

**CAREER PATHWAYS AND TECHNICAL EDUCATION  
ADVISORY TASK FORCE**

Report of the  
Career Pathways and Technical Education Advisory Task Force  
Submitted to the Minnesota Legislature  
February 15, 2014

## **Cost of Report Preparation**

The total cost for the Minnesota Department of Education (MDE) to prepare this report was approximately \$740.00. Most of these costs involved staff time in analyzing data from surveys and preparing the written report. Incidental costs include paper, copying, and other office supplies.

Estimated costs are provided in accordance with Minnesota Statutes 2011, section 3.197, which requires that at the beginning of a report to the Legislature, the cost of preparing the report must be provided.

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## **Introduction: The Challenge Before Us**

An ambitious and necessary challenge lies before us. This challenge is to prepare Minnesota's young adults for a productive life by having them career and college ready when they graduate from high school, and to provide pathways integrated with their future ambitions and careers. This task does not fall solely to the state's high schools, but is a systemic challenge that requires partnership between students, parents, the E-12 system, postsecondary systems and employers.

Data on four-year high school graduation rates highlight the challenge our state faces for every group of students, and even more pronouncedly for students of color. It is also estimated that over 74 percent of Minnesota jobs will require some form of postsecondary education by 2020 (Carnevale, et. al., 2013), but currently only 47 percent of Minnesota college students complete a degree within eight years.

Minnesota continues to have one of the widest and most pervasive opportunity gaps in the nation for students of color and low-income students. Additionally, forty percent of recent high school graduates who enrolled in a Minnesota public higher education institution took at least one non-credit-bearing developmental course. This not only creates a significant financial burden for students, but it also significantly decreases the likelihood of completing a degree or certificate.

Many efforts to address these issues have been underway for some time in Minnesota. The task force was fortunate to hear about many of these promising efforts and programs of excellence. A significant challenge before us is to bring these practices to scale so that all of Minnesota's students benefit from the good work that has been underway.

To achieve the goal of a comprehensive career and college readiness system that serves all Minnesotans will require significant purposeful work for a sustained period of time. This work will require new collaborations across state agencies, educational institutions, businesses and community partners. Technology must be harnessed to make the plans developed by students and their families more effective and portable. Experiential learning will need to play a significant role in those plans. Minnesota will also need to invest in the human capital of our secondary and postsecondary educators to support this system.

## **Charge to the Task Force**

The 2013 legislature established a task force to examine issues related to better aligning secondary and postsecondary education and make recommendations to invigorate secondary CTE, build, improve, and sustain secondary/postsecondary connections, and make career pathways the central mechanism by which students plan, develop, and implement their education goals. (See Appendix A)

Below are the details of that charge to the task force.

“A career pathways and technical education advisory task force is established to recommend to the Minnesota legislature:”

### **How to structurally redesign secondary and postsecondary education to:**

1. Improve secondary and postsecondary outcomes for students and adult learners;
2. Align secondary and postsecondary education programs serving students and adult learners;
3. Align secondary and postsecondary education programs and Minnesota's workforce needs; and
4. Measure and evaluate the combined efficacy of Minnesota's public kindergarten through grade 12 and postsecondary education programs.

### **Advisory task force members, in preparing these recommendations, must seek the advice of education providers, employers, policy makers, and other interested stakeholders and must at least consider how to:**

1. Better inform students about career options, occupational trends, and educational paths leading to viable and rewarding careers and reduce the gap between the demand for and preparation of a skilled Minnesota workforce;
2. In consultation with a student's family, develop and periodically adapt, as needed, an education and work plan for each student aligned with the student's personal and professional interests, abilities, skills, and aspirations;
3. Improve monitoring of high school students' progress with targeted interventions and support and remove the need for remedial instruction;
4. Increase and accelerate opportunities for secondary school students to earn postsecondary credits leading to a certificate, industry license, or degree;
5. Better align high school courses and expectations and postsecondary credit-bearing courses;
6. Better align high school standards and assessments, postsecondary readiness measures and entrance requirements, and the expectations of Minnesota employers;
7. Increase the rates at which students complete a postsecondary certificate, industry license, or degree; and
8. Provide graduates of two-year and four-year postsecondary institutions with the foundational skills needed for civic engagement, ongoing employment, and continuous learning.

