MEMORANDUM

TO: The Honorable John J. Cullerton, Senate President
    The Honorable Christine Radogno, Senate Minority Leader
    The Honorable Michael J. Madigan, Speaker of the House
    The Honorable Jim Durkin, House Minority Leader

FROM: Christopher A. Koch, Ed.D.
      State Superintendent of Education

SUBJECT: FY 2013 Career and Technical Education Report

The Illinois State Board of Education respectfully submits this report to the Governor, the General Assembly and institutions of higher education in order to fulfill the requirements of the Illinois School Code 105 ILCS 435/2e which states that the following duty shall be exercised: a report, in writing, to the Governor annually on or before the fourteenth day of January.

Specifically, this report provides:

1. A statement to the extent to which Career and Technical Education has been established in Illinois.

2. A statement of the existing condition of Career and Technical Education in Illinois.

3. A statement of suggestions and recommendations with reference to the development of Vocational/Career and Technical Education in the State.

4. A statement of recommendations on programs and policies to overcome sex bias and sex stereotyping in Career and Technical Education programming and an assessment of the State’s progress in achieving such goals prepared by the state vocational education sex equity coordinator pursuant to the Federal Vocational Education Law (20 U.S.C. 11 et.seq.).

5. An itemized statement of the amounts of money received from Federal and State sources, and of the objects and purposes to which the respective items of these several amounts have been devoted.

cc: The Honorable Pat Quinn, Governor
    Tim Anderson, Secretary of the Senate
    Timothy Mapes, Clerk of the House
    Legislative Research Unit
    State Government Report Center
2013 CAREER AND TECHNICAL EDUCATION REPORT

This report is being submitted to comply with Illinois School Code 105 ILCS 435/2e which requires that a written report shall be issued to the Governor annually.

Delivery of Career and Technical Education

Career and Technical Education (CTE) programs in Illinois strengthen students' technical skills, assist in meeting the new Illinois Learning Standards, and close achievement gaps. These programs support local districts to ensure student success and promote continuous improvement.

The primary function of Education for Employment (EFE) systems is to facilitate the cooperative planning and delivery of quality career and technical education to students within the system. The EFE systems maintain continuity and accessibility of secondary CTE instruction and accountability for the use of both state and federal CTE funds. The systems work collaboratively with postsecondary institutions to create programs that enhance the technical skill and academic development of students and articulate transitions to postsecondary training programs, employment or both.

CTE provides instruction for careers in high-wage, high-skill, and high-demand occupations. The secondary CTE instructional programs are grouped into 5 broad areas based on the related content. These content areas are: Agricultural Education; Business, Marketing and Computer Education; Family and Consumer Sciences; Health Science Technology, and Technology and Engineering Education (TEE).

In FY13, 811 high schools in Illinois participated in CTE programs and 631 high schools had on site CTE programs. Among those 631 participating schools, 303 high schools provided Agricultural Education; 552 high schools provided Business Education; 471 high schools had programs in Family and Consumer Science; 144 schools served Health Science Technology; 477 high schools had Industrial Technology programs provided.

Table 1 and Graph 1 indicates the number of high schools that provided FY 13 CTE program areas: Agricultural Education (303); Business, Marketing and Computer Education (552); Family and Consumer Sciences (471); Health Science Technology (144); and Technology and Engineering Education (477).

<table>
<thead>
<tr>
<th>Table 1</th>
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<tr>
<td>FY13 Served Programs in CTE Areas</td>
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<tr>
<td>Agricultural</td>
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<tr>
<td>Num. of High Schools</td>
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Table 2 and Graph 2 indicates that there were 63 high schools provided one CTE program for students; 96 high schools provides two CTE program areas; 226 high schools had three CTE programs; 192 high schools served four CTE programs; 52 high schools had all 5 CTE programs areas served for students. In FY13 the number of high schools that offered from 1 to 5 CTE program areas:

<table>
<thead>
<tr>
<th>CTE Programs Served in FY13</th>
<th>In 1 CTE Program</th>
<th>In 2 CTE Programs</th>
<th>In 3 CTE Programs</th>
<th>In 4 CTE Programs</th>
<th>In 5 CTE Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Num. of High Schools</td>
<td>63</td>
<td>96</td>
<td>226</td>
<td>192</td>
<td>52</td>
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</table>
Career and Technical Student Organizations (CTSO) are co-curricular entities that provide secondary students with competitive based activities that expand classroom instruction which continues to strengthen academic and technical skills. Students gain experience and understand all aspects of the industry associated with the CTSO. CTSO's promote student success in Programs of Study. Competitive events sponsored by the CTSO's develop leadership qualities in students and state and national conferences foster self-confidence. In FY 2013, 34,814 students were members of a CTSO. The secondary CTSO organizations include:

