

Blurring Boundaries for Illinois' Future Workforce

Presentation to the Future of Work
Taskforce

December 20, 2021



Education Systems Center at NIU

Our Mission : Shape and strengthen education and workforce systems to advance racial equity and prepare more young people for productive careers and lives in a global economy.



College &
Career Pathways



Bridges to
Postsecondary



Data Impact &
Leadership



Statewide



Community
Networks



Innovation





The Big Blur

An Argument for Erasing the Boundaries Between High School, College, and Careers—and Creating One New System That Works for Everyone

AT A GLANCE

This paper argues for a radical restructuring of education for grades 11–14—by erasing the arbitrary dividing line between high school and college—to open opportunities for the learners our current systems leave behind. We make the case for an entirely new type of institution—neither high school nor college—designed specifically to better meet the needs of young people after 10th grade and help prepare them to succeed in the world of work.

AUTHORS

JFF

JUNE 2021



-  High School
-  Postsecondary Education
-  Labor Market

What's driving the blur in Illinois?

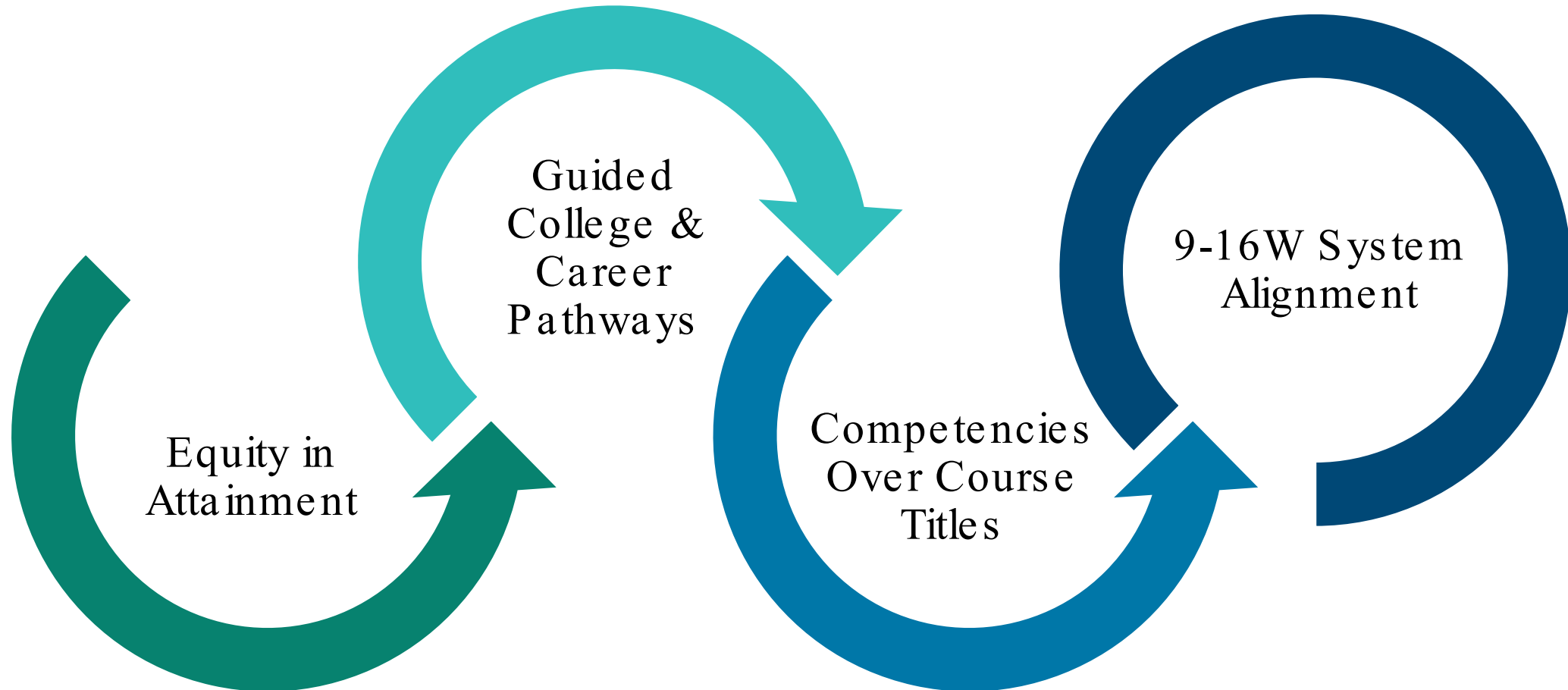
Where has the blur started?

