Thinking Longitudinally: Using Data to Support the Transition from High School to College and Careers

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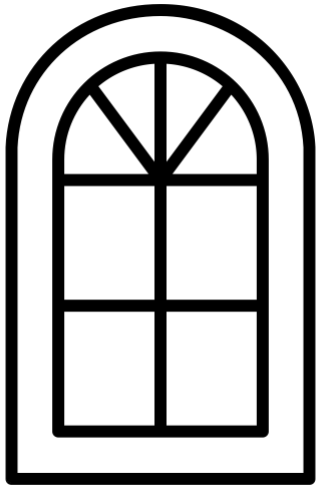
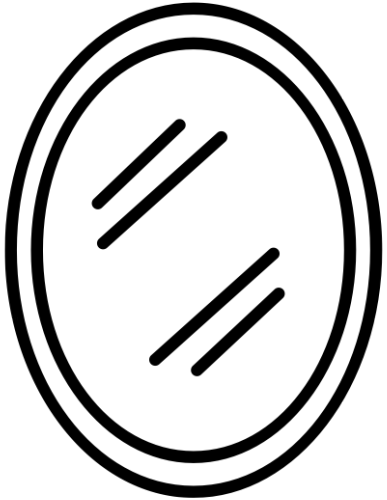
Setting the Stage

Data can both serve as a window ***looking out*** to develop insights into students, schools, districts, etc.



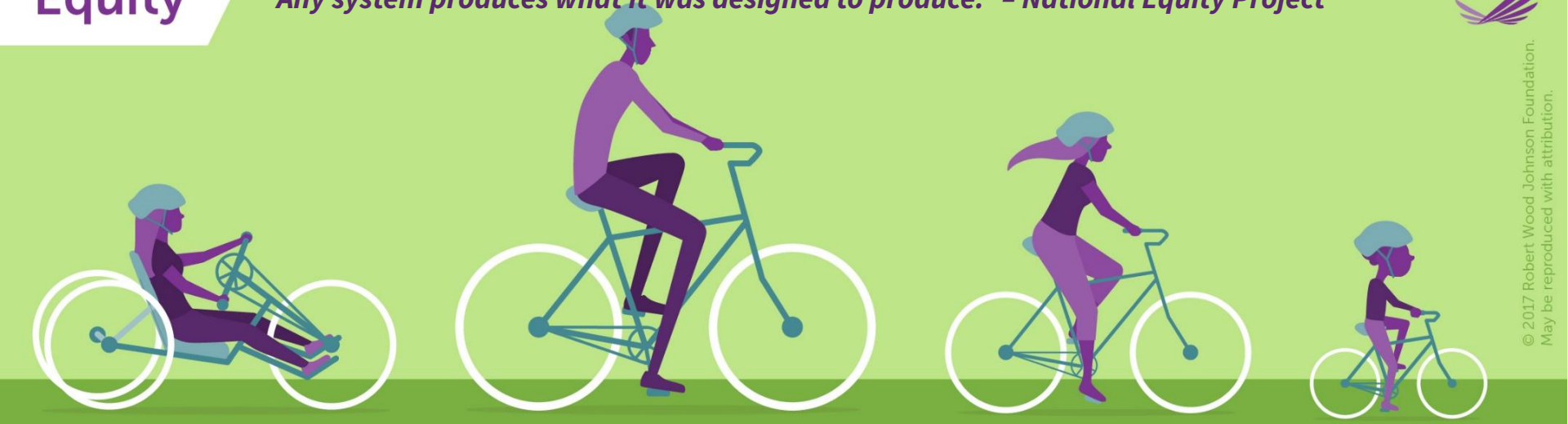


... and as a mirror ***looking in*** to gather insights about our own practices and systems.

