



KAPOR CENTER

LEVELING THE PLAYING FIELD IN TECH



SPUR

What are the Good Jobs in Tech

#TechDoneRight



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Why are we having this discussion ?

Who's in the room?

What skills matter most to you?



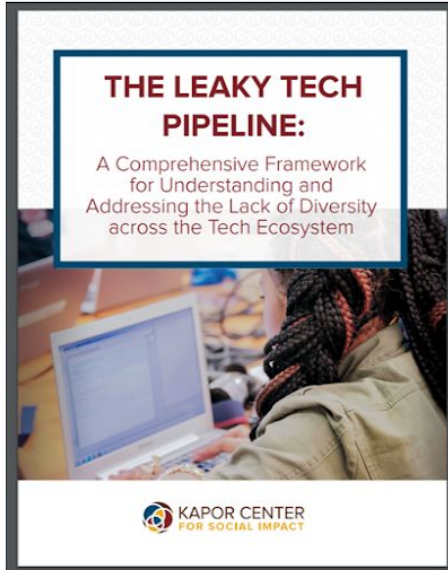
KAPOR CENTER

LEVELING THE PLAYING FIELD IN TECH

The Leaky Tech Pipeline

Understanding and Addressing the Lack of Diversity across the Tech
Ecosystem

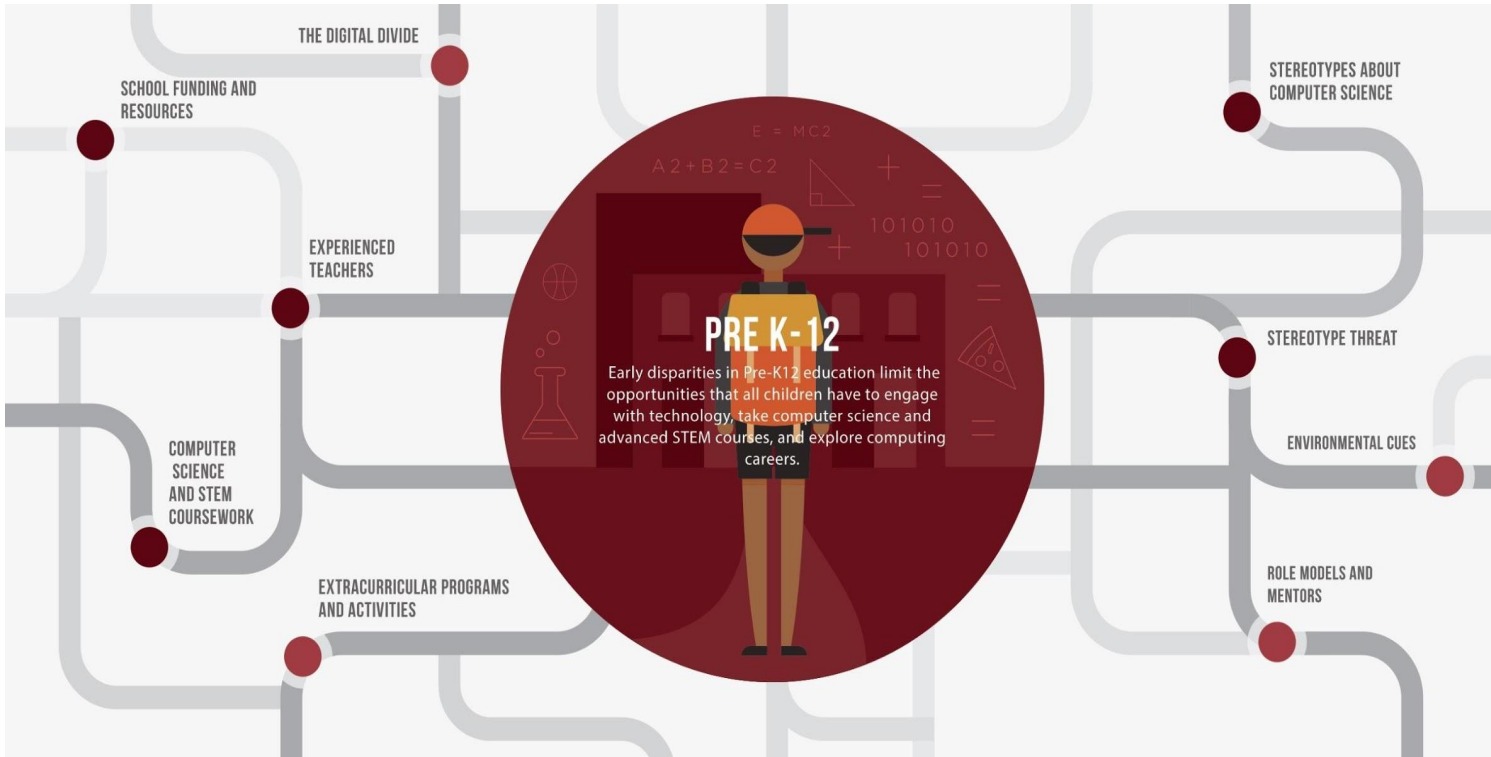
Framing the Problem



- The Leaky Tech Pipeline framework is situated within the broader societal context of economic, educational, and social policies, practices, and systems which have led to disproportionate access to quality education, employment, wealth, healthcare, and physical environments, especially among communities of color.
- The framework draws upon social science research to describe the lack of diversity in the technology sector as the result of a complex set of interrelated (and often cumulative) structural and social/psychological barriers.

