



## **Youth CareerConnect and the Illinois STEM Learning Exchanges**

On November 20, 2013, the U.S. Department of Labor issued a notice of funding availability and solicitation of grant applications for the *Youth CareerConnect* Program. This Program will provide \$100 million in grant funds for approximately 25 – 40 successful grantees implementing programs to redesign high schools using models that increase high school students' preparedness for post-secondary education and employability in high-growth industries. Eligible lead applicants include public or non-profit local workforce entities, local educational agencies, or nonprofit organizations with related program model experience. All lead applicants must organize a broader group of partners in support of the application including local workforce investment boards, school districts, employers, and institutions of higher education. Applications are due on January 27, 2014. The full notice of funding availability is available [here](#).

Illinois Pathways was launched in 2012 in response to a growing awareness that education and job opportunities in Illinois are not adequately aligned. Illinois Pathways has launched new statewide partnerships (between schools, industry, state government, and nonprofits) known as STEM Learning Exchanges that better coordinate investments, resources, and planning in a particular career area. The STEM Learning Exchanges deliver resources for local pathway systems by increasing students' access to real-world challenges, e-Learning opportunities, and work-based learning such as job shadows and internships. The Exchanges also support teacher professional development and community efforts to determine if education programs meet workforce needs.

### **Support for Core Elements of Applications**

The *Youth CareerConnect* Program includes six “Core Elements” each application must address:

1. Integrated Academic and Career-Focused Learning
2. Employer Engagement
3. Individualized Career and Academic Counseling
4. Work-based Learning and Exposure to the World of Work
5. Program Sustainability
6. Program Performance and Outcomes

As described in more detail below, a local community should consider incorporating into its application the Learning Exchange or Exchanges relevant to a community's career area(s) of focus. By doing so, communities can strengthen their approach to the core elements and develop partnerships that can support their local career pathway system development, regardless of whether *Youth CareerConnect* funding is received.

#### **1. Integrated Academic and Career-focused Learning**

- **Career-focused course sequence:** The Learning Exchanges can support communities in defining an integrated college- and career-focused curriculum organized around an industry theme, with a course sequence aligned to industry-supported career pathways.
- **Curriculum resources:** The Learning Exchanges are developing and inventorying an array of high quality, career-focused curriculum and professional development resources that can support local program implementation.
- **Selection of industry-based credentials:** The Learning Exchanges can work with communities to identify and implement industry-based credentials as part of a curriculum sequence that have the most relevance to industry partners in a particular career area.

## 2. Employer Engagement

- Employer commitments: The Learning Exchanges can facilitate the process to identify and obtain meaningful commitments from employer partners to support the implementation of a proposed project.
- Ongoing employer technical assistance: As a community moves into the implementation phase, the Learning Exchanges can support the provision of ongoing technical assistance from employers for the project.

## 3. Individualized Career and Academic Counseling

- Identification of professionals: The Learning Exchanges can help school districts identify industry professionals willing to serve as career coaches or mentors to support a comprehensive counseling approach.
- Relevant career information: The Learning Exchanges can help communities locate career exploration activities and occupational information based on local and regional labor market conditions.

## 4. Work-based Learning and Exposure to the World of Work

- Work-based learning continuum: The Learning Exchanges can help communities design a continuum of work-based learning activities with appropriate experiences at various grade levels, such as job shadowing, problem-based learning, mentoring, and internships. The Exchanges can also help communities access a network of employers prepared to offer various types of work-based learning experiences.
- Participation in industry-sponsored challenges: Each of the Learning Exchanges are involved in sponsoring and designing challenges that involve students working in collaborative teams to solve real-world, interdisciplinary problems. Learning Exchanges can involve communities in these challenges and work with business partners and communities to design and launch new challenges.

## 5. Program Sustainability

- Supportive partnerships: By partnering with the Learning Exchanges, communities can build partnerships that can provide ongoing support after grant funding ends.
- State and local alignment: The Learning Exchanges are actively working with state education and economic development agencies to align resources to career pathway system development activities. The Learning Exchanges can identify opportunities to align community programs to state-level funding streams to offset costs.