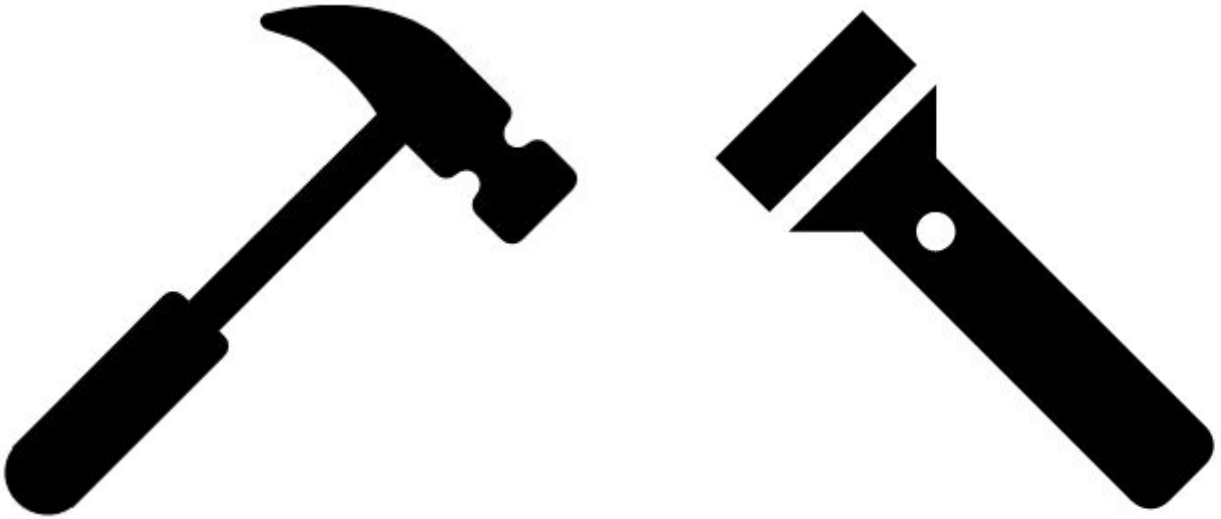
Equality

Equity

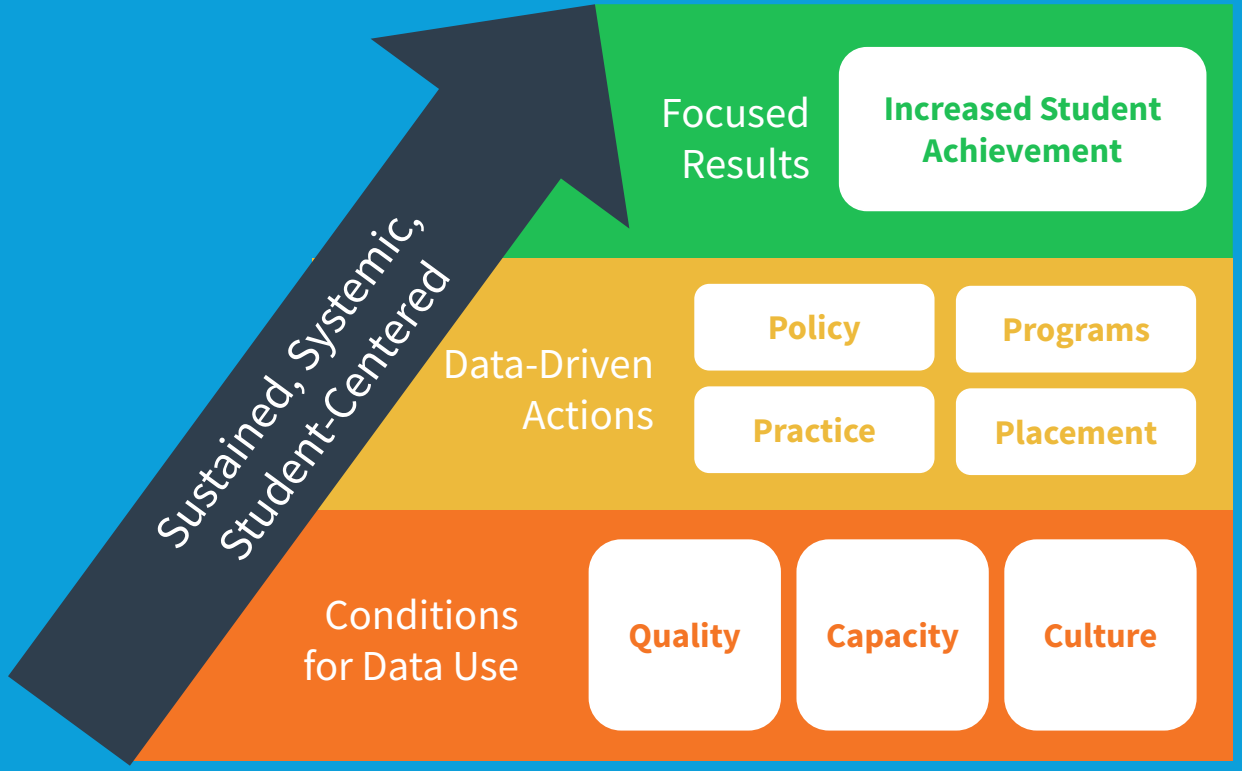
“Any system produces what it was designed to produce.” – National Equity Project



Which tool to use?



Why Use Data?


Sustained, Systemic, Student-Centered
Focused Results
Increased Student Achievement
Data-Driven Actions
Policy
Programs
Practice
Placement
Conditions for Data Use
Quality
Capacity
Culture

Data = Maximized Impact

Examples of Good Data Use

- Setting goals that are meaningful and achievable for your team.
- Identifying programs that need to be scaled.
- Identifying programs that need to be improved.
- Figuring out where there is misalignment between programs or overlap between programs.

Good data use is hard: results need to be contextualized and need to "control" for a variety of factors.

Data = Maximized Impact

Examples of Bad Data Use

- Setting unachievable goals, i.e., “We will see a 10% increase in college entry in 2 years.”
- Overselling benefits of programs or highlighting programs that will not have a meaningful impact, i.e., “This program with 3 students will have a major impact on college-going rates.”
- Using data to blame, i.e., “The reason kids don’t graduate high school is the elementary schools don’t prepare them.”

Real improvement takes time. Too often we look at one or two years of data and draw conclusions that require long-term trends.

How EdSystems Thinks about Data

Micro Data
(or Tracking)

Focuses on individual-level data, often from surveys or records.

- Are we implementing programs well?
- How many students are participating?
- What is their level of engagement?

Macro Data
(or Cross-Sectional)

Aggregates micro-level information to observe trends in large populations.

