

Status of Career Clusters Implementation Across the Nation

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PLEASE NOTE: States submitted this content through a survey of three questions. NASDCTEc did not author the content, but did format it for a consistent look, into a single document.

OFFICE OF VOCATIONAL AND ADULT EDUCATION, U.S. DEPARTMENT OF EDUCATION

Status of Career Clusters Implementation:

Because "career pathways" are likely to be incorporated into Perkins when reauthorized, OVAE is working on an appropriate definition and examples to be shared with states and local entities.

ALABAMA

Status of Career Clusters Implementation:

Alabama is not working toward implementing the national Career Clusters. We have five clusters within our state around which all standards are written. Those five are: Environment and Natural Resources; Business/Marketing Education; Health, Family, and Human Services; Engineering, Manufacturing, Construction, Arts, Humanities, and Communications; and Health Science.

ARIZONA

Status of Career Clusters Implementation:

Arizona currently uses data from 13 of the National Career Clusters to help coordinate program creation and implementation at the secondary level. However, the Arizona State Plan utilizes Department of Labor Data (currently through 2013) from the Arizona Department of Economic Security, Research Division as the basis for programs that are to be created or removed from the CTE -Program Priority List.

ARKANSAS

Status of Career Clusters Implementation:

- All 16 clusters are under the direction of and agency staff member for supervision.
- All course sequences have been aligned with Cluster Pathways.
- Alignment with national cluster partnerships to evaluate the progress of our existing state programs.

COLORADO

Status of Career Clusters Implementation:

We do not embrace career clusters and Colorado has developed a seamless career pathway system. We have five Program Directors who approve programs for both K-12 and Post-secondary. They are in the areas of Business and Marketing, Agriculture Education, Technical, Trades & Industries, Family & Consumer Sciences, and Health Education and Special Needs.

These program directors only approve programs that have identified a pathway to employment or further education. Within the areas, the CIPS are the determiners of which area is covering a program. We are aware of, and insert information pertaining to, clusters but do not divide accordingly. Since the same Director provides assistance and approvals for K-12 and post-secondary, it ensures the seamless career pathway system.

CONNECTICUT

Status of Career Clusters Implementation:

Although Connecticut collects student data for federal reporting purposes, CTE in Connecticut's comprehensive high schools is focused on areas of concentration that combine curricular competencies that can be found in both CTE and academic course curricula. Career clusters are a reported data stream; however, this is a general area of instruction and not the focused areas of concentration.

DISTRICT OF COLUMBIA

Status of Career Clusters Implementation:

The District of Columbia Public Schools is implementing twelve career academies, in various stages of development, based on the career clusters as follows: Arts, Media & Communications; Business Administration & Finance; Construction & Design; Human Services, Education & Training; Engineering & Manufacturing; Hospitality & Tourism; Information Technology; Law, Public Safety & Security; Health & Medical Sciences; Agribusiness & Natural Resources (Biotechnology); Sales & Personal Services; and Transportation. Some of the clusters are well established, some are new, and some are in incipient stages. A great deal of effort is currently focused on curriculum development and revision, recruiting and facilitating useful Industry Advisory Councils, placing students in internships, preparing the foundations for articulation agreements, early college, or dual enrollment, and in some schools building new facilities.

FLORIDA

Status of Career Clusters Implementation:

Florida has sorted major program areas into the Career Clusters, identified areas of concern, and begun to address those issues that have to be resolved before full implementation of the model. All Florida Department of Education program specialists are scheduled to participate in the Career Cluster meeting this summer to move forward finalizing implementation plans.

GEORGIA

Status of Career Clusters Implementation:

Georgia is in the preliminary stages of implementing all 16 clusters. An implementation plan is currently being developed to phase in the clusters and revising all curriculum in CTE to performance based standards incorporating the career clusters knowledge, skills and academic standards into the pathways. Priorities will be set by early summer for the implementation stages. A public relations/awareness campaign is in the process of being developed to drive the cluster implementation.

