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 2014 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.

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 Bruce Rauner, Governor
    Tim Anderson, Secretary of the Senate
    Timothy Mapes, Clerk of the House
    Legislative Research Unit
    State Government Report Center
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. Illinois districts depend on high-quality CTE programs to prepare students for college and career.

Role of the Illinois State Board of Education

The Illinois State Board of Education (ISBE) provides state leadership, technical assistance and monitoring for CTE programs with five principal consultants. These principal consultants provide curriculum guidance for programs, state and federal grant administration, data collection and monitoring, student and teacher association advisement, and intra- and inter-agency liaisons. These activities improve CTE programs, ensuring that students are prepared for college and careers.

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 Education for Employment Systems. The Illinois Community College Board (ICCB) distributes Perkins funds to the 39 Illinois community college districts, consisting of 48 community colleges.

Role of the Education for Employment Systems

The Education for Employment (EFE) systems support local districts in the cooperative planning and delivery of high-quality career and technical education to students within their system. The EFE systems promote continuous improvement and accessibility of secondary CTE programs. They also provide accountability for the use of both state and federal CTE funds. In addition, the systems work collaboratively with local postsecondary institutions to create programs that enhance both the technical skills and academic development of students along with articulating postsecondary training programs, employment or both.

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

Role of High School CTE Programs

CTE educators provide instruction for careers in high-wage, high-skill, and high-demand occupations. The secondary CTE instructional programs in Illinois are grouped into five 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.

In Fiscal Year 2014, 809 high schools participated in Illinois CTE programs, and 636 high schools had on-site programs. The graph below indicates the number of high schools that provided CTE program areas on-site: Agricultural Education (322); Business, Marketing and Computer Education (579); Family and Consumer Sciences (482); Health Science Technology (125); and Technology and Engineering Education (483).
FY14 High School Programs in CTE Areas

The chart below indicates trend data for FY12 – FY14 CTE programs.

### # of Districts Providing CTE in the CTE Program Areas

<table>
<thead>
<tr>
<th></th>
<th>FY14</th>
<th>FY13</th>
<th>FY12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag Ed</td>
<td>322</td>
<td>314</td>
<td>314</td>
</tr>
<tr>
<td>Business</td>
<td>579</td>
<td>579</td>
<td>580</td>
</tr>
<tr>
<td>FCS</td>
<td>482</td>
<td>487</td>
<td>486</td>
</tr>
<tr>
<td>HST</td>
<td>125</td>
<td>129</td>
<td>135</td>
</tr>
<tr>
<td>TEE</td>
<td>483</td>
<td>492</td>
<td>504</td>
</tr>
</tbody>
</table>

Many high schools offer more than one program. The graph below indicates the number of high schools that offered multiple programs.

**Number of High Schools with Multiple CTE Programs in FY14**
The chart below indicates the trend data for FY12 – FY14 districts served by multiple CTE programs.

<table>
<thead>
<tr>
<th># of Districts Delivering Multiple CTE Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 CTE Program Area</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>FY14</td>
</tr>
<tr>
<td>FY13</td>
</tr>
<tr>
<td>FY12</td>
</tr>
</tbody>
</table>

The Condition of Career and Technical Education in Illinois

In FY14, 47.1 percent of all Illinois students enrolled in public secondary schools (grades 9-12) participated in CTE. This is an increase from FY13, but is still lower than earlier enrollments. The total enrollment in CTE has declined over the past few years primarily because of the drop in secondary school enrollment and increasing mandates in non-CTE areas, which limit the amount of time students have to enroll in CTE courses. All 57 EFE systems offered elementary career awareness activities to 1,356,234 students in public elementary schools (grades k-8) to provide career information to students. The table below indicates the number of students served by CTE.

<table>
<thead>
<tr>
<th>Total Grade 9-12</th>
<th>CTE Participants</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2014</td>
<td>604,277</td>
<td>284,864</td>
</tr>
<tr>
<td>FY2013</td>
<td>608,132</td>
<td>241,295</td>
</tr>
<tr>
<td>FY2012</td>
<td>614,854</td>
<td>300,983</td>
</tr>
<tr>
<td>FY2011</td>
<td>637,705</td>
<td>309,722</td>
</tr>
<tr>
<td>FY2010</td>
<td>624,576</td>
<td>308,184</td>
</tr>
<tr>
<td>FY2009</td>
<td>635,444</td>
<td>324,584</td>
</tr>
</tbody>
</table>

Graduation from High School

As indicated in the graph below, 95.3 percent of the students enrolled in CTE graduated from high school; 77.0 percent of CTE special needs students graduated from high school. This includes students with disabilities, economically disadvantaged students, students-as-parents, students preparing for nontraditional fields, displaced homemakers, and limited English proficient students.

Earning a National Career Readiness Certificate

FY 2014
As indicated in the chart below, there were 61,906 11th-grade CTE participants who took the National Career Readiness Certificate test in FY14; 40,927 students earned a Certificate Level.

