

Unlocking Career Potential

An Analysis of the Career Navigation & Guidance Product Landscape

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Executive Summary

Institutional leaders, policymakers, and philanthropists recognize that it is no longer enough to ensure that students make it to graduation. Rather, if education is to serve as a tool for social and economic mobility, it matters what students are graduating into. Jobs—and ultimately careers—are an important metric of whether K-12 and postsecondary education are expanding opportunity or simply reproducing the status quo. Yet, our current systems face challenges in helping students connect education to career, which disproportionately harm the students who most need education to provide economic mobility.

It doesn't have to stay that way. Our educational systems and institutions can build a future where all learners are supported by career navigation and guidance, starting in middle school and continuing throughout high school, postsecondary education, and a life of learning.

This paper takes a close look at how better navigation and guidance might transform the status quo. In particular, it examines the market of tech-enabled career products that has emerged to help provide better career navigation and guidance. Using online platforms, apps, gamified assessments, and multimedia, these products have the potential to improve the scale of advising and guidance, breaking out of one-to-one interactions—which, while often effective, are incredibly resource intensive and, too often, one-off.

But for all the potential, this market is neither well-developed nor well understood. Schools, colleges, employers, and individual users are beginning to make significant investments of time and money in these products, but without a real sense of what is effective, what has the potential to serve the highest need populations, and what is sustainable. This project was designed to generate greater clarity about the market, mapping the landscape with a focus on career products intended for K-12, postsecondary,

and early job seekers. Through this project, we examined the literature on career navigation and guidance, as well as occupational identity and social capital, and mapped 150 products to better understand the current scope, opportunities, and challenges in the market. The research included deep dives on a dozen products that were especially promising or had transformative potential for underserved students.

This research shows that, on the whole:

- The product market falls into a clear framework, the **Career Navigation Cycle**, which includes four distinct stages from early exposure to landing a job.
- Given the nature of that cycle, career navigation and guidance should happen **early and often** throughout education and into career—but too few products are designed with that in mind.
- The career navigation product market is positioned to play an important role in helping students to develop not only skills, but also occupational identity and social capital, which together form the **Three Pillars of Career**.

This work also revealed that for the career navigation product market to achieve its full potential, it will require a greater focus on business models and shifting K-12 and postsecondary incentives, on efficacy, and on serving students with the greatest needs.



Introduction: The Current State

Postsecondary education is increasingly important for a growing number of first generation, low-income, and underrepresented students who depend on it for economic mobility and stability. Indeed, all of the recent growth in “good jobs” has been in roles that require at least some postsecondary training, and often a bachelor’s degree.¹ Even before the current economic turmoil, learners recognized this new economic reality, with students entering college saying a good job is their primary reason for pursuing a degree.²

But the current system of helping students chart a path from education to career is fractured and doesn’t serve the students who need it most. More than 36 million Americans started postsecondary education but have never earned a credential—and 41% of recent bachelor’s graduates are underemployed, working in jobs that don’t require a four-year degree.^{3,4} On top of that, women and Black workers with degrees are even more likely to be underemployed.^{5,6} Certificates, certifications, and other non-degree credentials arguably have growing workforce value, but the options are often overwhelming and learners struggle to understand which ones provide real value.⁷

The picture is even more bleak for students who don’t pursue postsecondary education. Opportunities for well-paying jobs straight out of high school have fallen dramatically over the past 25 years, yet almost a third of graduates go straight to work.^{8,9} Nearly one in 10 young high school graduates not enrolled in higher education is unemployed—with young Black graduates roughly twice as likely to be unemployed as their white and Asian peers.¹⁰ And this reality is likely to become starker amid the economic fallout from the coronavirus pandemic.

Young adults need more career-connected learning, navigation, and guidance that help them understand how to turn education into a career. Starting at high school graduation—much less postsecondary—is far too late.

Long before they search for their first job, learners need time to discover possible careers, form ideas about which ones are the right fit for them, and develop the skills and social capital that will help them navigate their careers as they enter and progress through adulthood.¹¹

Fortunately, a new market of career navigation products is trying to help learners with this process. New product companies recognize that existing career navigation and guidance—methods like job shadowing, in-person mentoring, and one-to-one advising—are falling short because the approaches are too limited in focus or simply don't scale and are disproportionately available in highly resourced and urban communities.

These products use technology to expand navigation and guidance and create new opportunities for career development. None of them, of course, are a panacea, and they face their own challenges around implementation, outcomes, sustainability, and scale. To understand both their potential and limitations, it's critical to explore five interrelated trends in the education-to-career landscape that are both fueling the rise of career navigation products and creating many of the hurdles these products will have to clear as they look to expand their reach.

Five Key Trends

- 1 Although young people want college to lead to a good job, they no longer believe it actually prepares them for careers.** Only a third of students believe they will graduate with the skills they need to be successful in their careers, and this viewpoint is influenced by the experiences of the graduates who have gone before them.¹²
 - 41% of recent graduates and 34% of all graduates are underemployed—and the numbers are much higher for women and Black Americans.^{13, 14, 15}
 - Only 26% of working adults with college experience strongly agree that their education is relevant to their career and day-to-day life.¹⁶



- 2 Labor market demands and economic needs are shifting rapidly.** The economic upheaval from the coronavirus epidemic is profoundly changing entire industries, at least in the short term and perhaps for good. Even before this sudden change, automation and other technological advances were remaking work, and education institutions struggled to keep up.¹⁷ That only widens the longstanding gap in the United States between the skills colleges teach and the actual ones employers need.
 - Skills today lose half of their relevance within just five years.¹⁸
 - One-third of workers may need to learn new skills and find work in new occupations by 2030.¹⁹
 - Only half of HR leaders nationally say that a degree is a “fairly reliable” representation of a job candidate’s skills and knowledge, and a majority of employers are actively transitioning to or are exploring skills-based hiring.²⁰



3

The K-12 space remains focused on college-going or career prep as either/or, rather than pairing the two, and advising of all stripes is vastly under-resourced. Recent years have seen increased talk of career readiness, with different states, school districts, and researchers employing different definitions, but all focusing on ensuring students have a viable career path at graduation. This focus is critical, but too often pits career prep against college-going—when sound career guidance should center on a both/and approach.²¹ This country needs more graduates who are both college- and career-ready and understand the interconnected nature of education and work. Counselors are not only ill-equipped to help students navigate but are simply overwhelmed.

