Career Clusters and Programs of Study: Connecting School to Careers

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Kathleen Oertle, OCCRL

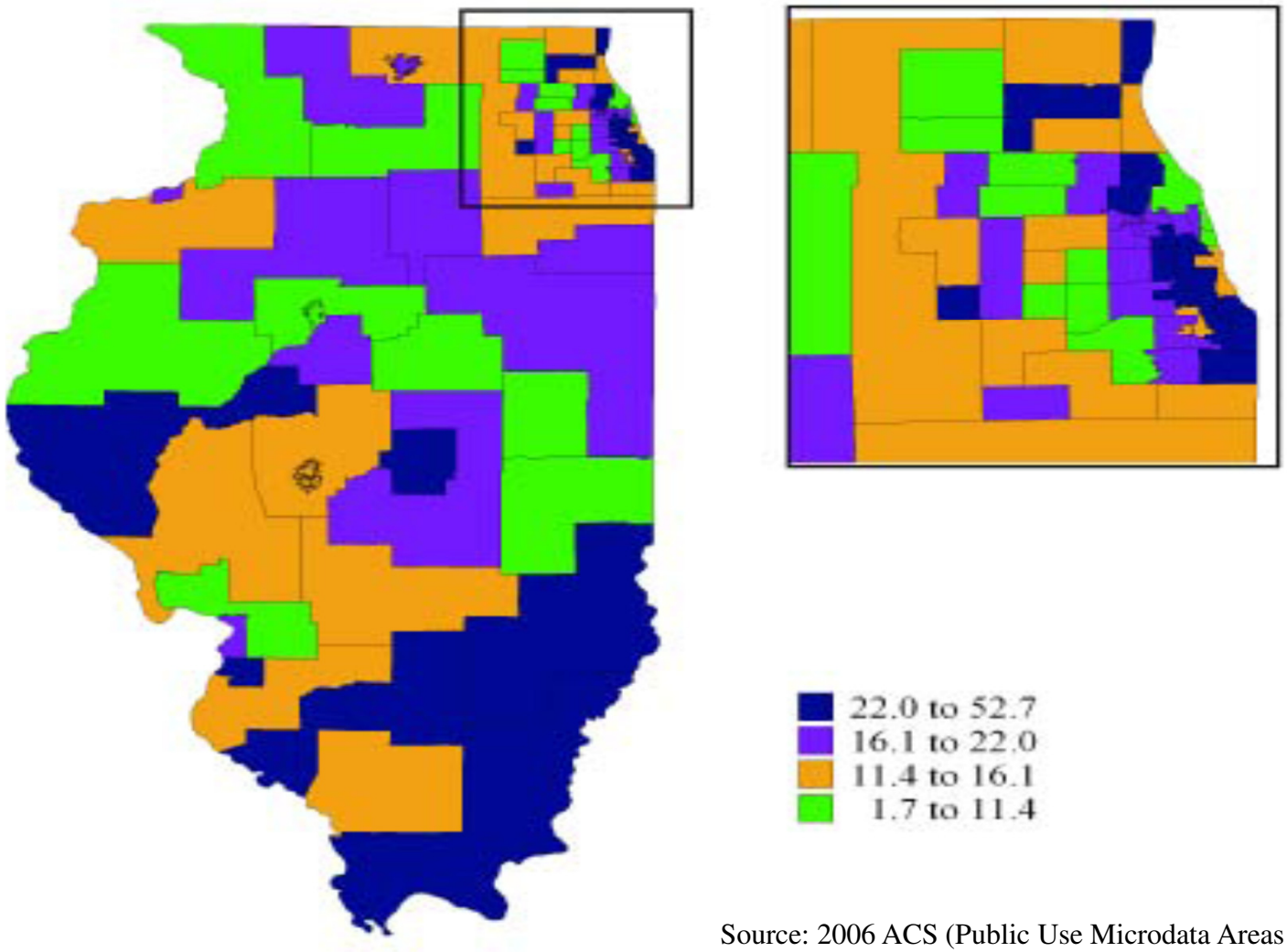
Dora Welker, ISBE

Kristy Morelock, ICCB

PRESENTATION OBJECTIVES

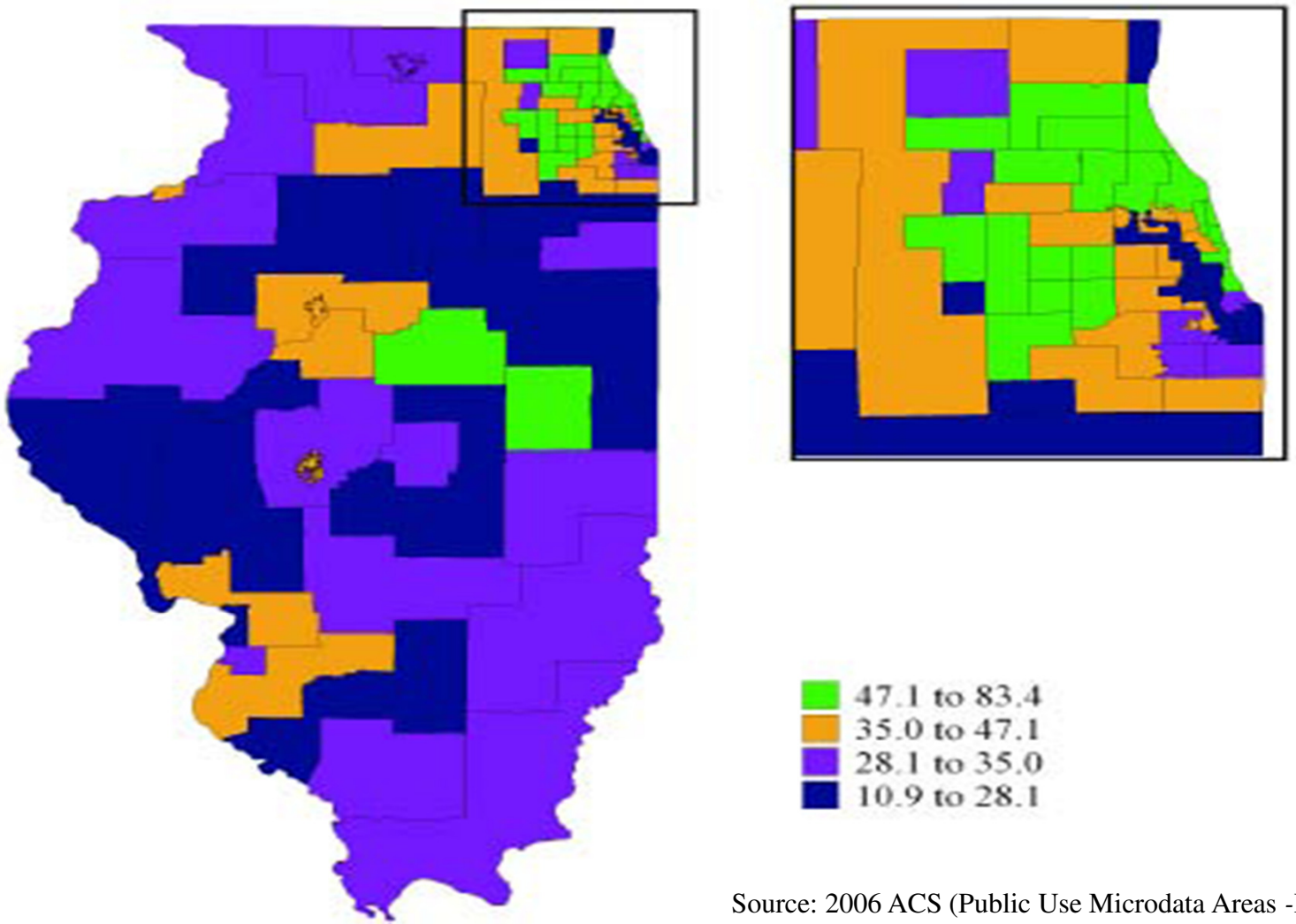
- Provide a greater understanding of Career Clusters and Programs of Study.
- To explain the potential of Career Clusters and Programs of Study as effective counseling tools and a means of assisting with career exploration and development

Percent of population age 18-24 with *no high school diploma* or equivalency, 2006



Source: 2006 ACS (Public Use Microdata Areas -PUMS)

Percent of population age 25-64 with *an associate's degree or higher*, 2006



Source: 2006 ACS (Public Use Microdata Areas -PUMS)

IN THE PAST……

Insufficient career preparation

STATE DIRECTORS
National Association of State Directors of Career Technical Education Consortium

THE CHALLENGES

- ***Engagement*** – attending school and completing (graduating) high school
- ***Achievement*** – academic (and technical) course taking; grades, test scores
- ***Transition*** – to postsecondary education without the need for remediation; and to the workplace

WHY AREN'T STUDENTS ENGAGED?