PRE K-12 EDUCATION





THE DIGITAL DIVIDE

SCHOOL FUNDING AND RESOURCES

STEREOTYPES ABOUT COMPUTER SCIENCE

EXPERIENCED TEACHERS

PRE K-12

Early disparities in Pre-K12 education limit the opportunities that all children have to engage with technology, take computer science and advanced STEM courses, and explore computing careers.

STEREOTYPE THREAT

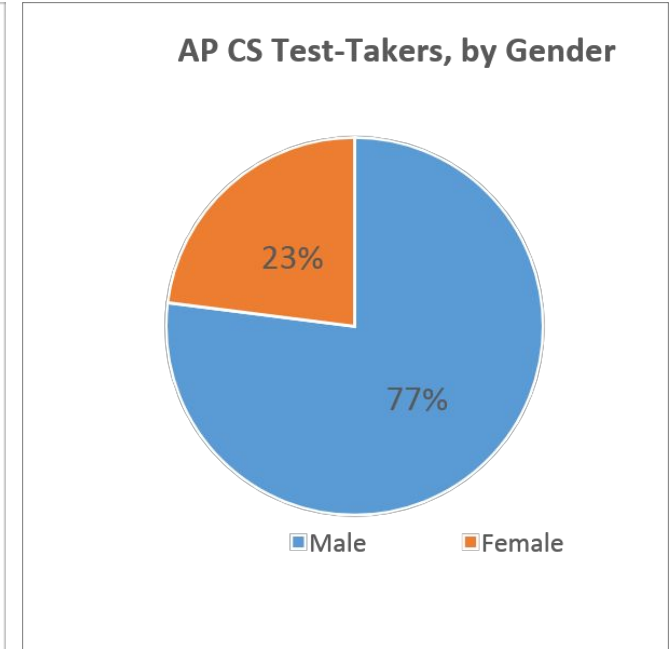
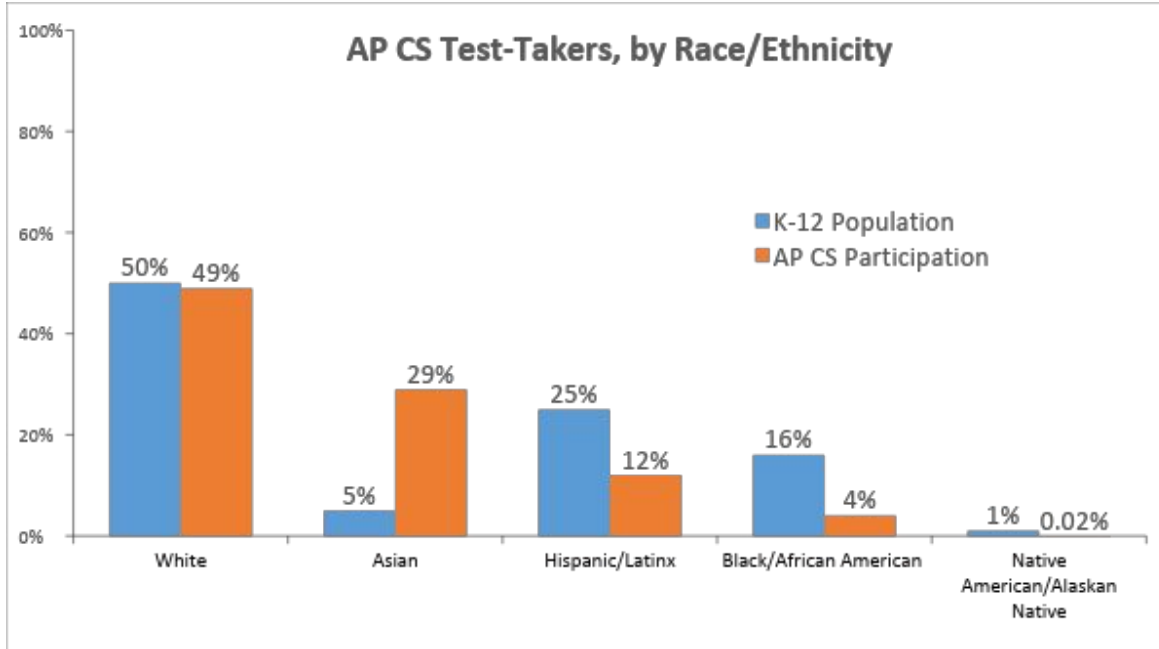
COMPUTER SCIENCE AND STEM COURSEWORK

