Broken Pathways 3.0
Documenting Disparities, Barriers, and Promising Practices

SPR
SOCIAL POLICY RESEARCH
ASSOCIATES

Broken Pathways Report 3.0

Silicon Valley is home to approximately 2.6 million residents, and 42% of them have an income below the region's self-sufficiency level.[1] The situation has only worsened in the COVID-19 pandemic economic crisis. Between January and April 2020, the unemployment rate soared from 2.5% to 11.6%, and the increase in unemployment was concentrated among low wage workers who work in food services and retail.[2] JobTrain, a non-profit organization that helps people with barriers to employment obtain jobs and advance their careers, is helping the community respond to this extraordinary crisis by converting several of its training programs to remote learning.

Prior to the crisis, JobTrain, contracted with Social Policy Research (SPR) to document economic disparities in Silicon Valley, identify barriers to job advancement for people not accessing the benefits of the region's once-booming economy, and identify promising strategies to promote job advancement. This report builds on two prior Broken Pathways reports (which document the economic challenges faced by the region's low-wage and barriered groups) and expands the focus to include a section on promising practices for promoting career advancement and historical context.[3] The report is organized into four sections (noted below). We identified the specific topics for each section based on our discussions with JobTrain. These topics focus on the challenges faced by the job seekers they serve.

I. Economic Challenges

- Economic Disparities in Silicon Valley

- Job Train Clients' Barriers to Employment

II. Barriers to Economic Advancement

- Weak financial safety net (e.g lack of health benefits, sick leave, savings)

- Housing Insecurity

- Biases in Hiring Practices

III. Promising Practices

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[1] For the purposes of this report, Silicon Valley is defined as San Mateo and Santa Clara counties, California. According to the 2018 University of Washington Self-Sufficiency Standard, the Santa Clara self-sufficiency standard for an individual was an annual salary of at least $46,840. In San Mateo it was $62,147. http://www.selfsufficiencystandard.org/california

[2] Using data from California Economic Development Department, we computed the standard unemployment rate (unemployed/labor force) for Santa Clara and San Mateo County. https://www.labormarketinfo.edd.ca.gov/file/lfhist/santchlf.xls and https://www.labormarketinfo.edd.ca.gov/file/lfhist/sanmahlf.xls

[3] Barriered groups are people with barriers to employment such as the formerly incarcerated, the long-term unemployed, and people without a post-secondary degree.

I. Economic Challenges

In this section we highlight how economic outcomes vary by education level, race, and other factors. We also examine the employment barriers faced by JobTrain's clients.
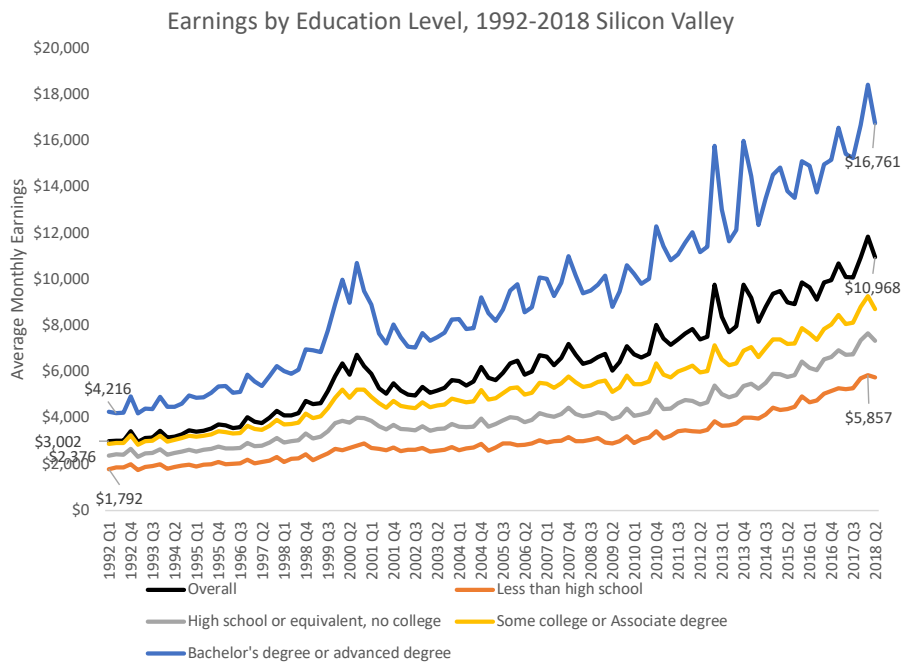
- Income disparity
- Self-sufficiency and poverty levels
- Unemployment rates
- JobTrain Clients' Barriers to Employment

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Income Disparities

Incomes grew significantly in the last 25 years in Silicon Valley* (by 265% overall, compared to 126% nationally), but the growth in income was uneven, with those with lower education levels and people of color experiencing slower growth than other groups.

Income Disparities by Education Level

- Individuals with less than a high school degree earned 42% ($1,792/$4,216) of what a college graduate earned in 1992, and the ratio fell to 34% in 2018.

- Individuals with only a high school degree earned 56% ($2,376/$4,216) of what a college graduate earned in 1992, and the ratio fell to 44% in 2018.

Earnings by Education Level, 1992-2018 Silicon Valley

Source: Quarterly Workforce Indicators, U.S. Census Bureau. Notes: Santa Clara and San Mateo County. The wage growth has not been adjusted for inflation.

Income Disparities by Race & Ethnicity

- Hispanics earned 59% ($1,902/$3,211) of what non-Hispanics earned in 1992, and the ratio fell to 43% in 2018.

- Blacks earned 71% ($2,258/$3,161) of what whites earned in 1992, and the ratio fell to 63% in 2018.
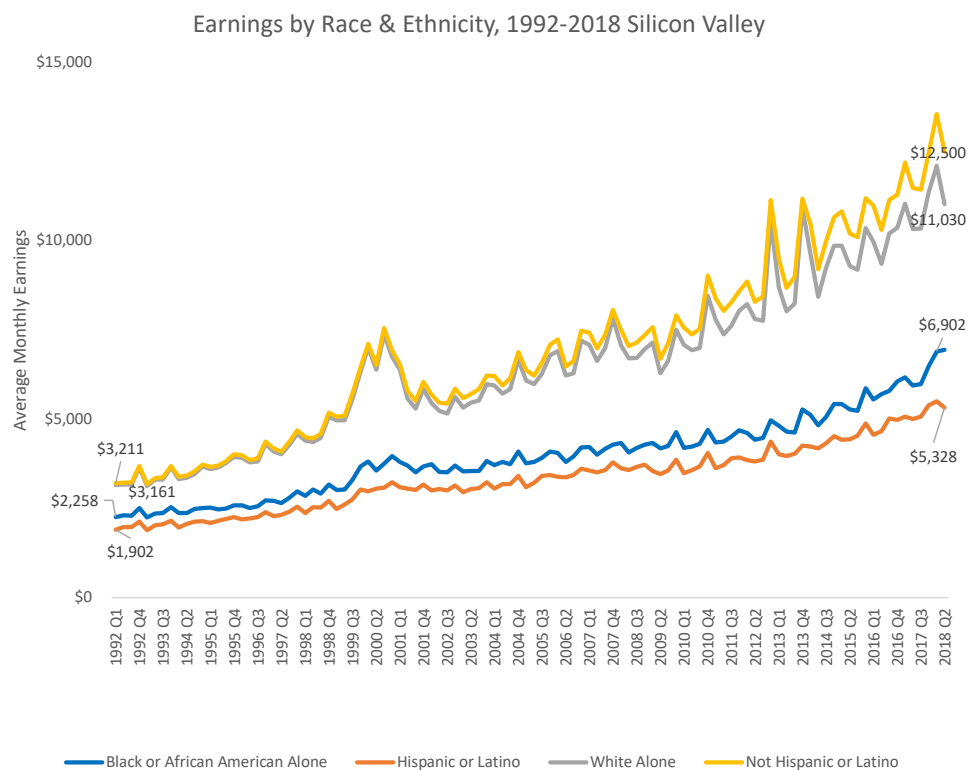
Earnings by Race & Ethnicity, 1992-2018 Silicon Valley