Where is it accelerating?

How can our State best leverage it?



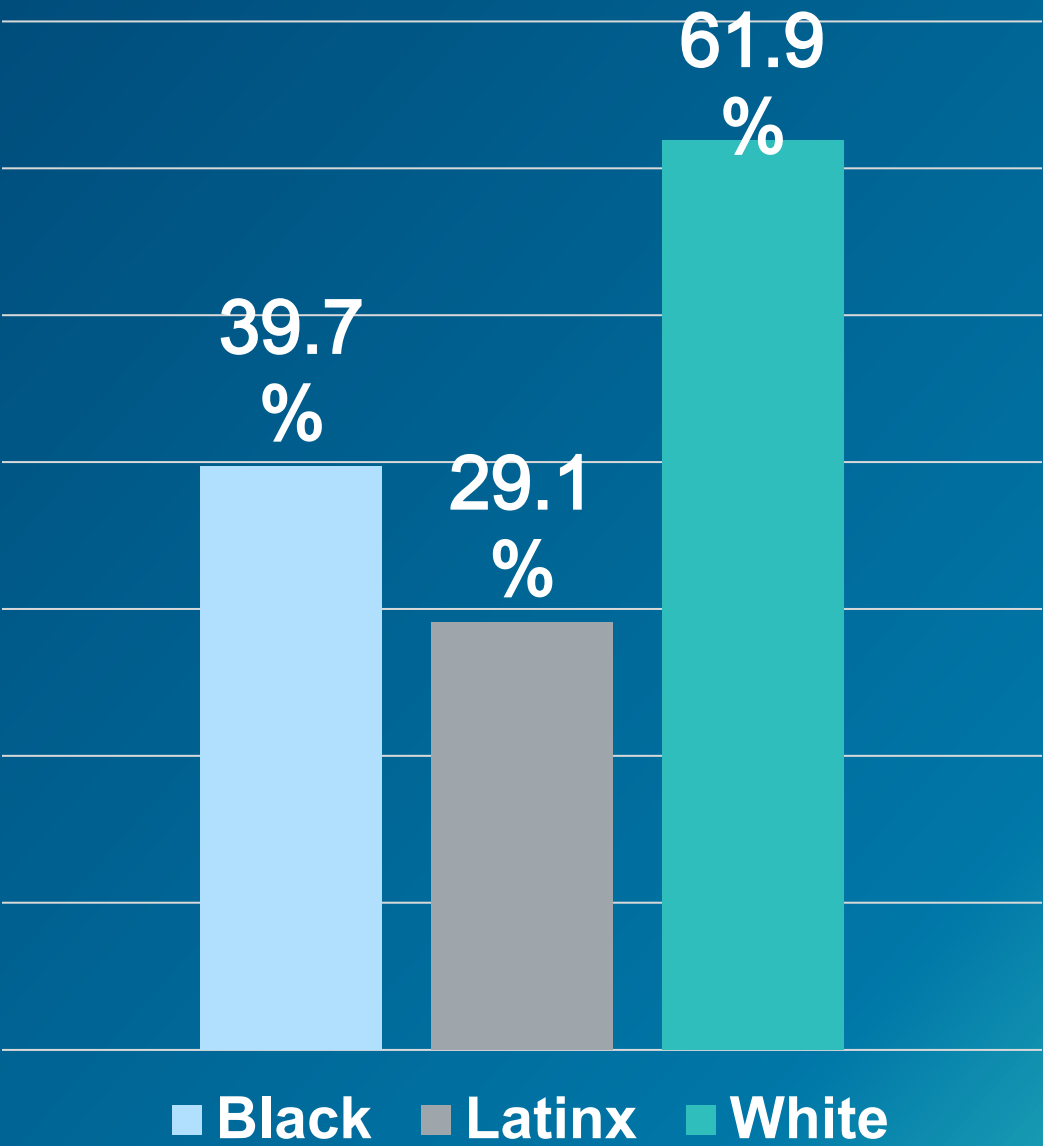
