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2018

Blueprint to Opportunity Pathways

CECP Accelerate Community

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Bootstrapping toward an inclusive future

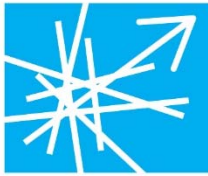
Problem:

Minorities are systematically sidelined to the margins of critical entry points to prosperity: Entrepreneurship and Opportunity Jobs.

Solution:

Invest in policies that proactively engineer inclusion, and expand the geography of opportunity.





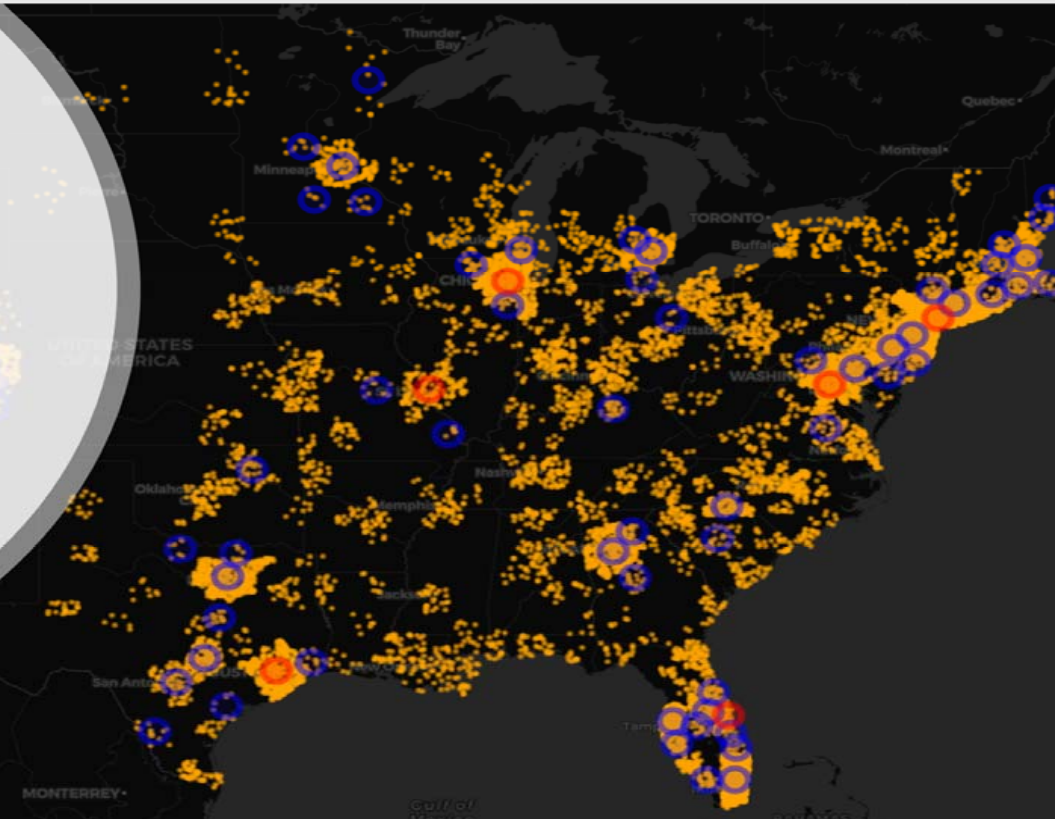
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The Innovation Landscape