Source: Quarterly Workforce Indicators, U.S. Census Bureau. Notes: Santa Clara and San Mateo County. The wage growth has not been adjusted for inflation.

*Defined as San Mateo and Santa Clara Counties.

Self-Sufficiency and Poverty Levels

Self-Sufficiency Standards

According to the University of Washington Self-Sufficiency Standard (UW-SSS), an individual would need an annual household income of $46,840 in Santa Clara (just under 500% of the federal poverty level) or $62,147 in San Mateo (just over 500% of the federal poverty level) or more to meet the minimum self-sufficiency standard.[4]

Exhibit 1. Individual Self-sufficiency Standards San Mateo and Santa Clara Counties

Source: Self-sufficiency standard obtained from http://www.selfsufficiencystandard.org/california. Federal Poverty level: https://aspe.hhs.gov/2018-poverty-guidelines

- Using these self-sufficiency levels, about 42% of the population in the region lives below the individual self-sufficiency level, which in San Mateo is $62,147 (nearest to 500% of the FPL) and $46,840 in Santa Clara (nearest to 400% of the FPL).

Exhibit 2. Portion of Individuals in Silicon Valley Living Below Self-Sufficiency Standard
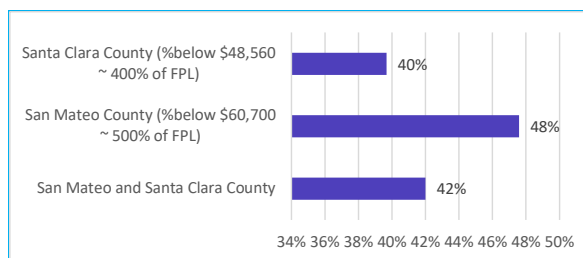
Source: Source: American Community Survey, table S1702, 2018 Poverty Status in the Past 12 months (of Individuals

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[4] To assess the cost of living in Santa Clara and San Mateo county, we used the University of Washington Self-Sufficiency Standard (UW-SSS).

- Earnings levels relative to the self-sufficiency level vary dramatically by race and ethnicity. As shown in Exhibit 3, whites (non-Hispanic) earn on average more (about 120-150%) than the self-sufficiency standard, while Hispanics and blacks earn on average less than the self-sufficiency standard (about 40-50%) less.

Exhibit 3

Average Income By Race in San Mateo and Santa Clara County
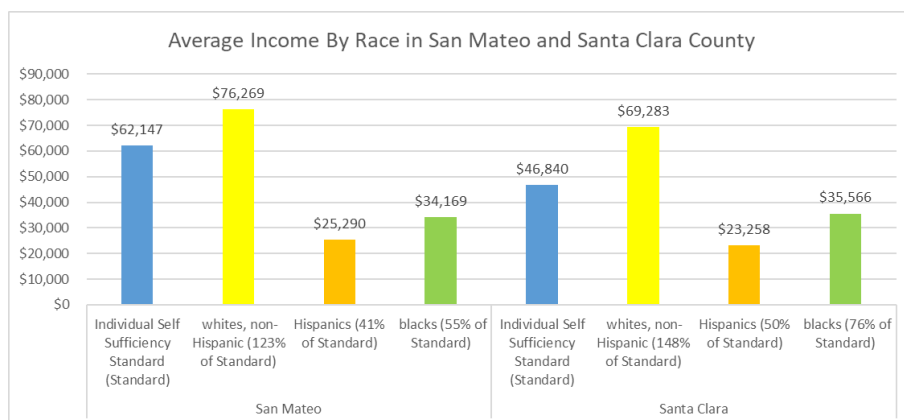
Source: American Community Survey, table S1902, 2017 Mean Income in the past 12 months.

Poverty Levels by Race, Education Level, and Unemployment Status

Poverty levels[5] also vary by education level and unemployment status. Approximately 7-8% of individuals in the region have incomes below the federal poverty line (7% in San Mateo and 8% in Santa Clara). As shown in Exhibits 4 through 6, the rate is disproportionately high among non-whites (excluding Asians), the unemployed (18% in San Mateo and 21% in Santa Clara), and those without a high school diploma (16% in San Mateo and 17% in Santa Clara). For example, in San Mateo, 15% of blacks live below the poverty line and 13% of blacks in in Santa Clara live below the poverty line. Among Hispanics, 12% in both counties earn below the poverty line. There was much less variation by age and gender.

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[5] Since the proportion of families and individuals earning below the self-sufficiency standard (i.e. earning 400% and 500% of the federal poverty line) are not available by demographic groups, we examined how poverty rates vary by demographics.

