As the twin pandemics of COVID-19 and systemic racism rage on in America, interventionists in workforce development have gained newfound clarity on the complexity underlying economic injustice.

Advocates increasingly look to double-sided labor market solutions to address economic immobility. An emerging class of job-preparation schemes called “dual-customer training programs” show promise but have largely failed to scale. This research endeavors to answer why.

Through a design-led approach that balances conceptual rigor with emotional texture, the authors propose first steps on how we might work toward economic justice together.

August 2020

Lisa Baird and Kathy Qu, authors
**THINK. WERE YOU ASKED THE QUESTION: “WHAT DO YOU WANT TO BE WHEN YOU GROW UP?”**

Notice that the question is not about who we want to be, but rather what kind of vocation we want to devote ourselves to—what kind of job we want. It is the million-dollar question that captures the American dream: you can be whatever you want to be! In America, who we are and what we do are two sides of the same coin. In America, your identity is interwoven with your occupation.

But some of us were never asked this question. We weren’t exposed to the environments or people that can help us develop a sense of what we like to do, what we believe we are good at, and where we feel like we belong. We weren’t exposed to the environments or people that can help us land a job with benefits, with stability, and with the ability to work from home.

But we are exposed now. We are exposed to the virus that has affected some of our loved ones and communities more severely than others. We are exposed to the lack of safety net that has forced some of us to keep working while others can safely shelter in their homes. We are exposed to—and exposing—the systemic racism that has kept us, our families, and our communities down for decades.

It caught us in a weak moment. In recent decades, as the forces of capitalism underlying our economy intensified, the working world cut corners—unpublished openings, personal referrals, automated screening practices that can perpetuate privilege—in order to yield short-term value. These shortcuts dictated what labor is worth, what a laborer can do, and which laborers belong. These shortcuts reinforced existing biases and perpetuated a rift between those who demand labor and those who supply it; those who employ and those who work; those who have and those who have not; those who are and those who are not.

But at the end of the day, we all work. All of us have this in common. As we publish this work, our shared identity is more apparent than ever. More than 60 million people have filed for unemployment insurance since mid-March, when COVID-19 first forced the economy into shutdown. It has affected people from all walks of life, from the corner-office executive to the dry cleaner down the street.

It only took a global pandemic to see the cost of this rift, to see that “low-skill” jobs are actually essential jobs that keep us alive—the very bedrock of a functioning society. We forget that workers protect our kids, support our schools, and give back to communities in countless ways. Yet we don’t protect them or pay them a livable wage. When we put degree requirements on every job description even when the duties don’t require it; when we keep people on an hourly wage with no benefits even when they work nearly 40 hours or more; when we undervalue jobs and deem them “low-skill” simply because they are low-wage—it hurts us all. How can society be so indifferent to people it needs so very much? When shortcuts devalue labor, it hurts us all.

By exposing our stories, our lives, and our biggest struggles to you in these pages, we hope to elevate what we have in common: shared human experiences that are vital in making sense of the working world and communal society more generally, now and in the future. Our stories contain evergreen truths that will outlast this moment in time. These truths have helped us realize that our collective experience on both sides of the hiring table—our value as human beings—is what powers communities, economies, and nations. We hope this perspective will help people pause, notice what they are doing (or not doing) in the working world, and do things differently. We hope it will help people realize that we are all laborers—we all work—and we need to work together.
ABOUT SKILLUP COALITION

SkillUp is a 501(c)(3) nonprofit coalition helping the millions of workers impacted by COVID-19 get rehired for in-demand jobs in high-growth industries. The Coalition enables partners to share best practices, collaborate on shared challenges, and participate in public engagement campaigns that help COVID-affected workers begin a prosperous new stage in their careers. Consisting of leading training and education providers, employers, technology companies, job readiness nonprofits, and philanthropies, SkillUp provides career navigation, training programs, and job opportunities to help frontline workers secure their place in the economy of tomorrow. For more information, please visit www.skillup.org.

ABOUT THE AUTHORS

The authors of this work are LISA BAIRD and KATHY QU, on behalf of SkillUp Coalition.

LISA BAIRD is an independent business and organizational designer, user experience designer, and writer with 15 years of education-to-employment expertise forged in financial administration at The University of Texas System; strategy at the University of California Office of the President; grantmaking at the Bill & Melinda Gates Foundation; human-centered design at IDEO; and direct client work for Arizona State University, Better Future Forward, Calbright College, Edmit, Entangled Solutions, the Foundation for California Community Colleges, Guild Education, IDEO, the U.S. Department of Education, and others. Lisa earned her Master of Design from California College of the Arts, her Master of Business Administration from UC Berkeley, and her bachelor’s degrees in finance and journalism from The University of Texas at Austin. She co-authored this work in her capacity as Senior Advisor to SkillUp Coalition.

KATHY QU is a researcher, strategist, and education management consultant with seven years of education and workforce-development experience garnered in performance management at the National Association of Charter School Authorizers; research at Harvard Business School; and education management consulting at Entangled Solutions and Guild Education, where her clients have included the Bill & Melinda Gates Foundation, Coursera, Strada Education Network, the University of Wyoming, the Walton Family Foundation, and others. Kathy earned her Master of Education Management from Harvard University and her bachelor’s degree in sociology from Princeton University. She co-authored this work in her capacity as Senior Engagement Manager at Guild Education and Research Fellow at SkillUp Coalition.

“Love is an expression of power. We can use it to transform our world.” — ERICKA HUGGINS
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KATHERINE BARNES of New Rochelle, New York
AKIL GEORGE of New York City, New York
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DAVID CLIFFORD, independent equity designer
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CLAIR MINSON, New Orleans Business Alliance
MARY O’HARA, award-winning social affairs writer and author
JANE OATES, WorkingNation
ALLISON SALISBURY, Guild Education
JANET SALM, Strada Education Network
DAVID SOO, Jobs for the Future
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NOTE ON TYPOGRAPHY

The fonts used in this document come from the Freight family of typefaces. Freight, well known for its historical innovation and sustained popularity, was designed by Black American designer JOSHUA DARDEN of Darden Studio.

“As far as I know, Joshua Darden was the first, and is still to this day the only prominent Black type designer in the world. Let’s pause here for a moment and think about the strangeness of that fact. How can it be that no other Black person has ever been brought into the culture and offered mentorship in this industry? There is no answer for this that doesn’t point toward an ugly truth. It can’t be explained away or disregarded. What does it say about our industry, and the socio-economic and racial dynamics of our world? I wonder how many other Joshua Dardens are out there. What kind of new ideas, perspectives, and styles would they bring to this field if given the opportunity?”

