



Tech's Invisible Workforce

March 2016



WORKING PARTNERSHIPS USA

Silicon Valley

RISING

Tech's Invisible Workforce

Silicon Valley, the heart of the global high-tech industry, is famous for CEOs who offer “workplaces of the future” with lavish pay and benefits: from free food prepared by gourmet chefs, to luxury buses that pick you up at your door, to massages at the on-campus spa.

Missing from the picture is the rest of the workforce: the workers who keep the campuses clean and safe, transport products and equipment, keep the front and the back office running, and all of the other jobs needed to support a software engineer.

While some of these positions are employed directly, an increasing portion are subcontracted –making them invisible in standard estimates of the workforce pay and composition. The tech industry’s supply chain masks its full workforce through the subcontracting of services that, for many other industries, were or still are part of the core workforce.

The goal of this brief is to bring that invisible workforce out of the shadows.

Researchers Chris Benner and Kyle Neering at the University of California Santa Cruz analyzed public and private data to begin to understand the size, demographics, and economics of the sub-contracted service work force of high-tech firms in Silicon Valley. The result is a first cut at data that provide a more complete picture of the technology sector’s economic footprint.

[The accompanying white paper](#) released by those researchers provides detailed data on the universe of potentially subcontracted workers and how they compare to direct tech employees.

This fact sheet highlights key findings from that white paper. It also provides additional context on the growth of subcontracting in Silicon Valley.

Key Findings

Over the past 24 years, the number of Silicon Valley jobs in subcontracting industries has grown three times as fast as overall Silicon Valley employment.

TODAY:

10% of direct tech employees are Black or Latino.

58% of blue-collar contract industry workers are Black or Latino.

Average annual pay for direct tech employees is \$113,000.

Average annual pay for blue-collar contract industry workers is \$19,900.

Median annual rent in Santa Clara County is \$21,444.

The Rise of Subcontracting

Without question, the tech industry has been a primary economic driver in Silicon Valley. The information sector in Santa Clara County alone has quadrupled in size since 2001, accounting for 34% of the region's total economic growth (as measured by Gross Domestic Product).¹

Individual tech companies like Cisco and Apple are also among the region's biggest employers. Yet the tech industry as a whole has added surprisingly few jobs since 1990.

Over the past 24 years, direct employment in industries classified as tech products and services grew by 31%: an annual average growth rate of just 1.1%. While above the average for all industries, this is far from an exceptional growth rate, and in fact is even below the rate of population growth in the region. (All data is for San Mateo and Santa Clara Counties.)²

Why so low? Part of the reason is related to the rise of subcontracting. As the tech industry has grown, it has increasingly outsourced both blue-collar and white-collar work to other companies.

In those non-tech sectors identified by Benner and Neering as "potential contract industries", job growth over the same 24-year period was 54% - three times the overall growth rate for private sector employment.

