

Preparing Students for Future Employment: Utilizing Career Clusters, Labor Market Information, and 21st Century Skills

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OSSE Division of Specialized Education
Secondary Transition Webinar Series

Objectives

- Define career clusters
- Identify resources that provide teachers and students with useful labor market information
- Utilize career clusters and labor market information to better prepare students for future employment
- Define the changing nature of work and essential skills for employment success

Guiding Questions

- What are career clusters?
- What is labor market information (LMI)?
- How can we use career clusters and LMI to help prepare students for their future?
- How can teaching 21st Century skills improve our students' eventual career and employment success?

Legal Basis

Carl D. Perkins Career and Technical Education act of 2006

- Increases focus on the academic achievement of career and technical education students
- Strengthens connections between secondary and postsecondary education
- Includes programs of study
- Includes all students (“all means all”)



Career Technical Education: Program of Study

- Perkins IV requires states to offer “career and technical programs of study”
- Emphasizes integrated learning, meaning the merging of academic knowledge and skills with career or occupationally specific knowledge and skills



Career Technical Education: Program of Study

A program of study is a comprehensive, structured approach for delivering academic and career and technical education to prepare students for postsecondary education and career success.

- Incorporate and align secondary and postsecondary education elements,
- Include academic and CTE content in a coordinated, non-duplicative progression of courses,
- Offer the opportunity, where appropriate, for secondary students to acquire postsecondary credits, and
- Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree.

Career Technical Education: Program of Study

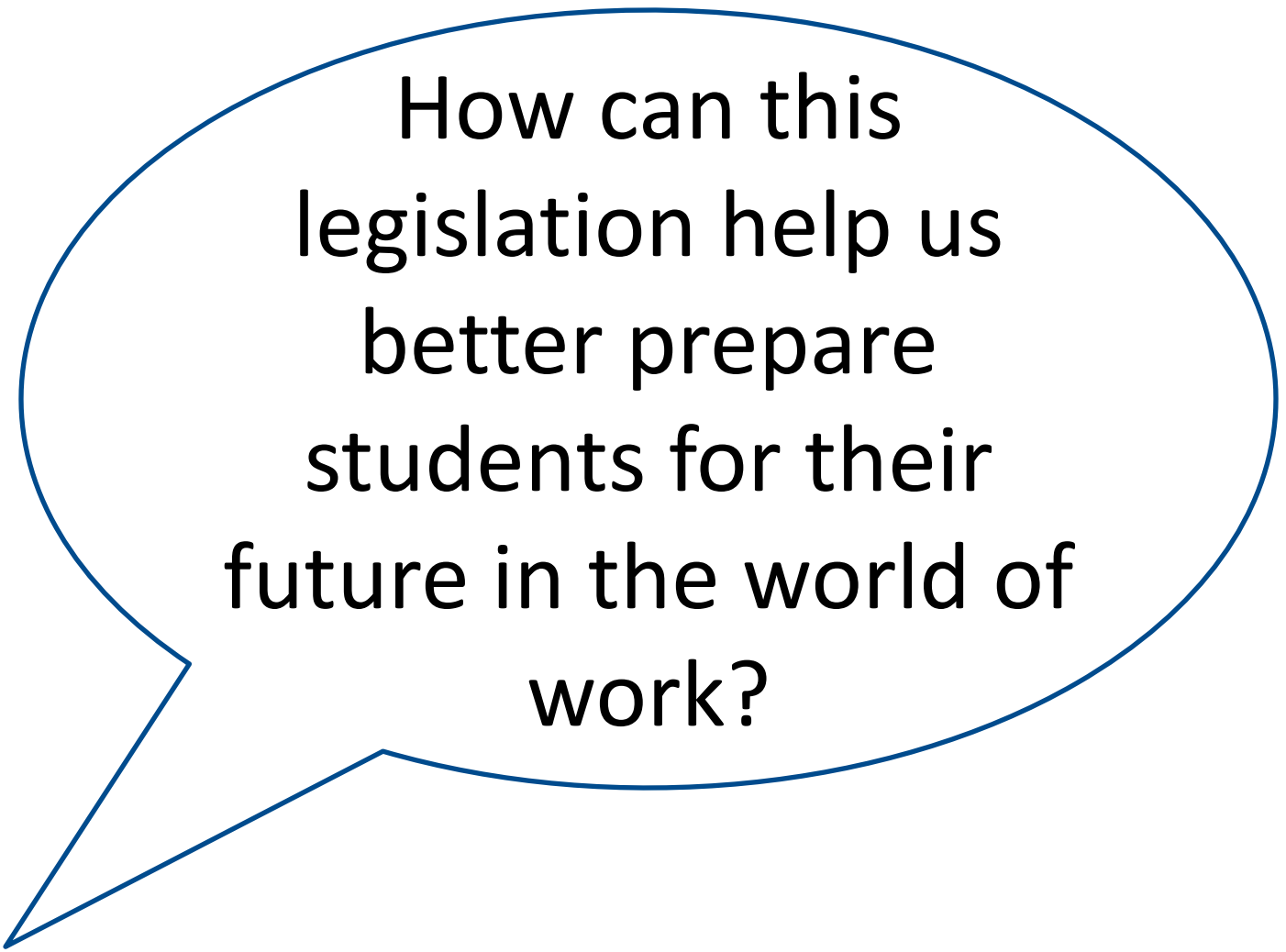
Outlines sequences of academic, career, and technical courses and training and leads to higher levels of education and higher-skilled positions in specific industries or occupations