—LUCAS SHARP IN Rare Goods, 2017
WE MET AKIL IN JANUARY OF 2020.

AKIL IS 28 AND BLACK. His mother was the first in her family to attend college, graduating from Cornell University and spending her career as a school teacher. She both preached and lived the power of education. Akil started his postsecondary journey at a nearby community college before transferring to the Rochester Institute of Technology, where he earned a degree in IT and cybersecurity. Shortly after graduation, he landed an internship at Tesla and moved to California to pursue his dream career.

This is where the story normally ends. It’s the story of the power of education across generations. The one that we workforce operators, education veterans, philanthropists, and impact investors feature in our annual reports and at fundraising dinners. It is the story that keeps us in this sector.

But that’s not where Akil’s story ends. After Tesla, he landed a full-time job in his field but was laid off after only eight months—and has struggled to find consistent, well-paying work since. When we met him, he was teaching capoeira to kids part-time to pay rent, make payments on his student loans, and help support his grandparents, who were both ill and fighting eviction after 30 years in the same apartment.

Akil is frustrated. He did all the things our society says you should to get ahead: He got a degree from a reputable university in an in-demand field. He got internships and entry-level experience at well-known companies. He networked. In other words, he’s highly qualified but can’t get a living-wage job. He heard about Per Scholas, a dual-customer training program that provides free full-time training for IT jobs, but he couldn’t risk losing his only source of income without a stronger job outcome guarantee. In Akil’s words: “It seems like I’m begging, you know.”

“Overcoming poverty is not a gesture of charity. It is an act of justice.” —NELSON MANDELA
INTRODUCTION

**READING GUIDE**

As Christopher Jones, the Executive Director of Arkansas’ Regional Innovation Hub, said recently: “If this makes you uncomfortable, great. It makes me uncomfortable also. Staying in our comfort zones will not make our society or world any better. Working together, pushing through the discomfort, will.” This research will make you uncomfortable.

*It is broken into four parts:*

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<td>What you’ll walk away with: Recommendations for taking action, regardless of whether you are a policymaker, workforce operator, entrepreneur, writer, or funder. This will help you understand how to embark upon a long-term journey of redesigning the labor market, for both the buy side and the sell side, at both the system level and the human level.</td>
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INTRODUCTION

ASKING WHY

We need more of these stories in our annual reports, more Akils at our fundraising dinners—because his story is not an outlier. Time and again throughout this research, we heard stories about how education and training were important, but alone simply weren’t enough to open doors. Even before the current economic downturn, 41% of recent college graduates were underemployed, and Black and female graduates were more likely to be underemployed than their white and male peers.2 Almost half of America’s working adult population is considered “low-wage,” and almost a quarter of the “low-wage” population has an associate degree or more.3 And again, Black, Hispanic, and female workers are more likely to work low-wage jobs and to be systematically excluded from the labor market. They are also more likely to have low wealth, even with a college degree. According to a 2019 study published by the Federal Reserve Bank of St. Louis, families with a white head of household born in the ’80s can now expect the college wealth premium of a bachelor’s degree to sit at historic lows. But for families whose head of household is any other race and ethnicity, born in that same decade, the college wealth premium is “statistically indistinguishable from zero.”4 In other words, whites are the only racial or ethnic group for whom a bachelor’s degree provides a family with a reliable wealth advantage.

Of the 71 million individuals who are “skilled through alternative routes” (STAR)—adults who graduated from high school but don’t hold a four-year college degree, who are often screened out by employers and undervalued in our labor market—68% are Black and 79% are Hispanic.5 Nearly every relevant statistic indicates that tens of millions of workers, particularly people of color and women, have been cut off from economic progress for decades in this country. The COVID-19 pandemic has only deepened, broadened, and quickened this chronic crisis.

On the flip side, businesses are struggling to fill jobs that pay living wages. In the months before COVID-19 hit the U.S., not a week went by without a new report on employers bemoaning a lack of talent, long hiring timelines, and the incompetence of recent graduates. Even amid record unemployment, many critical roles in healthcare, technology, and logistics are going unfilled. Every direction you turn, there is a solution for the “skills gap.” Bootcamps designed to bridge the employment gap have grown 11-fold since 2013.6 Professional certifications have boomed. Apprenticeships, traditionally the domain of construction and manufacturing, have grown by 140% in the last 10 years by expanding into healthcare, IT, and financial services.7 Everyone is focused on upskilling, reskilling, or outskilling. As Goldie Blumenstyk of The Chronicle of Higher Education writes: “The rhetoric is everywhere.”

WHAT YOU WILL SEE

To better understand this fraught dynamic between the two sides of America’s labor market, we’ll look deeply at the daily lives of both working adults and hiring managers. We will introduce you to Brenda, a lifelong family caregiver who after more than 30 years finally has the chance to pursue a livelihood of her own choosing, but is thwarted by job injury and disability; Katherine, a late-blooming entrepreneur trying to protect her new business in the face of the pandemic; and Dale, an aspiring filmmaker who found freedom and flexibility in the gig economy, before the economic shutdown forced him back into grocery retail. And of course, we’ll hear more from Akil, a millennial college graduate struggling to get traction in the market for tech careers. All of these people have had to start over many times, and now due to COVID-19 must start over again.

We will also introduce you to the buy side: rank-and-file hiring managers who are scattered across business units and job functions, typically with no formal training related to hiring and often only a few rungs up from the entry-level workers interventionists care most about. Too frequently in workforce development, the needs of individual people on the buy side are overlooked, misunderstood, or ignored. Sweeping generalizations or faulty assumptions about how employers work cause their needs to fall off many interventionists’ radar. Their day-to-day obstacles are deemed unworthy of exploration or inspection—even a little empathy.
INTRODUCTION

But their problems and experiences are real. Tag is a small business owner who takes matters of employment into her own hands with careful attention to detail. Brooke is a lifelong human resources professional who sees her field’s untapped potential for human capital development. Peter is a dyed-in-the-wool people manager who takes ownership of the growth trajectory of new hires who come into his business unit. Tom is a high-ranking official in a professional services firm tasked with managing huge teams and keeping freshly sold client projects staffed. Their stories illuminate the way labor-market demand shows up in America today.

The narratives of all these people are autobiographical—glimpses at the longer arc of personal history. Each longitudinal narrative was co-created with the person being featured, crafted and informed by the practices of Equity-Centered Community Design and Liberatory Design (see Research Approach in the Appendix). The stories reveal the more nuanced realities of what we commonly see as the collective worker experience or the collective employer experience. Workers like Brenda, Akil, Katherine, and Dale can’t seem to get ahead and struggle to find living-wage jobs. Hiring managers like Tag, Brooke, Peter, and Tom are perennially frustrated by long hiring times and positions that continue to go unfilled. The two sides need each other and badly want to transact but for one reason or another cannot. This research looks more deeply at why and offers steps for taking action.

