# Adapting to a tech-centric future of work

Presentation to the Illinois Future of Work Task Force
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December 20, 2021

# Chicago Tech Talent Coalition

# The Next 10 Minutes

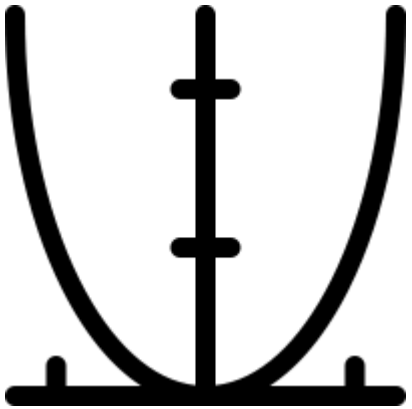
**What's around the bend?**

**Are we preparing Illinoisans for this future?**

# What’s around the bend?

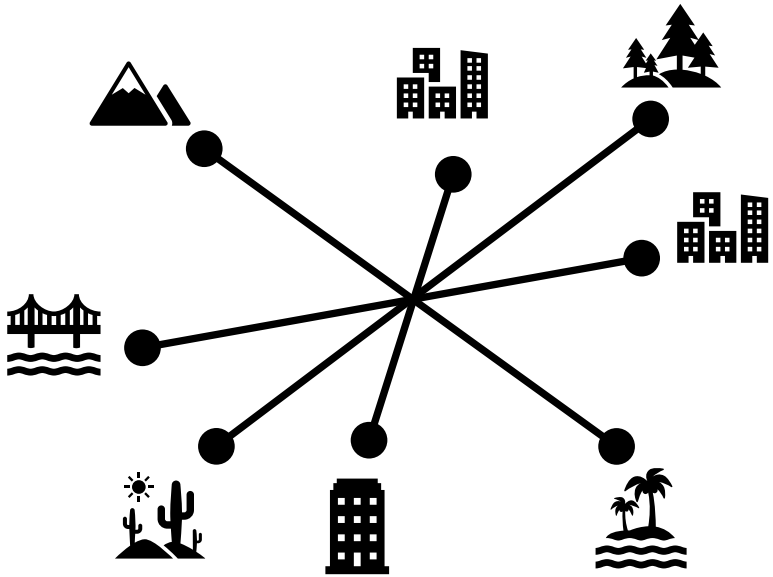
# Three Forces Shaping the Future of Work

**1 Labor Market Polarization**



**2 Skills Shift**

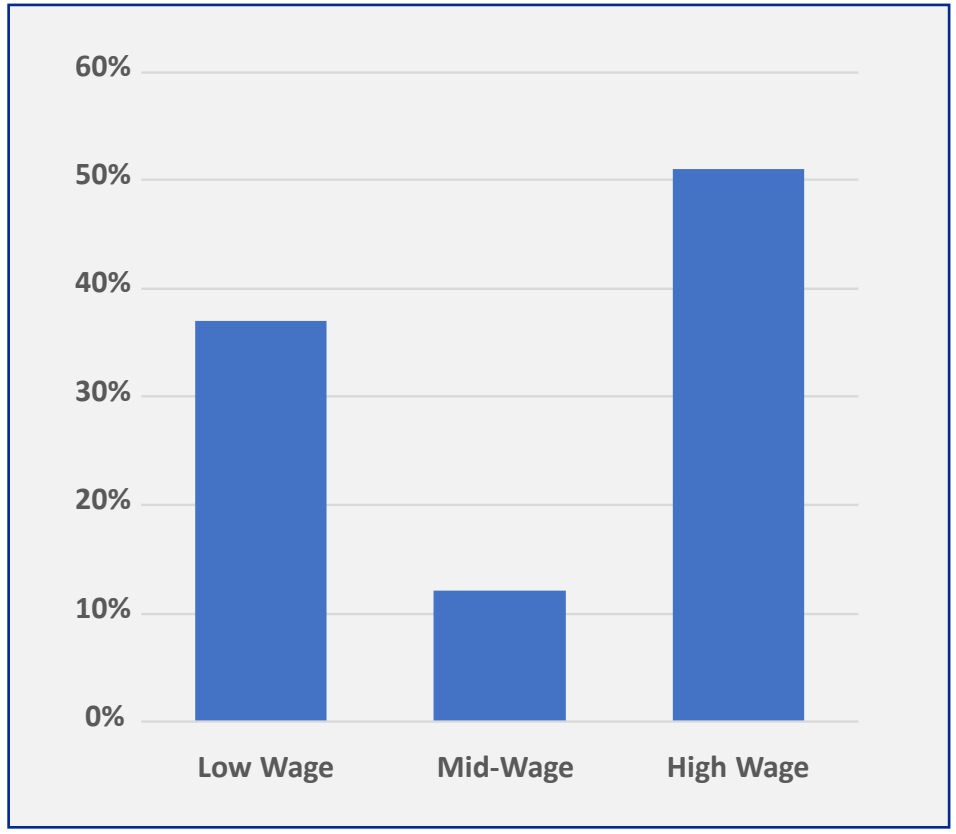
**3 New Working Models (Remote, Contingent)**