## 6. Program Performance and Outcomes

- Designing and tracking metrics: The Learning Exchanges can help communities design performance metrics aligned with those metrics being used by the Exchange to track progress and outcomes, as well as help communities determine sources of data available for those metrics.

Representatives of Illinois school districts, community colleges, local workforce investment boards, employers, and community organizations can find the contact information about the Learning Exchanges [here](#), or by contacting Jonathan Furr, Director of the Office of Education System Innovation at NIU ([jfurr@niu.edu](mailto:jfurr@niu.edu)).

# ILLINOIS Pathways

Science, Technology, Engineering & Math



## *Youth CareerConnect* and the STEM Learning Exchanges

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**Director**

**Northern Illinois University**

**Office of Education System Innovation**



# Agenda



1. Illinois Pathways and STEM Learning Exchanges Overview
2. *Youth CareerConnect* Overview
3. Support from STEM Learning Exchanges for a strong application

# Illinois Pathways

- Built from longstanding state strengths:
  - Agricultural education model
  - CTE Programs of Study
- Race to the Top as an accelerant
- 60% by 2025
  
- **Mission:** Empower and support Illinois learners to explore, progress through, and transition from high quality, structured career pathway systems into rewarding careers in critical growth areas for the Illinois economy.

# Illinois Pathways Strategies

- Support **local career pathway systems development** that **empower students** to explore their academic and career interests in STEM fields.
- Launch **new statewide, public-private partnerships** known as **STEM Learning Exchanges** that better coordinate investments, resources and planning in a particular industry cluster.

# Illinois Pathways – Focus Areas

Builds off of the **National Career Cluster Framework** and supports career pathway systems in **eight STEM application areas**:



# Career Pathway Systems: Key Features

Elementary  
and Middle  
School



Secondary  
Education  
9<sup>th</sup> and 10<sup>th</sup>



Secondary  
Education  
11<sup>th</sup> and 12<sup>th</sup>



Postsecondary  
Education and  
Careers

- **Strong academic foundation**
  - **Career exploration**
  - **Education & career plan development**
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- **Orientation level courses**
  - **Career exposure (job shadows, competitions)**
- 
- **Pathway-specific course sequence**
  - **Work-based learning and career preparation**
  - **Industry-based credentials**
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- **Transitions to college and/or employment**
  - **Stackable credentials**

# Work-Based Learning Opportunities

Elementary  
and Middle  
School



Secondary  
Education  
9<sup>th</sup> and 10<sup>th</sup>



Secondary  
Education  
11<sup>th</sup> and 12<sup>th</sup>



Postsecondary  
Education and  
Careers

- **Career Awareness**
- **Career Exploration**

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- **Problem-based Competitions**
- **Service Learning**
- **Job Shadows**

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- **Career Preparation**
- **Internships**
- **School-based Enterprises**

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- **Apprenticeships**
- **Work Experience**

# STEM Learning Exchanges

- **Public-private networks** in each of the identified STEM application areas
- Organized to support local implementation of career pathways by **improving coordination** and **reducing the transaction costs** among network partners
- Available to partner with and support K-12, postsecondary and workforce programs **statewide**

# Designated STEM Learning Exchanges



STEM Cluster Area	Lead Entity
Agriculture, Food & Natural Resources	Illinois Foundation for Future Farmers of America
Health Sciences	University of Illinois at Chicago
Information Technology	CompTIA Workforce Development
Manufacturing	Illinois Manufacturers Association Education Foundation
Research & Development	Illinois Science and Technology Institute
Energy	Illinois State University
Finance	Econ Illinois
Transportation, Distribution & Logistics	Illinois Manufacturers Association Education Foundation