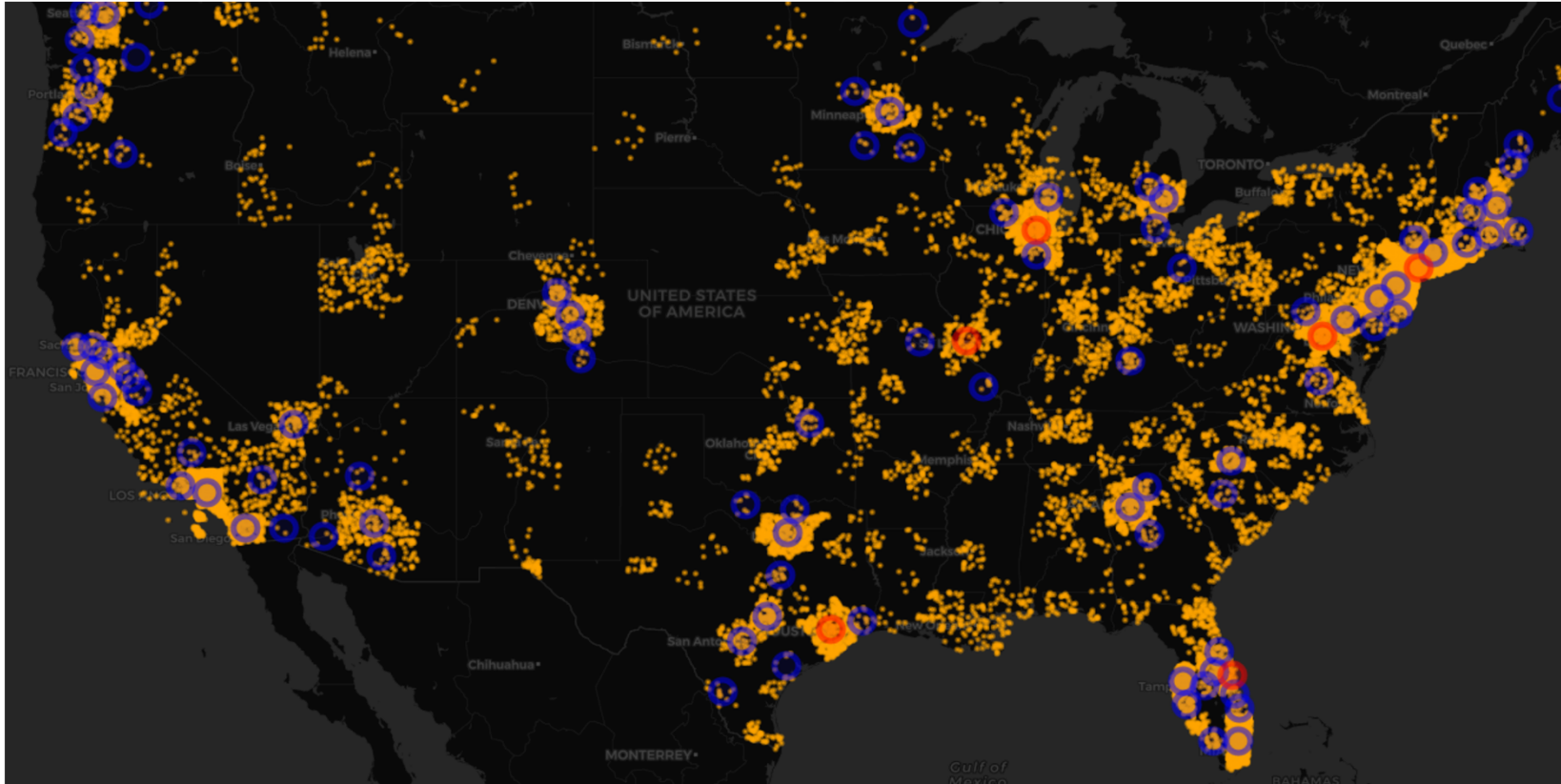
- Mix of firms are aggressively developing and discovering technologies.
- R&D activity is concentrated in a few geographies: West, East, and Southeastern regions.
- Young and start-up firms dominate the “innovation landscape.”