<table>
<thead>
<tr>
<th>Certificate Level</th>
<th>Platinum</th>
<th>Gold</th>
<th>Silver</th>
<th>Bronze</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Students</td>
<td>244</td>
<td>8,761</td>
<td>21,986</td>
<td>9,936</td>
</tr>
</tbody>
</table>

Enrollment in Postsecondary programs
CTE students continue into postsecondary education. More than 65.9 percent of CTE Concentrators 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 two credit sequences at the secondary level are recognized by the state and/or its local eligible recipients.

Federal and State Career and Technical Education Funding Sources

<table>
<thead>
<tr>
<th></th>
<th>Appropriation</th>
<th>Administration</th>
<th>Distribution</th>
<th>State Leadership/ Technical Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>$23,354,316</td>
<td>$725,000</td>
<td>$20,299,454</td>
<td>$2,329,862</td>
</tr>
<tr>
<td>State</td>
<td>$38,062,100</td>
<td>$918,013</td>
<td>$37,232,100</td>
<td>$836,000</td>
</tr>
</tbody>
</table>

Federal - Perkins Career and Technical Education Grant
The State of Illinois was appropriated $38,934,174 from the federal Carl D. Perkins Career and Technical Education Act (Perkins) to support both K-12 and postsecondary CTE programs. ISBE administers Perkins K-12 CTE programs and ICCB administers Perkins postsecondary CTE programs. The division administrator of the ISBE College and Career Readiness Division is also the state director of Career and Technical Education.

The appropriation to ISBE for secondary federal career and technical education was $23,354,316. Of that total, $20,299,454 was distributed by ISBE to EFE systems for the delivery of high-quality local CTE programs. ISBE used $725,000 for administration and $2,329,862 for required federal leadership projects. The graph below shows the distribution of these funds on a percentage basis.

Illinois Federal Leadership and Technical Assistance Projects
The Illinois Association for Career and Technical Education (IACTE) was funded with $20,000 to provide professional improvement activities for approximately 250 secondary and postsecondary CTE teachers. These activities were conducted primarily at the 84th Annual IACTE Conference/Professional Development Institute held February 20-21, 2014, at the Marriot Hotel and Conference Center in Bloomington-Normal.

The University of Illinois – Project Lead the Way brings early exposure of engineering concepts to students in 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 $100,000 for training and professional development.
for those who teach this core group and engineering-oriented courses in Illinois high schools. In FY14, approximately 175 Illinois high school teachers attended training and/or professional development.

The Illinois Career and Technical Education (CTE) Special Populations Leadership Project provides $275,000 (with $150,000 of this amount devoted to nontraditional students per Perkins legislation) for statewide professional development and technical assistance to educators for the improvement of instructional services for special populations in CTE with an emphasis on the recruitment and retention of students preparing for a nontraditional career field. Leadership activities included a focus on performance assessment and accountability training, professional development, and technical assistance educator resources. The project website (www.illinoiscareer.org) hosts resources for CTE programs and the educational community. Along with the website, Facebook® and Twitter® accounts are used to provide information regarding newly developed and updated resources on gender equity. More than 300 educators were directly served through professional development activities in FY14, resulting in an impact on more than 18,000 students.

The Southern Illinois University Curriculum Revitalization Project (CRP) provides $635,000 in 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. In FY14, 1,651 educators and stakeholders were served through 80 professional development sessions and presentations.

State Career and Technical Education Funds
The state appropriation for secondary career and technical education for FY14 was $38,062,100. This amount has remained approximately the same since FY04 due to 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 state 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, ISBE distributes a total of $37,232,100 to local and regional agencies for the support of secondary career and technical education programs and elementary career development programs.

The state appropriation includes:
- Secondary CTE Programs: $33,961,550
- Elementary Career Development Program: $1,359,848
- Work Experience and Career Exploration Program (WECEP): $1,721,616
- Student Organizations (CTSOs): $189,086

State leadership projects in the amount of $830,000 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% ($830,000)
- Distribution to local and regional agencies – 98% ($37,232,100)
Illinois State CTE Projects

The Gender Equity Advisory Committee (GEAC) functions to advise and consult with ISBE to ensure 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 September and in February. Dedicated professionals shared knowledge and information regarding initiatives in equity work across the state, including collaborations on Science, Technology, Engineering and Mathematics (STEM) equity in the classroom, career exploration events, conferences, and trainings. A work group reviewed CTE state data and reported on strategies for improving CTE participation of nontraditional and other special populations defined by Perkins legislation. The work group will continue to research and review the CTE report materials for trend data outcomes.

The Illinois State University - Connections Project assists ISBE in implementing the High Schools That Work (HSTW) whole-school reform model. Major goals of the HSTW 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 used $330,000 in funds to coordinate the HSTW sites in Illinois through the delivery of the HSTW Assessment 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. A total of 1,053 educators participated in these activities.

The Connections Conference was held at the Pheasant Run Resort in St. Charles, Ill., on March 12-13, 2014. 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 900 educators were in attendance, including junior high, secondary and postsecondary educators. Participant evaluations revealed that of the 114 sessions offered, all received a 3.0 score or better (out of 4.0). The overall conference evaluation data showed an average score of 3.61 out of 4.

