Many states and local districts use career clusters as a means of broadening the focus of secondary education, particularly career and technical education, as preparation for both further education and work. One continuing trend in career clusters is sheer variety. Cluster frameworks vary in the number, nomenclature, and organization of clusters. Career clusters are used not only for organizing instructional programs and curricula but also for structuring career exploration and planning. Other issues in career clusters include crosswalking across cluster frameworks; outcomes; integrating academic, technical, and employability standards; and providing information on occupations included in clusters. The major portion of this publication consists of an annotated bibliography of 21 resources. (YLB)
Career Clusters
Trends and Issues Alert No. 38

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Career Clusters

Often originating in Tech Prep and School-to-Work, career clusters are in use in many states and local districts. The sunset of the School-to Work Opportunities Act may be counterbalanced by continued work sponsored by the U.S. Department of Education's Office of Vocational and Adult Education (USED/OVAE), to develop frameworks for its Career Preparation Areas (CPAs). This Alert reviews current trends and issues in using career clusters as a means of broadening the focus of secondary education, particularly career and technical education, as preparation for both further education and work.

One continuing trend in career clusters is sheer variety. Cluster frameworks vary in the number, nomenclature, and organization of clusters. For example, Alaska had six Career Pathways (Alignment to Standards 2002), an Indiana career center organized eight Schools (Century Gold 2001-02), and Massachusetts used seven Career Clusters (COP Development 2002). Likewise, career clusters are used not only for organizing instructional programs and curricula but also to structure career exploration and planning (e.g., CareerZone n.d.; Michigan's Career Pathways 2002).

Other issues in career clusters include crosswalking across cluster frameworks, especially to the 16 USED/OVAE CPAs (e.g., Career Cluster Crosswalk 2002); outcomes (e.g., Loesch-Griffith and Rye 2001; Rudy and Runde 2001); integrating academic, technical, and employability standards (Career Cluster Frameworks 1998); and providing information on occupations included in clusters (Occupational Guides by Interest Area 2000). Some states provide specific guidance to local districts in setting up and using their own cluster frameworks (e.g., Career Pathways 2002a; Guide to Selecting 2002). In local districts, cluster frameworks often specify occupations and instructional programs included in clusters, as well as academic and occupational courses included in programs (e.g., Career Pathways 2002b).

Resources

Crosswalks national occupational skill standards; Alaska standards (reading, writing, math, science, content, employability, cultural); and all aspects of industry standards; nine USED/OVAE CPAs organize information on core and occupational standards, crosswalked to Alaska's six Career Pathways (Arts & Communication; Business, Management & Technology; Health Services; Human Services; Natural Resources; Industrial & Engineering Technology).

Explains the public-private partnership sponsored by USED/OVAE to develop frameworks for 1 of the 16 USED/OVAE CPAs: Agriculture, Food & Natural Resources; Architecture & Construction; Business, Management & Administration; Education & Training; Finance; Government & Public Administration; Hospitality & Tourism; Human Services; Law, Public Safety & Security; Marketing, Sales & Service; Science, Technology, Engineering & Mathematics. Describes the Knowledge and Skills Structure being developed for each cluster (Cluster/Pathway Topics; Knowledge/Skill Statements; Performance Elements; Measurement Criteria); links to description of each cluster.

Defines career clusters; identifies 16 career clusters adopted by Rhode Island: Agriculture & Natural Resources; Architecture & Construction; Arts, A/V Technology & Telecommunications; Business & Administration; Education & Training; Finance; Government & Public Administration; Health Science; Hospitality & Tourism; Human Services; Information Technology; Law & Public Safety; Manufacturing; Retail/Wholesale Sales & Service; Scientific Research & Engineering; Transportation; Distribution & Logistics.

Provides a crosswalk among 13 Oklahoma Career Search Clusters (Agriculture; Business; Construction; Design, Communication; Arts; Education; Health; Manufacturing; Personal Service; Repairs & Mechanics; Sales & Marketing; Science & Technology; Social Services; Transportation), 6 ACT Career Clusters, and the 16 USED/OVAE CPAs.