## **Task Force Membership and Activities**

Membership on the Task Force was designated in statute (see Appendix B). The Task Force held eight meetings beginning on August 12, 2013. The recommendations included with this report were finalized and adopted at the final meeting on February 10, 2014.

The Task Force agendas covered a variety of subjects in its meetings as outlined in the charge. This included several presentations on the following issues:

- The structural design of the current K-12 and Postsecondary systems;
- Update of recent changes in the federal Perkins Act;
- A review of labor market trends and career options;
- Employer Needs and Expectations: a panel of employers representing four major fields of employment—the health industry, the construction industry, the manufacturing industry and the technology industry;
- A look at career planning and parental information structures currently in place;
- Data collection and information: SLEDS- Statewide Longitudinal Education Data System and WDQI – Workforce Data Quality Initiative.

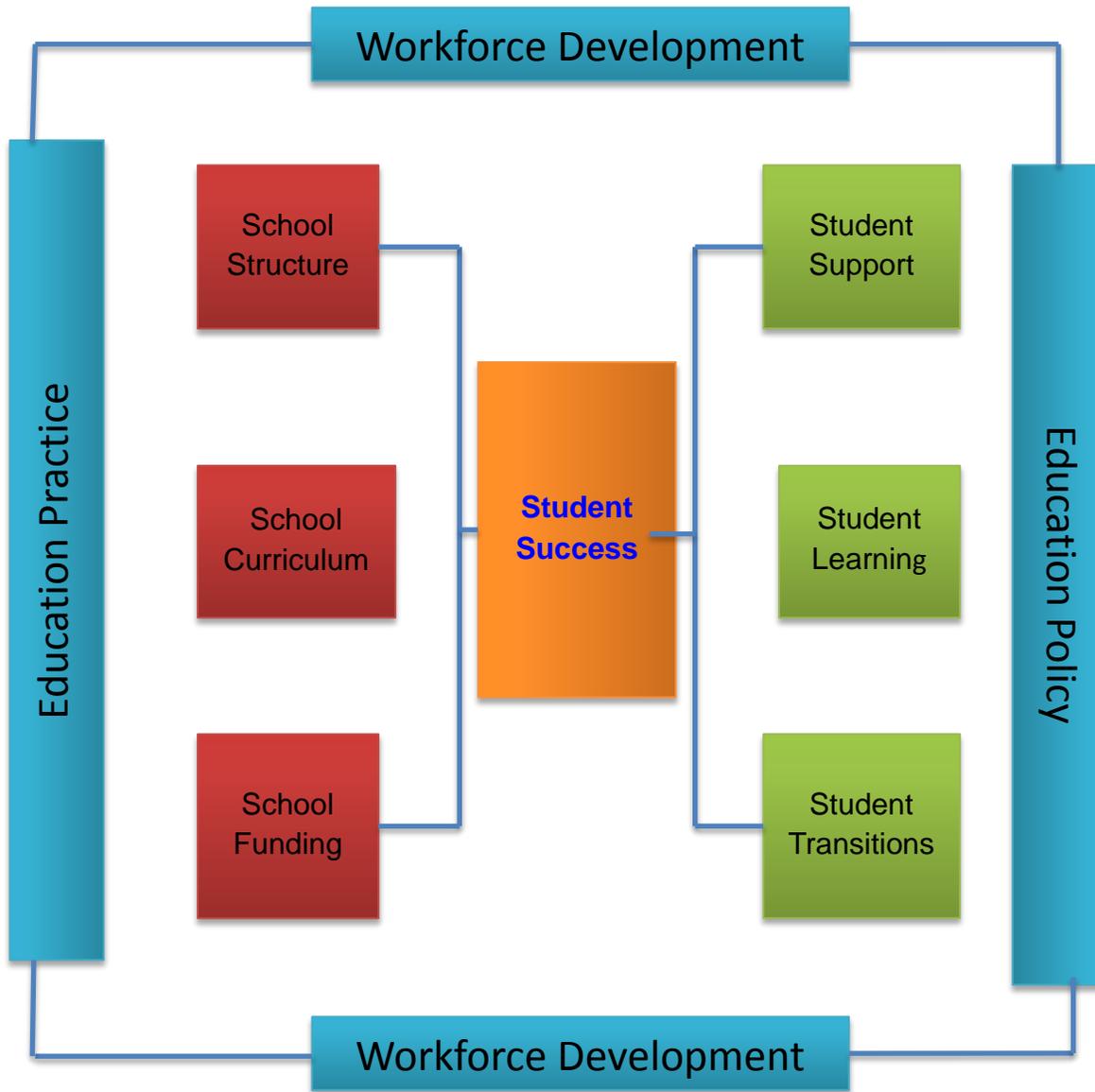
In addition, documents, news articles, and research information was shared and discussed by the committee. The Task Force meeting schedules and meeting documents may be found [on the MDE website](#) at the following link:

<http://education.state.mn.us/MDE/Welcome/AdvBCT/CareerPathTechEducTaskForce/index.html>

## **Framework for Task Force Work**

Based on the above reorganization of the legislative charge, the Task Force was initially asked to frame their recommendations around three broad areas: (a) an integrated career pathways network; (b) an aligned secondary/postsecondary system; and, (c) a multi-functioning 21st century secondary CTE structure. Keeping the ultimate goal of student success in mind, the task force was then asked to look at each of these broad areas and create recommendations not only at the student and school levels, but also at the systems level, specifically the education and workforce development sectors. The graphic on the following page shows the suggested framework as the task force began developing their recommendations.

## Suggested Framework for Recommendations



Initially, the task force developed a set of recommendations as a stand-alone product. These recommendations were then categorized under four areas within policy and practice, and then accepted, modified, or developed anew at the student, school, or system levels. The four categories were: (1) career guidance; (2) student transitions; (3) experiential learning; and (4) system flexibility. The final set of recommendations, and the corresponding implementation options, covers all four of the categories.

## **Career Pathways and Technical Education Task Force Recommendations**

The Task Force recommendations address the specific policy changes needed to create the desired assessment and accountability system, and the characteristics and features of a revamped system. The Task Force supports the development and implementation of an assessment system for Minnesota that provides timely and effective feedback for the following stakeholders and their relevant decisions:

- Students, teachers and parents as to the progress students are making towards college and career readiness, the learning that needs to be achieved, and the identification by students of their individual pathways to the workforce and world that best match their talents and interests.
- Policy makers, elected officials and administrators at the school, district, postsecondary institutions, regional and state levels as to the effectiveness and alignment of the P-20 system to efficiently educate our youth, with care and guidance, as they grow from early childhood to young adulthood.

### **Recommendation: Define “Career and College Ready”**

Minnesota should define “Career and College Readiness.” The Task Force recommends the following working definition:

*“Career (Workforce) and College Readiness” means that a high school graduate has the knowledge, skills and competencies to successfully embark on a career pathway for an employment position and can successfully pursue postsecondary education opportunity, whether it be a degree, a diploma, a certificate, or industry recognized credential. Students who are career and college ready have the ability to successfully complete credit-bearing coursework at a two-year or four-year college or university without need for remediation.”*

See Appendix D for other definitions of *Career and College Ready*.

## **Policy Recommendations with Implementation Options**

**Recommendation 1:** Strengthen the implementation of statutory requirements (Minn. Stat. § 120B.125 and Minn. Stat. § 120B.11) for a comprehensive individual student career and college readiness plan that incorporates assessment data, and clarify the process for review and revision of that plan.

### ***Options for Implementation:***

- Specify/recommend strongly that the Minnesota's Career Fields, Clusters and Pathway Framework document be utilized as a tool to assist students, families and staff during the development of a student's career and college readiness plan and postsecondary planning activities;
- Specify that plan documents should, at a minimum, include students' course taking and achievement record, career assessment information showing interests and aspirations, post-secondary plans aligned to career goals, financial planning strategies for post-secondary education and training, and documentation of the career and college readiness skills the student has developed to date;
- Specify that plan documents must be electronic, portable and universally designed to ensure accessibility for all students, including those with disabilities. Plan documents should be accessible by schools, students and families;
- Leverage the legislation requiring career and college readiness plan plans to make such plans useful, portable tools that lead to student success;
- Students with disabilities who have Individualized Education Programs (IEPs) should also have a comprehensive career and college readiness plan and participate in planning related activities. The two plans are complementary to each other and should be coordinated.