DRIVING FORCE

There has never been a more urgent time than now. Given the more than 60 million jobless claims filed since mid-March, an efficient, effective, and equitable labor market is critical to our nation’s future—to human beings’ futures. The crisis of COVID-19 and the ongoing awakening after George Floyd’s death have catapulted systemic anti-Black racism and centuries-old systems of oppression into the spotlight—where they belong. We started this work with a focus on economic opportunity achieved through training; this process has taught us that there is no economic opportunity at scale without economic justice.
EXECUTIVE SUMMARY

TOWARD ECONOMIC JUSTICE

WHY WE EMBARKED ON THIS RESEARCH

PRIOR TO COVID-19, U.S. jobless numbers roughly matched job openings for years on end, hovering around 6 million on both sides. We hypothesized that it was a labor-market matching problem and a skills problem, simultaneously: workers couldn’t clear the job-matching transaction because they either didn’t have the skills, didn’t know what skills hiring managers were looking for, or weren’t being matched to the right opportunities. We were inspired by “dual-customer training programs,” disruptors in workforce development that seemed to have learned that, in order to help workers, they also had to help employers, treating both as a kind of customer.

Dual-customer training programs come in many forms. Most are unaccredited, short-term training programs free from the usual regulatory structures of higher education. They made major inroads during and after the Great Recession, as millions of Americans were looking for education and training designed to immediately translate into jobs. Initially, many of the programs served professional career-switchers and recent graduates with bachelor’s degrees. Furthermore, poverty affects more people than we think. In June 2020, the Poor People’s Campaign published “The Souls of Poor Folk,” an empirical study of how America’s attitude toward poverty has evolved since 1968. It cuts right to the chase: “These issues demand that we dispel the notion that systemic racism, poverty, ecological devastation and the war economy hurt only a small segment of our society. More than 40 million Americans subsist below the poverty line... There are close to 140 million people dealing with some combination of these crises every day. Nearly half of our population cannot afford a $400 emergency, which presents a structural crisis of national proportion that ties poverty to things like healthcare and housing. The devastation cuts across race, gender, age, and geography. It has carved a dangerous and deepening moral chasm in America and inflicts a tragic loss of purpose, even among the affluent.”

For these reasons, we have specifically not defined “poor” or “low-income” by a quantitative measure like median household income. To be poor is to live in scarcity. In fact, researchers have found that “being poor requires so much mental energy that those with limited means are more likely to make mistakes and bad decisions than those with bigger financial cushions.” The people we interviewed experience financial scarcity in some way, shape, or form that negatively impacts them day to day, whether psychologically, physically, and/or emotionally.

Definition of Poverty (or Lack Thereof)

POVERTY RESEARCHERS AND POLICYMAKERS have long debated how to measure poverty. Official poverty measures in the United States date back to the 1960s during President Lyndon B. Johnson’s war on poverty and are anchored to dollar-value thresholds that depend on family size and composition. Although these measures, such as the Federal Poverty Level, have been subject to much criticism, they are still the lens through which we see and support the poor. So who is poor? Who should be considered poor? Who is poor enough to deserve intervention?

The measurement of poverty in dollar terms of income or cash on hand is a narrow view into poverty. The research nonprofit United for ALICE, which began in 2009 as a single study to understand the struggles of families in one New Jersey county, explains that, “Traditional measures of poverty do not capture the magnitude of people who are struggling financially.” The acronym ALICE stands for asset-limited, income-constrained, and employed—a descriptive summation of countless families for whom the cost of living outpaces what they earn. The succinct, striking characterization anchors what United for ALICE calls “a new way of defining and understanding the struggles of households that earn above the Federal Poverty Level, but not enough to afford a bare-bones household budget.” Similarly, Mary O’Hara, author of The Shame Game: Overturning the Toxic Poverty Narrative, argues that traditional poverty measures also exclude other dimensions that affect poverty, including what kind of life your income can afford you in the society in which you live, accumulation of wealth, access to social capital and networks, and access to affordable housing, healthcare, and education.”
degrees before expanding to serve adults without degrees or steady, continuous work histories. On-ramps, which often adhere to the WorkAdvance model, were the first dual-customer training programs to emerge from the workforce development sector, evolving from “demand-driven” approaches like sector strategies and sectoral training.

While the service model exemplified by on-ramps was pioneered by the workforce development sector, it was largely the private sector that figured out how to adjust the cost structure and revenue streams undergirding the service model in a way more conducive to scale. During and after the Great Recession, the publicly funded workforce and postsecondary sectors were getting gutted by deteriorating funding formulas. For-profit upstarts that weren’t tethered to that type of revenue model gladly stepped in to absorb booming worker demand for training. Instead of leaning on public workforce funding—notoriously underfunded compared to other federal spending priorities and other industrialized countries—dual-customer training programs were experimenting with earned revenue from employers and innovative financing mechanisms like pay for success. At this point, the education-to-employment sector realized that there was a sizable market for non-governmentally-funded “direct-to-consumer” training programs.

Almost simultaneously, the sector came to understand that “direct-to-consumer” does not necessarily mean a direct hit to consumers’ wallets or debt burdens upfront, as the rise of deferred tuition and income share agreement (ISA) models has shown. Legislation to legitimize ISAs was introduced in the U.S. House and Senate as early as April 2014. Paid training like Revature and Techtonic, in which the worker earns a wage while learning, are an extension of this trend—working adults, given the choice, would rather not pay out cash, take on debt, or reduce wage-earning hours in order to train, especially in the absence of any proven or guaranteed job outcomes. Programs that understood this psychology did well and began to grow.

These programs were helping workers acquire a combination of technical skills, soft skills, and job-readiness skills, similar to their predecessors; they were also helping employers assess workforce gaps, rewrite job descriptions, and source hidden talent, especially in occupations with the biggest labor shortages. They were fighting for job quality on behalf of the worker, and they were responding to business needs on behalf of the employer, a feat the workforce development and postsecondary education systems had long struggled to achieve. Even before COVID-19, these programs were leveraging technology to improve operational effectiveness and program delivery, despite a “long-held view… that hands-on personal attention was necessary to lift up students,” as The New York Times noted.

But they didn’t scale. Despite bootcamps’ 11-fold growth since 2013, they collectively graduated only 36,000 students in 2018, while on-ramps and apprenticeships served about 100,000 and 600,000 respectively. Less than 1% of job seekers who visit an American Job Center enroll in apprenticeships, and the majority of participants are white men. Not only are on-ramps and other dual-customer training programs serving very few Americans, they are not reaching many of the Americans who most need new pathways to economic opportunity.

