# Behavioral Insights for Workforce Development

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# Acknowledgements

# About ideas42

We are a non-profit looking for deep insights into human behavior—why people do what they do— and using that knowledge in ways that help improve lives, build better systems, and drive social change. Working globally, we reinvent the practices of institutions, and create better products and policies that can be scaled for maximum impact.

We also teach others, ultimately striving to generate lasting social impact and create a future where the universal application of behavioral science powers a world with optimal health, equitable wealth, and environments and systems that are sustainable and just for all.

For more than a decade, we have been at the forefront of applying behavioral science in the real world. And as we've developed our expertise, we've helped to define an entire field. Our efforts have so far extended to 40 countries as we've partnered with governments, foundations, NGOs, private enterprises, and a wide array of public institutions—in short, anyone who wants to make a positive difference in people's lives.

Visit ideas42.org and follow @ideas42 on Twitter to learn more about our work. Contact us at education@ideas.org with questions.

# ➤➤ *Introduction*

**I**n March 2020, the United States economy experienced a dramatic change due to the COVID-19 pandemic. COVID-19 overwhelmed health systems around the world, and there was limited understanding of the best way to mitigate its transmission as it began to spread in the U.S. and globally. As a result, restaurants shut down, offices were abandoned, and Americans prepared for an extended stay at home. In a single month, 14.5 million people in the U.S.—one-tenth of the total workforce—lost their jobs.

A year later, the pandemic and its economic effects persisted. In March 2021, the size of the U.S. workforce had recovered but remained six million jobs below pre-pandemic levels. The effects varied by sector. While food retail, hospitals, transportation, and construction largely recovered[1] other sectors such as performing arts, food services, and movie theaters remained moribund.[2] Many businesses closed permanently and even as the pandemic subsided, many individuals were likely forced to find new jobs and new careers.

The COVID-19 pandemic was unusual in the severity and speed with which people lost jobs and entire sectors diminished. But the economy is constantly adapting and changing, even outside of the context of a recession. For example, manufacturing has experienced a slow decline, decreasing from 18 million employees in 1990 to 13 million in 2019. Meanwhile, healthcare saw a commensurate increase over the same period, moving from eight to 16 million employees. Sectoral shifts like this may only increase in speed and size as automation plays a bigger role in across a growing number of industries. In the dynamic U.S. economy, it's also more likely people will switch careers and reinvent themselves over and over. In aggregate, these changes may seem abstract. For individuals, they are anything but. ***Navigating a complex labor market means that individual workers have to make countless decisions—big and small—about what kind of work they want to do and what they need to learn to achieve their career goals and earn a living.***

***Workforce development*** programs of all kinds exist to help people navigate from one field to another, or gain skills to advance within their current position. Workforce development is a complex ecosystem, with many types of programs, funders, and participants. It includes community colleges, apprenticeships, on-the-job-training, online seminars, federal programs, and much more.

While skills training alone is not enough to address structural inequalities in the economy (see "The 'Skills Gap'" on page 3) participation in workforce development appears at times to yield substantial returns. For example, the federal Trade Adjustment Assistance Act (TAA) provides retraining for people who have lost jobs due to trade-related events. Ten years after its passage, total earnings of TAA participants exceed those of non-participants by $50,000 due to a combination of faster re-employment and higher wages.[3] Yet programs like TAA often suffer from low uptake and completion rates. In 2020, 96,111 workers were eligible for TAA but only 23,436 of them received services. In addition, out of those who received training, only two-thirds completed the training and received a credential.[4]

Where programs with clear financial benefits are under-utilized, insights from behavioral science research can help explain what might be happening. Taking a behavioral approach can help us understand why people may not be participating in these programs, as well as offer ideas for addressing these specific challenges. *Ultimately, by accounting for the complexity of human decision-making, we can design programs that work with human nature, not against it, benefiting countless lives and livelihoods.*

From November 2019 through July 2021, ideas42 has explored how behavioral science can be applied to workforce development programs, with the aim of identifying how to make them more effective. Because context matters tremendously—and because seemingly-small details such as the phrasing of questions on a form or the norms conveyed by other participants in a busy computer lab can have a big impact on whether and how participants are able to achieve their goals—we explored in detail how three specific workforce development programs work. In so doing, we sought to understand where participants got off-track, and how insights from behavioral science could be used to better help them succeed.

» **The 'Skills Gap'**

While workforce development programs offer training that can help people change jobs and increase their wages, training alone will not solve broader challenges in the labor market. Indeed, such programs cannot replace macroeconomic stabilization policy, or interventions aimed at remedying structural inequalities in the economy.

The narrative of a "skills gap" has been used in the past to advocate against macroeconomic stabilization policies that would lead to higher employment and wages. But an over-focus on skills policy can suggest that a failure to be employed with high wage is primarily due to workers not pursuing training.[5] Instead, the choice to pursue such training is itself dependent on macroeconomic policies that create the conditions where training is valuable. Workforce development and skills policy are valuable, but not sufficient to end poverty or inequality on their own.

