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Project Signal envisions a future where talent market signals are clear and highly public. Where workers can easily answer critical questions such as: What jobs are available in my region? What skills and credentials do I need in order to get those jobs? Where can I go to get those skills and credentials? What can I expect to earn? A future where comparing education providers is as easy as comparing homes on Zillow. There is a national need for solutions that better connect individuals to education, training, and employment, but the need is particularly acute in California. The San Francisco and Los Angeles metro areas, for example, have among the largest income disparities,¹ highest costs of living, and widest “skills gaps”² in the country.³

Project Signal intends to address this longstanding challenge through a statewide effort to build a public data collaborative that powers personalized, secure and seamless access to education and career information. A data collaborative is a legal, technical, and governance framework that brings together organizations to securely connect their respective data in ways that create new value for their organizations and the public good. These connected data resources allow individuals and organizations to obtain the dynamic, real-time information they need on education and training opportunities to achieve their individual and collective goals. They lay the groundwork for a host of user-centered tools—from personalized guides that individuals can use to navigate from unemployment to a good job, to apps that function like a Facebook home page for local careers, generating customized lists of jobs based on a worker’s educational attainment, employment history and income goals.



In short, a data collaborative—and the tools it enables—will be the foundation of the new internet of opportunity.

Philanthropy is critical to spark collective action, generate political will, and ensure that these data are held in the public trust—allowing us to build equity-minded and individual-centered solutions, while avoiding some of the common pitfalls of technology-focused responses to social problems. Project Signal will bring together a broad range of stakeholders, including the managers of public and private datasets, to lay the groundwork for these solutions. Project Signal will start as a Bay Area pilot in early 2019, and then expand out to the entire state. This work could revolutionize how Californians navigate education and work—and if successful, serve as a model for the rest of the country.

BENEFITS TO STAKEHOLDERS



Individuals:

- ▶ Find quality education, training and jobs based on personalized criteria
- ▶ Compare programs by credentials, cost, outcomes, and earnings
- ▶ Identify and access the information to create personalized pathways to family-sustaining jobs



Training Providers:

- ▶ Clearly signal to workers what skills they teach along with employment and earnings outcomes
- ▶ Continuously adapt curriculum to regional labor markets and local worker interests and needs
- ▶ Satisfy public and private funder requirements



Employers:

- ▶ Find and connect with more education and training programs aligned to talent needs
- ▶ Quickly and clearly learn what programs are effective in graduating skilled workers



Funders:

- ▶ Help build a scaled data infrastructure that unlocks economic opportunity for all Californians and becomes a national model
- ▶ Access new tools to understand the long term impact of education and training investments while minimizing grantee effort on outcomes reporting



Policymakers:

- ▶ Inform policy and resource allocation through clear, dynamic data about where public systems are generating positive outcomes
- ▶ Understand with greater clarity where and why there may be variation in outcomes by location, institution type (training provider, credential program), population (different types of job seekers), and industry

STATE OF PLAY

Workers across California face pressure from low and stagnating wages, inconsistent work schedules, and a rising cost of living. At the same time, the nature of available work is changing rapidly amid technological innovation and increasing reliance on contingent and contract labor. Employment in many jobs that have traditionally employed large numbers—such as parking enforcement, postmasters, and executive administrative assistants— is shrinking rapidly, while new types of work—most requiring advanced skills—are proliferating.

Our current education and training systems are not well-equipped to help workers navigate this new terrain. This presents a challenge for all Californians, but it is particularly problematic for less-advantaged individuals, who lack the social networks that more advantaged people leverage to hack together information and identify good job opportunities. Far from providing economic mobility, our current education and workforce systems are leaving historically marginalized workers even further behind.