WHAT IS SCALE?

Given the driving question behind this research—Why haven’t dual-customer training programs scaled?—it’s important to note what we do (and do not) mean by the terms “scale,” “scaling,” and “scalability” in this work. When we use these terms, we mean them in the management-science sense, not the nonprofit replication (i.e., “field of scale-up studies”) sense. To be clear: when we say scale, we’re talking about money.

Scale means adding revenue at a rapid rate while adding expenses at an incremental rate. For example, an organization that is scaling may gain $20,000 in new revenue that it spent only $2,000 to obtain. The following period, it may gain $30,000, again only spending $2,000 to obtain it. Its operating margin—the degree to which revenues exceed expenses—is increasing, enabling it to not just grow but scale.

WHAT’S THE POINT OF SCALE?

The fiscal breathing room produced by scaling enables the organization to begin to control its own innovation destiny. All routes are now available to it: reinvest in existing users, go after new users, reinvest in existing offerings, go after new offerings, reinvest in the existing business model, go after a new...
business model, or some combination, as depicted in the “Ways to Grow” matrix first proposed by Ryan Jacoby and Diego Rodriguez on behalf of IDEO in 2007 and later expanded upon by Lisa Baird on behalf of IDEO in 2015.

Newfound financial wherewithal and operational efficiency represent a kind of freedom—freedom to choose from among any and all strategic options that might enable serving exponentially more people. For an organization that has worked long and hard to find market-product-model fit, getting traction toward scale feels like getting the keys to the car.

**WHAT ISN'T SCALE?**

It's equally important to describe what we do not mean when we discuss scale. A 2018 Wallace Foundation report, “Strategies to Scale Up Social Programs: Pathways, Partnerships, and Fidelity,” defined scale as “a process for significantly increasing the number of sustained implementations of a successful program, thereby serving more people with comparable benefits” enabled primarily by distribution-model choice: branching, franchising, or partnering with a larger organization for program diffusion.

To be clear, this is not how we define scale; we call this replication and distribution. Distribution (i.e., channels) is one of nine components of basic business model design, but it is not necessarily the only (or most important) lever for scale. Organizations of all kinds must make distribution channel decisions, whether they’re scaling or not. Choice of distribution channel and broader replication strategy can unlock growth, but as we’ve discussed, growth is not the same as scale.

**POWER OF THE PEOPLE**

Incidentally, a different component of business model design does represent a high-leverage point for scale: customer segments. This research adheres closely to the guiding principle that scale flows forth from an unyielding commitment to meeting customer needs, which requires uncovering, understanding, and empathizing with them. This is accomplished through user research and operationalized through the identification of three things: an ideal customer segment, an ideal customer persona within that segment, and an ideal use case worth addressing for that customer within that segment. In other words, scale requires veritable obsession with the customer—knowing who they are, how they select services, what they care about, which processes
they use, and which substitute or replacement services are available to them. Only through deep connection to the customer in these areas can an organization develop a compelling value proposition, which is literally and figuratively the center of any business model. In the case of dual-customer training programs (and any double-sided platform offering), such an effort is particularly hard because dual-customer means dual-obsession. Nurturing two at once in a way that is authentically balanced is challenging work.

**SCALE IN THE CONTEXT OF MISSION-DRIVEN WORK**

Maniacal commitment to such specific customer segments, personas, and use cases can feel discomfiting in the social-impact space because it calls for specialization. The pursuit of scale can also feel disorienting because it de-prioritizes the kind of cottage-industry organizational effectiveness that, while admirable, is not enough. In the social-impact space, effectiveness that is not paired tightly, warp-and-weft, with efficiency in pursuit of scale—brought about via specialization—has not resulted in serving exponentially more people. As Byron Auguste, CEO and co-founder of Opportunity@Work, recently explained to us, “Businesses can scale because they specialize. Without specialization, neither efficiency nor scale is possible; effectiveness is hard, but still possible. In the nonprofit context, ‘replication’ and ‘scale’ are often used interchangeably, but they are not the same. Scale allows native re-investment in growth and improvement.” In other words, effectiveness is wonderful but insufficient; what we really need is scale—and that calls for specialization.

Historically, specialization has been difficult for the social sector to embrace. It can feel antithetical to mission-driven work at times because it requires a kind of radical focus that can feel narrow; it requires a kind of service-offering concentration that can feel unambitious; and it requires a kind of delivery discipline that can feel indifferent. But the promise of scale in mission-driven work is anything but narrow, unambitious, or indifferent. It’s simply hard. This is partly due to the fact that it’s both a painstaking process and a deployable, tool-like outcome.

The process of scaling is an exercise in operational strength and conditioning. Enterprise efficiency is both rewarding and elusive—one must work very hard at it. It’s grueling and strenuous because it requires widening the aperture of what the organization has traditionally felt it could or should do—e.g., embed technology internally, run customer-facing technology externally, produce a physical product, train the trainers, or some combination. These are often thought of as somehow off-limits for nonprofits, perhaps because they don’t look like direct service, but they are all strategies that mission-driven groups have utilized to transform their organizations to serve exponentially more people.26

The outcome of achieving scaled operations is a powerful enterprise not easily knocked from its chosen path—an enterprise with a great deal of agency in selecting the ways and means of innovation and impact-making, which is itself a rare and formidable tool in the fight against economic injustice. Abraham Lincoln is credited with saying, “The best way to predict your future is to create it.” Achieving scale lets mission-driven organizations start creating the future—for everyone—instead of reacting to it. The difference between scaled organizations and others is that scaled organizations decide what the future will look like.
WHAT WE LEARNED FROM REAL PEOPLE

In the introduction, we told you about Akil, the young Black man living in Brooklyn, struggling to find stable, high-quality work despite having done everything right. Akil’s story is compelling. His struggles are real. So are the stories and struggles of individuals who don’t have bachelor’s degrees; who care for multiple dependents; who are older Americans; or who’ve been involved with the justice system. Akil’s story and dozens of others helped us understand why dual-customer training programs have struggled to scale.

Our research scanned the past and present landscape (Volume I), then uncovered both the systemic limitations and the messy, human experiences that often get lumped together under the banner of “workforce development challenge” or “barriers to economic opportunity.” This work addresses those factors in order, first uncovering the systemic flaws that ensure anemic outcomes (Volume II), then elevating stories of real human beings—working adults and hiring managers—who sit on either side of the hiring equation (Volume III). Ultimately, the work concludes with recommendations for moving forward (Volume IV).