- Students lack motivation to learn
  - Don't see relevance
  - Lack focus
  - Abstract subject matter
  - Academics that lack rigor

- Students ***need***:
  - Awareness of the link between education & the workplace
  - Career information that links to education

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CHALLENGES WE FACE –
INFLUENCERS THAT ARE PUSHING CHANGE

- A high and rising drop out rate of secondary students
- Devalued high school diploma
  - High school graduates lack in basic math and science skills
  - Extraordinarily high remediation rates
- Most students think they are going to college, but do not prepare for it or any other possible future

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THEN NOW

VOCATIONAL EDUCATION	CAREER AND TECHNICAL EDUCATION
For a few students	For ALL students
For a few “Jobs”	For ALL “Careers”
6 to 7 “Program Areas”	16 Clusters - 79 Pathways
In lieu of academics	Aligns/Supports academics
High School focused	High School and College Partnership

CTE PROGRAM COMPONENTS MUST INCLUDE…….

- Alignment of rigorous academic standards and student achievement standards
- Include academic and CTE content in a coordinated, non-duplicative progression of courses
- Are relevant and challenging at the secondary and postsecondary level
- Lead to employment in high skill, high wage, or high demand occupations
- Offer opportunities for dual credit or dual enrollment
- Lead to a degree, certificate, or credential

Secondary and Postsecondary Alignment

- Aligned curricula
- Seamless transitions
- Dual credit
- Career development
- Professional development

- Articulation agreements
- Data-sharing agreements
- Partnerships and Collaboration
- Continuous improvement

TERMINOLOGY

Career Clusters

Career Pathways

Programs of Study (POS)

What are Career Clusters?

Career Clusters are groups of occupations and industries that have in common a set of foundational level knowledge and skills.

- Organizer of knowledge and skills needed by a broad industry
- There are 16 nationally recognized clusters, within which are multiple career pathways.

What are Career Pathways?

Career Pathways are multi-year programs of academic and technical study that prepare students for a full range of postsecondary options within each of the 16 clusters.

- Organizer of knowledge and skill statements shared by professions.
- Currently, there are ~79 nationally recognized pathways, each with specific **pathway** *level knowledge and skills.*