Legal Basis: IDEA 2004

- Requires a transition statement in the IEP beginning “no later” than age 16
- Appropriate measurable postsecondary goals based upon age appropriate transition assessments related to training, education employment, independent living skills and transition services (including courses of study) to assist in reaching those goals

Reflection



How can this
legislation help us
better prepare
students for their
future in the world of
work?

How do we achieve the transition goals found in legislation?

- Locating resources that assist teachers in helping students as they explore and plan for their future
- Planning school- and community- based learning and experiences that will promote students to start planning for their future
- Developing curriculum units and lesson plans that are transition and future oriented
- Aiding students in exploring the world of work and the pathways that lead them to their future



Three Key Components

1. Career Clusters
 2. Labor Market Information (LMI)
 3. 21st Century Skills
- Special Education Teachers and Transition Specialists frequently utilize these three key components to generate an interest in learning, inspiration, and motivation in the classroom
 - Can assist in linking education, learning, and curriculum to the real world (called linked learning and/or contextualized teaching and learning)



Guiding Question 1

What are Career Clusters?



What are Career Clusters?

- Represent a distinct grouping of occupations and industries based on the knowledge and skills required
- Key to improving student achievement, including academics, by providing relevant contexts for studying and learning
- Links school-based learning with requirements for success in the workplace



Why Career Clusters?

1. Better serve all students
2. Expand students' occupational interests
3. Improve all students' motivation to learn
4. Better prepare students for college and careers
5. Respond to unemployment rates



Why Career Clusters?

6. Reduce dropout rates
7. Connect secondary and postsecondary learning to employment skills
8. Motivate and encourage persistence in students
9. Prepare for the future workforce
10. Improve career satisfaction—and quality of life



16 Career Clusters

 <p>Agriculture, Food & Natural Resources</p>	 <p>Architecture & Construction</p>	 <p>Arts, A/V Technology & Communications</p>	 <p>Business, Management & Administration</p>
 <p>Education & Training</p>	 <p>Finance</p>	 <p>Government & Public Administration</p>	 <p>Health Science</p>
 <p>Hospitality & Tourism</p>	 <p>Human Services</p>	 <p>Information Technology</p>	 <p>Law, Public Safety, Corrections & Security</p>
 <p>Manufacturing</p>	 <p>Marketing, Sales & Service</p>	 <p>Science, Technology, Engineering & Mathematics</p>	 <p>Transportation, Distribution & Logistics</p>

Agriculture, Food & Natural Resources



Careers related to the production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.

Architecture & Construction



Careers related to designing, planning, managing, building and maintaining the built environment.

Arts, A/V Technology & Communications



Careers related to designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

Business Management & Administration



Careers encompassing planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Business Management and Administration career opportunities are available in every sector of the economy.