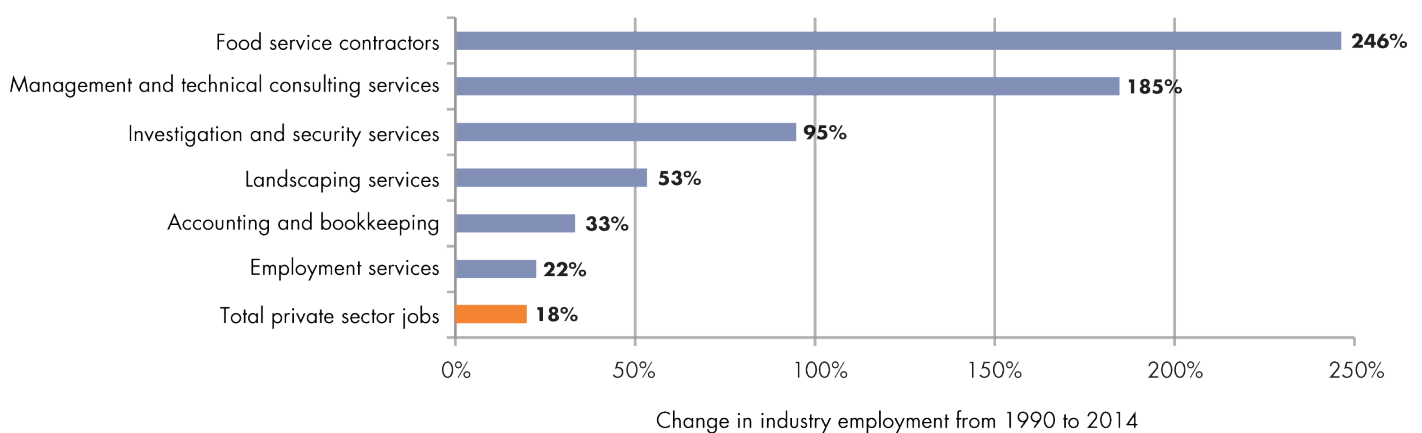
The chart below shows employment growth in some of the largest blue-collar potential contract industries, as well as two major white-collar industries (management and technical consulting, and accounting and bookkeeping services). For example, while the average growth across all private sector industries was just 18%, employment in private security increased by 95%, and jobs at food service contractors more than tripled, growing by 246%. There are now more Silicon Valley jobs in food service contracting than there are at all wired and wireless telecommunications carriers.

Employment growth in **all private industry** in Silicon Valley from 1990 to 2014: **18%**

Growth in **direct tech employment**: **31%**

Growth in **potential contract industries**: **54%**

Growth of Jobs in Silicon Valley's Subcontracted Industries, 1990 to 2014



1. U.S. Bureau of Economic Analysis, "Gross domestic product (GDP) by metropolitan area (millions of current dollars)," <http://bea.gov/itable/iTable.cfm?ReqID=70&step=1#reqid=70&step=10&isuri=1&7003=200&7035=-1&7004=naics&7005=-1&7006=41940&7036=-1&7001=2200&7002=2&7090=70&7007=-1&7093=levels> (accessed Nov. 21, 2015).

2. All employment data in this section is drawn from the Quarterly Census of Employment and Wages - Bureau of Labor Statistics, representing annual average employment in private industry.

Among blue-collar contract industry workers: **35% are in low-income households**, and **31% have no health insurance** – despite working an average **38 hours per week** at their primary job.

Occupational Segregation³

Diversity (and the lack thereof) has become a major challenge facing the tech industry. Although Black and Latino workers make up 26% of the region’s total workforce, they are only 10% of Silicon Valley’s direct tech workers.

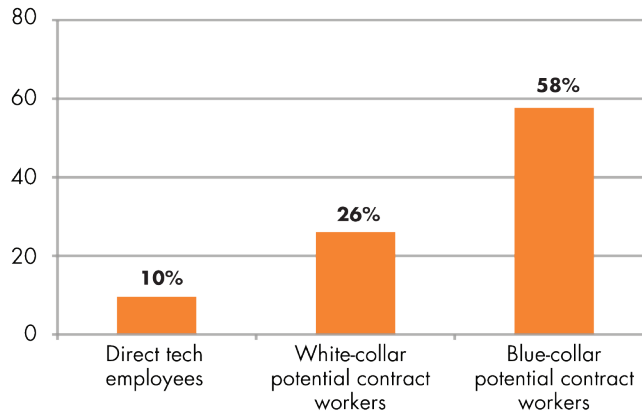
Why? The rise of subcontracting is one driving factor.

The overwhelming majority of Black and Latino workers in the tech sector start out in blue-collar jobs. By subcontracting out nearly all of their blue-collar work, tech companies have ended up with not just a glass ceiling, but a concrete wall between lower-wage and higher-wage jobs.