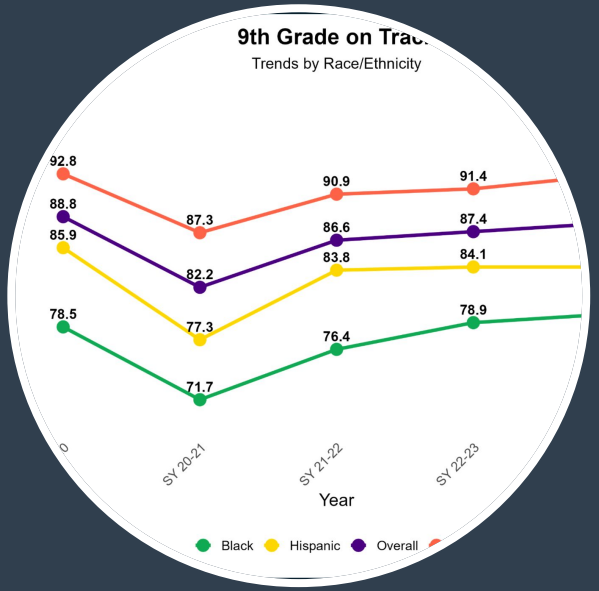
- Is our graduation rate improving?
- How does it compare to other districts?

Longitudinal Data

Tracks subjects to observe changes over time.

- How do students progress over time?
- Are students prepared for high school? Leaving high school prepared for college/careers?
- Do they enroll in college?
- Are they entering careers?

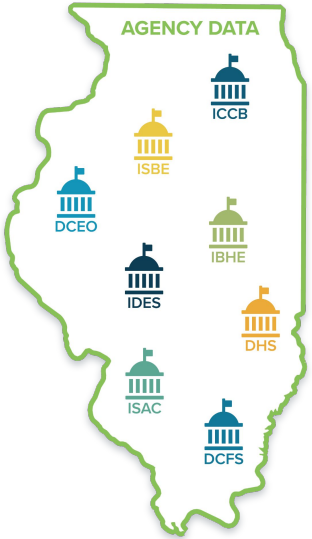
Using Data for Impact

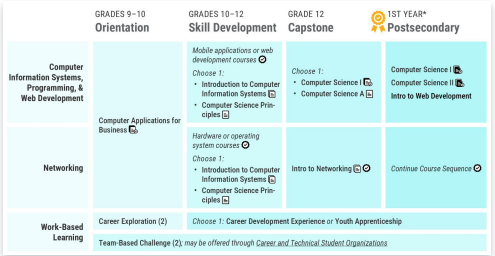


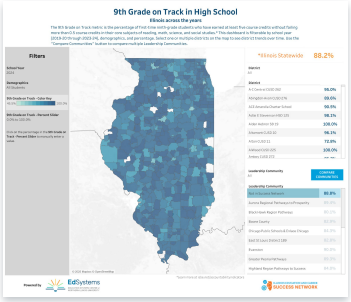
Using Data for Impact

We plan to discuss three approaches to using data to understand our education and workforce systems:

- Using Illinois Report Card data
- Connecting education data to the workforce
- Using standardized test data longitudinally



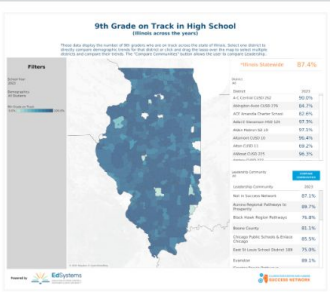




Explore the Success Network Dashboard

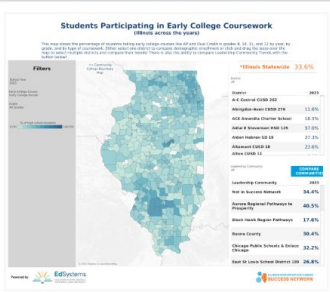
The Success Network Dashboard is designed to help Leadership Communities and all regions across Illinois better understand learners' experiences in pursuing postsecondary credentials. Built on data from the Illinois Report Card, the visualizations allow you to compare data by school districts, community college districts, and Leadership Communities. After selecting a geographic area, you can view student demographics.

Click on a dashboard view below to start exploring.



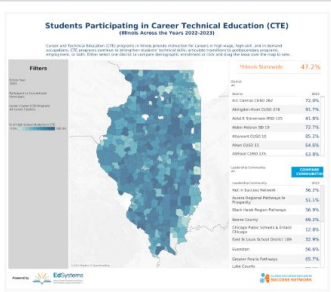
9th Grade On Track Rates

This view shows the rates of 9th grade students who are on track to graduate high school.



Early College Coursework

This view shows the percentage of students taking early college courses.



CTE Participation

This view shows the percentage of students taking Career and Technical Education courses.

ILSuccessNetwork.org/dashboard

Using Illinois Report Card Data

- Geographic analysis using the Success Network Dashboard
- Longitudinal and trend analysis