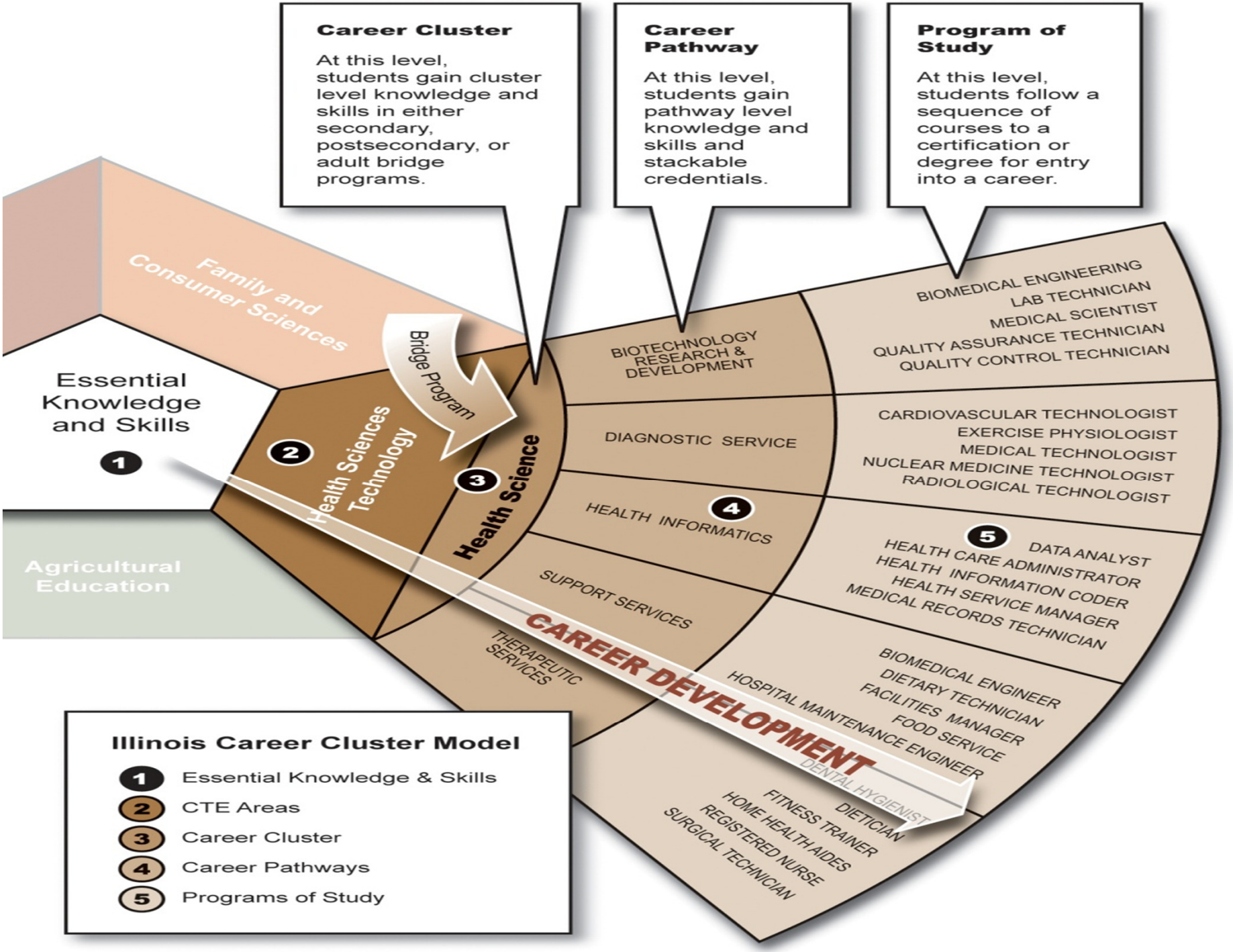
Government & Public Administration
Governance
National Security
Foreign Service
Planning
Revenue & Taxation
Regulation
Public Management & Administration
Marketing
Marketing Management
Professional Sales
Merchandising
Marketing Communications
Marketing Research
Business Management & Administration
General Management
Business Information Management
Human Resources Management
Operations Management
Administrative Support
Information Technology
Network Systems
Information Support & Services
Web & Digital Communications
Programming & Software Development
Finance
Securities & Investments
Banking Services
Business Finance
Accounting
Insurance
Law, Public Safety, Corrections & Security
Correction Services
Emergency & Fire Management Services
Security & Protective Services
Law Enforcement Services
Legal Services
Transportation, Distribution & Logistics
Transportation Operations
Logistics Planning & Management Services
Warehousing & Distribution Center Operations
Facility & Mobile Equipment Maintenance
Transportation Systems/Infrastructure Planning, Management & Regulation
Health, Safety & Environmental Management
Sales & Service
Science, Technology, Engineering & Mathematics
Engineering & Technology
Science & Math
Manufacturing
Production
Manufacturing Production Process Development
Maintenance, Installation & Repair
Quality Assurance
Logistics & Inventory Control
Health, Safety & Environmental Assurance
Architecture & Construction
Design/Pre-Construction
Construction
Maintenance/Operations
Arts, Audio/Video Technology & Communications
Audio and Video Technology & Film
Printing Technology
Journalism & Broadcasting
Telecommunications
Performing Arts
Visual Arts
Business, Marketing and Computer Education
Technology and Engineering Education
Family and Consumer Sciences
Health Sciences Technology
Agricultural Education
1
Essential Knowledge and Skills
2
3
4
Agriculture, Food & Natural Resources
Food Products & Processing Systems
Plant Systems
Animal Systems
Power, Structural & Technical Systems
Natural Resources Systems
Environmental Service Systems
Agribusiness Systems
Human Services
Early Childhood Development & Services
Counseling & Mental Health Services
Family & Community Services
Personal Care Services
Consumer Services
Hospitality & Tourism
Restaurants & Food/Beverage Services
Lodging
Travel & Tourism
Recreation, Amusements & Attractions
Education & Training
Administration & Administrative Support
Professional Support Services
Teaching/Training
Health Science
Diagnostic Services
Support Services
Health Informatics
Therapeutic Services
Biotechnology Research & Development
Career Cluster Framework
1 Essential Knowledge and Skills
2 CTE Areas: Secondary (5)
3 Career Clusters (16)
4 Career Pathways (79)
June 8, 2009
http://www.careerclusters.org

What are Programs of Study (POS)

- **sequences of courses** that incorporate:
  - a **non-duplicative** progression of secondary and postsecondary elements
  - both **academic and CTE** content
  - opportunities to earn **dual credit**
  - curriculum **alignment** to challenging standards and rigorous content
  - opportunities to earn an industry **recognized certificate or credential**

