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# Unlocking economic prosperity:

## Career navigation in a time of rapid change


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**About Career Navigation Applied Research**

The Project on Workforce at Harvard and the National Fund for Workforce Solutions collaborated to conduct applied research that included convening focus groups, interviewing subject matter experts, conducting a scan of the National Fund network, hosting feedback sessions, and facilitating a roundtable discussion. *Unlocking Economic Prosperity: Career Navigation in a Time of Rapid Change* is informed by this approach, and draws on the perspectives of over 60 individuals from education, workforce development, research, and frontline experience.

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This research culminated in a roundtable discussion that brought together frontline voice representatives and subject matter experts to discuss how we can improve career navigation. Our frontline voice representatives included Dede Shimiyimana, Bahati Maheshi, Keevin Henley, Savion Mitchell, Diana Flores, and Kyle Johnson. We thank them for the honesty and transparency they brought to the conversation, and for sharing their valuable perspectives and experiences. Subject matter experts helped provide useful context, and for that, we thank Robert Gunn Jr, Zack Mabel, Dan Restuccia, Jeannine LaPrad, Marie Groark, Kathleen deLaski, Annelies Goger, Justin Heck, Chong Park, Vickie Choitz, and Maud Abeel. Staff and leadership from both the National Fund and the Project on Workforce played crucial roles in making the day successful, and for that we thank Amanda Cage, Hollie Marston, and Nathalie Gazzaneo.

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**About the Project on Workforce at Harvard**

The Project on Workforce is an interdisciplinary, collaborative project between the Harvard Kennedy School's Malcolm Wiener Center for Social Policy, the Harvard Business School Managing the Future of Work Project, and the Harvard Graduate School of Education. The Project produces and catalyzes basic and applied research at the intersection of education and labor markets for leaders in business, education, and policy. The Project's research aims to help shape a postsecondary system of the future that creates more and better pathways to economic mobility and forges smoother transitions between education and careers. Learn more at www.pw.hks.harvard.edu.

**About the National Fund for Workforce Solutions**

The National Fund for Workforce Solutions envisions an equitable future where all workers have the resources required to thrive, race does not dictate employment outcomes, and all jobs are good jobs. We are a recognized leader in establishing and scaling effective strategies that foster racial equity in the workforce to help communities thrive. Our dynamic national network is comprised of more than 30 regional workforce collaboratives that convene cross-sector stakeholders and align resources toward collective action for greater impact. Our four solutions — activating employers to make jobs better, equipping workers for success, changing systems for improved outcomes, and co-investing for impact — are how we work to achieve our goals. Learn more at www.NationalFund.org.

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# Executive summary

**Forty four percent of all U.S. workers are low-wage earners**.[1] Women and people of color are overrepresented in this population; and the majority of individuals have less than a college degree.[2] For these workers, wage growth has largely stagnated since the 1980s.[3] Many entered the workforce through low-wage jobs and became ensnared in the "low-wage trap," cycling in and out of low-wage jobs that provide neither valuable credentials nor a path to advancement.[4] Our system has failed them.

> *"We don't have a culture of career navigation in this country. [Our workforce systems are] very acute; it's very 'fix it now.' And maybe if you have the luxury, you can think about where you take your career past this time of career exploration in high school and —if you choose to go— post-secondary education."*
>
> — Aleece Smith
> *Director of Inclusion & Sector Strategies*
> *KentuckianaWorks*
> *National Fund Network Partner*

**Pathways to economic opportunity are too often inaccessible, particularly for Black, Latinx, and Indigenous individuals and those from low-income backgrounds.** Unlocking upward mobility and disrupting long-standing occupational segregation will require providing access to a network of career pathways and supports that allow individuals to exercise economic agency and exploit the opportunities that emerge. We need a system that enables individuals to *navigate* their careers, which provides them means of (1) acquiring accurate information; (2) making personally-relevant career plans; and (3) integrating education, training, and work experiences to facilitate career progression.

**This paper dissects the field of career navigation to identify those factors that contribute to individuals succeeding in that process and that lead to equitable outcomes.** We summarize the evidence and practices in the field that help individuals navigate to higher-paying careers. To do so, we conducted a comprehensive literature review and field research, evaluating more than 350 peer-reviewed articles, book chapters, reports, working papers, and field scans, and consulting more than 60 experts, practitioners, and frontline workers. To our knowledge, this is the first such comprehensive review of the literature and field of career navigation.

**We identify five core drivers of career navigation success: (1) information accuracy and access, (2) skills and credentials, (3) social capital, (4) wrap-around resources and supports, and (5) social structures and ecosystems.** Many learners and workers from under-resourced communities do not have access to these drivers. They are not exposed to accurate information about education programs and aligned careers, nor do they have opportunities to develop foundational skills (like communication and teamwork, also known as noncognitive, soft, essential, or human skills) and navigation skills (like adaptability and decision-making), and secure sought-after credentials. While many high-income populations have social relationships and networks that provide valuable career knowledge and connections—as well as time, finances, and guidance—, low-income communities and communities of color have not had the same access. They have been disadvantaged by social structures, norms, and policies that perpetuate racism and occupational segregation.

**Dissecting the career journeys of three groups of people facing common challenges to advancement—young people entering the labor market for the first time, adults in low-mobility jobs, and individuals re-entering the workforce after a period of absence**—help us understand career navigation barriers and identify opportunities for intervention. It also allows us to evaluate the career navigation supports that have emerged in the field to help individuals advance.

**We identify 12 types of career navigation services, tools, programs, and structures that support individuals' career journeys.** We review the evidence and practice of these interventions, which address the drivers of career navigation to expand access

to economic mobility. These include *services* like coaching, mentoring, and networking; *tools* that support exploration and pathway mapping, self-assessment, and nudging; and *programs* such as career navigation courses, career exposure initiatives, and intensive, experiential programs. We also investigate the *structures*, including stackable pathways, career centers, and public and private sector policies and practices that are being implemented to improve career navigation. The career navigation supports with the strongest evidence behind them–including career coaching and intensive, experiential programs–address multiple drivers, including access to information, social capital, skills, and resources.

**Based on our review, we propose a course of action for making the career navigation system more effective and equitable.** Specifically, we identify 10 principles that we believe should guide the development of any career navigation system or program. In order to promote equity and efficacy, career navigation services, tools, programs, and structures should:

1. Communicate information in clear, accessible, and relevant ways.
2. Integrate opportunities for career exposure and social capital development.
3. Build foundational and navigation skills.
4. Design culturally-relevant approaches.
5. Use high-touch services that meet individuals where they are.
6. Provide financial and wraparound support.
7. Pursue community and intergenerational programs that build trust.
8. Leverage artificial intelligence to personalize pathways.
9. Collect disaggregated data and embed research and evaluation.
10. Center equity by recruiting and elevating individuals from under-resourced communities.

**Policymakers, employers, educators, workforce intermediaries and organizations, and philanthropy must all play a role in building a career navigation ecosystem that is grounded in these principles.** Policymakers, for example, can invest in career services provided to individuals in the places they frequent and enact regulations that incentivize providers and employers alike to take actions that support easier and more equitable career navigation. Employers can build transparent, skills-based career pathways within their organizations that are designed around employee needs, while educators can increase diverse career exposure programming and provide opportunities to build social capital and navigation skills. Intermediaries and other community organizations–which may include workforce boards, nonprofits, and unions–should focus on amplifying worker voices and building community partnerships that smooth transitions for learners and workers. Philanthropic organizations can play an important, catalytic role by supporting innovative career navigation models and the research needed to bring greater clarity to lingering questions as to how individuals make career choices and which pathways yield the best outcomes for the most people.

**Career navigation is a new field, and several major knowledge gaps persist.** To better understand and support equitable navigation, we need additional research. We conclude by laying out an agenda for the future. We need more disaggregated, longitudinal research on career outcomes, including on the impacts of individuals' career choices, to inform decision-making. We also need more research on the ways in which individuals acquire and use labor market information and how they approach career navigation supports and services. It is equally vital that we conduct more rigorous research on foundational and navigation skills, which are particularly important as artificial intelligence (AI) changes the nature of work. Alongside this inquiry, we must also develop a far better understanding of the likely impacts of emerging technologies, particularly AI, on both skills requirements and the evolution of career paths. Lastly, the field would benefit from more causal research on employer practices that affect career navigation, as well as research into the impacts of economic conditions and job supply on career pathways.

**We need an ecosystem approach to career navigation.** This paper lays the groundwork for the development of an evidence-based, field-informed strategy that will give every learner and worker the agency to pursue fulfilling careers and build a more prosperous economy. Moving beyond the study of individual elements of career navigation, these insights provide a foundation for imaging and improving the system as a whole in service of advancing outcomes for individuals and employers alike.

# Introduction

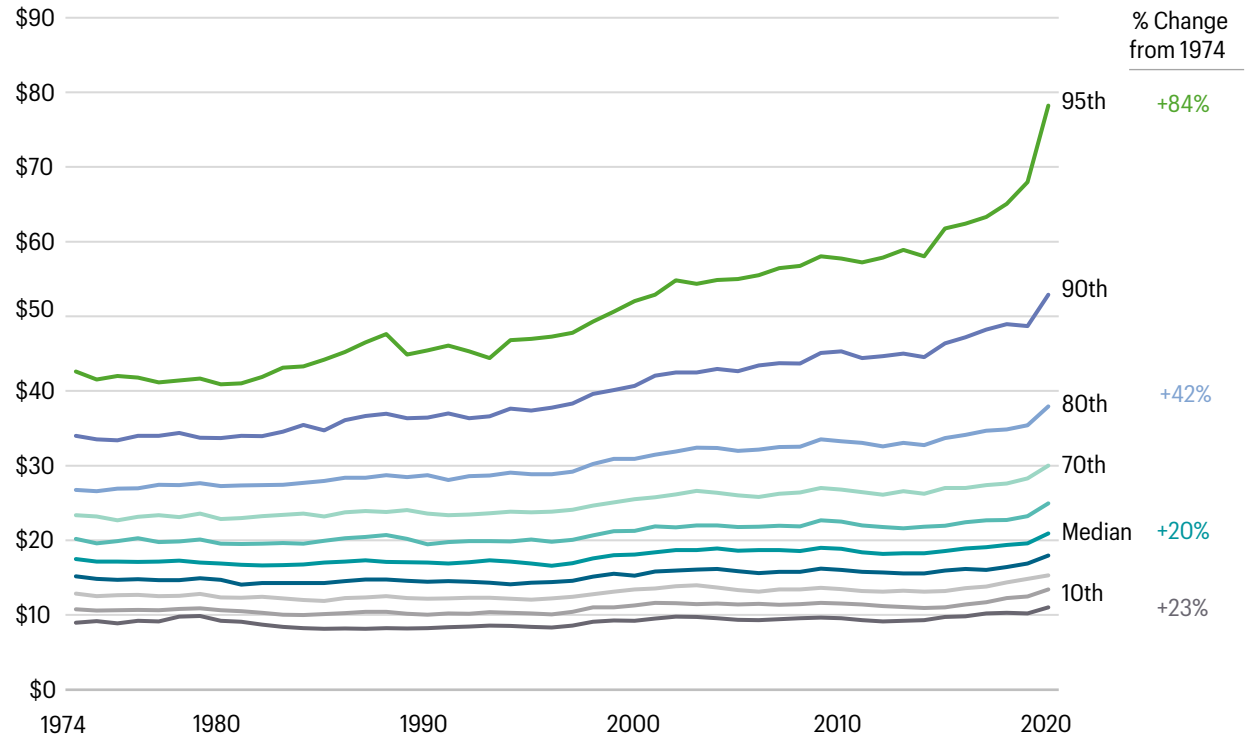
**Over the past several decades, the United States has witnessed gradual but undeniable rising income inequality.** In 2019, 53 million individuals in the United States were employed in low-wage jobs*, with a median annual earnings of $24,000.[5] Wages have stagnated for this population, while rising dramatically for individuals earning wages above the median (see Figure 1). Among workers in jobs below the poverty threshold, women are overrepresented, and the gender pay gap has remained largely unchanged for over two decades.[6] Black workers are 32 percent more likely to earn low wages than their white counterparts. That figure rises to 41 percent for Latinx workers.[7] The vast majority of individuals in low-wage jobs have less than a college degree (See Figure 2).[8]