ENVIRONMENTAL CUES

EXTRACURRICULAR PROGRAMS AND ACTIVITIES

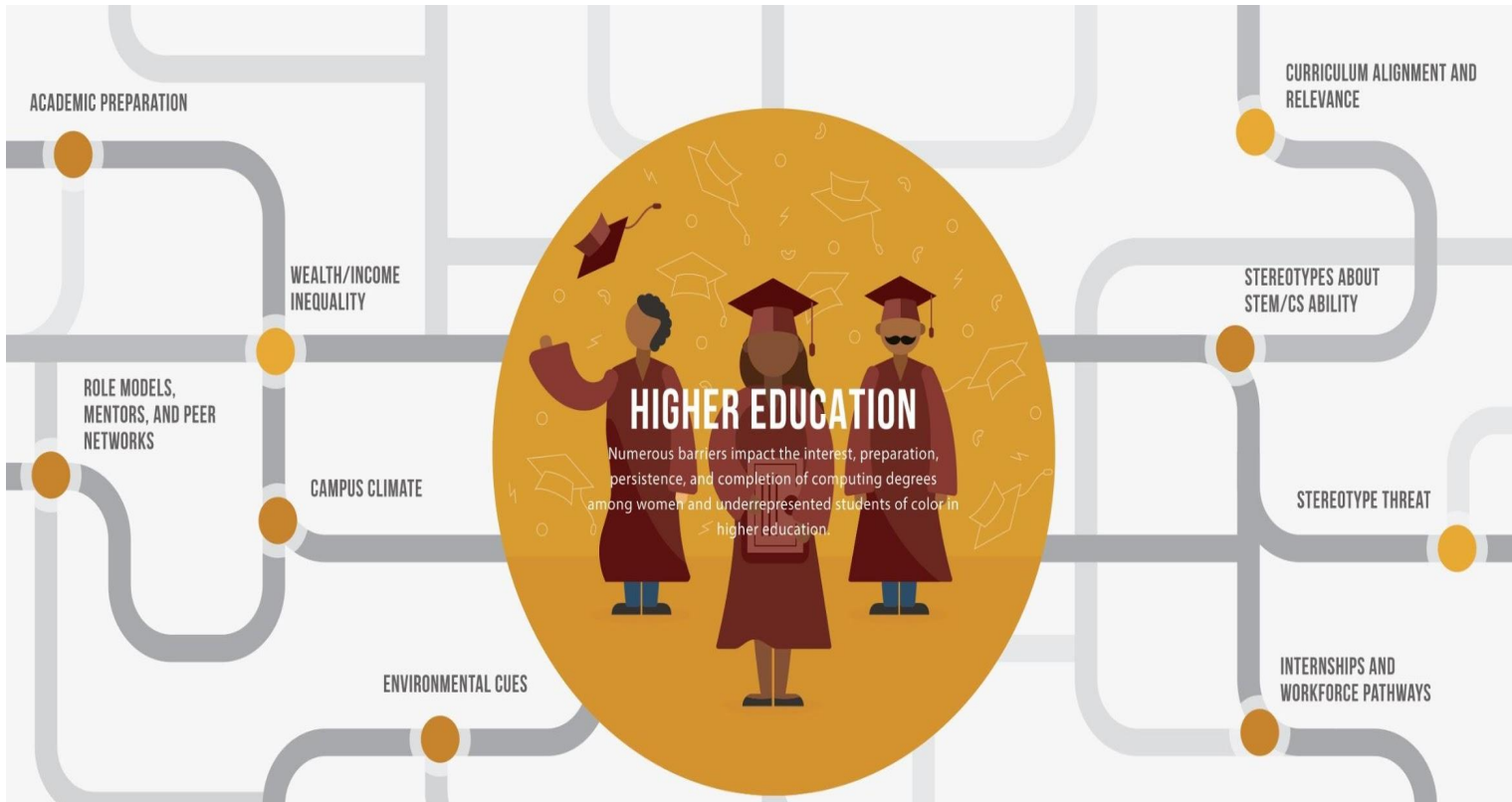
ROLE MODELS AND MENTORS

Too few students are taking CS by the end of high school, especially girls and students of color