**Recommendation 2:** To enhance the learning process and the development of a student's career and college readiness plan, all students should have regular and frequent access to multiple individuals within the school and community who have reliable and accurate information, resources, and technology about postsecondary education, career and technical education, and training options.

### ***Options for Implementation:***

- Schools should be required to engage students in planning activities regularly and continually review their plan and reflect on how academic and experiential learning activities contribute to their overall development;
- By year 2016, secondary schools should work toward the goal of staffing one school counselor for every 350 students in order to help lead and facilitate career and college readiness programs and required staff development training activities.

**Recommendation 3:** All Minnesota families, including families of youth with disabilities, families experiencing socio-economic challenges, those with first-generation college-bound students, and multicultural families, will have the opportunity to engage in students' planning activities and will have access to training and resources so they may help their youth make appropriate career planning and education choices.

***Options for Implementation:***

- Plan documents should be accessible to family members and should be a central component in student-led parent-teacher conferences;
- The Minnesota Department of Education (MDE) should collaborate with community partners to create a parent information guide and parent training workshops that will help families of youth with disabilities, multicultural families, and families experiencing socio-economic challenges better understand how they can help their youth effectively plan for a career;
- Districts should be given access to resources so commonly used planning tools can be translated, and so translators can be used to make sure non-English-speaking families and students understand the planning purpose and process;
- Districts should offer materials describing plans, regular parent information meetings related to understanding planning tools and activities, and identified resource staff who can field questions from families as they arise.

**Recommendation 4:** Districts shall create options for experiential learning for students that includes career exploration through a specific class or through work-based experiences such as job shadowing, mentoring, entrepreneurship, service learning, volunteering, internships/cooperative work experience, or youth apprenticeship.

***Options for Implementation:***

- Adopt a uniform and standard definition for experiential learning such as the following: *To include but not be limited to work site tours, job shadowing, rotations, mentor relationships, entrepreneurship, service learning, volunteering, internships/co-ops, apprenticeship and employment.*"

**Recommendation 5:** Require districts and postsecondary institutions to expand opportunities for students designed around career clusters and strategies for postsecondary preparation that may include course offerings, options for online credit, dual-credit, or industry recognized credentials.

***Options for Implementation:***

- Implement additional credit-for-prior-learning processes in all state higher education institutions to award credit for industry recognized credentials;
- Study the costs for school districts and postsecondary institutions for student participation in early college credit options;

- Modify participation guidelines to offer a broader array of program opportunities and to allow participation in early college credit options by a wider segment of the student population;
- Partner with postsecondary partners (institutions) to expand access via blended and virtual learning opportunities and other means;
- Address barriers for participation in early college credit options by students with disabilities or other learning challenges;
- Schools should be supported for transportation costs associated with student access to career and technical programs during the school day.

**Recommendation 6:** In conjunction with Board of Teaching and Higher Education accreditation agencies, develop and explore new roles and models for education professionals by allowing for flexibility in licensure and credentialing while maintaining high standards, and expand professional development experiences in order to support and assist students and their families in developing individual life plans, incorporating career development, utilizing experiential learning, and accessing early college opportunities.

***Options for Implementation:***

- Amend Minnesota Statutes, section 122A.60 STAFF DEVELOPMENT PROGRAM , Subd. 1a by adding a new class of permitted activities: (8) provide opportunities for staff to learn about current workforce trends and the links between those trends, as well as postsecondary education and training options; including career and technical education options;
- Revise continuing education requirements for teachers in grades 6-12 to include a requirement for work-based learning experience by amending Minnesota Statutes, section 122A.09 DUTIES [Board of Teaching] Subd. 4, adding:
  - *The board must adopt rules that require all licensed teachers teaching in a secondary school who are renewing their continuing license to include in their renewal requirements a reflective statement of professional accomplishment and the applicant's own assessment of professional growth resulting from a work- based learning experience.*
  - Work based learning experience definition: Experiential learning that uses workplaces to structure learning experiences that contribute to the intellectual, social, academic, and career development of students. Ideally these experiences are supplemented with school activities that apply, reinforce, refine, or extend the learning that occurs at a work site;
- Schools and education sites serving students beginning in grades 6 must adopt, as part of their school improvement plan, a plan for staff development, which at a minimum specifies how the staff will be trained on current workforce trends, the types of postsecondary degrees and certifications offered that align with those workforce trends, as well as best practices about how to advise students about these options;

