2020
Impact Report

Cognizant
U.S. Foundation

cognizantusfoundation.org

Content

Welcome Note

It is impossible to look back on 2020 without first recognizing the immense struggles and challenges that emerged from the Covid-19 pandemic. While these impacts were felt both deeply and widely, they were not felt equally—with the resultant economic recession disproportionately affecting people of color, low income communities, and women. These negative impacts served to amplify the systemic barriers that have long prevented many from having equal access to the quality education, training, and job opportunities required to achieve economic mobility and stability in the United States.

The Cognizant U.S. Foundation is committed to addressing these barriers—since our founding in 2018, we have served underrepresented, underserved, and un/underemployed communities through the delivery of industry-relevant education, technical skills training programs, and critical research needed to modernize the ways we educate and employ our nation's workforce. The events that unfolded in 2020 elevated the importance of this focus, and we were well-positioned to respond to the increased and evolved needs of those we serve.

As we continue our work to prepare people of all ages to succeed in the workforce of today and tomorrow, we are proud of the positive impact of our investments in 2020. We are excited to showcase our work and the work of our grantees in this report and hope that you find inspiration in the pages that follow.

Thank you,

Kristen Titus

Executive Director

Introduction

$17.3M Grants

Awarded $17.3M in grants to 30+ organizations spanning K-12, higher education, and workforce development, bringing our total awards since 2018 to $50M.

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100,000 People

Designed investments to strengthen skills training programs and expand access to computer science education, impacting approximately 100,000 individuals in 30+ communities across the U.S.

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$10M Funds

Funds jointly committed to immediate Covid-19 relief by Cognizant and the Cognizant U.S. Foundation.

Two years before the Covid-19 pandemic hit, another acronym, HQ2, captivated the country. It not only represented Amazon's search for a location for its second headquarters, but also became synonymous with the tech industry's growing reach and ability to determine the economic fate of individuals, cities, and entire regions. When Amazon ultimately chose the Washington, D.C. area—a region already rich with high-paying jobs—residents and officials in many other cities were disappointed, if not unsurprised.

This elevated a critical challenge in the United States: that opportunity is not evenly spread, and outside of a few select cities, we haven't done enough to develop our tech talent pipeline. Almost nowhere have we done a good job of creating equitable pathways into and through the sector, which has major implications for the prospects of both workers and companies as our country becomes more diverse.

The Cognizant U.S. Foundation works to address this need to ensure all communities are prepared for the digital economy, and to date has invested $50 million to support organizations across the country working to ensure there is equitable opportunity to thrive in the jobs driving the future. But, our work is far from over.

By some estimates, we can expect to see a shortage of more than 625,000 highly-skilled workers in technology, media, and telecommunications by 2030, costing companies and the country more than $162 billion in unrealized output. And given that technology is transforming work in just about every sector of the economy, that's just a fraction of the cost. There exists a great opportunity to ensure every community sees the benefits of high-paying tech jobs that offer a pathway to economic mobility—that is an opportunity we can't afford to waste.

The pandemic has only heightened the urgency around this challenge, hastening the speed of automation and the spread of digital technologies. Even with 19 million Americans out of work —many of them facing permanent job loss—companies cannot find the talent they need to fill critical roles in the technology industry and related fields. It's also highlighting the yawning gaps between those who have access to good-paying, stable jobs and those who regularly work on the margins. At the height of the pandemic, low-income workers were eight times more likely than high-earners to have lost their jobs, and they have recovered them at much lower rates. Women and people of color have also been disproportionately harmed.

In other words, this threatens to be the most unequal recession and recovery in modern history, amplifying the systemic barriers that have long prevented many people of color and lower-income Americans from having equal access to the quality education, training, and job opportunities required to achieve economic mobility and stability.

We believe the technology sector can play a powerful role in changing the status quo, serving as an engine to unlock economic opportunity and expand equity. But that won't happen unless we rethink the existing pipelines into the sector, and the pathways through it. That's why our work focuses so heavily on building new pathways for untapped talent. To do so, we believe we must not create better pathways and broader pipelines within the existing systems, but that we must fundamentally rethink how our education and career systems work together.

Pathways   Pipelines   Systems Change

Our work over the past year reflects this philosophy, with a focus on grantmaking in those three critical areas: systems change, pathways, and pipelines. Employers, education providers, policymakers, and other funders are important partners in this work.