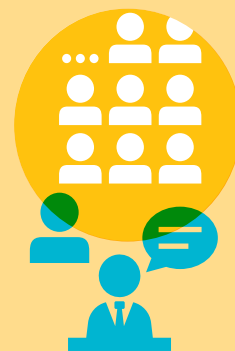
- Only 8% of high school students finish both a college-ready and a career-ready course sequence, and only another 13% complete a career-ready sequence alone.²²
- The average student-to-counselor ratio is 491:1, almost double the recommended ratio of 250:1.²³
- 1.6 million students in elementary, middle, and high school attend a school with a sworn law enforcement officer, but no school counselor. These students are disproportionately students of color.²⁴



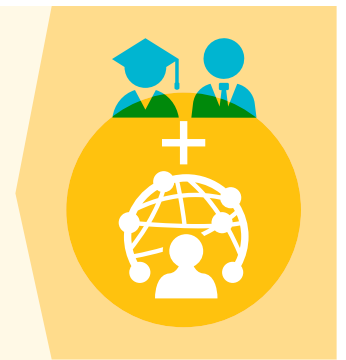
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Colleges have dedicated career services offices, but they too are typically under-resourced, siloed, and underutilized. These resource and structural constraints often limit career services offices to providing one-off advice, resume development, and career fairs—preventing them from being deeply connected to the educational process, from selecting a major and charting a pathway to on-going academic advising and other educational supports.

- Fewer than 20% of undergraduates use their career centers for job seeking and advice.²⁵
- Those that do are equally likely to say their career services experience was “not at all helpful” (16%) as they are to say it was “very helpful” (16%).²⁶
- The median student-to-staff ratio is ~1,800:1.²⁷
- Only \$35,000 is available in the median operating budget for non-personnel expenses.²⁸



- 5 **Career-ready skills are necessary, but not sufficient.** Much of the attention given to improving pathways to careers focuses on closing the skills gap, including shortages of both technical skills and “human” ones like communication and critical thinking. This is critical, but developing new models for teaching career-relevant skills is only part of the equation. To truly close the gap, the education process also must help learners develop occupational identities and build social capital.²⁹



These major trends create a pressing need for better navigation and guidance, which the emerging market for career products aims to address. If successful, these products could help unlock opportunities for millions of learners and young adults—potentially helping them achieve economic mobility and navigate to meaningful careers.



$$f = \langle a \times b \rangle$$
$$a = \langle f/c + 4 \rangle$$
$$12 = 2(a - f)$$

Three Pillars of Career

Career navigation and guidance isn't meeting the needs of learners today, in part because it doesn't focus on the full range of what they need. The growing body of research on career navigation and the research conducted for this paper coalesce around Three Pillars of Career essential to success: social capital, occupational identity, and skills.³⁰ All three are deeply interrelated, yet current approaches tend to focus on one at the expense of the others. In fact, current practice often ignores the development of occupational identity and social capital altogether, and instead focuses on the transactional process of landing a job. As Jeremy Podany, Founder and CEO of The Career Leadership Collective, says, "Career services have successfully scaled information—job postings, recruiting events—but not advice and navigation."

The career exploration process should start years before a student ever goes for a job interview. For students to ultimately be successful in a career, they must have time, freedom, and support to discover what they like to do and develop a related occupational identity; to build networks that allow them to explore, access, and assess opportunities; and to learn work-relevant skills that will make them competitive. Those Three Pillars of Career reinforce, and are best built in concert with, one another.

Three Pillars of Career

Social Capital

Who you know



Skills

What you know how to do



Occupational Identity

What you believe you can be

Social Capital

Who you know



Social capital is the breadth and depth of relationships people have access to, and is an important career asset.³¹ Right now, students build social capital organically through their parents and the other adults they regularly interact with in their neighborhoods, schools, and activities. These relationships expose students to career pathways, enable exploration, and support students in making decisions about what careers they want to pursue. These adults also are learners’ earliest—and often, their lasting—models for work and career.

“A child’s network—her reservoir of social capital and ability to bank on that capital—remains largely determined by the random luck of the family and the circumstances into which that child was born,” says Julia Freeland Fisher, Director of Education at the Clayton Christensen Institute and co-author of *Who You Know: Unlocking Innovations That Expand Students’ Networks*.

This, of course, reinforces disparities that show up in individuals’ career trajectories. Students’ relationships, connections, and networks also play an outsized role in their learning about opportunities and ultimately landing jobs. Eight out of 10 jobs are never publicly advertised, creating a “hidden market” for jobs.³² In addition, referrals make up 40% of new hires, even though only 7% of job applicants get a personal referral from someone at the hiring company.³³

Although schools and colleges aim to level the playing field, there’s no barometer for whether they’re successful. Institutions could benefit from more solutions that focus not only on helping students develop social capital, but also on better defining and measuring it. “Every institution is a broker of social capital, but almost no one is measuring the rates at which they’re building social capital,” Fisher says. “So it’s hard to say you’re doing this well, much less equitably.”

Occupational Identity

What you believe you can be



Occupational identity, in turn, is heavily influenced by social capital. Peers, parents, teachers, and other adults play a major role in shaping what students like to do, what they believe they are good at, and where they feel they belong—and all three come together to form occupational identity.³⁴ This sense of identity evolves throughout childhood, adolescence, and well into adulthood as people accrue work experience and enter new life stages.