# STEM Learning Exchange Functions



**Manage System  
Design and Track  
Performance**

**Deliver Resources  
and Supports for  
Local Pathway  
Systems**

**Expand Quality  
Work-based  
Learning  
Opportunities**

Outreach  
Resources

Curriculum

Lab Space &  
Equipment

Teacher PD

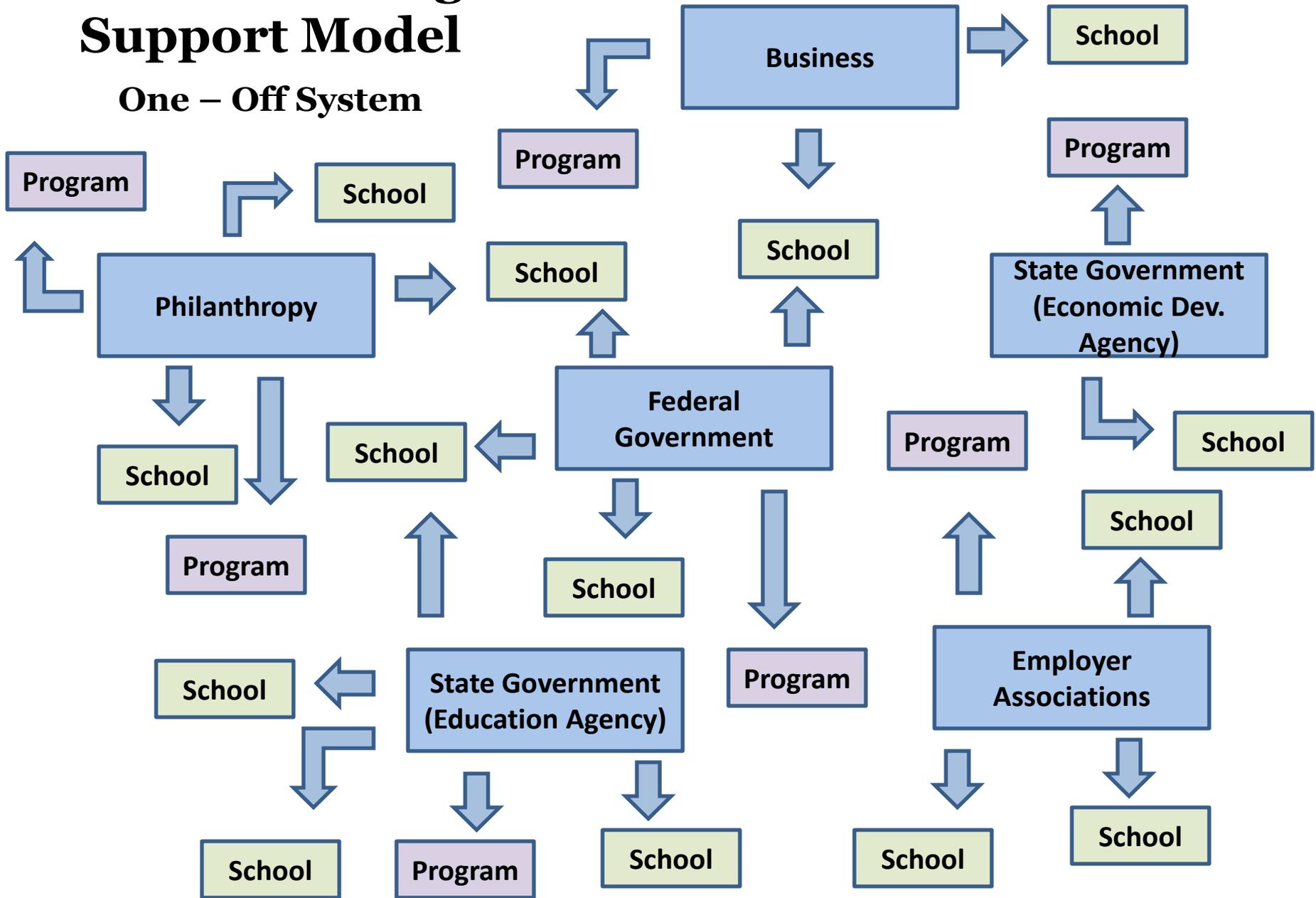
Student  
Organizations

Internships, Job  
Shadows

Sponsor industry  
challenges

# Historic Funding & Support Model

One – Off System



# Local Implementation Infrastructure

## Learning Exchanges

- Manage system design and track performance
- Deliver resources and supports for local systems
- Expand quality work-based learning

## Private-Public Backbone Organization(s) as Major “System Engines”

**Develop:** Convene stakeholders to identify needs and arrange commitments to collaborate. (Leadership Team)

**Oversee:** Monitor and report to regional leadership on the status of system development; identify needs for support and accountability for front-line organizations & collaborations.