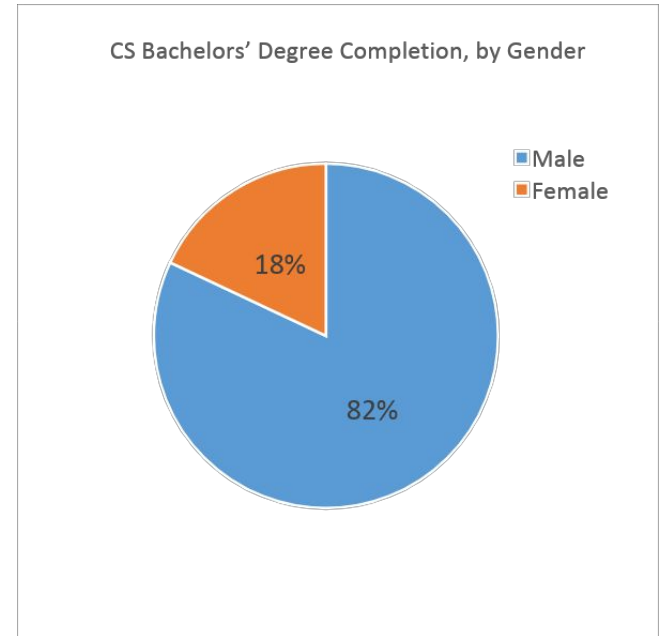
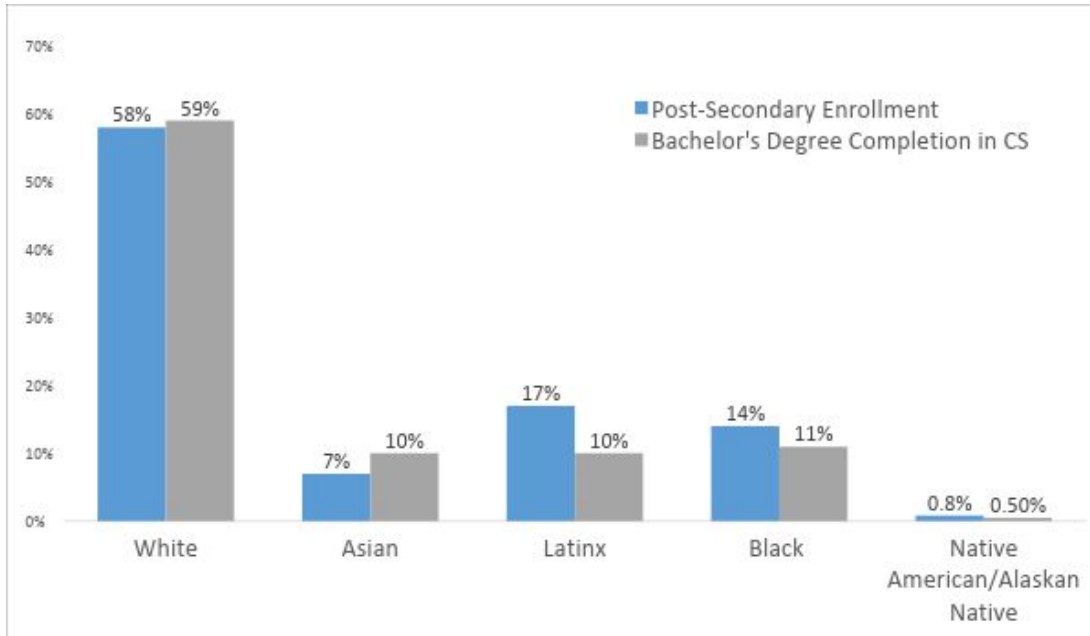