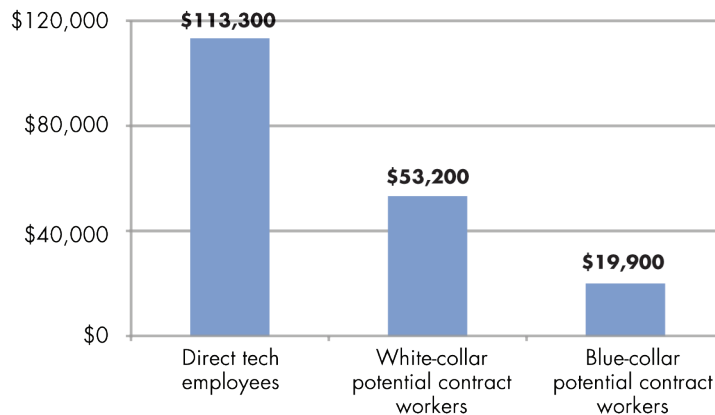
White-collar workers are also impacted by contracting out. Compared to direct tech employees, white-collar workers in likely contract occupations earn less than half as much and are 2.6 times more likely to be Black or Latino.

Even comparing equivalent occupations, white-collar workers employed in contracting industries earn an average of 35% less than their counterparts who are directly hired. What’s more, contract workers often do not have access to the generous health, parental leave, child care, employee shuttles, and other benefits that tech companies offer their core employees.

Percent of Employees who are Black or Hispanic



Average Annual Earnings



Occupational segregation has consequences for the next generation as well. Not only do low-wage households suffer from current hardships, but living paycheck-to-paycheck impairs their ability to finance a college education for their children.

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Key Findings

Black or Latino workers make up:

10% of Silicon Valley's **direct tech workforce**.⁴

An estimated **26%** of the **white-collar contract industry workforce**.⁵

An estimated **58%** of the **blue-collar contract industry workforce**.⁶

Average earnings for Silicon Valley employees:

Direct tech employees: **\$113,300**

White-collar contract industry workers: **\$53,200**

Blue-collar contract industry workers: **\$19,900**

3. Unless otherwise stated, all data is from the 2008-2012 American Community Survey, U.S. Census Bureau. "Contract industry workers" are those potentially contracted workers identified as working in an industry which contracts to high-tech firms and in an occupation that is also employed by high-tech industries. For the purposes of this analysis, we define the Silicon Valley workforce as workers who are actively employed in either Santa Clara or San Mateo County. Due to data limitations, independent contractors/1099ers are not included in the totals.

4. Direct-hire employees are identified as those whose place of employment is in Silicon Valley and who work in any of the industries identified as 'high-tech', following the definition of "Innovation and Information Products and Services" industries, as used by Joint Venture Silicon Valley.

5. White-collar contract industry workers are those potential contract workers in occupations identified as "Semi-Autonomous", following the classification developed by Steve Herzenberg, John Alic, and Howard Wial in *New Rules for a New Economy: Employment and Opportunity in Post-Industrial America*. These are typically mid-level positions. They require a certain amount of skill and autonomy, but generally in a context where employees are under the direction of higher-level managers and supervisors.

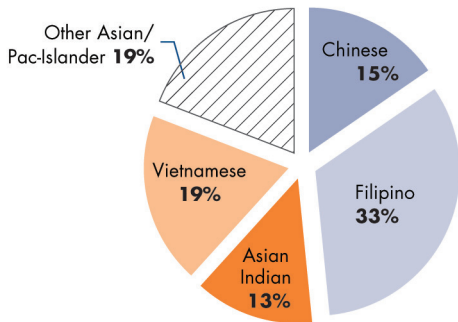
6. Blue-collar contract industry workers are those potential contract workers in occupations identified as either "Unrationalized Labor-Intensive" or "Tightly Constrained" under the Herzenberg et al. classification. These include occupations that are highly labor intensive, with limited potential for automation, as well as occupations similar to traditional assembly-line jobs.



