Purpose of Agenda Item

- To provide the State Board of Education with a proposal for implementing the Career and Technical Education (CTE) Challenge Task Force Report; and

- To submit a draft CTE policy statement that illustrates the general scope and content of the policy requested of the Board.

Expected Outcomes of Agenda Item

- Board awareness of the role CTE can play in achieving the new Board vision, mission and goals;

- Board adoption of the proposed CTE implementation initiatives;

- Board approval to move forward on developing a CTE policy.

Background Information

The Career and Technical Education (CTE) Challenge Task Force, charged with recommending a blueprint to energize and elevate the role of CTE within Illinois’ broader educational framework, presented its final report to the Illinois State Board of Education for acceptance in May of this year. In response to the Board’s request that CTE be included as a topic in its June annual work retreat, a paper was prepared that provided data and information on student and teacher characteristics, student outcomes and related legislative activity in other states.

Since the May, 2001 Board presentation, staff have been working internally and with our partners to prioritize and translate the task force recommendations into implementation actions described in this report. The need to move forward with the revitalization of CTE was recently underscored by the Board’s adoption in October 2001 of the new “Vision, Mission, Goals, and Measures” statement that stresses the importance of preparing all students for career opportunities as well as post-secondary education and of closing the achievement gap. The CTE initiatives proposed in this
report embody the “new vocationalism” or reform CTE that has been shaped by globalization and technological change and holds strong potential for addressing the Board’s new vision, mission and goals. Six principles are associated with this new vocationalism:

1. An emphasis on career clusters or pathways that extend from entry- to professional level in career fields integral to the new economy.
2. Changes and enhancements in the vocational curriculum by integration of academic and technical concepts and teaching all aspects of the industry sectors that students are preparing to enter.
3. Inclusion of career ladders connected to continuing educational opportunities.
4. Encouragement of constructivist theories, active teaching strategies, and learner-centered, project-based instructional approaches.
5. More meaningful curriculum and instruction so an increasing number of students can benefit from vocational education.
6. Efforts to ensure that vocational education is more highly integrated into the K-16 educational system and into broader economic and social structures.

The proposed CTE initiatives respond to four of the trends identified by Gary Marx in a recent Educational Research Service publication “An Overview of Ten Trends: Educating Children for a Profoundly Different Future (2000).” These speak to CTE’s role in providing an integrated and relevant education system and include:

- **Social and intellectual capital will become the primary economic values in society.** Schools must prepare students for the new economy and help them develop management and entrepreneurial skills.
- **Education will shift from averages to individuals.** Personalizing will be key to reaching standards and to bringing out the individual talents and abilities of all students.
- **Technology will increase the speed of communication and the pace of advancement or decline.** Schools must help students connect with the “real world” and offer high-tech vocational education.
- **Knowledge creation and breakthrough thinking will stir a new era of enlightenment.** Schools must integrate curriculum and help students understand connections.

While CTE offers content, learning modalities and instructional strategies that benefit all students, it is particularly effective in reaching students who are not responding to traditional curriculum and teaching methods. In this regard, CTE plays a critical role in helping all students achieve to their potential and in reducing the achievement gap.

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The Changing Relationship Between School and Work in Illinois

Preparation for the world of work has been one of Illinois' public K-12 educational responsibilities since January 1, 1990. As stated in the Illinois School Code, “The State of Illinois, having the responsibility of defining requirements for elementary and secondary education, establishes that the primary purpose of schooling is the transmission of knowledge and culture through which children learn in areas necessary to their continuing development and entry into the world of work (emphasis added).” (105 ILCS 5/27-1)

While this responsibility has remained constant over the years, our philosophy of preparing students for careers has changed profoundly. On December 13, 1984, the Illinois State Board of Education approved a new policy statement and administrative plan for education for employment. Although the primary purpose of this policy was to establish the Education for Employment system in Illinois, the policy statement also described the intended role of vocational education in public education. This was to “… (a) assure that all students … attain appropriate levels of achievement in areas fundamental to their continuing development, and to (b) assure that all students attain a satisfactory level of achievement appropriate to either immediate employment or (emphasis added) advanced education in preparation for later employment.”

Imbedded in this statement are two premises that currently limit the effectiveness of vocational education in Illinois. The first is to call for “appropriate” levels of achievement for all students, which suggests that not all students are expected to achieve the type of quality standards embodied in the Illinois Learning Standards. The second is to assure that student achievement is geared to either employment or advanced education, which suggests that students be sorted or tracked according to whichever of the two objectives is deemed “appropriate.”