Exhibit 4

Portion below the Poverty Level, by Race & Ethnicity

■ San Mateo County ■ Santa Clara County

Exhibit 5

Portion below the Poverty Level, by education level

■ San Mateo County ■ Santa Clara County

Exhibit 6

Portion below the Poverty Level, by Employment Status
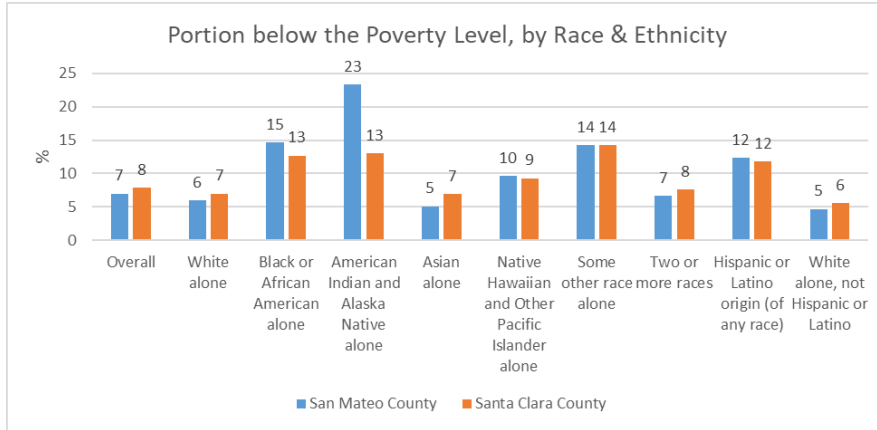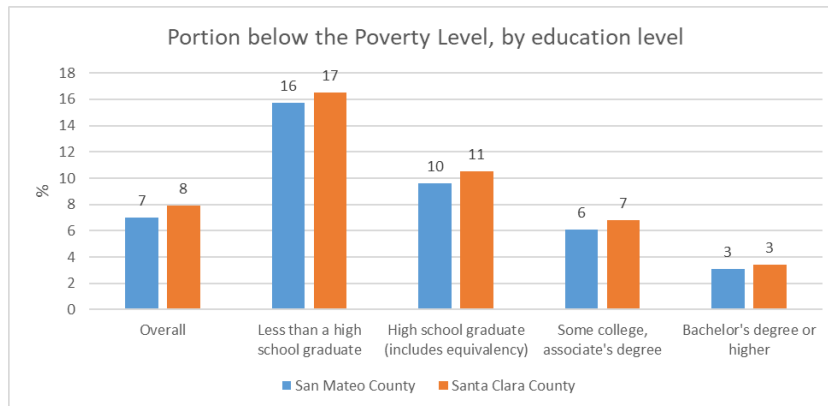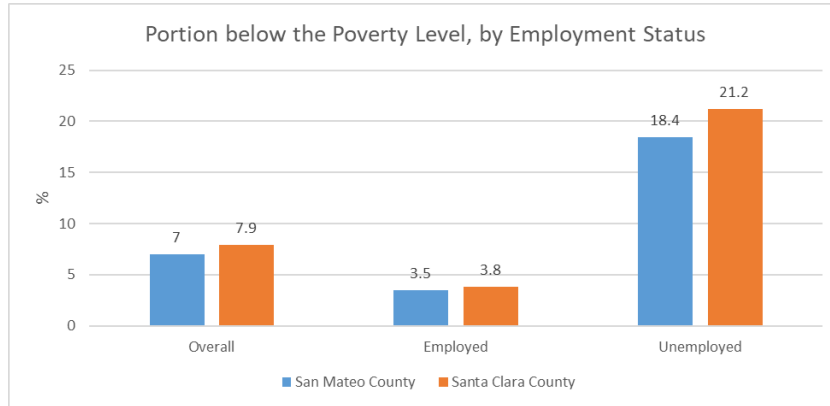
Source: American Community Survey, table S1701, 2018 Poverty Status in the Past 12 months.

Unemployment Rates

- The number of initial UI claims increased significantly from February 2020 to March 2020 (16.9% in San Mateo and 15.3% in Santa Clara).

- There were greater initial UI claims submitted in March 2020 than during the peak of the Great Recession (2.5% higher in San Mateo and 2.0% higher in Santa Clara).

San Mateo & Santa Clara
Initial Unemployment Insurance Claims
January 2007 to March 2020
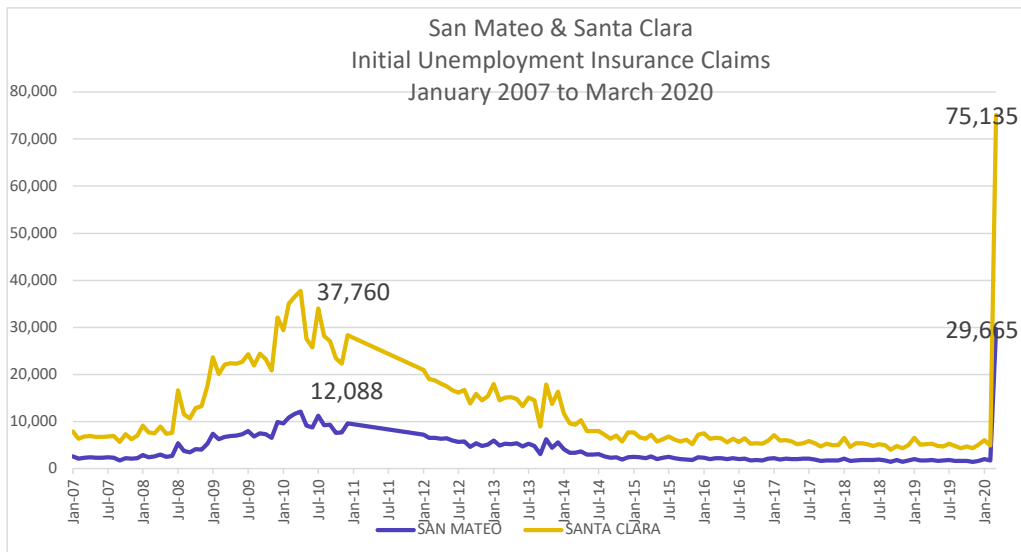
Source: California Economic Development Department,
https://www.edd.ca.gov/about_edd/Quick_Statistics_Information_by_County.htm

Unemployment Rate Varies by race and education level

- In 2018, the unemployment rate was much higher rates for blacks (7%). The unemployment rate among Hispanics was slightly higher than the overall rate in both counties (4.8% for Hispanics vs. 4.1% overall in San Mateo and 5.6% for Hispanics vs 4.8% overall in Santa Clara).

- In Santa Clara, those without a high school degree had a higher unemployment rate than those with a college degree or higher (6.0% vs. 3.5%). In San Mateo, however, the rates were similar (3.4% for those without a high school degree vs. 3.0% for those with a college degree or higher)

- The unemployment rate was much higher for individuals with a disability (10.5% in San Mateo and 10.6% in Santa Clara).