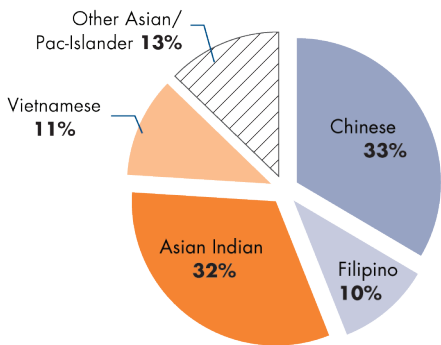
Tracy Kelley, Shuttle Driver for Compass Transportation

"I spent 18 years in real estate and banking, serving as a Vice President, before getting laid off in the recession. Driving the Yahoo bus was the only job I could find. In an instant I went from making six figures with benefits to making near-poverty wages. When I saw a coworker who got less than a month off after having a baby and couldn't say anything to change it, I decided to stand up and organize the drivers. Now that we have a union contract, we're earning decent wages and benefits, and we can speak out if we see things that aren't right."

**Top Occupations of Contract Industry Workers:
Asian/Pacific Islander ethnic groups**



**Direct Tech Workers:
Asian/Pacific Islander ethnic groups**



Asian-Americans in Silicon Valley: A Complex Picture

As a group, Asian-Americans working in Silicon Valley have much greater representation in tech than do other communities of color. Asians and Pacific Islanders (APIs) are 30% of the region’s overall workforce and 22% of contract industry workers, but make up 48.1% of the direct tech workforce in Silicon Valley.

While APIs are still under-represented in tech’s highest-level management and executive positions,⁷ these numbers signify that APIs overall are well represented as programmers and other well-paid occupations within the direct tech workforce.

However, this single number masks wide disparities within the Asian-American and Pacific Islander population. APIs in Silicon Valley are an extraordinarily diverse group, representing dozens of different languages and cultures, each with distinct socioeconomic backgrounds and histories.⁸

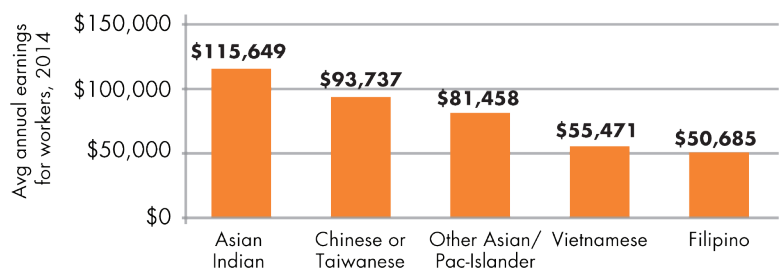
Outside of those in the direct tech workforce, many Asian-American families and communities in the region struggle with economic insecurity, low wages and barriers to accessing family-supporting jobs. While Indian-Americans working in Silicon Valley earn very high median pay (\$115,649 annually), Vietnamese and Filipino workers earn less than half that amount. (See chart below.)

The effects of occupational segregation extend within API communities as well, accounting for a portion of this income disparity.

Among all APIs in the direct tech workforce, 65% are Chinese or Indian, while only 22% are Vietnamese or Filipino. When it comes to the lower-paid blue-collar contract workforce, the numbers are almost the reverse: 52% of API workers are Vietnamese or Filipino, and only 28% are Chinese or Indian.

Despite the perception that Asians are well represented in tech, the reality is that some communities have much less opportunity to pursue a direct tech job.