More than three-quarters of the jobs lost during the Great Recession were those held by workers with only a high school degree—while **99 percent** of those added during the recovery went to workers with at least some college education.⁴



Adults with only a high school diploma are **50 percent** more likely to live in poverty than those with some college or a two-year degree.⁵



In California alone, more than **800,000 adults** are unemployed, and many of those have been unemployed for more than six months. Nationally, **21 percent of unemployed** workers qualify as long-term unemployed. Millions more in California and across the country qualify as working poor—they have jobs, but don't earn a family-sustaining wage.⁶




Unemployment rates for **black (6.6 percent)** and **Latinx (5.1)** Californians are substantially higher than that among **white (4.2 percent)** residents, and there also is a substantial gap in median household income.⁷



White and Asian Californian adults are far more likely to hold bachelor's degrees or higher (**42.5 and 51.1 percent**, respectively) than their black and Latinx peers (**24.0 and 12.2 percent**, respectively).⁸



Even among the college educated, about **40 percent of recent graduates** nationwide are underemployed, working in positions that don't require their level of training. And many of those have taken on debt to obtain those degrees.⁹



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This demonstrates a profound mismatch between the skills people are learning in high school and postsecondary education and the ones that the labor market demands. By some estimates, the San Francisco and Los Angeles metro areas have the first and third largest skills gaps in the country—with a particularly large shortage of workers with skills such as oral communication, business administration, and digital literacy.¹⁰ The consequences of this mismatch are felt particularly hard in places like the Bay Area, where the cost of living is 62 percent higher than the U.S. average.¹¹ A new report from the Department of Housing and Urban Development says that a family of four in the San Francisco metro area must bring in more than \$117,400 a year (\$56/hour) to maintain a normal standard of living.¹² There is no room for error, especially for single-earner families—only three of the 22 occupational categories outlined by the Bureau of Labor Statistics have a median wage above the living wage threshold.¹³

To help workers and families thrive, we don't just need more education and training, we need better ways to connect workers to the right training for their goals and region.

THE CASE FOR CHANGE

Individuals trying to navigate the education and workforce landscape can't answer seemingly simple questions, such as:

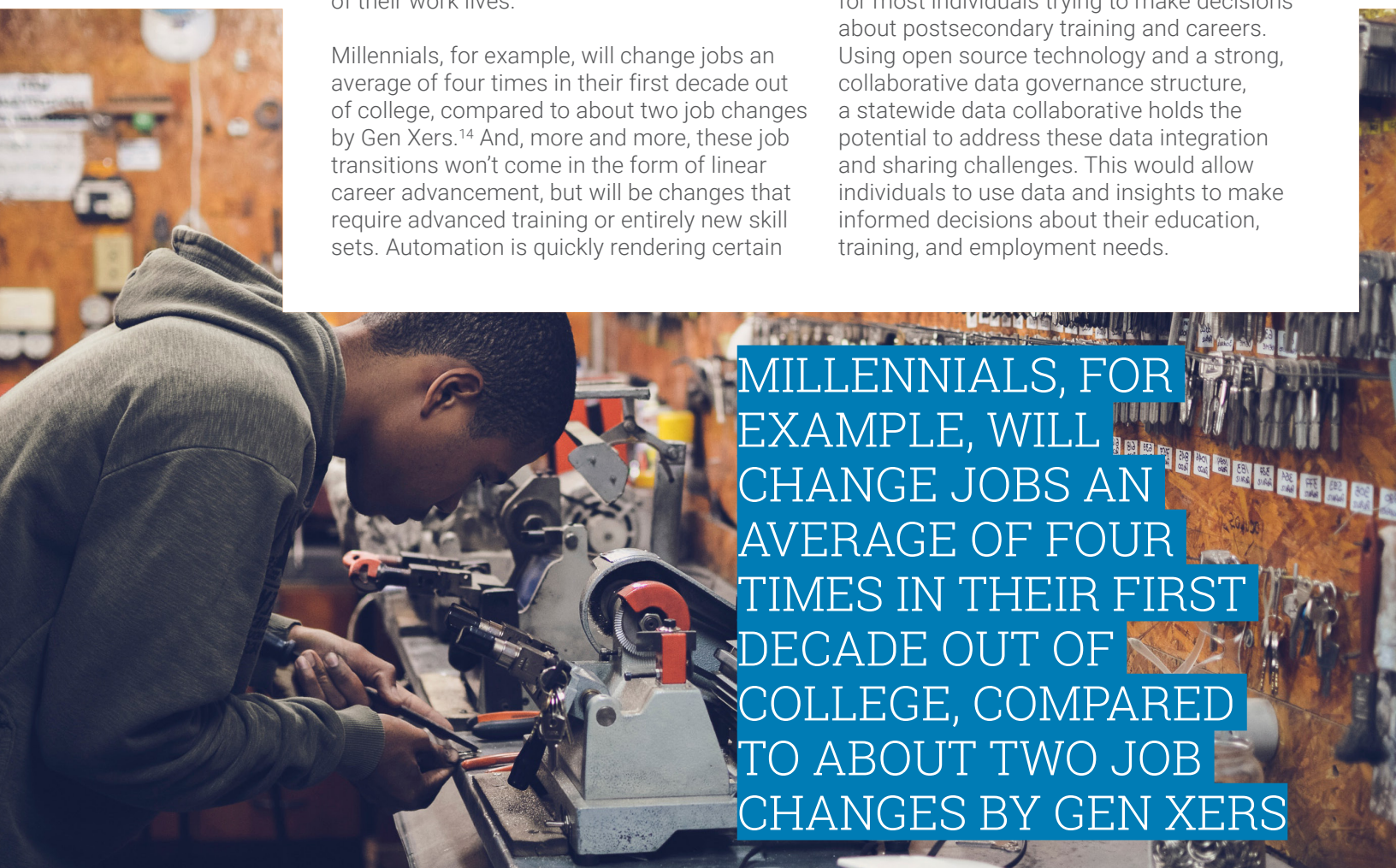
- ▶ What family-sustaining jobs are available in my region?
- ▶ What skills and credentials do I need for those jobs?
- ▶ What programs effectively provide those skills and credentials?
- ▶ How do I pay for those programs?
- ▶ What career opportunities and earnings do those skills and credentials afford?