Further, given the acute need in communities across the country, we also redirected a portion of our work to immediate Covid-19 response, with Cognizant and the Cognizant U.S. Foundation jointly committing $10 million to this effort. That commitment aided:

- Global response efforts, including healthcare and humanitarian relief through the World Health Organization and GlobalGiving;

- Critical healthcare infrastructure, including resources for hospitals and frontline healthcare workers, and investments in equipment and diagnostic tools; and

- Education and workforce efforts, including research to advance online learning models in light of school closures, and funding to support education, training, and reskilling programs for vulnerable populations impacted by Covid-19.

While this work was focused on urgent needs, many of these efforts—especially those around advancing online learning—will pay dividends beyond the pandemic. Our grantee CodePath, for example, has experimented with "smart" clustering for students and mentors that dramatically improves the student experience in remote classrooms. This approach matches pods of students—based on experience, background and proficiency levels —with one engineer mentor, and has proven effective in strengthening student cohesion and engagement, improvements that will extend well beyond 2020.

In addition to pandemic response, the Foundation also extended our commitment to efforts to support communities of color, following the deaths of George Floyd, Ahmaud Arbery, and Breonna Taylor and the national reckoning around racial justice.

Taken together, our work over the past year reflects our twin commitment to seeding change that is both fundamental, and also that has immediate impact.

The Foundation has a longstanding **COMMITMENT TO ADVANCE EDUCATION, TRAINING, AND CAREER PATHWAYS IN TECHNOLOGY FOR PEOPLE OF COLOR**—through grantees such as CodePath, Code Nation, and Goodwill Industries of Southern Piedmont —and in 2020, we committed an additional $5 million to those efforts.

Pathways

To realize the Foundation's vision, we must create clearer pathways across education and work, especially for Americans who have traditionally had less access to opportunity. People have heard the message that education is the key to financial stability and career mobility, but too few know where to start or the specific skills, knowledge, and mindsets they need to develop along the way. Or they lack access to the kinds of educational programs and networks that would open up pathways into meaningful, high-growth careers. As a result, millions of people are ending up unemployed, in low-opportunity jobs, or with credentials that lead nowhere, while employers are simultaneously struggling to fill in-demand roles.

This challenge is particularly acute in the technology industry, where roles and needs are shifting rapidly to meet new demand, and where pathways into and through the sector vary significantly from place to place, and group to group. Opportunities for economic mobility in the United States are not spread evenly across states, cities, and even neighborhoods, and race, ethnicity, and gender play an especially powerful role in who has access to certain career pathways. This reality shows up in especially visible ways in the technology industry, in which many highly-desirable sectors and jobs are concentrated in a select few cities, and diversity and equity have been particular challenges.

Our work is committed to clarifying pathways in ways that have a broadening effect, **BRINGING BOTH MORE—AND MORE DIVERSE TALENT—**into the field.

The challenge is multi-layered, as are the solutions. We work with employers to help them more clearly signal the skills and knowledge they most need, and work with education providers to ensure their curricula and training programs align with industry demand. And we support models that expand access to the advising and coaching, skill development, and networks that individuals need in order to successfully transition into and across technology jobs.

Ultimately, more people need to be able to see themselves in the work, and know the steps they need to take to develop desirable skills and to thrive. If this work is successful, every individual interested in a career in technology will be able to see a clear pathway to success in the field, no matter their background.

Creating New Pathways into Technology for Veterans

Though extremely well-trained and accomplished in their roles in the military, the skills veterans obtain through service are often not recognized by employers when entering into civilian life. To meet the complex needs of transitioning veterans, Wounded Warrior Project's Warriors to Work program offers a variety of services and coaching programs to support veterans through every step of the employment process. With support from Cognizant U.S. Foundation, the Warriors to Work program has increased its focus on tech careers, delivering a technical training program jointly with Creating IT Futures.

Photo © Wounded Warrior Project

IMPACT

1,889

Number of wounded warriors and family members placed into employment, including many in tech roles.

$87 Million

Resultant economic impact of placing individuals into jobs.

Despite challenges presented by Covid-19, Wounded Warrior Project expanded employment options for many veterans this past year by offering virtual training and engagement opportunities. In 2020, Warriors to Work supported 394 graduates with training in technical fields.

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It has been especially important during this pandemic to have the support of a partner dedicated to helping us achieve sustainable employment for our post 9-11 warriors.