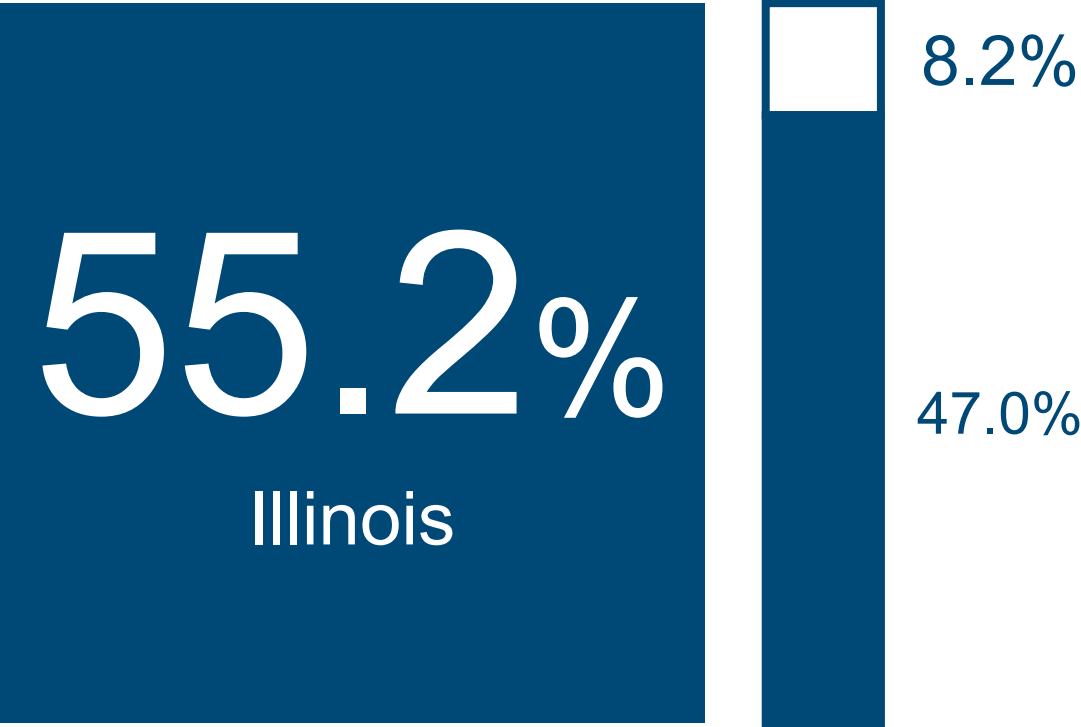
4 Drivers of the Blur in Illinois