We set the stage in Volume I with a detailed landscape review. Volume II then illuminates systemic challenges in the realm of economic mobility that we, as a country, have yet to adequately address. In fact, we’ve pretended they’re not there, leaving it to programmatic interventions to attempt to do the work that policy and cultural mores should be doing. It’s possible that more than half of all barriers to scale for dual-customer training programs (and other promising labor platforms and intermediaries) could be resolved if we, as a nation, first took a hard look at underlying systemic root causes. While certainly analytical in nature, these system-level insights are very much rooted in human experience and reflect the voices of the dozens of real people we spoke to in this research.

Then, Volume III looks deeply at the human experience on both the buy side and sell side of the labor market. Among all economic resources, labor is unique in that it is not severable from its owner. This can make talking about the labor market hard because it can be easy to forget that we are talking about the buying and selling of the labor commodity, not the owner of that commodity. To discuss a market with clear eyes, especially when trying to resolve some of its dysfunction, we need the leeway to discuss the thing being bought and sold—how it gets priced, who is buying it, who is selling it, and how they do their buying and selling. This necessarily means we must discuss people and their stories. As Aristotle is quoted as saying, “Educating the mind without educating the heart is no education at all.” Thus, human stories in Volume III serve to balance the analytical nature of Volumes I and II.
## EXECUTIVE SUMMARY

### 10 SYSTEM INSIGHTS

<table>
<thead>
<tr>
<th>WORKFORCE DEVELOPMENT</th>
<th>LABOR MARKETS</th>
<th>SUPPLY CHAINS</th>
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<td>A FOCUS ON DISCRETE DEMOGRAPHIC GROUPS CONTRIBUTES TO A DUPLICATION OF SERVICES.</td>
<td>THE VALUE OF A LABOR-MARKET INTERMEDIARY DERIVES FROM FACILITATING THE EXCHANGE.</td>
<td>HIRING IS PART OF A LABOR-MARKET SUPPLY CHAIN.</td>
<td>LABOR PLATFORMS EXIST IN THE SPACES ALONG THE LABOR SUPPLY CHAIN—AND THE SHORTER THE CHAIN, THE BETTER.</td>
<td>EMPLOYER FIRMS ARE NOT A MONOLITH.</td>
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<tr>
<td>Public funding may be systematizing duplication, thereby preventing the workforce development industry from capturing economies of scale.</td>
<td>Prioritizing job preparation ahead of job-matching efficiency may be limiting scale.</td>
<td>Hesitation to treat workforce development solutions as part of a standard supply chain may prevent some approaches from scaling.</td>
<td>An emphasis on additional training may be forcing more supply-chain nodes than necessary, adding risk and instability for both the worker and the employer, reducing their willingness or ability to engage, and thus inhibiting scale.</td>
<td>A bias toward large employers, perhaps rooted in unease around the hiring practices of smaller businesses, may be inhibiting scale.</td>
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<td>2</td>
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<tr>
<td>UNSCALABLE “PERFECT” IS THE ENEMY OF SCALABLE “GOOD.”</td>
<td>BOTH SIDES—WORKERS AND EMPLOYERS—ARE DE-RISKING THROUGH SELF-RELIANCE, OFTEN POWERED BY TECHNOLOGY.</td>
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<td>FOR WORKERS, TIME IS MONEY, AND PROXIMITY TO THE DOLLAR IS VITAL.</td>
</tr>
<tr>
<td>Comprehensiveness in workforce service models may be inhibiting scale.</td>
<td>A reluctance to embrace worker and employer de-risking behaviors, especially those carried out via consumer technology, may be inhibiting scale.</td>
<td>Overlooking the needs of hiring managers, the linchpin decision-makers in labor-market transactions, may be inhibiting scale.</td>
<td>Matching efficiency is sequentially more important than participant volume, and the absence of true platform characteristics—such as dual-sided financial accountability and job function/task specificity—may be stymieng efficiency and thereby inhibiting scale.</td>
<td>A failure to appropriately value the time and opportunity cost of people struggling with economic stability may be inhibiting user adoption, and thus program scale.</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

NEEDS OF WORKING ADULTS

**HERO’S JOURNEY**

Every person is on a hero’s journey, facing their own problems and slaying their own dragons. It’s a part of the human condition; we all share common psychological and functional needs that transcend demographics. Addressing these needs is how we grow, self-actualize, and reach our full potential.

**PLAYING THE ODDS**

Economically, we are all playing the odds, but the deck is stacked against some. Fortune may favor the prepared, and it also greatly favors the privileged. Odds of economic success can be improved a thousand ways, but only if those ways are known and available. Access to edge-gaining tactics and strategies is a privilege that can be busted open and shared.

**BELONGINGNESS**

For some, belongingness is survival. Despite their strength, an overwhelming number of people who struggle with economic stability also struggle with physical and emotional scars of all kinds. Feeling that you belong is crucial in coping with intensely painful traumas. Because of this, communities and intimate relationships are crucial.

**POSITIONS OF POWER**

Privileged people hold positions of power. There can be no honest conversation about economic opportunity for all without addressing how structural systems of oppression confer benefits and power upon privileged people. The hard work of reversing systems of oppression must not fall to those oppressed.

**THEMES**

- **BRAVELY FACE THE MUSIC.**
  - People who seek economic mobility need partners in power, especially philanthropists, who can master the art of radical self-awareness and system-awareness with courage, even in the face of controversy.

- **TRUST THE SYSTEM OR BUST THE SYSTEM.**
  - People who seek economic mobility need to trust the system to climb above the Maslow treeline, toward self-actualization, and trust that their efforts will prevent them from slipping back down.

- **INVEST IN WHOLE COMMUNITIES.**
  - People who seek economic mobility need to feel a sense of true belonging surrounded by intimate relationships as they undertake difficult journeys that force them to work through long-standing traumas.

- **GET PEOPLE OFF THE BACK FOOT.**
  - People who seek economic mobility need opportunities designed for their existing valuable talent, knowledge, abilities, and assets—especially assets like time—before asking them to develop additional ones or give up invaluable time.

- **TAKE A CLOSER LOOK AROUND.**
  - People who seek economic mobility need help elevating and fortifying the inherent value and advantages of their own communities, not interventions that alter, project unfamiliar values, or act to separate people from place.

- **LISTEN INTENTLY AND OFTEN.**
  - People who seek economic mobility need partners in power, especially philanthropists, to continually seek out and obtain a deep and intentional education on the nuances of their experience.

**OPPORTUNITY AREAS**

- **CHANGE THE LOCUS OF CONTROL.**
  - People who seek economic mobility need agency to select particular solutions to their particular problems—the ability to say yes to what they need and no to what they don’t need.