This report is based on in-depth conversations with participants and staff of three different workforce development programs across the U.S.:



**Goodwill:** Goodwill is a national non-profit organization that offers job training and placement programs across the U.S. We worked with Goodwill's "Digital Career Accelerator" program, which trains adults in computer skills, from basics through advanced certifications. Participants who start a Digital Career Accelerator program may be looking specifically to build digital skills, but they might also be seeking more general job assistance. Program participants typically sign up in-person at a Goodwill Career Center and coaches help with the onboarding process as well as with providing support as participants move through the program levels. This program has a national reach, but we interviewed coaches and participants for this report in partnership with Goodwill Industries of Michiana and Goodwill Industries of Kentucky.

**PelotonU:** PelotonU provides working adults in Austin, Texas, essential support so that they can earn a college degree on-time and debt-free. PelotonU partners with select, online, competency-based degree programs to ensure every participant can further their career and then provides their participants with relationship-focused coaching, community, and additional support as needed. Rooted in Austin, TX, they now serve students across the country in partnership with local CBOs.

**Workforce Solutions Greater Dallas:** Workforce Solutions Greater Dallas engages employers and offers solutions for a qualified workforce, provides job seekers comprehensive solutions to employment, and convenes a community workforce dialogue critical to economic development. In our work, we focused on the "Retail Pays" program, an online program that helps people build skills specifically for advancement in the retail sector. In this context, participants may be referred to the program at a job center or through their employer, but then complete their course through an online platform.

To understand what behavioral barriers inhibit participants from following through on their intentions to enroll in and complete these programs, we familiarized ourselves with the programs' learning environments and processes, generated behaviorally-informed hypotheses about what got people off-track, and conducted 37 in-depth interviews with program participants and staff (particularly coaches who work directly with participants in each program). These interviewees spanned a range of ages—from recent high school graduates to participants in their 50's and 60's—and included people with different employment statuses. We also worked with our three partner organizations to ensure that our interviewees reflected the racial and ethnic diversity of their program participants.

Through these conversations, we asked participants a structured set of open-ended questions about their experiences with workforce development programs. By looking for themes across all three programs, we identified several common behavioral barriers.

In the pages that follow, we focus on four of the common barriers that emerged—*hassles*, *scarcity*, *identity and mindset*, and *choice conflict*—all of which can impact participant engagement in workforce programs. We also offer high-level design ideas for how those barriers might be addressed by those who structure or design workforce development programs. These design ideas require refinement and adaptation before they can be implemented in a specific programmatic context, but we hope they will inspire leaders of workforce development programs to think deeply about the behavioral challenges their participants face and start to identify creative ways to address those challenges. Ultimately, we believe smart behavioral design can help more people engage with effective workforce development programs, thus improving their career outlook in the ever-changing U.S. labor market.

## » Workforce Development Program Stages

At ideas42, we begin our work by defining the specific behavioral problem we are trying to address, clearly identifying when in a program or process people get off-track and fail to follow through with their intentions. We found that participants in workforce development programs can struggle at three distinct stages, and throughout this report we identify when we saw behavioral challenges arise.

***Program Discovery:*** Before someone can decide to participate in a specific workforce development program, they must learn that the program exists. Not all programs engage in extensive marketing or outreach and, as such, potential participants may not hear about the programs that are best for them, might be dissuaded from learning more because of small details in how the program is described, or may struggle to choose between programs.

***Program Entry:*** Once someone has identified a program, they must complete program entry requirements. This might include filling out a form, completing baseline assessments, attending counselor meetings, selecting courses, or even filling out complex paperwork for federal student aid. Any of these tasks can pose behavioral barriers that lead potential participants to drop off and fail to enroll.

***Program Persistence:*** Once participants are enrolled in a workforce development program, they must complete the associated learning requirements. Here, too, participants may experience behavioral barriers—such as not understanding how course requirements map to career goals, not feeling like they are making progress, or not being able to easily fit course requirements into their busy lives—that lead them off track.

# Addressing Behavioral Barriers in Workforce Development Programs

**S**tandard economic models implicitly assume that people will enroll in and complete workforce development programs if the benefits of doing so outweigh the costs. But decision-making is vastly more complicated. Starting or completing a workforce program means adapting the program to a daily or weekly routine. It means not pursuing other priorities or spending less time with family. It's also a choice about "who" someone is—these programs require substantial time and energy focused on one career path, which can change a person's self-conception. Looking at these issues through a behavioral lens can help us understand how people make decisions in the real world, and how programs can be designed to support this reality.

Through our extensive engagement with three different workforce development programs across the country, we identified four ways in which participants in workforce development programs struggle with behavioral barriers. In the pages that follow, we describe how each of these barriers can impede participation in workforce development programs and include a preliminary set of design ideas that programs could implement to alleviate them.

## » Context Matters

The insights presented in this paper came from work with three substantially different programs (see page 3 for program descriptions). But no three programs can perfectly represent the broad range of workforce development experiences. Rather, "workforce development" can refer to programs as disparate as a half-day training at a job center or a degree program at a community college. This expansiveness presents a challenge: how do we apply our context-specific findings to a field that encompasses such a wide range of programs?

To address this tension, we highlighted behavioral barriers that we uncovered in our work and that we hypothesize are relevant to a range of workforce programs while at the same time including insights from actual program participants and coaches to illustrate how the challenges we identify can play out in practice.

Similarly, the potential design ideas we identify are those we think could be implemented by a range of workforce development programs. Many of them are already being tried by innovative programs across the country, though in the case of our specific recommendations they were the result of co-design sessions held with staff at our three partner organizations.