HAWAII

Status of Career Clusters Implementation:

Hawaii has developed the core standards for each of our six career pathways and the cluster standards for many of the pathways. The pathways are Arts and Communications, Business, Health Services, Industrial and Engineering Technology, Natural Resources, and Public and Human Services. Hawaii is currently developing a strong infrastructure to support the implementation of pathways (marketing materials such as the DVD, internet-based career guidance tools, handbooks, magazines, linkage with the P20 initiative, etc.). Hawaii is conducting summer workshops on pathway and pathway standards implementation so that teachers are developing more and more strategies to implement career pathways in their classrooms.

Links to all the materials can be located at www.hawaii.edu/cte

IDAHO

Status of Career Clusters Implementation:

The Workforce Development Council has approved the implementation of career clusters that take into account both educational and labor market needs. Idaho is in the process of compiling and analyzing information to help determine what configuration of career clusters would best serve Idaho's employment and educational communities.

Work with local workforce investment boards, job service agencies, and the Department of Commerce and Labor is providing information for bridging the career clusters to the work of these agencies. With this information in hand, meetings will be convened in various areas across the state to gather input that may be specific to that region. The target for determining the configuration of career clusters for Idaho is early summer of 2005.

INDIANA

Status of Career Clusters Implementation:

Twenty Indiana high schools are creating programs to provide students with an integrated, highly academic college preparatory curriculum with a career cluster focus. The Department of Workforce Development awarded \$2,358,619.00 over two years to 19 Indiana high school/post-secondary consortiums to improve academic achievement and increase the development of skills for high-skill/ high-demand/high-wage careers. Examples of these programs include:

Pike High School in Indianapolis reorganized their entire school around six career clusters. During their first year of implementation they saw the number of students taking AP classes increase by 26% and the number of suspensions drop by 55%. Freshman failures decreased significantly and the failure rate in all classes dropped by 34% from 14.9% to 9.8%.

Portage High School has a new community health care clinic attached to the building due to their Health cluster. Students and teachers are able to use the two high tech teaching labs and students can participate in internships right on the school campus. The clinic has it's own entrance and looks just like any other clinic, but students and teachers can walk down the high school hall right into the teaching labs and into the clinic.

The program creates the first K-12 partnership to support the Indiana Science, Engineering and Information Technology cluster. Roche Diagnostics is making this commitment to promote science and technology to an increasing number of students who will fill the pipeline for the future.

Indiana has completed a core Certificate of Technical Achievement in the Manufacturing and processing cluster, completed a core Certificate of Technical Achievement in the Business, Management and Finance cluster. Additionally, the state is developing a core Certificate of Technical Achievement in the Health Services cluster and in the Transportation, Distribution and Logistics Clusters, and publishing a magazine on Indiana Career Majors in Action on how to implement career clusters.

IOWA

Status of Career Clusters Implementation:

Iowa staff have participated in national conferences and workshops on career clusters. Consultants in each career and technical area are quite informed on career clusters and there is study on further implementing clusters in the state.

KANSAS

Status of Career Clusters Implementation:

Kansas established a Career Clusters Design Committee consisting of school counselors, school administrators, teachers from the secondary and postsecondary levels. Following the discovery phase, we have two pilot sites after which other schools can pattern their cluster implementation. Colby High School is using all 16 clusters for students to explore prior to making their final selection. Junction City High School has selected the Academy Model and offers the following academies: Business Information Technology, Science Engineering Technology, Fine Arts & Human Services, and Freshman Success Academy. Both schools have presented their successes at several conferences so others can learn from their efforts.

To further our information base, CTE staffs from Kansas, Nebraska, Missouri and Oklahoma held a joint meeting in Kansas City. The discussion focused on the quality of CTE in each state and how career clusters can enhance what is delivered to students as they prepare to become gainfully employed in the workforce.