**Centuries of policy decisions and biases have led to stark occupational segregation**, wherein jobs with higher wages are occupied predominantly by white men, while people of color, particularly women of color, are relegated to low-wage jobs.[9] This begins as early as elementary school. Individual students have differential exposure and access to education and career opportunities based on their location and life circumstances.[10] Those circumstances contribute to many young people entering the workforce by taking low-wage jobs, which often have long-term negative consequences. Once individuals are working in such jobs, there are few pathways to financial stability. A past report from the Managing the Future of Work Project at Harvard Business School, *Building from the Bottom Up*, demonstrated that many workers become stuck in a "low-wage job trap," cycling in and out of positions that do not pay a living wage and have no clear path to advancement.[11]

*We use the definition of low-wage worker set forth by Martha Ross and Nicole Bateman in their paper, *Meet the Low-Wage Workforce*. https://www.brookings.edu/wp-content/uploads/2019/11/201911_Brookings-Metro_low-wage-workforce_Ross-Bateman.pdf

Figure 1: **Stagnating wages among those earning below the 50th percentile**

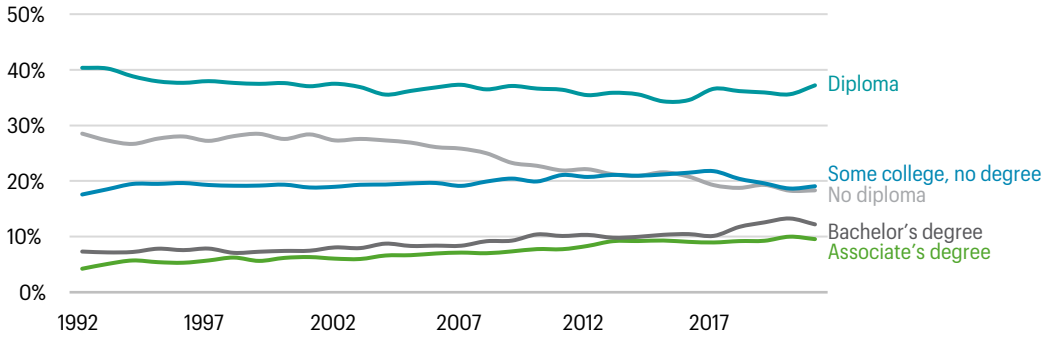
**Real wages by percentile (2020 dollars), 1974–2020**



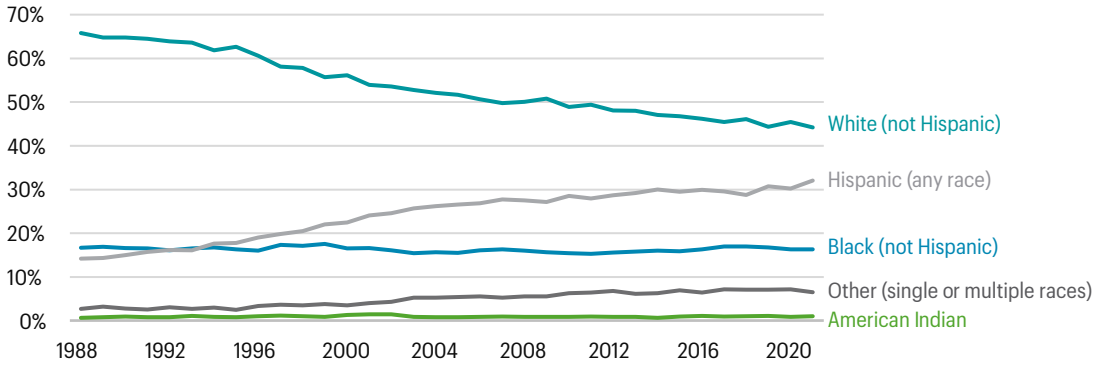

Source: Fuller, J., Raman, M., (January 2022). *Building From the Bottom Up*, Published by Harvard Business School.

Figure 2: **Demographics of low-wage employees over time**

**Percent of low-wage workforce by educational attainment**




**Percentage of low-wage workforce by race**




Source: Fuller, J., Raman, M., (January 2022). *Building From the Bottom Up*, Published by Harvard Business School.

**The trend toward automation is only deepening the opportunity divide by hollowing out middle-wage jobs**[12], further pushing individuals into low-paying positions.[13] As the economy has changed, the geometry of career pathways in the U.S. has not, and the rapid adoption of AI threatens further worker displacements. Some studies project that as many as half of the workforce will need to reskill in the next few years.[14,15] Moreover, as technology displaces many of the tasks within individual jobs, the content of work will inevitably shift to place great emphasis on skills like communication, decision-making, and teamwork, which we refer to as foundational skills in this paper (but which are also known as soft, human, power, or essential skills, among other terms).[16] However, very little public or private funding is devoted to helping individuals navigate and upskill in the world of education and work. The inability of the current system to respond to the pace of change is manifest in the lack of investment in reskilling, as shown in Figure 3. In an era when many incumbent workers are at risk of being displaced unless they acquire new skills, funding for skills development remains focused on our nation's front-loaded education system.

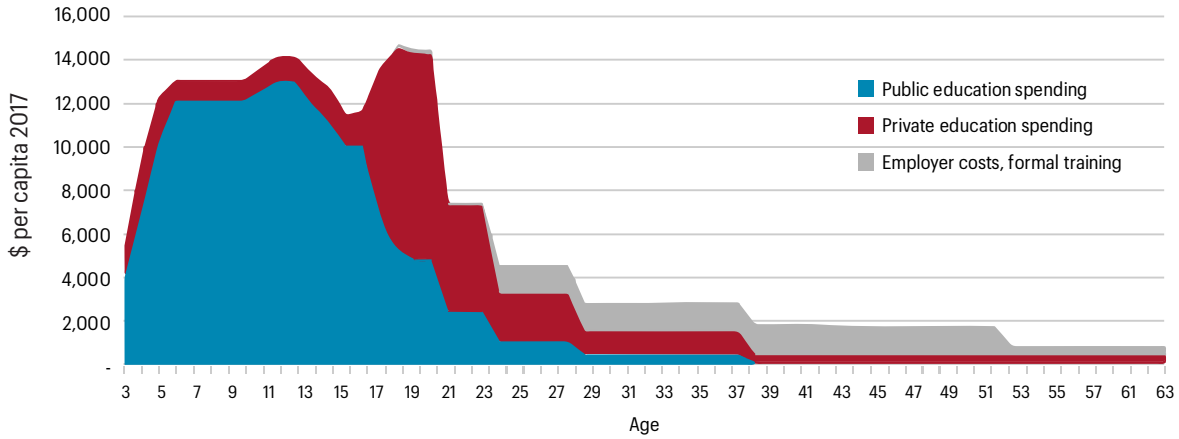
**The U.S. needs a system that will help all learners and workers identify and progress along pathways to high-paying jobs**, a system that is responsive to the economy of the 21st century and accessible to all. This is important not only for individuals, but also for employers, many of whom struggle to find workers for open positions.[17] To meet business needs and expand economic opportunity, every individual needs to acquire accurate, timely career information, make personally-relevant education and career plans, and obtain the necessary education and work experiences to progress. Otherwise, we risk perpetuating a cycle in which a large percent of new entrants to the workforce are steered into–and ultimately stuck in–low-wage and high-turnover jobs. What we need is a system of career navigation that is fit for today's economy.

**To map a more effective, equitable career navigation system, we identify the core drivers of career navigation success**–information accuracy and access, skills and credentials, social capital, wraparound resources and supports, and social structures and ecosystems–which enable individuals to move along upward career trajectories. We conducted a literature and landscape review of career navigation in the U.S., with a focus on learners and workers of color and from low-income backgrounds. To our knowledge, this is the first such review of career navigation.

**This paper is organized into two parts: a review of the evidence and recommendations for the future.** In the first part of the paper, we delineate the field of career navigation, identify the elements of successful navigation, and discuss the barriers that inhibit it. We also review programs and practices designed to give all individuals, particularly low-wage workers, the agency to navigate their careers and thrive. In the second part, we lay out core principles for effective career navigation systems and programs and outline recommendations for stakeholders across the ecosystem. We also identify several gaps in our understanding of the workings of the system and people research that would shed light on how we might enhance it.

> *"Oftentimes, the people who could best utilize [career navigation] services are not connected to any of the networks that are giving the services…They're disassociated from even the source of the information in the first place."*
>
> — Cainaan Webb
> *Career Navigator*
> *CenterState CEO*
> *National Fund Network Partner*

Figure 3: **Expenditures on education and skills training, by age and source**




Sources: The Council of Economic Advisers (July 2018) & OECD, U.S. Census Bureau, BEA, BLS, Association for Talent Development (2017), Carnevale et al (2015), CEA Calculations.