Education & Training



Careers related to planning, managing and providing education and training services, and related learning support services.

Finance



Careers related to planning and providing services for financial and investment planning, banking, insurance, and business financial management .

Government & Public Administration



Careers related to executing governmental functions to include governance; national security; foreign service; planning; revenue and taxation; regulation; and management and administration at the local, state and federal levels.

Health Science



Careers related to planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

Hospitality & Tourism



Careers related to the management, marketing and operations of restaurants and other foodservices, lodging, attractions, recreation events and travel related services.

Human Services



Careers related to preparing individuals for employment in career pathways that relate to families and human needs.

Information Technology



Careers related to the design, development, support and management of hardware, software, multimedia and systems integration services.

Law, Public Safety, Corrections & Security



Careers related to planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.

Manufacturing



Careers related to planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

Marketing, Sales & Service



Careers related to planning, managing, and performing marketing activities to reach organizational objectives.

Science, Technology, Engineering & Mathematics



Careers related to planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.

Transportation, Distribution & Logistics



Careers related to planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

For More Information on Career Clusters

http://www.doe.virginia.gov/instruction/career_technical/career_clusters/

- Overview of Career and Technical Education (CTE)
- Overview of Career Clusters
- R U “College and Career” Ready? A World of Opportunities (PDF)
- States’ Career Clusters Initiative
 - Broad overview
 - List of sample career specialties and occupations



Guiding Question 2

What is Labor Market Information?



Labor Market Information, Defined

Data about employment by location and occupation. This includes information about labor supply and demand, earnings, unemployment, and the demographics of the labor force. The Bureau of Labor Statistics collects and analyzes statistical data about the labor force in the United States.

Labor Market Information Statistics

- Labor Force
- Unemployment
- Employment
- Mass Layoffs
- Unemployment Initial Claims

Labor Market Information by Subject

- Economic Indicators
- Industries
- Occupations
- Population and Census
- Projections of Employment
- Unemployment and Labor Force Wages

Critical Labor Market Information

- Technological advancements
- Changing labor force (e.g., aging population)
- Changing goods and services (e.g., steel used for making cars)
- Size of the labor pool, number of workers available
- Changing job outlooks by industry



Why Labor Market Information?

Understand the economy (local, regional, national, global) and make informed labor market choices



Why Labor Market Information?

- Provides vital information (i.e., characteristics of industry and occupations, trends, predictions, education requirements, skills, licensing requirements, wage information, etc.)
- Assists future workforce about the realistic employment possibilities in their future



How Can Students Use Labor Market Information?

- Determine realistic occupation possibilities
- Make more “informed” choices
- Plan ahead for the future
- Set employment goals
- Identify the academic pathway forward
- Look forward to being employed



Guiding Question 3

How can career clusters and labor market information help prepare students for their future employment?



Sample Classroom Strategies

- Take a Career Cluster Interest Survey
- Identify several careers that match interests
- Obtain information about qualifications for specific jobs of interest
- Interview people in various occupations of interest