Today, the process of developing occupational identity is often haphazard, which is especially challenging for Black, Latinx, and low-income youth who feel they have little margin for error.³⁵ In addition, trusted adults, academic experiences, peers, and media also have a major influence on identity formation—and they play a powerful role in either reinforcing or undercutting stereotypes and socioeconomic divisions.³⁶ *The Cosby Show*, despite later controversy, impacted millions of Black youth by depicting a Black couple in which one spouse was a doctor and the other a lawyer.

“I didn’t think that was a thing,” says Dr. Sheneka Williams, an Associate Professor at the University of Georgia, **“I didn’t believe that because I didn’t see it. To this day, in my hometown, that does not exist. ... Young people believe what they see is possible.”³⁷**

Occupational identity is as much about figuring out the things one likes to “do” and is good at as it is about particular jobs. And while the understanding of what work is a good fit continues to evolve over time, children and young adults are most open to a range of identities and activities.³⁸ In early childhood, youth are quite literally playing doctor, firefighter, astronaut, writer, you name it. And the roles they see in their families and neighborhoods, and in books, videos, and school are the first they will know to try on. Thus, navigation and guidance can have a particularly powerful influence on an individual’s career trajectory if it happens early. With time, children’s perceptions of what’s possible start to cement—and adolescence is a sweet spot where they are still open to exploration and are able to connect it to realistic planning.^{39,40} In short, navigation and guidance is never too late, but early and often is the best recipe for success.



Skills

What you know how to do

As important as identity and social capital are, knowledge and skills are necessary to start and grow into a career path. As it stands, K-12, postsecondary, and workforce and hiring systems are disjointed. They aren't well-designed to help learners both develop in-demand skills and translate them to the world of work.^{41,42} Companies are struggling to find the talent they need, and more are working with education institutions to form real partnerships and vastly improve information sharing around the supply and demand for skills. At the same time, many also are exploring ways to de-emphasize proxies, like the degree, and focus on skills-based hiring.^{43,44}

An emphasis on actual knowledge and skills over proxies like degrees could increase equity in the hiring process and open jobs to a wider range of workers—but that remains an open question. If not well-designed, skills assessments could actually bake in biases and assumptions that perpetuate inequities in hiring. And knowledge of how to navigate assessment processes would not automatically be evenly distributed, so career navigation and guidance would remain especially critical for less-advantaged populations.

No matter the exact future of hiring, it is clear that opportunity seekers will have to be able to develop, demonstrate, and clearly articulate skills and how they layer with their knowledge base, occupational identity, and related behaviors. The country's current education and navigation systems often fall short of helping them do so effectively. Improving career navigation in K-12 and postsecondary institutions would help more learners see how their academic, co-curricular, and part-time work experiences translate to their larger career goals.

This need is particularly acute around soft skills like communication, critical thinking, and creativity, which are more complicated to measure and are of increasing importance as automation renders more routine skills obsolete.⁴⁵ “The skills that matter most now and into the future are ‘human’ skills that can't be performed by machines,” says Michelle Weise, Chief Innovation Officer at Strada Institute for the Future of Work. “We need better ways for students to understand, develop, and translate those skills into the language of the labor market.”

Career Navigation Cycle:

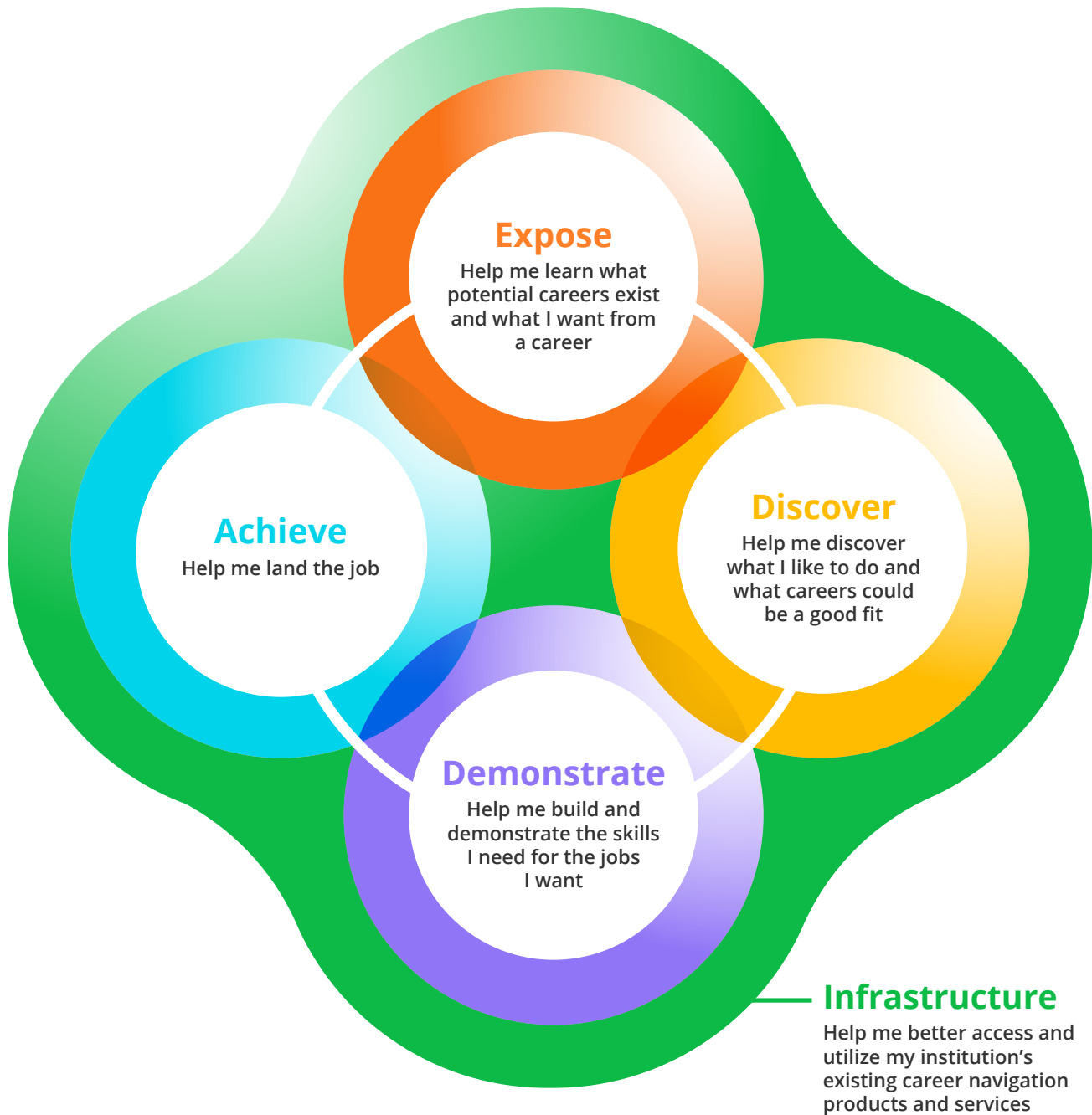
A Framework for Understanding Products

The emerging market of career navigation products aims to address the Three Pillars of Career and smooth the pathways between education and work. They hope to do so by unlocking fresh approaches for guidance and development and recognizing that existing ones don't scale, only scratch the surface for what's possible. Indeed, such products are promising in large part because they don't simply recreate today's approaches using the latest technology, but rather go back to square one in considering how best to help students navigate and to reach those students at scale. If done correctly, they can create both a higher-quality experience and have more reach—helping to close the gaps in navigation and guidance seen today.

No single tool will be able to serve students and the adults who guide them across their entire career journeys, and these tools do not operate in a vacuum either. They must be designed and implemented as part of a larger ecosystem that includes advising programs and human guides, like teachers, advisors, parents, and peers. The best designers recognize this and fashion their products to address the biggest pain points and help magnify their impact.

The emerging landscape of career navigation products features products with a range of different functions, from helping students learn about the career landscape and discover pathways that align with their interests, to helping them demonstrate necessary skills and land jobs. This is the **Career Navigation Cycle**, and each category in the cycle (Expose, Discover, Demonstrate, and Achieve) plays a critical role, as do the Infrastructure products that underpin them.

The Career Navigation Cycle



Expose

Help me learn what potential careers exist and what I want from a career

Expose is the process through which students develop an understanding of their interests, aptitudes, and career aspirations. It is a complex, iterative process that requires equal parts good information, useful relationships, immersive experiences, and self-reflection. Currently, learners are exposed to—or really, stumble upon—occupational identity in unplanned ways: someone says they would make a good teacher, a quiz says they should be an air traffic controller, a parent is an accountant. In these ways, stereotypes, implicit bias, and homophily have an outsized impact on how learners are exposed to careers.⁴⁶

Career navigation products, such as **Roadtrip Nation** and **Nepris**, utilize technology to broaden the knowledge base of jobs available to young people beyond what their social capital and traditional worldviews allow. These products are beginning to address

a critical need at the earliest stages of career exploration—and at a time when students’ occupational identities are still highly malleable. But the need in this area continues to outstrip available products and buyer resources.



Roadtrip Nation

(<https://roadtripnation.com>) was born out of the existing system’s failure: three college students arrived at graduation without knowing what they wanted to do with their lives, and set out on a roadtrip to find out. Today, the team still curates roadtrips—now as the basis for career exploration videos hosted online—and provides project-based career programs and other exploration tools for middle school, high school, and college students. Roadtrip Nation leverages multimedia platforms and partnerships with the College Board and Naviance to reach students at a relatively large scale.



Nepris (<https://www.nepris.com>)

takes a teacher-driven approach to career exploration, with career exploration tied closely to what’s going on in the classroom. The solution doesn’t require software, but rather allows K-12 teachers to simply go online to request a video chat with an industry professional, or to show one of hundreds of archived interviews demonstrating how instructional content connects to “real-world” careers. Almost two-thirds (62%) of students watching Nepris videos are economically disadvantaged.



Discover

Help me discover what I like to do and what careers could be a good fit

Discover is active and targeted exploration—through experiences, learning materials, and relationships—of the work-relevant things learners like to do and how they connect to specific career paths. Given rapid changes in jobs today, this process should be more about figuring out what one wants to “do” than about what one wants to “be.” This is what Diane Tavenner in her book *Prepared: What Kids Need for a Fulfilled Life* calls discovering the “ings”—coding, writing, working with teams, managing, inventing, etc.—you do or don’t like. This process should build on the identity formation accomplished during the Expose phase, and ideally is capped by formal career planning done with an advisor.

As it stands, opportunities for learners to discover what they want to do, especially before they’re mostly down a postsecondary path, are limited. In high school, mentors and job shadow days are often one-off and aren’t connected into formal advising, career planning, or learning processes. Moreover, such activities are so time intensive for the professionals on the other end that they simply cannot scale. In college, advising too often focuses on choosing majors and courses, rather than career planning. Internships, which let students “try on” jobs, often don’t come until junior or senior year of college, if at all. And that kind of months-long discovery—while highly effective—requires a major commitment on the part of both students and companies.

Products aimed at career discovery take a different tack. Several build off of personality and skills assessments that advisors and other guides regularly use, and then connect them to labor market data in a user-friendly interface. This both allows learners to do more self-directed discovery and frees up advisors’ time to focus on helping students map out a personalized career plan, instead of tracking down and interpreting data. Such products aim to help students form a clear occupational identity—showing them how their broader interests translate into various work-related tasks and ultimately to specific careers.