- **DO FIRST THINGS FIRST.**
  - People who seek economic mobility need their resource deprivation acknowledged and addressed, in a way that pays it forward to the community, before headway can be made on their personal growth.
# NEEDS OF HIRING MANAGERS

## THEMES

1. **HUMAN NATURE**
   - There is a great deal of human nature in people, as Mark Twain observed. Business managers are obliged to comply with the basic premise of the American economy: self-interest. Despite personal misgivings, managers are incentivized to make choices that maximize shorter-term business growth, not necessarily human potential.

2. **GROUP DYNAMICS**
   - Firms are groups, subject to group dynamics like social loafing—the tendency of individuals to put in less effort when working in a group context. Members of a group often perceive that neither rewards (in case of success) nor blame (in case of failure) will be attributed properly. This attribution concern is important to address.

3. **POWER MOVES**
   - Even small decisions can feel like unfair power moves to a job seeker. Many business managers don’t realize the power they wield because it was unintentionally acquired. This can be dangerous, like a giant who doesn’t know his own strength.

4. **COST OF DOING BUSINESS**
   - The cost of doing business refers to all expenses incurred in producing and selling—like labor budgets, inclusive of hiring, training, and reskilling. As long as a firm is producing and selling, it’s incurring these expenses, which is to say: always. This is why employee growth should be treated as a regular expense, not a special, discretionary opportunity—a subtle but important shift in mental model.

## OPPORTUNITY AREAS

<table>
<thead>
<tr>
<th>1</th>
<th>TAKE EMPLOYERS AS THEY ARE.</th>
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<tbody>
<tr>
<td>People who make hiring decisions need their humanity recognized, accepted, and addressed, not swept under the rug.</td>
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</table>

| 2 | BRING SEXY BACK TO TALENT-RELATED TASKS. |
| People who make hiring decisions need the potential personal upside of hiring and talent development to meet or beat the potential personal downside. |

| 1 | MAKE THEM BELIEVE THEY CAN TAKE CALCULATED RISKS. |
| People who make hiring decisions need to see their home organizations develop and espouse a collective “growth mindset” with respect to people operations, including a culture of acceptable risk-taking in hiring. |

| 2 | SHOW THE RISK OF DOING NOTHING. |
| People who make hiring decisions need to viscerally understand what the business and human consequences are of maintaining the status quo. |

| 1 | PUT UP FRIENDLY GUARDRAILS. |
| People who make hiring decisions need gentle but effective checks on their own power whenever they’re on the hiring side of the interview table. |

| 2 | HELP THEM STOP MOVING (OR HIDING) GOAL POSTS. |
| People who make hiring decisions need the psychological safety to make hiring decisions based on absolute suitability instead of relative impressiveness. |

| 1 | FREE UP TIME SPENT ON LOWER-VALUE HIRING TASKS. |
| People who make hiring decisions need the total time they spend on dealing with their talent needs to remain fixed. |

| 2 | REFRAIME L&D AS A REGULAR EXPENSE, NOT A RARE “INVESTMENT.” |
| People who make hiring decisions need assurances that training someone isn’t a waste, even if the person leaves their immediate team or group. |
Moving through education, career, and life is not a sterile, straightforward process. It involves deeply human needs, fears, hopes, goals, and biases. In this volume, we present the personal stories of four working adults—Brenda, Akil, Katherine, and Dale—along with themes and opportunity areas inspired by each. We do the same with four hiring managers—Tag, Brooke, Peter, and Tom. Across all eight individual narratives, we focus on human needs and propose ways to meet them.

We undertook both quantitative and qualitative research methods to uncover new insights into an old problem. Throughout Volumes II and III in particular, you will find countless first-person quotes and narrative vignettes from our qualitative design research—stories from real people, which qualify as real data, arguably the richest kind. The short answer—the spoiler, if you will—is that more and better training isn’t the sole solution. In many cases, it isn’t the answer at all. And if we’re going to build better pathways to economic mobility, we must first acknowledge that. The Center for American Progress put it succinctly in its recent paper, “A Design for Workforce Equity”:

“[P]olicymakers have promoted an expansion of skills training to help workers keep up in the changing economy. While previously, retraining responsibilities may have fallen to businesses that wanted to ensure their workers were prepared for the future, businesses are now investing less in workforce training. Retraining programs can often be of low quality, and they are not necessarily responsive to labor market demands.

As a consequence, workers have become obligated to discern the quality and labor market prospects of a training program; take time off from working; and contend with the costs not only of the training but also of books or fees, as well as childcare, transportation, housing, health care, and all the other demands of adult life. Importantly, all workers are not starting from the same position: Income and wealth inequality continue to rise. The reality is that even after considering protective factors such as increased education and training levels, wealth remains unevenly distributed as structural biases reinforce institutional barriers to employment.”

As a sector, we might’ve fallen too in love with the romance embodied in the first half of Akil’s story. As a society that cares deeply about postsecondary education, we wanted a quality degree in an in-demand field to be enough to put a Black man on an upwardly mobile path and keep him there. Maybe we were blinded by the promise of the American dream—or maybe we didn’t understand the problem at all.

As Nikole Hannah-Jones recently noted in The New York Times, “when it comes to truly explaining racial injustice in this country, the table should never be set quickly: There is too much to know, and yet we aggressively choose not to know it.” We’d add economic injustice to Hannah-Jones’s formulation. Indeed, the title of her piece says it all: “What Is Owed: Without Economic Justice, There Can Be No True Equality.” We’ve come to realize that economic mobility and opportunity are euphemisms for economic justice. And in this country, referring to justice of any kind means a journey into the heart of systemic oppression. We must embark.●

STAY WITH US

Yes—this document is long. It will highlight the enormity of the system challenges and the diversity of the human lives buffeted by them. It will be overwhelming and uncomfortable, and in many ways it will leave you with more questions than answers.

Our aim is to inspire you in small, malleable ways throughout, not instruct you in grand, concrete ways at the end. Ultimately, it will make three recommendations that are less about new designs and more about you, the designers: (1) embrace complexity, (2) embrace self-examination, and (3) embrace more nuanced roles.

As Nikole Hannah-Jones recently noted in The New York Times, “when it comes to truly explaining racial injustice in this country, the table should never be set quickly: There is too much to know, and yet we aggressively choose not to know it.” We’d add economic injustice to Hannah-Jones’s formulation. Indeed, the title of her piece says it all: “What Is Owed: Without Economic Justice, There Can Be No True Equality.” We’ve come to realize that economic mobility and opportunity are euphemisms for economic justice. And in this country, referring to justice of any kind means a journey into the heart of systemic oppression. We must embark.●
"A map is not the territory it represents, but, if correct, it has a similar structure to the territory, which accounts for its usefulness."