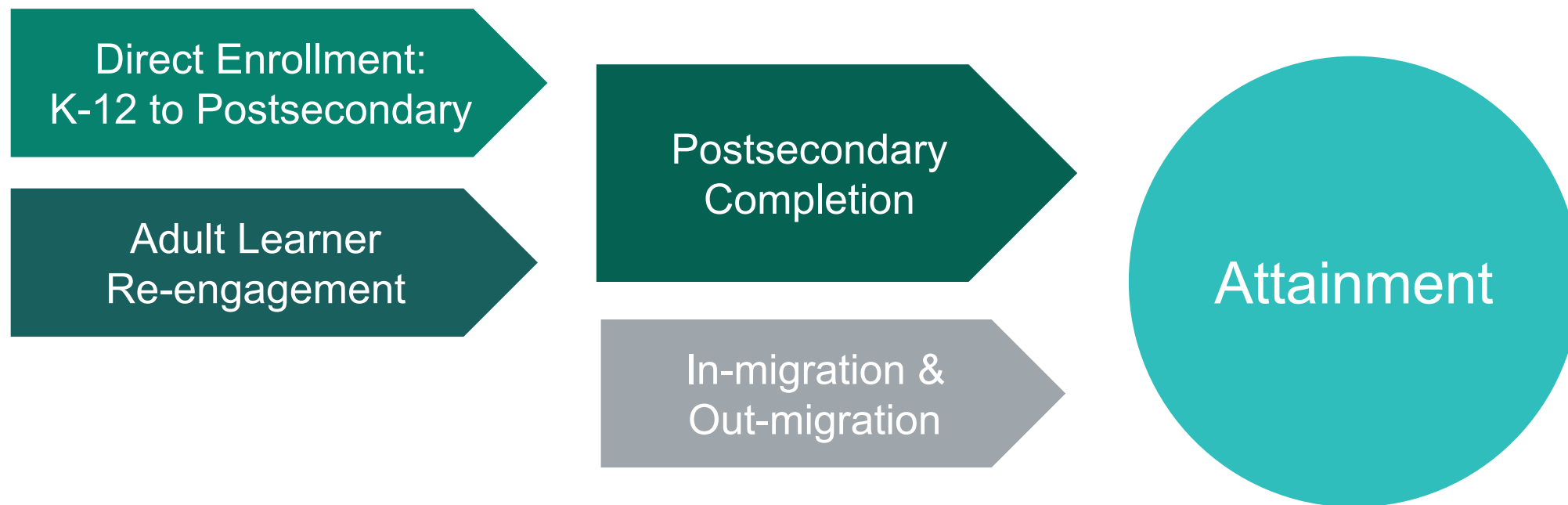


Equity in Attainment

Illinois 60 by 25 Goal



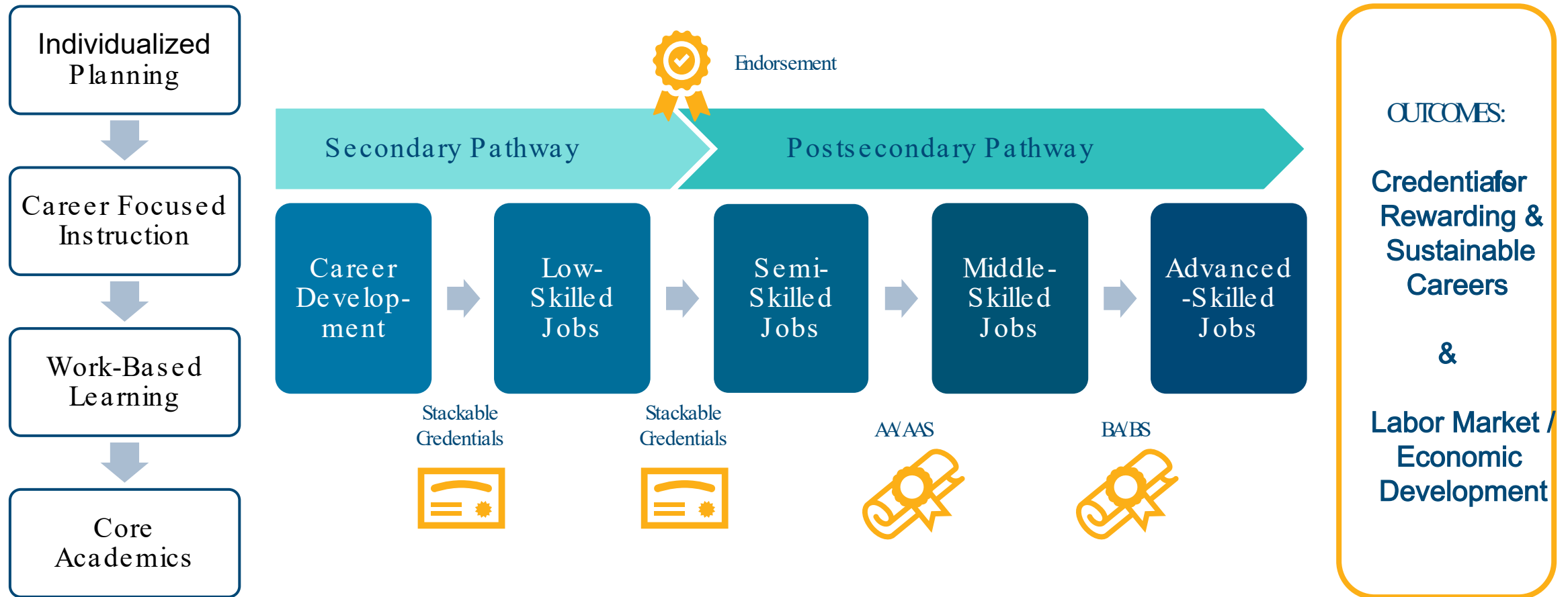
Policy Drivers for Increasing Attainment



A woman with long hair and glasses, wearing a light-colored lab coat, is seated at a workstation in a technical laboratory. She is focused on a laptop screen that displays a 3D wireframe model of a mechanical component. The background is filled with various pieces of equipment, including a large circular device with a speaker-like face and a robotic arm. The entire image has a blue tint.