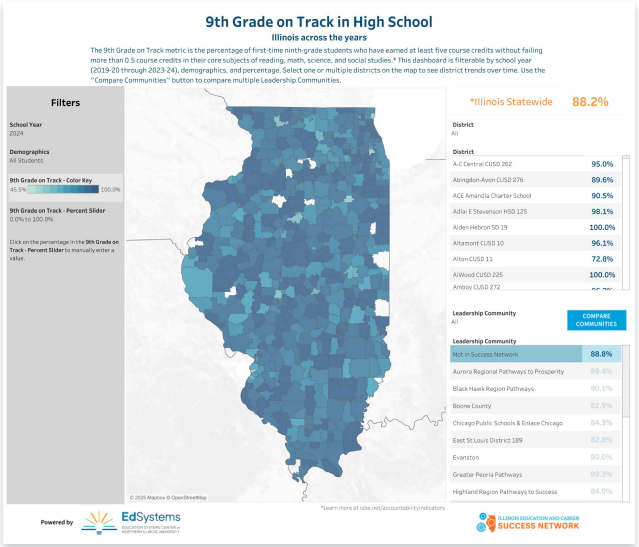
Using Report Card Data

Success Network Dashboard

The Success Network Dashboard provides leadership communities with data regarding attainment and tracking metrics in high school and beyond:

- 9th Grade on Track
- High School Graduation
- Early College Participation
- CTE Participation
- Postsecondary Enrollment
- Postsecondary Remediation

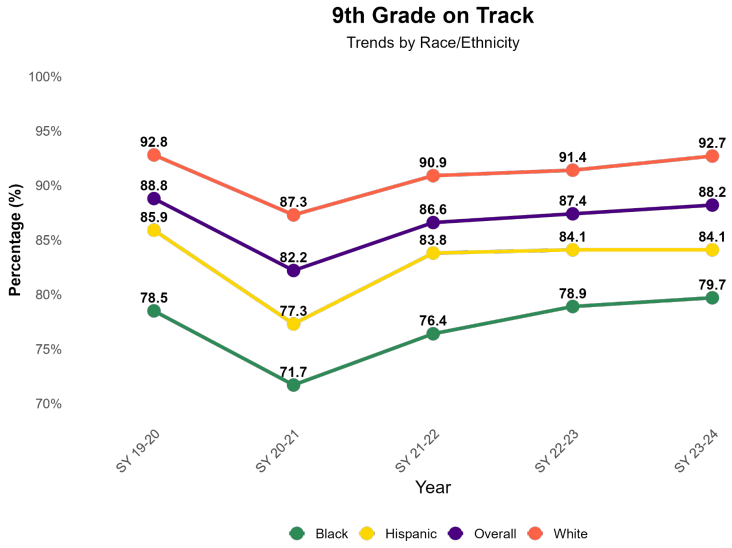
The Success Network Dashboard is being updated with School Year 2023–24 Report Card data!