Average Annual Earnings in Silicon Valley (all industries)

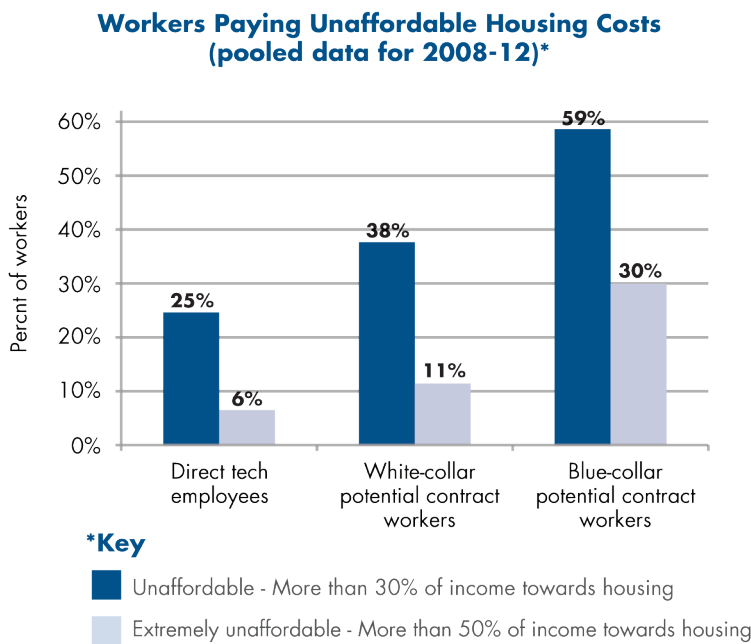


Housing Affordability

As the booming tech economy has brought new growth and development to Silicon Valley and the greater San Francisco Bay Area, it has also contributed to driving up land and housing costs, resulting in astronomical rent increases and, in much of the Bay Area, a crisis of displacement.

The data for this analysis, drawn from the 5-year American Community Survey, represent the period from 2008 through 2012, so they do not capture the white-hot housing market of the last two years.

Nevertheless, the data on the housing situation of contracted workers from 2008-2012 show that even when rents were substantially lower than they are today, low-wage contract industry workers were struggling to afford the cost of housing.

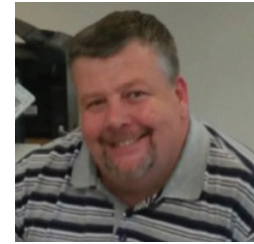


Key Findings

Percent of workers whose **housing costs are unaffordable** for their income (as of 2008-12):

- Direct tech employees: 25%
- White-collar contract workers: 38%
- Blue-collar contract workers: 59%

To make ends meet, over **22%** of contract industry workers **live in households with multiple unrelated families.**



Dan Gretz, Silicon Valley Security Officer and United States Air Force veteran:

"I became a security officer in 1998, and over time built up my hourly pay to \$24 an hour. But a new security firm took over my building and dropped my pay to \$14 overnight. I cut back on expenses as much as I could, but it wasn't enough. I had to refinance my car twice. I added debt to credit cards. I just finished going through bankruptcy, and my fiancé and I can't afford to live together anymore. We are both living with family members. I am organizing with my fellow security officers to fight for a fair wage that will allow officers to live in Silicon Valley with dignity."

7. Michael Liedke, "Study: Top tech firms bypassing Asian workers for exec jobs." *Associated Press*, May 6, 2015. <https://www.yahoo.com/tech/study-top-tech-firms-bypassing-asian-workers-exec-070345919.html>

8. The accompanying charts provide data for the five largest ethnic API populations in Silicon Valley; the "Other Asian/Pacific Islander" category encompasses over 20 additional ethnicities.

Rising Rents, Increasing Struggle

The housing affordability numbers above tell only part of the story. In the last 2 to 4 years, rents in Silicon Valley have risen at an incredible rate.