Guided College & Career Pathways

State College & Career Pathways Model





College and Career Pathway Endorsement Framework



INDIVIDUAL PLAN



PROFESSIONAL
LEARNING



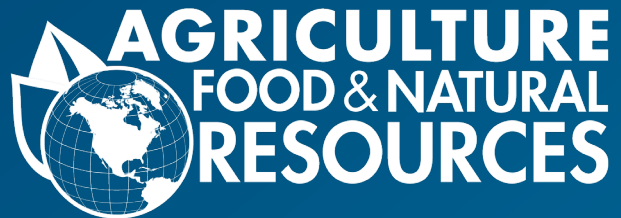
CAREER
FOCUSED
INSTRUCTION



ACADEMIC
READINESS

HIGH SCHOOL
DIPLOMA

Endorsement



ARTS & COMMUNICATIONS

FINANCE & BUSINESS SERVICES

HEALTH SCIENCES & TECHNOLOGY

MANUFACTURING,
ENGINEERING,
TECHNOLOGY & TRADES

INFORMATION
TECHNOLOGY

HUMAN & PUBLIC
SERVICES



Model Programs of Study Guides

State of Illinois Model Programs of Study Guide: **Education**

June 2020



State of Illinois Model Programs of Study Guide: **Health Sciences and Technology**

June 2020



State of Illinois Model Programs of Study Guide: **Information Technology**

June 2020



State of Illinois Model Programs of Study Guide: **Manufacturing and Engineering**

June 2020



State of Illinois Model Programs of Study Guide: **Finance and Business Services**

August 2021



HIGH PRIORITY
OCCUPATIONS

PROMISING
CREDENTIALS
AND DEGREE
SEQUENCES

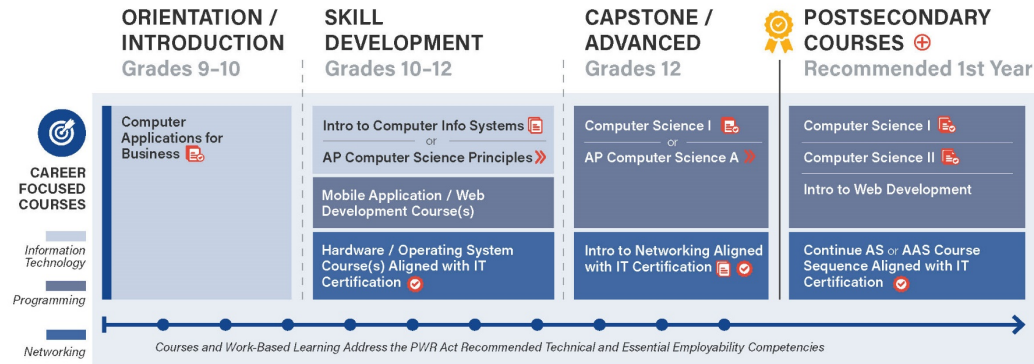
STRATEGIC
COMMUNITY
COLLEGE
COURSES

MAP
SECONDARY TO
POST-
SECONDARY
SEQUENCE

RELATED
TECHNICAL
COMPETENCIES

Model Programs of Study Guide:

Information Technology



WORK-BASED LEARNING	Career Exploration (2)	Team-Based Challenge	Team-Based Challenge
	Team-Based Challenge	Career Development Experience or Youth Apprenticeship	Career Development Experience or Apprenticeship
SCIENCE	Science Sequence	Science Sequence	Science
SOCIAL SCIENCE	Social Science Sequence	Social Science Sequence	Social Science
MATH	Algebra	Geometry	College Algebra
	Geometry	Algebra 2	Calculus
		Pre-Calculus	Statistics
ENGLISH	English Sequence	English Sequence	English Composition
		Transitional English	Oral Communication
		English Composition	