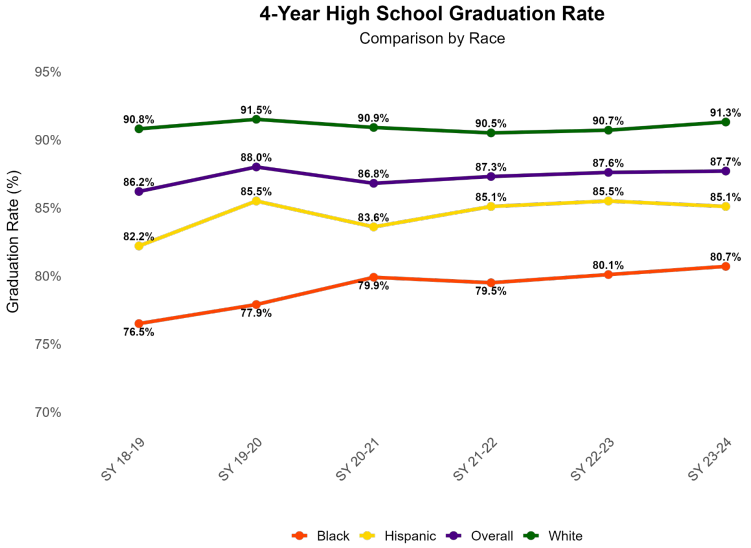


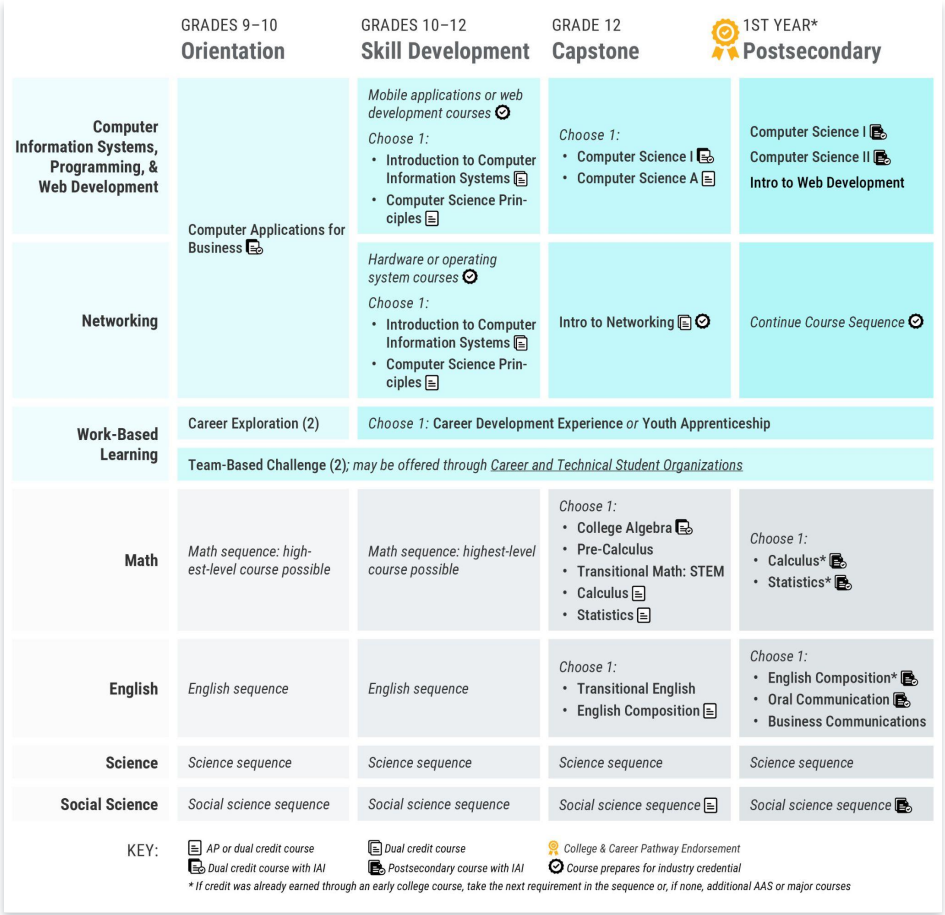
Using Report Card Data

Trend and Longitudinal Analysis

In addition to the Success Network Dashboard, EdSystems continues to do trend analysis of report card data and link data longitudinally (i.e., 9th grade on-track to high school graduation, high school graduation to postsecondary enrollment)







	GRADES 9–10 Orientation	GRADES 10–12 Skill Development	GRADE 12 Capstone	1ST YEAR* Postsecondary
Computer Information Systems, Programming, & Web Development	Computer Applications for Business	*Mobile applications or web development courses* ✓ *Choose 1:* • Introduction to Computer Information Systems • Computer Science Principles	*Choose 1:* • Computer Science I • Computer Science A	Computer Science I Computer Science II Intro to Web Development
Networking		*Hardware or operating system courses* ✓ *Choose 1:* • Introduction to Computer Information Systems • Computer Science Principles	Intro to Networking ✓	*Continue Course Sequence* ✓
Work-Based Learning	Career Exploration (2)	*Choose 1:* Career Development Experience *or* Youth Apprenticeship		
	Team-Based Challenge (2); *may be offered through Career and Technical Student Organizations*			
Math	*Math sequence: highest-level course possible*	*Math sequence: highest-level course possible*	*Choose 1:* • College Algebra • Pre-Calculus • Transitional Math: STEM • Calculus • Statistics	*Choose 1:* • Calculus* • Statistics*
English	*English sequence*	*English sequence*	*Choose 1:* • Transitional English • English Composition	*Choose 1:* • English Composition* • Oral Communication • Business Communications
Science	*Science sequence*	*Science sequence*	*Science sequence*	*Science sequence*
Social Science	*Social science sequence*	*Social science sequence*	*Social science sequence*	*Social science sequence*

KEY: *AP or dual credit course* · *Dual credit course* · *College & Career Pathway Endorsement* · *Dual credit course with IAI* · *Postsecondary course with IAI* · *Course prepares for industry credential*

* If credit was already earned through an early college course, take the next requirement in the sequence or, if none, additional AAS or major courses

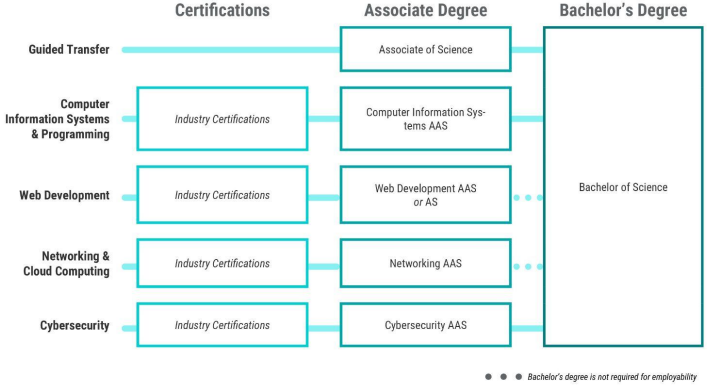
Connecting Education to Workforce Data

- The Illinois Longitudinal Data System (ILDS)
- Labor Market Information (LMI)
- Postsecondary and Education Outcomes (PSEO)

Connecting Education to Workforce Data

Model Programs of Study and Labor Market Information

Postsecondary Opportunities



Selected Occupations, Wages, and Job Growth

Program	Typical Job(s)	Living Wage Potential*	Median Hourly Wage**	IL Growth: Change over 10 years ***	IL Annual Job Openings***	Typical Educational Requirements
Guided Transfer	Computer and Information Systems Managers	High	$78.01	8.0%	1,828	Bachelor's Degree
	Software Developers or Software Quality Assurance Analysts and Testers	High	$52.44	18.0%	6,256	
	Database Architects	High	$66.32	5.6%	526	
Computer Information Systems & Programming	Computer User Support Specialists	Medium	$27.93	4.1%	1,539	Some College
	Database Administrators	High	$49.18	5.6%	526	Bachelor's Degree
	Computer Systems Analysts	High	$49.45	4.2%	2,306	
Web Development	Web and Digital Interface Designers	Medium	$35.94	7.3%	548	Bachelor's Degree
Networking, Cloud Computing, & Cybersecurity	Computer Network Support Specialists	Medium	$33.95	3.4%	999	Associate Degree
	Network and Computer Systems Administrators	High	$42.72	3.1%	804	Bachelor's Degree
	Information Security Analysts	High	$54.18	25.3%	428	

* Living wage potential is based on MIT's Living Calculator (livingwage.mit.edu) for Illinois in 2024. Occupations with median salaries higher than the living wage for 1 adult + 1 child ($39.63/hour) are considered as having a "high" living wage potential. Occupations with median salaries only higher than the living wage of 1 adult, no children ($22.86/hour) are considered as having a "medium" living wage potential, and occupations with median salaries below the living wage of 1 adult, no children (less than $22.86/hour) are considered as having a "low" living wage potential.