MajorClarity

MajorClarity (<https://majorclarity.com/>) taps the O*NET federal database to connect labor market data to academic pathways in a way that makes such data far more accessible to students. The online platform lets students explore the connections between education and career, and helps advisors better track and advise students.

HATS & LADDER

Hats & Ladders (<https://www.hatsandladders.com/>) helps users discover career interests and preferences (hats) through assessments and hands-on opportunities. It recommends activities (ladders) that provide real-world learning and motivation with functions like achievement badges and social sharing. The company provides a curriculum for K-12 advisors to use alongside the product to guide students on how to get the most from the tool and interpret what they’re learning.

Demonstrate

Help me build and demonstrate the skills I need for the jobs I want

Demonstrate is about acquiring skills aligned to a specific career path and developing the ability to show and explain them to employers. Increasingly, even entry-level jobs require some hands-on experience not often gained in formal coursework.⁴⁷ Applied learning is gaining traction in the education field, but most schools and colleges still don't offer enough opportunities for students to develop the broad skills—such as professional communication, working in a team, and managing projects—necessary for career success.

Young people also find it difficult to translate the skills they've developed through formal education, life, and work experiences into the competencies defined in entry-level job descriptions. A transcript is of little use to an employer. Digital

portfolios, credible references, and other representations of work are far more valuable. Career navigation products aim to give learners tools to both develop work-relevant skills and to successfully demonstrate them to employers.

Riipen

Riipen (<https://riipen.com/>) uses an online platform to enable college students, educators, and companies to connect and work together on real-world industry projects. Instructors select projects based on the focus of their courses, or they offer up their students' skills and knowledge for employers to then bid on. They then guide students throughout the projects, and help them interpret what they are learning. In this way, students gain much-needed work experience while also earning course credit. And just as important, the platform allows students to stay engaged with employers after a project has concluded, developing their professional network and increasing their odds of being hired full-time.

KnackApp

KnackApp (<https://www.knackapp.com>) focuses heavily on the non-college market, particularly youth and young adults who are disconnected from work and education. The mobile platform helps users demonstrate their competencies by playing games that map their skills to create a talent profile. Employers can access the profiles for recruitment and hiring.



Achieve

Help me land the job

Achieve is the active job search phase and includes networking, practicing for interviews, creating required assets (e.g., resume, digital presence), interviewing, and negotiating offers. Networking significantly improves a person's odds of learning about and landing a desired job, but low-income and underrepresented youth often don't know they need to play the networking game or lack the resources and skills to do so effectively. As employers increasingly employ predictive hiring technology—which disproportionately “screens out” applicants with nontraditional backgrounds—coaching on how to best navigate the job selection process is sorely needed.

The most developed products in this category, such as *PeopleGrove* and *Handshake*, focus on the college student population, but they have the potential to provide greater assistance to disadvantaged students. They can

help learners of all backgrounds not only land jobs, but also develop connections and other forms of social capital that will continue to serve them in their careers.



VMock (<https://www.vmock.com/>) scores users' resumes based on key words frequently used in screening software and provides feedback on how to improve them—a service that is particularly helpful for entry-level jobseekers and those with limited social capital who can't get a referral that boosts them to the top of the pile.



Handshake (<https://www.joinhandshake.com/>) is a three-sided mobile and web app that acts as the modern job board by connecting students, colleges, and employers. The app connects with students at various points in their development, but at its core, it is designed to assist students in landing their first job after college. The app has a student-friendly interface, is relatively low cost for colleges, and brings with it a robust network of employers—all of which have helped Handshake land significant funding and grow rapidly.



ButterflyOne (<https://www.butterflyone.co/>) is an early-stage product that will help learners from all backgrounds connect the skills they acquire today to the jobs of tomorrow. It leverages data, content, and community to help underrepresented talent discover new careers, engage with mentors, and apply for and land jobs and internships.

Infrastructure

Help me better access and utilize my institution's existing career navigation products and services