Ultimately, we hope that readers of this report will think about whether and how the barriers presented here might manifest in their own context and how the design ideas might be adapted with that particular context in mind. Indeed, we hope that these ideas will spark thinking about how workforce development programs can integrate behavioral solutions into their work at many different levels, or even adapt design ideas they are already implementing to address the behavioral barriers their participants may be facing.

### ➤ *A Note on Quotes*

*Throughout this report, we'll share quotes from our participant interviews that illustrate the behavioral barriers. These quotes were all taken from our notes on interviews. Because they are transcribed from speech, we've occasionally lightly edited a quote to remove personal information or add clarity. However, we've avoided substantially editing quotes so as to retain the voice of those to whom we spoke as much as possible.*

# »» HASSLES

> **"** *[My coach] emailed me all the links that I needed to do as pre reqs. I needed to have a laptop, which I didn't have. I had a tablet and my phone, and the tablet I couldn't use, and I don't have the money right now to get the laptop. I was going to use my parents' desktop, but my sister is doing classes, so it kind of just stopped me dead in my tracks.* **"**

Participants in workforce development programs are frequently derailed by hassles, from challenges in required assessments to unclear next steps to technology issues. And problems in any of these areas, even those that seem small, can have a large impact in terms of program entry and persistence.

## Behavioral Barrier: Participants in workforce programs face entry-related hassles

For some program participants, hassles can begin even before the program officially starts. One coach reported that a participant could potentially take up to eight assessments in an initial meeting. While coaches are generally there to help with these assessments, they can be challenging, nonetheless. One coach described removing a particular assessment, saying "I'm taking [that one] off because the information is not great, the answers aren't clear, it's a tad confusing." And the process can be time consuming as well. Another coach explained, "My method is, I have them sit down and take the...assessment three times, so the first time, they usually really rush through it, and the second time, maybe a little more time, and the third, they really listen." This dedication to helping participants manage the hassle of taking multiple confusing assessments is admirable, but it also creates a lot of work for all involved. When participants are presented with lengthy intake procedures, they may decide not to enroll.

## Behavioral Barrier: Participants in workforce programs face hassles when identifying next steps

In addition, many coaches described losing program participants after a first meeting, sometimes because they felt that the next steps were not clear. One program coach told us, "I like to be intentional about what the next steps are and set their pace, when is the next contact, always putting that expectation in place." This sentiment was common, but not universal. One coach who is newer to their role of guiding

participants through the program described having a much less clear process, saying "I tell them 'come in anytime,' and maybe they'll be back." Without program staff specifically working to make next steps clear, it is possible for participants to leave an initial session without much understanding of how to proceed, causing unnecessary hassles that can ultimately derail them from participating.

## Behavioral Barrier: Participants in workforce programs face technology hassles

Perhaps unsurprisingly, the most common barrier that came up in our interviews, and that consistently derailed participants from participating in workforce programs, was regular access to a computer and the internet. While many program participants had some access to computers or the internet, getting this access required hassle-filled coordination with family, or using devices that were less-than-ideal for accessing learning programs. One participant described not being able to finish their course by saying, "I had [three] problems—computer problems then after that the workforce center was closed and I had no way to go back and complete, and my internet got turned off…"

To address this challenge, some participants described wanting to work on online courses on their phones. But success was mixed. One participant had a stable phone connection and liked being able to pick up the course in short bursts, saying, "I worked on it every time I picked my phone up, instead of being on social media. If I can pick my phone up I can do it." But other participants felt like courses were not optimized for their phones and that trying to complete the course on the device felt like a hassle. When asked whether she was interested in finishing her course at some point, one participant replied enthusiastically but cited the hassle of trying to complete coursework on a phone as a major deterrent. "I'd say on a scale 1-10, I'm a 7. But until I have my own laptop, I'm a 2. I won't be able to do it on my phone—its irritating. I have [a pre-paid phone] and my phone goes pretty bad and it's very frustrating. You try to do it and its not loading."

This barrier was also echoed by program staff, who cited technology hassles as one of the top reasons why people don't complete courses. One staff member mentioned the hassles inherent in doing the course on a phone, saying "Doing it in the phone can be hard, and some [participants] get frustrated [by having to] scroll and move around." Another staff member reported, "Some of the clients just don't have a computer, and [for] some folks working on a phone isn't practical."

## 📣 BEHAVIORAL SPOTLIGHT: HASSLES

*Hassles*—or seemingly small inconveniences—can have an outsized impact in preventing individuals from following through on their intentions. Needing a stamp to pay an important bill, for example, can be a hassle. While stamps are inexpensive and widely available, many of us will delay, defer, or disengage when it comes time to getting one, potentially causing us to miss payment deadlines and leading us to incur hefty late fees. While the challenge a hassle poses (getting a stamp) may seem minor compared to the benefit gained through the target behavior (avoiding a late fee), hassles nonetheless regularly get us off track.

Decades of behavioral research is clear: when tasks include hassles, people are more likely to struggle to complete them. And, on the flip side, when hassles are reduced, more people follow through on their desired actions. One common task that is rife with hassles is completing the FAFSA, the form students need to complete to receive federal financial aid. Completing the FAFSA confers great benefits; the average aid award is in the thousands of dollars. But the form itself is long, complex, and requires information from sources not always readily accessible. And, all told, around 30% of those who would benefit from completing the FAFSA fail to do so.