- Revisit teacher preparation to include experiential learning/career planning as part of program outcomes;
- Examine credentialing requirements for secondary teachers to deliver college courses, particularly in technical courses, recognizing the balance between program quality and access;

**Recommendation 7:** Provide flexible governance and operational structures that allow educational institutions to have the capacity and opportunity to modify/alter current practices to meet the learning needs of students and ensure smooth transitions between educational levels or into the workforce.

***Options for Implementation:***

- Set up schools or programs in districts (in collaboration with a higher education institution) that are called "upper early career or college" schools (programs), with the following features:
  - Funded as K-12 but if innovative has access to additional funding such as learning year and is provided greater flexibility for school days, weeks or years;
  - Uses integrated learning environments for students age 15-21 to access programming in career fields before graduating from high school.
  - Has experiential learning programs and an individual career plan for each student;
  - Developed through articulation agreements between K-12 and a postsecondary institution, including private postsecondary colleges or trade schools;

**Recommendation 8:** MDE, DEED and postsecondary systems shall collaborate to create a mobile/web-based hub that centralizes existing resources for students and families on careers, employment trends, and educational paths necessary for success in these fields.

***Options for Implementation:***

- Provide tools for schools to assess career interests and aptitudes of all students beginning in late elementary;
- Align all agencies and organizations providing services related to this task force's recommendations.

**Recommendation 9:** Promote broad levels of collaboration among public, private and non-profit entities to establish strategies that deepen outreach efforts for students to gain knowledge and experience in career fields by working with business and industry to provide career and college readiness.

## Appendix A: Statutory Language Establishing Task Force and Charge

### 2013 Session -- Chapter 116

#### **CAREER PATHWAYS AND TECHNICAL EDUCATION ADVISORY TASK FORCE.**

Subdivision 1. **Recommendations.** (a) A career pathways and technical education advisory task force is established to recommend to the Minnesota legislature, consistent with Minnesota Statutes, sections 120B.30, subdivision 1, and 120B.35, subdivision 3, how to structurally redesign secondary and postsecondary education to:

- (1) improve secondary and postsecondary outcomes for students and adult learners;
- (2) align secondary and postsecondary education programs serving students and adult learners;
- (3) align secondary and postsecondary education programs and Minnesota's workforce needs; and
- (4) measure and evaluate the combined efficacy of Minnesota's public kindergarten through grade 12 and postsecondary education programs.

(b) Advisory task force members, in preparing these recommendations, must seek the advice of education providers, employers, policy makers, and other interested stakeholders and must at least consider how to:

- (1) better inform students about career options, occupational trends, and educational paths leading to viable and rewarding careers and reduce the gap between the demand for and preparation of a skilled Minnesota workforce;
- (2) in consultation with a student's family, develop and periodically adapt, as needed, an education and work plan for each student aligned with the student's personal and professional interests, abilities, skills, and aspirations;
- (3) improve monitoring of high school students' progress with targeted interventions and support and remove the need for remedial instruction;
- (4) increase and accelerate opportunities for secondary school students to earn postsecondary credits leading to a certificate, industry license, or degree;
- (5) better align high school courses and expectations and postsecondary credit-bearing courses;
- (6) better align high school standards and assessments, postsecondary readiness measures and entrance requirements, and the expectations of Minnesota employers;
- (7) increase the rates at which students complete a postsecondary certificate, industry license, or degree; and
- (8) provide graduates of two-year and four-year postsecondary institutions with the foundational skills needed for civic engagement, ongoing employment, and continuous learning.