Career Development, CTE and POS

- CTE
  - important aspect of the comprehensive curriculum
- Career Clusters and Career Pathways
  - a way to guide through the career decision-making process
  - assist to more clearly understand how educational choices affect future career options
- POS
  - combination of coursework, innovative instruction including work-based learning experiences, and support services that are aligned with career clusters and career pathways
  - support structures and information guide students' course taking as they explore their career interests


Career Cluster
At this level, students gain cluster level knowledge and skills in either secondary, postsecondary, or adult bridge programs.
Career Pathway
At this level, students gain pathway level knowledge and skills and stackable credentials.
Program of Study
At this level, students follow a sequence of courses to a certification or degree for entry into a career.
Family and Consumer Sciences
Essential Knowledge and Skills
1
Agricultural Education
2
Health Sciences Technology
Bridge Program
3
Health Science
BIOTECHNOLOGY RESEARCH & DEVELOPMENT
DIAGNOSTIC SERVICE
HEALTH INFORMATICS
4
SUPPORT SERVICES
THERAPEUTIC SERVICES
BIOMEDICAL ENGINEERING
LAB TECHNICIAN
MEDICAL SCIENTIST
QUALITY ASSURANCE TECHNICIAN
QUALITY CONTROL TECHNICIAN
CARDIOVASCULAR TECHNOLOGIST
EXERCISE PHYSIOLOGIST
MEDICAL TECHNOLOGIST
NUCLEAR MEDICINE TECHNOLOGIST
RADIOLOGICAL TECHNOLOGIST
5
DATA ANALYST
HEALTH CARE ADMINISTRATOR
HEALTH INFORMATION CODER
HEALTH SERVICE MANAGER
MEDICAL RECORDS TECHNICIAN
BIOMEDICAL ENGINEER
DIETARY TECHNICIAN
FACILITIES MANAGER
FOOD SERVICE
HOSPITAL MAINTENANCE ENGINEER
DENTAL HYGIENIST
DIETICIAN
FITNESS TRAINER
HOME HEALTH AIDES
REGISTERED NURSE
SURGICAL TECHNICIAN
CAREER DEVELOPMENT
Illinois Career Cluster Model
1 Essential Knowledge & Skills
2 CTE Areas
3 Career Cluster
4 Career Pathways
5 Programs of Study

What Can You Do To Facilitate Quality Career Development?

- **assist** with personalized plans of education
- **guide** students in choosing relevant coursework
- **promote** practical educational and career experiences
- **work with** other career services providers
- **encourage** students to access career information and explore options

- BENEFIT TO COUNSELORS- Career Development Across Grades

Programs of Study as a centerpiece of a guidance program can:

- **assist** students plan an individualized, coherent, educational path
- **connect** learner interest with coursework
- **motivate** learners to reach higher academic achievement
- **show** relevance of school to postsecondary and lifelong learning

SAMPLE

Agriculture, Food and Natural Resources: Agribusiness Systems

Career Pathway Plan of Study for ▶Learners ▶Parents ▶Counselors ▶Teachers/Faculty

*This Career Pathway Plan of Study (based on the Agribusiness Systems Pathway of the Agriculture, Food and Natural Resources Career Cluster) can serve as a guide, along with other career planning materials, as learners continue on a career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. *This Plan of Study, used for learners at an educational institution, should be customized with course titles and appropriate high school graduation requirements as well as college entrance requirements.*