—ALFRED KORZYBSKI
THE LAST TWO DECADES HAVE SEEN A PROLIFERATION OF NEW WORKFORCE DEVELOPMENT MODELS THAT WORK DIRECTLY WITH WORKERS AND EMPLOYERS TO IMPROVE WORKERS’ EMPLOYABILITY.

We started this research by examining one category called “dual-customer training programs,” which offer a combination of services including technical skills, soft skills, job-readiness skills, coaching, and wraparound services, as well as sourcing, screening, and matching workers to meet employers’ needs.

Although similar to many community college programs or coalitions of community colleges (e.g., Kentucky Federation for Advanced Manufacturing Education30) that engage employers to increase the likelihood of worker success, for purposes of this research, the definition of “dual-customer training program” excludes accredited, degree-granting institutions eligible for such Title IV funding as Pell Grants and federally subsidized student loans.
The idea of being “demand-driven,” or incorporating employers into program design or delivery, is not new to workforce veterans. Particularly in the last decade, “sector strategy” has made significant progress in response to broader criticism that many workforce and postsecondary entities are unresponsive to labor market needs. Sector strategy involves organizing employers and industry associations in a specific sector with education and workforce professionals through a regional intermediary, often a chamber of commerce or workforce board, to discuss talent needs, determine what skills are required to meet those needs, and identify which education or training programs can prepare workers accordingly.

In a robust volume of evaluation studies and case studies from prominent workforce and philanthropy leaders, Maureen Conway and Robert P. Giloth capture the significant progress and opportunities around sector strategies, finding that “many states have adopted a sector framework for workforce development,” resulting in “hundreds of workforce sector partnerships serving hundreds of thousands of workers and job seekers.” A 2017 McKinsey & Company report echoed these findings, noting that “the best workforce-development solutions happen when leading employers come together to address the talent problem for an entire sector” and that “the most promising approach... is to identify sectors with high growth potential where there are shortages or a high turnover of workers.”

Both approaches have demonstrated success but are not widely adopted by employers. Conway and Giloth attribute the major challenges of sector strategies to lack of big policy wins, a dearth of business champions, faulty sustainable-funding assumptions, and growth of low-wage jobs. The authors went to say that, despite sector strategies being “positively received” by business leaders, “financial support of sector initiatives from business has rarely been substantial, and episodic federal grants often lead to starts and stops of initiatives rather than sustained efforts.” In other words, sector strategy and sectoral training were too much effort for too little return. This combination of programmatic, infrastructural, and policy-driven funding challenges helps us understand the emergence of a new wave of solutions: dual-customer training programs.

Sector strategy shouldn’t be confused with “sectoral training,” which involves working directly with employers (e.g., not through an intermediary) to identify and train workers in targeted in-demand occupations. Longitudinal studies conducted by MDRC have shown that one model in particular, WorkAdvance, has produced long-term positive impact on job stability and earnings. The WorkAdvance model is characterized by several intensive services that are tightly bundled together, as described in the table to the right. While the model has proven successful, particularly for working adults with the most complicated, intersectional economic challenges, it has also proven difficult to scale. It may be that the complete, fully integrated service bundle, while extremely important and helpful for some, is overkill for others.

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### WorkAdvance Service Model

1. Intensive screening of program applicants for motivation and readiness

2. Sector-appropriate pre-employment and career-readiness services, including orientation to the sector and career-advancement coaching

3. Sector-specific occupational skills training aligned with employer needs and leading to certifications that are in demand in the regional labor market

4. Sector-specific job development and placement services based on strong relationships with employers

5. Post-employment retention and advancement services, including ongoing contact, coaching, skills training, and rapid reemployment help if needed
In response to the perceived shortcomings of sector strategies, sectoral training, and other “demand-driven” solutions, dual-customer training programs emerged in the early aughts as a type of labor platform focusing on the provision of skills, especially job-readiness skills, technical skills, and/or soft skills. Aside from offering training, these programs are also characterized by two key features of labor platforms: (1) they coordinate the market of workers and requesters of work for defined tasks or projects; and (2) they promote information symmetry between the buy side and sell side of the labor market. As previously mentioned, on-ramps represent one of the earliest types.

Although dual-customer training programs share goals with earlier types of “demand-driven” approaches (e.g., placing workers into in-demand jobs by working with employers), dual-customer training programs were forged under a different set of circumstances and needs. Through detailed landscape analysis of more than 100 dual-customer training programs, we identified six major trends that help us understand how and why dual-customer training programs emerged as they did:

1. Growth of for-profit programs, primarily after 2010: Forty-six percent of all programs we studied in landscape analysis are for-profit, the majority of them founded after 2010. Notable capital raises include Kenzie Academy, Andela, Galvanize, General Assembly, and Catalyze. We expect this to grow. Despite the increase in private capital, total VC funding is still relatively small in this space compared to other sub-sectors within education technology and employment technology, such as professional/corporate learning and K-12 learning.

2. Growing venture capital, dominated by a few players: Our estimates show that roughly $1 billion of venture capital (VC) funding has been invested into dual-customer training programs since 2011. Notable capital raises include Kenzie Academy, Andela, Galvanize, General Assembly, and Catalyze. We expect this to grow. Despite the increase in private capital, total VC funding is still relatively small in this space compared to other sub-sectors within education technology and employment technology, such as professional/corporate learning and K-12 learning.

3. Revenue diversification to include employers as payers, not just governments and learners: Our landscape analysis showed that 22% of programs founded before 2010 rely primarily on earned revenue and 73% of programs founded after 2010 do. The shift away from public workforce funding streams can be explained by the decrease in total funding over the last 30 years, the fragmentation of the public funding streams which are often distributed through multiple layers of state and regional entities, and the rise of for-profit programs after the Great Recession. For programs generating revenue from employers, we found two primary revenue-generating strategies: pay-for-placement and pay-for-service. The former is analogous to staffing agencies that are paid on the successful placement of a candidate, either as a flat fee or as a percentage of the candidate’s first-year salary. The latter can take multiple forms; employers either pay dual-customer training programs for the business and/or recruiting services that they are providing (e.g., akin to outsourced professional-services and/or recruiting firms), or they pay them for training new and existing employees. Some programs, like NextStep and Pursuit, use a combination of these strategies.

4. A focus on occupations with the most persistent labor shortages: Not surprisingly, the most common occupations addressed by dual-customer training programs are those that are marked by significant labor shortages but don’t necessarily require a four-year degree, primarily in software development, construction, and healthcare. Specifically, our landscape analysis revealed that the top seven occupations addressed by dual-customer training programs were software developer, construction worker, web developer, computer-support specialist, mobile applications developer, and nursing assistant. Although not currently in the list of top occupations, we expect adjacent occupations like cybersecurity and registered nursing to continue to grow. Information technology in particular will continue to drive growth in dual-customer training programs.