These two values have contributed to the stigma that persists for vocational education in Illinois and has caused it to be viewed as the only option for students who are not perceived as “college-level material,” who are “hands-on” learners, are potential drop-outs or push-outs or who have ill-defined plans for their future. Vocational education has become too often perceived by students, teachers, parents and school administrators as a second-rate educational dumping ground for the academically challenged young person.

This perception has been exacerbated by many factors that exist to varying degrees throughout the state: the separate federal authorizing legislation and accountability systems that have isolated vocational education from “regular” education; the over-reliance on provisionally certified instructors for vocational courses; the lack of consistent and rigorous standards and assessments for vocational instruction; the pedagogical separation of vocational instruction from academic instruction; funding that is not tied to performance; the lack of up-to-date teacher training and state-of-the-art equipment for vocational classes; and the difficulty of providing high quality, cost-effective CTE opportunities for students in poor and rural areas.
The result is that despite the many excellent vocational education opportunities offered in schools throughout Illinois, the field remains stigmatized and too often relegated to second-class status within schools and communities. This situation is reflected in the virtually flat funding of vocational education over the past 10 years (only a $1,397,700 or 3.0 percent increase in 10 years, far less than inflation) and the belief that vocational education has little to offer in the way of helping all students achieve to high standards.

CTE and ISBE's New Vision
The recent adoption of the “Vision, Mission, Goals, and Measures” statement by the Illinois State Board of Education (October 2001) marks an important shift away from the 1984 policy of preparing some students for an occupation toward a new vision of preparing all students for success in both post-secondary education and careers. This new vision states that “The Illinois public schools will enable all students to succeed in post-secondary education and career opportunities, to be effective life-long learners, and to participate actively in our democracy.”

The premise behind the Career and Technical Education Challenge Task Force is that the scope of the CTE enterprise is such that, if it is successfully realigned and focused on student achievement, it could add significant value to public K-12 education. Each year in Illinois, a majority of high school students is involved in career-related coursework. In FY2000, 58 percent of the entire high school population, representing 328,312 of 563,940 secondary students, were enrolled in one or more career-related courses during the school year. CTE teachers also have a substantial presence within the total Illinois instructional staff. Of the 31,622 secondary-level instructors counted in the 1999-00 school year, 4,841 or 15 percent identified career-specific instruction as their main assignment. There is also a significant cadre of CTE administrators. In addition to the 59 Education for Employment system directors, there are school personnel in virtually every district associated with Tech Prep, work-based learning and other CTE programs. These administrators assist ISBE in providing valuable planning, technical assistance and program support functions for over $111.6 million in state and federal CTE program funds.

The task force report focuses on six broad goals in the areas of equity and access; standards-based instruction and assessment; teacher preparation; curriculum and instruction; accountability and governance. Each goal area contains a variety of short- and longer-term action steps identified by the task force. These actions are described in the task force report and will not be summarized here. Instead, the six major strategic initiatives identified by ISBE staff, in collaboration with ICCB and practitioners, will be described. These were selected from among the 31 action recommendations in the task force report as contributing the most improvement value and being the most feasible in terms of time and cost.

From this point forward in this report, vocational education is referred to as career and technical education (CTE). This change in terminology is intended to differentiate the former role and practice of vocational education from the new and high-value add approach described in the CTE Challenge Task Force report.
Recommended Strategic Initiatives

**Initiative 1: CTE Policy Statement.** Work with the ISBE Board to develop a policy statement that supports the importance of college and careers for every Illinois student.

How will this add value for students? A new role and set of expectations for CTE need to be articulated by ISBE. This will signal a major shift to school leadership, teachers, administrators, students, parents, business and industry and the public that our intention is to redesign how CTE is delivered in Illinois and its impact on student achievement and preparation for post-secondary education. This policy statement would reference the change agenda represented in the following five initiatives and identify the quality standards associated with all aspects of CTE.

A critical aspect of this policy statement would be to describe how CTE adds value to education and improves student achievement. To do this requires the identification of the factors contributing to academic productivity, similar to the process proposed to the State Board by RAND’s David Grissmer and addressed by Herbert Walberg in his article “The Knowledge Base for Educational Productivity” (*International Journal of Educational Reform*, January 1992). CTE must establish and measure how it contributes to student achievement and do so in a way that aligns it with the broader educational framework.