# Methodology

**This paper integrates academic and qualitative field research.** We conducted an extensive literature and landscape review, covering more than 350 peer-reviewed journal articles, white papers, book chapters, dissertations, and web pages. We performed semi-structured interviews with subject matter experts, focus groups with practitioners, and a landscape scan of career navigation systems and services across the National Fund's network of over 30 regions. We also held a convening that included front-line workers and representatives from intermediaries, direct service organizations, academia, technology, philanthropy, and policy. In total, we spoke with more than 60 education and workforce scholars and practitioners.

**We focused on career navigation in the workforce, post-high school.** To conduct the review, we used the Educational Resources Information Center (ERIC), Google Scholar, and the U.S. Department of Labor Clearinghouse for Labor Evaluation and Research (CLEAR) databases, with a preference for publications after 2010. Our scan of the literature was initially limited by the fact that the term "career navigation" is rarely used in academic papers, so we included additional search terms: "career development," "career management," "career advancement," "career transitions," and "career planning" in our review.

**For each article, we evaluated the study rigor, data sources, and research gaps.** Through iterative thematic analysis, we identified, defined, and tagged key themes, reviewed by at least two researchers to ensure consistency. We developed a thematic framework of career navigation "drivers" and "intervention types" and, based on that template, dug deeper into research holes in an attempt to develop a comprehensive picture of the landscape. Of note, much of the feedback we received from experts was consistent with the literature related to career navigation. Specific insights are woven throughout this paper.

### Literature type by driver

| Drivers | Peer reviewed | Other | Grand total |
|---|---|---|---|
| Information access and accuracy | 20 | 16 | 36 |
| Skills and credentials | 38 | 23 | 61 |
| Social capital | 30 | 9 | 39 |
| Wraparound resources and supports | 37 | 45 | 82 |
| Social structures and ecosystems | 53 | 83 | 136 |
| Grand total | 179 | 176 | 355 |

Note: Some pieces of literature may address multiple drivers, but for the purposes of this analysis, we coded each paper based on the driver that was deemed to be the primary focus of the research. We used a peer review system, wherein one coder determined the main driver discussed in the paper, based on their assessment of the paper's content. Subsequently, a second coder independently reviewed and confirmed this coding. Any discrepancies were resolved through discussion and consensus. While not all sources are cited throughout this paper, all pieces of literature informed this research.

Part 1

# The career navigation ecosystem: A review of the evidence

## Understanding career navigation

**Components of career navigation**

| Component | Action | Definition |
|---|---|---|
| **Acquiring knowledge** | Self-assessment | Identifying and aligning one's skills, interests, values, and career goals. |
| | Career exploration | Gathering information about available and aligned careers and pathways. |
| **Making informed career plans** | Pathway mapping | Charting a course of education and work actions from one's current state to one's career goal. |
| **Integrating and negotiating education, training, and work actions** | Skill and credential acquisition | Attaining the skills, certifications, and experiences necessary to achieve one's goal. |
| | Job placement and advancement | Connecting to and acquiring jobs that lead to career advancement. |

**Career navigation is both uniquely personal and inherently structural.** It involves managing internal factors (i.e., one's values, goals, and skills) and external elements (i.e., education and career opportunities) to negotiate one's career within our society. Our understanding of career navigation is grounded in the concept of a "career," which may be defined as a series of connected education and work experiences.[18] That is, career navigation is an active, continuous process that occurs within and across education and work–and the transitions between them.

**While the term "career navigation" is relatively new, our definition of the practice is informed by career development theory**, which has long examined the human lifespan and characteristics, the delivery of career resources and services, and career decision-making and the factors that influence an individual's career actions.[19, 20] There is no widely-accepted definition of career navigation. Based on our academic research and conversations with practitioners, we developed the following definition:[21]

> **Career navigation is the ongoing process of (1) acquiring knowledge; (2) making informed, personally-relevant plans; and (3) integrating and negotiating education, training, and work actions to facilitate progress throughout one's work life.**

**The first component of career navigation is acquiring knowledge about oneself and environment.** This includes both formal and informal self-assessment activities[22, 23, 24] to determine one's skills, interests, values, and goals. It also involves various career exploration actions to identify and test fit with alternative careers and training pathways. Such an exploration includes passive exposure to jobs through

one's social network, as well as career exploration activities that allow individuals to investigate options they may not have considered and use data tools or platforms to access labor market information. Matching personal preferences and market information allows individuals to make decisions that maximize their chances of achieving person-job fit, resulting in higher job satisfaction and productivity.[25]

**Navigation also involves making informed, personally-relevant career plans.** That includes career pathway mapping, or charting a course of education and work actions to advance from one's current circumstances toward a fulfilling career goal. Researchers Gati, Levin, and Landman-Tal suggest that decision-making, like pathway planning, is one of the most powerful tools a worker has to effectively navigate their career.[26] The success of mapping may be dependent on the accuracy, thoroughness, and applicability of the knowledge acquired through self-assessment and career exploration. A literature review conducted by Sullivan and Ariss highlights the importance of information when making career decisions,[27] but other scholars argue that career decision-making is influenced more by access to opportunities.[28] Much of the academic literature on career mapping focuses on the ways in which employers and organizations can build worker pathways to improve employee performance and opportunity.[29, 30, 31]

**Third, career navigation involves integrating and negotiating education and work actions.** This includes connecting to and exploiting opportunities that facilitate skill and credential acquisition and job placement and advancement. It requires individuals to engage in simultaneous actions that promote growth and social connections, while remaining responsive to changing industry requirements. Beyond gathering information and making plans, navigation requires individuals to execute their plans and decisions–adapting to changing labor market circumstances and piecing together a series of actions that advance their career journeys.[32]

**Career navigation is rarely–if ever–a linear journey, but it involves actions that enable progress toward career success.** It is required throughout one's working life, enabling individuals to make and carry out informed career decisions, as they and the labor market evolve. However, many individuals face immense challenges along the way.

> *"As a first-generation college-student, I spent a lot of time figuring out the college and career system on my own, searching for resources to fund my education. While I can now help my siblings, there needs to be a clearer, more accessible system for others experiencing the same challenges."*
>
> — Diana Flores
> *Sterile Processing Tech*
> *Frontline Voice Representative*

# Dissecting the career journey

**Career paths are often disjointed, and barriers prevent many people from navigating their careers successfully.** That is, learners and workers face challenges to acquiring accurate information, formulating career plans, and accessing opportunities to acquire the skills and supports they need to realize their ambitions. Individuals from under-resourced communities, which tend to be Black, Indigenous, and/or Latinx,[33] are particularly susceptible to barriers that inhibit career growth and lead to poor economic outcomes.

**Through our research, we identified three archetypes which illuminate the challenges individuals face as they navigate their careers.**[34] Developing a clearer picture of these common worker journeys, and the obstacles they face, allows us to better identify the practices and supports that can improve career outcomes. Below, we attempt to dissect these three archetypes:

1. Young people entering the labor market for the first time;
2. Adults working in low-wage, low-mobility jobs; and
3. Adults re-entering the workforce after a period of absence.

## Young people entering the workforce

**Many young people entering the labor market for the first time fail to launch successful careers.** Young Americans are taking, and will likely continue to take, longer than past generations to find a good job.[35] Even recent college graduates are finding themselves underemployed, with more than four in ten bachelor's degree recipients employed in jobs that require less than the degree they have attained.[36] Young adults of color are less likely to get hired into stable, good-paying jobs,[37] and more likely to be harmed by occupational segregation.[38, 39]

Many young adults, especially from under-resourced communities, do not have access to accurate information about career pathways, including skill requirements and salaries, largely because this information is not presented in a systematized way. The failure to make such information accessible and to present it in a comprehensible way contributes significantly to confusion among young people planning their transitions from education to employment.[40] It yields an expectation gap about potential future earnings. Surveys have found that students often overestimate their salary prospects[41] and that, when they learn accurate wage information,



they change their field of study.[42] Unfortunately, many young people lack connections to formal guidance, preventing them from making fully informed career-decisions.[43]

> *"I do think that there needs to be more assistance with career navigation, especially for young people…It's a different world now than the way it was 25 years ago."*
>
> — Paula Barnes
> *Manager of Employer Engagement*
> *Gateway Community & Technical College*
> *National Fund Network Partner*

Self-efficacy is strongly related to successfully navigating career development opportunities,[44] but young adults are still developing confidence in their abilities and skills when they start their first job. That is particularly true for those who have not had access to work-based learning experiences.[45] Foundational skills, like teamwork, problem-solving and communication, are becoming increasingly valued in the market,[46] but they remain overlooked in the curricula of many secondary and postsecondary institutions.[47] Furthermore, the part-time jobs young people hold in high school and college do little to prepare them with these sought-after skills. Underdeveloped foundational skills can leave young adults ill-prepared in their career. It is also worth noting that the standards of professionalism in the workplace are often defined by whiteness, which create further barriers to advancement for young Black and Brown adults.[48]

One study found that transportation and child care are two of the most pervasive barriers to employment for young adults from under-resourced communities.[49] These individuals also have limited financial capital, especially compared to young adults a few decades ago,[50] making it difficult to afford resources that are essential for entering and maintaining a good-paying career. At the same time, young people are facing a labor market characterized by disappearing "gateway" jobs (entry-level or middle-skill jobs that pave the way to high-wage positions), making it more difficult to land the critical first job that can serve as a springboard to economic security.[51, 52]

## Adults in low-wage jobs

**Adults stuck in low-mobility jobs often cycle in and out of low-wage work.**[53] Surveys have found that low-wage earners often have little or no visibility into potential career pathways within their organization. Such opaqueness is that much greater for opportunities in the market beyond their organization. Studies have also found that low-wage workers typically associate with other low-wage workers.[54, 55] That has career consequences, given that associations with higher-educated coworkers increases an individual's chance of transitioning to a high-wage job.[56] Further evidence suggests that without connections to high-wage workers, low-wage workers have limited exposure to high-paying career opportunities.[57]

These individuals are willing–and even eager–to develop skills that would help them progress into higher-wage positions. But, employers rarely provide guidance on the skills they need to advance.[58] Our *Building from the Bottom Up* survey found that employers cite a lack of technical skills among low-wage workers as a major barrier to advancement. However, such workers are not typically provided with the necessary training to develop the requisite skills.[59] In the same survey, employers mentioned that a lack of foundational ("soft") skills also constitutes a challenge. Other research also cites foundational skill deficiencies as a major barrier to the continued employment and wages earned for low-wage workers.[60] Unfortunately, there is little consensus around how to teach or train for these skills.[61] It is also worth noting that job requirements for formal education, such as college degrees, can prevent low-wage earners without degrees from advancing. Research has indicated that employers rely on degree attainment as a proxy for assessing the foundational skills of applicants. That compounds the risk that those without degrees will be excluded from consideration for the growing number of positions with significant foundational skills requirements.[62]

Individuals in low-wage jobs also often have limited resources available to them, and are therefore unlikely to have the time or financial capital to navigate a career shift or enter a credential program that provides them with a new, highly-marketable set of skills.[63] A lack of financial resources particularly affects Black

workers, who continue to be paid less than their white counterparts due to discrimination.[64] Moreover, many low-wage workers are unaware of what federal and state retraining assistance is available to them.[65] In fact, the Trade Adjustment Assistance program, which is designed to assist vulnerable workers who experienced economic shocks, saw just half of all eligible workers enroll in its first decade, with 38 percent attributing their non-participation to lack of information.[66]

## Individuals reentering the workforce

**Adults also face career barriers when they reenter the workforce after a period of absence.** There are a variety of reasons adults may re-enter the workforce. Examples include individuals who have recently immigrated to the U.S., veterans returning from service, individuals who were incarcerated, workers who have been displaced by economic shifts, individuals with disabilities, and caregivers whose life circumstances have changed. Despite the diversity within this group, and the unique challenges each population faces, there are some common challenges.