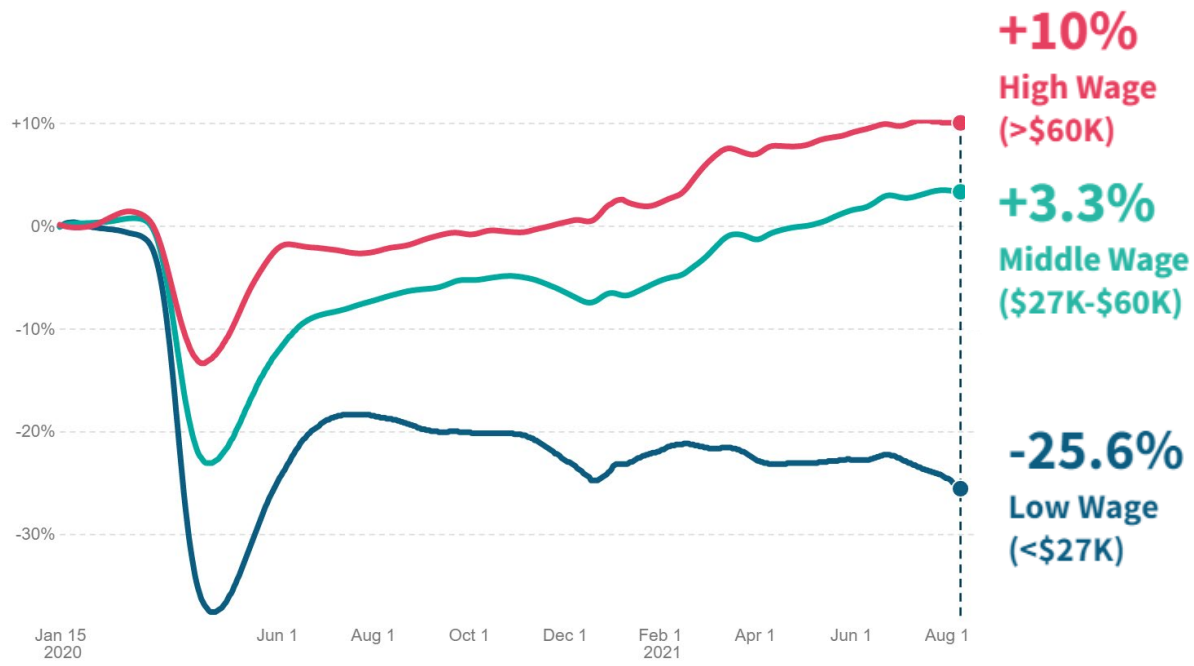
***Today's Focus***

# The job market has been polarizing into high-wage and low-age jobs, exacerbating racial disparities

## Job Growth by Wage Tercile, 2009 - 2017




## Job Recovery by Wage Tier, 2020-2021




Dwyer, Rachel E., and Erik Olin Wright. 2019. "Low-Wage Job Growth, Polarization, and the Limits and Opportunities of the Service Economy." RSF: The Russell Sage Foundation Journal of the Social Sciences 5(4): 56–76.