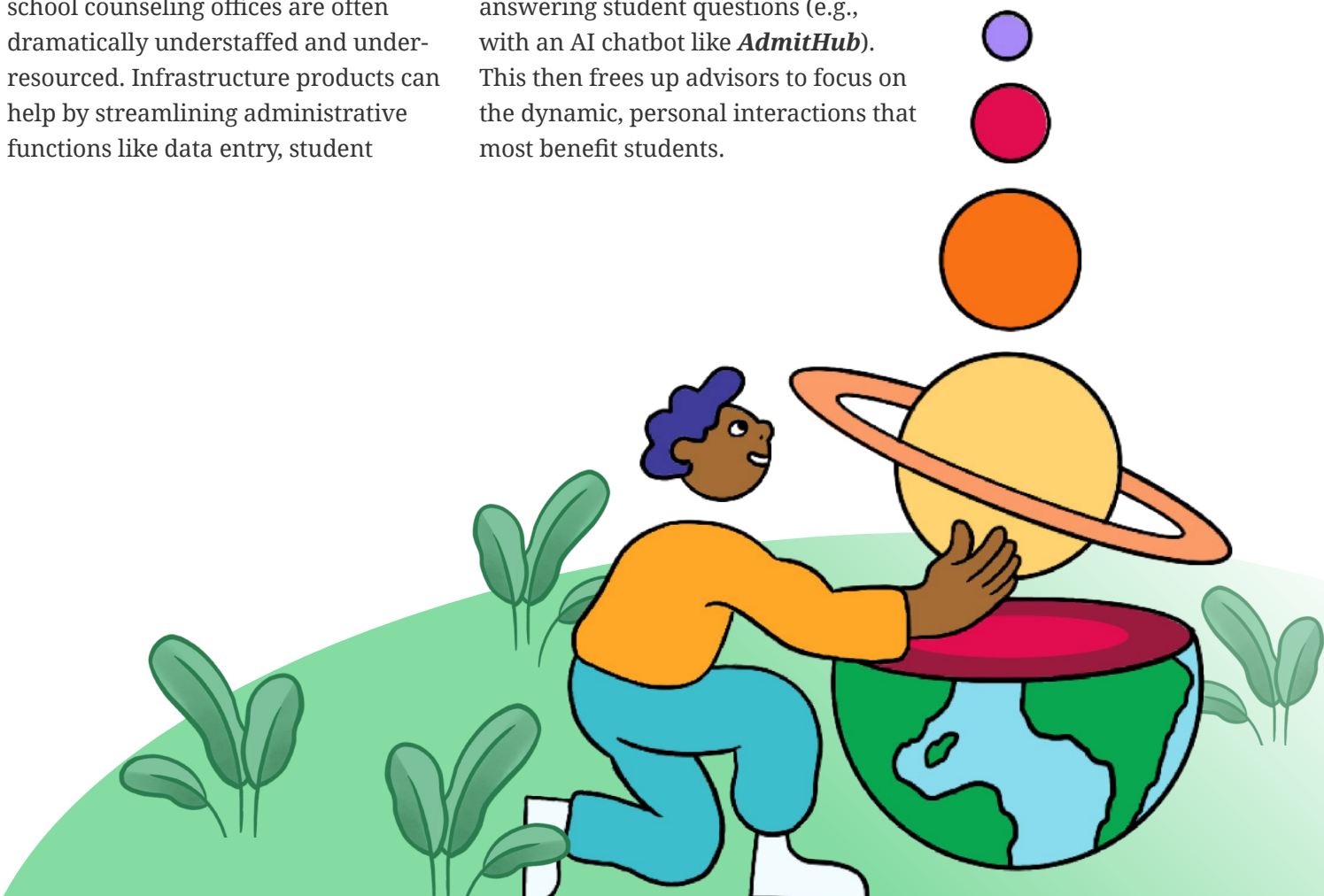
Infrastructure solutions are designed to centralize career navigation products and services, so that students know about, have easy access to, and actually use the products. This is a particular challenge for postsecondary education, where tools are less likely to be incorporated into coursework and formal programming. And the students who could most benefit from additional resources—first-generation, low-income, and underrepresented students—often have the least insight into how to navigate university processes and access those resources. At the end of the day, even the most effective career navigation product won't improve outcomes if students don't use it.

College career services and high school counseling offices are often dramatically understaffed and under-resourced. Infrastructure products can help by streamlining administrative functions like data entry, student

monitoring and scheduling, and answering student questions (e.g., with an AI chatbot like **AdmitHub**). This then frees up advisors to focus on the dynamic, personal interactions that most benefit students.

uconnect

uConnect (<https://www.gouconnect.com/>) creates a central, web-based platform for universities to house all their career navigation products and resources. Institutions can then drive students to one central location, which makes it easier for them to access and benefit from those products and services.



How the Three Pillars Evolve Over the Course of the Career Navigation Cycle

Skills, occupational identity, and social capital develop throughout the course of the Career Navigation Cycle. Ideally, learners are able to articulate their vision and plans with growing levels of specificity as they move through the cycle toward actually applying for a job.

Outcomes	Expose	Discover	Demonstrate	Achieve
Social Capital <i>Who you know</i>	I have a large and diverse set of weak-tie relationships that allow me to understand what career opportunities exist and what those opportunities could mean for me.	I have relationships or information that can help provide guidance on whether and how to become a product manager.	I have people in my network who can vouch for the quality of my relevant work.	I have built connections that will enable me to be successful in this job and to transition to future jobs.
Occupational Identity <i>What you believe you can be</i>	I am developing an occupational identity that allows me to articulate my interests, passions, and aspirations.	I like doing the things people like product managers do, and I might want to be one.	I feel confident demonstrating my skills to employers.	I feel equipped to thrive as a product manager and other similar roles.
Skills <i>What you know how to do</i>	I know that big tech companies need product managers, design researchers, and software engineers, and that those are good jobs.	I know what product managers do and understand the skills I need to develop to perform that role.	I have acquired and can demonstrate the skills required for a product manager job.	I landed a job as a product manager.

The Infrastructure category wasn't included here because product functionality in this category usually involves supporting other products, rather than contributing to these outcomes directly.

Product Market Insights

Research on the career navigation landscape extended from the Career Navigation Cycle to the creation of a market map of 150 products tied to the cycle. This map and the underlying research and data allow us to describe the market, both quantitatively and qualitatively, in far greater depth than ever before.

Looking across the market map, clear patterns emerge, providing a clear outline of the market and greater insight into the roles that products play in career navigation and guidance. One thing is abundantly clear: The market is responding to existing structures, funding avenues, and other incentives—and runs the risk of reproducing many of the inequities it would ideally reduce. This section illuminates exactly how those forces shape the market of career navigation products, starting with who the products serve and how.

