16 National Career Clusters

HAVE YOU THOUGHT ABOUT your life after high school? Do you already know what career you want to pursue after graduation? Do you have an idea of where to begin looking for career information? According to several reports, current teenagers will work approximately 90,000 hours and will change jobs approximately 10 to 15 times in their lifetime. You want to find a career suitable for you. Hopefully, your career will incorporate your abilities, skills, and interests. In addition, you want to find a career that serves as a motivator for you.

Objective:

☑ Explain National Career Clusters.

Key Terms:

abilities
Agriculture, Food and Natural Resources
aptitude
Architecture and Construction
Arts, Audio/Video Technology and Communication
Business Management and Administration
Career and Technical Education
career cluster

career interest
career pathway
Education and Training
Finance
Government and Public Administration
Health Science
Hospitality and Tourism
Human Services
Information Technology
interests
Law, Public Safety, Corrections and Security

Manufacturing
Marketing
motivation
postsecondary
program of study
Science, Technology, Engineering and Math
secondary
skills
Transportation, Distribution and Logistics

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Understanding National Career Clusters

Career clusters, career pathways, and programs of study are all designed to work together in determining a career interest area for students at the secondary and postsecondary levels of education. **Secondary** is high school. **Postsecondary** is after high school.

A **career cluster** is a group of occupations and industries that has a set of foundational knowledge and skills in common. In contrast, a **career pathway** is a multi-year program of academic and technical study that prepares high school students for a career. It offers a full range of career options within each of the career clusters. They are the framework for linking learning to the knowledge and skills needed for future education and employment.

A **program of study** is a coherent, non-duplicative sequence of courses that include official articulation or dual enrollment that formally connects secondary and postsecondary coursework. Although programs of study are used in a couple of ways, these sequences of courses generally begin at the high school level and continue through postsecondary education to culminate in a certificate, degree, or other credential. Programs of study are only part of the entire course selection process.

Career clusters, career pathways, and programs of study work together to assist students in preparing for their chosen **career interest**, which is an area in which a student is interested in working. Here is an example of a student with a career interest in the area of Biotechnology Research and Development:

♦ The student's national career cluster is Health Science.
♦ One pathway in Health Science is Biotechnology Research and Development.
♦ A sample course after high school may be Health Science I.
♦ A sample occupation for this career interest area may be Lab Technician.

CAREER CLUSTERS

In the nationally recognized clusters, multiple career pathways exist. One helpful Web site to further explain career clusters is Career Tech at http://www.careertech.org/. It provides universal information on each of the national career clusters. Use the site and click on one or more of the career clusters for information. You can go to the http://www.careertech.org/Career-Clusters Web site for a full list of each of the clusters.

Agriculture, Food and Natural Resources

Agriculture, Food and Natural Resources is an area that focuses on the production, processing, marketing, distributing, financing, and developing of agricultural commodities and resources (e.g., food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources).

730025

Architecture and Construction

Architecture and Construction is an area that focuses on designing, planning, managing, building, and maintaining the built environment.

Arts, Audio/Video Technology, and Communications

Arts, Audio/Video Technology and Communications is an area that focuses on designing, producing, exhibiting, performing, writing, and publishing multimedia content (including visual and performing arts and design, journalism, and entertainment services).

Business, Management and Administration

Business, Management and Administration is an area that focuses on planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.

FIGURE 1. Did you know the jobs of office manager, buyer, and entrepreneur all fall under the heading of the Business, Management and Administration career cluster?

Education and Training

Education and Training is an area that focuses on planning, managing, and providing education and training services and related learning support services.

Finance

Finance is an area that focuses on planning, services for financial and investment planning, banking, insurance, and business financial management.

Government and Public Administration

Government and Public Administration is an area that focuses on planning and performing government functions at the local, state, and federal levels, including national security, foreign service, planning, revenue and taxation, and regulations.

730025

Health Science

Health Science is an area that focuses on planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and bio-technology research and development.

Hospitality and Tourism

Hospitality and Tourism is an area that focuses on the management, marketing, and operations of restaurants and other food services, lodging, attractions, recreational events, and travel-related services.

Human Services

Human Services is an area that focuses on preparing individuals for employment in career pathways that relate to families and human needs (e.g., counseling and mental health services, family and community services, personal care, and consumer services).
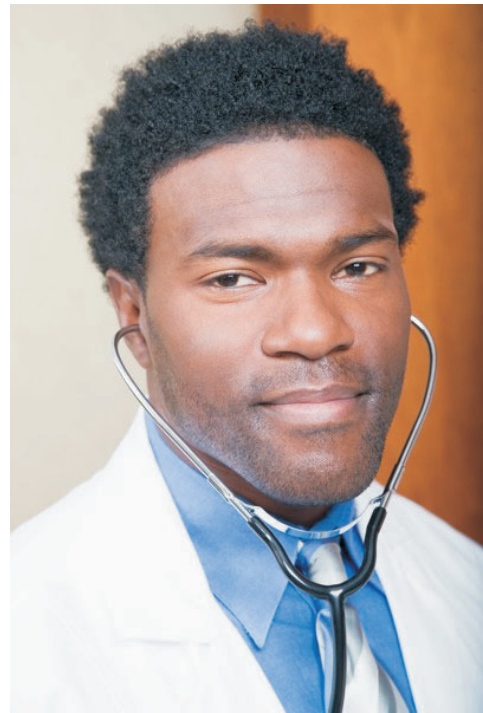

FIGURE 2. If you are looking for careers such as nurse, surgeon, athletic trainer, and physician assistant, you would need to look under the Health Science career cluster.