San Mateo County: Unemployment Rate 2010 & 2018, by Race & Ethnicity

	Overall (Age 16 years & older)		White (non-Hispanic)		Black		Hispanic	
	2010	2018	2010	2018	2010	2018	2010	2018
%	6.5%	4.1%	5.4%	3.8%	11.4%	8.8%	7.7%	4.8%

Santa Clara County: Unemployment Rate 2010 & 2018, by Race & Ethnicity

	Overall (Age 16 years & older)		White (non-hispaic)		Black		Hispanic	
	2010	2018	2010	2018	2010	2018	2010	2018
%	7.8%	4.8%	6.7%	4.4%	11.4%	6.5%	9.6%	5.6%

San Mateo County: Unemployment Rate 2010 & 2018, by Education and Disability

	6.1%	3.9%	8.1%	3.4%	6.9%	4.7%	6.4%	3.7%	4.4%	3.0%	12.1%	10.5%

Overall (Age 20 to 64): 2010 6.1%, 2018 3.9%
Less than high school graduate: 2010 8.1%, 2018 3.4%
High school graduate (includes equivalency): 2010 6.9%, 2018 4.7%
Some college or associate's degree: 2010 6.4%, 2018 3.7%
Bachelor's degree or higher: 2010 4.4%, 2018 3.0%
Disabled: 2017 12.1%, 2018 10.5%

Santa Clara County: Unemployment Rate 2010 & 2018, by Education & Disability

Overall (Age 20 to 64): 2010 7.3%, 2018 4.6%
Less than high school graduate: 2010 10.3%, 2018 6.0%
High school graduate (includes equivalency): 2010 9.1%, 2018 5.6%
Some college or associate's degree: 2010 8.2%, 2018 4.6%
Bachelor's degree or higher: 2010 4.8%, 2018 3.5%
Disabled: 2017 12.5%, 2018 10.6%

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Job Train Client Barriers to Employment

- Clients experienced a wide variety of employment barriers, the largest being low-income. Over 90% of clients in 2019 were considered low income or extremely low income.
- Slightly less than a quarter of clients were offenders.
- Clients were least likely to identify as being a veteran—only 2% were veterans in 2019.

Barriers 2019 (n=355)
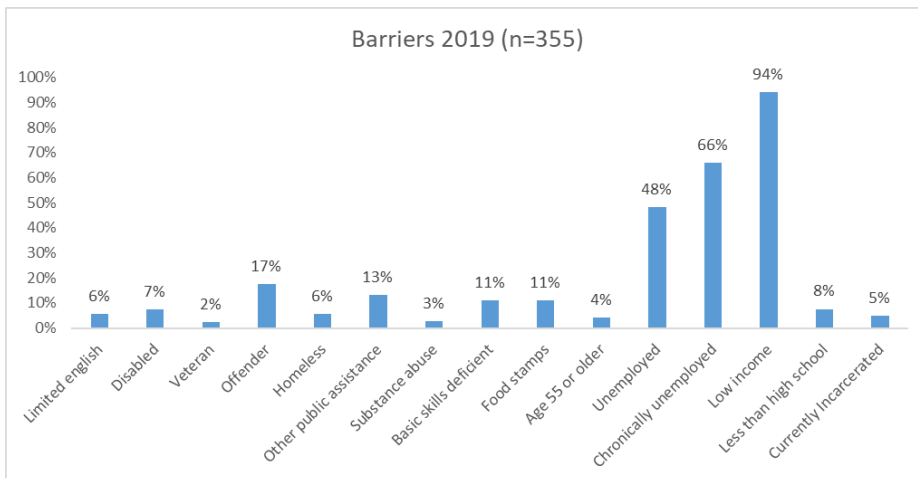
Source: Job Train administrative data. Notes: The denominator for chronically unemployed is 44 and for low-income is 190. There were a large number of observations with missing values for these variables so those observations were excluded from the denominator.

- The portion of clients reporting experiencing multiple barriers was highest for the construction and culinary training tracks. For example, 84% of clients in the culinary training track reported experiencing two or more barriers and 76% of clients in the construction track reported experiencing two or more barriers.
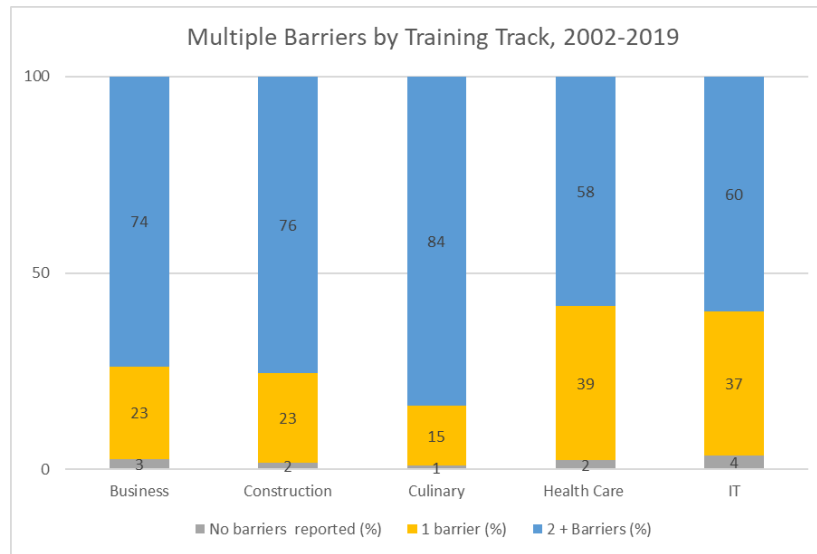
Multiple Barriers by Training Track, 2002-2019

	Business	Construction	Culinary	Health Care	IT
2 + Barriers (%)	74	76	84	58	60
1 barrier (%)	23	23	15	39	37
No barriers reported (%)	3	2	1	2	4

Source: Job Train administrative data.

- The portion of clients with multiple barriers has increased over time. In 2002, 68% of clients had two or more reported barriers and by 2019, 59% had two or more reported barriers. In some years, the number was even higher, for example in 2012, 78% of clients had two or more barriers.

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Multiple Barriers, 2002-2019
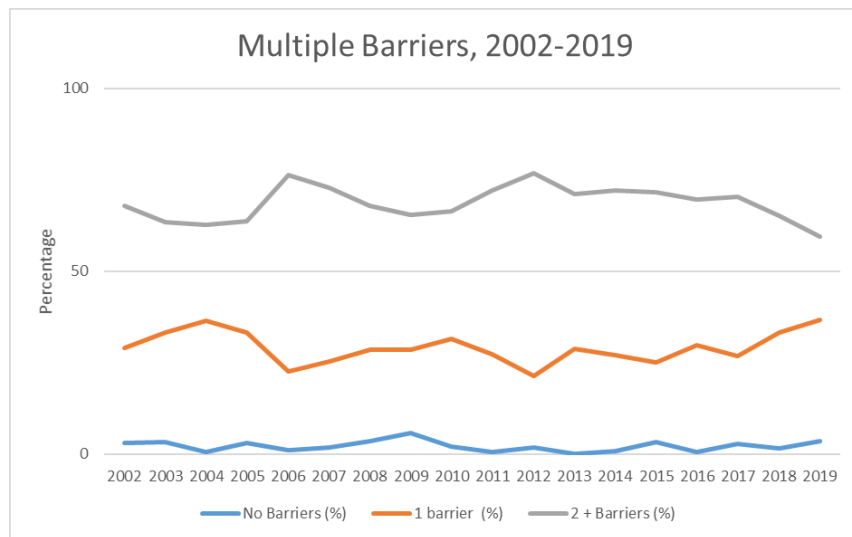
Source: Job Train administrative data.

Client Demographics

- About half (54%) of JobTrain Training participants are Hispanic and 12% are black, 58% are female, and 92% have are at least a high school diploma.

