

**New Directions for High School
Career and Technical Education in Wyoming
From the MPR Strategic Plan**

Chapter 3
Essential Policy Considerations

Strategic Objective #1: Legislative Alignment - Ensure that state legislative efforts promote school district involvement in the career pathways initiative and support student participation in career technical education.

Strategy 1.1: Recognize career clusters as the overarching framework for organizing the content and delivery of CTE, as well as more comprehensive of integrated academic and technical study.

Action Steps

- Ensure legislation reinforces WDE effort to introduce clusters
- Provide incentives for districts to adopt clusters
- Ensure state policy supports cluster model development and remove those that hinder it.

Strategy 1.2: Rename or eliminate the 'career' category in the Hathaway Scholarship Program.

Action Steps

- Rename Career scholarship the Achievement or Initiative award
OR
- Eliminate Career scholarship and modify the Opportunity scholarship to reflect the removed category if desired.
- Allow recipients of this scholarship while enrolled in the community college to be eligible to enroll for 4 additional full-time semesters a UW.
- Eliminate use of the WorkKeys exam for Hathaway and base eligibility on the ACT exam.

Strategy 1.3: Recognize selected rigorous CTE courses, as well as newly developed courses of integrated academic and technical content, as satisfying requirement for one or more of the academic courses included in the Success Curriculum.

Action Steps

- Change Success Curriculum requirements to allow students to apply technical course credits, from rigorous academic/technical content, toward meeting Hathaway eligibility criteria.

Strategic Objective #2: Content Standards - Enumerate the academic and industry-related standards that are the focus of each pathway.

Strategy 2.1: Identify the industry-related technical standards and academic standards that are the focus of pathway curricula.

Action Steps

- Convene statewide teams of academic and technical instructors from secondary, postsecondary and industry to begin development of technical standards and associated academic standards within each of the career cluster/program of study areas and beginning with the clusters most critical to students and the economy.
- Align academic and technical standards with industry standards and needs to assure congruence.
- When disseminating completed standards, help school personnel to understand how to use them as guidelines in developing their course curricula.
- Review standards periodically to ensure that they have kept pace with industry innovations and trends.

Strategic Objective #3: Plans of Study - Develop curriculum framework models for each career cluster and career pathway that identify the relevant academic and technical courses needed for secondary completion and postsecondary enrollment and career entry.

Strategy 3.1: Develop model program frameworks for each career pathway illustrating the academic and technical courses comprising a comprehensive four-year program of study.

Action Steps

- Convene sector-focused committees of industry representatives, postsecondary professors, secondary

- academic and CTE teachers, to model programs of study for each pathway, based on a review of current program offerings.
- Provide resources and technical assistance to support schools as they develop curriculum frameworks and modify school schedules to accommodate the pathways model.
 - Disseminate plans of study to educators and communicate the benefits of adopting them, showcasing schools that have used them to improve student learning.

Strategic Objective #4: Curriculum, Support development of a standards-based curriculum for core academic and technical courses in each of the major pathways.

Strategy 4.1: Develop model curriculum for the technical core courses in each of the career pathways.

Action Steps

- Identify high-quality curricula in Wyoming and nationally.
- Convene committees of secondary, postsecondary, business and industry to develop models in each cluster/program/pathway area.
- Offer stipends to teachers to work on the committees in the summer months and incentives for business, industry and postsecondary reps as well.
- Offer ongoing technical assistance and on-site visits during school year to assist with curricula implementation.
- Encourage districts to set aside joint planning time for academic/technical teacher working together.

Strategic Objective #5: Delivery Systems - Institute innovative strategies for ensuring that students have access to career pathways, as well as opportunities for work-based learning and dual enrollment in related postsecondary courses.

Strategy 5.1: Promote the development and use of school-based delivery approaches, such as career academies or career magnets, to organize instruction.

Action Steps

- Develop materials and provide technical assistance to assist administrators and teachers in shifting to a focus on career pathways.
- Offer fiscal resources for release time to plan programs and curriculum within the districts and regions, to visit model programs, and to attend professional development conferences and workshops.

Strategy 5.2: Encourage districts to adopt regional strategies that increase collaboration among districts and education institutions.

Action Steps

- Provide incentives for district to adopt regional delivery models.
- Develop a statewide articulation agreement for dual enrollment.
- Provide instructors with contractual release time to support collaborative planning.
- Foster collaboration by encouraging professional development calendars within a region to have a common planning time.
- Consider dedicating statewide professional development days to create common planning time in districts and regions similar to the current School Improvement Conference.

Strategy 5.3: Remove obstacles to hiring effective teachers.

Action Steps

- Encourage the PTSB to provide more flexibility in CTE credentialing to help more qualified individuals become CTE instructors – especially in technical areas in which there are shortages.
- Develop a regional Teacher Corps of itinerants to travel among school districts within a region to provide specialized instruction in CTE and core subjects.
- Tailor distance learning capabilities to address career pathways approach.
- Develop oversight and accountability measures for WEN to assure students are making progress and meeting performance benchmarks.

