

The Secrets to Building Tech Economies in Underestimated Cities

BITWISE INDUSTRIES OUTCOMES IN
FRESNO SINCE 2013



LEAGUE OF
CALIFORNIA
CITIES
LATINO CAUCUS

ABOUT BITWISE INDUSTRIES

Since 2013, Bitwise Industries, a female and minority-led technology company founded in Fresno, has used a three-pronged approach to connect humans from marginalized communities from underestimated places with meaningful opportunities and jobs in the tech industry.



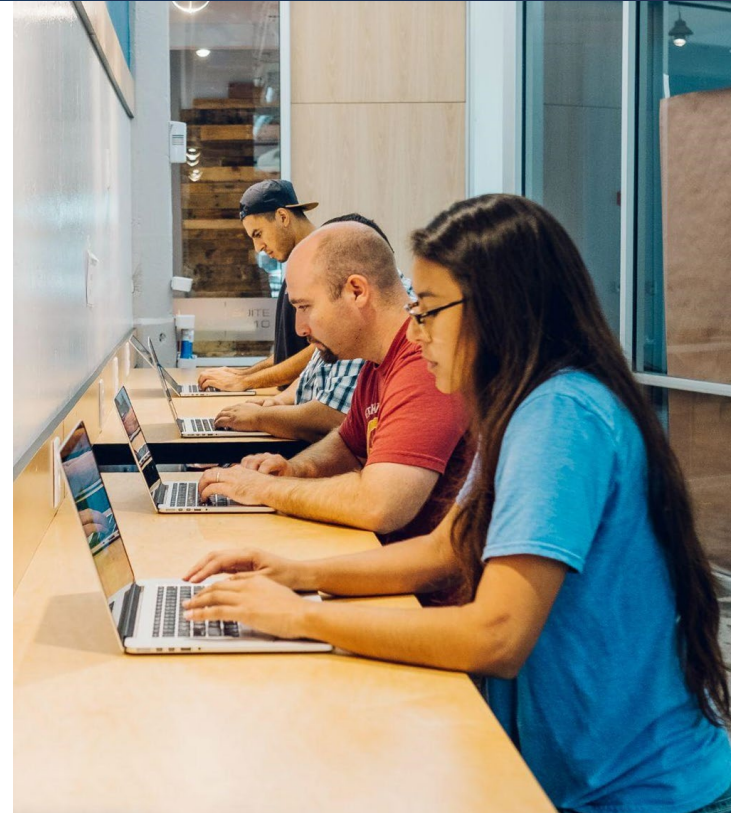
Bitwise Industries' success is reaching scale and moving statistical needles toward equity.

This is the story of the outcomes and impact we've had in our hometown of Fresno, a story we are now replicating in nine more cities across the country.

3 INGREDIENTS

Bitwise Industries' Success is Reaching Scale and Moving Statistical Needs Towards Equity

- Technology Solutions: Representative teams of senior developers and apprentices solve problems by creating digital infrastructure for anchor community institutions;
- Workforce Development: People from nontraditional backgrounds are actively recruited into accessible tech pre-apprenticeship classes and apprenticeship programs accompanied by comprehensive support services;
- Real Estate: We revitalize historic buildings and invite students, apprentices, technologists, and cowork clients and tenants ranging from budding entrepreneurs to major corporations to share space in them and learn from one another.

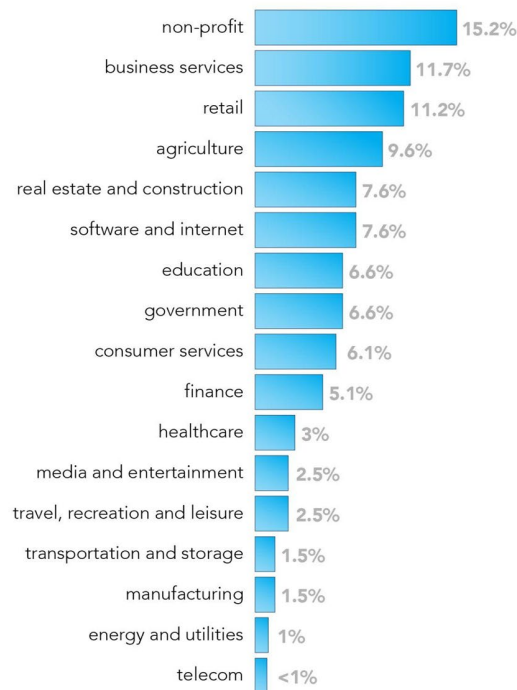


TECHNOLOGY SOLUTIONS

Bitwise Technology Consulting is strengthening digital infrastructure across the cities we serve.