Product Landscape Market Map

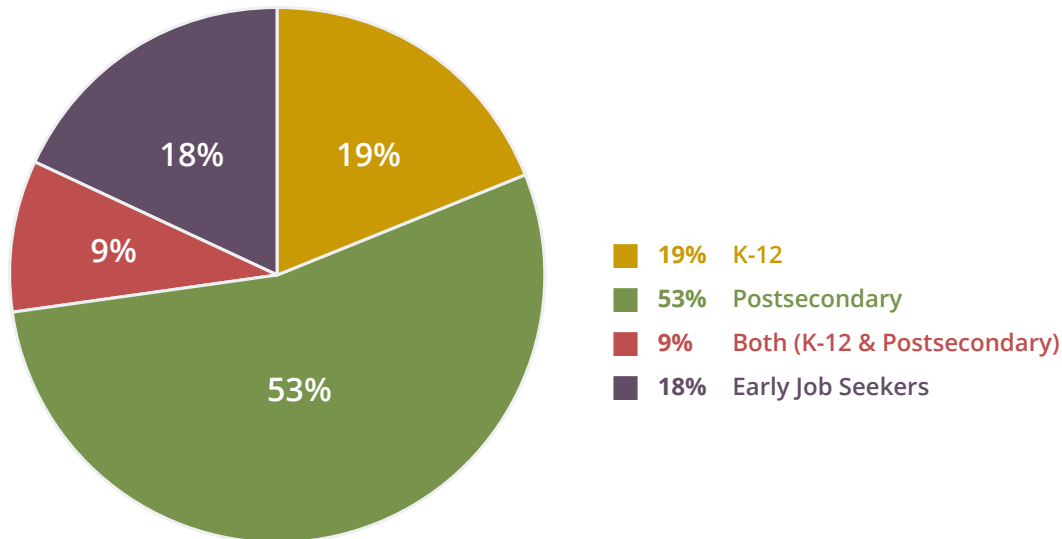
The following market map shows logos of the 150 companies whose products were evaluated for this paper. The colors show which part of the Career Navigation Cycle each product primarily addresses, and the sub-divisions show who the primary payer of each product is (e.g., employers, postsecondary institutions). Note that this is not inclusive of all products in the market today, nor representative of all parts of the cycle or payers these companies address.

Product Landscape Market Map



Who Benefits and How

Career navigation products put postsecondary first.

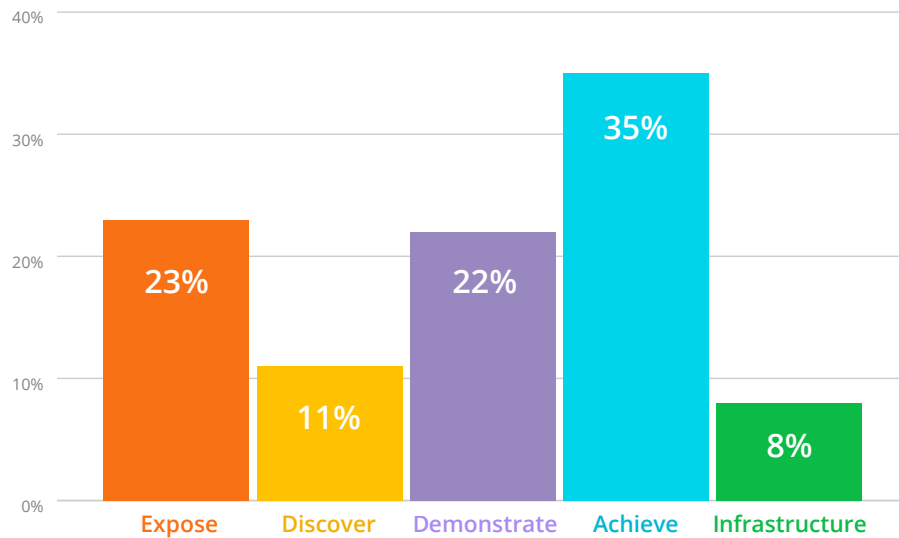


Distribution of products by the market segment they primarily target. The “Early Job Seekers” segment includes products targeted toward early-stage and entry-level career navigators. These are products not specifically targeted toward students, but that students (particularly college seniors) are using.*

*Though these percentages represent the entirety of our landscape distributions, the graphically presented totals in this paper may not add up to exactly 100% due to whole number percentage rounding.

Career products focus on postsecondary education (53% of products) more than K-12, though there is significant room for growth in both areas. This disproportionate focus on postsecondary excludes millions of learners—many of them from the most economically disadvantaged backgrounds—from important tools that offer navigation and guidance. This has negative implications for equity, potentially widening the gap between students who attend postsecondary education and those who stop at a high school education. For example, there are no Achieve products serving the K-12 sector, which exacerbates the lack of assistance with high school-to-career pathways. Instead, the products that do serve K-12 are focused exclusively on the exploratory stages, which are important but insufficient on their own.

The Achieve category dominates the market, and it's growing.



Distribution of products by their focus within our defined framework categories.*

*Though these percentages represent the entirety of our landscape distributions, the graphically presented totals in this paper may not add up to exactly 100% due to whole number percentage rounding.

The common discourse treats “landing a first job” as the primary, and often only, goal of career navigation and guidance. That narrative combines with the demands of employers and postsecondary institutions, which often have a narrow focus on job placement, to ensure that the majority of products are focused on the Achieve category. This category not only dominates the overall market, but also has an especially outsized presence (57%) among the largest and most well-funded products (\$30M+). And the Achieve category is growing even larger—with 46% of products added since 2015 falling in this area.

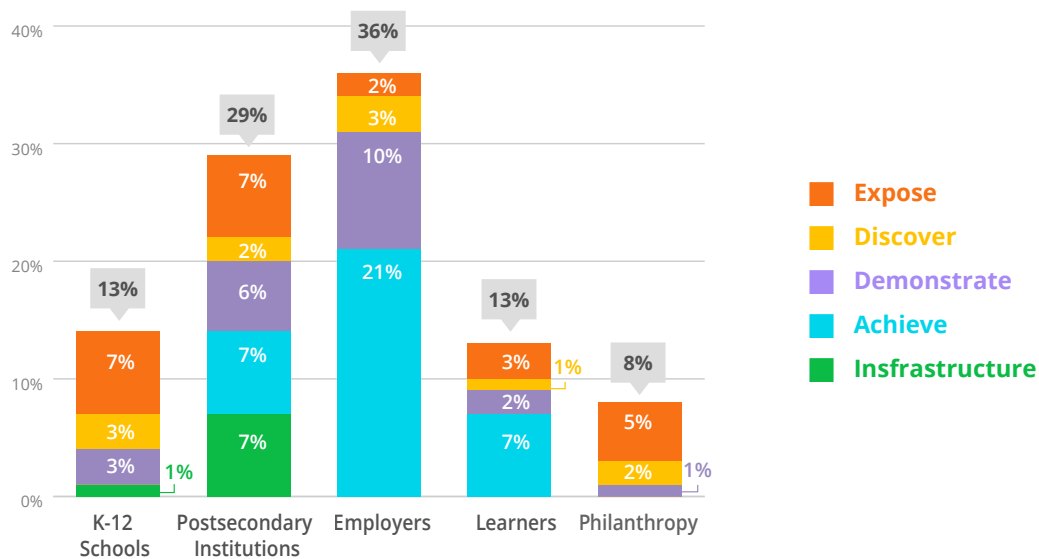
Family, friends, and faculty are overlooked guides.