Strategic Objective #6: Articulation - Ensure that the program of study for each career pathway is aligned to a wide range of postsecondary options.

Strategy 6.1: Develop articulation models and pursue statewide articulation agreements to align secondary career pathways with their associated postsecondary programs of study.

Action Steps

- Map clearly how programs of study in high school lead directly through statewide articulation agreements and other policies, to related majors in two and four year colleges, apprenticeship, and other forms of sub-baccalaureate certifications, military training, and formal employment training opportunities in related industries.
- Develop model articulation agreements that school districts and community colleges can use to align coursework.

Strategic Objective #7: Teacher Preparation - Increase the number of teachers who are highly effective in teaching academic and technical courses in new pathways of integrated academic and technical study.

Strategy 7.1: Strengthen teacher preparation programs. [Consider both secondary and postsecondary in action steps where appropriate.]

Action Steps

- Engage industry and postsecondary educators in identifying what teachers/administrators should know and be able to do to deliver integrated instruction.
- Identify instructional strategies that can be used in teacher prep programs and modify state credentialing procedures to prepare beginning teachers to deliver instruction using the pathways model.
- Work with higher education to modify teacher preparation programs to emphasize agreed upon elements that teachers should know and be able to do.
- Ramp up higher education teacher prep programs to increase the number of teachers entering the Wyoming workforce who have the skills to integrate technical and academic content. Then use this cadre to lead teachers to help schools transition to integrated curriculum and instruction.

- Provide financial incentives to encourage students enrolled in teacher prep programs to complete dual certification in CTE and academic discipline.

Strategy 7.2: Provide professional development to assist existing teachers in understanding and transitioning to using career clusters and pathways to organize instruction. See page 49 of plan for more detailed action steps.

Action Steps

- Distribute examples of curricular materials and suggested instructional strategies that encourage collaboration in developing integrated coursework.
- Provide start-up resources to support integration. [See page 49 for other details regarding incentives.]
- Conduct statewide or regional workshops that focus on teacher training to incorporate technical material into academic coursework and visa versa. Exchange ideas.
- Create communication networks among academic and technical instructors – listserv and/or moderated web blog.
- Work with employers to create summer placements to allow academic teachers to experience how academic knowledge is applied in the workplace.

Strategy 7.3: Strengthen preparation and support for administrators.

Action Steps

- Identify key elements of assistance for principals re: integration of academic and technical programs.
- Develop and offer on-going professional development that incorporates the key elements. [pgs. 20-21]
- Work with UW to modify their administrative prep program to include key elements principals need to know and be able to do.

Strategic Goal #8: Assessment - Create assessments that evaluate students' mastery of both academic and technical knowledge, as well as core skills essential for career success.

Strategy 8.1: Adapt the WyCTA to provide standards-based assessment of both academic and technical knowledge in each of the career clusters adopted by the state.

Action Steps

- Convene a working group of CTE/Academic instructors, postsecondary educators, business and industry reps to adapt the WyCTA to students' technical skills in career pathways associated with each cluster area, by:
 1. Contracting with a private vendor to develop assessment to align with the state's CTE standards or,
 2. Identifying industry certification exams that align with or can be adapted to align with state standards; or
 3. Reviewing existing state cluster assessments to assess the potential for adapting them for state use.

Strategy 8.2: Provide incentives for students to take and pass appropriate certification exams in sectors or clusters with occupations requiring formal certification.

Action Steps

- Consider developing criteria for and adopting a career-cluster or technical endorsement for the Wyoming high school diploma.
- Identify national or industry certification exams that align with pathways within each of the 16 cluster areas and offer incentives to students for passing them.

Strategic Goal #9: Finance - As needed and appropriate, modify the state's school finance system to support development and implementation of the career clusters and pathways approach.

Strategy 9.1: Specify pathway courses eligible for weighted funding and, if needed, adjust the current career technical education weight of 1.29 to reflect new class size requirements, program minima, and special requirements of very small schools.

Action Steps

- Quantify the cost of providing pathways instruction compared to regular coursework. Then based on the study findings consider two options [pg. 55 for details]
- Consider recalibrating the career technical education weight to reflect demographic changes since the original weight was specified.

Strategy 9.2: Provide fiscal resources to support the development of content standards, curricula, and assessments.

Action Steps

- Fund development of standards, model curriculum, and assessments for three to five cluster areas to determine developmental costs required to complete this process for the remaining clusters.
- Use findings from pilot efforts to quantify the actual cost of development and the process for guiding further development work.
- Provide funding to support pilot demonstrations and evaluations of pathways in selected schools and districts.

Strategy 9.3: Provide fiscal or other incentives to support educators in implementing the pathways approach and for local schools and districts in coordinating with other school districts, BOCES and postsecondary systems to deliver instruction.

Action Steps

- Establish a statewide grant program to offset start-up costs with integration of curriculum.
- Consider prioritizing funding for proposals that promote inter-district or regional collaboration in implementing pathway programs.