KENTUCKY

Status of Career Clusters Implementation:

Kentucky is using 14 of the 16 Career Clusters: Agriculture, Arts & Humanities, Business & Marketing, Communications, Construction, Education, Health Sciences, Humanities, Information Technology, Manufacturing, Public Service, Science & Mathematics, Social Science, and Transportation.

<http://www.education.ky.gov/NR/rdonlyres/e5fkjnjvy66z7y3w2wdadoa7yxking2ikamgwewmljucwkg7lrz3yukl ag2hhmjkluzhjnzbk2h5iklwsm5eqxrg/Career+Cluster-Web.pdf>

MAINE

Status of Career Clusters Implementation:

Maine is not directly involved with the Career Clusters project. We have our own state standards that were developed from national standards and that are linked, and in some cases aligned (see above) with state academic standards.

MARYLAND

Status of Career Clusters Implementation:

Maryland designed and implemented 10 career clusters starting in 1995: Arts, Media and Communication, Business Management and Finance, Consumer Services, Hospitality and Tourism, Construction and Development, Environmental, Agricultural, and Natural Resources Systems, Health and Biosciences, Human Resource Services, Information Technology, Manufacturing, Engineering and Technology, and Transportation Technologies. The publication titled Maryland Career Clusters: Restructuring Learning for Student Achievement in a Technologically Advanced, Global Society has been widely distributed for use in developing CTE pathway programs, creating small learning communities, and improving the quality of existing CTE programs. The career cluster frameworks and CTE pathway programs are integrated in the career development framework to encourage systemic implementation at the local level.

<http://www.marylandpublicschools.org/NR/rdonlyres/00001017/uphlnweyuvhjiniifwllgofgikuizyvod/MarylandCareerClustersBooklet01062004.pdf>.

MASSACHUSETTS

Status of Career Clusters Implementation:

Massachusetts has embraced its own career clusters: Agriculture and Natural Resources, Arts and Communication Services, Construction, Manufacturing, Engineering and Technology, Transportation, Wholesale/Retail Sales & Services, Business and Administrative Services, Education, Information Technology Services, Health Services, and Hospitality and Tourism. The local community appears to be beginning to understand and accept the career cluster concept.

MICHIGAN

Status of Career Clusters Implementation:

- All approved CTE programs in Michigan must align their local curriculum to the National Career Cluster standards, define a sequence of courses/instructional units related to the career clusters, crosswalk their curriculum to the Michigan academic content standards for high school and show linkages between the high school curriculum and the postsecondary partners.
- The Career Cluster Advisory Committee, comprised of Michigan stakeholders, has met three times.
- Completed four Train the Trainer sessions focusing on the implementation of the cluster framework.
- CTE curriculum-specific training sessions for Health Science, Childcare, Family and Consumer Science, Law & Public Safety, Business, Marketing, Construction, and Agriculture educators.

- Clusters have been presented at statewide new CTE administrators meeting, new CTE teachers meeting, meeting with CTSO Directors, to Community Colleges and in newsletters to administrators that go out monthly for the last 18 months.

MINNESOTA

Status of Career Clusters Implementation:

As a state we are just beginning to explore career clusters as an organizational structure for developing career pathways. Currently, career clusters are used for data collection and organization within secondary and post-secondary Perkins databases.

MISSOURI

Status of Career Clusters Implementation:

In Fall 2004, a focus group of counselors and teachers met to provide input into Career Cluster development. A series of student focus groups were also held to gather input on career clusters and 4-year plan templates.

Missouri is planning several Career Clusters initiatives in FY2006. Through the Missouri Center for Career Education (MCCE), materials will be developed that identify and explain the relationship of career clusters to 1) interest inventories, 2) assessments, 3) the Missouri School Improvement Program review, 4) increased graduation requirements, and 5) grade level expectations. Materials will be disseminated through inservice workshops, electronically, and the Resources @ MCCE lending library.