HIGHER EDUCATION



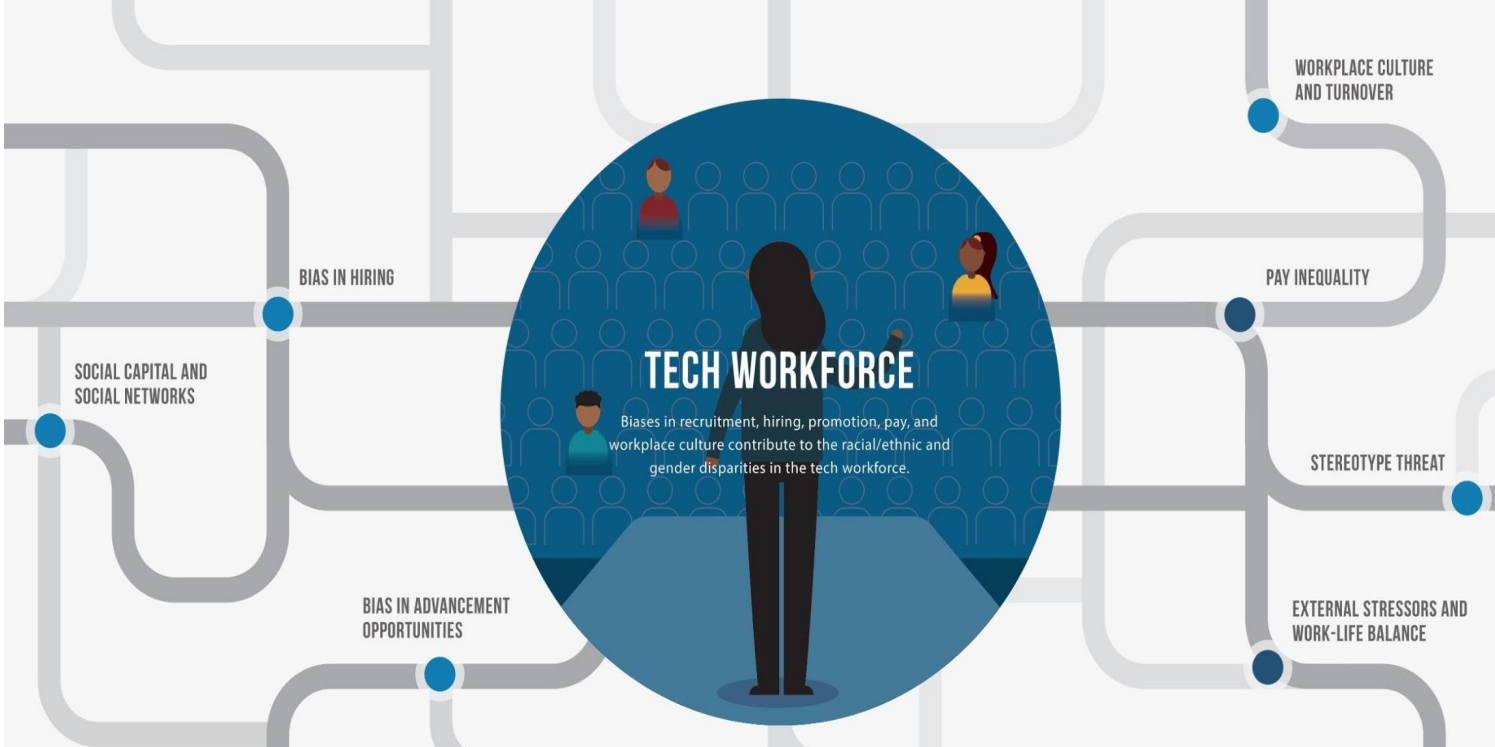


Just a fraction of women and students of color are completing computing degrees each year

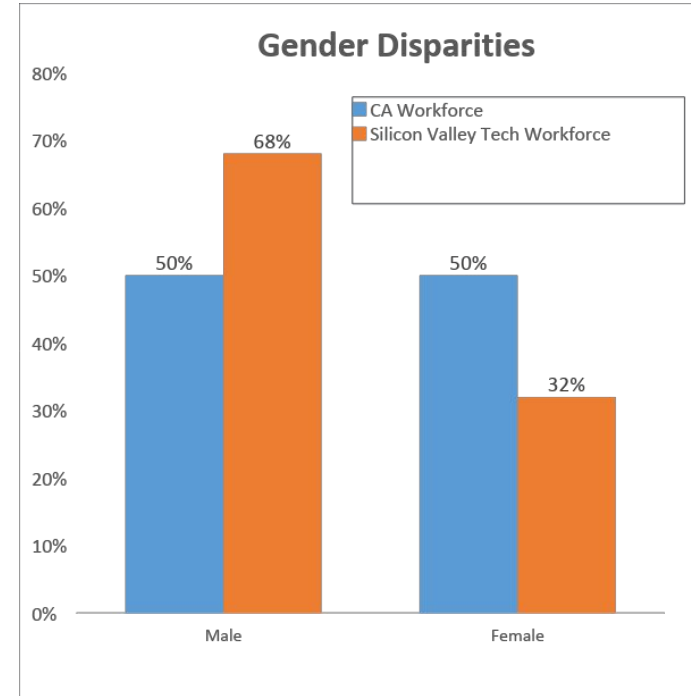
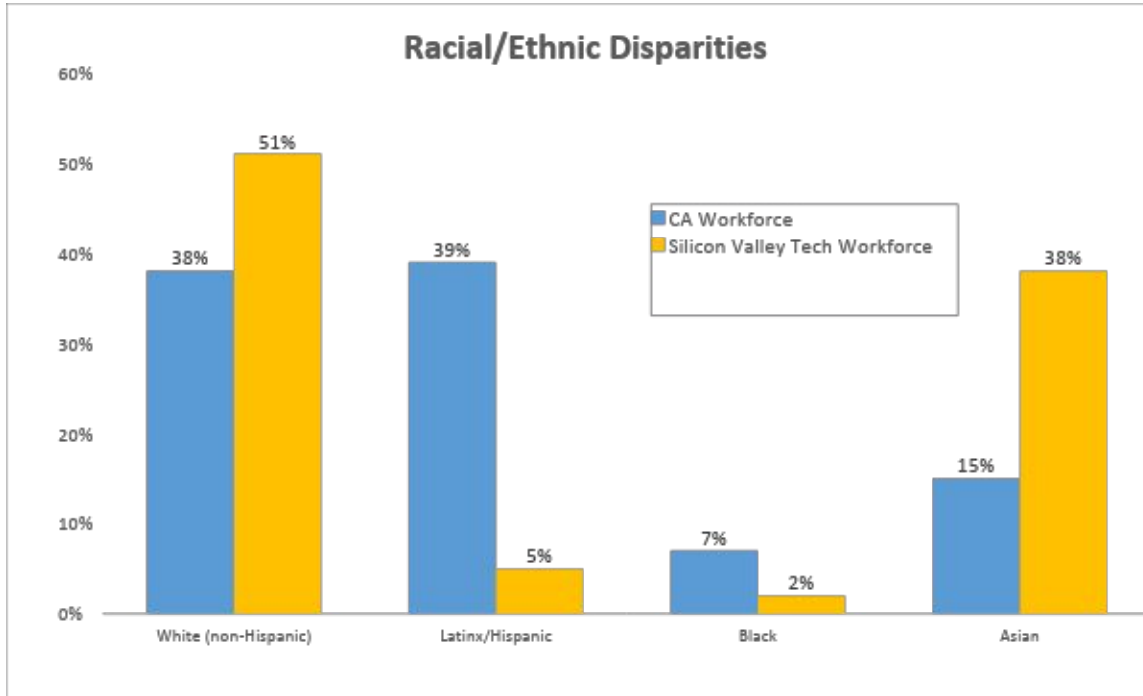