BRYAN ROLLINS
Warriors to Work Director

Democratizing the Pathway to Tech

CODE PATH *ORG

CodePath is democratizing the pathway to tech for underrepresented groups, including Black, Latinx, Indigenous, Pacific Islander, women, and low-income students. Its mission is to equip students with the confidence, skills, and industry access needed for the most competitive roles in tech, equipping them with the power to choose their career paths. The organization envisions a future where enrolling in an elite institution of higher education is no longer the default route into the top tech careers, and instead, every aspiring college student has equitable opportunity.

Through its partnership with Cognizant U.S. Foundation, CodePath has:

- Served substantially more students, with year-over-year growth of 82%. Of the 3,300 students served last year, 69% identified themselves as underrepresented minorities or came from low-income backgrounds.

- More than doubled the number of university partnerships, from 26 to 60. It has forged new partnerships with large HBCUs, like North Carolina A&T, and HSIs, like Florida State University, and expanded its presence in several key systems, including the City University of New York, the State University of New York, the University of California, the California State University, and the Southern University system.

- Launched new Career Center offerings to connect students to more technical career opportunities. The center served more than 1,300 students last year, launched a technical mentorship program, grew its network of software engineering volunteers from 50 to more than 1,000, and hosted a dozen events, including a Virtual Career Fair that connected more than 500 students with 40 companies.

IMPACT

3x
Black CodePath alumni are 3x more likely to work in tech.

19x
Latinx CodePath alumni are 19x more likely to work in tech.

This work is having a real impact in individuals' careers and lives, and ultimately, is transforming the face of tech. Specifically:

- In a recent survey of 1,373 students who were admitted to at least one CodePath course in 2020, 60% had landed technical jobs or internships, of which 44% were with a FAANG company, Fortune 1000 company, or with a unicorn start-up.

- 56% of first-generation students who've participated in CodePath now work as software engineers or SWE interns today.

- Last but not least, 53% of CodePath students obtained their first technical work experience after a CodePath course.

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As one of our first funders and partners in this work, support from the Cognizant U.S. Foundation has been critical as we expand our mission and shape a more equitable tech talent pipeline.

MICHAEL ELLISON
CEO and Co-Founder of CodePath

Tony Murillo

Tony Murillo brings these numbers to life.

Murillo experienced homelessness more than a few times growing up in San Diego, and developed an early interest in computer science after stumbling across a "Programing for Dummies" book one day in the downtown library. He dug into programming in high school, eventually earning a spot in the computer science program at the University of California San Diego, where he's now majoring in machine learning.

"Computers and technology have been my saving grace," he said. "The computer really kept me out of trouble."

But, despite Murillo's passion and UC-San Diego's strong reputation, getting his foot in the door at entry-level jobs and internships was a challenge before he found CodePath. At career fairs, the lines to meet recruiters were "absolutely ridiculous." "If you were lucky, you would maybe meet—especially with having to go to work and class—maybe one or two recruiters that had already talked to thousands of kids," he said. "It just didn't lead to much."

Photo © Tony Murillo

CodePath was far more effective. After taking the organization's 12-week Intermediate Software Engineering Fundamentals course, he secured a summer 2021 internship with Dick's Sporting Goods, the nation's largest sporting goods retailer. The internship will give Murillo an opportunity to consider how a sophisticated retail company like Dick's might use tools like AI—and more than that, it will give him an opportunity to develop new skills and make new connections that will open more doors in his career.

Fawziyah Alebiosu

Maryland native Fawziyah Alebiosu knew at a young age the path she would pursue when she got to college. "It's always been computer science," she says. But as a Black woman, she knew it would not be easy.

CodePath was a game changer for Fawziyah, but not just because it gave her key technical skills. More importantly, she says, it advocates for minorities by giving them the resources and reassurance needed to thrive in the tech industry.

"I'm so grateful that CodePath gave me the skills to make me competent, because that also means that I'm confident—and it means that when a company gives me an offer, I know that I deserve it because I literally did the work and I am just as capable. I'm very grateful for that."

Photo © Fawziyah Alebiosu

At 20 years old, she sees Android app development as an entry point into the banking industry, making products that make both information and financial resources accessible to millions of people worldwide. Recently, out of 11 paid summer internship offers that Fawziyah received, she chose Capital One and is excited to explore her career opportunities in fintech.

Computer Science as the New MBA

N Northeastern University
Khoury College of Computer Sciences

Northeastern University's Align Master of Science in Computer Science program is focused on scaling pathways into computing for those historically left out of tech, addressing systemic issues of inequality and exclusion. This work targets recent graduates interested in transitioning to tech from another field and provides much-needed additional wrap-around services. Transitioning into tech from a totally different field is an enormous challenge—and services like near-peer mentoring, industry mentoring, math bootcamp, and an enhanced tutor model are critical to ensuring success.