For example, in the Walberg article cited above, analyses of large-scale educational surveys and syntheses of thousands of educational research results show that nine factors increase learning. These educational productivity factors fall into three areas:

**Student Aptitude**
1. Ability or preferably prior achievement as measured by achievement tests;
2. Development as indexed by chronological age or stage of maturation;
3. Motivation or self concept as indicated by personality tests or the student’s willingness to persevere intensively on learning tasks.

**Instruction**
4. The amount of time students engage in learning;
5. The quality of the instructional experience including psychological and curricular aspects.

**Psychological Environments**
6. The curriculum of the home;
7. The morale of classroom social group;
8. The peer group outside school;

Our challenge with respect to CTE policy, as well as the broader educational enterprise, is to identify which productivity factors may be positively impacted by educators and to
support those research-based instructional programs and methods that consistently affect those factors.

**Initiative 2: Voluntary Career Development and Workplace Readiness Standards.** Work with stakeholders to develop consensus around voluntary learning and performance standards for all students for career development and basic workplace readiness.

How will this add value for students? When the Illinois Learning Standards were initially developed, a decision was made to not identify separate standards for fundamental career development and workplace readiness knowledge and skills. Instead, an appendix was created for inclusion in the standards document that illustrated how this content could be used to teach to the seven other fundamental learning areas. The absence of rigorous and consistent standards in this area from the Illinois Learning Standards has translated to a widespread belief both internally and externally that schools are not expected to teach this content to all of their students.

The recent adoption of ISBE’s “Vision, Mission, Goals, and Measures” statement necessitates the identification of fundamental learning standards that address the preparation of all students to succeed in post-secondary education and career opportunities. Given the challenges associated with teaching to and assessing the current learning standards, it is not feasible to introduce an eighth fundamental learning area. However, a state-sanctioned set of voluntary standards and associated assessment(s) for career development and workplace readiness would communicate the importance of this content for all students and provide a consistent set of expectations. Thirteen states have committed to career development and/or workplace skill standards, eight of which have developed and are using them. These states include Michigan, Texas, New Jersey, New Mexico, Vermont, New Hampshire, Montana and Hawaii.

**Initiative 3: New Standards-Based Curriculum Exemplars and Related Professional Development.** Develop new standards-based and application-rich instructional material, curriculum exemplars and assessments for all career areas. In addition, Illinois’ CTE instructors will require related professional development on effectively using this new instructional material.

Staff propose to do this relatively quickly and cost-effectively by building on the federal career cluster initiative and by realigning existing business-education advisory groups to assume new and stronger roles in CTE. The U.S. Department of Education has established 16 career clusters encompassing all jobs in our economy. Teacher-piloted curricula and outreach material are being developed in all 16 areas which will be made available to schools and colleges throughout the nation. Because Illinois has been the lead state for the Transportation, Distribution and Logistics (TDL) cluster and has supported pilot sites in three other clusters, we are well-positioned to bring this initiative to scale at the state level.
ISBE and Illinois Community College Board staff agree that we should begin by working with two of the most advanced clusters in the areas of TDL, Information Technology, Health Sciences and/or Arts, Audio-Video Technology and Communications. Business-education career coalitions would be organized for each career area building upon existing industry, trade and professional associations. Professional development activities will be supported by these career coalitions. Where a viable group already exists, such as the Illinois Council for Agriculture Education, the first choice is to affirm and/or expand that group. Every effort would be made to streamline and consolidate existing groups with similar purposes to maximize both efficiency and effectiveness. If resources limit the number of career coalitions Illinois is able to establish, we would select those that reflect the most vital of Illinois’ economic sectors and explore merging other clusters.

Key to the success of this initiative are the following:
- Assuring that all CTE curriculum is based on both Illinois Learning Standards and career-specific standards;
- Approaching career content by teaching first to broad and transferable knowledge and skills and graduating to more targeted, but still broad, career pathway skills; and
- Providing classroom assessments that measure student achievement of both academic and career standards.

How will this add value for students? Changing what occurs in the classroom is the primary objective of the CTE revitalization efforts. Providing teachers with quality instructional material and training on how to use them productively is a highly effective way to improve student achievement. Agriculture education in Illinois has demonstrated the impact of this approach in its K-12 standards-based curriculum exemplars. These materials illustrate how high quality CTE instructional material and instructor training can reinforce the Illinois Learning Standards while teaching to rigorous occupational content standards.