Opportunity Insights: https://www.tracktherecovery.org/

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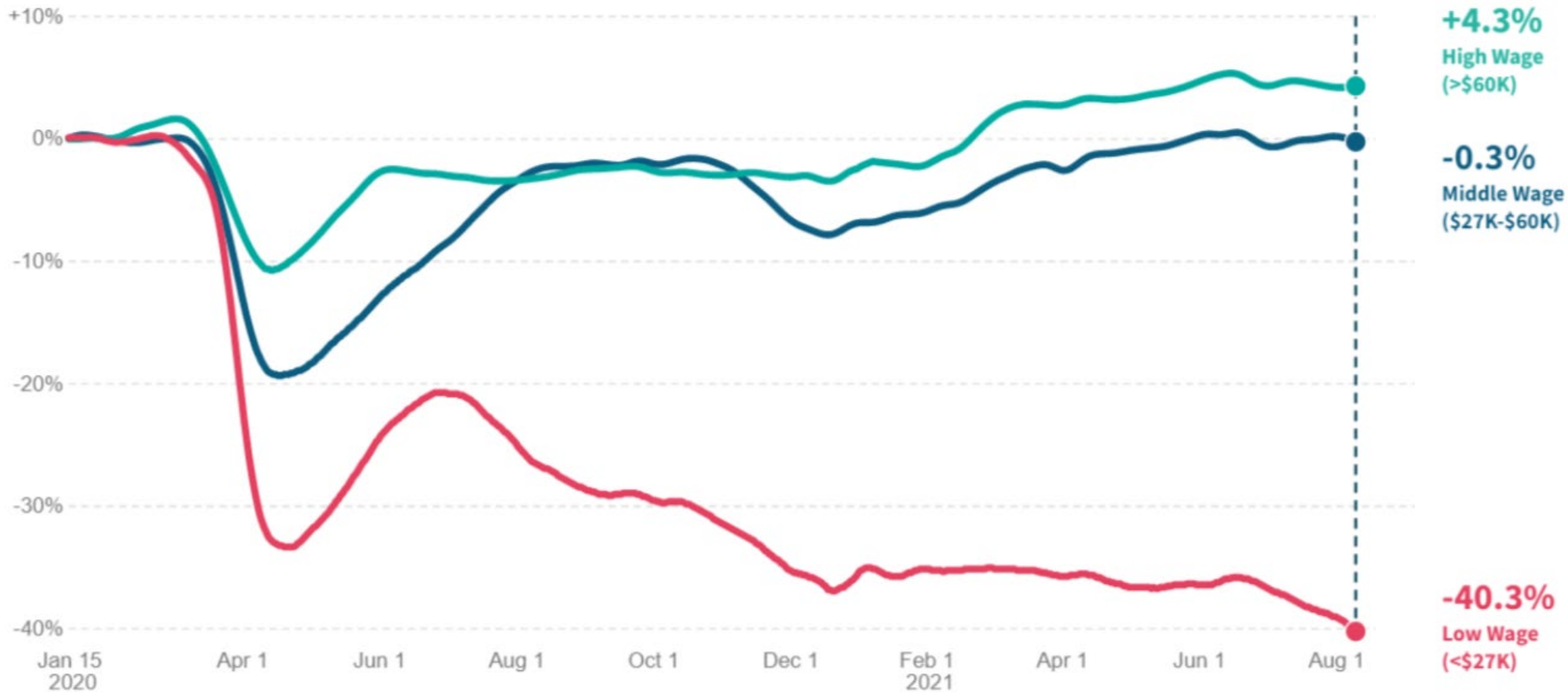