Source: U.S. Census Bureau Business Dynamics Statistics 2010-2014

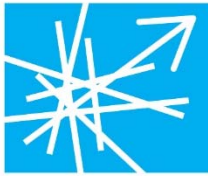




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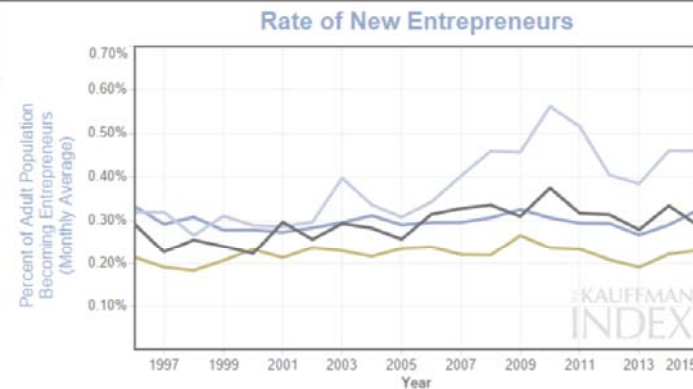
Entrepreneurs
of Color are
systematically
sidelined

Rate of New Entrepreneurs

Early and broad measure of business ownership. Measures the percent of the adult population of an area that became entrepreneurs in a given month.



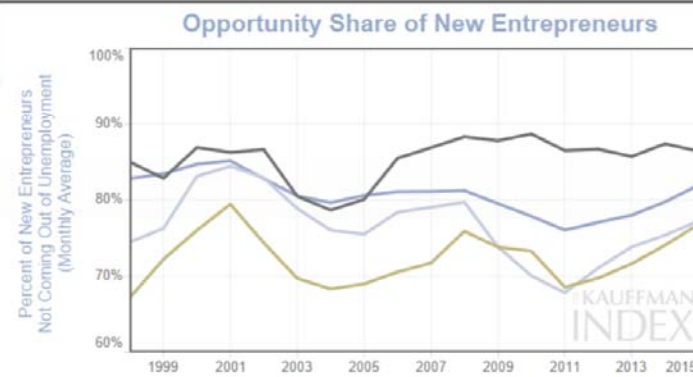
Source: Author calculations from CPS.
Yearly measure.



Opportunity Share of New Entrepreneurs

percent of new entrepreneurs starting businesses because they saw market opportunities. Measures the percent of new entrepreneurs who were not unemployed before starting their businesses.

Source: Author calculations from CPS.

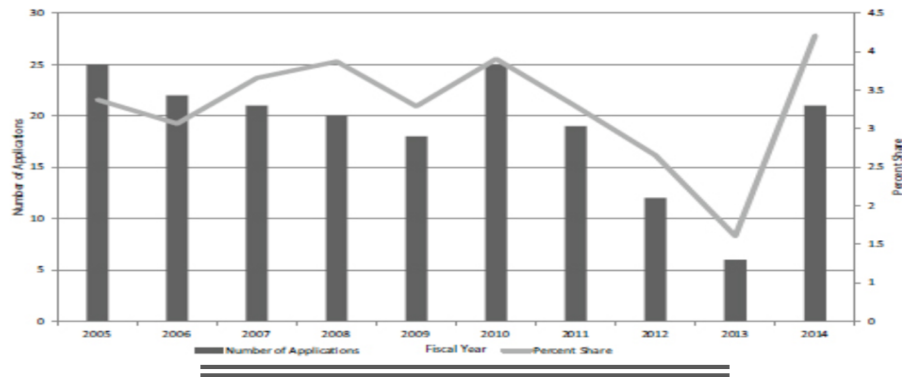




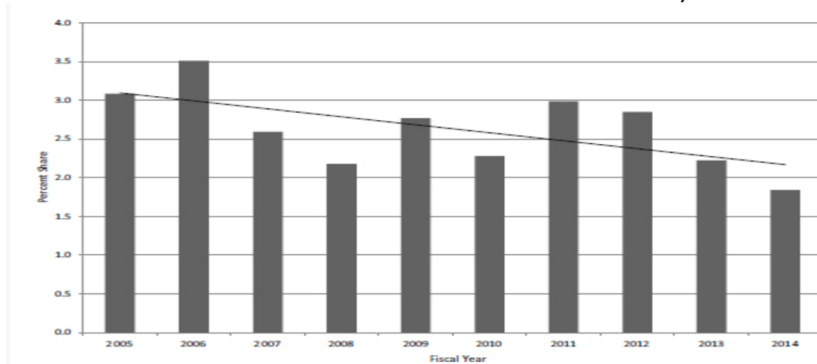
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Small Business Innovation Research Minority Applications



Small Business Innovation Research Minority Awards



Federal funding
programs filter
out minority
innovation





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Business Case for a Diverse Entrepreneurship Pipeline

1

Key source of innovative ideas and products that are essential to maintaining competitiveness and profitability in flat markets.

