Illinois Pathways Initiative

Illinois P-20 Council

July 27, 2011

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Agenda

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Background

- STEM Learning Exchanges were first advanced as part of the State of Illinois' Round 1 and 2 Race to the Top proposals as a college and career readiness strategy for STEM education.
- They were designed to build off of best practices and partnerships developed under ISBE's and ICCB's innovative career and technical education programs.
- While Illinois was not selected as a Race to the Top state, the need for reform persists. Public and private partners continued to convene and collaborate to advance the STEM Learning Exchange strategy.
- The P-20 Council's College and Career Readiness Committee recently adopted a framework that identifies the continuing need to develop a new, public-private infrastructure for employer engagement and partnership.
- STEM Learning Exchanges provide a strategy to help achieve the P-20 Council's goal of 60 percent of all Illinois residents attaining a high-quality academic degree or industry recognized certificate or credential by 2025.

STEM Learning Exchange Overview

Goal: To create a new, innovative public-private education infrastructure that can advance college and career readiness in STEM disciplines by coordinating statewide networks of P-20 education partners, business, labor, and other organizations based on career clusters.

- Learning Exchanges are designed to support local implementation of P-20 STEM Programs of Study where students can pursue programs that connect to their academic and career interests.
- Learning Exchanges coordinate nine functions; including planning, resource sharing, connections to professionals, managing transitions, and evaluation of results.
- A separate Learning Exchange is planned for each of the nine STEM areas, which align with the state's economic development objectives.
- To be hosted on the proposed cloud computing-based Learning and Performance Management System (LPMS) as a web-based portal linked to shared data systems.
- DCEO is currently working with ISBE to identify how Race to the Top Round 3 can support the formation of the first round of Learning Exchanges.

Next Steps: P-20 STEM POS Working Groups

Work with public-private partners and stakeholders to develop Programs of Study models in priority STEM areas that will serve as implementation roadmaps.

- The goal of each working group is to develop a course sequence within a designated STEM area and provide a general model that reflects all of the P-20 components of a STEM Program of Study.
- This model is designed to establish a series of shared definitions that will support statewide networks and facilitate connections between statewide public-private partners in each of the nine areas. Components of the report include:
  - Career Profiles
  - Baseline Analysis
  - P-20 Course Sequence and Definition Model
  - Cluster Support Resources
- The final report will provide a guide for structuring the future STEM Learning Exchanges, which are charged with supporting Program of Study implementation.
- Working groups convened this past April and will continue through the summer.

Next Steps: Governance Model

The state's lead education and economic development agencies will execute an intergovernmental agreement (IGA) to establish a new governance model for coordinating the STEM Learning Exchange infrastructure.

- Establishes the Illinois Pathways Interagency Committee as a governing board consisting of six state agencies: ISBE, ICCB, IBHE, ISAC, DCEO and IDES. Functions include:
  - Learning Exchange selection
  - Establishing a Pathways Resource Center
  - Establishing a Illinois Pathways Advisory Council
  - Data sharing across agencies
  - Coordinating with Learning and Performance Management System
  - Coordinating programs and policies to support Learning Exchanges
- The IGA is undergoing agency review and is planned to be executed this summer.
- Presentation to be delivered at the August 16th Council of Presidents meeting to engage higher education in the process and secure IBHE's support.

Illinois Pathways Initiative

Preliminary Vision for a Governance Structure

Illinois Pathways Interagency Committee

- Established by IGA
- Membership: DCEO, ISBE, ICCB, IBHE, ISAC, IDES
- Functions:
  - Select Learning Exchanges
  - Data sharing across education and workforce systems
  - Establish Pathways Resource Center
  - Establish Illinois Pathways Advisory Council
  - Align programs and policies to support Pathways Resource Center and Learning Exchanges
  - Coordinate with LPMS

Goal: To create a new, innovative public-private education infrastructure that can advance college and career readiness by coordinating statewide networks of P-20 education partners, business, labor, and other organizations based on career clusters.

Illinois Pathways Advisory Council

- Membership: IPIC, Learning Exchanges, P-20 Council, Business, and others
- Responsibilities:
  - Advises Agencies, Governor, and General Assembly
  - Advises Pathways Resource Center on projects
  - Submits annual talent pipeline reports and Learning Exchange benchmark reports to Governor and General Assembly
  - Plans annual STEM/Learning Exchange project sharing event

Pathways Resource Center

- One or multiple government or non-governmental entities
- Funded by Authority and submits reports to Adv Committee
- Categories of service:
  - External Outreach
  - Funding Center
  - Technology Platform
  - Performance Management

Learning Exchanges

- Membership: Broad public-private partners, including P-20 education institutions, industry, labor, museums, and community based organizations
- Selected by IPIC through submission of a 3 years strategic plan
- Submits annual talent pipeline and benchmark reports to IPAC
- Coordinates 9 Functions:
  1. E-Learning Resources
  2. Regional Resources & Assets
  3. Student Organization Supports
  4 Work-Based Learning Experiences
  5. Sponsor Challenges
  6. Professional Development
  7. Career Development
  8. Education & Career Planning
  9. Review Performance

Next Steps: Launching the STEM Learning Exchanges

The State of Illinois plans to establish the first STEM Learning Exchanges in the fall.