- While JobTrain recruits its clients from all over the Bay Area, since it is located near East Palo Alto (EPA) we compared training participant demographics to the demographics of EPA in 2019. The comparison indicates that JobTrain clients have similar demographics as EPA residents, with a few exceptions. First, there is a larger portion of Asians and females among clients than in the local population. Second, Hispanics make up about 62% of all clients and 54% of training participants, they represent 62% of the EPA population.

Characteristics, 2019	Job Train Clients 2019 Annual Report (N=2,400)	JobTrain Training Participants (N=355)	East Palo Alto (Census)*
American Indian/Alaskan Native	-	0.56%	1.00%
Asian	9%	9.55%	4.80%
Black - African-American	11%	11.80%	11.80%
Hispanic or Latino	62%	53.93%	62.10%
Middle Eastern or North African	-	0.84%	na
Pacific Islander	6%	7.58%	10.60%

White (non-Hispanic)	10%	11.52%	8.10%
Female	-	58.71%	49.20%
High school graduate or higher	79%	92%	65.50%
College graduate or higher	-	9.5%	18.80%

*Census category for Pacific Islander is Native Hawaiian and Other Pacific Islander alone
Education categories for Census data are restricted to those age 25+; JobTrain Annual Report:
https://www.jobtrainworks.org/wp-content/uploads/2019/12/JobTrainAR_Final-2019-in-order.pdf

II. Barriers to Economic Advancement

There are numerous factors contributing to the economic disparities in Silicon Valley. In this section we highlight:

- Weak financial safety net (e.g lack of health benefits, sick leave, savings)

- Housing Insecurity

- Biases in Hiring Practices

Weak Financial Safety Net

Limited access to employer-provided health insurance and paid sick leave

Low wage workers (earning less than 30,000 annually) in the San Francisco Bay Area have less access to employer provided health insurance and sick leave than higher wage workers (earning 120,000 or more annually).[1]

	Employer provided health insurance	Paid sick leave
Low wage workers	43%	52%
High wage workers	89%	83%

Low wage workers receive less health care support than high wage workers.

Not enough money to cover unexpected expenses

- About **40% of workers** in the San Francisco Bay Area **do not have savings to cover three months of expenses.** [1]

- Nationally, **37% of adults** could **not cover** an unexpected **$400 expense using cash or savings.**[2]

[1]Tipping Point (Non-profit) (US). "Taking Count: A study on poverty in the Bay Area." (2020).
[2]The Federal Reserve System. (Govt agency) (US) "Report on the Economic Well-Being of U.S. Households in 2019, Featuring Supplemental Data from April 2020." (2020).

Housing Insecurity

The high cost of housing makes homeownership (the primary means for transferring wealth to the next generation) out of reach for many.

🏠 Only about 28% of potential first-time homebuyers living in San Mateo County and 36% of those in Santa Clara County can afford a median-priced home, compared to 60% in Sacramento County.[1]

🏠 In 2018, 23% of Silicon Valley households who rented (and 13% of homeowners with a mortgage) spent more than 50% of their gross income on housing costs.[1]

Homelessness doubled between 2011 and 2019

# of homeless in Santa Clara and San Mateo County

Year	Value
2011	5716
2013	9633
2015	8039
2017	8647
2019	11218
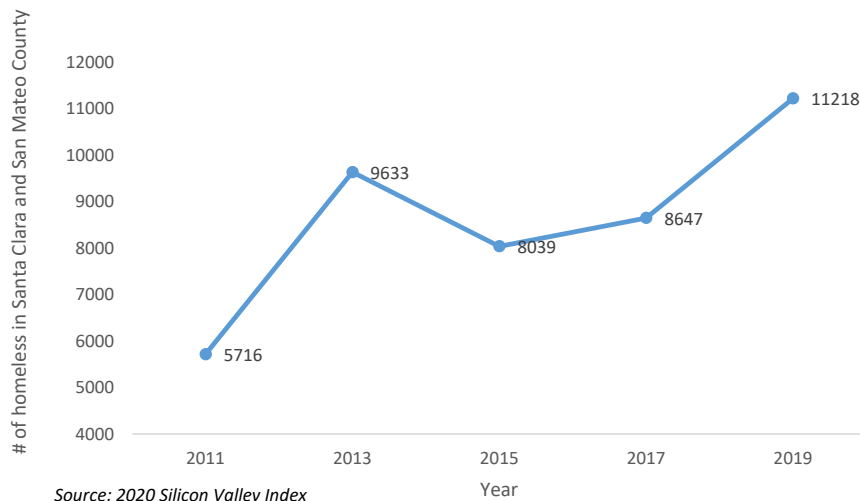
Source: 2020 Silicon Valley Index

Biases in Hiring Practices

Race Bias

In field experiments, where **the same resume** is sent to **the same job openings**, but some with a white-sounding name and others black-sounding names, **white applicants receive more interview invitations than their equally qualified black counterparts**.

- In 2013, white applicants received approximately 18% more interview requests than black applicants.[1]

- In 2001-2002, white applicants received approximately 50% more interview requests than black applicants.[2]

Age Bias

In field experiments, where the **same resume** is sent to the **same job openings**, but the year of high school graduation varies, **younger applicants receive more interview invitations than their equally qualified older counterparts.**

- In 2015, younger (29-31) applicants received approximately 53% more interview requests than older (64-66) applicants.[3]

- In 2002-2003, younger (35-45) applicants received approximately 39% more interview requests than older (50-62) applicants.[4]

Degree Inflation

Using a college degree as a proxy for having skills also contributes to hiring that excludes people with the skills required (but who don't have the degree).

- One study found that 67% of production supervisor job postings asked for a college degree, however only 16% of employed production supervisors had a college degree.[5]

- Another study found 65% of job postings for Executive Secretaries and Executive Assistants sought a bachelor's degree, but only 19% of those workers currently had a bachelor's degree.[6]

[1]Nunley, J. M., Pugh, A., Romero, N., & Seals, R. A. (2015). Racial discrimination in the labor market for recent college graduates: Evidence from a field experiment. The BE Journal of Economic Analysis & Policy, 15(3), 1093-1125.

[2]Bertrand, M., & Mullainathan, S. (2004). Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. American economic review, 94(4), 991-1013.

[3]Neumark, D. (2018). Experimental research on labor market discrimination. Journal of Economic Literature, 56(3), 799-866.

[4]Lahey, J. N. (2008). Age, women, and hiring an experimental study. Journal of Human resources, 43(1), 30-56

[5] Fuller, Joseph B., and Manjari Raman. "Dismissed by degrees: How degree inflation is undermining US competitiveness and hurting America's middle class." Published by Accenture, Grads of Life, Harvard Business School (2017).

[6] Burning Glass Technologies (Firm)(US). "Moving the goalposts: How demand for a bachelor's degree is reshaping the workforce." (2014).