Career and Technical Student Organizations (CTSO) are co-curricular entities that provide secondary students with competitive-based activities that expand classroom instruction to strengthen academic and technical skills. Students gain industry experience. These competitive events develop leadership qualities in students. CTSOs also provide state and national conferences, which foster student-employer networking and experiences. In FY14, 34,106 students were members of a CTSO.
The Illinois Coordinating Council for Career and Technical Student Organizations (ICCCTSO) is made up of the state advisers, executive directors and presidents of the eight secondary CTSO that are listed above. The ICCCTSO is funded for $39,000 to coordinate the activities of the individual career and technical student organizations. A three-day leadership conference was held on July 21-23, 2014, in Springfield. The leadership conference provided training for CTSO state officers and advisers. It also provided direction in various career and technical education initiatives.

The Work Experience and Career Exploration Program (WECEP) is funded for $1,793,658 to provide a one-or two-year school-to-work transition program designed for students ages 14 and 15 who 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. In FY14, WECEP programs provided classroom instruction and workplace activities to eight school districts and 274 participating students. 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.

Future developments in Career and Technical Education

In 2012, the Illinois federal Race to the Top Grant (RTTT) launched a new Science, Technology, Engineering and Mathematics (STEM) innovative education initiative – STEM Learning Exchanges. The eight STEM Learning Exchanges promote and support the P-20 education pipeline for eight Illinois STEM industries. Their emphasis on active employer engagement in P-20 education has created new opportunities for Illinois schools and districts.

In FY14, $790,000 in RTTT funds were spent to help further develop the five original STEM Learning Exchanges for implementation and $25,000 for one STEM Learning Exchange for planning. The Department of Commerce and Economic Opportunity (DCEO) also provided $350,000 to move two of the original Planning Learning Exchanges (Energy and Transportation, Distribution & Logistics) into implementation. The 21 high schools in RTTT districts are participating in the development of two Programs of Study (POS). The following is the break out of how many POS are currently being worked on with each STEM LE: Health Science (14), Manufacturing (4), Agriculture, Food & Natural Resources (10), Information Technology (5), Research and Development (6), and Finance (1). Approximately 5,500 students are participating in these STEM Programs of Study.
3. Information Technology
4. Research and Development
5. Health Science
6. Transportation, Distribution & Logistics
7. Energy

The STEM Learning Exchanges are planning or implementing these functions for their areas:

1. Provide e-learning curriculum resources, including online 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 postsecondary 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 Learning Exchanges will continue to develop these functions during the next fiscal year as well as create a sustainability plan for when RTTT funds end on June 30, 2015.

National Recommendations and Activities for Fiscal Year 2015

Much of the work taking place in Illinois mirrors the following are recommendations from the Council of Chief State School Officers (CCSSO) Task Force on Improving Career Readiness. These recommendations will be a guiding document for the coming year:

1. Enlist the employer community as a lead partner in defining the pathways and skills most essential in today’s economy.
   • Enlist the employer community as a lead partner in identifying the high-demand, high-skill industry sectors that are most important to the state’s economy so career pathways can be aligned with those opportunities.
   • Engage the employer community in designing career pathways in secondary schools that develop the specific knowledge and skills needed for entry-level work within high-demand, high-skill industries.
   • Establish a structured process through which the education and business sectors come together to establish priorities and design pathways.

2. Set a higher bar for the quality of career preparation programs, enabling all students to earn a meaningful postsecondary degree or credential.
   • Require that all career programming is organized within pathways that culminate with a meaningful postsecondary degree or credential that opens doors to high-skill, high-demand jobs.
• Raise the level of rigor in career programs by including both a college-ready academic core and a technical core that spans secondary and postsecondary systems and meets industry expectations.
• Work with the employer community to dramatically expand work-based learning opportunities to expose students to career options and connect what they’re learning in the classroom with the world of work.
• Strengthen and expand career guidance and support services, beginning in middle school, and seek out nontraditional partners to help provide these supports.
• Use state funding and program approval processes to scale up the pathways in greatest demand and scale down or phase out programs that do not lead to credentials of value.
• Build the capacity of educators to more effectively engage students in high-quality, career-relevant instruction through deeper engagement with business and industry.

3. Make career readiness matter to schools and students by prioritizing it in accountability systems

• Make career readiness a higher priority in school rating and accountability systems.
• Adapt graduation requirements and scholarship criteria to give students credit for meeting rigorous career readiness indicators.

Illinois response to the recommendations

CTE programs in Illinois provide instruction for careers in high-wage, high-skill, and high-demand occupations in Agricultural Education; Business, Marketing and Computer Education; Family and Consumer Sciences; Health Science Technology; and Technology and Engineering Education. CTE projects such as Project Lead-the-Way and High Schools That Work continue to strengthen students’ technical skills; articulate transitions to postsecondary training programs, employment or both; assist in meeting the new Illinois Learning Standards; and close achievement gaps. The STEM Learning Exchanges have begun the work in developing meaningful connections to employers that result in clear Pathways to industry credentials for students. These programs are instrumental in supporting local districts to ensure student success.