- A separate Learning Exchange is planned for each of the nine STEM application areas, though priority will be given to areas based on the following:
  - Completion and support of statewide P-20 Program of Study framework;
  - Economic development potential and need;
  - District survey results;
  - Statewide public-private partner readiness; and
  - Funding availability
- Strategic review process:
  - Establish the organizational structure of the Learning Exchange, including a fiscal agent.
  - Identify and recruit steering group representatives.
  - Develop a three year strategic plan and budget to carry out the nine major functions of a STEM Learning Exchange through the 2012-15 school years.
  - Develop a sustainability plan for continued operations beyond 2012-15 that aligns with permanent governance structure.

Questions & Discussion

Appendix A: STEM Learning Exchange Priority Clusters

Nine STEM Programs of Study—consistent with the National Career Cluster Framework—are identified in the RTTT application and will be supported by STEM Learning Exchanges (Note: Energy is a new cluster to be explored).

1. **Agriculture, Food and Natural Resources**: development, production, processing, distribution, of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources;
2. **Energy**: developing, planning and managing the production of energy including renewable energy and clean coal technology and its distribution through smart grid technologies;
3. **Manufacturing**: product and process development and managing and performing the processing of materials into intermediate or final products and related support activities;
4. **Information Technology**: designing, developing managing, supporting and integrating hardware and software system;
5. **Architecture and Construction**: designing, planning, managing, building, and maintaining the built environment including the use of green technologies;
6. **Transportation, Distribution and Logistics**: planning, management and movement of people, materials and goods across all transportation modes as well as maintaining and improving transportation technologies;
7. **Research and Development**: scientific research and professional and technical services including laboratory and testing services, and research and development services;
8. **Health Sciences**: planning, managing and providing therapeutic, diagnostic, health informatics, and support services as well as biomedical research and development; and
9. **Financial Services**: securities and investments, business finance, accounting, insurance, and banking services.

Appendix B: STEM Learning Exchanges

Who makes up a STEM Learning Exchange?

- Employers and employer-led organizations
- Labor unions
- Professional associations
- Secondary and postsecondary teachers and faculty
- Students and student organizations
- Community colleges
- Universities
- School districts and local education agencies
- State government P-20 education, economic development and workforce agencies
- STEM education researchers and experts
- Federal laboratories and research centers
- Local workforce investment boards
- Museums and related non-profit organizations
- Community-based organizations serving at risk student populations and other student populations underrepresented in STEM programs of study.

Appendix C: Learning Exchanges: Roles and 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-related Programs of Study through performance reporting and work with partners to continuously improve performance.

Appendix D: Industry Value Proposition

Shifting from philanthropy to investment, improving industry partnerships with education...

- Increase Alignment of Existing Investments while Promoting Brand
  - Improved way of embedding investments as part of sustainable programs.
  - Maintain brand while working in collaboration with industry partners.
- Reduced Transaction Cost
  - Improved ability to connect with P-20 education partners organized around a sector.
  - Standardized program framework and definitions enable easy access across districts.
- Co-Partner with Education around Talent Pipelines
  - Multiple opportunities for businesses of all sizes to contribute based on their interests.
  - Directly enables industry to impact the career readiness of their workforce pipeline.
- Review Data for Return on Investment
  - Can identify critical skills shortages by reviewing supply and projected demand data.
  - Access to data to review statewide talent pipeline performance by industry sector.

Appendix E: P-20 Education Value Prop.

Expanding access to statewide professional learning communities...

- Increased Access to Curricular and Instructional Supports
  - Standardized program framework enables resource sharing at economies of scale.
  - Improved ability to connect to a continuum of work-based learning opportunities.
- Reduced Transaction Cost in Accessing Professional Learning Communities
  - Statewide peer-to-peer networks and diverse partners are more easily coordinated.
  - Access to industry relevant professional development opportunities.
- Improved College and Career Planning Systems and Guidance
  - Seamless transitions across P-20 programs with reduced switching costs.
  - Supports student portfolio development aligned to college and career readiness standards.
- Review Data for Continuous Improvement
  - Access to longitudinal and industry relevant data to support and inform program planning.
  - Enables performance-based review to identify and report on program effectiveness.

Appendix F: Workforce Value Prop.

Improving education, workforce, and economic development coordination to build more effective talent pipelines…

- Co-Partner with Education around Talent Pipelines
  - Multiple opportunities for businesses of all sizes to contribute based on their interests.
  - Improved ability to manage transitions between P-20 and workforce training systems.
- Increased Access to Training Supports around Industry Sectors
  - Standardized, sector-based frameworks enable resource sharing across regions.
  - Expanded connections to a continuum of work experience opportunities.
- Improved Workforce Readiness Systems and Guidance
  - Supports portfolio assessments for academic and workforce readiness skills.
  - Infrastructure to identify and support sector pathway credentialing statewide.
- Review Data for Continuous Improvement
  - Access to education and workforce longitudinal data to support program planning.
  - Enables performance-based review to identify and report on program effectiveness.