2

Critical source of high-end technical talent acquisition—cheaper than balance sheet funded R&D investments.

3

Economically inefficient to artificially reduce the potential inherent in the innovation pipeline by replicating and financing inequitable, structural barriers.

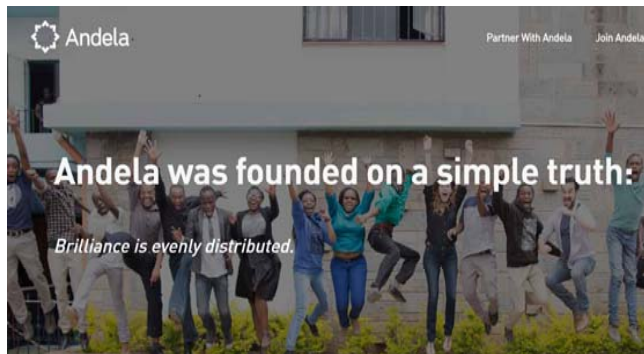




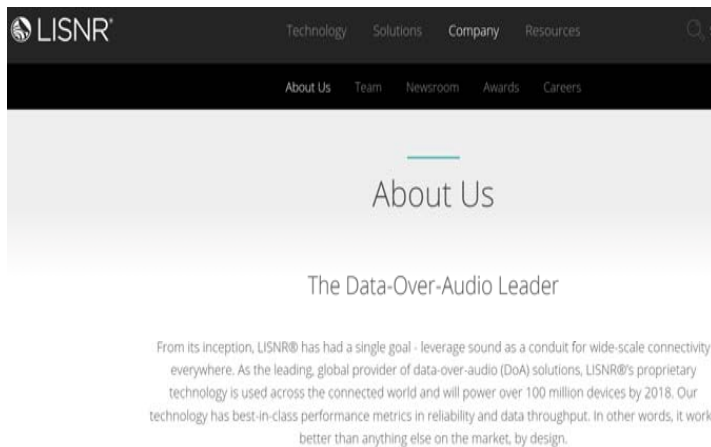
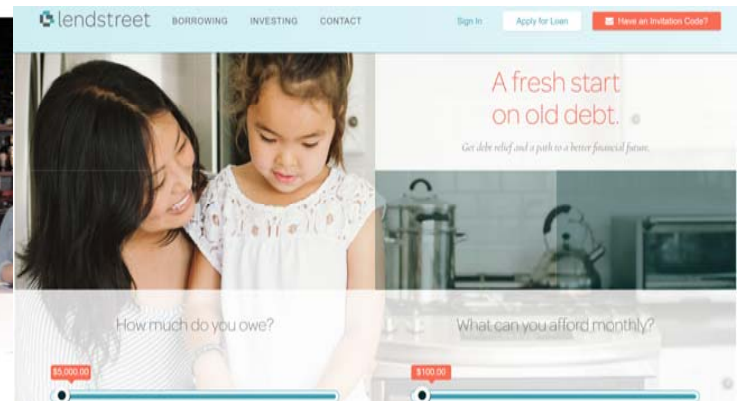
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EquiTable splits bills fairly. No, really. Fairly.



Believe in equal pay for equal work?
Put your money where your mouth is.