Subd. 2. **Membership.** The Career Pathways Advisory Task Force shall have 15 members appointed by July 15, 2013, as follows:

- (1) one member appointed by the Minnesota Association of Career and Technical Administrators;

- (2) one member appointed by the Minnesota Association for Career and Technical Education;
- (3) one member appointed by the University of Minnesota who is a faculty member working to develop career and technical educators in Minnesota;
- (4) one member appointed by the Minnesota State Colleges and Universities who is a faculty member working to develop career and technical educators in Minnesota;
- (5) one member appointed by the National Research Center for Career and Technical Education;
- (6) one member appointed by the Minnesota Department of Education;
- (7) one member appointed by the Minnesota Board of Teaching;
- (8) one member appointed by the Minnesota Association of Colleges for Teacher Education;
- (9) one member appointed by the Minnesota State Colleges and Universities from faculty for foundational skills and general education;
- (10) one member representing licensed career and technical education teachers appointed by Education Minnesota;
- (11) one member appointed by the commissioner of the Minnesota Department of Employment and Economic Development;
- (12) one member appointed by the Minnesota Chamber of Commerce;
- (13) one member appointed by the Minnesota Business Partnership;
- (14) one member appointed by the Minnesota Secondary School Principals Association;
- (15) one member appointed by the Minnesota Association of School Administrators;
- (16) one member appointed by the Minnesota School Counselors Association;
- (17) one member appointed by the Minnesota Association of Charter Schools; and
- (18) four members appointed by the commissioner of education who have expertise in any of the areas with which the task force has been charged in subdivision 1.

Subd. 3. **Terms.** Each member shall serve until the task force sunsets, unless replaced by their appointing authority.

Subd. 4. **First meeting; acting chair; chair.** The commissioner of education shall convene the first meeting by August 15, 2013, and shall act as chair until the task force elects a chair from among its members at the first meeting.

Subd. 5. **Staff; technical assistance.** The commissioner of education, on request by the task force, will provide technical assistance and provide staff assistance sufficient for the task force to carry out its duties.

Subd. 6. **Report.** By February 15, 2014, the task force shall submit a written report describing its recommendations to the chairs and ranking minority members of the legislative committees and divisions with primary jurisdiction over kindergarten through grade 12 education.

Subd. 7. **Sunset.** The task force expires the day after the task force reports to the legislature, or February 15, 2014, whichever is earlier.

**EFFECTIVE DATE.** This section is effective the day following final enactment.

## **Appendix B: Career Pathways and Technical Education Task Force Membership**

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### **Ex-Officio Members**

Representative Kathy Brynaert (Mankato)

Representative Dean Urdahl (Grove City)

**Minnesota Department of Education Staff**

Rose Hermodson, Assistant to the Commissioner

Steve Dibb, Assistant Commissioner

Paula Palmer, Director, Career and Technical Education

Dan Smith, Supervisor, CTE, Community and Service Learning

Clair Gades, Administrative Support

Anne Danielson, Administrative Support

All Task Force documents can be found on [the MDE website](#) at the following link.

<http://education.state.mn.us/MDE/Welcome/AdvBCT/CareerPathTechEducTaskForce/index.html>

## **Appendix C:**

### **Other Options for Implementation to Consider for Recommendations of Task Force**

#### **Recommendation 1**

##### ***Also Consider***

- Provide an accountability mechanism and reporting requirement for the review and revision process. (i.e., the percent of students meeting the standards developed by MDE will be weighted in MMR ratings);
- Provide a uniform set of standards for the annual review and revision requirement of the legislation.

#### **Recommendation 2**

##### ***Also Consider***

- Minnesota special education staff should be given capacity building training on career development, commonly used individualized planning tools, strategies for having an ILP and IEP work together, and effective practices in involving families in the planning process;
- Require that the implementation of the development of comprehensive life plans for every student be a school-wide endeavor in which all staff are engaged in the implementation and are provided staff development to ensure successful implementation strategies.

#### **Recommendation 3 (none)**

#### **Recommendation 4**

##### ***Also Consider***

- Build a career pathway experiential learning dashboard that includes information about the Common Course catalogue, dual credit options;
- Allow granting of online credit based on standards completion. Value 80 hours of experiential learning as a single credit but assure that the added credit requirement be part of total elective credits, and not reduce the number of required (core) academic subject credits.

#### **Recommendation 5**

##### ***Also Consider***

- Postsecondary institutions in Minnesota should develop and adhere to a standardized credentialing process for secondary instructors to teach concurrent courses in the high school;
- Provide flexibility in credits earned for various work experiences.