Bitwise Industries' technologies are primarily serving anchor institutions, like schools and nonprofit organizations, in Fresno and other communities we serve.

industries we serve by percentage of Bitwise Industries customers

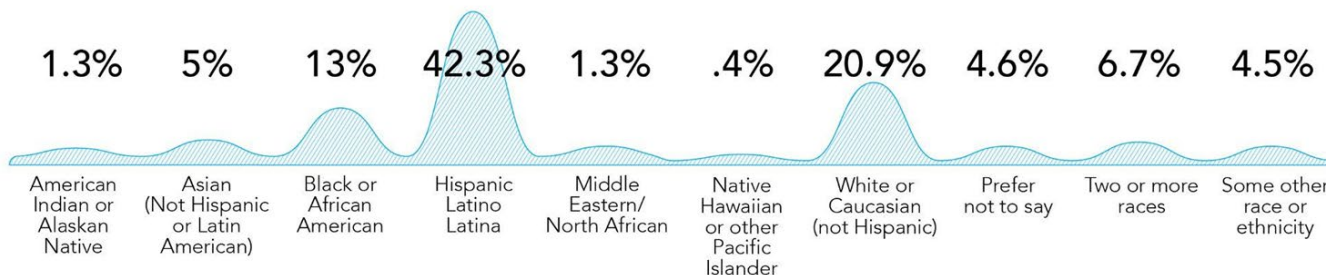


THE MOST REPRESENTATIVE TECH WORKFORCE

Our strategy for attracting and upskilling undiscovered talent—our Workforce Training program—powers our success at designing and building effective IT solutions.

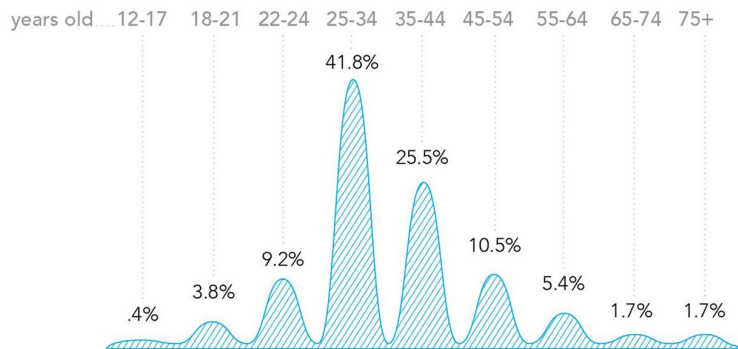
race/ethnicity

(of sample group)



age groups

(of sample group)



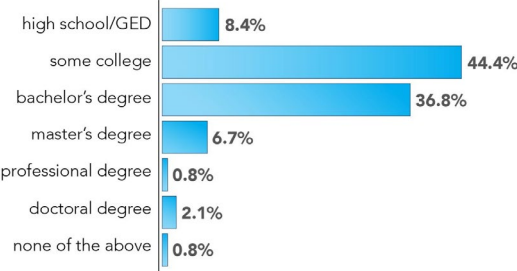
Most of our students and apprentices are over 24 years old.



The majority of our students and apprentices are coming to Bitwise without a college degree. After their experience with Bitwise, they are accessing high-paying jobs and many decide to go back to further their education.

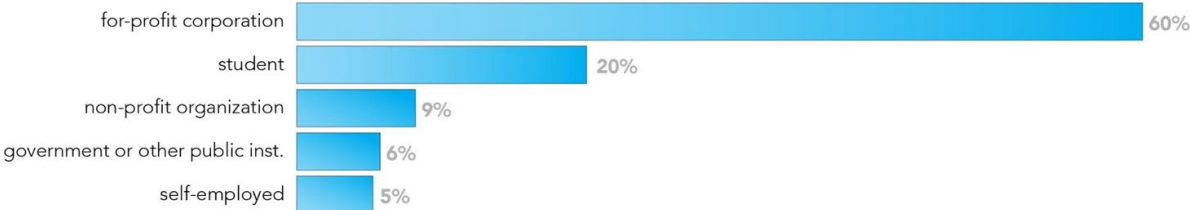
education level

(of sample group)



current job industry

(of sample group)



STUDENTS' YEARLY INCOME BEFORE BITWISE INDUSTRIES

- Over 49% of student survey respondents say they were earning less than \$25,000 per year before coming to Bitwise.
- 27% of them were earning less than \$15,000 a year.
- Just 19% of students were making more than \$50,000 per year before Bitwise.