- Business Professionals of America Illinois Association (BPA)
- Future Business Leaders of America (FBLA)
- Family Career and Community Leaders Association (FCCLA)
- Health Occupations Students of America (HOSA)
- Illinois Association FFA (FFA)
- Illinois Association of DECA (DECA)
- Illinois Association of SkillsUSA
- Technology Student Association (TSA)

The Illinois Coordinating Council for Career and Technical Student Organizations (ICCCTSO) is comprised of the state advisors, executive directors and presidents of the 8 secondary CTSO that are listed above. The ICCCTSO coordinates the activities of the individual career and technical student organizations in which there were 34,817 students participating. A 3-day leadership conference was held on July 29-31, 2013, in Springfield. The leadership conference provided training for CTSO state officers and advisors. It also provided direction in various career and technical education initiatives.
Work Experience and Career Exploration Program
The Work Experience and Career Exploration Program (WECEP) is a one or two year school-to-work transition program designed for students, ages 14 and 15, who display difficulties with their previous experiences and are at-risk of dropping out of school. The goal of the program is to provide intensive intervention to encourage at-risk students to improve their academic growth, develop a career plan that guides their transition from school-to-work, demonstrate a positive work ethic, and remain in school. To accomplish this, the program:

- Offers intensive, small-group, academic instruction and intervention;
- Exposes each student to a range of available educational and/or vocational opportunities;
- Involves the school, community, businesses, and parents in partnership to ensure students’ progress in their career plan; and
- Emphasizes the value of work to students and arranges paid work experiences that comply with child labor laws established by the U.S. Department of Labor for WECEP.

In FY13, WECEP programs provided classroom instruction and workplace activities to 8 school districts and 361 participating students.

Role of the Illinois State Board of Education
The Illinois State Board of Education provides state leadership and direction for the specific instructional programs through content area consultant support. These instructional programs consist of curriculum guidance, state and federal grant administration, data collection and accountability, student and teacher educator association advisement, and intra and inter-agency liaisons, including instructional and agency articulation.

The condition of Career and Technical Education in Illinois
The ISBE serves as the agency responsible for the administration, operation, and supervision of career and technical education programs under the Carl D. Perkins Career and Technical Education Act of 2006. ISBE distributes Perkins funds to unit and high school districts as well as Area Career Centers through the Illinois EFE Systems. The Illinois Community College Board (ICCB) distributes Perkins funds to the 39 Illinois community college districts consisting of 48 community colleges.

There are fifty-seven (57) EFE systems operating in the state including three systems organized by the state agencies that serve secondary students in their responsibilities: IL Department of Juvenile Justice (IDJJ) and IL Dept. of Human Services (IDHS) - the Office of Mental Health Services and the Office of Rehabilitation Services. All high schools and Area Career Centers are members of an EFE system.

In FY 2013, 39.7% of all Illinois students enrolled in public secondary schools (grades 9-12) participated in CTE. This is a drop of 9.3% from last year’s CTE participation rate even though CTE student participation rate over the past 5 years has been maintained at 48% or above. In FY13, there was a significant decrease in CTE student participation which may have been due to students taking more required academic courses or due to the continually dropping statewide K-12 enrollment. All EFE systems made elementary career awareness activities available to 1,359,585 students in public elementary schools (grades k-8). The activities were to enlighten students about careers. Table 3 indicates the number of students served by CTE.
Program effectiveness can be gauged by the number of students that graduate from high school and earned a National Career Readiness Certificate.

As indicated in Graph 3 below, of the students that completed career and technical education programs, 95.6% graduated from high school, 72.1% of CTE special needs students graduated from high school. This includes students with disabilities, economically disadvantaged students, student parents, students preparing for non-traditional fields, displaced homemakers and limited English proficient students.

As indicated in Table 4 below, there were 61,875 11th grade CTE Participants who took the National Career Readiness Certificate test in FY13; 41,990 students earned a Certificate Level.