## Front-Line Organizations: these Directly Serve Young People and Employers

High Schools

Employers

Community Colleges

Non Profit Organizations

Workforce Intermediaries

Elementary and middle schools

**Better Post-Secondary & Career Outcomes for Young Adults**

# STEM Learning Exchange Engagement



- 25 Race to the Top School districts with high schools
- The ready and the willing communities
- Meaningful engagement with approximately 200 high schools statewide

# *Youth CareerConnect Overview*



- \$100 million in grant funds
- Approximately 25 – 40 successful applicants
- Eligible lead applicants:
  - Public or nonprofit local workforce entities
  - LEAs
  - Nonprofits with related program model experience
- Entities can only lead one application, but can partner on multiple
- Applications due by January 27, 2014

Scoring Rubric Area	Max Points
<b>i. Statement of Need</b>	<b>16</b>
a. Poverty rate of geographic area	3
b. % of students from low-income families	4
c. Median income level of geographic area	3
d. Industry focus	6
<b>ii. Program Design</b>	<b>56</b>
a. Integrated academic & career-focused learning	16
b. Employer engagement	8
c. Career and Academic Counseling	7
d. Work-based Learning and Work Experience	8
e. Partners	17
<b>iii. Organizational Profile</b>	<b>17</b>
a. Program Management	5
b. Sustainability	8
c. Budget	4
<b>iv. Data Collection and Program Performance</b>	<b>11</b>
<b>TOTAL</b>	<b>100</b>

# Lessons from a Federal Grant Veteran



- It's all about the scoring rubric
- The reviewers know nothing about your local context
- Ambitious yet achievable
- Go through the process to build partnerships and sharpen plans – not because you expect to win

# Six Core Elements



1. Integrated Academic and Career-focused Learning
2. Employer Engagement
3. Individualized Career and Academic Counseling
4. Work-based Learning and Exposure to the World of Work
5. Program Sustainability
6. Program Performance and Outcomes

# 1. Integrated Academic and Career-focused Learning



## What's required:

- Organized around one or more careers within high-growth H-1B industries appropriate to the local/regional market
- Multiple educational and career pathways that help participants transition into employment or postsecondary
- Aligned with CCSS and NGSS
- Where feasible, result in an industry-recognized credential
- Postsecondary partnerships and/or dual credit
- A non-duplicative sequence of integrated college and career-focused courses, with at least one career-focused course per year

# 1. Integrated Academic and Career-focused Learning



## How the Learning Exchanges Can Help:

- Defining an integrated college- and career-focused course sequence aligned to industry pathways
- Curricular and PD resources
- Implement industry-based credentials as part of a structured curriculum



Product and process development and managing and performing the processing of materials into intermediate or final products and related support activities.

Cluster:

**Go**

Co = [Courses](#)   Wo = [Work-Based Learning](#)   Cr = [Credentials / Assessments](#)  
 Pa = [Shared Pathways](#)

Select any Pathway to see related programs then click on any course, work-based learning, credentials/assessments, or shared pathway icon to see related lists.