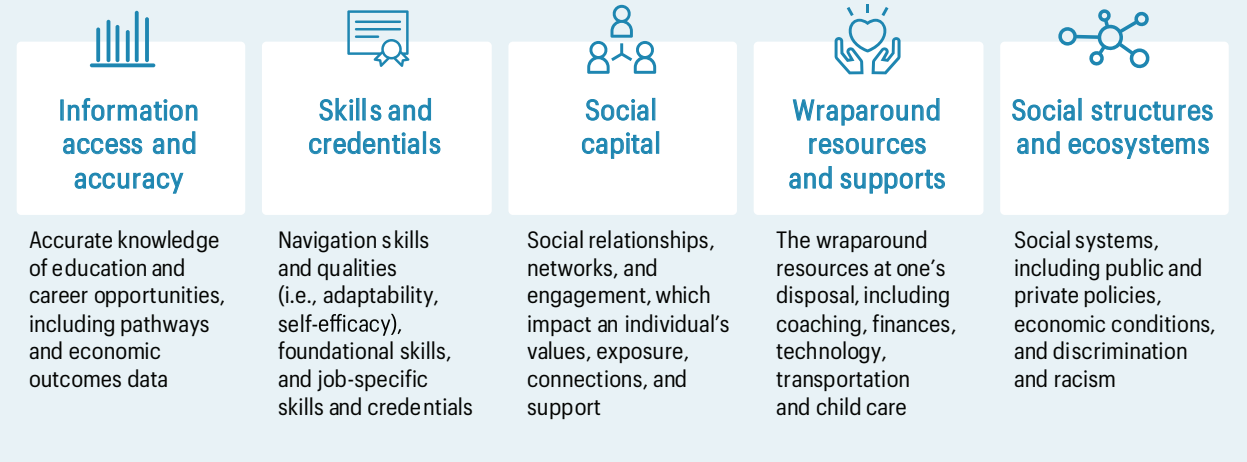
Individuals reentering the workforce may possess irrelevant or outdated labor market information, particularly given how quickly technology is reshaping the workplace.[67] They may also face challenges navigating the job search process,[68] which is made more difficult without a strong social network.[69, 70] A lack of social connections may be a bigger burden on returning citizens who have small social circles after serving years in prison,[71] as well as on immigrants whose networks often consist of other low-wage workers.[72]

Many of these individuals have acquired skills in a different context–whether it is in another country or sector or in the military–and it may be difficult to translate this past experience to a new environment.[73,74] As the pace of technological change has increased, it has also become increasingly difficult for individuals to acquire newer job-specific skills for high-paying roles. Furthermore, foundational skills often constitute a barrier to career advancement, which may be magnified for individuals without exposure to American workplace norms, particularly foreign-born adults entering the U.S. workplace.[75]

Lack of child care, mental health support, and transportation are also barriers to career progression. According to one analysis, two million parents were forced to leave or pass on a job opportunity in 2016 due to struggles accessing affordable child care.[76] Unemployed veterans are more likely to have face mental health challenges,[77] making access to suitable mental health support vital for re-entry into the workforce. Finally, employers often make hiring decisions based on criminal histories,[78] and a number of states deny licenses to those with prior arrest or conviction.[79] Our research on unemployed and underemployed individuals, or "hidden workers," identified the myriad ways in which employer policies and practices, including automated hiring systems, have marginalized those individuals from the workforce–even while they actively seek employment.[80]

> *"No one asked me what I wanted to do. How will they know if they don't ask?"*
>
> — Kyle Johnson
> *Employment Engagement Specialist*
> *Frontline Voice Representative*

# Drivers of career navigation success




**An analysis of individuals' career journeys and the literature more broadly yields insight into the factors that impact career navigation.** We group these factors–which we call the core drivers of career navigation–into five categories: (1) information access and accuracy; (2) skills and credentials; (3) social capital; (4) wraparound resources and supports; and (5) social structures and ecosystems. Each of these drivers affects how individuals acquire knowledge, make career plans, and integrate education and work experiences to progress in their careers.

**In this section, we discuss the evidence as to what enables career navigation success.** We found that the use and impact of information has only been researched modestly, and there is a dearth of peer-reviewed research. Navigation skills and the role of social capital would also benefit from additional research. Much more substantial research is available on the impacts of resources and social systems on an individual's career trajectory.

## Information access and accuracy

**Access to accurate information about education and career opportunities, including pathways and economic outcomes data, is crucial to successful career navigation.** In the literature, career information is often treated as a peripheral element. In fact, relatively little research has been conducted on the ways in which individuals identify, gather, and use information to make career decisions.[81] That includes information about one's self, such as skills, interests, and values, as well as information about one's environment, such as career expectations and salaries.[82]

Existing research suggests that inaccurate information about job requirements and qualifications can lead to suboptimal career choices. One study of California community college students found that, on average, students with no prior information on the labor market perceived salaries as 13 percent higher than they actually are.[83] Less than 40 percent of those students ranked categories of majors accurately in terms of labor market outcomes.[84] Another study demonstrated that college students who received information about various majors' earning potential were more likely to shift their major to one with higher reported earning outcomes.[85] Providing external information on career outcomes and potential environmental barriers and support, in conjunction with the internal information of one's personal goals and traits, may result in more adaptive career practices. [86]

Collecting and maintaining databases of timely and accurate labor market information (LMI) is a massive undertaking. While companies like Lightcast, Revelio, and others have emerged to compile private labor market data sources, public data falls under the purview of government agencies,[87] which have a long way to go in creating robust, timely, and user-friendly LMI databases.[88] In the meantime, individuals rely on

various digital sources of information, such as career advice websites, online platforms, and social networks, to make decisions about their career paths. However, multiple sources of information can be difficult to navigate and validate. According to a 2018 study on the validity of social media-based career information, the growth in social media has led to more authors of LMI, which demands more training for users to exercise greater levels of discernment to ascertain the validity of the unvetted information available to them.[89]

## Skills and credentials

**Navigation skills and abilities, foundational skills, job-specific skills, and credentials also impact an individual's career navigation journey.**

Career navigation skills are closely related to self-efficacy, or the belief in one's capacity to attain a goal, and include resilience, adaptability, and self-management. These attributes are well-documented predictors of employment success.[90, 91] One study of college students found that students' career adaptability and concept of future work self were associated with more active career behavior, such as planning and networking.[92] Furthermore, researchers found that individuals who have adaptable career outlooks tend to embrace values-driven and self-directed attitudes towards career navigation. That is, they incorporate their personal values into career navigation and take on an "independent role in managing their vocational behavior."[93] Self-directed career management has become increasingly important as the nature of work has continued to change.[94] Success in the job search process often requires digital literacy, including the skills to navigate online career platforms.[95, 96]

Foundational skills–also referred to as soft, human, social, power or durable skills–which generally include an individual's social aptitude, critical thinking, and interpersonal skills,[97] also play a key role in career navigation. Until recently, scholars have largely neglected researching these skills, and there is still a lack of consensus on how to refer to them. But, with the rise of automation and the adoption of AI, such skills are becoming more valued in the labor market.[98] Despite studies documenting the importance of foundational skills as predictors of positive career outcomes, the field has had trouble defining and measuring foundational skills.[99] As a result, our understanding of how to teach them remains limited, and education systems have yet to effectively integrate them into curricula.[100]

Career navigation success is also driven by an individual's access to degrees and credentials. Employers have long used a college degree as a proxy for assessing a candidate's abilities and skills, and individuals have enrolled in two- and four-year degrees to signal their competencies to prospective employers.[101] Individuals also use college degrees to identify interests and explore potential career pathways, though shorter-term credentials and certificates are gaining prominence as a more flexible alternative.[102]

## Social capital

**Social capital–which includes social relationships, networks, and engagement–impacts an individual's career exposure, values, connections, and support and drives their career navigation journey.**

Research shows that social capital, particularly social networks, are often constrained within income brackets. Affluent individuals tend to network with one another, while individuals from low-income backgrounds network with others from their income bracket.[103] Scholar Sandra Susan Smith has coined this concept, "network inequity."[104] Networks can provide job seekers direct access to hiring managers, and research demonstrates that job seekers are more likely to receive job offers through strong social connections.[105, 106] One study found that having a higher number of employed contacts increases an individual's rate of finding a job.[107] That same study showed that when low-wage workers leverage familial contacts in their job search, they often end up in lower-wage employment.[108]

Research conducted by Chetty, et al found that the network cross-connectedness, or the share of high-income connections among individuals with low-income status, is a strong predictor of economic mobility.[109] A 2022 study conducted using multiple large-scale, randomized experiments with LinkedIn's "People You May Know" algorithm also demonstrated that moderately weak ties increase job transmissions (more than strong ties), but only to a point, after which

there are diminishing marginal returns to such ties. The authors also found that the impact of weak ties varied by industry.[110] Literature on overcoming racial disparities along a worker's career journey often points to the importance of relationships. However, there is limited research on how workers of color use social capital generated through peer relationships.[111]

Beyond connections, social capital impacts an individual's values and goals, shaping their approach to career navigation. A 2018 study by Akosah-Twumasi, et. al. sought to better understand how cultural heritage impacts youths' career choices. He found that individuals from collectivist cultures were more likely to be influenced by their families. They experienced higher career self-efficacy and satisfaction when their career choices aligned with family values.[112] On the other hand, youth from individualistic societies stressed personal interests and values as leading factors of career satisfaction,[113] demonstrating the impact of cultural norms in career navigation.