A series of regional workshops is planned for the fall of 2005 to assist schools in implementing the Career Cluster concept. The focus will be on how the implementation can assist in school reform efforts and assist students in meeting graduation requirements.

There are nine (9) Regional Professional Development Centers (RPDCs) in Missouri. Professional development activities promoting career clusters are scheduled during FY06 through the RPDCs.

NEBRASKA

Status of Career Clusters Implementation:

Nebraska is progressing toward full implementation. Career Education staff are now organized by career field/cluster rather than discipline, and policies have been changed so schools are accredited based on courses offered in career fields/clusters rather than traditional disciplines with a required broadening of the offerings to include more clusters.

The new marketing campaign is conducted around the career field/cluster model for both secondary and postsecondary schools, and FutureForce Nebraska is being built on career clusters. School Counseling Academy has added a day to discuss implementation of career guidance using career field/ cluster model, and individual Career Education Plan (ICEP) required of all students will be reviewed annually using information from career clusters.

NEVADA

Status of Career Clusters Implementation:

Nevada is in the initial stage of implementation of Career Clusters. We will be placing a greater focus on this initiative in FY 06.

NEW HAMPSHIRE

Status of Career Clusters Implementation:

New Hampshire is moving towards a complete compilation of career clusters with their respective pathways in a document that shows the occupations that are related, the high school courses necessary for preparation, the colleges that have related programs and the level of degrees to acquire certain occupations.

NEW JERSEY

Status of Career Clusters Implementation:

We have organized all of our approved CTE programs by Career Cluster and Career Cluster Pathway and revised New Jersey Administrative Code to recognize New Jersey Career and Technical teacher certification and endorsements by Career Cluster. We are now aligning the Classification of Instructional Programs (CIP) 2000 to the Career Clusters and Pathways. Office staff has volunteered to serve on "Career Cluster Teams" as we move forward in the planning process.

The Vocational-Technical Occupational Approval database of secondary programs of study, and all postsecondary programs of study have been re-classified and aligned with the "States' Career Cluster Initiative." All Tech-Prep programs developed in New Jersey are aligned with the 16 career clusters identified by the "States' Career Cluster Initiative."

Our office directs all current state and federal grant applicants to use career clusters as part of their goals and objectives. Our CTE conferences provide Career Cluster workshops, i.e., Generation Next, to ensure that schools having approved occupational programs are developing curriculum, as well as placing students, in pathways appropriate to their career cluster. The New Jersey Department of Education's website also provides valuable links to all of the current career cluster information.

NEW YORK

Status of Career Clusters Implementation:

Nothing to report at this time.

NORTH CAROLINA

Status of Career Clusters Implementation:

North Carolina has ten career clusters at the secondary and community college levels. The clusters are Agricultural and Natural Resources Technologies, Arts & Sciences, Biological and Chemical Technologies, Business Technologies, Commercial & Artistic Production, Technologies, Construction Technologies, Engineering Technologies, Health Sciences, Industrial Technologies, Public Service Technologies, and Transport Systems Technologies.

State graduation requirements in Career Prep and College Tech Prep Courses of Study require students to complete four credits in a career pathway. Seventeen percent of students complete College Tech Prep Course of Study, twenty-three percent of students complete College Tech Prep and College/University Prep, thus forty percent of North Carolina students complete a College Tech Prep Course of Study. The state data is reported by high school on each school system's Report Card.

NORTH DAKOTA

Status of Career Clusters Implementation:

Developed pilot courses in 5 school districts– Architecture & Construction; Manufacturing; and Arts, A/V & Communications. Pilots help expand curricular options. Have developed a teacher licensure/endorsement process for Clusters teachers allowing flexibility to schools to utilize existing instructors.