## **Recommendation 6**

### ***Also Consider***

- Incentives should be provided to encourage Master's degrees in subject content areas (i.e., math, English, science, etc.);
- Licensure flexibility should be provided so that postsecondary career and technical education instructors can give direct instruction;
- Make available financial incentives that create opportunities for high school teachers and counselors to receive short-term (2-4 week) experiences directly within local business and industry settings to become more familiar with business/industry standards, requirements, and employment opportunities.

## **Recommendation 7**

### ***Also Consider***

- Structural modifications should be considered transformational, not minor adjustments to current practice. A common organizational structure, such as the framework of career fields/clusters/pathways used for career and technical education, should guide system alignment;
- Develop policies to establish norms for all students and schools/postsecondary programs that would include the following:
  - A move to competency based education versus Carnegie units and the use of industry recognized certification for experiential programs;
  - Advisory programs for all students no later than grade 6 that feature learning activities to help students develop 21st century skills and create learners who are responsible and self-directed, as well as civic-minded;
  - Generally desired employability skills that include problem solving, decision-making, critical and creative thinking, communication;
  - Leadership skills, volunteerism and citizenship skills;
  - General academic knowledge in core areas, skills in problem solving and decision-making, critical and creative thinking, communication;
  - Provision of staff development for educators for successful implementation;
  - The requirement of at least one work-based learning opportunity for every student prior to leaving high school;
  - Rethinking of credit requirements and time that may exist for those in 12th grade who desire to remain in the high school that may include community partnerships that provide opportunities for students;
  - Allowing the use of open resource materials to be a venue to demonstrate competency;

- Provide greater flexibility to districts for bells, schedules, calendars, setting and seat time in schools.
- Revitalization of instructor credentialing and teacher licensure;
- Incorporating experiential learning to enhance teaching and learning;
- Provision of greater flexibility for the teacher/instructor to educate across systems;
- Provision of flexibility for districts and colleges to develop innovative programming and services for students;
- Fully integrating modern technologies into programs and delivery models.
- Expand the Minnesota Virtual Academy to include career clusters as well as strategies for postsecondary options.
- Allow for the creation of virtual countywide education districts throughout the state to address the following needs of students:
  - Collaboration among agencies, local units of government and between secondary and postsecondary education to meet student academic, career planning and social and emotional needs;
  - Dropout prevention programming in collaboration with county officials;
  - Development of comprehensive counseling services including academic, career and social/emotional;
  - Wrap-around family support services including language acquisition for adults;
  - Students' mental health programming/health services;
  - Coordination of transportation and other non-educational services;
  - Adult programming such as ABE programming and services;
  - Integration of programs and activities among districts, human services and other appropriate agencies.

## **Recommendation 8**

### ***Also Consider***

- Ensure that career and college assessments are compatible with movement toward competency-based educational models;
- Develop a series of online modules for grades 6-12, based on standards and competencies on career awareness, exploration, development, and planning for postsecondary and careers;
- Expand the promotion and use of Minnesota's ISEEK system to promote students' career awareness and exploration, college and career planning, and exploration of the state's job market;
- Use the Regional Centers of Excellence (RCE), funded through the separate World's Best Workforce (WBWF) legislation, for promoting regional workforce trends and opportunities for experiential learning. Additionally, when developing a partnership between MDE RCES and DEED regional workforce centers, include experiential learning in that partnership discussion. Investigate if the added functionality requires or is enhanced only with a legislative change does MDE have the statutory power to include experiential learning within the RCEs;
- MDE, in collaboration with DEED and other appropriate state agencies and the business community will develop sample experiential learning programs of excellence which

showcase the variety of ways students may demonstrate mastery of the adopted standards. At a minimum, these programs must include