CTE students continue their postsecondary education. Over 65.9% of CTE Concentrators are enrolled in either two-year or four-year institutions based on National Students Clearinghouse (NSC) data. A CTE Concentrator is a secondary student who has earned three (3) or more credits in a single CTE program area (e.g., health care or business services), or two (2) credits in a single CTE program area, but only in those program areas where 2 credit sequences at the secondary level are recognized by the State and/or its local eligible recipients.

Race to the Top assisted in funding a new and innovative STEM education initiative (STEM Learning Exchanges) designed to support college and career readiness for all students.

FY 2013
In FY 13, $725,000 was spent to develop five STEM Implementation Learning Exchanges and 3 STEM Planning Learning Exchanges as indicated in Table 5 below.

Table 5

<table>
<thead>
<tr>
<th>STEM Implementation Learning Exchanges</th>
<th>STEM Planning Learning Exchanges</th>
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<tr>
<td>1. Agriculture, Food and Natural</td>
<td>1. Transportation, Distribution &amp; Logistics</td>
</tr>
<tr>
<td>2. Resources</td>
<td>2. Energy</td>
</tr>
<tr>
<td>3. Manufacturing</td>
<td>3. Finance</td>
</tr>
<tr>
<td>4. Information Technology</td>
<td></td>
</tr>
<tr>
<td>5. Research and Development</td>
<td></td>
</tr>
<tr>
<td>6. Health Science</td>
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</table>

The STEM Learning Exchanges have been charged over a three year period to develop the following functions:

1. Provide e-learning curriculum resources, including on-line courses, assessments and feedback systems, reference materials, databases, and software tools.
2. Expand access to classroom and laboratory space, equipment, and related educational resources necessary to support programs of study through regional partnerships and other strategies.
3. Support student organizations and their major activities, including conferences, internships and professional networking experiences, competitions, and community projects that build leadership, communication and interpersonal skills and provide professional and peer support networks.
4. Provide internships and other work-based learning opportunities that connect students with adult mentors.
5. Sponsor challenges and project management resources for students to work in collaborative teams addressing real-world interdisciplinary problems.
6. Provide professional development resources for teachers and school administrators integrated and aligned across middle school, high school, and community college instruction, including STEM externships, support for web-based networks, and integrated professional development for academic and CTE instructors.
7. Provide career development and outreach resources to expand awareness of STEM-related programs and careers to K-12 students.
8. Provide tools and resources to assist students and schools with implementing personalized education plans and transitions to post-secondary academic and training programs, including establishing course articulation and dual credit opportunities.
9. Review performance of STEM Programs of Study through assessments and work with school partners to continuously improve performance.

The STEM Implementation Learning Exchanges submitted their Strategic Plans to develop nine functions and are in different stages of implementation. The Learning Exchanges will continue to work towards developing the nine functions during the next fiscal year.

Future development of Vocational/Career and Technical Education

Recommendations and Activities for FY 2014
Continue Current Innovative Projects
Project Lead The Way (PLTW) - PLTW is one of the leading national Science, Technology, Engineering and Mathematics (STEM) curriculums in the country. In Illinois, PLTW Pathways to Engineering has expanded to one hundred and nine (109) Engineering/Technology secondary programs since its beginning in 2003. This is an increase of 21 high schools from 2011-12. The Pathway to Engineering curriculum provides a specific focus on Technology and Engineering concepts combined with the application of Math and Science. This allows students to follow a pathway to formal post-secondary preparation in engineering and technology oriented jobs. The EFE Systems are key partners in this effort in providing cooperative efforts to offer courses at various locations. More than five hundred (500) Illinois teachers have received substantial professional development to support implementation of the Pathway to Engineering curriculum. Illinois PLTW Pathway to Engineering has enrolled 10,000 students at the high school level. An IL PLTW State Leadership team is currently meeting to develop a plan for continued growth. It is anticipated that 20 new high schools will implement in Fiscal Year 2014.

High Schools That Work (HSTW) is the nation’s largest school improvement initiative for high school leaders and teachers. More than 1,200 HSTW sites in 30 states and the District of Columbia currently use the framework of HSTW Goals and Key Practices to raise student achievement and graduation rates. In Illinois, 13 high school districts were funded to implement the HSTW initiative. Each local district’s HSTW team participated in a HSTW Data Workshop. The workshop guided the local teams to analyze their 2012 HSTW assessment data and develop strategies for improvement. Each site also participated in a HSTW Forum (workshop) and presented best practices developed in their school at the Connections Conference. Several schools embraced the new HSTW Literacy and Mathematics Design Collaborative frameworks. These new frameworks are designed to train teachers to develop and incorporate rigorous standards into high school content areas, including career and technical education. It is anticipated that the 13 sites will remain active HSTW sites and participate in the 2014 HSTW assessment, HSTW Forum, and Connections Conference.