A meta-analysis of job search behavioral studies showed that receiving support from a significant other is related to positive job search behaviors,[114] demonstrating another dimension of social capital. A study authored by Tonya Harris Cornileus focused on 14 interviews with mid-career Black men and their career navigation journeys. When discussing strategies used to navigate and mitigate racism in the workplace, most interviewees mentioned the existence–and importance–of strong family support and a positive male role model, usually a family member.[115]



## Wraparound resources and supports

**Access to resources, including time, finances, technology, transportation, and caregiving support, as well as formal guidance and coaching, also influence the ways individuals navigate their careers.** While the term "wraparound" is commonly used to describe such resources, it is important to note that they are essential for many workers. The inability to access one or more of these supports can fundamentally alter the trajectory of an individual's career navigation journey.

Technology is a key component to a modern job search. Hardware, broadband access, and other digital basics are a necessity for successful career navigation. A 'CareerBuilder' study recently found that lack of access to social media may harm a worker's chances of landing a job; thirty-five percent of employers reported that they would be less likely to interview applicants that they couldn't find online.[116] Research has shown that lower income households are significantly less likely to have a computer or internet at home[117] and older adults tend to be less proficient at using modern technologies.[118] A review of Digital Bridge, a Seattle-based workforce development nonprofit, found that participants needed individualized training and structured support to complete online job training and when looking for employment.[119]

Adequate caregiving support is also crucial for successful career navigation. Working mothers make up a significant part of the labor force, accounting for nearly one-third of all employed women.[120] Data suggest that parental leave may derail a worker's career trajectory, especially for women.[121] A 2010 qualitative study by Lorra M. Brown found that many working mothers report that motherhood has impaired their career advancement and that they faced both subtle and overt discrimination by employers.[122] Research has indicated that caregiving obligations drive high rates of voluntary turnover; employees quit their jobs because they are unable to balance the requirements of work and family.[123] About one-in-five working parents, including 23 percent of working moms and 15 percent of working dads, say they have turned down a promotion because they were balancing work and parenting responsibilities.[124]

Many individuals lack access to child care–even if they qualify for child care assistance. Data show that only one in six eligible children actually receive care, due to inadequate funding.[125] While little research has been done on the impact of eldercare responsibilities, one landmark study from 1999 revealed that there are many hidden costs associated with eldercare, including foregone career opportunities.[126]

Most people do not work in the same neighborhoods in which they live; therefore, lack of access to transportation affects their ability to access career services and opportunities.[127, 128] In rural America, mobility is an even more pronounced challenge due to the lack of public transportation.[129] Particularly for rural populations, proximity to employment influences long-term economic and social outcomes.[130, 131] One

study focused on welfare recipients found that baseline access to automobiles resulted in better employment outcomes.[132] That said, private vehicles pose a financial burden, particularly for low-wage workers who often experience chronic financial stress.

Formal guidance and coaching is another resource that positively impacts career navigation. Numerous studies have reported strong evidence that formal advising in college improves college persistence and graduation, academic achievement, and postsecondary degree attainment.[133] One meta-analysis study found that formal workplace coaching had positive effects on organizational outcomes, a conclusion supported by another study based on surveys of low-wage workers and their employers.[134, 135] A recurring theme that emerged during our roundtable discussion was the importance of universal access to career coaching. Unfortunately, there is unequal access to formal career guidance and coaching.



## Social structures and ecosystems

**Social structures and ecosystems, including public and private sector policies, economic conditions, and discriminatory norms and biases, underpin and shape an individual's career navigation journey.**

There are a substantial number of individuals in the U.S. who aspire to gainful employment, but their ability to work in good jobs is hindered by factors rooted in structural or systemic inequities.[136] These factors, including gender, race, and family socioeconomic status, may affect an individual's career journey well before they enter the workforce.[137] One study of 224 students found that higher socio-economic status was positively related to career exploration and goal persistence, which, in turn, was related to better career outcomes.[138] Furthermore, research conducted by the Urban Institute indicated that some differences in career success across racial groups were likely due to structural racism and the geographically-linked impacts of poverty.[139] Other studies have routinely found that structural and systematic discrimination materializes in higher rates of incarceration for young people of color, presenting a significant, ongoing barrier to employment.[140]

Federal and state policy also influences the ways in which career navigation services are delivered. Accountability measures, especially for our public workforce systems, are designed to incentivize rapid employment, rather than long-term career advancement.[141] This impacts both the services individuals are provided and jobs for which they are prepared. Furthermore, our education systems are rarely aligned with employment opportunities, making pathways difficult to navigate.[142] The approach and quality of education measures vary widely by state, but few states report information related to long-term employment outcomes,[143] and most states lack consensus on the skills needed for employment, leaving aspiring workers to fend for themselves in the evolving world of work.[144]

Practices and systems in the private sector also shape the way individuals are able to navigate career opportunities. For example, our research has found that automated hiring systems often exclude viable candidates from employment consideration due to mismatches between resumes and preselected keyword based vetting criteria.[145] In fact, 88 percent of employers report that qualified, high skills candidates are vetted out of the hiring process because they do not match the exact criteria established by the job description. In 2017, 51 percent of jobs required a four-year degree, even though only 38 percent of the population held one, shutting out career options for millions of individuals.[146]

# Scanning the field of career navigation supports

**Individuals, employers, policymakers, and other stakeholders can draw on various career navigation services, tools, programs, and structures to improve career navigation.** We reviewed the field of career navigation to find the supports that help (1) individuals acquire knowledge, (2) make career plans, and/or (3) integrate education and work actions to facilitate progress, meeting our definition of career navigation.

Each of the supports we highlight in this section impacts one or more of the core drivers of successful career navigation–with the majority designed to increase access to career information. This is notable, in particular, because the least amount of research has been conducted on the impact of information on career success. Meanwhile, the career navigation supports with the strongest evidence behind them–namely coaching and intensive experiential programs–are designed to improve access to several career drivers, including skills, social capital, and resources, in addition to information.

> *"It's not only about putting the information out there, it's... active recruiting and sourcing for them to participate in these programs. Because if you just put the information out there, you may create noise, but there may be no listeners."*
>
> — Gerard Camacho
> *Vice President of Workforce & Career Development*
> *Advocate Health*
> *National Fund Network Partner*

## Career navigation services

**We identified three career navigation services: coaching, mentoring, and networking, all of which are designed to improve individuals' access to career information and social capital, among other core drivers.**

**Career coaching refers to formal, one-on-one career counseling** that may include support with self-assessment, career exploration, pathway mapping, skill attainment, and connections to professional opportunities. There is substantial research focused on career coaching across the education-to-work continuum.[147, 148, 149] Studies have found that young people who receive career coaching services demonstrated increased career adaptability and decision-making and better-managed career transitions.[150, 151] Some organizations, such as InsideTrack, offer learner-centered coaching in college to help students build time-management, self-advocacy, and study skills. A study of college students participating in InsideTrack showed increased retention during and one year after the program.[152, 153]

Workplace coaching also demonstrates positive career results, although the manner in which it is provided may impact coaching efficacy.[154] A 2016 meta-analysis concluded that workplace coaching is more effective when it is conducted by an employee at the same firm and is delivered in-person or using blended techniques (i.e. combining face-to-face with virtual coaching).[155] This suggests that organizations can maximize coaching impacts using flexible delivery systems, as long as they include some in-person component.

Multiple career coaching organizations, including Economic Mobility Pathways (EmPATH) and MyGoals, support executive skill development for adults experiencing economic hardship. EmPATH focuses on family stability, health and well-being, financial management, education and training, and employment.[156] In 2021, 74 percent of individuals enrolled in EmPATH programs demonstrated an increase in economic self-efficacy, and participants in its flagship program, on average, experienced a 168 percent increase in wages resulting in an average annual salary of $48,576.[157]

**Mentoring is another support service that may have positive implications for workers' careers.** Mentoring refers to a formally- or informally-arranged relationship that provides exposure, support, and connections within a career field.[158] Mentoring fosters personal relationships between the mentee, mentor, and their company. One study found that individuals with

## Career navigation supports: Overview

| Support | Definition | Example | Advantages | Drawbacks |
|---|---|---|---|---|
| **Services** | | | | |
| Coaching | Formal one-on-one career counseling, which may include guided self-assessment, career exploration, pathway mapping, navigation skill attainment, and job search support. | EMPath[206] | Well-researched; demonstrated evidence of efficacy.[207,208,209,210] | Human capital intensive; shortage of trained personnel.[211] |
| Mentoring | Formal or informal personal relationships that provide exposure, support, and connections within a career field. | Caterpillar Guardian Mentor Program[212] | May be especially effective for women,[213,214] may also reduce employee turnover.[215,216] | Little is known about informal mentorships; youth from low-income backgrounds have more difficulty accessing economically successful mentors.[217] |
| Networking | Building relationships with professionals in a career field, including through the use of technology platforms. | LinkedIn[218] | Increases access to information and opportunities.[219] | Networking within income brackets can perpetuate occupational segregation.[220] |
| **Tools** | | | | |
| Exploration + mapping | Tools that provide information, such as skill requirements, economic outlooks, and compensation, about specific careers and pathways. | FutureFit AI[221] | Provides accessible labor market information to facilitate informed planning. | Difficult to evaluate efficacy; unclear how individuals use these tools.[222] |
| Assessment | Tools that enable individuals to identify and align their interests, skills, values and goals with careers. | Career One Stop Skills Matcher[223] | Allows individuals to target careers that are relevant to them. | May require personalized interpretation to be effective[224] |
| Nudging | Targeted messages that leverage behavioral science to encourage individuals to take positive career actions. | Behaviorial Interventions to Advance Self-Sufficiency (BIAS) Project[225] | Low-cost; may improve decision-making through proactive outreach.[226] | Evidence of efficacy is mixed[227,228] |
| **Programs** | | | | |
| Career navigation courses | Programs that facilitate the development of career navigation skills, attributes and processes, including decision-making, adaptability, resilience, communication, and time-management. | FLAME after-school program[229] | Strong evidence that navigation and foundational skills are linked to advancement.[230] | Little evidence on how to teach foundational and navigation skills effectively.[231] |
| Career exposure | Programs that introduce students to professionals and career opportunities they may not have previously considered. | Colorado Succeeds[232] | Less resource intensive than other interventions. | Exposure alone is insufficient for advancement. |
| Intensive, experiential programs | Programs that integrate skill and credential attainment, career exploration, network building, career immersion, and wraparound support, including coaching. | Year Up[233] | Multi-pronged approach with the strongest outcomes;[234,235,236] addresses all core drivers. | Resource-intensive, relative to other career navigation interventions. |

| Support | Definition | Example | Advantages | Drawbacks |
|---|---|---|---|---|
| **Structures** | | | | |
| Stackable pathways | A series of structured and connected education and training programs that lead to stackable credentials in a specific career field. | California Community College stackable pathways [237] | There is some evidence that pathways lead to higher earnings and credential attainment.[238,239] | Requires institutional r e-alignment and cooperation across sectors. |
| Public/ private policies | Policy or systems changes in the public or private sector that r emove barriers or increase support for career navigation and advancement. | Skills-based hiring policies[240] | Policies can remove barriers and provide resources at scale | Systems may be slower to change; policies alone are insufficient– practice change is also required. |
| Career centers | Offices that provide individuals with c areer assistance, including counseling, job openings, and training referrals. | American Job Centers[241] | Provides a one-stop resource for several career services. | Requires individuals to seek out services; many people are unaware of job centers or unsure of the full extent of available services[242,243] |