OHIO

Status of Career Clusters Implementation: (termed “career fields” in Ohio)

- Ohio adopted new administrative rules (May, 2004) for CTE establishing a statewide career field curricular framework and requiring career pathway delivery models. Districts will be required to submit plans no later than spring of 2006 indicating compliance with those rules.
www.ode.state.oh.us/ctae/regulations/admin_rules.asp.
- Technical content standards are under development to represent the depth and breadth of career fields including core and pathway technical skills and embedded academic content standards.
- Provided more than 340 web-based instructional resources that integrate academic and career-technical instruction searchable by both academic standard addressed and applicable career area.
www.ohiorc.org/standards_plus/.

OKLAHOMA

Status of Career Clusters Implementation:

Career Clusters - in February OK CareerTech released the paper Using the Career Cluster Framework to Align Educational Systems and Industry Clusters for Oklahoma's Economic Prosperity: A Shared Vision (www.okcareertech.org). This is a vision paper for our system about why the Career Clusters framework is a critical tool, not only for CTE, but for all our partners. It also discusses what we need to do with Career Clusters and how we can begin. The state also conducted an Oklahoma Career Clusters Institute that brought together 350 people on 24 teams from across the state representing initiatives for the

Architecture and Construction, Business, Health, Hospitality & Tourism, IT, Law, Manufacturing, STEM, and Transportation Career Clusters. These teams worked on strategic plans for their next steps and consulted with various content experts. Tech Prep strategy has been a critical vehicle in using the Career Cluster framework.

Oklahoma's career pathways are Architecture & Construction, Health, Hospitality & Tourism, Human Services, Information Technology, Law, Public Safety & Security, Manufacturing, Science, Technology, Engineering & Mathematics, and Transportation.

OREGON

Status of Career Clusters Implementation:

- Through the updated CTE Quality Assurance process, Oregon reorganized its program organizational hierarchy, beginning at the highest level with broad *Career Learning Areas* (e.g. Business & Management) which leads to *Career Clusters* (e.g. Hospitality & Tourism) ending with *Career Focus Areas* (e.g. Lodging or Travel & Tourism). Oregon has refined and *Oregon-ized* the existing 16 career clusters to better fit with its workforce and economy.
- Launched a Career Pathway design and implementation effort. One strategy is award Regional Capacity Grants to supplement local funding for the design of a career pathway model to be used as a statewide resource. Grantees are expected to send a team to the Career Clusters Institute. Knowledge gained from the Institute and Oregon's involvement with NGA and CCTI will leverage broader use of Career Clusters to inform pathway design and content.
- Beginning in July with the 2005-2007 CTE program approval and renewal cycle, CTE program design and curriculum will need to demonstrate the use of career clusters to inform content. Both secondary and postsecondary CTE partners will also use career cluster knowledge and skills to better align pathway content for articulation and Tech Prep.

PENNSYLVANIA

Status of Career Clusters Implementation:

PA supports career clusters , but more is occurring at the local level. We have identified recognized programs to fit within a given cluster. For example, Agriculture, Food and Natural Resources Cluster lists all approved CIPS that PA uses. If we continue to pursue the cluster concept, we may need to make changes in the certifications and would have to seek possible approval from Office of Higher Education.

RHODE ISLAND

Status of Career Clusters Implementation:

We have an implementation strategy in the works. Will report back once we have it in place.

SOUTH DAKOTA

Status of Career Clusters Implementation:

We are looking at adopting a model using 6 Career Clusters as a foundation that supports the 16 Cluster areas. We would like to have program specialists in each of the basic 6 Clusters. Those clusters are Business and Information, Engineering Industrial Technologies, Agriculture and Natural Resources, Health and Related Services, Art and Communication, and Social and Human Services.

We are studying the impact this would have on existing programs and would like to build in adaptability to any new programs that may come along. With this we are evaluating new methods to provide teachers with certification avenues that may be different from the traditional methods of certification and endorsement. We are interested in making opportunities in CTE quick to respond to the needs of the workforce.