Guiding Question 4

**How can teaching 21st Century Skills
improve our students' eventual
career and employment success?**



A Changing Workplace

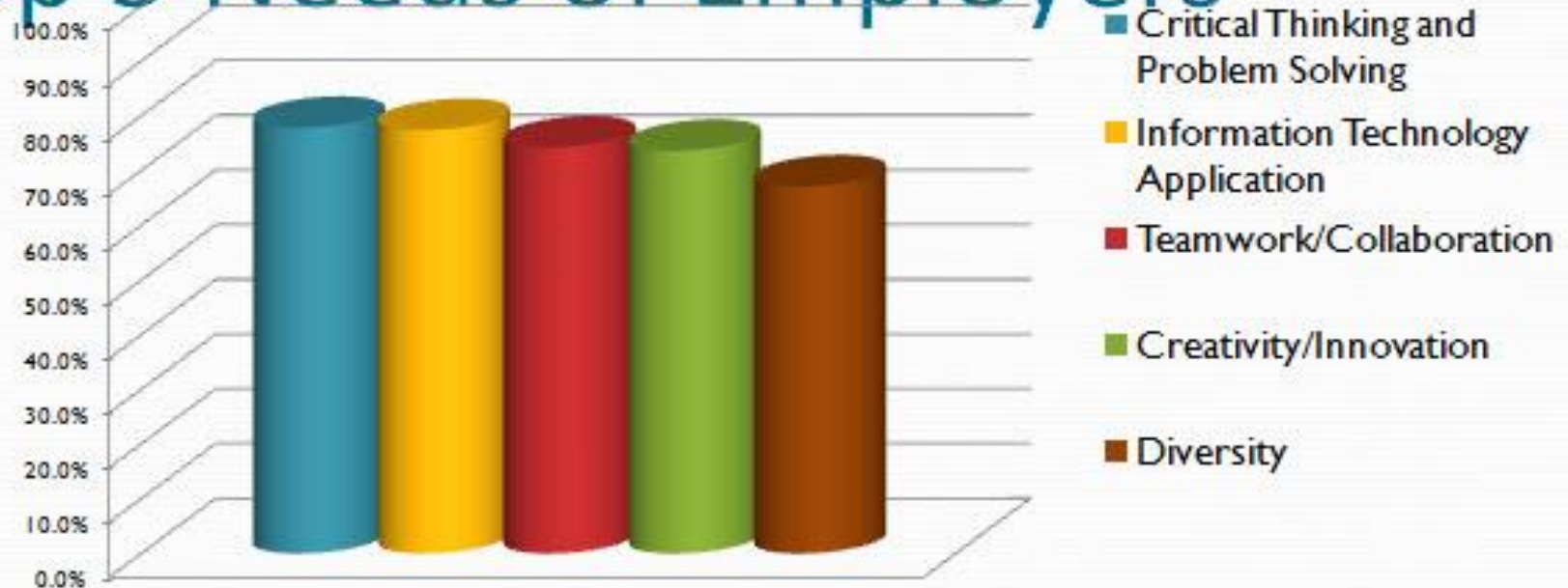
Manufacturing-
Based Economy



Knowledge-
Based Economy

21st Century Skills Needed to Work

Top 5 Needs of Employers



Education Technology Expert **Alan November** has included **Empathy** as Number One In His Surveys

Are They Really Ready To Work: (Employer's Perspectives on the Basic Knowledge and Applied Skills of New Entrants to the 21st Century U.S. Workforce.)



21centuryedtech
web site provides
total ranking

21st Century Skill Essentials

Learning to collaborate to solve problems through technology are essential skills in a knowledge-based economy.

- **Ways of thinking:** Creativity, critical thinking, problem-solving, decision-making and learning
- **Ways of working:** Communication and collaboration
- **Tools for working:** Information and communications technology (ICT) and information literacy
- **Skills for living in the world:** Citizenship, life and career, and personal and social responsibility