## Career navigation supports: Impact on drivers

| Support | | Impacted drivers | | | | |
|---|---|---|---|---|---|---|
| | | Information | Skills + credentials | Social capital | Wraparound resources | Social structures |
| **Services** | Coaching | ● | ● | ● | ● | |
| | Mentoring | ● | | ● | ● | |
| | Networking | ● | | ● | | |
| **Tools** | Exploration + mapping | ● | ● | | | |
| | Assessment tools | ● | | | | |
| | Nudging | ● | | | | |
| **Programs** | Career navigation courses | | ● | | | |
| | Career exposure | ● | | | | |
| | Intensive, experiential programs | ● | ● | ● | ● | ● |
| **Structures** | Stackable pathways | ● | ● | | ● | ● |
| | Public/ private policies | | | | ● | ● |
| | Career centers | ● | ● | | ● | ● |

Note: Based on our thematic framework and peer-review system, we estimate which career navigation drivers a given support is designed to address, in general. Of note, intensive, experiential programs are the only supports we identified that address barriers across all five drivers.

mentors in the workplace experienced an increased connection to their job and felt more cared for by their employer, resulting in lower turnover.[159] Mentors also experience an increase in self-efficacy and feelings of job-connectedness, making them similarly less likely to leave their role.[160] Other studies indicated that when individuals do decide to leave their role, the boost in self-efficacy received from effective mentoring leads to improved job search success.[161]

**Networking also plays a key role in career navigation.** Research demonstrates that participating in networking, or professional relationship-building, behaviors contributes to positive differences in salary growth over time.[162] Networkers also may perceive a subjective boost in career success and satisfaction.[163] However, a 2018 Strada-Gallup poll revealed that only nine percent of respondents believed their alumni networks were helpful in their job search, indicating that network quality and impacts vary.[164]

Many individuals use social media services like LinkedIn for networking and job searching.[165] However, these tools may inadvertently promote unequal outcomes. One study found that low-income job seekers are less likely to find the same success using online social media platforms and apps as high-income job seekers.[166] Research published by Rajiv Garg and Rahul Telang found that, even though users are investing more time networking online, connections created on social networking platforms may be unhelpful in a job search and "marginally negative in some cases."[167] In fact, one study found that the more individuals rely on Linkedin for a job search, "the worse their self-efficacy becomes, the more they become depleted, and the poorer their ensuing job search success."[168] That said, a survey of 768 job-seekers found that higher-income individuals are more likely to receive callbacks from potential employers than lower-income job seekers, particularly because they are more likely to blend social media usage with other job seeking strategies.[169]

## Career navigation tools

**We also identified three career navigation tools that are designed to improve individuals' access to information: exploration and mapping, self-assessment, and nudging tools.**

**Career exploration and mapping tools provide information about various careers and pathways, including skill requirements, economic outlooks, and compensation.** For example, the Occupational Information Network (O*Net) database and tools leverage occupation-specific data to describe nearly 1,000 different careers.[170] The database provides comprehensive information on tasks, skills, and salaries for each career and offers a designated section tailored specifically for veterans. Other career mapping tools include CareerOneStop, the Competency Model Clearinghouse, the SkillUp Coalition, ReWork America Alliance, and FutureFit AI's Workforce Compass. In 2020, Jobs for the Future conducted a technology scan, which shed light on the landscape of tools used by workers and employers for career navigation.[171] Despite the abundance of career exploration and mapping tools, it remains unclear how often these tools are used by job seekers, how they are incorporated into the job search processes, and whether they impact career outcomes. Unfortunately, many are also poorly publicized and difficult to navigate for a typical user. Some advocates suggest that intermediaries can improve the implementation and adoption of navigation tools.[172]

**Assessment tools help individuals develop an understanding of their strengths, weaknesses, skills, and interests, enabling better alignment with their careers goals.** The Interest Profiler tool offered by O*Net and the Career One Stop Skill Matcher sponsored by the U.S. Department of Labor are two examples of assessment tools available to the public that help map an individual's interests to relevant career opportunities.[173] Assessments may provide useful information for both the individual and their organizations. One study showed that universities were better equipped to support and facilitate career exploration for students following assessments that measured personality dimensions, career interests, and self-efficacy tests.[174] Research indicates that a key component of effective career assessment is "personalized, interpretive feedback," which may not be available through online tools.[175]

**Nudging refers to targeted messages that leverage behavioral science to encourage positive career actions.** A study of the Behavioral Interventions to Advance Self-Sufficiency project conducted by 15 state and local agencies found that nudging can improve outcomes in human services programs, such as increasing the number of Temporary Assistance

for Needy Families (TANF) recipients who re-engage in the welfare-to-work program.[176] Additionally, a randomized control trial conducted at Georgia State University found that nudging led to increased student performance.[177] However, other studies have shown little evidence that nudging improves academic outcomes, leading some to question whether nudging is sufficient for addressing student barriers.[178, 179] As a low-cost support, it may be worth investigating further whether nudging can be an effective tool in supporting career navigation, alongside other high-touch services.

## Career navigation programs

**We identified three types of career navigation programs: navigation courses, career exposure initiatives, and intensive experiential programs, most of which are designed to support information and skill acquisition.**

**Career navigation courses facilitate the development of skills like decision-making and communication, while providing instruction in processes like job search and interviewing.** There is limited quantitative research on the impact that career navigation courses have on adults' career journeys. A randomized control trial of the Job Search Assistance Demonstration at unemployment insurance (UI) benefit offices in Washington, D.C and Florida found inconsistent outcomes. In Washington D.C., the study reported that structured job search assistance, including a 15-hour job search course, was generally successful at reducing UI benefits receipt and increasing earnings.[180] However, the positive results were not replicated in Florida.[181] In a study of community college students, participants in a college-to-career navigation course demonstrated higher academic outcomes than non-participants.[182] Another study of a career training course found that participation increased career self-efficacy, but did not impact student adaptability or career planning. [183]

**Intensive, experiential programs, which integrate skill attainment, career immersion, and wraparound support, have proven to be more effective.** The Clearinghouse for Labor Evaluation and Research (CLEAR) identified and reviewed 24 causal studies of nine programs that serve disconnected youth. Of those nine, CLEAR found five programs that improved youth's earnings over time: Year Up, Youth Corps, Job Corps, National Guard Youth Challenge Program, and the Center for Employment Training. Those programs shared a series of similarities, chief among them are substantial time commitment from participating youth and integrated job placement services.[184]

Year Up's impact on participants has been extensively studied by the Pathways for Advancing Careers and Education (PACE) Initiative started by the Office of Children and Families.[185] PACE's 2019 report found Year Up participants experienced a 53 percent increase in average quarterly earnings compared to the treatment group, for an average monetary increase averaging $1,895 per quarter.[186] PACE also found substantial positive impacts resulting from participation in Project QUEST, another intensive career training program. Project QUEST participants received almost double the college credentials than those in the control group and an average $4,616 increase in quarterly earnings 11 years after the program.[187]

It is worth noting that intensive programs, such as YearUp and Project QUEST, tend to require substantial upfront costs (e.g. YearUp costs $28,290 per participant[188]). However, one study demonstrated that the returns on investment, both for the individuals and society at large, outweigh program expenditures.[189]

**Career exposure programs, which introduce individuals to diverse professionals and career opportunities, can also impact career navigation, particularly for youth.** While one study noted that career exposure can complicate decision-making,[190] a substantial body of research supports the notion that career exposure results in improved career decision-making and self-efficacy.[191, 192, 193] Multiple studies have found that career exposure for high school students, in particular, is important.[194, 195] A study on the impact of diverse career panels found that they improved student attitudes and intentions toward information systems careers.[196] There is limited evidence on the impact of exposure programs on adults, however. This may be in part because exposure programs are rarely targeted at this population.

## Career navigation structures

**Lastly, we identified three types of career navigation structural changes–stackable pathways, public and private policy reforms, and the use of career centers–that provide individuals with key resources, while improving the systems in which they live and work.**

**Stackable pathways enable learners to earn progressive credentials along structured career paths that are aligned with specific occupations.** There is causal evidence to suggest that working adults returning to college for additional credentials increase both earnings and employability. A RAND study on low-income credential stackers in Florida and Ohio found that they experienced positive economic returns from stacking, narrowing the earnings gap with middle- and high-income individuals.[197] Additionally, a report on California community colleges examined returns for career credentials, inclusive of students who stack multiple credentials, and found a six to 20 percent increase in wages depending on first credential.[198] However, labor market returns for stacking credentials differ across fields. A 2022 study found significant improvement in wages and employment in health fields, but not in business or other fields.[199] Based on the robust support for stackable pathways overall, many states have provided funds for colleges to develop these pathways, and 10 states require their community colleges to provide stackable tracks.[200]

**Public and private policies also have the ability to improve career navigation.** For example, the Carl D. Perkins Career and Technical Education (CTE) Act provides federal funding for career exploration and career advising for students in secondary and postsecondary CTE programs, enabling students to make more informed decisions about their education and career pathways at a young age.[201] Meanwhile, corporate policies, such as employee reskilling programs, may open doors to upward mobility and allow workers to navigate career pathways across their companies.[202, 203] The evidence on the impact of such policies in the private sector is limited, however.