III. Promising Practices for Job Advancement

In this section we summarize several strategies for addressing barriers to advancement:

- Strategies for reducing hiring bias
- Middle Skill Jobs with Most Projected Openings
- The Impact of Training
- Career Advancement Project (CAP)

Strategies for Reducing Hiring Bias

Several steps to reduce bias in the hiring process:[1]

- Create blind application materials whenever possible, including using anonymous questionnaires and removing identifying information from resumes and work samples.

- Create a rubric in an effort to consistently rate questionnaire responses from candidates. For example, create a list of evaluation criteria (persuasion, grammar) and agreed upon how much weight each criteria would have.

- Create ways for hiring managers to acknowledge bias, using tools like workshops or classes to inform and reduce team members' biases.

Widen your recruitment of job candidates to ensure you are reaching a large segment of the population and implement policies that support inclusivity and emphasizes skills over degrees:[2]

- Recruit candidates from organizations and training programs that serve people with barriers to employment, such as the formerly incarcerated and people with disabilities.

- Have disclosure/privacy practices in place for when a manager may need to be made aware of a person's criminal history. In most cases managers do not need to know, and the human resource department is the only entity that knows.

- Set diversity goals and collect data to track the goals to monitor the company's progress.

- Consider removing the college degree requirement for entry level jobs such as, IT support positions or project management positions.

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[1] How a lean, scrappy startup reduced hiring bias? https://magoosh.com/blog/lean-scrappy-startup-reduced-hiring-bias/

[2] These strategies were identified through interviews with two employers in the Bay Area that prioritize hiring people with barriers to employment.

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Middle Skill Jobs with Most Projected Openings

Middle skill Jobs are jobs that typically require more than a high school diploma and less than a bachelor's degree, such as industry recognized certificates, associate's degrees, noncredit education, and licenses—but these jobs are often overlooked.[1]

- Middle-skills jobs are often a viable career alternative to jobs requiring at least a bachelor's degree. These jobs pay on average $35,000- $55,000 a year nationally; jobs in education services, financial and consulting/business services, healthcare services, and leisure and hospitality and personal services make up slightly less than half of all jobs available in this category.[2] x

Santa Clara & San Mateo County Top Middle Skill Jobs (by projected openings)

- In Santa Clara, the top middle-skills occupations with the highest amount of projected job openings (between 2016-2026) include:
  - **Bookkeeping, Account, and Auditing Clears** (1,234 per year, $50,000 annual salary)
  - **Computer User Suport Specialists**
  - **Teacher Assistants**
  - **Medical Assistants**
  - **Nursing Assistants** (639 per year, $37,000 annual salary)
- In San Mateo, the top middle-skills occupations with the highest amount of projected job openings between 2016-2026 include:
  - **Bookkeeping, Account, and Auditing Clerks** (1,231 per year, $56,000 annual salary)
  - **Computer User Suport Specialists**
  - **Teacher Assistants**
  - **Hairdressers, Hairstylists, and Cosmetologists**
  - **Nursing Assistants** (567 per year, $48,000 annual salary)

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[1]Carnevale, Anthony P., et al. "The Overlooked Value of Certificates and Associate's Degrees." (2020).

[2] Carnevale, Anthony P., et al. "Good jobs that pay without a BA." (2018).

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Santa Clara & San Mateo County Top Middle Skill Jobs (by highest median annual salary)

- In Santa Clara, the top middle-skills occupations with the highest median annual salary in 2018 include:
  - **Radiation Therapists** (6 per year, $131,000 annual salary)
  - **Dental Hygienists**
  - **Diagnostic Medical Sonographers**
  - **Magnetic Resonance Imaging Technologists**
  - **Respiratory Therapists** (82 per year, $95,000 annual salary)

- In San Mateo, the top middle-skills occupations with the highest median annual salary in 2018 include:
  - **First-Line Supervisors of Fire Fighting and Prevention Workers** (3 per year, $151,000 annual salary)
  - **Diagnostic Medical Sonographers**
  - **Dental Hygienists**
  - **Web Developers** (488 per year, $113,000)
  - **Cardiovascular Technologists and Technicians** (17 per year, $107,000)

Top 20 Annual Projected Job Openings with Middle Skills Requirements Santa Clara 2016-2026

	Average Annual Job Openings 2016-2026		2018 First Quarter Wages		Education and Training Levels	
Occupational Title	Exits	Total Job Openings	Median Hourly	Median Annual	Entry Level Education	On-the-Job Training

Bookkeeping, Accounting, and Auditing Clerks	688	1,234	$23.90	$49,716	Some college, no degree	Moderate-term on-the-job training
Computer User Support Specialists	230	1,040	$35.91	$74,678	Some college, no degree	None
Teacher Assistants	423	836	$0.00	$37,826	Some college, no degree	None
Medical Assistants	235	715	$20.79	$43,243	Postsecondary non-degree award	None
Nursing Assistants	310	639	$17.77	$36,968	Postsecondary non-degree award	None
Electrical and Electronics Engineering Technicians	223	634	$29.96	$62,309	Associate's degree	None
Heavy and Tractor-Trailer Truck Drivers	218	583	$22.13	$46,029	Postsecondary non-degree award	Short-term on-the-job training
Hairdressers, Hairstylists, and Cosmetologists	303	573	$12.01	$24,995	Postsecondary non-degree award	None
Preschool Teachers, Except Special Education	222	565	$17.90	$37,247	Associate's degree	None

Dental Assistants	166	400	$24.69	$51,338	Postsecondary non-degree award	None
Automotive Service Technicians and Mechanics	115	339	$24.21	$50,360	Postsecondary non-degree award	Short-term on-the-job training
Manicurists and Pedicurists	167	333	$11.73	$24,399	Postsecondary non-degree award	None
Web Developers	66	326	$43.09	$89,625	Associate's degree	None
Computer Network Support Specialists	70	301	$40.95	$85,177	Associate's degree	None
Paralegals and Legal Assistants	69	232	$38.00	$79,024	Associate's degree	None
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	55	215	$33.33	$69,320	Postsecondary non-degree award	Long-term on-the-job training
Licensed Practical and Licensed Vocational Nurses	83	191	$29.60	$61,568	Postsecondary non-degree award	None
Life, Physical, and Social Science Technicians, All Other	57	184	$27.68	$57,567	Associate's degree	None

Occupational Title	Exits	Total Job Openings	Median Hourly	Median Annual	Entry Level Education	On-the-Job Training
Telecommunications Equipment Installers and Repairers, Except Line Installers	61	183	$29.01	$60,353	Postsecondary non-degree award	Moderate-term on-the-job training
Massage Therapists	91	166	$25.47	$52,974	Postsecondary non-degree award	None

Top 20 Annual Projected Job Openings with Middle Skills Requirements
San Mateo County, 2016-2026