AP or Dual Credit

Dual Credit Course

Dual Credit Course Affiliated With IAI Code

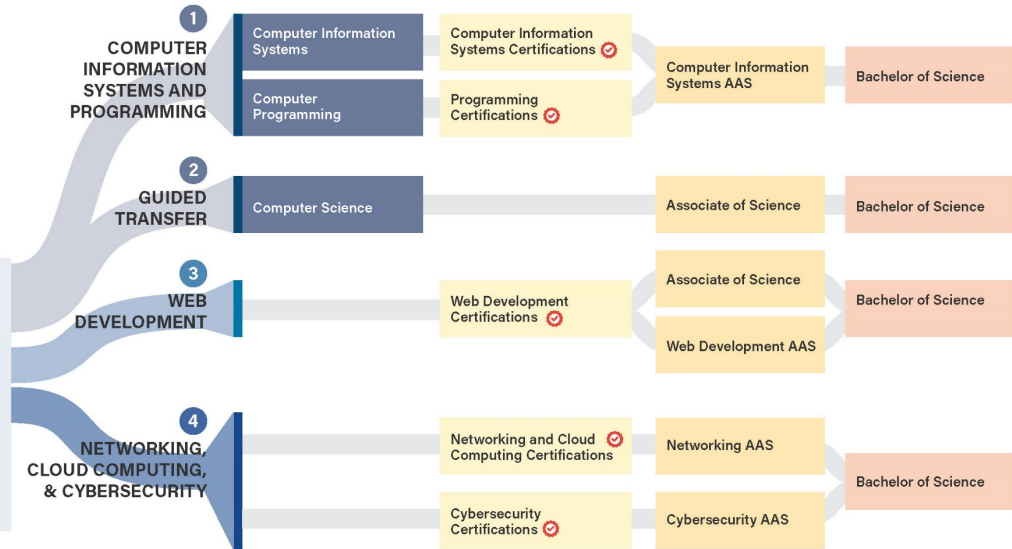
Course or Program Prepares for Industry Credential

Postsecondary Course Affiliated with IAI Code

College and Career Pathway Endorsement Earned

If courses in this column were accomplished through early college credit, students should take the next required course in the sequence or, if none, additional AAS or Major Courses

POSTSECONDARY OPTIONS

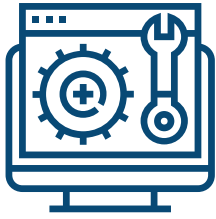


SELECTED OCCUPATIONS, WAGES, & JOB GROWTH

Program	Typical Job	Near or Above Living Wage Threshold for 1 Adult + 1 Child ¹	Median Hourly Wage ²	Growth in Illinois: Annual Job Openings ²	Growth in Illinois: % Change Over 10 years ²	Stackable?
1 Computer Information Systems and Programming	Computer Systems Analysts	Y	\$41.67	2,230	9%	Typically Stacks to Bachelor's Program
	Computer User Support Specialists	Y	\$24.27	220	11%	
2 Computer Science	Computer and Information Systems Managers	Y	\$65.12	1,370	10%	
	Computer Hardware Engineers	Y	\$50.35	110	12%	
	Software Developers - Applications	Y	\$45.88	2,690	28%	
	Software Developers - Systems Software	Y	\$51.63	1,030	13%	
	Computer and Information Research Scientists	Y	\$55.43	90	21%	
3 Web Development	Web Developers	Y	\$33.85	515	15%	
4 Networking, Cloud Computing, and Cybersecurity	Computer Network Architects	Y	\$56.07	400	7%	
	Information Security Analysts	Y	\$46.13	430	23%	
	Network and Computer Systems Administrators	Y	\$39.87	970	5%	
	Computer Network Support Specialists	Y	\$29.80	840	8%	

1. Living wage calculations are based on MIT's Living Calculator (livingwage.mit.edu), where the "Living Wage" for 1 Adult + 1 Child is \$26.27/hour for the state of Illinois. "Near" defined as 85% of the statewide living wage, which is \$22.33/hour

2. U.S. Department of Labor, CareerOnestop (careeronestop.org/explorecareers)



PERKINS V



ORIENTATION / INTRODUCTION Grades 9–10



CAREER FOCUSED COURSES

Information
Technology

Programming

Networking

Computer
Applications for
Business

SKILL DEVELOPMENT Grades 10–12

Intro to Computer Info Systems
or
AP Computer Science Principles

Mobile Application / Web
Development Course(s)