Opportunity cost of invisible talent



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LABOR SIGNALS

THE FUTURE OF WORK

SIGNALS FROM ENTREPRENEURIAL HOTSPOTS ON
FUTURE DEMAND FOR SKILLS AND PEOPLE

TEMPUS:
COMPUTATIONAL
SYSTEMS
BIOLOGIST

1

Research and development of novel imaging data based on machine learning algorithms for the product platform

MOLECULE:
SOFTWARE
ENGINEER

2

Build production software using Ruby on Rails, Ember, Go, Python, Docker, Kubernetes, and more--use bleeding-edge tech in production.

CLASSPASS:
SENIOR UX
RESEARCHER

3

Design and conduct studies across key product areas, utilizing both quantitative and qualitative methods. Human-Computer Interaction, Computer Science, or Cognitive Science.

BENSON HILL:
DATA SCIENTIST
COMPUTATIONAL
BIOLOGY & CROP
GENETICS

4

Establish and optimize methods for discovery and validation of genetic regions that contribute to phenotypic traits of interest. Execute predictive modeling efforts, applying the best AI and machine learning methods to predict biological targets.

BLUEVOYANT:
BIG DATA
ANALYTICS
SOFTWARE
DEVELOPER

5

Build a data analytics platform powerful enough to protect some of the world's biggest networks. Strong programming skills, with expertise in multiple implementation languages including a subset of Python, Node.js, JavaScript, with delivery background in middleware, and backend implementations.





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Source: Company websites. Accessed May, 2017





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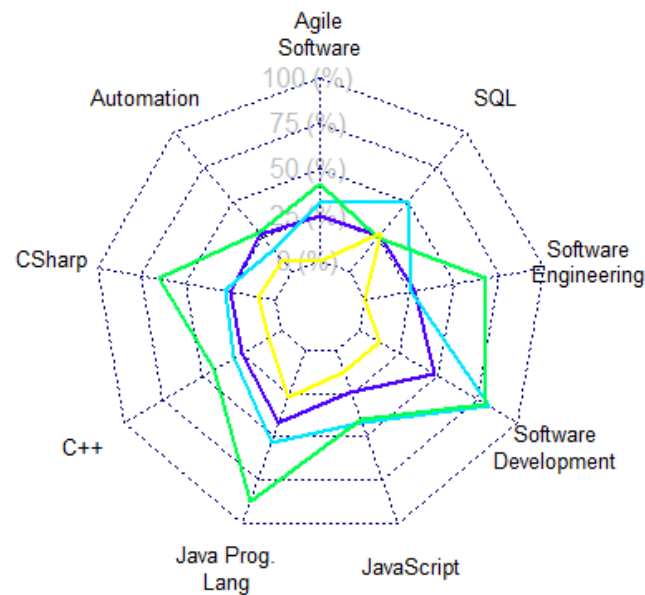


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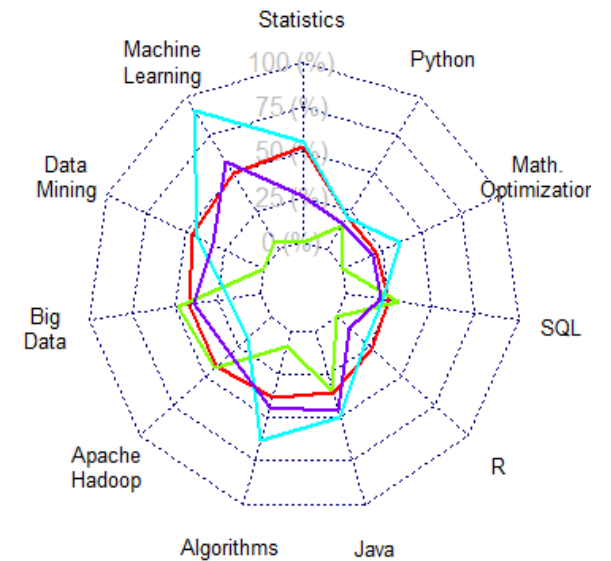
Empirical Structural Skills-Jobs Maps

Gateway Skills-Job Cluster: Software Engineer, Software Developer, IT Support Engineer



