



222 Merchandise Mart Plaza, Suite 1212
Chicago, IL 60654
T 312 239 0350
istcoalition.org

NOTES: STEM Workforce Roundtable

Building STEM career pathways

- Establish mechanisms and best practices for educating parents on high-skill, high-wage credentialed careers in IT, manufacturing, healthcare and other Illinois industries; Ex. Nanotechnology program for parents.
- Expose grade school students to a variety of career options while they are still forming their interests and before dogmatic notions of success are indoctrinated.
- Sequence courses to extend beyond high school.
- Further embed credentialing into Illinois high schools so students graduate with immediate job opportunities.
- Provide every student with an external experience to validate career interests and build initial skills.
- Consider harnessing the maker movement to build interest in STEM and manufacturing; Ex: Chicago Public Library, Museum of Science and Industry, and Southland maker network. An Illinois maker lab network would promote the exchange of resources, curricula, and best practices across regionally centered spaces.

Teacher training and preparation

- Expanded utilization of existing tools like Illinois Pathways and the Illinois Shared Learning Environment (ISLE)
- How do we better utilize national models like Project Lead the Way?
- How can the state create shared support mechanisms for implementing Next Generation Science Standards?
- How will we assess NGSS implementation and student learning (standard assessments)?

Leadership/Soft skills

- Soft and leadership skills are equally important as technical training to employee success; ensure that communication, leadership, and life skills are taught in parallel to credentialing.



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- Like with technical skills, industry needs to be involved in driving soft skill development to ensure alignment with needs
- How can we replicate models like leadership academies across the state?

Role of industry

- Too many one-off programs, tap frameworks like Illinois Pathways to develop common partnership mechanisms.
- Create a playbook for businesses on how to get involved in state STEM initiatives.
- Develop a professional playbook for companies that provides information on STEM partnership opportunities.
- Work with companies to encourage value-added volunteerism that leverages technical skills

Underrepresented Populations/Girls in STEM

- Every region is developing initiatives to engage underrepresented groups in STEM education. What are the successful elements and how can they be replicated and scaled?
- What is the role of mentorship in engaging underrepresented populations?

Talent retention

- Education needs to be linked with regional experience to expose students to local opportunities; this could include revisiting the apprenticeship model in more sectors.
- This is equally if not more significant with advanced degree recipients who typically have less affinity for Illinois; providing project based opportunities to contribute to established firms or startups will link advanced degree holders with Illinois employment opportunities while solving technical challenges at companies.