This challenge will only become more acute as people are asked to change jobs—and even entire careers—multiple times over the course of their work lives.

Millennials, for example, will change jobs an average of four times in their first decade out of college, compared to about two job changes by Gen Xers.¹⁴ And, more and more, these job transitions won't come in the form of linear career advancement, but will be changes that require advanced training or entirely new skill sets. Automation is quickly rendering certain

kinds of work obsolete, and those most likely to be affected are those who are already struggling: workers in low-wage, relatively low-skill jobs. Workers need to be able to determine which training programs provide the highest ROI, can be pursued alongside work or, if they've stepped out of the workforce, move them back into employment most quickly.

Much of the data workers need to make informed choices exist, but they are walled off from the public, controlled by public and private organizations that do not collaborate, or organized in ways that render them only useful to researchers, policymakers and education leaders. Those data are inaccessible to and completely meaningless for most individuals trying to make decisions about postsecondary training and careers. Using open source technology and a strong, collaborative data governance structure, a statewide data collaborative holds the potential to address these data integration and sharing challenges. This would allow individuals to use data and insights to make informed decisions about their education, training, and employment needs.

A young man with short dark hair, wearing a grey hoodie, is focused on working with a tool on a lathe in a workshop. The background shows a wooden wall with various tools hanging on it.

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THE DATA COLLABORATIVE MODEL AND HOW IT WOULD WORK IN CALIFORNIA

A data collaborative brings together entities across different sectors to integrate and manage vast amounts of private and public data in order to address common issues, challenges, and needs that cannot be addressed in siloes. Data collaboratives are enabled by secure open source technology and strong data governance, with a particular focus on ensuring data security and privacy as well as ensuring the legal and permissible uses of data necessary for the continued collaboration and sustainability of the collaborative. In the case of an education and workforce collaborative, the goal is to integrate data in a way that generates clearer market signals and improves individual lives. A data collaborative may come together around an initial goal—such as creating a better search tool for training and jobs—but the technological infrastructure and data governance components are intended to remain in place and evolve.

In essence, the data collaborative model creates and sustains a culture of collaboration among stakeholders that can address the issues, challenges, and needs of the collective, including those that have not yet been identified. Additionally, the open and transparent nature of data collaboratives allows smaller, resource-limited organizations to participate in projects and contribute their data. This helps to ‘level the playing field’ for all organizations—including those that work with or promote traditionally marginalized groups—ensuring that diverse perspectives are included in addressing system challenges.