Source: EMSI Jobs Postings Data: United States 2012-2017

High-End Skills-Job Cluster: Data Scientist, Data Engineer, Computer Scientist, Research Scientist





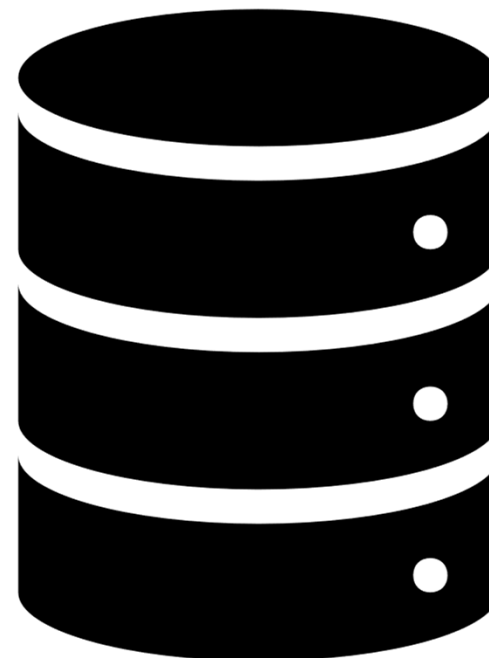
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Distill skills progression for an end-end pipeline with reduced leaks and create points of entry

Gateway Skills:

- On-ramp to quality jobs and higher-end skill
- Transportable: vertical, horizontal, and spatial mobility
- Well suited to mass production and modular training strategies





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**Distill skills progression for an
end-end pipeline with reduced
leaks**

Hybrid Skills:

- Traditional academic disciplines blended with tech: Psychology, Economics, Library Science, Fine Arts.
- Need to Infuse current curricula models with technology disciplines.





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Distill skills progression for an end-end pipeline with reduced leaks

High-End Skills:

- Specialized (will soon be mainstream);
- Require longer timeframe and rigorous, training in Computer Science, Physics, Biology, and Engineering;
- Access to high-quality STEAM training is currently highly inequitable.



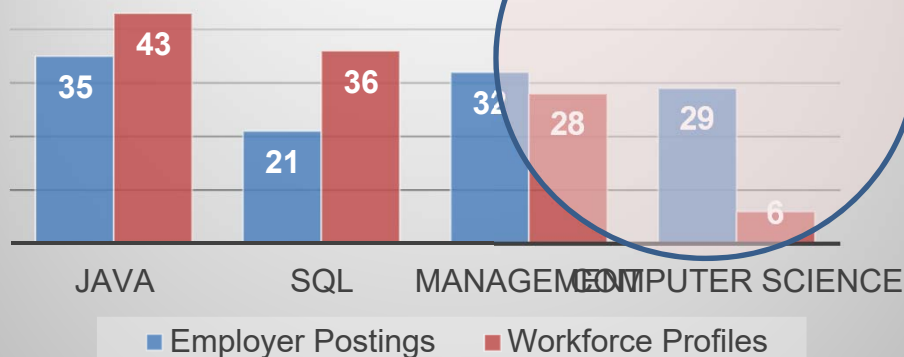


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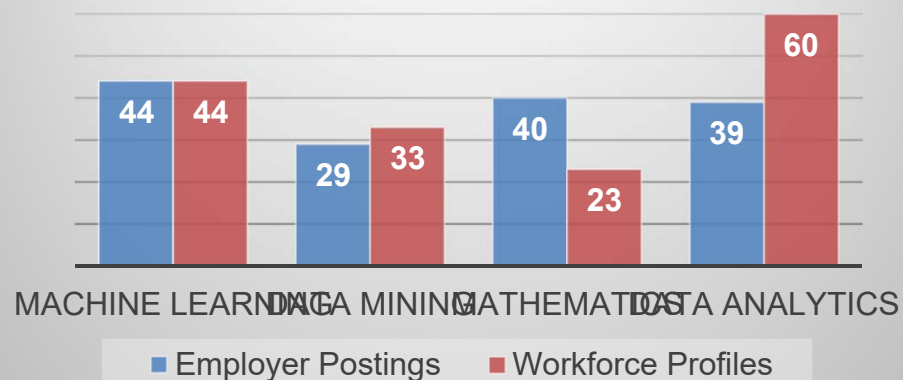
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Talent search is misaligned and
artificially disrupts the pipeline...
for some