Over the past year, the Cognizant U.S. Foundation's support has enabled Northeastern to continue and extend its services despite the pandemic. At the same time, the Foundation's focus on scale and replication fueled the expansion of the MSCS New Pathways Consortium, which is now a powerful force for innovation in tech education across the country.

And, this work is highly scalable. At present, 13 colleges and universities are actively collaborating on replicating "Align-like" programs across the country. Northeastern is well on its way to making the Master's in Computer Science "the new MBA"—a degree that learners from all disciplines can and should have access to.

IMPACT

50%
Women now consistently make up more than 50% of incoming classes.

In the last year, since the start of the Cognizant U.S. Foundation partnership:

- Align program enrollment grew year-over-year from 496 to more than 600, at a time when most MS programs shrunk due to the pandemic.
- Program launched in two new locations: Vancouver and Portland, Maine.
- One of three online courses funded by Cognizant U.S. Foundation is in post-production and currently being piloted with students, with a second course in development.
- Membership of the MSCS New Pathways Consortium has grown to 13 institutions.

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Cognizant's support came in just as the pandemic was hitting. The timing—unknown to all of us—could not have been better. It allowed us to send a strong message to students that, even amidst the uncertainty, there is a path for them into tech and that that path is inclusive and values diversity.

CARLA E. BRODLEY
Dean of the Khoury College of Computer Sciences at Northeastern University

An Accelerated Pathway into Tech Careers

TURING
SCHOOL OF SOFTWARE & DESIGN

The Turing School is designed to quickly launch learners, particularly those underrepresented in tech, into upwardly-mobile tech careers. It offers two immersive, seven-month computer programming tracks, and has a track record of success. The school's partnership with Cognizant U.S. Foundation has allowed it to add training, career development, and mental health resources that students need to successfully start and grow their careers.

The partnership also enabled the school to customize the full Turing experience for veterans and women, who have lost jobs and left the workforce during the pandemic at much higher rates than men.

Photo © Turing School of Software and Design

IMPACT

78%
Graduation rate for women, increased while Turing also expanded its enrollment.

In 2020, Turing's partnership with the Foundation enabled it to:

- Educate 123 women, a substantial increase over the baseline of 91 in 2018 and progressing toward the goal of doubling to 182.

- Support women in landing high-quality roles— amid pandemic disruptions, the average time-to-hire increased to 72 days, but the average annual salary increased to $90,077, up from $76,549 in 2018.

- Increase graduation rate for veterans to 88%, up from a 2018 baseline of 79%. Impact with veterans over the past year was mixed, in part because most of the school's military partners have remained more focused on basic needs vs. job efforts during the pandemic.

- Improve veteran time-to-hire to 54 days, even as pandemic impacts saw the average salary fall to a still-substantial $72,714.

❝

Having the support of the Cognizant U.S. Foundation allowed us to stay focused on our mission, put 100% of our energy into students, and get people into amazing careers, despite the challenges.

JEFF CASIMIR
Executive Director

Expanding Opportunities for Women in Tech

BREAK THROUGH TECH

The number of women who secure jobs in the tech industry is dismally low and stubbornly resistant to change. And women have gone from earning 32% of computing degrees in the late 1980s to 20% today, with the reality for women of color even worse. Break Through Tech was created to address the national crisis of gender inequality in tech, starting in New York as a collaborationbetween Cornell Tech and the City University of New York (CUNY).

In just four short years, CUNY saw a significant increase in the number of women pursuing—and graduating with degrees in—computer science and related fields. Cognizant U.S. Foundation supported a national expansion of this model in 2020, with Break Through Tech setting an ambitious goal of increasing the share of bachelor's degrees in computing awarded to women by 12.5 percentage points.

The first expansion site, Break Through Tech Chicago, launched in partnership with the University of Illinois Chicago this past year— offering the organization's model that connects academic partners with industry partners to new UIC students.

Access

Making introductory computer science classes more accessible and applicable.

Experience

Connecting students with work experiences needed for career success.

Network

Encouraging peer-to-peer networks and professional mentorship opportunities.

IMPACT

92%

Increase in women graduating with computer science degrees at CUNY.