**Career centers, including publicly-funded American Job Centers, provide another structural resource for workers to access career navigation support.** A randomized control trial conducted at 28 sites demonstrated that one-on-one staff assistance at American Job Centers—including through assessments, coaching, and service referrals—was highly effective for dislocated workers. Access to those services increased earnings by between seven and 20 percent over a three-year follow-up period. Effects were larger for more educated job seekers and in areas with higher rates of unemployment, but impacts were similar across many other subgroups."[204] Another study of Adult and Dislocated Worker participants found that staff-assisted services were effective in increasing earnings over a 15-month and 30-month period and produced a positive return on investment for taxpayers.[205]

Part 2

# Charting the course for the future

## Principles for effective and equitable career navigation

**Based on our review of the literature, programs in the field, and conversations with experts, we developed a series of evidence-based principles to guide the development of any career navigation program or system.**

1. **Communicate information and pathways in clear, accessible, and relevant ways:** Labor market information must be presented in a relevant and timely manner and in language that is simple and easy to understand. A past Project on Workforce review of state workforce websites found that they are extremely difficult to navigate, and states present training program information in inaccessible ways. They often omit information like cost, duration, and career advancement potential that individuals need to make informed decisions.[244] In addition to clarity and relevance, information access is crucial. This requires connecting with individuals in new ways, where they naturally focus their attention, such as on social media platforms. Even more traditional media can enhance engagement in career navigation. In a large-scale German study, researchers found that sending brochures on prospective employment strategies and motivational communication to job seekers' homes increased employment for those at high risk of prolonged unemployment.[245]

2. **Integrate opportunities for career exposure and social capital development:** Integrating career exposure opportunities can help students access new information, consider new careers, build richer networks, and enhance professional growth. A small study of college students found that participating in events with employers and peers helped them focus on their career goals and build self-efficacy.[246] These efforts should intentionally include professionals who share the background and demographics of job seekers. One study found that mixed-gender career panels had a larger positive impact on career attitudes than all-male or all-female panels.[247]

> *"If I had a magic wand, I would rip apart all of the systems and ecosystems and rebuild them, putting a human in the center. Start with, what does that human need to thrive as a human? Then figure out the rest of it."*
>
> — Renata Kowalczyk
> *Chief Executive Officer*
> *Wilmington Alliance*
> *National Fund Employer Partner*

3. **Build foundational skills and navigation skills:** Despite the growing importance of non-cognitive skills in the labor market, few education and career navigation services provide this type of skill development effectively. Many navigation courses and services focus on job search processes, as opposed to the development of skills and attributes like resilience, goal-setting, and adaptability. While there is still much to be learned about how we measure and teach these skills, navigation programs should integrate opportunities for experiential learning and skills coaching to build these abilities. Lessons can be learned from the EMPath program, which has demonstrated success at building decision-making skills and resilience.[248]

4. **Design culturally-relevant approaches:** Tailoring interventions to be relevant and responsive to the needs, experiences, and backgrounds of participants from specific racial and ethnic minorities is critical. Rutledge and Gnilka studied a culturally-responsive after-school career program called FLAME, which focused on the career development needs of girls of color, and found that it positively impacted motivation and engagement.[249, 250] The authors found that girls of color experience unique challenges due to

discrimination which, when combined with socio-environmental factors, make career decision making and self-efficacy more of a struggle. The solution lies in providing targeted support.[251]

5. **Use high-touch services that meet individuals where they are:** Career navigation supports should be intentionally designed to offer a high level of personal interaction and maintain frequent engagement with participants. Additionally, programs and services should reach individuals where they are. One workforce practitioner and focus group participant mentioned that their organization hosted "pop-up" career services in community centers and cafes to meet students in their neighborhoods. Another example is Broward UP, a program launched by Broward College which identified the zip codes with the lowest degree attainment and highest unemployment rates, and subsequently delivered workforce and education programs directly to these areas.[252] The program has led to meaningful employment in higher-paying jobs for participants and it has yielded a high return on public investment.[253]

6. **Provide financial and wraparound support:** Individuals who stand to gain the most from career navigation services often find themselves constrained by tight finances and inequitable access to work-related supports.[254] A study of the City University of New York Accelerated Study in Associate Programs demonstrated the impact of providing financial and wraparound support, including advising, transportation, and textbook assistance.[255] The program has resulted in profound positive impacts on degree attainment and lifetime earnings.[256] Another study, mentioned previously, reviewed intensive programs, such as YearUp and Project Quest, and cites the benefits of wraparound services as a potential explanation for participants' earnings increases.[257] Addressing the lack of wraparound supports, like child care, must be a priority for leaders at both the program and systemic level.

7. **Pursue community and intergenerational partnerships that build trust:** Many of the practitioners we spoke with emphasized the importance of developing trust to deliver effective career services. That involves building community partnerships with populations that have been marginalized and co-creating career programs with leaders in the community, like the embedded career navigator program in Oakland, California.[258] Career navigation is often driven by social relationships, in particular, familial relationships.[259] Intergenerational approaches that engage entire families can be critical for driving change.

> *"You can't go in and just try to take over, you have to go in and build support within the community."*
>
> — Evelyn Woock
> *Program Director*
> *KentuckianaWorks*
> *National Fund Network Partner*

8. **Leverage AI to personalize pathways:** AI has the potential to accelerate personalized career navigation greatly, leading to greater efficiency and improved job fit. Through a dramatic reduction in mismatches, it can also play a significant role in improving and streamlining skills-based hiring, providing detailed assessment of candidates' proficiencies and matching them precisely with job requirements. However, AI has also been shown to perpetuate discrimination and biases in the hiring process, harming marginalized populations.[260] Strong policies that balance technological advancement and ethical considerations are essential to harness the potential of AI for career navigation while safeguarding against the amplification of societal disparities.

9. **Collect disaggregated data and embed research and evaluation:** To measure the effectiveness of career navigation programs and services and build a stronger evidence base, economic outcomes should be disaggregated, collected, and analyzed. Embedding evaluative measures allows for a proper assessment of what works and for whom. These are strictly necessary to ensure that the government and other funders are properly investing in and scaling models that work. Quality research and data efforts also reveal if certain career navigation supports are perpetuating racial disparities and other underlying harmful trends.

10. **Center equity by recruiting and elevating individuals from under-resourced communities:** Career navigation programs and systems must be designed for and with individuals who come from under-resourced communities. Programs should intentionally recruit individuals of color and those from low-income households and amplify their voices to design better services. As we demonstrate in this paper, individuals experience a variety of barriers to advancement. Programs and systems must address those challenges by addressing multiple factors–including access to information, skills, social capital, resources, and discrimination. Experts noted that a change in culture, along with coordinated actions across sectors, are imperative for creating an equitable career navigation ecosystem.

# Stakeholder recommendations

**Improving career navigation at a systems level requires all major stakeholders–including policymakers, employers, educators, intermediaries, and philanthropy–to work in concert to enable upward mobility for all learners and workers.** Workers and learners must be at the table, shaping these actions, as well. While career navigation is an individualized journey, it is deeply shaped by unequal social structures. Therefore, recommendations include some that go beyond program improvements to fundamental reforms to the systems that shape employment across the country, with an eye toward equity. Reforming these systems will require both a substantial investment and changes in behavior by public and private actors. We should not underestimate the magnitude of the challenge and resource needs ahead.

## Policymakers

**Policymakers should provide career services to people where they are and incentivize quality, equitable outcomes.**

1. **Embed public workforce services in community centers, prisons, schools, and other state offices.** Only a fraction of individuals in the workforce interact with American Job Centers (AJCs), yet that is where the majority of public career services are based.[261] To ensure all individuals have access to crucial workforce supports, programs should be situated to meet beneficiaries where they are, such as in prisons, schools, and community centers. In addition to placing career coaches in community centers, policymakers can incentivize better coordination between different government offices, such as the unemployment insurance office, and workforce services. Officials should leverage technology to nudge people who interact with other state programs to make use of career navigation services at AJCs.

2. **Invest in and professionalize career coaching.** Despite strong evidence of the impacts of career coaching, there is a dearth of public investment in the field. There have been efforts to develop standardized training and credential programs, but coaches continue to be underpaid, contributing to a serious shortage of career services professionals nationwide.[262] Growing this specialized workforce will require significant funding under the Workforce Innovation and Opportunity Act (WIOA) and other education and workforce authorities, and investment in offering high-quality certification programs at state universities. These programs should embed training in trauma-informed practices, as both staff and job seekers have a high probability of experiencing toxic stress and trauma, which interferes with an individual's ability to thrive in the workforce.[263]

> *"What systems and policies have built, programs alone cannot transform."*
>
> — Robert Gunn Jr.
> *Chief Equity & Impact Officer*
> *Metro United Way*
> *National Fund Network Partner*

3. **Adopt outcome-based metrics that incentivize career progression, with equity at the center.** Policymakers should shift public workforce accountability metrics to incentivize earnings growth over time, and lengthen the time allotted for individuals to meet earnings thresholds. Career progression, as opposed to immediate placement, should be an objective for government programs. This will help ensure that individuals in need of longer training programs that lead to quality jobs are not refused service and that workers have jobs that enable mobility. States should set racial equity goals and report and review disaggregated outcomes to ensure services are not perpetuating occupational segregation.

4. **Align and simplify eligibility requirements across government programs.** It is often complex and cumbersome to prove eligibility for WIOA programs. The requirements for enrollment across government programs, including TANF, public housing, Supplemental Nutrition Assistance

Program, and other programs, are inconsistent. To make it easier to navigate the several programs that many individuals qualify for and reduce the administrative burden on agencies and intermediaries that serve low-income individuals, WIOA eligibility could be adjusted to automatically qualify individuals who already receive means-tested public benefits from other government programs.[264]

5. **Provide universal access to career coaching and lifelong upskilling.** Federal and state governments should consider providing training funds for every individual to have the opportunity to access career support throughout their lifetimes. The disruption of work being unleashed by rapid technological innovation is making the need for such support both urgent and nearly universal. Funds could be used for career navigation services or training programs whenever a worker feels they need to reskill or change career paths.

6. **Collect and communicate disaggregated, longitudinal employment and education outcomes data clearly.** The government should link unemployment data with education and training outcomes to better capture the economic impacts of different training options, and communicate this information in a clear and accessible way. Some state workforce websites report quarterly earnings data for training participants, which can be unclear and unhelpful to navigators. Individuals must be empowered with the information to make good decisions, and disaggregated data can illuminate inequities and enable targeted interventions.