Occupational Title	Average Annual Job Openings 2016-2026		2018 First Quarter Wages		Education and Training Levels	
	Exits	Total Job Openings	Median Hourly	Median Annual	Entry Level Education	On-the-Job Training
Bookkeeping, Accounting, and Auditing Clerks	712	1,231	$27.09	$56,359	Some college, no degree	Moderate-term on-the-job training
Computer User Support Specialists	191	860	$34.69	$72,149	Some college, no degree	None
Teacher Assistants	338	689	$0.00	$38,283	Some college, no degree	None
Hairdressers, Hairstylists, and Cosmetologists	336	677	$14.80	$30,786	Postsecondary non-degree award	None
Nursing Assistants	296	567	$22.88	$47,584	Postsecondary non-degree award	None

Medical Assistants	176	492	$24.15	$50,227	Postsecondary non-degree award	None
Web Developers	101	488	$54.60	$113,570	Associate's degree	None
Preschool Teachers, Except Special Education	174	421	$20.91	$43,492	Associate's degree	None
Paralegals and Legal Assistants	102	347	$37.04	$77,044	Associate's degree	None
Automotive Service Technicians and Mechanics	104	313	$24.87	$51,731	Postsecondary non-degree award	Short-term on-the-job training
Dental Assistants	114	268	$25.85	$53,755	Postsecondary non-degree award	None
Massage Therapists	138	261	$20.38	$42,389	Postsecondary non-degree award	None
Heavy and Tractor-Trailer Truck Drivers	110	242	$25.59	$53,209	Postsecondary non-degree award	Short-term on-the-job training
Aircraft Mechanics and Service Technicians	83	241	$35.40	$73,626	Postsecondary non-degree award	None
Manicurists and Pedicurists	108	231	$13.10	$27,269	Postsecondary non-degree award	None
Computer Network Support Specialists	46	194	$37.79	$78,587	Associate's degree	None
Licensed Practical and Licensed Vocational Nurses	82	167	$30.67	$63,782	Postsecondary non-degree award	None

Occupational Title	Exits	Total Job Openings	Median Hourly	Median Annual	Entry Level Education	On-the-Job Training
Telecommunications Equipment Installers and Repairers, Except Line Installers	58	165	$30.10	$62,607	Postsecondary non-degree award	Moderate-term on-the-job training
Electrical and Electronics Engineering Technicians	49	158	$33.29	$69,245	Associate's degree	None
Human Resources Assistants, Except Payroll and Timekeeping	56	151	$26.31	$54,711	Associate's degree	None

Top 20 Annual Job Openings by 2018 Median Annual Wage
Santa Clara County

Occupational Title	Average Annual Job Openings 2016-2026		2018 First Quarter Wages [5]		Education and Training Levels [6]	
	Exits	Total Job Openings	Median Hourly	Median Annual	Entry Level Education	On-the-Job Training
Radiation Therapists	3	6	$63.24	$131,554	Associate's degree	None
Dental Hygienists	52	105	$54.75	$113,885	Associate's degree	None
Diagnostic Medical Sonographers	10	30	$50.44	$104,918	Associate's degree	None
Magnetic Resonance Imaging Technologists	4	9	$46.64	$97,008	Associate's degree	None
Respiratory Therapists	27	82	$45.49	$94,631	Associate's degree	None
Radiologic Technologists	21	53	$43.78	$91,047	Associate's degree	None
Web Developers	66	326	$43.09	$89,625	Associate's degree	None

Healthcare Practitioners and Technical Workers, All Other	6	17	$42.47	$88,325	Postsecondary non-degree award	None
Firefighters	26	79	$41.25	$85,797	Postsecondary non-degree award	Long-term on-the-job training
Computer Network Support Specialists	70	301	$40.95	$85,177	Associate's degree	None
Physical Therapist Assistants	10	32	$38.29	$79,635	Associate's degree	None
Paralegals and Legal Assistants	69	232	$38.00	$79,024	Associate's degree	None
Electrical and Electronics Drafters	23	69	$37.77	$78,546	Associate's degree	None
Civil Engineering Technicians	14	40	$36.80	$76,536	Associate's degree	None
Aircraft Mechanics and Service Technicians	7	17	$36.25	$75,403	Postsecondary non-degree award	None
Computer User Support Specialists	230	1,040	$35.91	$74,678	Some college, no degree	None
Surgical Technologists	22	63	$35.06	$72,941	Postsecondary non-degree award	None
Aerospace Engineering and Operations Technicians	17	41	$35.05	$72,911	Associate's degree	None
Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	11	44	$34.54	$71,843	Postsecondary non-degree award	Moderate-term on-the-job training
Medical Equipment Repairers	6	16	$34.54	$71,838	Associate's degree	Moderate-term on-the-job training

Top 20 Annual Job Openings by 2018 Median Annual Wage
San Mateo County

Occupational Title	Average Annual Job Openings 2016-2026		2018 First Quarter Wages [5]		Education and Training Levels [6]	
	Exits	Total Job Openings [4]	Median Hourly	Median Annual	Entry Level Education	On-the-Job Training
First-Line Supervisors of Fire Fighting and Prevention Workers	3	7	$72.81	$151,443	Postsecondary non-degree award	Moderate-term on-the-job training
Diagnostic Medical Sonographers	11	29	$56.53	$117,591	Associate's degree	None
Dental Hygienists	44	85	$56.30	$117,094	Associate's degree	None
Web Developers	101	488	$54.60	$113,570	Associate's degree	None
Cardiovascular Technologists and Technicians	7	17	$51.62	$107,355	Associate's degree	None
Radiologic Technologists	26	58	$51.37	$106,858	Associate's degree	None
Respiratory Therapists	18	47	$48.70	$101,293	Associate's degree	None
Firefighters	41	133	$45.39	$94,427	Postsecondary non-degree award	Long-term on-the-job training
Magnetic Resonance Imaging Technologists	6	13	$44.55	$92,661	Associate's degree	None
Captains, Mates, and Pilots of Water Vessels	5	19	$44.12	$91,759	Postsecondary non-degree award	None
Computer Network Support Specialists	46	194	$37.79	$78,587	Associate's degree	None

Surgical Technologists	23	65	$37.19	$77,358	Postsecondary non-degree award	None
Paralegals and Legal Assistants	102	347	$37.04	$77,044	Associate's degree	None
Engineering Technicians, Except Drafters, All Other	19	57	$36.58	$76,089	Associate's degree	None
Physical Therapist Assistants	5	15	$36.42	$75,768	Associate's degree	None
Mechanical Drafters	4	13	$35.86	$74,576	Associate's degree	None
Aircraft Mechanics and Service Technicians	83	241	$35.40	$73,626	Postsecondary non-degree award	None
Healthcare Practitioners and Technical Workers, All Other	5	13	$34.69	$72,159	Postsecondary non-degree award	None
Computer User Support Specialists	191	860	$34.69	$72,149	Some college, no degree	None
Funeral Service Managers	3	7	$34.47	$71,688	Associate's degree	None

The Impact of Training

Studies have found that training tends to help increase employment or earnings.