Break Through Tech's work has demonstrated that it is not too late for women who may have missed the window of opportunity to explore computer science in primary or secondary school to become engaged and successful in computing fields. The organization's site in Chicago is too new to have outcomes, but it builds on substantial success at CUNY. Since working with Break Through Tech, the system's colleges saw:

- An almost 62% increase in the number of women pursuing undergraduate degrees in computer science and related fields.
- Growth—from 20% to 23%—in the overall share of computing degrees awarded to women.

Break Through Tech has learned some important lessons about how to better support women in tech, particularly the Black, Latina, low-income, and first-generation students who are more likely to attend less-resourced public institutions. For example, the program originally focused on helping students get summer tech internships, a major milestone toward securing a full time job after graduation. But less than 5% of its students were getting internships, or even interviews—even at companies with stated commitments to diversify their intern pool—because they simply didn't have enough relevant work experience on their resumes.

So Break Through Tech created the Winternship and Sprinternship programs, a paid, three-week, mini-internship for first and second year students that gives them critical work experience. Now, more than 50% of students who participate in a mini-internship and seek an full internship the following summer achieve their goal.

As it expands nationally, Break Through Tech remains committed to that kind of experimentation and continuous improvement—to finding approaches that will launch more women into successful careers in tech.

Photo © Jessica Scranton Photography

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>
> The future of innovation depends on all of us. It is time for industry and academia to think boldly and partner to break down the barriers that have kept women from the tech industry for decades. Our nation's competitiveness in the digital age depends on it.
>
> **JUDITH SPITZ, Executive Director**

Pipelines

Long before people arrive at a career pathway, they begin to dream. And the work to expand economic opportunity broadly—and the tech talent pipeline specifically—starts there.

In fact, a growing body of research indicates that early identity plays a powerful role in the jobs and careers we ultimately have. And career identity centers not just on discovering what we want "to be when we grow up," but more importantly, uncovering the things we like to do and are good at. This is what Diane Tavenner, in her *Prepared: What Kids Need for a Fulfilled Life*, calls exploring the "ings"—coding, writing, working with teams, managing, inventing, and so forth.
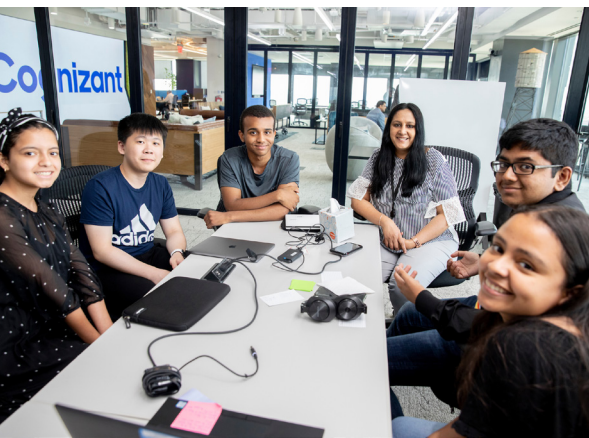

Photo © Jessica Scranton Photography

WE INVEST IN PROGRAMS that present K-12 students with engaging computer science, technology, and digital curriculum.

This process can be particularly important for demystifying fields, like technology and math, that often have powerful stereotypes attached to them. Ultimately, to expand and diversity the pipeline into these fields, more people need to be able to see themselves in the work. And that needs to start well before college. Beyond being able to envision themselves in technology, students also need early experiences that help them to understand the career navigation process and to develop skills that set them up for later success.

For this reason, we invest in programs that present K-12 students with engaging computer science, technology, and digital curriculum that not only teach fundamentals but also broad skills like problem-solving and creativity. We support teachers in developing competency in the computer sciences and advanced math, and in learning about the range of possibilities for a career in technology, so that they can inspire students and support them in pursuing those fields. We fund career exploration and navigation that both exposes students to jobs in the technology sector, and also helps them understand how to build the networks they would need to land those roles and progress in a tech career.

This work is built on the basic idea that we do not lack the talented people needed to fill critical roles in technology in this country—we just have to bring them into the pipeline, and that needs to start early. If this work is successful, more people of all ages will not only aspire to pursue careers in technology, but also have the foundational skills they need to grow into the field.

Pathways in Action
Grantee Profiles

Equipping High School Students to Pursue Careers in Technology

CodeNation

Code Nation is dedicated to providing technical education and career development opportunities to young people attending under-resourced high schools. During the 2019-20 school year, 77% of Code Nation students identified as Black or Latinx, and 43% identified as female. In an era of destabilized education and remote learning, it is especially critical to provide consistent, engaging, and high-quality programs for students. Furthermore, these programs provide young people with the skills, experiences, and connections that create access to sustainable, resilient, high-wage jobs—something that has never been more important.