5. Geographic concentration and in-person emphasis are poised to change dramatically: Our landscape analysis revealed that geographic distribution differs by type of program; however, the vast majority of dual-customer training programs are in California and New York, primarily owing to the prevalence of venture capital activity and predominance of labor supply/demand mismatches in those places. Bootcamps have grown in states like Illinois, Colorado, and Georgia. Only about a quarter of programs are fully online. Accelerated by COVID-19, we expect more fully online or hybrid models that are open to employers and workers from across the country.

6. Significant outcome differentials between white male and non-white, non-male participants: Despite making inroads with working adults lacking a college degree, our landscape review revealed that there are significant occupation and wage differences between predominantly white and male audiences and non-white and non-male audiences enrolled in dual-customer training programs. For example, we found women were overrepresented in lower-wage occupations like nursing assistants, while men were overrepresented in higher-wage occupations like software developers and construction workers. Similar differences can be found in apprenticeship programs.
The landscape of dual–customer training programs is not static; it’s a living ecosystem that has rapidly changed in the last decade and is likely to continue to mature, especially during COVID-19 recovery. We identified four distinct categories: on-ramps, paid training (i.e., trainees are paid a wage), bootcamps, and joint labor-management programs. These various types of dual-customer training program differ in target population; length and modality of training; whether the training comes before, during, or after employment; and services offered to workers and employers. We call out a few illustrative examples in each category here.

While dual-customer training programs come in all shapes and sizes, they share common characteristics that allow them to serve people with limited incomes, many of whom do not have a college degree. And compared to their workforce predecessors, dual-customer training programs are continuing to innovate in several ways:

> **Increasing flexibility** for working adults: This means allowing them to learn on their own time and earn while they learn, often by leveraging technology. For example, NextStep, an on-ramp that prepares workers for certified nursing assistant (CNA) jobs, delivers training through skills-based, mobile-native courses that students can complete asynchronously in 10–15 minutes per module.

> **Increasing support** for working adults: This means helping them address academic, career, or personal needs in the form of mentors, coaches, childcare, and/or transportation assistance. For instance, SV Academy, a sales bootcamp, pairs students with three types of coaches: a communications coach to help students build their brands, a mindset coach to help students identify strengths and weaknesses and develop a growth mindset, and a career coach to help students navigate the job search and first year on the job.

> **Incorporating worker voice** into program design: This means protecting the interests of working adults. For example, WRTP | Building Industry Group Skilled Trades Employment Program (WRTP | BIG STEP), a joint labor-management program that was the subject of a high-quality randomized controlled trial in 2010, has been successful in augmenting workers’ earnings. WRTP | BIG STEP has “credited labor-union involvement for its success in training and placing workers into well-paying manufacturing jobs,” according to research by the Center for American Progress.

> **Incorporating signals that have labor-market value:** This means certificates, industry certifications, Department of Labor registered apprenticeships, credit toward a college degree, or other portable forms of signaling. For example, online work portfolios allow workers to transfer their skills and experiences to other employers. While the range of credentials available to workers is vast and the research on their long-term value is often contested, many dual-customer training programs, like the bootcamp Kenzie Academy, recognize that access to credentials and/or portfolios can boost working adults’ long-term employability.

> **De-risking participation for workers and employers:** This means moving from merely involving employers in curriculum design to integrating directly into talent-management processes. This phenomenon was studied extensively by Ryan Craig in his 2018 book *A New U: Faster + Cheaper Alternatives to College*, in which he describes models that guarantee interviews or job placements for workers (e.g., paid training Techtonic), and models that generate revenue only when workers’ and/or employers’ desired outcomes are achieved (e.g., bootcamps from App Academy and Kenzie Academy, with deferred tuition and income share agreements, respectively).

**Types of Dual-Customer Training Programs**

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<thead>
<tr>
<th>Types of Dual-Customer Training Program</th>
<th>Illustrative Examples</th>
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<tbody>
<tr>
<td>On-ramps</td>
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<td><a href="https://www.nextstep.org/">nextstep</a></td>
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<tr>
<td>Paid training</td>
<td>APRENTI</td>
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<td><a href="https://www.sanmarse.com/">San marse</a></td>
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<tr>
<td>Bootcamps</td>
<td><a href="https://www.springboard.com/">Springboard</a></td>
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<tr>
<td>Joint labor-management programs</td>
<td>WRTP</td>
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<td><a href="https://www.wrtp.org/">WRTP</a></td>
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*Illustrative examples are not exhaustive and are provided for demonstration purposes.*
In order to predict the future of dual-customer training programs, it’s important to remember their heritage. These programs sprang forth from a broader landscape of labor-market intermediaries. Within the broader landscape, predecessors of dual-customer training programs collectively represent a competitive threat to dual-customer training programs because they are potential substitute or replacement products.\textsuperscript{43}

Dual-customer training programs do share some DNA with their more traditional intermediary cousins that focus on job placement or information exchange. For example, workforce boards and sector partnerships aggregate worker and employer demand and facilitate information exchange between the two sides, while traditional staffing agencies offer job placement. But neither workforce boards nor staffing agencies address quite the same set of worker and/or employer needs as dual-customer training programs, partly for obvious reasons—they don’t focus on job preparation or the provision of skills—but more deeply, they don’t offer what dual-customer training programs offer because they don’t operate as true labor platforms, defined in this research as: entities that coordinate the market of workers and requesters of work for defined tasks or projects and promote information symmetry between the buy side and sell side.

Serving both the worker and employer effectively is no small feat; programs often set up two sides internally to operationalize this, similar to B2B + B2C and B2B2C companies. One side is responsible for acquiring and retaining employer customers, and the other is responsible for acquiring and ensuring the success of worker customers. This is powered by cross-functional teams, like marketing and analytics, and the use of technology to gain operational efficiency and reduce program delivery costs.

And this is just the beginning—dual-customer training programs recognize the untapped and growing market and are continuing to optimize existing services and grow market share. For example, to expand toward working adults without college degrees, programs are improving screening processes or incorporating trusted screening tools that employers may already use, like HackerRank.\textsuperscript{44}

Programs are improving coaching capabilities to help workers not only complete the training but overcome trauma, explore careers, and build confidence.

Particularly in light of COVID-19 and the related economic fallout, the need for solutions that bring together suppliers and demanders of labor so that both sides can be successful is only set to grow. In the remainder of this work, we’ll explore system-level factors and human-level needs that will determine whether that growth is moderate or exponential.\textsuperscript{45}