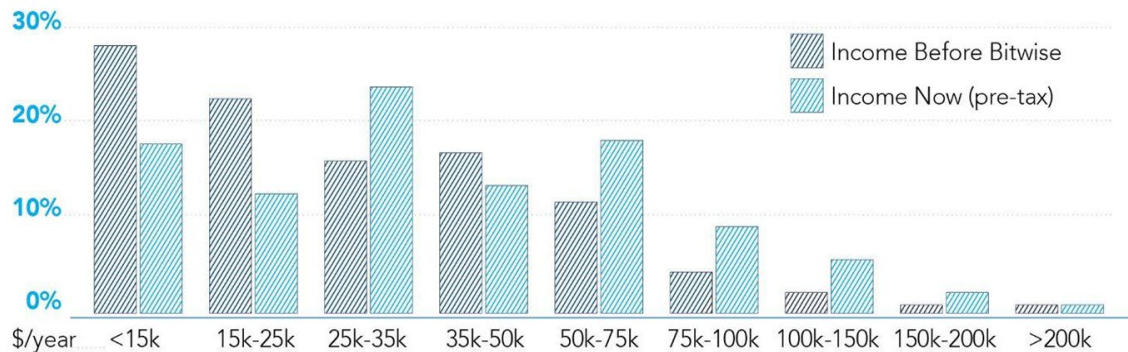


STUDENTS' YEARLY INCOME BEFORE BITWISE INDUSTRIES

- Our students' average wages increased exponentially after their experiences with Bitwise.
- 37% of students report making over \$50,000 per year after Bitwise Classes. That means half of our students reported doubling their salaries due to Bitwise.
- 13% of students reported earning between \$35,000-\$50,000 after their experience with Bitwise.

annual individual income before and after Bitwise

(of sample group)



BITWISE INDUSTRIES: ECONOMIC DEVELOPMENT ENGINE IN FRESNO

Since 2013:

- Fresno's workforce grew by 4.1%, while the number of jobs increased by 7.5% (2013-20)
- The Fresno area per capita gross domestic product increased faster than inflation (2013-17)
- Average annual incomes of Fresnans with high school diplomas and Associate's degrees easily outpaced inflation and grew in adjusted terms (2013-19)

DIGITAL LITERACY: THE GROWTH OF THE TECH INDUSTRY

And while Bitwise was evolving in Fresno:

- The share of Fresnans who said they used high-speed internet connections increased by more than 8% in just four years; the area also saw significant gains in use of email and of the internet to access employment listings, health services, and to conduct business. (2015-19)
- As of November 2021, Fresno was significantly outperforming the nation in enrollment in the Emergency Broadband Benefit; more area residents had access to service because FCC maps showed availability and number of providers expanding significantly in four years. (2016-2020)
- The fastest-growing local tech jobs are positions that relate to getting more people connected and proficient in digital navigation: network building and administration, user support services, and web development and user design.



DRIVING DIGITAL EQUITY

Increased access to the internet and technology, creates more equity for the most vulnerable people in our communities.

- According to the Urban Institute, in the years following Bitwise Industries' founding, racial disparities in home ownership, poverty, and educational attainment rates declined faster in Fresno than other cities.
- The share of Fresnoans of color who live in high-poverty neighborhoods fell significantly and disproportionately over the course of the "Bitwise" decade. (2010-19)
- Fresno is now ranked as one of the ten best cities in the country for entrepreneurs of color, based on factors including percentage of startups owned by BIPOC individuals, annual sales, and available support.



BITWISE INDUSTRIES' "CASTLES"

Bitwise Industries' buildings are beacons that inspire curiosity about technology in our communities.

Our students and apprentices see Bitwise Industries' buildings as physical representations of our confidence in their potential, and they appreciate them.