In one well-known study, researchers sought to determine how removing hassles related to the FAFSA would impact its completion and, ultimately, college enrollment.[6] To do this, they offered one group of low-income individuals who were receiving tax preparation assistance personal help in filling out the FAFSA for themselves or their children. The tax preparers pre-filled most of the questions on the FAFSA with information already available through the tax forms, and walked applicants through a small set of additional questions that typically took less than 10 minutes to answer. The tax preparers then either submitted the FAFSA directly or sent it to applicants' homes for their signature and submission. They also provided applicants with personal aid estimates alongside information about costs of local colleges. A second group of low-income individuals was provided personalized aid estimates alongside college costs, and was encouraged to submit the FAFSA, but was not provided help in doing so. And a third group was simply given a brochure that provided high-level information about college and financial aid. Ultimately, those individuals who received assistance in completing the FAFSA were 40% more likely to complete the form and 30% more likely to attend college compared to the other groups. In other words, removing hassles inherent in the FAFSA had a huge impact on aid secured and college enrollment.

# Design Ideas to Overcome Hassles

**1** ***Create a minimum viable intake form:*** Often, participants in workforce development programs are presented with a barrage of forms to fill out or assessments to complete. To reduce the hassles inherent in onboarding, program designers could create a simple, mobile-friendly intake form that asks only for the most essential information (i.e., name, contact information). Program designers could be thoughtful about collecting information that might relate to more-sensitive identities such as educational background or age, and look for ways to collect that data from other sources or after there is an established relationship. Simplifying onboarding by removing unnecessary assessments, deleting unnecessary data fields, and removing hassles around required documentation can increase people's willingness to sign up for programs and lessen the chance they will abandon the sign-up process.

**2** ***Prioritize mobile-first training content:*** Online programming allows participants to work on courses at their own pace and schedule, but this can create hassles for participants without reliable access to a computer or internet. To reduce these tech hassles, program designers could design workbooks or printouts to cover course material, and mobile-optimized software for interactive elements like videos, quizzes, and progress tracking. Integrating planning prompts into the mobile portion of the course, and using communication channels (meetings, texts, emails) to remind participants to make progress on the course at a time that is convenient to them may make this design even more effective. By leveraging both printed materials and mobile phones, programs can retain the flexibility of the online format and allow participants to complete assignments in a way that is most convenient to them, while still allowing participants to progress in the course when they lack tech access.

**3** ***Map out digital access:*** For people without reliable internet, completing online workforce development courses can be extremely difficult. To address this technology hassle, programs could provide participants maps showing places, like libraries and cafes, where public internet is available. Program staff could also encourage participants to plan when they will visit these locations to complete their work. Programs could even offer small gift cards to establishments that are on the access map to participants as an incentive to work on the course, or as a "reward" for completing a specific course requirement. And employers could support digital access by providing computers and wireless internet in break rooms or other on-site facilities. Program participants may not know where free wireless internet access is available; providing this information can ease the hassle of needing to proactively look up this information.

# »SCARCITY

> **"** *I just got overwhelmed, being a single parent and working full time. I was working nights and going to school during the day. An opportunity came for me to get a job making more money, and the hours conflicted with school. I felt like I had to take care of financial obligations first.* **"**

Participants in workforce development programs often experience scarcity—of time, money, and other important resources. When participants experience this scarcity, they tend to tunnel on meeting their most urgent needs and can struggle to complete important but less-time-sensitive tasks. This phenomenon creates challenges to persistence.

## 🔍 Behavioral Barrier: Potential participants face scarcity that influences their decision-making process

For many potential program participants, experiencing chronic scarcity led them to be cautious about seeking out new training opportunities. Competing demands on participants' time, as well as financial constraints, caused them to leave previous educational programs before graduating, and that shaped their thinking when looking to start a new program. Many found it challenging to navigate their other responsibilities on top of school and faced extra roadblocks as they tried to make up for the classes lost. For example, one interviewee shared, "I had economic and family-related issues. Some family members that are out of state had some issues and so [my family and I] had to step in and I had to miss a couple of classes. I did think it was temporary, so I went and retook exams and asked for work that I had missed, but then one thing led to another, [there were] economic issues, and I couldn't afford school." Potential program participants who have significant responsibilities beyond school or who face financial constraints are understandably averse to programs that could lead to further scarcity. They seek options that address the challenges they have faced before and, when they discover programs that allow them to balance school and life, it goes a long way to easing their concerns about re-enrolling.

## Behavioral Barrier: Participants feel they must decide between enrolling in a program that could help them later and looking for jobs to pay bills now

Program participants must frequently make challenging decisions about how to allocate their time and resources. These kinds of tradeoffs take time and cognitive resources, leaving less time and energy for important but less immediate goals. One program coach explained that many participants struggle to enroll because they are focused on "just surviving in life." In many instances, this leads participants to focus on the short-term or, as another coach said, "paying the bills that are due this month instead of paying the ones that are due in a couple of years." Several other coaches pointed to similar themes, explaining that many participants might benefit from the increased wages they could earn from enhanced skills, but that more pressing and immediate concerns made this kind of thinking challenging.