From 2010 (the midpoint of the sample used) to 2014, median rent in Santa Clara County increased by 26%. By 2014, median monthly rent was \$1,787: more than the entire average salary of a blue-collar contract worker.⁹

For a worker or family trying to move into an apartment, the picture looks even worse. Average asking rent for a 2-bedroom unit in the city of San Jose is \$2,813.¹⁰

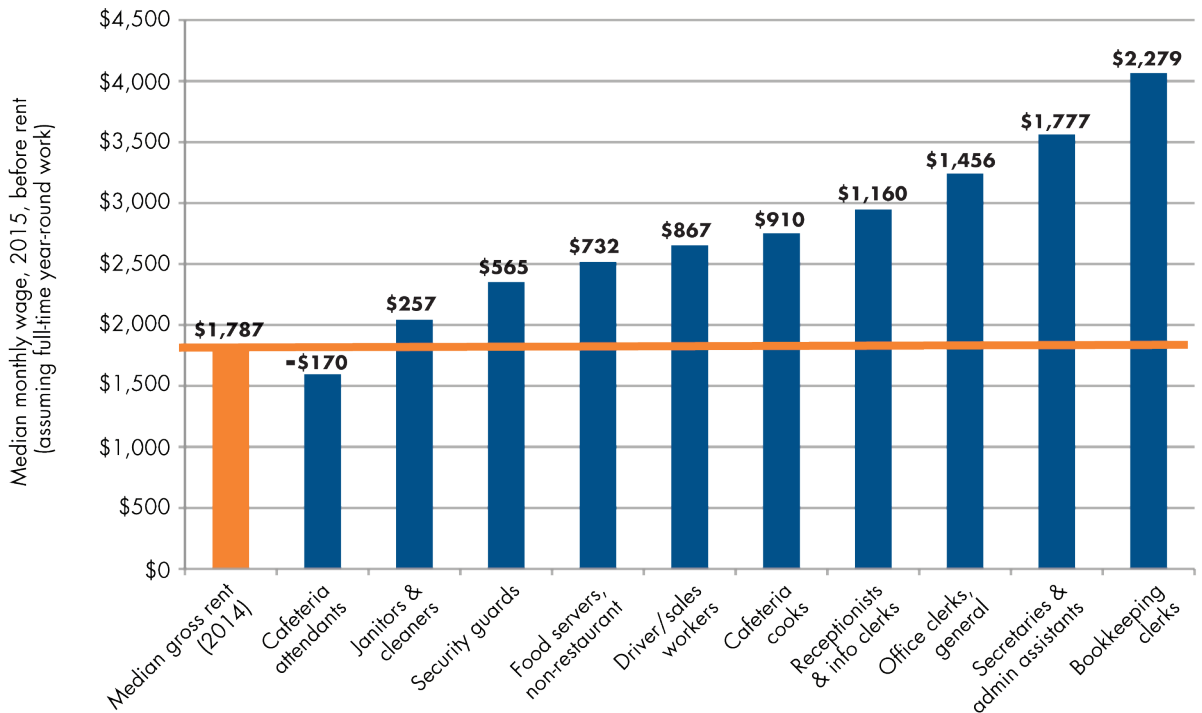
The chart below shows median wages for typical contract occupations compared to the median rent, and what's left after the rent is paid.

Workers in the lower-paid jobs have only a few hundred dollars left after paying rent, forcing difficult choices between stable housing and food, transportation, medical expenses or child care.

Even workers in the white-collar occupations like secretaries and clerks find that rent eats up half their income or more.

What's Left After Rent

Median monthly wages by occupation, minus the median rent



Which Jobs Are Contracted?

A wide spectrum of services can be – and often are – contracted out.

Many of the largest potential contract occupations are in the low-wage service sector, such as janitors, truck drivers, security officers and laborers/material movers.

However, contracting also extends to more middle-skilled or white-collar occupations. Secretaries, sales reps, human resource specialists and even mid-level managers are all among the top potential contract occupations.