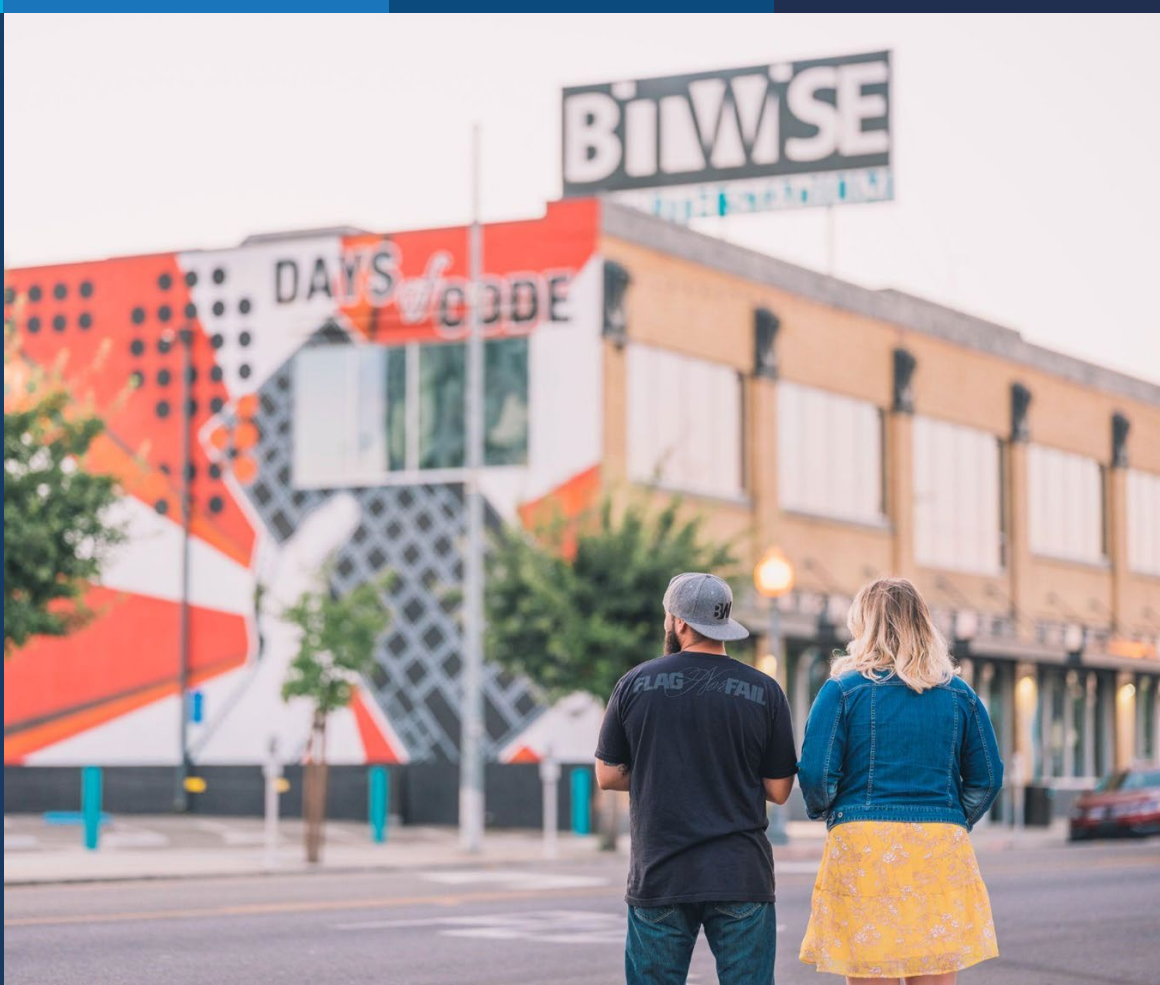
70% of students said Bitwise buildings inspire them.

81% of students felt that Bitwise provided them with a supportive environment.

76% of students said Bitwise made them feel like they belong in the tech industry.

BITWISE INDUSTRIES' BUILDINGS

- Our vibrant buildings are accessible and built for the community; our friends and neighbors like them too.
- Bitwise Industries has maintained a visible presence in Fresno since 2015, with four branded buildings in operation or under construction as of December 2021.
- We value our neighborhoods and we put in extra work to care for the public spaces around us and the people who live in them.



REVITALIZED BUILDINGS THAT INSPIRE AND NURTURE INNOVATIONS



Bitwise has successfully developed an entrepreneurial ecosystem.

19%
HAVE STARTED THEIR OWN COMPANIES.