Recommendations for Future ISBE Initiatives

Align Pathways to the National Career Cluster Model

The Career Clusters are groups of occupations and industries based on common knowledge and skills. The Clusters provide a content organizing tool for schools. The Career Cluster Initiative is maintained by the National Association of State Directors of Career and Technical Education Consortium (NASDCTEC) and most states are transitioning to this model for academic and career curricula.

Curriculum Revitalization

The Curriculum Revitalization Project partners with ISBE, the Center for Workforce Development (CWD), Facilitating Coordination in Agriculture Education (FCAE), and Center for Agricultural and Environmental Research and Training, Inc. (CAERT) to develop and disseminate revitalized online CTE curriculum in all content areas. Each year the goal is to develop an additional 200 online CTE curriculum lessons.

High School that Works

The High Schools That Work (HSTW) initiative focuses on the implementation of HSTW Key Practices and Conditions to raise academic achievements in students, blend essential college-prep studies with high quality career and technical studies, and advance policies and leadership initiatives to sustain improvement efforts. It is anticipated to expand the HSTW network in Illinois, by adding 5 to 10 high schools in the fall of 2014.
Career and Technical Gender Equity

Gender Equity Advisory Committee (GEAC)
The GEAC is tasked to advise and consult with ISBE on ensuring that all students have equal educational opportunities to pursue high-wage, high-skill occupations leading to economic self-sufficiency. (Public Act 91-304).

The GEAC met in February 2013. Dedicated professionals shared knowledge and information regarding initiatives in equity work across the state, including collaborations on STEM equity in the classroom, career exploration events, conferences, and trainings. A workgroup to review the Strategies for Improving Performance/Non-traditional Performance Measures is continuing to research and review the CTE report materials for trend data outcomes.

CTE Special Populations Leadership Project
The CTE Special Populations Leadership Project provided trainings and technical assistance to assist and facilitate improved performance of special populations in career and technical education participation and completion in a nontraditional program. Statewide professional development and technical assistance to educators for the improvement of instructional services for special populations was provided, with an emphasis on creating equitable learning environments. The project website (www.illinoiscte.org) hosts resources for CTE programs and the educational community. Along with the website, Facebook® and Twitter® were added to provide updated information regarding newly developed and updated resources on gender equity. Illinois Special Populations Professional Development Tool continues to be available as a self-guided process with basic information and resources (http://www.illinoiscte.org/Tool/index.html). The interactive tool is arranged in modules devoted to each of the special populations.

Federal and State funding sources

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<tr>
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<th>Appropriation</th>
<th>Administration</th>
<th>Distribution</th>
<th>State Leadership/ Technical Assistance</th>
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</thead>
<tbody>
<tr>
<td>Federal</td>
<td>$24,545,200</td>
<td>$725,000</td>
<td>$21,374,294</td>
<td>$2,445,906</td>
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<tr>
<td>State</td>
<td>$38,062,100</td>
<td>$915,912</td>
<td>$37,172,100</td>
<td>$890,000</td>
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State Career and Technical Education Funds (See Table 6 and Graph 4)
The state appropriation for secondary career and technical education for FY2013 was $38,062,100. This amount has remained approximately the same since FY04, given the maintenance of effort requirement. The Carl D. Perkins Career and Technical Education Act of 2006, Title III, Part A, Section 311 (b), contains a maintenance of effort (MOE) provision that requires equal or greater expenditures for career and technical education programs for the second fiscal year preceding the fiscal year for which the determination is made.

Out of the $38,062,100, $37,172,100 was distributed to local and regional agencies for the support of career and technical education programs and activities and the elementary career development programs.