Indeed, the moment when people come to a workforce center might be one of particular scarcity. If participants visit career centers after a job loss and are experiencing immediate and acute financial challenges, longer-term thinking about skills may feel less relevant at that time. One coach described this challenge, saying, "They just need that job, they're sort of in and out, and we never see them again, which is where a lot of drop off comes from." Similarly, a participant described the role of scarcity at times of unemployment, saying "I struggle with the computer. You kind of need a clear mind. If you are unemployed and are struggling, there are things that don't stay in your brain."

## Behavioral Barrier: Participants often have to make decisions about continuing in the course on top of other needs; this time scarcity can cause them to underweight long-term needs

Participants consistently indicated that trying to fit their course schedule into their busy lives was challenging. For some, family commitments were especially pressing. One participant who worked on her course mostly at a local workforce center described not finishing her program because she needed to look after her children. She explained, "I would have finished it, but it's too long. By the time I could finish something I had to go pick up kids." For another participant, cycling between many different jobs created a challenging schedule, which made planning for the course hard, saying "I just got really busy with Domino's [Pizza] and I was back and forth with Domino's and Marshalls, and then I started with Uber and Postmates." Similar stories of constant switching between workforce programs, childcare, and employment were common across interviews.

Even for participants who had consistent time set aside to work on their course at a workforce center, switching between many tasks in a short amount of time could be a problem. Multiple participants described the plethora of tasks that they might be asked to do at a workforce center, and how switching between those tasks could be distracting. One participant described, "I would be there [at the workforce center] for three hours [and] I would be bored or distracted. They were having us do two things at a time. We had to re-do resumes, and still had to do online applications." For these participants, it's not lack of time that is a barrier but lack of clarity on where to focus given multiple job search priorities. By developing tools to help participants navigate these time scarcity concerns, and building these tools into courses, more participants may ultimately complete the programs they begin.

## 📢 BEHAVIORAL SPOTLIGHT: SCARCITY

Every day, we each make countless decisions about how to spend finite amounts of money, time, and energy. And when these resources are low, we must make trade-offs between many competing priorities. *Should I buy chicken or rice? Should I do homework or help my kids with theirs? Should I exercise or take a nap?* Making these trade-offs tends to deplete cognitive bandwidth, which refers to our mental capacity to do work, focus on tasks, make decisions, and resist temptations. We all have a finite amount of cognitive bandwidth, and when it gets overwhelmed or drained by a lack of resources, it leads to poorer-quality decision-making, including a heightened focus on the present at the expense of the future. This psychological phenomenon known as *scarcity* is a universal experience. Anyone who is stressed from scarce resources experiences this tax on cognitive bandwidth and those who live in poverty and thus suffer from a constant lack of resources experience what is known as chronic scarcity.

There is significant evidence in the behavioral sciences that shows how not having enough of any given resource can reduce our self-control and make planning for the future challenging.[7] For instance, in one foundational study on time scarcity, participants were given either a large or small amount of time to play an online guessing game, with the option to "borrow" more time for a cost. Participants with less time performed less well and were more likely to make risky borrowing decisions that hurt their scores later.[8] Indeed, because we can only process a fixed amount of information at one time, chronic scarcity can compromise our decision-making process, leading us to make decisions with a heightened focus on the present at the expense of the future. People living with scarcity have a greater tendency to think in terms of concrete tradeoffs: not having enough makes the value of earnings from a job right now especially clear and vivid. All workforce development program participants we spoke with told us they faced a lack of resources such as money or time as they try to combine coursework and family on top of financial obligations.

## Design Ideas to Overcome Scarcity Challenges

**1**   *Create a "pause button" that participants can use if they face life challenges that will need their time and attention:* Participants in workforce development programs sometimes face challenges outside of the program's scope that require their time and attention; this could range from starting a new job and adapting to a new routine to attending a sick family member or an emergency. These often unpredictable events require participants to adjust how they allot their cognitive bandwidth. Making programs modular or allowing participants to pause—and then easily restart—online courses could help address these concerns. Importantly, program designers should ensure that participants can easily get back on track when they are ready; this could entail asking the participant the amount of time they are planning on pausing the program and following up with them on determined date. Allowing participants to pause and easily restart, rather than drop out, may promote persistence and completion (and most importantly, skill attainment and higher wages) in the long run.

**2**   *Help participants set a realistic schedule:* It is easy to overestimate our ability to get multiple tasks done in a set period of time. To address this, coaches could help participants sketch out a weekly schedule that includes everything they must do, including commuting, work, meal preparation, home and care responsibilities, and sleeping. With these constraints in mind, coaches could then help participants identify when they will work on their course. Having a set time to work on one's program ensures the work is more likely to get done.

**3**   *Help people plan for—and address—the unexpected:* Despite the best laid plans, un-expected challenges are likely to arise; this can be particularly difficult for program participants already experiencing scarcity. To address this, when a participant considers joining a program, coaches could help them develop a backup plan for overcoming obstacles if they arise. Giving participants a series of prompt questions asking them to explicitly articulate their plan for addressing common challenges, such as having

### » Poverty Interrupted

To help families break out of a cycle of poverty, ideas42's seminal anti-poverty framework, Poverty Interrupted,[9] offers specific recommendations based on behavioral science for policy-makers, program designers, direct service providers, and others interested in better aligning anti-poverty systems and services with human behavior. These recommendations could lead to improved lives and more efficient deployment of limited public resources.

