant instruction that enhances learning and enables students to attain academic and technical standards and credentials.</td>
</tr>
<tr>
<td>5. Professional preparation and development</td>
<td>Comprehensive and continuous professional development that impacts teaching and learning is delivered to enhance the recruitment, preparation, and retention of qualified instructional and administrative staff.</td>
</tr>
<tr>
<td>6. Program improvement and accountability</td>
<td>Data are collected, shared, and utilized to improve outcomes and demonstrate accountability.</td>
</tr>
</tbody>
</table>

**Career Cluster Partners**

Implementing the career cluster model involves partnerships between secondary education, community colleges, universities, business and industry, adult education providers, and community-based organizations. Without the involvement of all partners, it is difficult to align curriculum and meet the needs of diverse students. Partners need to work together to decrease duplication in curriculum, enhance college readiness and reduce remediation, and foster seamless transitions for students to improve their educational and employment outcomes.

**Selected Strategies to Involve Partners**

**Business and Industry:**
- Review and validate cluster and pathway level knowledge and skills
- Support student opportunities to explore careers
- Provide feedback to regional partnerships on critical skill shortages

**Secondary Education, Community College and University Partners:**
- Align curriculum with knowledge and skill statements
- Encourage, support, and participate in discussions across educational sectors
- Create and maintain articulation agreements to support course sequences
- Identify and facilitate dual credit opportunities
- Develop programs of study with multiple entry and exit points
- Collaborate to provide universally designed instruction and support services
- Develop data-sharing agreements to track student progress

**Adult Education Providers:**
- Include cluster level knowledge and skills in bridge programs
- Align bridge programs with postsecondary elements of programs of study
- Encourage and participate in discussions across educational sectors
- Develop occupational pathways with multiple entry and exit points