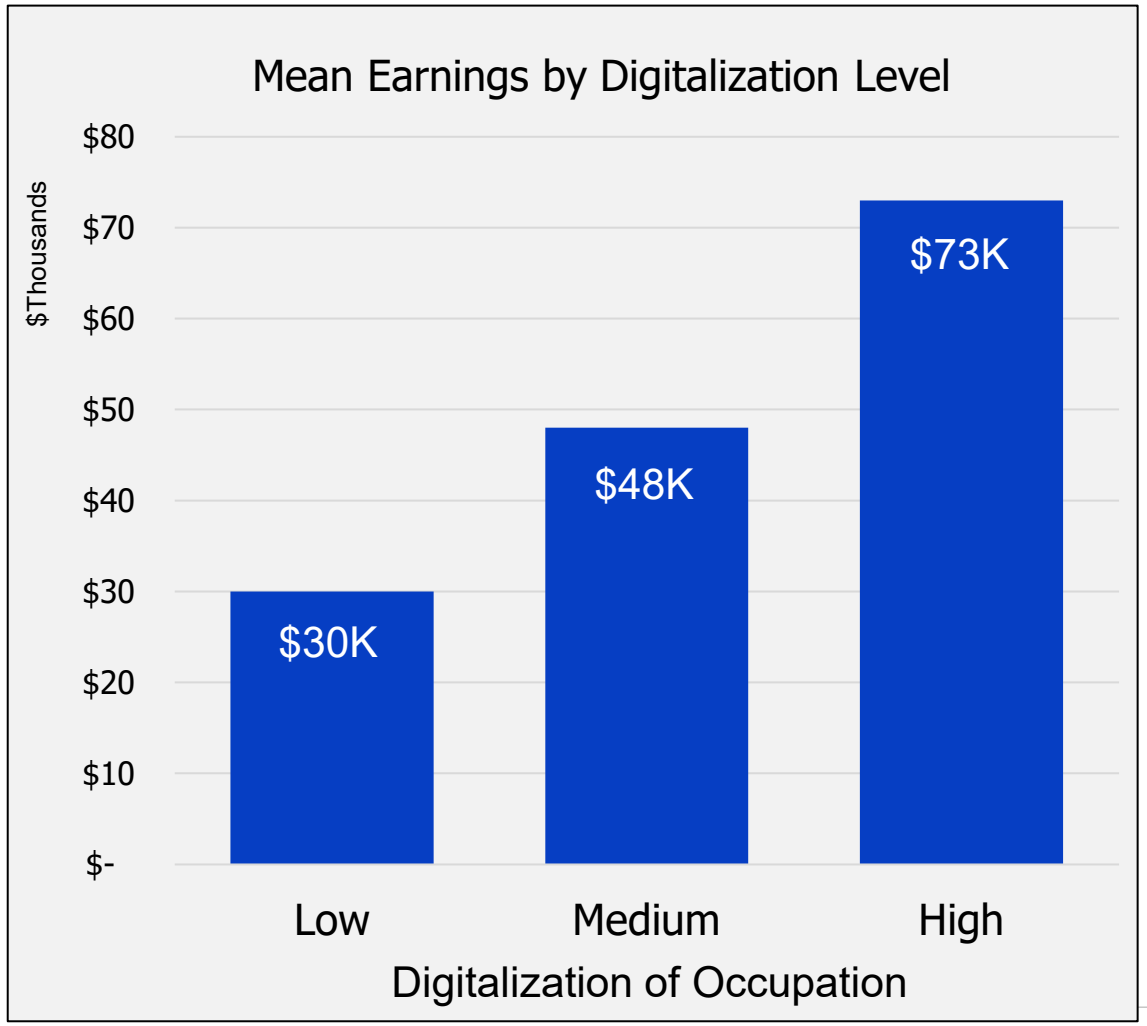
# In Illinois, the recovery gap between high-wage and low-wage employment is more dramatic