EDUCATION LEVELS	GRADE	English/ Language Arts	Math	Science	Social Studies/ Sciences	Other Required Courses Other Electives Recommended Electives Learner Activities	*Career and Technical Courses and/or Degree Major Courses for Agribusiness Systems Pathway	SAMPLE Occupations Relating to This Pathway
	Interest Inventory Administered and Plan of Study Initiated for all Learners							
SECONDARY	9	English/ Language Arts I	Algebra I	Earth or Environmental Science	State History Civics	All plans of study should meet local and state high school graduation requirements and college entrance requirements. Supervised Agricultural Experience (SAE) and participation in appropriate FFA activities support and reinforce classroom and laboratory learning and should be a requirement for all students.	• Introduction to Agriculture, Food and Natural Resources	**Occupations Requiring Postsecondary Education** ▶Agricultural Chemical Dealer ▶Agricultural Products Buyer-Distributor ▶Bank/Loan Office ▶Dairy Herd Supervisor ▶Entrepreneur ▶Farm Manager ▶Farmer-Rancher-Feedlot Operator ▶Feed-Supply Store Manager ▶Field Representatives for Bank, Insurance Company or Government Program ▶Livestock Manager ▶Sales Manager ▶Salesperson **Occupations Requiring Baccalaureate Degree** ▶Agricultural Commodity Broker ▶Agricultural Economist ▶Agricultural Educator ▶Agricultural Lender ▶Banker/Loan Officer ▶Farm Investment Manager ▶Produce Commission Manager
SECONDARY	10	English/ Language Arts II	Geometry	Biology	U.S. History		• Introduction to Agricultural Marketing, Business and Entrepreneurship • Accounting	
SECONDARY	11	English/ Language Arts III	Algebra II or other math course	Chemistry or other science course	World History		• Agricultural Business Management	
	College Placement Assessments-Academic/Career Advisement Provided							
SECONDARY	12	English/ Language Arts IV	Statistics or other math course				• Agricultural Economics • Internship in Agribusiness	
	Articulation/Dual Credit Transcripted-Postsecondary courses may be taken/moved to the secondary level for articulation/dual credit purposes.							
POSTSECONDARY	Year 13	English Composition	Algebra	Chemistry	American Government	All plans of study need to meet learners' career goals with regard to required degrees, licenses, certifications or journey worker status. Certain local student organization activities may also be important to include.	• Introduction to Agribusiness • Principles of Agribusiness • Agricultural Economics	
POSTSECONDARY	Year 14	Speech/ Oral Communication		Biological Science or Botany	American History Geography		• Agricultural Salesmanship • Agricultural Finance • Agricultural Advertising/Merchandising	
POSTSECONDARY	Year 15	Technical Writing	Statistics		Psychology		• Continue Courses in the Area of Specialization	
POSTSECONDARY	Year 16	Continue courses in the area of specialization.					• Complete Agribusiness Systems Major (4-Year Degree Program)	

Project funded by the U.S. Department of Education (VO51B020001)

SAMPLE

BADGER HIGH SCHOOL

220 SOUTH STREET LAKE GENEVA, WI 53147

BADGER PHONE: (262) 348-2000 | DISTRICT OFFICE PHONE: (262) 348-1000

OLS

ENDAR

Career Clusters
Career Pathways and Programs of Study

In the year 2007, Badger High School began to incorporate the 16 Career Clusters into the course selection process. These tools, Plans of Study and Career Pathways, are ways for students to group their required courses and electives into a cohesive sequence in preparation for college and careers. Utilizing the 16 Career Clusters, students can identify pathways from high school to work, two- and four-year schools, and even graduate school. By connecting education to future goals, students are motivated to work harder and enroll in more rigorous and relevant courses.

http://lakegeneva.badger.groupfusion.net/

CAREER EXPLORATION AND DEVELOPMENT

- positively impact:
  - academic achievement
  - career maturity
  - educational motivation
  - coping skills
  - self-esteem
  - career decision-making
  - relevant and personalized education

RESOURCES

Career Exploration and Development

Illinois One Source: Your Gateway to Workforce and Career Information: http://www.ilworkinfo.com/

CareerOneStop: Pathways to Career Success sponsored by the U.S. Department of Labor http://www.careeronestop.org/

Career Clusters. Org: Interest Survey http://www.careerclusters.org/resources/ccinterestsurvey/InterestSurvey.pdf

Vocational Information Center: http://www.khake.com/index.html

CareerPath.com: http://www.careerpath.com/

MORE RESOURCES

Associations

Illinois Association for Career and Technical Education (IACTE): http://www.iacte.org/

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

Career Clusters, Pathways, and Programs of Study

Illinois

Illinois Community College Board: http://www.ilprogramsofstudy.org/

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

Curriculum Revitalization http://www.ilcte.org/default.asp

Office of Community College Research and Leadership: http://occrl.illinois.edu/projects/pos/

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

National

The States' Career Cluster Initiative: http://www.careerclusters.org

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

National Center for Career and Technical Education: http://136.165.122.102/mambo/mos/Frontpage/Itemid,1/

FOR FURTHER READING

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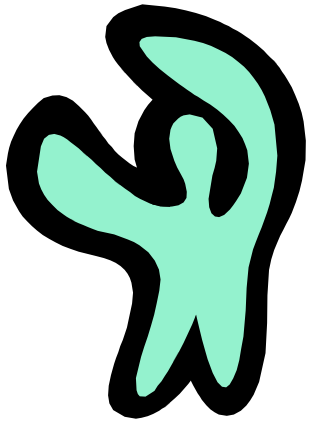
We appreciate your time and attention!