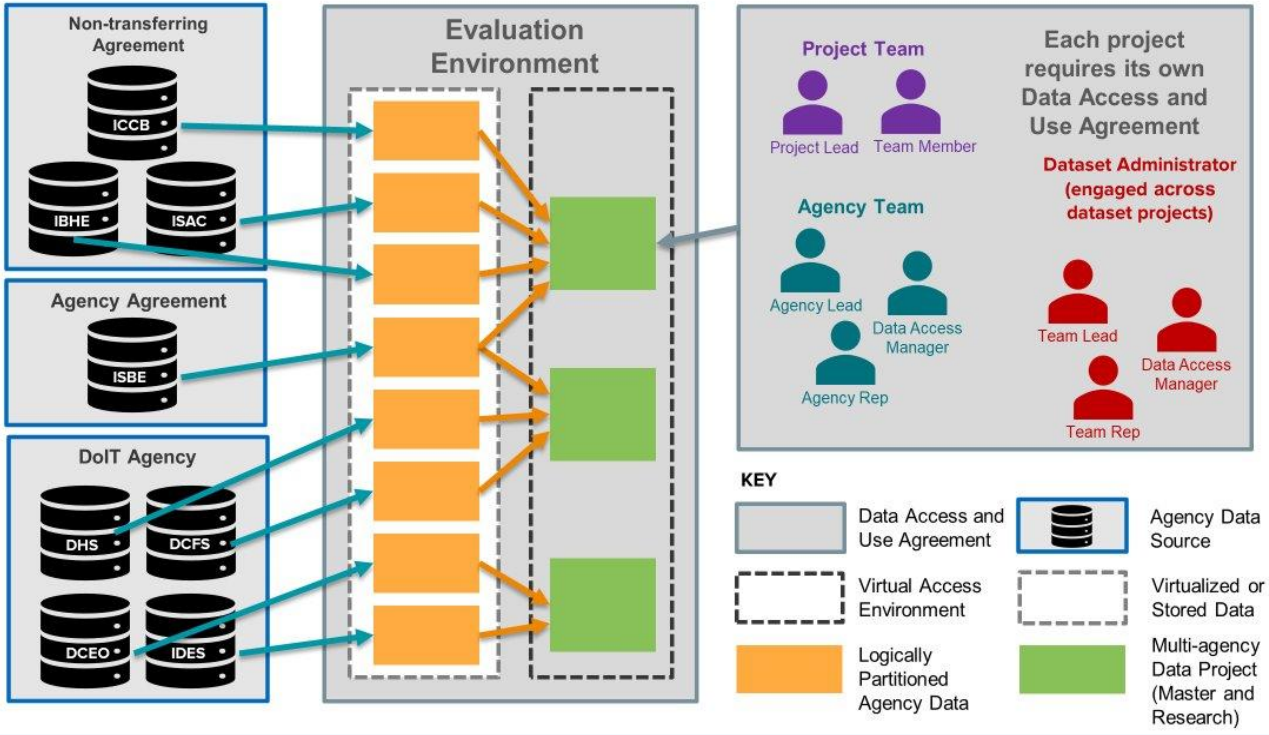
** Illinois Department of Employment Security (2022). Wage Information: Occupational Employment and Wage Statistics (Statewide). Retrieved April 2, 2024, from ides.illinois.gov/resources/labor-market-information/oews.html

*** Illinois Department of Employment Security. Employment Projections (Long-Term Occupational Projections 2020-2030). Retrieved April 2, 2024, from ides.illinois.gov/resources/labor-market-information/employment-projections.html