In 2019, 81% of JobTrain graduates found jobs after completing their training.

Recent Studies of Publicly-Funded Training Programs

Training Program	Description	Impact on Participants
Trade Adjustment Act Community College and Career Training (TAACCCT) programs	Integrated postsecondary education and workforce training	Twice as likely to attain a credential. A quarter more likely to be employed and receive a wage increase compared to comparison students. [1]
Workforce programs in Washington State	Workforce programs for adults, Community College workforce training, and Integrated Basic Education and Skills Training (I-BEST) programs	Significant impact on employment & wages nine to twelve quarters after program exit. [2]
Youth Build*	Provides youth with job training, education & case management	Increasing youth's receipt of high school credentials, enrollment in college, and increased employment rates four years after study enrollment. [3,4]
Federal workforce program (WIA)*	Program provides adults and dislocated worker with core, intensive, and training services.	Mixed results; increased earnings 30 months after study enrollment. The authors attribute the higher earnings to WIA-funded intensive services (career planning, job search assistance, case management) rather than WIA-funded training.

Notes:* Indicates the study used a random assignment design.

[1] Blume, Grant, et al. "Estimating the Impact of Nation's Largest Single Investment in Community Colleges: Lessons and Limitations of a Meta-Analysis of TAACCCT Evaluations." New America (2019).

[2] Hollenbeck, Kevin, and Wei-Jang Huang. "Net impact and benefit-cost estimates of the workforce development system in Washington State." Employment Research Newsletter 24.1 (2017)

[3] Employment rates measured with survey data indicate the program had a positive impact on employment, however employment rates measured with administrative data indicate no impact on employment.

[4] Miller, Cynthia, et al. "Laying a Foundation: Four-Year Results from the National YouthBuild Evaluation." MDRC (2018).

Career Advancement Pilot

The Career Advancement Pilot was implemented by Tipping Point Community, Job Train, JVS, and Opportunity junction to provide continued coaching and mentorship to people after they completed the training program. The goal is to help alumni continue their career advancement so they can achieve their professional goals.

Program Structure: Participants engaged regularly with their coach to discuss career goals, identify career resources, and address barriers.	**Initial outcomes: 13 out of 19 took steps toward career advancement**
Activities included: • Developing career advancement goals and an action plan using an app. • Considering job market and occupation information while setting goals. • Communicating frequently via video chat, text messages, and email.	Steps included: • Applying for jobs. • Participating in practice interviews and real interviews. • Applying for training programs & financial aid.[1]

Next Steps: Scale the pilot program to serve about 50 people over a 18-24 month period.

[1]Tipping Point Community (non-profit) (US) "Career Advancement Project: Exploring new solutions to unlock economic mobility" (2020). https://tippingpoint.org/wp-content/uploads/2020/06/Tipping-Point-Career-Advancement-Project-June2020.pdf

IV. Historical Context

The history of our region also contributes to the inequalities in our economy.

- Residential neighborhood segregation
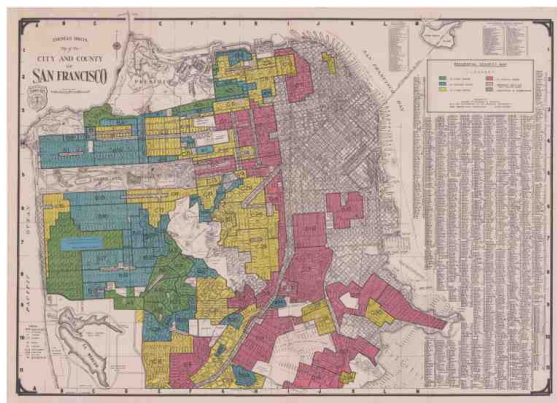- Variation in neighborhood opportunities for children (the Child Opportunity Index)

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History of Residential Segregation

Residential segregation practices were common in the United States through the 1970s, including Silicon Valley. The practices limited access to homeownership among Blacks, which impacted the ability of families to accumulate wealth. The lack of such wealth contributes to economic insecurity and likely impacts to a family's ability to finance post-secondary education for their children.[1]

Residential segregation history in the U.S.:

- Through the 1950s and 1960s, it was common for homeowners (e.g. a group of property owners or neighborhood association) to create housing covenants that restricted the sale of homes to African Americans.

- Through the late 1970s, the Federal Housing Authority (FHA) engaged in practice of redlining, where the FHA would effectively not provide financial services (e.g. loans or re-financing) to neighborhoods that were racially or ethnically mixed.

- With the passage of the Fair Housing Act in 1968, racial discrimination was prohibited from real estate transactions. However, the lack of enforcement provisions in the act made it difficult to enforce.[2]

Redlining map of San Francisco. Source: https://techcrunch.com/2015/01/10/east-of-palo-altos-eden/

[1] https://www.americanprogress.org/issues/race/reports/2018/02/21/447051/systematic-inequality/
[2] Massey, Douglas S., and Nancy A. Denton. American apartheid: Segregation and the making of the underclass. Harvard University Press, 1993. See also: http://www.paloaltohistory.org/discrimination-in-palo-alto.php and https://depts.washington.edu/civilr/covenants_report.htm

🪑 The Child Opportunity Index

Brandeis University's Child Opportunity Index (COI) COI measures "high quality" as neighborhoods with good quality schools, parks and playgrounds, clean air, access to healthy food, health care and safe housing. The index operationalizes this index using 29 neighborhood-level indicators using data from 2010-2015. Nationally, about 60 percent of both black and Hispanic kids live in low- or very low-opportunity neighborhoods compared to about 20 percent of white and Asian/Pacific Islander children.

- In the San Jose-Sunnyvale-Santa Clara metropolitan area, 39% of children who live in very low opportunity neighborhoods are Hispanic and 20% are black. In contrast, about 4% of children in very high opportunity neighborhoods are Hispanic and 8% are black.
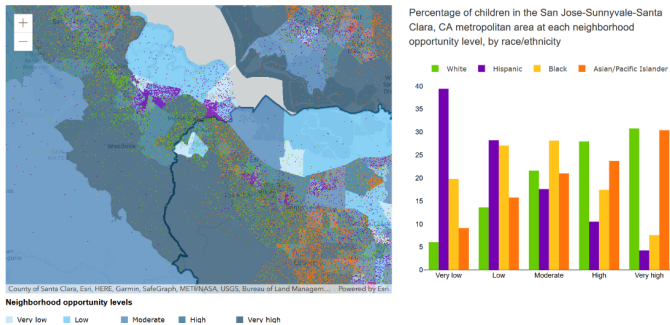
Source: diversitydatakids.org

- In the San Francisco-Oakland-Hayward metropolitan area, 38% of children in very low opportunity neighborhoods are Hispanic and 51% are black. In contrast, about 6% of children in very high opportunity neighborhoods are Hispanic and 4% are black.