With support from Cognizant U.S. Foundation, Code Nation has been able to expand the reach of its programs, including partnerships with eight new schools in Chicago. The Foundation's support was also essential for helping the organization shift to remote delivery for much of its programming and support services.

IMPACT

2,805

Students reached via Intro to Web Development and Coding Fellowship programs held in Chicago, NYC, Oakland, and San Francisco.

With support from Cognizant U.S. Foundation, Code Nation:

- Launched partnerships in eight high schools in Chicago, the organization's newest region.

- Set a long-term goal of at least 60% of program alumni to be on track to secure a high-wage technology job after high school graduation.

- Successfully transitioned all 20 Coding Fellowship classes to remote learning, with 84% of fellowship students participating in the remote offerings.

- Transitioned 54 of 70 Intro classes to remote learning.

As the country looks to the future, how individuals engage with work and education systems may fundamentally change—and Code Nation aims to remain at the forefront of this change.

> " This past year of virtual learning and work has taught everyone a lot about what is essential and what is not. A number of the key 'ingredients' of success have proven to still be essential: scaffolded opportunities to learn skills, authentic experiences to hone those skills in the real-world, and strong relationships and networks. The future of education and career access is going to be about figuring out how to develop these three things in a range of fluid contexts.

REBECCA NOVAK
CEO and President

Increasing the Number of K-12 Computer Science Teachers

TEACHFORAMERICA

As part of its broader work, Teach For America focuses on advancing computer science in K-12 education as a critical means to develop the workforce of the future. Despite significant advocacy efforts, more than half of U.S. schools do not offer any computer science courses, limiting the early exposure that would lead students to pursue this field in college and beyond. Teach For America believes in supporting all schools, especially those serving students in low-income communities and students of color, to close this gap.

In addition to the lack of computer science programs in schools, the U.S. does not have enough teachers with backgrounds in the field. This shortage stems from a lack of preservice programs for aspiring computer science teachers. In 2017, only 36 teachers nationwide graduated with computer science degrees, compared with more than 11,000 math teachers with math degrees and a similar number of science teachers with science degrees.

Photo © Teach For America

IMPACT

6,971

The Cognizant Computer Science School Leader Cohort supports 10 school leaders in establishing computer science education programs—an ultimate impact on 6,971 students, 75% of whom are students of color.

To date, the partnership between Teach For America and Cognizant U.S. Foundation has:

- Supported 11 fellows in the first year of the Cognizant AP Computer Science Principles Teaching Fellowship, which trains diverse educators to teach the course, in which female students and students of color remain underrepresented. Among the first group of fellows, 73% are people of color and nearly half are women.

- Reached 600 school leaders through the 2020 School Leaders of Color Conference, and 115 individuals and influencers representing 50+ organizations through a research webinar. Other events were scheduled but had to be cancelled or postponed due to Covid-19.

- Advanced best practices during the initial months of distance learning, in partnership with Bellwether Education Partners, by studying 12 schools/school systems, serving tens of thousands of students. The insights had the ripple effect of being shared with many school leaders nationwide, in addition to being picked up by international education agencies.

" As we grow both the teaching and leadership fellowships, these innovative and diverse teachers and school leaders will equip thousands of students with the computer science skills that are essential to the careers of the future.

ELISA VILLANUEVA BEARD
CEO, Teach For America

Marcos Perez Ordonez

Cognizant AP Computer Science Principles Fellow

Marcos Perez Orzdonez (Rio Grande Valley '15), one of the Cognizant AP CSP Fellows, brings some of these statistics to life. Perez says he has witnessed tremendous growth in his seven AP CSP students. Prior to the class, his students knew about technology, but didn't understand where it came from or how to create within it.

Now, he says, his students "can think critically and are able to apply [CS] concepts into their work. I noticed that they are more patient than when we started and work/help each other out when they are struggling." He is excited to continue to teach AP CSP because of the students' demonstration of creativity and collaboration in their class projects. All students in his class identify as Latinx and are

Photo © Marcos Perez Ordonez

economically disadvantaged, and 43% identify as female and 57% identify as male. As a first-year teacher of AP computer science, Perez found his fellowship invaluable in providing him the training, peer mentorship, and teaching tools he needed to be confident and successful.