- Manufacturing Pathways**
- Manufacturing Production
- Process Development
- Production
- Automation
- Logistics and Inventory Control

**Learning Exchange**

[View Manufacturing Learning Exchange](#)

Orientation (e.g. Middle & High School)	Pathways (e.g. High School)	Postsecondary Education and Training Bridge / Certificates and Associates / Bachelors / Graduate	Careers
<b>Technology Orientation</b> Co Wo Cr	<b>Manufacturing Production Process Development</b> Co Wo Cr Pa	<b>Manufacturing Production Process Development</b> Co Wo Cr	<a href="#">Careers</a>
	<b>Production</b> Co Wo Cr	<b>Production</b> Co Wo Cr	<a href="#">Careers</a>
	<b>Automation</b> Co Wo Cr Pa	<b>Maintenance, Installation and Repair</b> Co Wo Cr	<a href="#">Careers</a>
	<b>Logistics and Inventory Control</b> Co Wo Cr Pa	<b>Logistics and Inventory Control</b> Co Wo Cr	<a href="#">Careers</a>
		<b>Quality Control</b> Co Wo Cr	
		<b>Health, Safety, and Environmental Assurance</b> Co Wo Cr	

# Curricular Resources



Learning Exchange	Curricular Resources
Manufacturing	“Dream It-Do It” web-based library of e-learning materials
Energy	Catalogue of open source energy related curriculum and lesson plans
IT	Online model lesson plans; donations of Microsoft courses from IIT
Health Science	Out of the box curricula and lesson plans; curricular advising; online anatomy & physiology course
Research & Development	Vetted R&D focused resource repository

## 2. Employer Engagement



### What's required:

- Must include at least one employer or consortium of employers for each selected high-growth industry
- Employer partners role must be actively engaged and providing resources to support the program, including:
  - Defining strategies and goals
  - Assisting with curriculum development and design
  - Resources to support education/training
  - Mentoring, externships, field trips, project-based learning, hiring preferences
  - Ongoing TA

## 2. Employer Engagement



### How the Learning Exchanges Can Help:

- Identify and obtain meaningful commitments from employer partners
- Ongoing TA and participation from employers

# STEM Learning Exchange Employer Partners



at&t



# 3. Individualized Career and Academic Counseling



## What's required:

- Programs must provide individualized career and academic counseling that includes career and post-secondary awareness
- Must include creating Individual Development Plans that should include career objectives, a program of study/degree or certificate objectives, and work experiences
- Encourages the use of workforce/community resources that can deliver direct career counseling or augment services provided by the school district

# 3. Individualized Career and Academic Counseling



## How the Learning Exchanges Can Help:

- Career exploration activities
- Occupational information based on local and regional labor market conditions
- Identify industry professionals to serve as career coaches or mentors
- Connection to statewide Individual Development Plan efforts through ISAC; Illinois Shared Learning Environment

## 4. WBL and Exposure to World of Work



### What's required:

- Program must include planned, structured learning experiences that take place in a workplace for a limited period of time
- Designed to enable youth to gain exposure to the working world; inspire and energize through the practical application of skills and knowledge
- Encouraged to pay for work experiences through matching funds
- Must also include exposure to various career pathways, particularly early in the program (classroom speakers, field trips, job shadowing, etc.)

## 4. WBL and Exposure to World of Work



### How the Learning Exchanges Can Help:

- Designing a work-based learning continuum
- Accessing a network of employers for resources and commitments
- Sponsoring and designing student challenges

# CAT Student Competition



Introducing  
the new CAT  
262C  
Skid Steer

*Steering You in the Right Direction*

- Highlighted career opportunities in agriculture, engineering, and manufacturing
- 20 student teams; 4-students/team
- Pre-event marketing component
- Tours, keynote speaker
- Mechanical parts identification, applied practicum, and safety inspection

# 5. Program Sustainability



## What's required:

- A focus on professional development during the grant period
- A sustainability plan that outlines how the program will be designed to build capacity and continue to provide the same level of instruction and support to all participants

# 5. Program Sustainability



## How the Learning Exchanges Can Help:

- Professional development resources aligned to industry clusters
- Partnerships for ongoing support
- Alignment of community programs to state-level resources and funding streams

# 6. Program Performance and Outcomes



## What's required:

- A strong focus on performance measures, both short- and long-term
- A data collection plan for tracking of specific data elements to report against program performance measures

# 6. Program Performance and Outcomes



## How the Learning Exchanges Can Help:

- Advising on a performance metric framework
- Assessing availability of data

# Closing Thoughts/Questions



- For more information:

[www.ilpathways.com](http://www.ilpathways.com)

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