Top Occupations of Potentially Contracted Workers

Occupation	Number of Workers
Janitors and Building Cleaners	8,177
Managers, not elsewhere classified	7,738
Driver/Sales Workers and Truck Drivers	6,846
Security Guards and Gaming Surveillance Officers	5,443
Secretaries and Administrative Assistants	4,235
Maids and Housekeeping Cleaners	3,403
Laborers and Freight, Stock, and Material Movers, Hand	2,709
Bookkeeping, Accounting, and Auditing Clerks	2,250
Managers in Marketing, Advertising, and Public Relations	1,927
Sales Representatives, Services, All Other	1,872
Chief executives and legislators/public administration	1,826
Couriers and Messengers	1,775
Human Resources, Training, and Labor Relations Specialists	1,746
Software Developers, Applications and Systems Software	1,693
First-Line Supervisors of Office and Administrative Support Workers	1,238
Office Clerks, General	1,216
General and Operations Managers	1,132



Lezly Paez, Cook for Eurest at Intel:

“I’ve cooked food for engineers at one of the largest tech companies for the past year. My family had to start renting out rooms in our apartment in order to be able to survive in Silicon Valley. My husband, our three kids and I all had to move into one bedroom. Since then, Intel switched its cafeteria subcontractor again – the third subcontractor in three years. I’m organizing a union because I believe in a future where tech cafeteria workers and our children can also thrive.”

9. Median rents are in Santa Clara County from the 2010 and 2014 American Community Survey, U.S. Census Bureau. Median rent includes all current renter households. Average asking rent for rentals currently on the market is likely to be considerably higher than media rent for existing renters.

10. “City of San Jose Housing Market Update: Q3 2015”, City of San Jose Housing Department.

By responding to the calls from worker and community voices, tech companies can move toward **responsible contracting, responsive corporate citizenship** and **inclusive growth** that, rather than pushing low-wage workers and communities of color to the fringes, opens the doors to welcome them in.

Conclusion: The Road to Responsible Contracting

Under pressure from their own employees and the broader community, Silicon Valley's leading companies have launched internal and external initiatives to improve diversity in the tech workforce.

Yet tech's economic footprint extends far beyond its core employees. Business models founded on outsourcing and subcontracting have driven a shift towards fragmentation, segmentation, and segregation of work.

In this increasingly networked economy, where firms are linked through industry supply chains and compete in the market for goods and services, new strategies are needed to hold the core of the "network" responsible and accountable for the conditions and realities of its full workforce.

Diversity in the core technology sector workforce is one necessary strategy. In the year-and-a-half since publishing our first report on occupational segregation in Silicon Valley, we have seen a welcome commitment by many tech companies to both track and release diversity data for their core workforce, and – in some cases – to take the first steps towards doing something about it. From policy changes to reduce unconscious bias in recruitment and hiring processes, to a sharper focus on retention and advancement of current minority and female tech workers, to investment in "coding camps," STEM education, and other efforts to expand the pipeline, a number of initiatives have been launched that collectively have the potential to reduce occupational segregation and the exclusion of communities of color from economic opportunity.

In this fragmented work environment, however, diversity in the core workforce is only one piece of the larger puzzle.

Tens of thousands of Black, Latino, Asian, immigrant and female workers – that "diversity" that tech companies are trying so hard to find – are right under their nose: keeping their campuses clean and safe, feeding and transporting their employees (in cafeterias and shuttles from which contract workers themselves are often excluded), carrying out office, administrative and data entry work, and in a host of other necessary positions.

Although tech companies have outsourced the direct management and human resources functions for most of their service workers, the fact that those workers are on a third party's payroll does not absolve the client company of moral responsibility. Tech companies control the terms and conditions of their service contracts. They have the power to require their subcontractors to treat their workers fairly – or conversely, the power to push costs down so low that the subcontractor has little recourse but to pay poverty wages to its workers.

These workers themselves have begun to come together and raise their voices to call for a more just economy. Over the last year, workers and community members joined together in Silicon Valley Rising have won important steps towards protections for subcontracted employees and all Silicon Valley service workers.