Connecticut School-to-Career Systems includes eight Career Clusters (Arts & Media; Business & Finance; Construction Technologies & Design; Environmental, Natural Resources & Agriculture; Government; Education & Human Services; Health & Biosciences; Retail, Tourism, Recreation & Entrepreneurship; Technologies; Manufacturing, Communications & Repair), integrating academic standards (linked Connecticut's Common Core of Learning) with technical and employability standards specific to each cluster.

Identifies and briefly explains the 16 USED/OVAE CPAs: Agriculture & Natural Resources; Architecture & Construction; Arts, A/V Technology & Communication; Business & Administration; Education & Training; Finance; Health Services; Hospitality & Tourism; Human Services; Information Technology; Law & Public Safety; Manufacturing; Government & Public Administration; Retail/Wholesale Sales & Service; Scientific Research/Engineering; Transportation, Distribution & Logistics. Links to sample occupations for all clusters to sizes for selected clusters.

Explains and defines career pathways and how they can be implemented in line with school-to-work principles; provides mini-case studies of schools.

Explains the purpose and nature of River Valley's eight career pathways: Construction Trades; Engineering Careers; Graphic Communications; Horticulture and Natural Resources; Hospitality & Tourism; Human Services; Information Technology; Proactive Services. Links to descriptions of pathways, programs in pathways, and courses in programs.
Career exploration and planning system provides information on 900 occupations from the O*NET database. Students can browse occupational information in six Career Clusters (Arts & Humanities; Business & Information Systems; Engineering & Technologies; Health Services; Human & Public Services; Natural & Agricultural Sciences) or can do a self-assessment to determine their preferences in six broad Interest Areas (Realistic; Investigative; Artistic; Social; Enterprising; Conventional).

Century Gold: Corporate Publication of Century Career Center. Logansport, IN: Century Career Center, Winter 2001-02. Career centers programs and curricula organized into eight schools, or career clusters: Business; Construction Technology; Engineering & Technology; Health & Human Services; Information Technology; Manufacturing Technology; Mechanical Repair; Transportation Technology.

COP Developments. Lexington: Massachusetts Center for Career and Technical Education, 2002. http://www.mccce.tea.ma.us/links/cop.html Identifies seven Career Clusters (Arts & Communication; Business, Finance & Marketing; Construction & Design; Environmental, Natural Resources & Agricultural Sciences; Health Services & Human Services; Hospitality, Tourism & Recreation; Technology & Engineering) related to the Certificate of Occupational Proficiency (COP); links to pages crosswalking clusters with Classification of Instructional Program (CIP) codes and program descriptions, with information on number and level of programs and number of enrollees.

CTE Program Descriptions: Alphabetically by Program Cluster. Montpelier: Career and Workforce Development, Vermont Department of Education, 2002. http://www.state.vt.us/edu/cwd/cte/ctecteNmbyclusters.html Describes Vermont's 17 career clusters: Agriculture & Natural Resources; Construction; Manufacturing; Logistics, Transportation & Distribution; Information Technology Services; Wholesale/Retail Sales & Service; Financial Services; Hospitality & Tourism; Business & Administrative Services; Health Services; Human Services; Arts & Communications Services; Legal & Protective Services; Scientific Research; Engineering & Technical Services; Education & Training Services; Public Administration/Government Services; and Pre-Tech. Links to descriptions of individual programs within clusters and to technical centers and high schools offering programs.

Guide to Selecting Career Clusters and Career Majors in Kentucky. Frankfort: Kentucky Department of Education, 2002. http://www.kde.state.ky.us/osts/voced/selecting_clusters.asp Educator's guide to Kentucky's 14 recognized career clusters (Agriculture; Arts & Humanities; Business & Marketing; Communications; Construction; Education; Health; Human Services; Information Technology; Manufacturing; Public Services; Science & Mathematics; Social Sciences; Transportation), used for career awareness, exploration, and guidance and for planning and completing a career major (focused program of study); alignment with postsecondary degrees, diplomas, certificates, and related occupations.


Occupational Guides by Interest Area. Sacramento: Labor Market Information Division, California Employment Development Department, 2000. http://www.calmics.ca.gov/file/occguide/2_INDEX.htm About 300 occupations grouped into 12 Interest Areas: Artistic; Scientific; Plants & Animals; Protective; Mechanical; Industrial; Office; Selling; Personal Service; Social Service; Professional & Managerial; Physical Performing; Medical or Health. Links to Occupation Guides providing statewide information on each occupation.


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