### » Following Through

There is significant evidence[10] that simple plan-making prompts that ask people to specify when, where, and how they will take action can help them follow through on their intentions. Creating prompts to unpack the concrete actions participants need to take in the form of "**When/If** I come across X situation, **then** I'll do Y" makes people more likely to carry them out.

unexpectedly to take care of a loved one, may help if such problems ultimately arise. In addition, whenever possible, programs could help connect participants with needed support services such as financial aid (perhaps through a designated emergency fund), career support, childcare, or social workers. A list of available resources could be easily accessible through the program's course for students to consider. These services can help reduce the burden on participants' time, attention, and cognition.

4  *Assist participants with job searching first:* Often, potential program participants reach out to workforce organizations when they are in financial distress and need help finding a job. When potential participants are looking to solve immediate needs, an educational program that could boost income in the future will not be as appealing or effective as something that deals with pressing problems like joblessness occurring now. When that is the case, programs could focus first on assisting clients with their job search and then follow up later once they are in a more stable situation about their interest in participating in an educational program. Alternatively, programs could partner with employers to provide earn-and-learn opportunities so participants can earn an income while training to reduce the monetary and temporal costs of participation.

# » IDENTITY AND MINDSET

> **"** *The thought of classroom learning was very intimidating. When I went to my diploma-mill, it wasn't the most positive experience. I made it work, [but] it was not everything they promised it was going to be, so that made it off-putting. So do I really want to go to school, do I really want to do this? I was very intimidated.* **"**

Many workforce program participants have not engaged in formal learning for years or even decades. And participants in online programs may not benefit from the subtle social clues around inclusion and belonging that can happen in a classroom. Workforce development programs must therefore intentionally design their offerings to help participants avoid *identity and mindset* challenges that can impede persistence. Workforce development programs that are behaviorally designed will make sure participants feel like they can grow in the program, reinforce that they are welcome, and connect their learning to their ultimate goals.

## Behavioral Barrier: Participants don't always enter programs with a growth mindset

Many program participants question whether they will be able to succeed and grow in their programs. One coach described participants beginning an online program as experiencing acute stress around their ability to succeed, saying, "They sit down and look like they just jumped into a pool of piranhas." Ensuring that programs are built so that participants see themselves as capable learners who can grow and improve with steady practice is therefore crucial for education-focused workforce development programs. For those who have been out of the classroom for a long time, the transition can be particularly difficult. One coach shared, "They've been out of the workforce...so it's hard for them to pick that back up. Participants will say 'I don't have the skills,' which makes me think they think they cannot do it."

## Behavioral Barrier: Participants may have negative associations with school

Participants' prior educational experiences have often been acutely negative. One participant we spoke to at the start of a workforce development program described her previous experience at high school as bearing heavily on her mindset in going into a new

program, saying, "I never [wanted to go back to school again]. With me it was more of I wasn't a school person, never wanted to go. My goal was to get out of high school and then work."

## Behavioral Barrier: Participants' identities can affect learning mindset

Many program participants reported that their identity—the multiple intersecting factors that determine how both they and society see themselves—impacted their approach towards learning. Coaches described age as being a particularly salient factor for older participants as they started digital skills programs. As one coach said, "The older clients, when I start talking about computers, [they say] 'I don't want to do it, I don't want to touch it.'" A program participant described the same phenomenon, saying, "Learning digital skills is intimidating, you don't really know where to start. I think young people just know how to do this because it is a different generation." When participants see their age as a barrier to learning, it can reinforce the mindset that challenges they experience in the program are because of them, as opposed to a normal part of learning new skills. Of course, identity refers to multiple intersecting factors. While our interview process yielded discussions about age, programs should be mindful of the need to affirm and create belonging for many other categories of identities, including gender, sexual identity, ability, and race/ethnicity, among others.

## Behavioral Barrier: Participants struggle with connecting their personal goals and program tasks

Many participants struggle to see how what they are learning in their program connects to their future career aspirations. On the other hand, those who are able to articulate both a short-term, concrete goal, and a longer-term, more abstract goal that related to the course tend to be more successful. One participant saw getting a retail certificate as being potentially helpful in getting a higher-wage job with her current retail employer. She explained "My manager talked with me about the course [and how] I could take [it] to move further in the company. You have to take a lot of training." But beyond moving up in her current job, she also saw how the course could be useful in starting her own business, a longer-term goal. She said, "The customer service was really, really important [in thinking about my own business]. I've had experience in customer services. People are different, there can be language barriers and other barriers and I learned a lot in that course." For this participant, finishing the course meant working towards two goals: getting a higher position at the store in the short term, and starting her own business in the years ahead.

# BEHAVIORAL SPOTLIGHT: IDENTITY AND MINDSET

For decades, behavioral scientists have worked to better understand how different mindsets towards learning and beliefs about ourselves can impact educational outcomes. This research has shown that our beliefs and mindsets are malleable and can be changed depending on the context and environment. It is therefore imperative that workforce development programs do all they can to foster an environment in which participants believe that they are welcome and can succeed.

For example, whether we believe our intelligence is fixed, or whether we think it can grow and change with time, is one of the most important mindset questions at the start of a learning process. Across decades of research, including several large-scale trials, it is clear that comparatively small interventions that help participants develop a growth mindset can have significant impacts on their learning.[11] In order for workforce development programs to be as successful as possible they must help participants reflect on the factors of their identity that they may associate with learning challenges, and frame these challenges as an opportunity for growth.