12%
ARE DEVELOPING THEIR OWN STARTUPS

20%
ARE WORKING FOR START-UPS

32%
ARE CURRENTLY WORKING AT BITWISE

BITWISE INDUSTRIES' REAL ESTATE

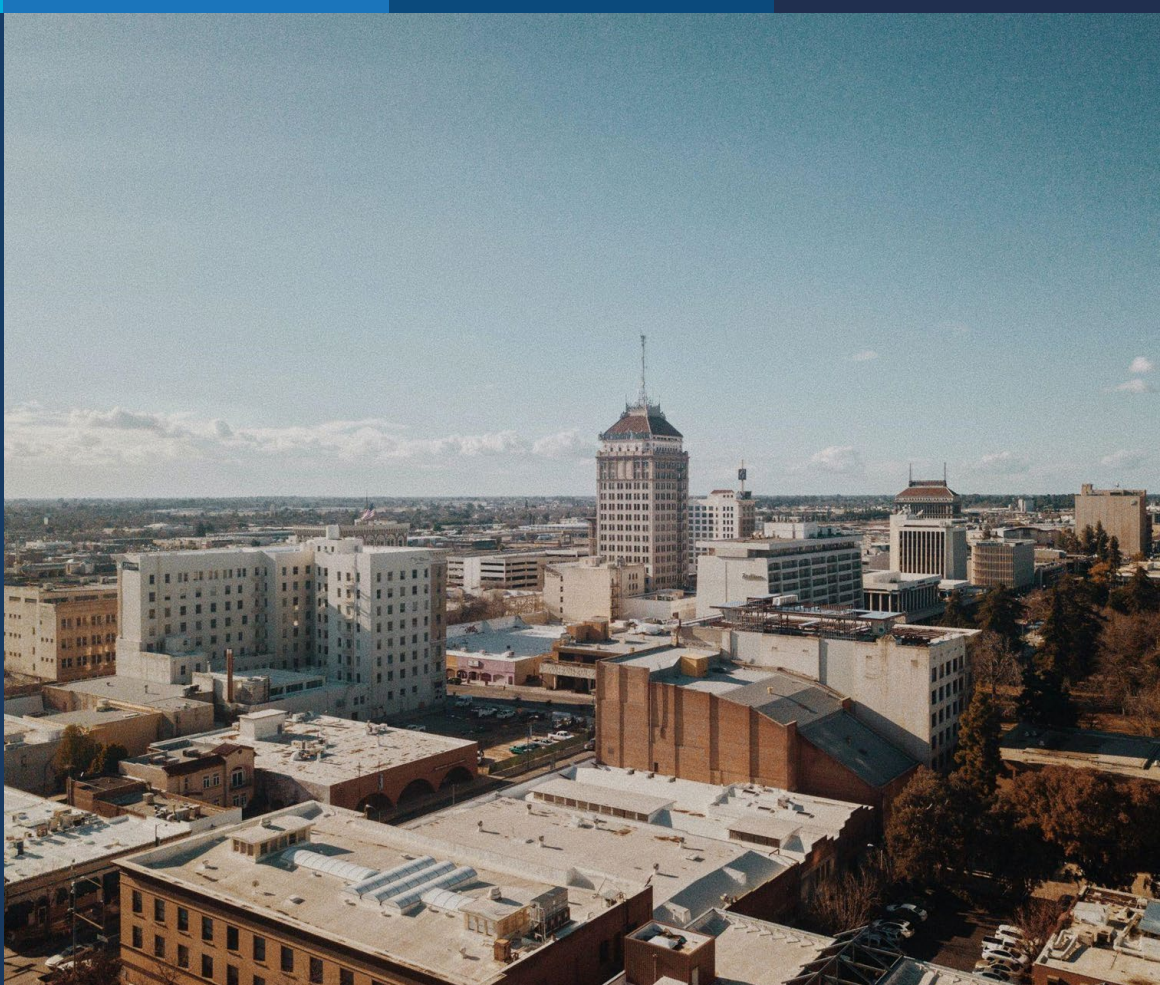
- Our real estate business is succeeding and ensuring that everyone can use and enjoy our buildings.
- We want everyone to use and love these spaces as much as we do, so we offer cowork subscriptions with 24-hour access for \$39 a month, and lease space to everyone from sole proprietors who rent a dedicated desk to major corporations that maintain large suites.
- As of the end of 2021, we had 201 active cowork subscriptions in Fresno, and every inch of our available office space in our Fresno campus was leased.



BUILDING TECH ECONOMIES

Underestimated cities can produce stellar tech with transformative effects.

Fresno and Bitwise Industries show what historically underserved communities and entrepreneurs from them can achieve by practicing radical inclusivity and believing so hard in themselves that others follow suit.



NEARLY A DECADE IN THE MAKING

From nearly a decade of experience, we've learned a lot that we want to share with the world about what works.



HOW TO LAUNCH A TECH ECOSYSTEM AND FURTHER DIGITAL EQUITY IN YOUR COMMUNITY

1. Invest in community-wide basic digital literacy and accessible pathways with support into good jobs.
2. Embed apprenticeship programs in working companies that can provide real-world experience in growth industries.
3. Intentionally fund underestimated people and places, and help employers understand the bottom-line benefits of hiring a representative workforce.

For more information, please email info@bitwiseindustries.com.

BitWISE INDUSTRIES

bitwiseindustries.com