TECH WORKFORCE





California's Tech Sector ≠ California's Demographics



Source: Rangarajan (2018); Median demographics of professionals in 177 Silicon Valley tech companies; Nat. American/Alaskan Native/Native Hawaiian not reported; U.S. Census Bureau (2016); EEOC (2016). Diversity in High Tech

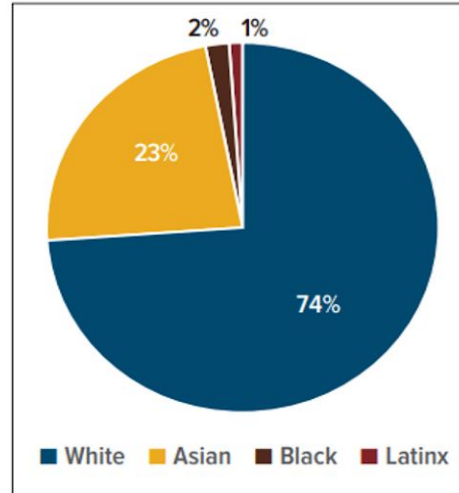
ENTREPRENEURSHIP/VC



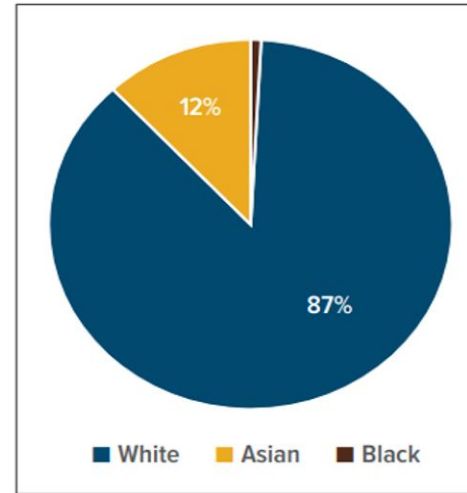


Very little racial or gender diversity exists in tech creation or investment


Venture-Backed Tech Founders, by Race/Ethnicity




Venture Capitalists, by Race/Ethnicity



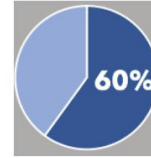
Without the participation of women and people of color in the creation of new technology enterprises and solutions and the investment in wealth-creating ventures, tech will replicate and exacerbate trends of wealth inequality and neglect to solve critical challenges facing diverse communities.



National Perspective - Future of Work Trends



% of occupations in which at least 1/3 of activities will be automated



•McKinsey Global Institute Report, 2017

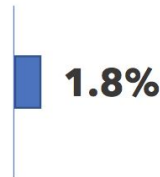


- Machine Learning
- Data Science
- Software Engineering
- Cloud Computing
- App Development
- Cyber Security
- System Design
- Sales Development
- Customer Success
- Marketing Content Management
- Design/User Experience

Concentrated growth in high skill jobs requires longer training pathways (1995-2015)