Information Technology

Information Technology is an area that focuses on building linkages in IT occupations for entry-level, technical, and professional careers related to design, development, support, and management of hardware, software, multimedia, and systems integration services.

Law, Public Safety, Corrections and Security

Law, Public Safety, Corrections and Security is an area that focuses on planning, managing, and providing legal, public safety, protective services, and homeland security, including professional and technical support services.

Manufacturing

Manufacturing is an area that focuses on planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities (e.g., production planning and control, maintenance, and manufacturing/process engineering).

Marketing

Marketing is an area that focuses on planning, managing, and performing marketing activities to reach organizational objectives.

730025

Science, Technology, Engineering, and Math

Science, Technology, Engineering and Math is an area that focuses on planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, and engineering), including laboratory and testing services and research and development services.

Transportation, Distribution and Logistics

Transportation, Distribution and Logistics is an area that focuses on planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, water, and related professional support services (e.g., transportation infrastructure planning and management, logistics services, mobile equipment, and facility maintenance).

FACTORS IN SELECTING A CAREER CLUSTER

Several factors can determine the career cluster area of interest. In fact, it is not uncommon for an individual to develop an interest in more than one career cluster area.

FIGURE 3. Consider how your skills, interests, aptitude, and motivation all play a part in choosing a career.

- ♦ **Skills** are specific abilities.
- ♦ **Aptitude** is a natural ability that a person has for a certain career cluster.
- ♦ **Interests** are what someone is curious about.
- ♦ **Abilities** are areas in which someone has a particular expertise or talent.
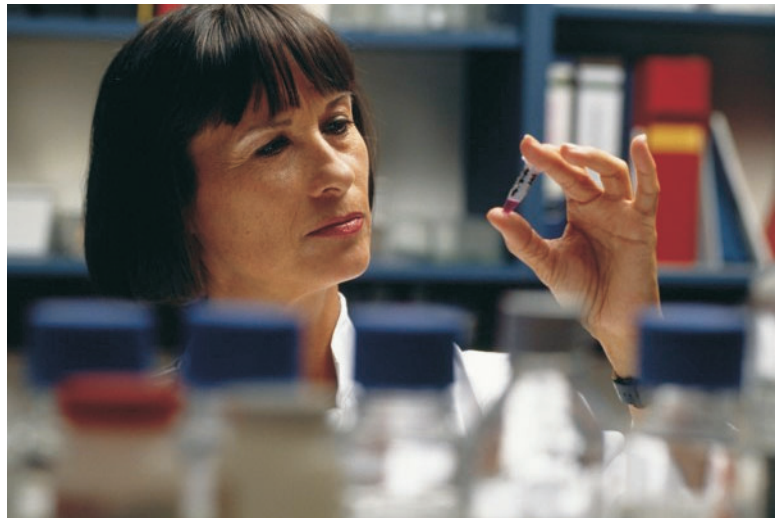- ♦ **Motivation** is expressed desire to do something or to behave in a certain way.

THE ROLE OF CAREER AND TECHNICAL EDUCATION

Career and Technical Education (CTE) is instruction designed to prepare youth and adults for skilled positions with decent salaries in high-demand careers. CTE programs can be found in such places as high schools, community colleges, technical schools/colleges, and four-year universities. The relationship between CTE, career pathways, and career clusters is to make postsecondary plans relevant to you and to connect you to your career goals through the teaching and training of necessary skills. An example of a career and technical education pro-

730025

gram is a high school offering you a chance to enroll in a pharmacy technician class at the local university. Another example is students having the opportunity to enroll in an automotive technology class at their high school.

Summary:

You will probably spend approximately 90,000 hours over your lifetime earning a living. Therefore, it is important to research and identify career areas of interest to you. Researching the National Career Clusters should provide you with a start to your career search. In addition, working with your counselor to gain more insight into the assessment tools for clusters will possibly allow you to match your skills, abilities, interests, and motivation to your ideal career.

Checking Your Knowledge:

1. How many national career clusters are listed?
2. Name four career clusters.
3. Where can career and technical education (CTE) programs be found?
4. What are the four factors that can determine the career cluster interest area?
5. List four STEM/STEAM careers.

Expanding Your Knowledge:

Continue to review resources that have been provided for you. In addition, seek out assistance from your counselor to research additional help. Ask your counselor about identifying someone in your chosen career cluster that can provide you with realistic information regarding that particular area. Try to schedule a time to interview the person. You may be able to interview him or her via phone, Skype, email, or in person. Take notes, and share your findings with the class in a PowerPoint presentation.

Web Links:

Career Clusters Plan

http://www.missouricareereducation.org/doc/clustertab/2010-clusters-tab.pdf

I Seek

http://www.iseek.org/careers/clusters.html

O'Net

http://www.onetonline.org/

Stem Career Pipeline

https://stemcareerpipeline.com

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