An education and workforce data collaborative in California would combine education and employment data from government agencies, education and training providers, employers, and other key partners. Some of the potential use cases for the collaborative include, but are not limited to:

- providing individuals with credible information about credential and training opportunities in specific regions;
- creating cross-sector alignment and transparency on credentials and the skills and competencies targeted through specific programs;
- providing evidence of wage gain and income attainment by graduates of specific credential and training programs;
- informing program development with real time feedback on individual learning outcomes, employer signalling and/or validation of skills and competencies; and,
- examining and promoting non-traditional education to workforce pathways

A collaborative would provide better evidence on wage gain, for example, by combining state unemployment and insurance wage records with program-level data from both non-credit training providers and institutions of higher education. The combination of these data would provide insights into the effectiveness of specific credentialing or training programs in helping their completers get hired and increase their income. The insights could also help inform programmatic decision making at credentialing or training institutions, as well as policy or budgeting decisions.

Building and sustaining a data collaborative requires legal, technical, and operational expertise in addition to political will. A state-level collaborative allows us to efficiently leverage that expertise to create more effective tools and services to help individuals acquire new credentials and skills, increase their lifelong earnings, and improve their overall quality of life.

It’s clear that we need better employment and education signals—ones that enable workers to tell what skills and training are needed for specific jobs and how to get them, and that enable employers to hire based on those competencies, rather than on proxies like degrees or social networks that privilege higher-income white workers. We need better data and support to help workers navigate the landscape of education and career. As of now, we’re awash in information, but can’t pick up the signal in the noise.

ABOUT US

Bay Area Workforce Funders Collaborative

Funding, coordination and support

Bay Area Workforce Funders Collaborative (BAWFC) brings together funders, worker advocates, and employers to build an equitable regional economy. A funder network hosted by the San Francisco Foundation, we use pooled grantmaking, collective action, and field building to shape policies and expand economic opportunity for Bay Area workers so they can connect to good jobs with living wages. Since our founding, we have deployed \$16 million in pooled and aligned funding, serving more than 4,000 people in the Bay Area. We believe the Bay Area has the talent and resources it takes to lead the nation in shaping an equitable and just economy; moving forward, we are doubling down on our work to transform systems to ensure an equitable and just regional economy with quality, family-supporting jobs for everyone.



Bay Area strategy, project management, and user research

Path Group is a social impact corporation that enables public and private stakeholders to achieve long-lasting social impact by focusing on the challenges of the future of humans at work. We design solutions based on the Design, Grow, and Measure Method (DGM). Path Group was launched as a special initiative from The Social Innovation Partnership based in United Kingdom and is a Benefit Corporation registered in California. Our vision is to build a society where humans and organizations can flourish and contribute towards our continued progress through ideas, action and work. Our values include: Honesty, Compassion, Empathy, Resilience, Consciousness, and Balance. Our team has designed people-driven programs, services and products for citizens, governments, corporations, and foundations across the globe with a deep focus in the U.S. and on themes of social justice, work, and equity.



brighthive

Technology, legal expertise and data governance

BrightHive is a data collaboration company and a social enterprise that specializes in securely linking and responsibly delivering social sector data back to communities being served. Our goal is to help communities increase individual efficacy and equity of opportunity. The BrightHive data trust ecosystem leverages open source technology while also bringing together stakeholders to facilitate data governance and collaborative learning. Together, these technical and non-technical data collaborative components empower individual organizations and communities to learn together, to sustain and expand their impact, and to achieve their individual and collective goals.

entangled.studios

Statewide strategy, project management and stakeholder engagement

At Entangled Studios, we believe the best way to understand the future is to create it. An education innovation studio headquartered in San Francisco, we incubate social impact ventures and orchestrate collective action initiatives. In partnership with the world's most creative philanthropies, universities, and companies, we design and build dynamic solutions to our sector's most pressing problems. At the start of each project we assemble a team with the skills to rigorously investigate the problem space, engage important stakeholders, prototype concepts, and test solutions in the field. We then provide ongoing resources to add value through multiple stages of operations and growth. Entangled was founded in 2015 with the mission to support our society in equitably transitioning to a knowledge economy. We are a team of purpose-driven people with expertise as philanthropists, university leaders, entrepreneurs, journalists and policy makers.

ENDNOTES

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