Hardware / Operating System
Course(s) Aligned with IT
Certification

CAPSTONE / ADVANCED Grades 12

Computer Science I
or
AP Computer Science A

Intro to Networking Aligned
with IT Certification



POSTSECONDARY COURSES + Recommended 1st Year

Computer Science I
Computer Science II
Intro to Web Development

Continue AS or AAS Course
Sequence Aligned with IT
Certification

Career Exploration (2)
Team-Based Challenge

Team-Based Challenge
Career Development Experience
or
Youth Apprenticeship

Team-Based Challenge
Career Development
Experience
or
Apprenticeship



AP or
Dual Credit



Dual
Credit
Course



Dual Credit
Course Affiliated
With IAI Code



Course or Program
Prepares for
Industry Credential



Postsecondary
Course Affiliated
with IAI Code



College and Career
Pathway Endorsement
Earned



If courses in this column were accomplished
through early college credit, students should
take the next required course in the sequence
or, if none, additional AAS or Major Courses

Courses and Work-Based Learning Address the PWR Act Recommended Technical and Essential Employability Competencies

A diverse group of young adults, including students of various ethnicities, are smiling and posing together outdoors. They are dressed in casual clothing like sweaters, jackets, and jeans. The background is a soft-focus natural setting with trees. The entire image has a blue color overlay.

Competencies Over Course Titles

PWR Act CBE Pilot



Illinois State Board of Education

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COMPETENCY PILOT

Competency-based programs assess and advance students based on their demonstrated mastery of skills and knowledge.

The competency-based model removes the constraints of "seat time" and allows for student-driven learning inside and outside of the classroom. This approach can make education more relevant both to students and to employers.

- Allows for earning of credit toward graduation requirements in ways other than traditional coursework
- Incorporates real-world knowledge and challenges
- Students attain career-related competencies beyond those needed for high school graduation



Investigating CBE: What it Means to Shift Towards a Competency-Based System

A webinar was presented by ISBE in partnership with the Midwest Comprehensive Center from 1-2 p.m. on Aug. 15. *Investigating CBE: What it Means to Shift Towards a Competency-Based System* was presented by Jen Sigrist, executive director of Media and Technology for the Central Rivers Area Education Agency in Iowa. Jen addressed the following questions: What is a competency-based system all about? How does it look different from a traditional classroom? We'll talk about what CBE is during this



PWR Act Technical and Essential Employability Competencies

TOP 10 CROSS-SECTOR ESSENTIAL EMPLOYABILITY COMPETENCY STATEMENTS

Teamwork & Conflict Resolution

Students can use their understanding of working cooperatively with others to complete work assignments and achieve mutual goals.

Communication

Verbal: Students can use their understanding of English grammar and public speaking, listening, and responding, convey an idea, express information, and be understood by others.

Written: Students can use their understanding of standard business English to ensure that written work is clear, direct, courteous, and grammatically correct.

Digital: Students can use their understanding of email, keyboarding, word processing, and digital media to convey work that is clear, direct, courteous, and grammatically correct.

Problem Solving

Students can use their critical thinking skills to generate and evaluate solutions as they relate to the needs of the team, customer, and company.

Decision Making

Students can use their understanding of problem solving to implement and communicate solutions.



TOP 10 TECHNICAL COMPETENCY STATEMENTS FOR INFORMATION TECHNOLOGY

Basic Principles of Information Technology Concepts, Systems, Platforms & Tools

Students can use their understanding of fundamental IT concepts, systems, platforms, tools, and technology to understand the common roles of IT professionals.

Security

Students can use their understanding of malware, firewall, IDS, and IPS to recognize and describe basic threats to networked computers.

Logic & Fundamentals of Computer Languages

Students can use their understanding of how computer languages communicate to build basic mobile and web applications.

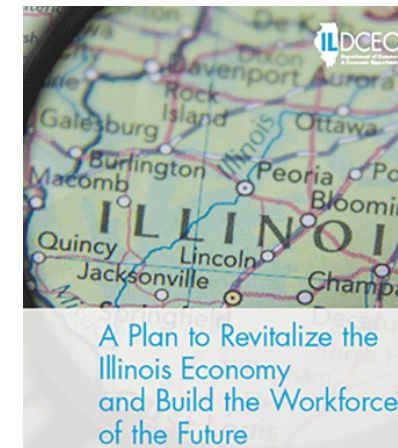
Routing & Network Configuration

Students can use their understanding of common networking protocols to explain the purpose of routing, network configuration, and monitoring.



9-16W System Alignment

System Alignment Drivers





- High School
- Postsecondary Education
- Labor Market

Will you resist it?

Or leverage it

to better

prepare our

State for the

future of work?





Thank you! Questions?

Jonathan Furr, Executive Director

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