Beyond a participant's mindset about learning, the way that the context might cause them to reflect on who they are and whether they belong can impact their performance. Classic behavioral studies have shown that priming participants to reflect on facets of their identity that they associate with negative or positive stereotypes about learning can impact their performance on a test.[12,13] Programs must reflect on the multiple identities that participants have and ensure that they are supporting and reinforcing their ability to succeed as appropriate to the program context.

Finally, the goals that participants have for their time in a workforce development program, and their career overall, matter a great deal. Interventions that prompt people to make connections between what they are learning in a classroom, and how it is relevant to their own lives and goals have been successful at improving academic outcomes.[14] Making these connections explicit and building them into coursework is a promising route forward for behaviorally-designed workforce development programs.

Despite the importance of addressing identity and mindset barriers, doing so successfully can be challenging. While exciting interventions in social psychology have shown promise for changing mindsets and improving learning outcomes at scale, the details of the context matter. Indeed, many inventions around mindset have not been successful at scale.[15] Because of this, testing and adapting any interventions to make sure they are helping learners is especially crucial when addressing mindset and identity barriers.

# Design Ideas to Overcome Identity and Mindset Challenges

**1  *Integrate growth mindset interventions:***
Programs should support participants in developing a mindset that allows them to learn, make mistakes, and grow. Adapting existing growth mindset interventions that have been successfully implemented in other contexts is the right first step. These interventions generally involve having students watch online videos about the brain's capacity for learning and development over time, and the specific learning behaviors that can enhance their ability to grow.

## » Growth Mindset

In a large online experiment of a growth mindset intervention, lower-achieving students who completed a growth mindset intervention saw improved grades and persistence to higher-level math courses.[16] The intervention was effective when peer norms were aligned with the growth mindset message.

Drawing from rigorously tested online toolkits for college students can help workforce programs integrate growth mindset activities into their onboarding materials. Good behavioral design can help participants reflect on times in their lives that they have grown and developed new capacities, whether in a classroom or outside of it, and can support learners cultivating a mindset that learning and growth take time but can be developed. Growth mindset interventions can help students who struggle by reframing those setbacks into a positive experience, and keep them persisting in the program.

**2  *Prompt participants to connect course material to their own lives and goals:***
Integrating opportunities for participants to connect their learning to their lives can help foster course persistence. Program designers could integrate non-evaluative questions into quizzes or assessments that prompt learners to connect the learning to their lives in their own words. For instance, participants might be asked to write a quick testimonial for another learner about how a module helped them advance their career goals. In addition, program participants could be asked to upload photos, videos, or other forms of media that connect their learning with their environment and identity. For instance,

## » Utility-Value

Behavioral scientists have used a type of prompt called utility-value interventions to help students reinforce their understandings of how course materials relate to their overall goals. In one study, students in an undergraduate physics class read examples of how prior students had used the material they learned in class, and then wrote their own testimonials for other students. Students who were prompted to make these connections explicitly had higher grades and exam scores compared to a control group.[17]

participants working on building digital skills could share pictures from their workplace of the kinds of tasks they will be able to do once they complete a course.

**3** *Use peer stories to increase belonging:* People connect through stories. By sharing stories of successful program participants, program designers can make participants feel like success is more achievable. Program designers could create simple videos where students who have been successful in the course are able to share their own stories with those who are just starting out. In these videos, peers could focus on how their background and identity informed their experience in the course, describe the challenges they faced, and share what they did to succeed in the face of those challenges.

**4** *Provide tryouts:* When participants think about trying something new, they may feel stress that is compounded by identity and mindset barriers. Where possible, program designers could show what is involved in the program as part of outreach and enrollment activities. For instance, a marketing campaign or intake form might include a sample activity to give participants an easy way to assess if the program is in line with their expectations and if it is well-matched to their interests. Program designers should make sure the tryout materials are not too easy or too hard, but rather a realistic example of what activities in the course are like so that potential participants can assuage initial concerns about their ability to succeed.

## » Following Through

In one intervention, incoming college students were exposed to videos of older students talking about the transition to college. In the videos, peer students shared how their backgrounds informed their college experiences. When students had struggled, they mentioned what they did in college to counteract that struggle. This peer-based belonging intervention significantly improved persistence for students from lower socioeconomic backgrounds.[18]

## » Postcard Redesign

In a recent project, the ideas42 New York City Behavioral Design Team redesigned a postcard sent to the parents of children eligible to take the city's Gifted and Talented entrance exam. The redesigned card included example exam questions so that parents could see exactly what the test required and boosted uptake of the exam by 6.5%.[19]

# » CHOICE CONFLICT

> " *[I looked at [Program X], thought about it, kind of pricey, didn't want to entail that kind of debt. Almost went to [Program Y], went to an orientation. Almost got ready to go until I got some more info from [Program Z] and decided to go that way.* "

Deciding which workforce development program to enroll in—or whether to enroll in a program at all—presents people with a complicated set of choices. Workforce development programs vary widely in cost and effectiveness, and it can be hard to assess the benefit of attendance. People also need to determine how a program will fit into the other demands on their time, whether that is recreation, care work, or their current source of income. These overlapping choices create a context in which it can be hard for people to make the best decision for them.