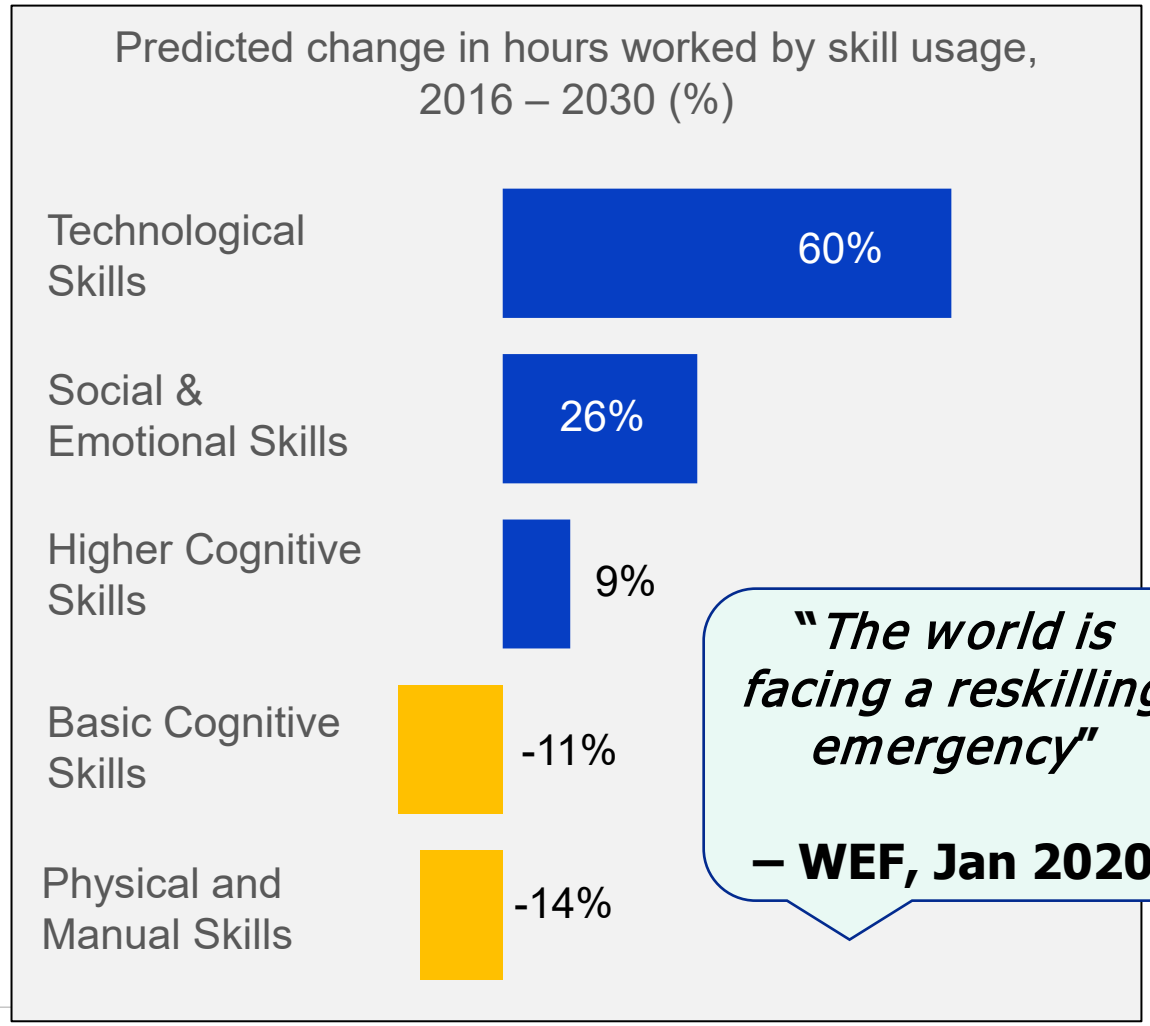


# JOBS RELYING ON DIGITAL SKILLS PAY BETTER

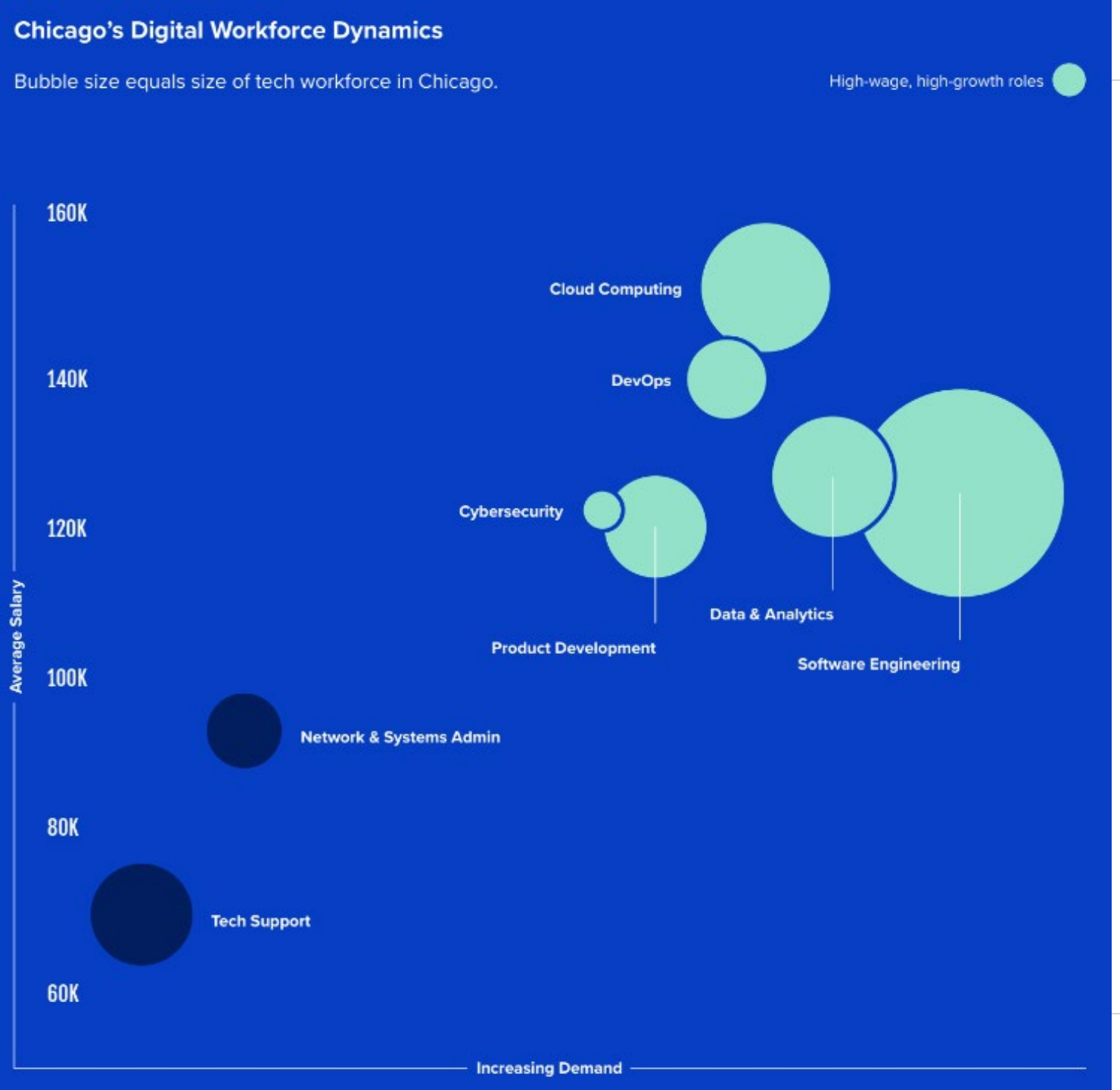



Source: *Digitalization and the American Workforce*, Brookings Institution, 2017

# AND DEMAND FOR THESE SKILLS WILL GROW RAPIDLY




Source: *Skills Shift: Automation and The Future of the Workforce,* McKinsey Global Institute, 2018




# In Chicago, Engineering and Data roles are driving tech's rapid employment growth

- 90%+ of companies expect an increase in these roles over the next 3 years
- 52% of companies expect a *significant* increase in software engineering employees over the next 3 years
- More "accessible" roles will be flat or declining, and with lower wages

Source: P33 Survey of Tech Talent Coalition members, 2021

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Three things prevent otherwise qualified candidates from receiving an offer:

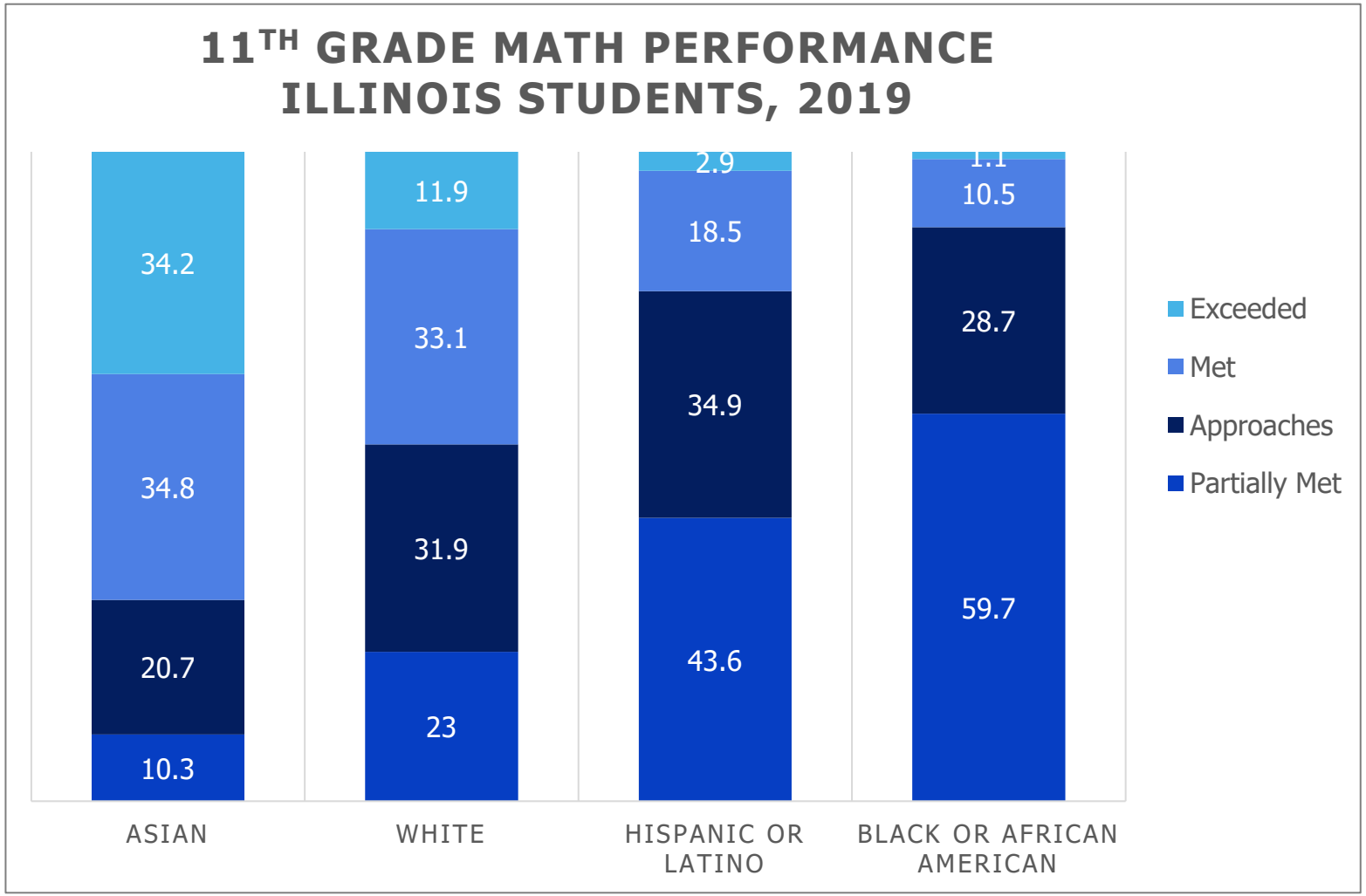
01 — HAVING THE RIGHT HARD SKILLS

02 — HAVING PRIOR RELEVANT WORK OR PROJECT EXPERIENCE

03 — BEING EFFECTIVE COMMUNICATORS AND PRESENTERS

# Are we preparing Illinoisans for these roles?

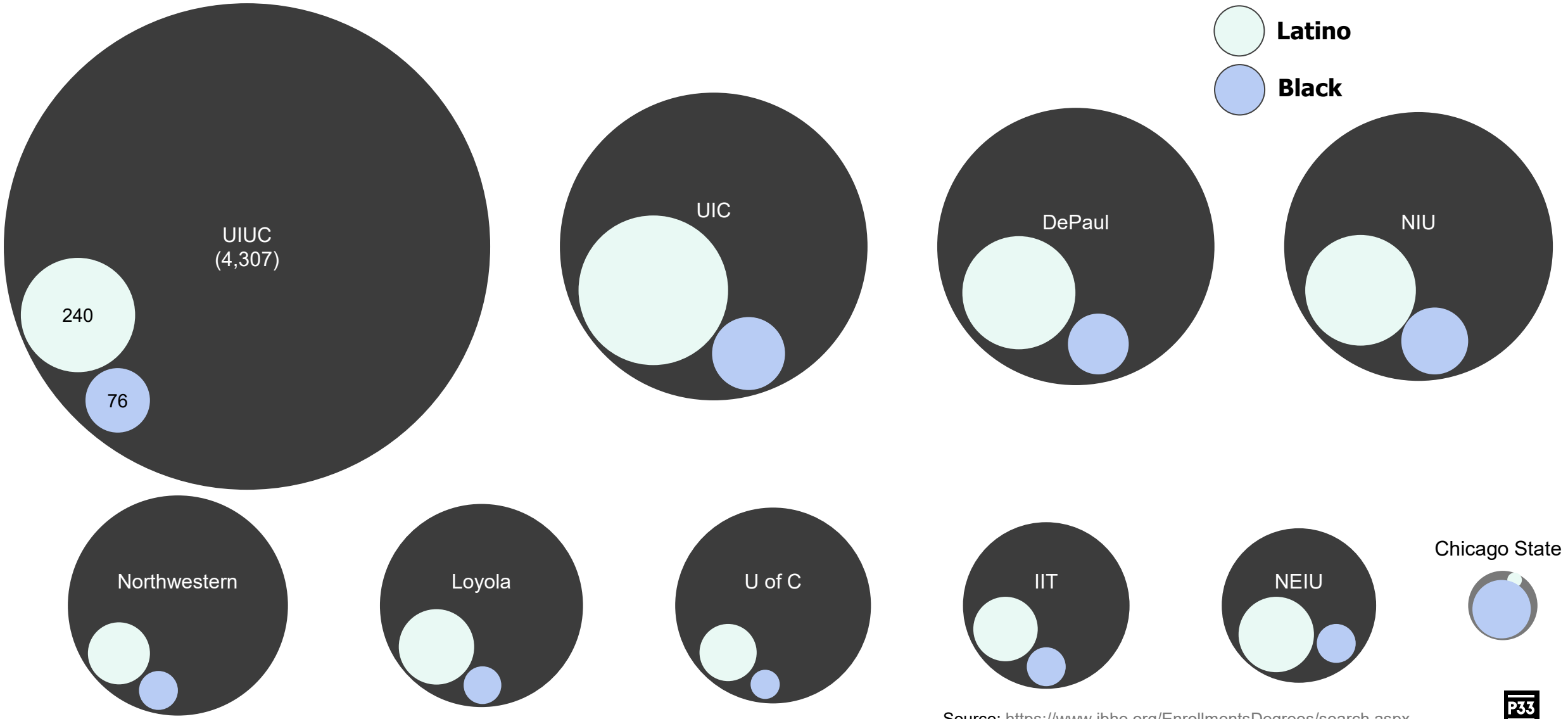
# Shortcomings in math readiness at the 11th grade limit options for pursuing post-secondary paths into digital careers




*Overall, 35% of Illinois 11th graders meet or exceed math standards*

Source: https://iirc.niu.edu/60by25/Data/CollegeReadiness/1?tab=Grade11SAT

# Black and Latino students are extremely underrepresented in graduating classes of computing and other quantitative majors




Source: https://www.ibhe.org/EnrollmentsDegrees/search.aspx

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# We are under-utilizing alternative pathways into tech jobs

## Apprenticeships

**0.09%**

**Registered apprenticeships in Illinois are in tech roles (~15 people)**

## Bootcamps

**LAST**

**Chicago's rank among 10 competitor cities in per capita bootcamp grads…&**

**LAST**

**Of 10 competitor cities in growth of bootcamp graduates**

## WIOA ITAs

**~10%**

**Individual Training Account vouchers in Chicago-Cook are for tech roles (~300 people)**

Sources: US *Department of Labor RAPIDS Database; Career Karma; P33 Analysis*

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# The cumulative output is a tech workforce too small because it leaves too much talent on the sidelines

**14%**

The majority of Chicago's population is Black or Latinx, but those groups hold only 14% of the best tech jobs in the city

**19**

Illinois colleges only awarded 19 bachelors degrees in Computer Science to Black women in 2019…and even fewer in years prior

**600**

We estimate the State of Illinois is losing out every year on 600 Black and Latinx bachelors degree graduates in computing

## It's a pipeline issue *and* a company issue

# Summary

## *Our Challenge*

**We are failing to prepare Illinois students for the tech- and data-centric future of work**

**We are especially failing Black and Latino students in these areas**

## *Responses*

**Expand and improve computer science and data science education in high schools and colleges**

**Increase work-based learning opportunities**


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