Connecting Education to Workforce Data

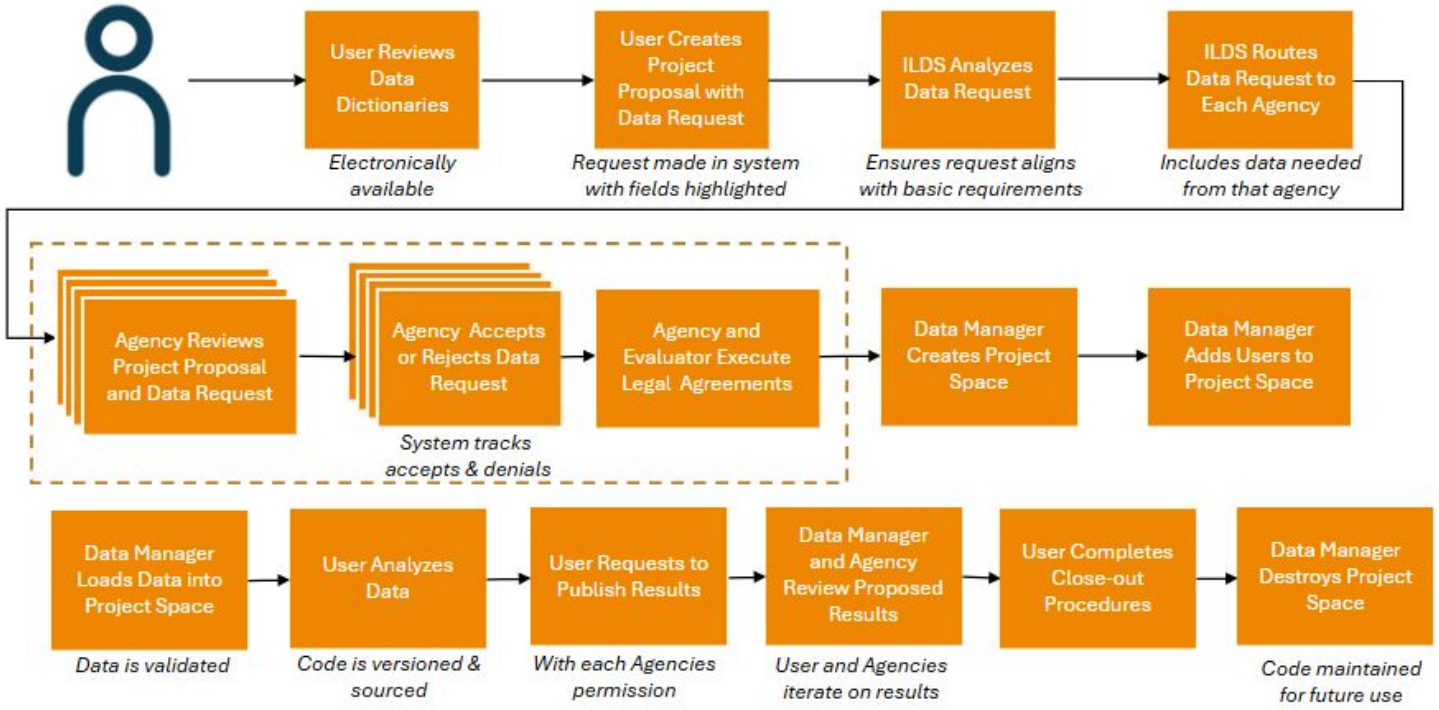
Illinois Longitudinal Data System

Legal and Technical Framework for Data Access within LDS 2.0 Architecture



Connecting Education to Workforce Data

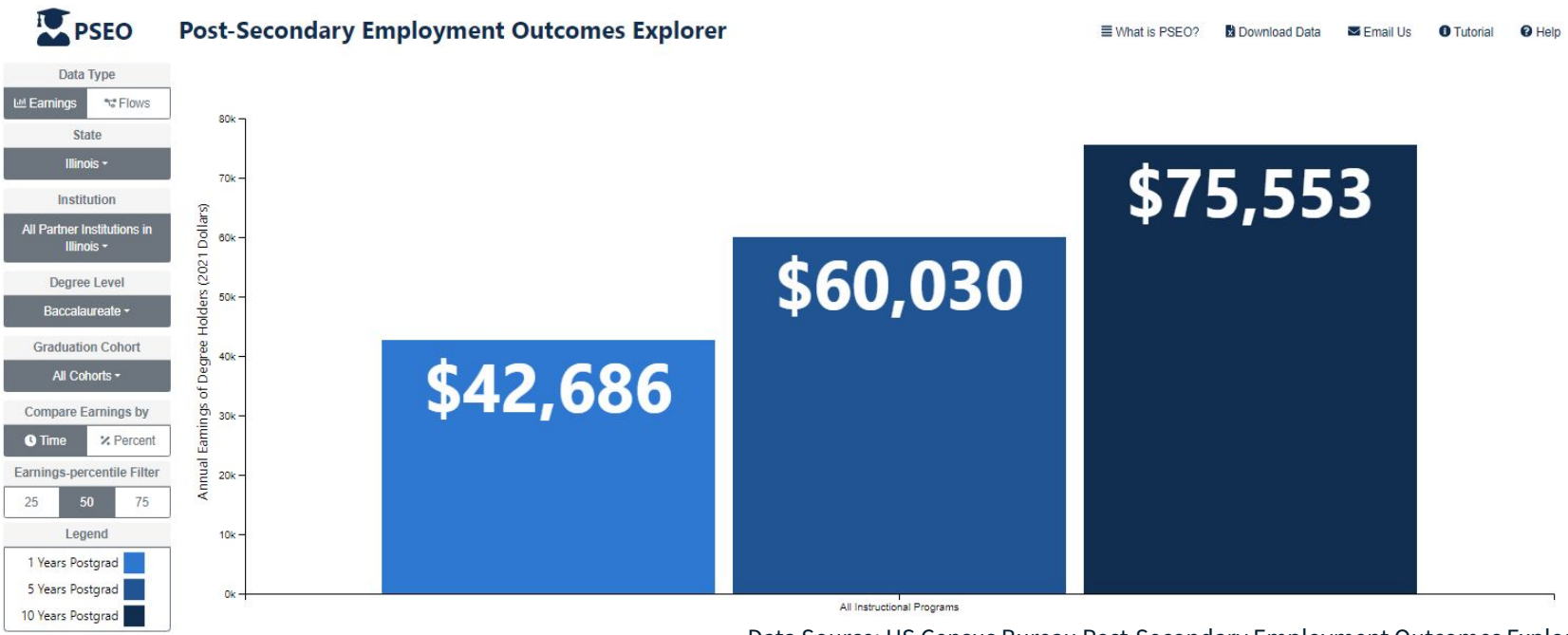
Illinois Longitudinal Data System



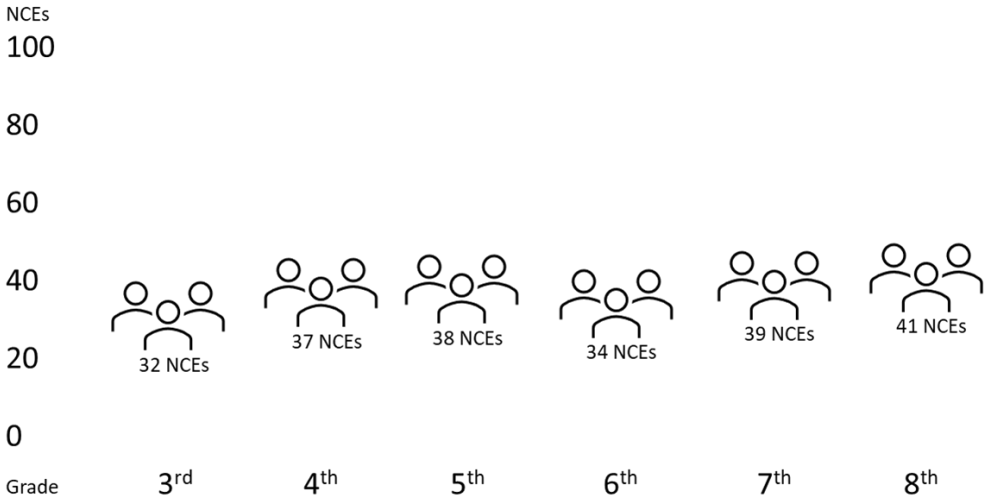
Connecting Education to Workforce Data

Post-Secondary Employment Outcomes (PSEO)

BA Degree to Averages Earnings (1, 5, 10 year)



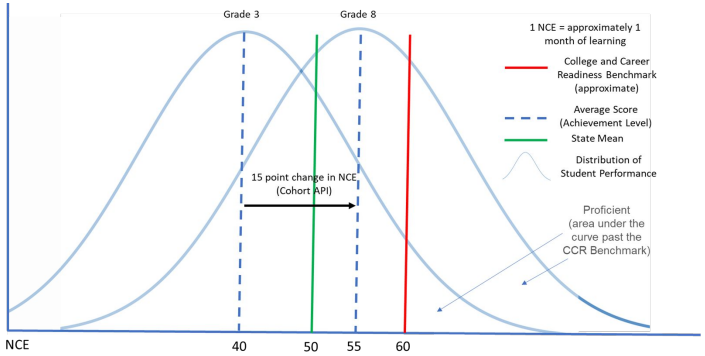
Data Source: US Census Bureau Post-Secondary Employment Outcomes Explorer



Using Standardized Assessment Data Longitudinally

Using Standardized Assessment Data Longitudinally

- The use of standardized test data in schools and communities is controversial because it is often used as a hammer, not a flashlight.
- One of the best uses of standardized test data is to track cohort performance over-time.
- Education Systems Center is working with Chicago Public School to better understand cohort performance.