## Behavioral Barrier: Potential participants may fail to decide on a workforce program

Many people who sign up for workforce development programs only enroll after months of deliberation or ambivalence about their options. Others may simply never decide that now is the right time. Providing people with additional support, such as financial aid and guidance, can make it easier for them to make the decision to start a program, as can facilitating comparisons between different program options. One participant shared that she thought about getting a bachelor's degree for a long time but hadn't taken any steps towards that goal until she received a letter in the mail about a program that seemed like a good fit. She explained, "There was one show on TV talking about doing your classes online and getting your BA certificate in the mail and every time I saw it would think about it and think when should I go back. One day I got a letter in the mail about [a workforce development program] and I called the number on it. I am considering [attending the program] now because my kids are not going to school, I have time now to do my work and focus on my education too. I'm glad I got that letter in the mail!"

## Behavioral Barrier: Potential participants struggle with sequential decision-making

People considering workforce development programs are rarely presented with a menu of potential programs that they can compare side-by-side. Instead, they often make a series

of sequential choices: evaluating a single program, deciding whether it is appropriate for them, and then either enrolling or choosing not to enroll. This process subtly changes the decision-making outcomes in at least two ways. First, it makes it hard for people to compare key program features, like cost. Second, it can lead people to settle for a program that is "good enough" rather than selecting the best from a range of options. When deciding what program to pursue, a participant shared "Looked at [University], the campus is close, maybe 15 min drive from where I'm staying. I was getting ready to go until I got some more info from [workforce development program]. Without more information, I probably would have gone to [University]."

## 📢 BEHAVIORAL SPOTLIGHT: CHOICE CONFLICT

Anyone who has ever tried to choose an ice cream flavor from a crowded freezer or pick a movie to watch on a streaming service knows that choice can be both exhilarating and confounding. As humans, we all experience **choice conflict**, the tendency to find deciding from an array of options difficult. Indeed, research in the behavioral sciences shows us that the way that options are presented, the number of options, and the goals that we have in choosing can substantially impact our choices.

The number of options we are presented with matters tremendously, and can even inhibit our ability to make a choice at all. Presenting too many options has been shown to influence consumer decision making,[20] reduce uptake of 401(k) plans,[21] and inhibit people from choosing the Medicare Part D plan that would lead to lower costs.[22]

Beyond the number of options, there are other ways that choices can be challenging. For one, choices can be more difficult when the options are complex. For instance, it can be hard to choose when the options cannot easily be compared one another or when there is no clear option that is best on all dimensions.[23] Choices can also be challenging when external factors enforce time constraints on choosing, or when attributes of each choice are presented in a confusing way.[24]

When people experience choice conflict, the consequences can be significant. For one thing, people may make a choice that is not best for them, or that they ultimately regret. They also might fail to choose an option at all. While this might not be problematic for a shopper in a grocery store choosing which jam to purchase, it can be much more serious for potential workforce program participants. In this context, not choosing a program might mean sacrificing a significant increase in wages that they could get from a degree or credential. And changing courses can mean wasting time and money on a program that was not right in the first place.

## Design Ideas to Overcome Choice Conflict

1. ***Encourage participants to create a short list of program options:*** Unlike recent high-school graduates who are considering enrolling in college or trade programs, the adults that we interviewed did not tend to put together a list of programs before deciding to sign up for one. As a rule of thumb, coaches involved in enrolling participants in a program could encourage participants to identify and compare at least three options before they settle on a program. In doing so, they should consider how key program variables—such as cost, aid, and flexibility of scheduling—stack up against one another, and select the one that best meets their needs. By comparing options, people will be less likely to go to the first program they encounter and may better evaluate the costs and benefits of different offerings and how these align with their personal needs.

2. ***Meet adults at their jobs:*** Partnering with employers to identify employees who could benefit from a degree or credential and offering training in those skills is another way to mitigate choice conflict. Ideally, employers can also offer support to help adult learners afford the courses and manage their time between school and work more effectively. Employer-sponsored support such as tuition assistance, loan repayment programs, childcare, and flexible schedules can help reduce the temporal costs of working and going to school. By meeting adults where they are, more adults can think concretely about their intentions to enroll.

# ➤➤ *Conclusion*

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**W**orkforce development is an essential component of a functional labor market. While the shocks of COVID-19 may be temporary, workforce development and skills training programs will be essential to respond to future economic changes, match employers and employees, and help individual workers get ahead. The need for these programs may only grow more acute as technology progresses more rapidly. And making these programs easier to access and complete will improve their overall effectiveness.

The ideas in the report may help those developing and leading workforce programs avoid common behavioral barriers—around hassles, scarcity, mindset, and choice conflict. Some of our recommendations can be easily integrated within existing programs and services, while others will require rethinking or rebuilding programs from the ground up. We hope that program designers will be inspired to pilot and evaluate some of these ideas in their own contexts to determine how they work in practice, and which are most effective. For the millions impacted by the economic fallout of the COVID-19 pandemic, such innovations could be the difference between financial insecurity and a meaningful livelihood.

A 21st century economy requires a 21st century workforce. This necessitates workforce programs that work for real humans in all their complexity, so that people of all backgrounds and experiences have opportunities to achieve their career goals.

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