**Initiative 4: CTE Teacher Preparation and Development.** Identify steps to upgrade the pedagogical skills and content of provisionally certified teachers and align their professional development requirements with those for initial and regular certificate holders.

An action agenda is being developed by ISBE in consultation with a group of 21 practitioners from throughout the state regarding CTE teacher quality and supply issues. Recommendations under discussion address teacher recruitment strategies, expanding the availability of certification programs, increasing professional development requirements for provisionally certified instructors, and strengthening and expanding professional development opportunities. This agenda will play a major role in shaping the steps identified under this initiative.

How will this add value for students? The shortage of qualified teachers in Illinois in such areas as special education, bilingual education, music and the various disciplines
within CTE are well documented. As a result, it has become necessary for some districts to hire minimally qualified teachers under a provisional or temporary provisional teaching certificate in order to make courses available to students. This is a particular problem in CTE where in FY2000, over half of the 302 teaching position vacancies (181 of 302) were filled by teachers holding less than an initial or standard teaching certificate in the discipline of the teaching assignment. The ISBE FY2000 Supply and Demand Report, teacher service records, and enrollments in university teacher education programs indicate there will continue to be shortages of teachers in CTE disciplines.

Despite the dependence on provisional and temporary provisional certificate holders to offer some CTE courses and programs, many concerns surround their use. Chief among these is that no matter how skilled and experienced a person might be in their technical specialty, they often lack the pedagogical skills needed to manage a classroom and effectively teach today’s students. Whereas standard certificate holders in Illinois are required to meet professional development requirements in order to renew that certificate every five years, no such professional development requirements exist for provisional vocational certificate holders. Nor does the current system offer any incentives for provisional vocational certificate holders to work toward the attainment of an initial teaching certificate.

This de facto dual system of teacher preparation and professional development with lesser expectations for CTE instructors contributes to both the perception and reality of CTE as an inferior educational option. Strengthening the professional development requirements of CTE instructors so they are equal to those of other educators will add quality and consistency to the entire educational enterprise.

**Initiative 5: CTE Delivery System.** Work with ISBE staff, the Education for Employment (EFE) system directors, the Education-to-Careers regional coordinators and the Illinois Community College Board to identify appropriate roles and responsibilities for all parties in repositioning CTE at the secondary level as a vehicle for improved student achievement.

How will this add value for students? There has been no systematic re-examination of the delivery system for CTE in Illinois since the EFE structure was created in 1984. While ISBE and the EFE directors are the primary administrative agents for K-12 CTE, the emergence of Education-to-Careers (ETC) has resulted in confusion between ETC and EFE coordinators as well as new opportunities for realignment. Clarifying the roles and responsibilities of these three entities and the Illinois Community College Board will allow for aligning and focusing all efforts on student achievement, eliminating or minimizing inefficiency and redundancy in the delivery system, and redirecting resources and energy channeled into turf battles into educational improvement.

**Initiative 6: Accountability.** Strengthen the accountability of CTE programs by building on and using federal Perkins Act indicators to align with Board-approved
measures and by conducting research to measure the impact of CTE on student achievement.

How will this add value for students? Performance indicators developed by ISBE to comply with federal Perkins accountability requirements provide the foundation for a comprehensive performance management information system consistent with the ISBE Board’s new goals and measures. These secondary measures and their performance levels for 2000 were:

- 95.3% of CTE concentrators\(^2\) attained a high school diploma;
- 50.3% of CTE senior participants\(^3\) met the state standard for workplace skills as assessed by the Illinois Workplace Skills Assessment;
- 80.6% of CTE completers\(^4\) with valid social security numbers were employed in the second quarter after their graduation or were enrolled in postsecondary education during the school year following their high school graduation;
- 16.7% of students enrolled in CTE programs leading to occupations that are nontraditional for their gender; and
- 15.9% of students completed CTE programs that lead to occupations that are nontraditional for their gender.

By refining and expanding upon these measures, ISBE will have a basis for determining whether and how to continue to invest in CTE strategies and practices that improve student achievement.

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\(^2\) A concentrator successfully completed two or more training level credits in the same career area
\(^3\) A participant is a student who enrolled in a training level course
\(^4\) A completer is a concentrator that attains a high school diploma