•LinkedIn Emerging Jobs Report, 2017

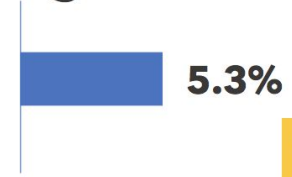
Low Skill




Middle Skill




High Skill



<TECH/HIRE>
OAKLAND



Local Perspective - Future of Work



Economic Development Strategy

2018-2020



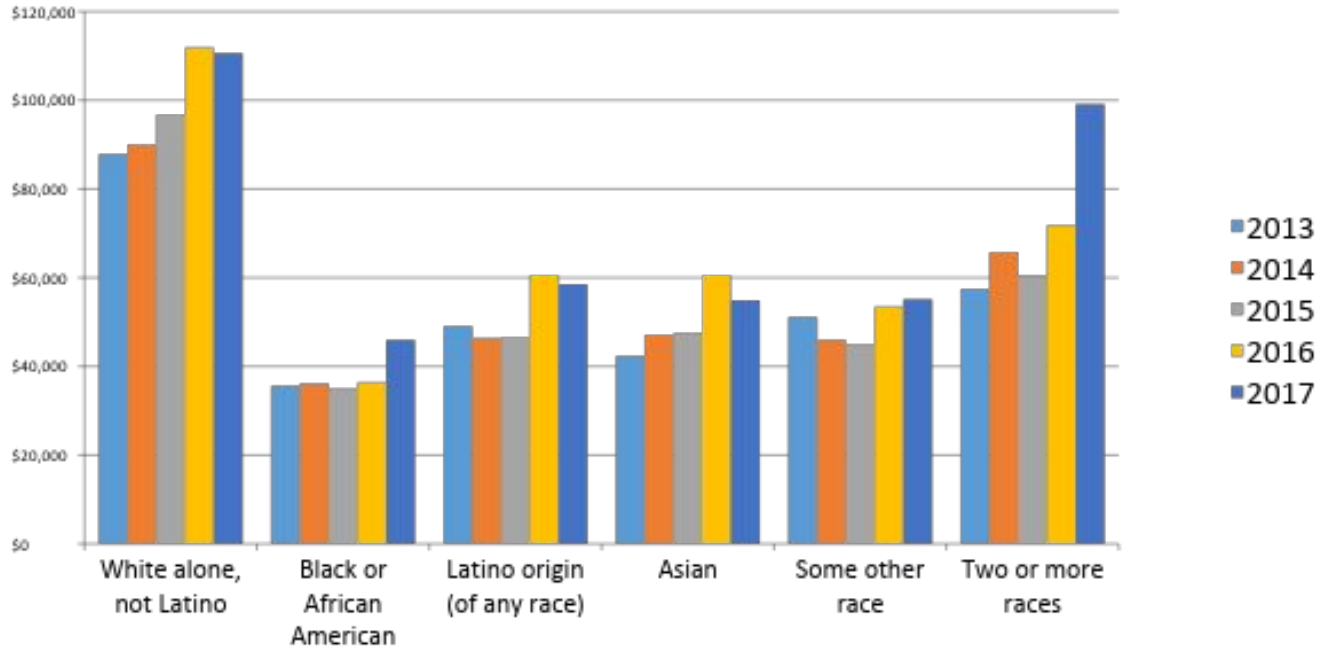
Goal

Increase Wealth and Assets for Households of Color in Oakland



City of
Oakland

Median HH Income in Oakland by Race/Ethnicity



Source: American Community Survey 1-yr, 2013-2017



OAKLAND'S BIGGEST SECTORS

RETAIL

MANUFACTURING

ARTS & CULTURE

TOURISM

AND BIGGEST TECH SECTORS

FINANCE

DIGITAL
ARTS

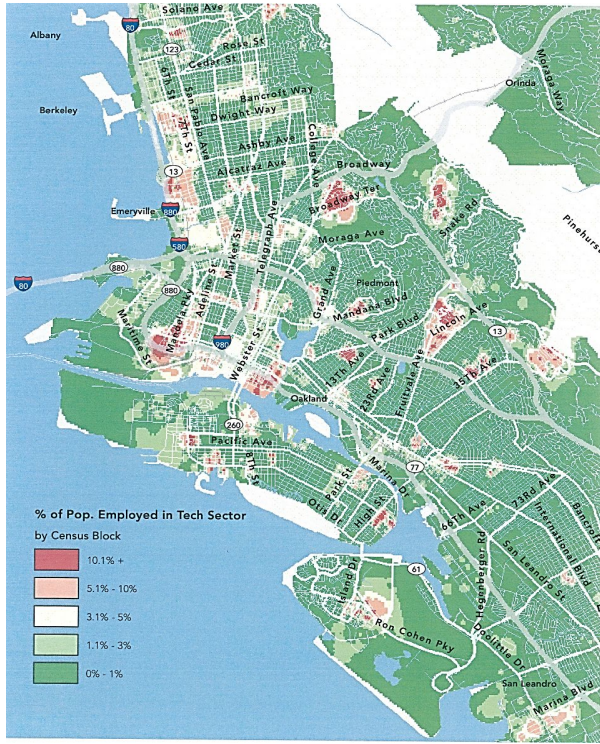
ENERGY

EDUCATION

HEALTH

HOUSING &
CRIMINAL JUSTICE

The Tech Economy is Regional



- ~**9,000** Tech jobs in Oakland
- **20,000+** residents who work in the Tech Sector
- Oakland tech workers **earn 75% more** than the average of all Oakland employees
- **18%** of Oakland's tech workers are Black or Latinx and **34%** of Oakland's tech workers are women.