Strategy 9.4: Provide appropriate categorical or formula-based support for equipment and supplies based on newly developed content standards, curriculum, and assessments.

Action Steps

- Identify types of equipment and supplies required to teach the standards within each cluster area and pathway.
- Conduct an audit of district CTE equipment to quantify cost of bringing all districts to a minimum level of program quality, as determined by the content standards.
- Conduct an audit of school facilities to assess whether existing infrastructure can accommodate instruction organized around career clusters/pathways approach.

Strategic Goal #10: Accountability - Improve career and technical programs over time through ongoing monitoring and collection of student and program performance data.

Strategy 10.1: Develop an accountability system to assess the effect of the career clusters and pathways model.

Action Steps

- Determine process and outcome indicators that can be used to gauge the success of the clusters model approach.
- Collect annual data on program performance.

Strategy 10.2: Use performance outcomes to identify promising program strategies, to reward school districts making exemplary progress, and to target technical assistance to underperforming schools.

Action Steps

- Review district performance on an annual basis and publish information about district performance to allow administrators to compare their performance with other programs.
- Determine if additional staffing is needed to collect and monitor data and provide necessary funds.
- Adopt incentives to reward districts that show outstanding progress and offer technical assistance to those in need of improvement.

Chapter 4 Implementation Considerations

At least five steps are essential to move incrementally but steadily toward achieving longer-range statewide objectives:

1. Establish a statewide steering committee to guide pathways adoption.
2. Strengthen core CTE programs and curriculum.
3. Conduct pilot demonstrations of comprehensive career pathways.
4. Strengthen professional development and teacher preparation programs.
5. Evaluate improvements to career and technical education instruction and delivery.

increase Partnership w/ CC
used industry standards

Budget 4109: State Voc Ed Grant Program

EXCEPTION BUDGET REQUEST

SECTION 3. EXCEPTION BUDGET REQUEST

An exception request to this budget is for the estimated costs of Years 1 and 2 of a projected five year implementation of the strategic plan key priorities and recommendations made to the State of Wyoming by MPR Associates, Inc. The study, "New Directions for High School Career and Technical Education in Wyoming", came as a result of follow-up from the Supreme Court's ruling on school finance and was presented in full to the Joint Education Interim Committee in June 2007.

PRIORITY #1 – STRENGTHEN CORE CTE PROGRAMS AND CURRICULUM

A. EXPLANATION OF REQUEST: Career cluster and pathway Programs of Study would be developed using the model career pathway recommendations. All awarded Programs of Study development funds would address: instructional curriculum significant to Wyoming's industry and workforce development needs; clearly defined pathways and transitions from secondary to post-secondary and the workforce; partnerships between education and industry; and purchases and upgrades of equipment to reflect industry standards.

The expectation would be to award funds to consortia over two years, five (5) grants in Year 1 and eight (8) grants in Year 2 for a total award of \$1,300,000.

B. REQUEST BY OBJECT CODE, FUND AMOUNT & FUNDING SOURCE:

1. 0600 – Grants & Aid Payments	\$800,000	100% General Fund
Total	\$800,000	

C. PERFORMANCE JUSTIFICATION

These funds will augment the \$500,000 currently appropriated to this budget. The criteria by which they will be awarded will be made consistent with the recommendations in the strategic plan recommendations. They will build on the existing career technical education programs currently in practice throughout the state.

Total Exception Request \$800,000

2112105

P-16 Topic

2000

Budget 6126: State Voc Ed Finance

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PRIORITY #1 – EMPLOY A PROJECT MANAGER

A. EXPLANATION OF REQUEST: The duties of the Career Technical Education Project Manager position include implementing the key recommendations of the strategic plan; convening a CTE steering committee; overseeing the analysis of existing policies; and working with the Department's CTE staff on strengthening core CTE programs. This description is an education consultant classification – ED12.

B. REQUEST BY OBJECT CODE, FUNDING AMOUNT & FUND SOURCE

1. 0100 - Salaries	\$209,087	100% General Fund
2. 0200 – Support Services	\$28,000	100% General Fund
3. 0400 – Central/Data Services	1,964	100% General Fund
Total	\$239,051	

C. PERFORMANCE JUSTIFICATION: Funds will be used to begin the implementation of the recommendations from the strategic plan described above.

PRIORITY #2 – ESTABLISH A STATEWIDE STEERING COMMITTEE

A. EXPLANATION OF REQUEST: A steering committee will influence statewide activities and advise on system design and adoption of the strategic plan recommendations. The committee will be comprised of a wide range of stakeholders. Approximately \$75,000 per year will be utilized to charter and convene the committee.

B. REQUEST BY OBJECT CODE, FUND AMOUNT & FUNDING SOURCE

1. 0200 – Travel & Meeting Costs	\$150,000	100% General Fund
Total	\$150,000	

B. PERFORMANCE JUSTIFICATION: Funds will be used to begin the implementation of the recommendations from the strategic plan described above.