Essential Employability Skills

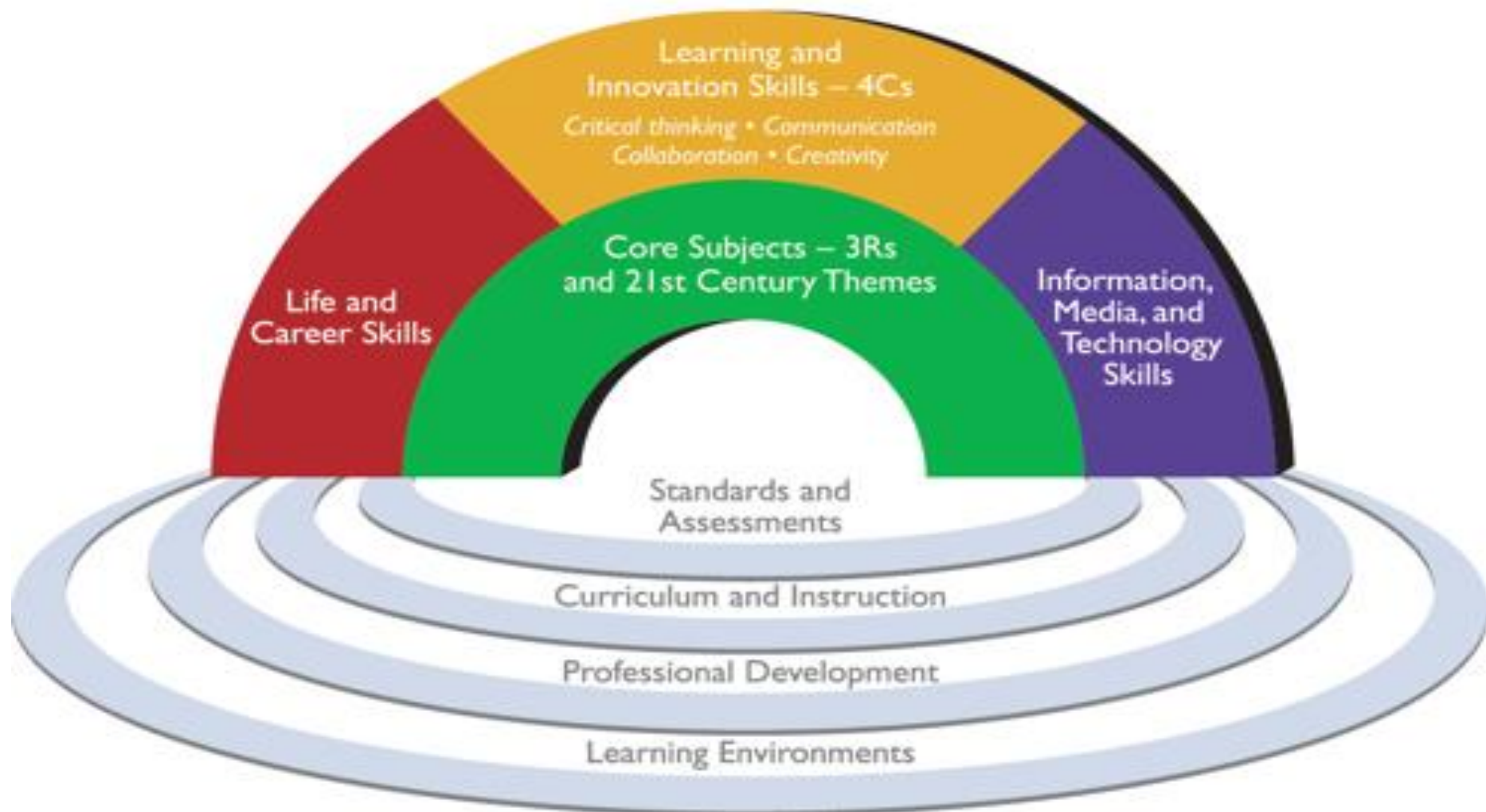
- Communicating
- Collaborating
- Analytical thinking
- Problem solving
- Finding and evaluating information (and knowing where to find more)
- Creating and innovating

Also,

- Information and communication technology skills (ICT)

Framework for 21st Century Learning

21st Century Student Outcomes and Support Systems



Life and Career Skills

- Flexibility and adaptability
- Initiative and self-direction
- Social and cross-cultural skills
- Productivity and accountability
- Leadership and responsibility
- Life-long learning

Closing

- Education should focus on career development, career goals, and employment, not just graduation!
- Preparation for postsecondary education options is good, but ultimately must be tied to employment goals following postsecondary graduation!

Closing

- Career Clusters and Labor Market Information better inform students about their future options and tie learning to employment!
- Practicing 21st Century Skills in school prepares students for successful futures!

Wrap-up

Guiding Questions:

1. What are Career Clusters?
2. What is Labor Market Information?
3. How can career clusters and labor market information help prepare students for their future?
4. How can teaching 21st Century skills improve our students eventual career and employment success?

Resource Links

- www.bls.gov (Bureau of Labor Statistics)
- www.census.gov (US Census Bureau)
- www.acinet.org (Career Info Net)
- <http://www.mynextmove.org> (Dept. of Labor career info site for students)
- www.does.dc.gov (Dept. of Employment Services)
- www.skills21.org
- www.p21.org