- a classroom-based model;
  - work-based model;
  - service-learning model, and may
  - Include a co-mentoring of the student in the experiential education opportunity. That is, pair the student with a teacher-mentor as well as a workplace mentor to supplement the experience, and
  - Provide the student a school based "counselor"/someone to talk with, if needed, during the experience.
  - The experiential learning experience should have clear expectations of what is anticipated, expected, and provided by the business and the school.
- Any adopted K-12 standards must take into consideration (i) academic (ii) technical and (iii) employability skills development embedded within the experiential learning process. Also, they must take the whole six-year experience from 9<sup>th</sup> grade to at least the second year of postsecondary education (for example, the program of study model under the federal Carl D. Perkins Legislation), including an experiential learning component that is embedded into other curricula and integrated the now-required student career and college plans, and providing opportunities to industry-based certifications.
  - Annually, MDE, in consultation with other appropriate state agencies, will provide a report to schools on current workforce trends and the educational demand produced by these trends to assist schools in the implementation of their staff development plans.
  - Academic standards pertaining to career development should be developed and implemented through appropriate coursework through the middle and high school experience.
  - Establish a resource list of Minnesota businesses at the state level to support field experiences and internships.

## **Recommendation 9**

### ***Also Consider***

- Review and revise as necessary regulations governing work-based learning opportunities across the spectrum from short-term exploratory activities through apprenticeships;
- Schools should build stronger connections with WorkForce Center partners and access their expertise in regional and statewide labor market needs;
- Schools should work with community and technical colleges to provide career exploration experiences for students within those higher education institutions;
- Structural alignment must be viewed not only from secondary education through postsecondary education to employment, but also from alternative educational pathways such as adult basic education through postsecondary education to employment;
- Secondary and postsecondary systems should communicate the alignment between educational programs and employer needs.

## Appendix D: Career and College Readiness Definitions

From an academic perspective, college and career readiness means that a high school graduate has the knowledge and skills in English and mathematics necessary to qualify for and succeed in entry-level, credit-bearing postsecondary coursework without the need for remediation -- or put another way, a high school graduate has the English and math knowledge and skills needed to qualify for and succeed in the postsecondary job training and/or education necessary for their chosen career (i.e. community college, university, technical/vocational program, apprenticeship, or significant on-the-job training). (ACHIEVE 2013)

The knowledge and skills that high school graduates need in order to do credit-bearing coursework at a (two-or four-year) college or university and/or to embark successfully on a career-track employment position that pays a living wage, that provides benefits, and that provides clear pathways for advancement through further education and training. (ACHIEVE 2004)

A student is career and college ready when he or she can both enroll in *and* successfully complete postsecondary collegiate or vocational programs *without* remedial academic work or assistance. (Conley, 2012)

### International Baccalaureate Career-related Certificate Programme 2013:

Career Ready:

- A career-related competency
- Experience presenting before groups and working in collaborative teams
- Linguistic proficiency and intercultural competence
- A work ethic that develops maturity and responsibility

College Ready:

- Academic knowledge and research skills
- Critical literacy and advanced writing skills
- Strong time management skills
- Confidence, resilience and commitment

### The Career Readiness Institute 2013:

Career readiness is broader than existing diploma requirements or career and technical education...means demonstrating proficiency in rigorous, applied skills acquired through the integration of academic and job-specific skills to function effectively in today's workplace and society to be: life-long learners, decision makers, problem solvers, technology competent, expert communicators with strong interpersonal skills

**National Assessment Governing Board** defines career preparedness as a subset of readiness: "Preparedness focuses on academic qualifications, which are measured by NAEP. Readiness includes behavioral aspects of student performance—time management, persistence, and interpersonal skills, for example—which are not measured by NAEP." (Technical Panel on 12th Grade Preparedness Research Final Report, 2009).

## **ACT, 2008**

The level of achievement a student needs to be ready to enroll and succeed—without remediation—in credit-bearing first-year postsecondary courses. And by postsecondary we mean primarily two-year or four-year institutions, trade schools, and technical schools. Today, however, workplace readiness demands the same level of knowledge and skills as college readiness.

**Texas** defines college readiness as “. . . what students must know and be able to succeed in entry-level courses at postsecondary institutions in Texas,” and career readiness as, “. . . employees [who are] able to read and communicate well, to perform relatively complex mathematical calculations accurately, to possess a strong knowledge of basic science, to have a fundamental knowledge of American culture and the world beyond, and to be able to think critically and adjust to rapidly changing work environments” (Texas Higher Education Coordinating Board & Texas Education Agency, 2009).

**Virginia** defines college readiness as, “. . . the level of achievement students must reach to be academically prepared for success in entry-level credit-bearing college courses” (Virginia Department of Education, 2012).