Tech Strategy (2014-2018)

Vision: Oakland's Tech Sector Should Reflect Its Demographics

- Focus on startups and **grow from within the city**
- Create opportunities for **startups to connect with each other** and with resources to grow their business
- Make the City more **business-friendly**
- Connect to City's overall **Economic Development Strategy**
- Invest in the **Talent Pipeline**
- Support Oakland companies to **increase diversity**

THE LEAKY TECH PIPELINE

Linked Learning & CS Expansion at OUSD

OUSD has expanded its CS courses, with a recent \$8 million investment from Salesforce (\$15 million since 2014)

Computer Science & Technology Academies at three high schools

900 middle schools students in OUSD have taken a computer science class for the first time this year: **45%** female; **38%** Latino; **29%** African-American

Broader Economic Context

Cost of housing remains the biggest barrier

Oakland is the 7th most expensive U.S. city to live in

PRE K-12



Pre-K Disparities

17% of Latino children and 19% of African American Children enter OUSD schools ready for Kindergarten

Compared to 72% of White Children who enter school Kindergarten-ready

POST SECONDARY



TECH WORKFORCE



Tech Workforce

Oakland Workforce Development Board is looking to be more intentional on engaging Tech Employers

Engaging employers in public-private partnerships, and in particular, committing to diverse hiring

ENTREPRENEURSHIP





<TECH/HIRE> OAKLAND

Guiding underrepresented East Bay residents
of color to rewarding careers in tech



TRAINING REFERRALS



MENTORING



**PAID INTERNSHIPS
APPRENTICESHIPS & JOBS**

DESIGN UI/UX
DIGITAL MEDIA

MARKETING SALES
CUSTOMER SUCCESS

**SOFTWARE
DEVELOPMENT**

DEV OPS I.T.
CYBER SECURITY

HARDWARE
ADVANCED MANUFACTURING

STUDENT JOURNEY MAP (Abel, Age 16- 19)

*Teacher tells him about Hidden Genius Project

*Hidden Genius Project refers him to Hack the Hood

SUMMER 2015

Hack the Hood
6 week coding camp (design focused)



Fall 2015 (junior)

Mission Bit
after school coding classes (1 semester)

* Created coding club at school



SUMMER 2016

Berkeley Biz Academy (2 wks)

Make School (4wks)
IOS Dev'p



IDTech (2 weeks)
IOS Dev'p. \$\$\$\$ but got assistance from benefactor



FALL 2016 (senior)

Ready Set Connect @ Oakland Library

*Realized he needed greater CS fundamentals



*Found out about Code Berkeley but did not enroll

SPRING/
SUMMER 2017

* Gap - life was complicated

FALL 2017 (college)

Peralta Comm College
1 semester via Oakland Promise



- Took 3 classes:
- Laney CS (not good class)
- College of Alameda, English
- Berkeley City, PreCalc (hard)

SPRING 2018 (now!)

Mission Bit Intensive Prep Course for Hack Reactor (13 wks) -free



Laney CS Class



*Teaching at Mission Bit on the side

SUMMER 2018

Hack Reactor Full Program (on scholarship)
3 months. \$\$\$\$



FALL 2018 (?)

Apprenticeship?

GOAL:
JOB PLACEMENT



SELECTING EMPLOYER CHAMPIONS



<TECH/HIRE>

OAKLAND

EMPLOYER





CHAMPIONS: COMMITTED TO FULL SPECTRUM OF JOB BASED LEARNING IN EMERGING TECH

Custom THO Workshops
< 1 day

Internships (traditional talent)
< 3 months, return to school

Apprenticeships (non-traditional talent)
6+ months, option to convert

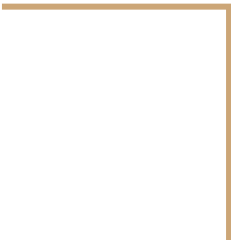
Full Time Roles

	Custom THO Workshops < 1 day	Internships < 3 months, return to school	Apprenticeships 6+ months, option to convert	Full Time Roles
 IDEO ^{CO} LAB	✓	✓	✓	
  GitHub	✓	✓	✓	
 LinkedIn	✓	✓	✓	
  twilio	✓	✓	✓	

APPRENTICESHIP WORKSHOPS WITH EMPLOYER CHAMPIONS



TECHHIRE OAKLAND TALENT LANDS MAJOR NATIONAL TECH APPRENTICESHIPS



DEBRENA
MCEWEN



DESIGN UI/UX
DIGITAL MEDIA



MANISHA
PRIYADARSHINI



MARKETING SALES
CUSTOMER SUCCESS



ALEX
HARDING



SOFTWARE
DEVELOPMENT



OMAR
CONTRERAS



SOFTWARE
DEVELOPMENT



ABEL
REGALADO



SOFTWARE
DEVELOPMENT





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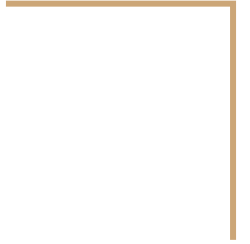
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Call to Action



\$1M to Change Tech

#TDRChallenge

techdoneright.kaporcenter.org

tech done right!
National Challenge



Q&A