Systems Change

We must improve career pathways and pipelines—but more than that, we need fundamental systems change. We're educating too many people for jobs and ways of work that no longer exist. Our systems still front-load education, expecting most people to have completed their education before ever starting their career. And yet, we know that careers today and into the future will require people to regularly upskill, retool, or completely reimagine their work. Already, the half-life of learned skills today is only about five years, and falling.

Designing a modern system—one that is both **MORE NIMBLE AND MORE EQUITABLE** takes businesses, educators, policymakers, and funders all working together.

Automation, big data, and the incorporation of technology in just about every aspect of our lives and economy are forcing major shifts in the very nature of work. And technological advancements will continue to be both rapid, and seismic in their collective impact. Our education and career systems are designed for an analog world, and simply can't keep up. That's a major reason why almost 40 percent of recent college graduates were underemployed even before the Covid-19 economic crash, with the numbers much worse for women and people of color. And it's why millions of Americans believe they need additional education and training to stay relevant and advance in their careers, and yet question whether a degree would actually deliver on that promise.

This is a problem across education and career fields, but is a particular challenge in technology where the demand for specific skills and even entire job categories is changing—and will continue to change—rapidly. Of the top five skills IT leaders worldwide say are in short supply today, only one of those skills, change management, made that same list five years ago. Our current education, training and workforce systems simply can't keep pace.

Our work focuses on bringing together cross-industry groups to research and recommend ways to redesign our K-12, higher education, public policy, and workforce systems. We focus on solutions that are both iterative and innovative, that account for practical constraints even as they aim to transform.

If this work is successful, our systems will no longer operate in silos, but instead will allow people to move seamlessly between education and career—enabling them to learn, upskill, and reskill, unlocking new opportunities across a lifetime.

System Change in Action
Grantee Profiles

Reimagining Talent Finance

TALENT **FINANCE**

Our economy competes on talent, yet the talent financing and development systems we rely on were built for a different era. The current system, primarily funded by taxpayers, can't keep up with today's dynamic economy, with rapidly changing skills and job opportunities. The U.S. Chamber of Commerce Foundation's Talent Finance initiative is exploring a different future—one in which employers and the financial services community more proactively invest in and build the workforce.

With support from the Cognizant U.S. Foundation, the Talent Finance initiative has generated significant interest in a new public-private approach and laid the groundwork for state and regional pilot projects in the next phase of the initiative.

IMPACT

In 2020, the Talent Finance initiative:

- Built a review committee of more than 40 issue experts, and forged critical partnerships with the Federal Reserve Bank of Atlanta, the Greater Houston Partnership, Society for Human Resource Management (SHRM), and WorkingNation to advance the idea of a public-private approach to financing talent development.

- Published a landmark white paper, "Talent Finance: A New Consensus and Return-to-Investment," which introduced a new framework for understanding and organizing the talent finance ecosystem with a focus on public-private collaboration, shared value and risk, and promoting access, choice, and equity.

- Raised awareness of the opportunity to reimagine talent finance through a five-part forum series and video interviews with industry experts, public-private leaders, and learner-workers.

> " We need finance solutions fit for our time, not ones built for a different economy and era. We are working to build public-private partnerships to test and scale new finance and investment solutions to make education and training more affordable, where learners have less debt, and with better outcomes.
>
> **JASON TYSZKO**
> **Vice President, U.S. Chamber of Commerce Foundation**

Changing How We Define and Recognize the 'Skills of All Workers'

Opportunity @Work

Opportunity@Work is committed to researching and advancing economic opportunities and outcomes for 71 million workers without a four-year college degree who are skilled through alternative routes (STARs).

These STARs make up over half the workforce, and have experienced a 13% decline in real wages over the past generation. With support from the Cognizant U.S. Foundation, Opportunity@Work's STARs Insights Initiative created a cross-disciplinary research agenda to fully understand barriers to opportunity for STARs and the complex drivers of mobility. This resulted in two foundational reports:

- "Reach for the STARs" and its companion academic NBER paper introduced the STARs concept, defined the population of over 71 million workers, and identified a segment of 36 million "rising STARs" who have the skills to do work that would pay them an average of 70% more than their current wages, if they were able to fully deploy their skills.
- "Navigating with the STARs" examined how STARs transition jobs and established that while STARs have the skills for higher wage work, they do not have access to those career pathways in the numbers that they should.