## Employers

**Employers must build transparent, skills-based career pathways that are designed around employee needs.**

1. **Develop and communicate career pathways that are mapped to skills.** Employers should create career ladders from frontline jobs to higher-paying positions that are clear and accessible to their employees. They should broaden their employees' exposure to positions and pathway opportunities across their company. Development of pathways requires an articulation of the skills required for each role, an understanding of the skills that employees possess, and the provision of requisite training programs (see below). Artificial barriers, like degrees, should be removed when they are unnecessary.

2. **Provide training to middle managers in equitable talent practices and workplace coaching.** To transform behaviors and systems in the business, middle managers must have the tools to improve their skills in providing clear and actionable feedback and career mentoring. They should be incentivized and supported in providing such coaching to their direct reports. While company policies requiring coaching are important, capacity building across an organization is crucial to achieve the extent of reform required.

3. **Invest in upskilling programs that are designed around employee needs.** To ensure employees can advance in their careers, employers should design upskilling programs that meet employees' needs. They should take into account the time and financial constraints workers face, minimize barriers to participation, and clarify the incentives of completing training programs (i.e., the job outcomes). Particular emphasis should be placed on communicating the availability of such programs, the associated qualifications, and requirements. Companies should evaluate not only the impact of such programs on their workers, but also the benefits that accrue to the firm, itself, in the form of reduced turnover, improved productivity, and heightened engagement

4. **Develop and apply metrics to track worker mobility, disaggregated by race and gender.** It is often said that "what gets measured gets done." Employers should track and analyze career trajectories of employees, particularly frontline workers, and set internal equity, mobility, and hiring goals.

## Educators and training providers

**Educators and workforce training providers must increase diverse career exposure and provide structured opportunities to build social capital and navigation skills.**

1. **Provide career coaching to all students throughout their education.** Students should receive personalized, high-touch career coaching services that connect their interests, education, and career goals. Ideally, those services should be provided by professional career coaches, but trainers and teachers can also fulfill much of this role with appropriate support. Coaches should build trusting relationships with students and ensure that they do not enable students to drift down low-wage pathways that perpetuate social inequities by default.

2. **Integrate opportunities to learn foundational and career navigation skills.** In the classroom and through work-based learning, educators and training providers should prioritize helping students develop the foundational and navigation skills that are critical to career success, including decision-making, adaptability, resilience, self-efficacy, and communication skills. Such foundational and navigation skills, which are rarely–or ineffectively–taught in the classroom, will enable students to navigate their careers more successfully throughout their lifetimes.

3. **Provide career exposure opportunities early in the education pipeline.** Educators should expose students to a variety of career paths beginning at an early age. That should continue with great frequency throughout high school and postsecondary education. Those efforts should be augmented by providing access to accurate and relevant labor market outcomes. Educators should also bring diverse professionals into the classroom to encourage students to explore careers and pathways they may not have previously considered.

4. **Provide structured cohort learning and networking opportunities.** Educators and workforce organizations should integrate social networking and cohort learning opportunities into programs to help students build social capital. Social networking is a time-consuming endeavor, but it is critical to the career navigation process. Providers should help students develop the competencies required for in-person and online networking, while providing them with a supportive community to encourage success.

5. **Leverage AI to "nudge" students and personalize pathways.** Educators should leverage emerging technology tools to encourage and guide students along their education and career pathways at scale. Educators can also leverage generative AI to develop personalized experiential learning opportunities and to help students develop key skills.

## Intermediaries and other organizations

**Intermediaries and other organizations–including workforce boards, nonprofit organizations, worker unions, and for-profit companies–must build deep community partnerships.**

1. **Actively recruit individuals from underrepresented communities for career services and programs.** Intermediaries play an important role "connecting the dots" across the workforce ecosystem. While they should build connections between educators and employers, it is equally important that intermediaries focus on active outreach to and connection with learners and workers from under-resourced communities.

2. **Build trusted, intergenerational community partnerships that embed coaching services.** Career coaching that is embedded in community based organizations can be particularly effective, in part because it is conducive to building trust and culturally relevant services. Given the importance of social capital and strong supports to career navigation, approaches that strengthen community networks across generations should be encouraged.

3. **Provide career exploration opportunities and self-assessments to adult workers.** The literature and feedback from practitioners suggests that career exploration and self-assessment opportunities are much more likely to be provided to students than to working adults. However, such experiences are just as crucial for adult workers to enable them to make informed choices, particularly in light of the rapidity of technological change.

4. **Uplift worker voice and ask individuals what they want.** Intermediaries should provide human-centered services that stem from asking learners and workers what they want for themselves.

In addition to building individual agency, intermediaries should empower collective worker agency and include frontline workers in decision-making and program delivery so that they are shaping services together.

## Philanthropy

**Philanthropy should invest in new career navigation models and research, while supporting leaders with lived experience.**

1. **Embrace the role of a "research and development fund" for innovative career navigation models.** Philanthropic organizations have a unique opportunity to fund new career navigation models and programs, including high-touch, high-tech models that may not be aligned with public funding opportunities. By seeding new models, paired with evaluation, philanthropy can help kickstart innovation in the field while continuing to build an evidence base to inform public policies and resourcing.

2. **Support leaders across the ecosystem with lived experience facing economic barriers.** Philanthropists should actively support individuals and organizations led by people with lived experience in low-wage work who face structural barriers, including occupational segregation. Ensuring that leaders from those populations are at the table in communities of practice, equipped with resources, and informing policy priorities is a key component of advancing equity in the field.

3. **Advance research in the field of career navigation to build knowledge around best practices and policies.** This paper has identified several gaps in the research and opportunities for further investigation into the ways in which individuals progress throughout their careers and make career decisions. Philanthropy can devote resources to gathering the data and evidence that we need to fill the gaps in our understanding of career pathways in the service of developing more effective practices for policymakers, employers, and educators (see below).

# A research agenda for the future

**Career navigation as a field is relatively new and, as a result, the research base is slim.** In this paper, we have scoped and synthesized what we do know about career navigation, but several questions remain. To build a more comprehensive evidence base for the field, we must address the following knowledge gaps:

1. **We need more disaggregated, longitudinal research on career outcomes, including on the impacts of individuals' career decisions.** The vast majority of knowledge on "what works" is drawn from small experiments, with specific populations over short periods of time. Often, study participants are individuals in postsecondary institutions or interacting with the WIOA system or TANF programs. Because many individuals do not touch either system, there is a material void in the knowledge-base. We need additional large-scale, causal studies on diverse populations to answer questions about the impacts–particularly the equity impacts–of career decisions. For example, what is the long-term effect of a particular first job, for different populations? To answer those questions, and inform decision-making, we need more and better economic outcomes data.

2. **We need more research on the ways in which individuals acquire and use labor market information.** Of the career navigation drivers we reviewed, there was the least amount of research around information use. While most studies acknowledge the importance of accurate career information to inform decision-making, information is rarely the focus. We need more research on the access to and impacts of different types of data, which will help us evaluate and improve information delivery methods, including exploration and mapping tools.

3. **We need additional research on career navigation "on-ramps."** We know very little about what prompts individuals to seek out career supports or why and how they engage with career services and tools. Developing data, across various population groups, is crucial to both building and delivering effective career navigation interventions that reflect the reality of individuals' lives.

4. **We need more rigorous research on foundational and navigation skills, and how to measure and teach them.** It is clear that foundational and navigation skills are central to career success. However, we have yet to effectively measure such skills nor do we explicitly undertake to teach them universally across the education system. Additional research on what works for diverse populations in developing and assessing these skills will be crucial to understanding and improving career navigation.

5. **We need causal research on private and public employer career navigation programs and practices.** Data on the impacts of employer programs, such as reskilling and coaching, for low-income workers is relatively sparse. We need more studies to understand effective pathway designs and support services that employers can offer to help individuals advance–and increase their bottom line. Additionally, research on employment practices in the public sector is often neglected, despite governments being among the largest employers across the country. Federal, state, and local governments are disproportionately large employers in inner cities and rural areas whose residents are most vulnerable to becoming ensnared in low-wage trap jobs. We need to move beyond policymakers urging private sector employers to adopt work-based learning programs and for government at all levels to implement such practices themselves.

6. **We need more research to understand the impacts of economic conditions and job supply on career navigation.** Career navigation looks very different in a tight labor market than it does when jobs are scarce. However, very little research examines the ways in which career journeys change under different economic conditions, particularly for workers of color and from low-income backgrounds. Understanding the impacts of job supply–and the career navigation supports that are most effective under different conditions–will allow for more effective resource allocation to improve economic mobility.

7. **We need more information about the use and impact of emerging technologies, particularly generative AI, on career navigation.** We know little about the impact of AI in the workforce ecosystem, including the ways in which learners and workers are leveraging such technologies to navigate their careers. As advanced AI becomes more widely adopted, it is crucial that its adoption is understood. AI has the prospect of revolutionizing skills matching, making career navigation hugely more efficient and greatly enhancing the efficiency of employers' hiring and training processes. It will also change the skills that individuals need to navigate learning and work. Understanding that phenomenon as it unfolds is a critical research priority.

# Call to action

**A coordinated career navigation system has the potential to be a great equalizer.** Yet, the reality is that our system remains stratified. As this paper has explored, some workers have access to information, social capital, skills and credentials, resources and social structures, enabling them to progress along high-paying, fulfilling careers. However, many others struggle to escape low-wage work due to the inaccessibility of those enablers. In order for our career navigation systems to be equitable and effective, we must redesign them with a keen focus on all those factors, acknowledging and addressing the unique challenges that workers from different backgrounds and communities confront.

> *"We've shifted the burden of [career] navigation from the individual to the collaborative partners. That's a huge shift in our community, to have partners working together."*
>
> — Anne Kandilis
> *Director*
> *SpringfieldWorks*
> *National Fund Network Partner*

**Policymakers, employers, educators, intermediaries, and philanthropies must prioritize career navigation moving forward, with a focus on empowering under-resourced learners and workers.** Enhanced career navigation systems not only serve the interests of individuals seeking to align their skills and passions with economic opportunities, but also hold the key to a more prosperous national economy. A 21st Century career navigation system will be more equitable and efficient, reducing instances of students investing time and borrowing against credentials that do not support decent earnings. It should also make employers more efficient in their recruiting processes and training efforts. Companies that are not squandering resources on failed hires will be able to upskill their workforces to respond to technological change. More workers on the fringe of the labor market will be drawn back into the mainstream of employment, helping address America's looming labor shortage. The returns on the investments we recommend in policy, corporate, and education practices and research promise to be high. Until we make those investments, however, we will be left with a fractured system that disadvantages many individuals and stifles economic growth. It is incumbent upon all of us in the career ecosystem to chart a course towards a more inclusive and thriving future.

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