**Community-based Organizations:**
- Encourage, support, and participate in discussions with educational sectors
- Facilitate programs of study that provide access for diverse learners
- Encourage connections with students’ communities, including employers
## Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC</td>
<td>Area Career Center</td>
</tr>
<tr>
<td>ACTE</td>
<td>Association of Career and Technical Education</td>
</tr>
<tr>
<td>ADP</td>
<td>American Diploma Project</td>
</tr>
<tr>
<td>AEFRA</td>
<td>Adult Education and Family Literacy Act</td>
</tr>
<tr>
<td>CCRI</td>
<td>College and Career Readiness Initiative</td>
</tr>
<tr>
<td>CCTI</td>
<td>College and Career Transitions Initiative</td>
</tr>
<tr>
<td>CRP</td>
<td>Curriculum Revitalization Project</td>
</tr>
<tr>
<td>CSSI</td>
<td>Critical Skills Shortages Initiative</td>
</tr>
<tr>
<td>CTE</td>
<td>Career and Technical Education</td>
</tr>
<tr>
<td>DCEO</td>
<td>Department of Commerce and Economic Opportunity</td>
</tr>
<tr>
<td>EFE</td>
<td>Education for Employment</td>
</tr>
<tr>
<td>ESEA</td>
<td>Elementary and Secondary Education Act of 1965</td>
</tr>
<tr>
<td>ELL</td>
<td>English Language Learners</td>
</tr>
<tr>
<td>HEA</td>
<td>Higher Education Act</td>
</tr>
<tr>
<td>HSTW</td>
<td>High Schools That Work</td>
</tr>
<tr>
<td>IAI</td>
<td>Illinois Articulation Initiative</td>
</tr>
<tr>
<td>IACTE</td>
<td>Illinois Association for Career and Technical Education</td>
</tr>
<tr>
<td>IBHE</td>
<td>Illinois Board of Higher Education</td>
</tr>
<tr>
<td>ICCA</td>
<td>Illinois Career Coordinators Association</td>
</tr>
<tr>
<td>ICCB</td>
<td>Illinois Community College Board</td>
</tr>
<tr>
<td>ICSPS</td>
<td>Illinois Center for Specialized Professional Support</td>
</tr>
<tr>
<td>ICTA</td>
<td>Illinois Career and Technical Administrators</td>
</tr>
<tr>
<td>IDEA</td>
<td>Individuals with Disabilities Education Act</td>
</tr>
<tr>
<td>ILAVESNP</td>
<td>Illinois Association of Vocational Education Special Needs Personnel</td>
</tr>
<tr>
<td>ILLS</td>
<td>Illinois Learning Standards</td>
</tr>
<tr>
<td>IOES</td>
<td>Illinois Office of Educational Services</td>
</tr>
<tr>
<td>ISBE</td>
<td>Illinois State Board of Education</td>
</tr>
<tr>
<td>ISIS</td>
<td>Illinois Student Information System</td>
</tr>
<tr>
<td>IWIB</td>
<td>Illinois Workforce Investment Board</td>
</tr>
<tr>
<td>LEA</td>
<td>Local Educational Agency</td>
</tr>
<tr>
<td>LWIB</td>
<td>Local Workforce Investment Board</td>
</tr>
<tr>
<td>NAEP</td>
<td>National Assessment of Educational Progress</td>
</tr>
<tr>
<td>NAPE</td>
<td>National Alliance for Partnerships in Equity</td>
</tr>
<tr>
<td>NASDCTEc</td>
<td>National Association of State Directors of Career and Technical Education Consortium</td>
</tr>
<tr>
<td>NCLB</td>
<td>No Child Left Behind</td>
</tr>
<tr>
<td>NSF</td>
<td>National Science Foundation</td>
</tr>
<tr>
<td>NTO</td>
<td>Non-traditional Occupations</td>
</tr>
<tr>
<td>OCCRL</td>
<td>Office of Community College Research and Leadership</td>
</tr>
<tr>
<td>OVAE</td>
<td>Office of Vocational and Adult Education</td>
</tr>
<tr>
<td>PCSS</td>
<td>Partnerships for College and Career Success</td>
</tr>
<tr>
<td>Perkins IV</td>
<td>Carl D. Perkins Career and Technical Education Improvement Act of 2006</td>
</tr>
<tr>
<td>POS</td>
<td>Programs of Study</td>
</tr>
<tr>
<td>PLTW</td>
<td>Project Lead the Way</td>
</tr>
<tr>
<td>RTI</td>
<td>Response to Intervention</td>
</tr>
<tr>
<td>SREB</td>
<td>Southern Regional Education Board</td>
</tr>
<tr>
<td>STEM</td>
<td>Science, Technology, Engineering and Mathematics</td>
</tr>
<tr>
<td>USDOE</td>
<td>United States Department of Education</td>
</tr>
<tr>
<td>USDOL</td>
<td>United States Department of Labor</td>
</tr>
<tr>
<td>WIA</td>
<td>Workforce Investment Act</td>
</tr>
<tr>
<td>WIB</td>
<td>Workforce Investment Board</td>
</tr>
</tbody>
</table>
**Perkins IV**

Association for Career and Technical Education (ACTE):
http://www.acteonline.org/

Illinois 5-year Perkins IV state plan:
http://isbe.net/career/pdf/perkins_state_plan0713.pdf


**Illinois Resources**

Illinois Community College Board: www.iccb.org/cte.html

Programs of Study website: http://www.ilprogramsofstudy.org

Illinois State Board of Education:
http://www.isbe.net/career/default.htm

Curriculum Revitalization Project: http://www.ilcte.org

Illinois Center for Specialized Professional Support:
http://www.icsps.ilstu.edu/

Illinois Workforce and Career Information:
http://www.ilworkinfo.com/

Illinois Labor Market Information: http://lmi.ides.state.il.us/

**OCCRL**

OCCRL Programs of Study Website:
http://occrl.illinois.edu/projects/perkins

Webinars on the six Guiding Principles:
http://occrl.illinois.edu/projects/perkins/webinars


**Career Development**

National Career Development Guidelines:


**Career Cluster**

http://occrl.illinois.edu/files/InBrief/Brief-spring-06.pdf

National Career Pathways Network (NCPN): http://www.cord.org/ncpn-index.cfm


States’ Career Cluster Initiative: http://www.careerclusters.org


**Research**


Programs of Study

Office of Community College Research and Leadership

Office of Community College Research and Leadership

c/o Dr. Debra D. Bragg, Director

University of Illinois at Urbana-Champaign

51 Gerty Drive, Rm 129

Champaign, IL 61820