- In the future, our goal is to better understand whether increases in cohort standardized assessment scores support improved performance on other measures.

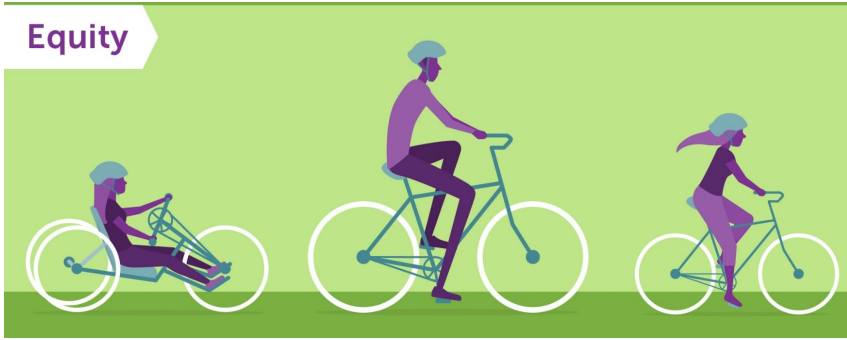


Conclusion: Using Data for Impact

Throughout our work, we are focused on good data use. Longitudinal data is critical to this outlook.

- ***Goal setting:*** Longitudinal data allows us to set ambitious but achievable goals
- ***Incremental improvement:*** Focus on small improvements over time. They add up!
- ***A focus on equity:*** Ensuring those furthest behind and get the support they need to catch-up

"Any system produces what it was designed to produce."
– National Equity Project



Discussion

Discussion

Discuss the following questions:

- What questions drive your work?
- What data is necessary to answer those questions?

The ILDS is only one approach to using data longitudinally:

- How do you use data longitudinally in your community?
- How do you think longitudinal data has contributed to increased equity in your community?

Pair into groups of two or three to discuss for 8 minutes. After your discussion, we will come back together to share out your responses.