The state appropriation include:
- CTE Programs: $34,855,914
- Elementary Career Development Program: $1,368,170
- Work Experience and Career Exploration Program (WECEP): $2,127,100
- Student Organizations: $189,086

FY 2013
State leadership projects in the amount of $890,000 include:

- Technical Assistance
- Professional Development
- Curriculum Development

The graph below shows the distribution of these funds on a percentage basis:

- State Leadership/Technical Assistance – 2% ($890,000)
- Distribution to local and regional agencies – 98% ($37,172,100)

Graph 4

**FY 2013 STATE CTE DOLLARS**

<table>
<thead>
<tr>
<th>Distribution</th>
<th>State Leadership/Technical Assistance</th>
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<tbody>
<tr>
<td>2%</td>
<td>98%</td>
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**State Leadership Projects**

*Illinois State University - The Connections Project* continues to assist the ISBE in implementing the High Schools That Work (HSTW) whole-school reform model. Major goals of the initiative include:

- Raise the mathematics, science, communications, problem-solving and technical achievement of more students to the national average and above;
- Blend the essential content of traditional college-preparatory studies – mathematics, science and language arts – with high-quality career and technical studies by creating conditions that support school leaders, teachers and counselors to carry out key practices; and
- Advance state and local policies and leadership initiatives necessary to sustain a continuous school improvement effort for both academic and career/technical studies.

This project facilitated the coordination of the HSTW sites in Illinois through the delivery of the HSTW Data Review Workshop, HSTW Forum (workshop), the Connections Conference, Literacy and Mathematics Design Collaborative teacher trainings, and a state meeting at the national HSTW Staff Development Conference.

The Connections Conference was held at the Pheasant Run Resort in St. Charles, Illinois on March 13-14, 2013. The conference focused on new and innovative practices in both core academic and CTE content areas. It featured teachers, counselors and other educators from Illinois sharing innovative programs and strategies that have been successful. A special emphasis was placed on implementing the HSTW model. Approximately 600 educators were in attendance, including junior high, secondary and postsecondary educators. Participant evaluations were positive.

**Perkins Career and Technical Education Grant** (See Table 6 and Graph 5)

The State of Illinois was appropriated $40,924,618 from the Carl D. Perkins Career and Technical Education Act. ISBE serves as the agency responsible for the administration, operation, and
supervision of career and technical education programs under the Carl D. Perkins Career and Technical Education Act of 2006. The division administrator of the ISBE College and Career Readiness Division is also the state director of Career and Technical Education. Postsecondary administration for Perkins funds is led by the ICCB.

The appropriation designated for secondary career and technical education administered by ISBE was $24,545,200. $21,374,294 was distributed to local and regional agencies for the improvement of career and technical education programs. $725,000 was used for administration and $2,445,906 supported federal state leadership projects. Graph 5 below shows the distribution of these funds on a percentage basis.

Federal Statewide Leadership Projects

The Illinois Association for Career and Technical Education (IACTE) was funded to provide professional improvement activities for secondary and postsecondary teachers. These activities were conducted primarily at the 83rd Annual IACTE Conference, Professional Development Institute held February 21 & 22, 2013 at the Marriott Hotel and Conference Center in Bloomington-Normal.

The University Council on Career and Technical Education sustained and strengthened collaborative and cooperative working relationships between and among ISBE and all public institutions of higher education that prepare teachers and counselors in workforce development and/or career and technical education. The Council held two working meetings. The Council also maintained a website to facilitate the dissemination of career and technical education information, links to other pertinent sites, and discussion forum. The Council awarded Innovative Grants to two (2) Career and Technical Teacher Education programs throughout the state.

The University of Illinois – Project Lead the Way brings early exposure of engineering concepts to students in middle and high school, providing the path to more formal engineering preparation in institutions of higher education or the path to technologically oriented jobs. The project provided training and professional development for those who teach a core group and engineering oriented courses in Illinois middle and high schools.

The Illinois Career and Technical Education (CTE) Special Populations Leadership Project provided statewide professional development and technical assistance to educators for the improvement of instructional services for special populations with an emphasis on the recruitment and retention of students preparing for a non-traditional career field. Leadership activities included a focus on performance assessment and accountability training, special populations’ website, professional development, technical assistance and innovative initiatives support.
The University of Illinois Office of Community College Research and Leadership provides resources to assist in the development of sample programs of study that may be adopted by the local education agencies and postsecondary institutions. Material assists Education for Employment Systems and postsecondary institutions in the implementation of programs of study at the local level. This group also provides limited technical assistance directly to districts through Pathways to Results and the Pathways Resource Center.

The Southern Illinois University Curriculum Revitalization Project (CRP) provides professional development opportunities and technical assistance to career and technical educators in Illinois through the development and dissemination of revitalized CTE curriculum in all content areas, curriculum research and planning in each of the approved content areas, and up-to-date technology support to deliver innovative and effective resources.