Notably, in 2015:

- Over 1,000 low-wage workers won a voice at work at companies including Apple, eBay, Facebook, Genetech, Paypal and Yahoo.
- Businesses including Apple, Facebook, Google and Microsoft took public action to raise job standards for their subcontracted workforces or fire low-road contracting firms.
- Four Silicon Valley cities raised their minimum wage. The cities of Mountain View and Sunnyvale – home to Silicon Valley tech giants such as Google, Symantec, NetApp, AMD, Juniper, LinkedIn, Intuit and more – both committed to reach a \$15 per hour minimum wage by 2018.

These first steps have shown that workers and tech companies can come together to transform low-wage, insecure jobs into dignified work. Now it's time to move from piecemeal efforts to comprehensive change.

By responding to the calls from worker and community voices, tech companies can move toward responsible contracting, responsive corporate citizenship and inclusive growth that, rather than pushing low-wage workers and communities of color to the fringes, opens the doors to welcome them in.

Silicon Valley Rising calls on our region's leading businesses to commit to the following principles:

Responsibility: Ensure that their subcontracted workers are paid a livable wage, receive equitable benefits, have the right to a voice at work without fear of discrimination or retaliation, do not suffer mass layoffs when contracts change hands, and are protected from misclassification and other forms of wage theft.

Transparency: Release public data on their subcontracted workforces, including diversity, pay, and benefit data for each subcontractor.

Inclusion: Invest in building a community where janitors, security officers, cafeteria workers, teachers, nurses, firefighters and other non-tech workers can afford to live. Support access to full-time work, affordable housing, an accessible, world-class public transit system, and high-quality education for low-wage workers and their children.

Opportunity: Work with advocates to explore new approaches to create education and career pathways for contract workers and their families to move into core tech jobs.

The technology industry faces a clear choice. It can continue the status quo of exclusive jobs and exclusionary growth, widening the existing racial, gender and income gaps and accelerating the race to the bottom. Or it can wield its enormous economic influence combined with its capacity for innovative solutions to become a true global pioneer – to not just disrupt markets and technology, but to disrupt inequality.



Elsa Guich, union janitor at Cisco:

"If I didn't have a union, there is no way I could get by as a janitor in Silicon Valley. I know people who are trying, working hard, but they're earning \$11 or \$12 an hour, getting injured on the job, forced to clock out and then work overtime for free, and if they say anything, that's the end of that job. It's night and day. I can afford a safe place to live, go to the doctor and actually imagine a future for my family here – just because we've been able to sit at the table with our company and say what we think is a fair day's pay for a fair day's work."

WORKING PARTNERSHIPS USA

Working Partnerships USA is a community organization that drives the movement for a just economy by bringing together public policy innovation and the power of grassroots organizing. We build the capacity of workers, low-income neighborhoods and communities of color to lead and govern. Based in Silicon Valley, we tackle the root causes of inequality and poverty by leading collaborative campaigns for good jobs, healthy communities, equitable and sustainable growth and a democracy that works for all.

www.wpusa.org

Silicon Valley

RISING

Silicon Valley Rising is a coordinated campaign driven by an unprecedented coalition of labor, faith leaders, community-based organizations and workers aiming to inspire the tech industry to build an inclusive middle class in Silicon Valley. We call on tech to join with us in creating a new economic model for good jobs and responsible employers, raising wages and standards for all workers, and building and preserving affordable and accessible housing. Together, we believe that we can disrupt inequality.

Silicon Valley Rising is led by Working Partnerships USA and the South Bay AFL-CIO Labor Council, along with:

- Affordable Housing Network
- Asian Americans for Community Involvement
- Communication Workers of America
- Interfaith Council on Economics and Justice
- International Brotherhood of Teamsters
- Latinos United for A New America
- NAACP San Jose Chapter
- Our Lady of Guadalupe
- Rainbow PUSH Coalition
- SEIU Local 521
- SEIU-USWW
- Silicon Valley De-Bug
- Tech Workers Coalition
- UNITE HERE Local 19

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