Gateway Skills-Job Clusters



High-End Skills-Job Cluster





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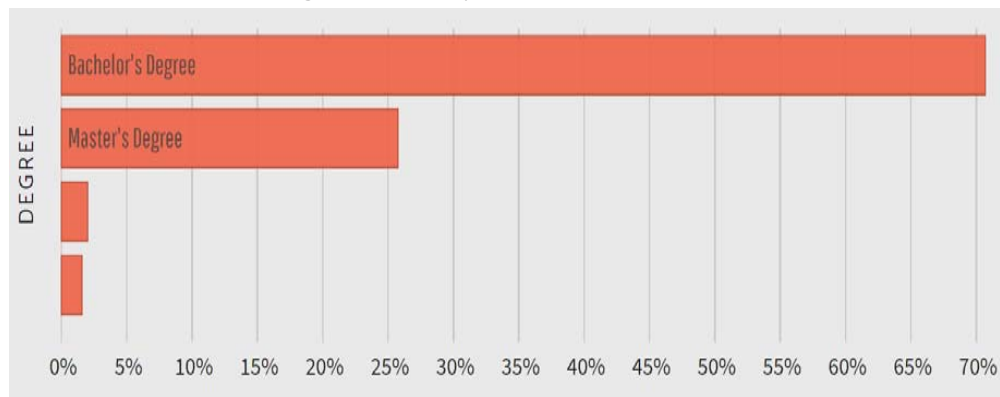
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Employer credential demand transmit disparities

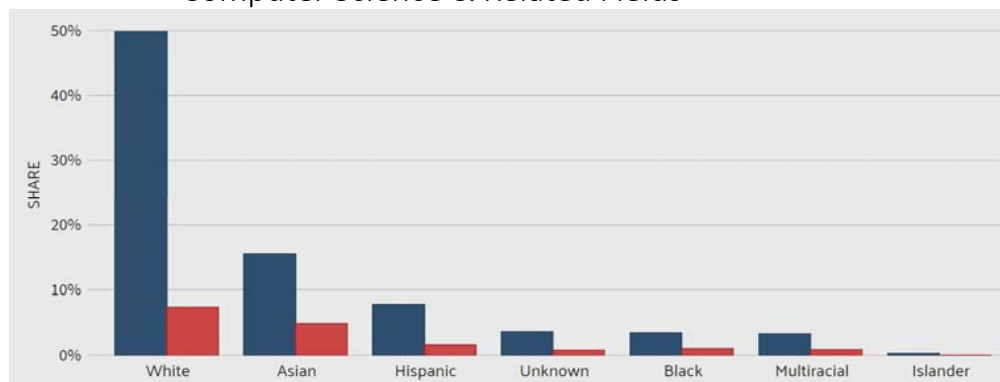
Traditionally represented groups
disproportionately comprise the
pipeline: altering this trajectory
requires disruptive decisions

Source: Data USA <https://datausa.io/profile/cip/110701/#demographics>

Workforce Degrees: Computer Science & Related Fields



Race/Ethnicity & Gender of Workforce Degrees:
Computer Science & Related Fields





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Way Forward: disruptive and systemic investments!

- I. Systemic Investment in minority tech and non-tech entrepreneurial ventures:
 - Leverage Opportunity Zones legislation to pool and mobilize venture capital funds targeted to Opportunity Zones with Historically Black Colleges & Universities.
- II. Disrupt Talent Acquisition Status Quo:
 - Enable workers to find opportunity by collectively underwriting signature programs that blend skills, cognitive competency training, and high-quality employment outcomes—expose workers to work.
 - Lead the conversation to end stigmas associated with alternative pathways.