TENNESSEE

Status of Career Clusters Implementation:

In 2001 the State Board of Education in Tennessee passed a proposal to recognize 7 career clusters. The clusters adopted and currently being used are: Arts/communication Business/Marketing, Health Care, Hospitality/tourism, Human Services, Manufacturing/construction/Transportation, and Sciences/technology. They are currently available but not required.

TEXAS

Status of Career Clusters Implementation:

Texas is developing a plan to transition from traditional CTE programs to Career Clusters. We are funding a grant titled: *Career Pathways – A Framework for Career Planning and Preparation in the 21st Century*. It has been decided that the pathways project will use the 16 Career Clusters and cluster resources as the framework for identifying and developing the career pathways.

UTAH

Status of Career Clusters Implementation:

Utah is integrating the careers clusters approach within our comprehensive guidance model. We are organizing career fields around the Holland Codes for consistency with Utah's counseling practices. The state has identified specific pathways in CTE areas that have matured as a result of Tech Prep indicatives and have linked them to various clusters. Health Science and Information Technology pathways have been implemented for a number of years. A framework has been developed from the state level and local consortia are developing training and marketing materials to help students and parents understand opportunities available in these pathways.

VERMONT

Status of Career Clusters Implementation:

Competencies are being reviewed and aligned with Career Clusters, as are industry recognized credentials and post secondary opportunities. We have included information and workshops based on Career Clusters at the annual CTE conference for the last 3 years and plan to continue and we have consultants assigned to work with cluster groups on professional development and related issues.

VIRGINIA

Status of Career Clusters Implementation:

We have identified and are utilizing a nationally recognized career-planning portfolio at www.virginiaview.org for grades K-12. The Virginia Career and Technical Education Foundation is in the process of utilizing the career clusters on a promotional calendar to send to all ninth graders in the state and may also be given to other grade levels. We are using the career clusters in the *R U Ready* magazine for eleventh graders and *R U Ready* bookmarks for eighth grade parents. Staff members have participated in national conferences and a two-day workshop that involved all state staff and all staff from the Career Resource Center.

WASHINGTON

Status of Career Clusters Implementation:

Career and Student Guidance materials (*Where are you going?*) identifies and categorizes occupations by the 16 clusters, while the secondary system is organized in 5 pathways, inclusive of the clusters. WTB is working with the Marine Manufacturing Center of Excellence and the Marie Services Skill Panel to develop a Career Clusters implementation template for replication within other clusters.

WEST VIRGINIA

Status of Career Clusters Implementation:

Implemented a system of career clusters and majors in 1998. All high schools developed their programs of study around the cluster format which includes 6 career clusters (Business & Marketing, Health, Engineering/Technical, Human Services, Fine Arts/Humanities, and Science/Natural Resources) and approximately 40 majors. We modified the 16 cluster materials to fit our format.

WISCONSIN

Status of Career Clusters Implementation:

Wisconsin has some high schools and career academies implementing clusters in varying levels. At this point of time, they are working to establish a network to identify and link these efforts. They also started implementing "career ladders" about 10 years ago and many of the schools are transitioning this structure to clusters and pathways. The Youth Apprenticeship system is based on a cluster and pathway approach, and they also have several technical colleges providing leadership in developing pathways that directly link secondary and postsecondary programs (e.g., Public Safety at Fox Valley Technical College).

Currently at the state level, the Dept. of Public Instruction, Dept. of Workforce Development, WI Tech College System, and the Gov's Workbased Learning Board are now working together to develop a state model for the establishment and implementation of clusters. This model is considering the 16 cluster approach with alignment to our state's Dept. of Commerce industry clusters.

WYOMING

Status of Career Clusters Implementation:

Wyoming has defined 6 overarching pathways (Arts and Communication, Business, Management & Technology, Health Services, Human Services, Industrial Engineering & Technology, and Natural Resources/Agricultural) under which the 16 clusters are placed. We are marketing the concepts to obtain full buy-in and acceptance by the Wyoming Department of Education and the Wyoming Association of Career Technical Educators.