Together, these two papers point to a fundamental inefficiency in our labor market that does not allow workers or employers to translate valuable skills into higher paying, higher value work. Understanding this reality—and exploring why it exists—is key to ultimately changing our systems and advancing economic mobility.

IMPACT

1.3 Billion

This research has been referenced in 973 total publications, with a potential reach of 1.3 billion and an ad equivalency value of $11.9 million.

The STARs Insights Initiative has served as an important analytical foundation to change the narrative around opportunity for workers without degrees. Specifically:

- For the first time, research has clearly defined that 60% of the U.S. labor force are STARs, including 68% of Black workers, 79% of Hispanic workers, 73% of rural Americans, and 64% of veterans across the United States.
- Research findings were translated into stories and visualizations to make the data and narrative accessible—and actionable—by employers, the workforce field, policy makers, and even the general public. The work also garnered considerable attention in the press, with articles in the *Wall Street Journal, The New York Times*, and *Forbes*, that expand the public's understanding of these important issues.

"

Our research concludes what many of us already knew; that opportunity in America often has more to do with where you obtained your skills, the color of your skin, and where you were born than your individual ability. Our research agenda addresses the barriers that prevent workers who don't have a four-year degree from reaching their full economic potential.

DR. PAPIA DEBROY
Senior Vice President of Insights

Rethinking Lifelong Learning Systems

THE ASPEN INSTITUTE

FUTURE OF
WORK

The Aspen Institute Future of Work Initiative partnered with Cognizant U.S. Foundation to work alongside local government and workforce leaders in cities across the U.S. to develop actionable proposals that equip cities to develop lifelong learning systems. To advance this work, the initiative:

- Held roundtable discussions in three cities—Chicago, Phoenix, and Hartford—between November 2019 and February 2020 to hear from local cross-sector stakeholders. These cities were chosen based on their different geographic and demographic attributes, and the presence of unique education and training resources to support adult workers.

- Brought insights from those discussions together into a report, "Building a Lifelong Learning System: A Roadmap for Cities," that presents cities with actionable steps to build lifelong learning systems. Upon publication of the report, the initiative hosted a virtual event broadcast to a national audience.

IMPACT

The initiative's work over the past year has advanced an understanding of lifelong learning and the systems that support it, or fall short in doing so, in cities across the country. Specifically, the initiative:

- Connected with 61 local leaders and residents through its convenings, and discussed the aims and objectives of this work with more than 30 national experts on workforce, training, and labor.

- Attracted interest, with more than 300 downloads of its roadmap report and more than 1,000 site views. The related virtual event has had nearly 600 views to date. This traffic has helped the initiative target additional outreach to individuals interested in and able to act on proposals.

- Fostered important connections among stakeholders nationally and in Chicago, Phoenix, and Hartford that will enable them to pursue programs and partnerships that extend beyond the lifetime of the grant.

- Connected stakeholders with one another for the first time in some cities. For instance, Hartford employers spoke with non-profit training providers for the first time, which led to follow up discussions on creating new workforce pathways for traditionally underserved populations.

> " While much is known about the role that the federal and state governments play in promoting education and training, less attention has been focused on the opportunity that exists for cities to take a leadership role in helping their workers adapt and thrive in a turbulent and changing labor market. This work aims to change that, proposing concrete steps that cities can take to promote lifelong learning.

ALASTAIR FITZPAYNE
Senior Fellow, Aspen Institute

Conclusion

The Cognizant U.S. Foundation is committed to investing big in its beliefs—and as our 2020 work has shown, we believe that the technology sector can and must play a powerful role in unlocking greater opportunity for individuals of all backgrounds. To achieve the prosperous and equitable future we imagine, we are working with phenomenal partners to rethink the pathways into and through the tech sector, grow more diverse talent pipelines, and fundamentally reimagine the education and workforce systems in which the sector operates. That work is far from done.

Corporate philanthropy will continue to play an integral role in the year ahead as companies work to define a path forward post-Covid; as calls to get communities back to work and redefine "the future of work" reach a fever pitch; and as a new U.S. Administration looks to the private sector to support new workforce, education, and economic recovery and resiliency plans.

The Foundation enters 2021 poised to deliver on this charge in both U.S. and international markets. With a timely mission, clear focus, and demonstrable impact, the Foundation's annual grantmaking in the years ahead will build on our existing work—all bolstered by Cognizant's continued commitment to corporate social responsibility.

Working together with our partners, **we are committed to advancing true transformation over the coming year and the years ahead.** We will work to remake pathways, pipelines, and systems in order to ultimately change lives.

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