Despite clear evidence of the critical role family, friends, teachers, and professors play in helping students develop a career identity and plan, most of the current product landscape neglects these important influencers.⁴⁸ For example, about half of current college students say they speak often or very often with faculty or staff about their future careers—and when those conversations are fruitful, they boost confidence and clarity.⁴⁹ *Riipen* is designed to facilitate these student-faculty conversations, and at the K-12 level, *MajorClarity* tries to increase student-teacher interactions around careers. But too few products are designed with an explicit focus on bringing in faculty, and almost all ignore the role of family and friends.

Who Pays

Buying power influences product focus, and employers dominate.

Entry-level corporate recruiting is a multibillion dollar industry, and employers are the primary payers in the career product market. Their core reason for participating is a desire to bolster their talent pipelines and increase brand recognition among potential hires. Postsecondary institutions, the other major payers, are focused on and, to some extent, held accountable for their “placement rates,” not for the quality of learners’ careers or their ability to navigate them long-term. Thus, both employers and postsecondary institutions push products toward a focus on the Achieve category.



Distribution of products by primary buyer and framework category. While some products have multiple potential payers, our primary buyer segmentation distinguishes the product’s main customer.*

*Though these percentages represent the entirety of our landscape distributions, the graphically presented totals in this paper may not add up to exactly 100% due to whole number percentage rounding.

Postsecondary institutions are also the primary buyers for Infrastructure products, which often are specifically designed to meet the back-end needs of such institutions. K-12 schools, which generally have a smaller budget, are more likely to spend on Expose products, which are more heavily marketed to their demographic.

Career services budgets in postsecondary are too small to support a venture capital-sized market, but that may be changing.

As the accountability discussion in higher education moves beyond a focus on completion to labor market outcomes, more institutions find themselves on the hook for career-related ROI. This shift incentivizes greater investment in career services, and also aligns career services budgets more closely with institutional advancement, student success, and central academic functions (e.g., the provost's office), which have much larger budgets at their disposal. Institutions like Wake Forest University and the members of the University Innovation Alliance are leading the way in reimagining and making major investments in career services.⁵⁰

Most products are free for students—but those that require user payment can create equity issues.

About 13% of products are paid for by learners. Of those, more than half fall in the Achieve category—providing learners with interview prep, resume support, and other tools to help them land jobs. This niche of the market compounds equity issues in hiring, giving learners and job seekers with financial resources a potential edge over those who cannot afford to pay for such tools. That said, a few creative products, like *Pathrise*, use ISAs (income sharing agreements) to help students pay for the product after it has helped them get a job, thus potentially reducing cost barriers.

Nonprofits have a disproportionate presence in K-12, which signals larger challenges in that market segment.

Because of a lack of vibrant high school-to-career pathways, employers—with their greater paying power—are much less present in the K-12 career product market. The accountability structure in K-12 also does not incentivize investment in career navigation, leaving products wanting for buyers and budget share. Philanthropy and nonprofits step in to fill the gap, with 79% of all nonprofit career navigation products serving the K-12 sector, but they do not necessarily have the buy-in from schools necessary to drive successful implementation. Thus, there's a risk of products technically being available to students, but as a practical matter, not being integrated into their educational experience.

Who's Not Talked About

Product marketing, an important signal of focus, typically does not directly address diversity and inclusion (D&I).

Only 12% of companies directly discuss D&I in marketing materials. However, several companies brought up D&I issues during interviews, even though their marketing didn't explicitly address them. Additionally, many products provide incremental value to disadvantaged and underserved populations, even if they don't specifically target these populations. For example, *Handshake's* target population is "every student," yet it has a transformative impact on diverse student populations; PayPal has connected with nine times more Black candidates and 14 times more Latinx candidates since it began using *Handshake*.⁵¹

Newer products are more likely to feature language focused on diversity and inclusion. Of the products with D&I focused marketing, a high proportion (56%) were established since 2015. This is consistent with a growing emphasis on D&I within education and hiring practices, and this increased emphasis will likely continue in products' direct marketing and underlying missions.

When Navigation Is Needed

High school and postsecondary are critical times for career navigation, but the cycle must start earlier—and the product market largely ignores that.

Career navigation and guidance are critical throughout education and early adulthood, but to be most effective, they should start in a robust and formal way by middle school. This is especially true for products in the Expose category, as research suggests that early adolescence is a sweet spot for starting career exploration that is tied to realistic planning. Yet, most products target students in high school or later.

Career navigation isn't one-and-done, but the product market treats it that way.

The career navigation process is iterative and nonlinear, and learners need support and guidance frequently across their trajectory. But today's product offerings limit learners' ability to experiment, test, and develop their interests over time. Expose products heavily target K-12, assuming that most students understand themselves, the available careers, and potential pathways by the time they reach college. But many students, especially those attending under-resourced high schools or lacking family guidance, aren't actively engaged in career exploration in K-12. The lack of tools for exposure and discovery in college also ignores the fact that individuals should continue to develop and refine their occupational identity throughout life. It's a process that is never complete.

Room to Grow

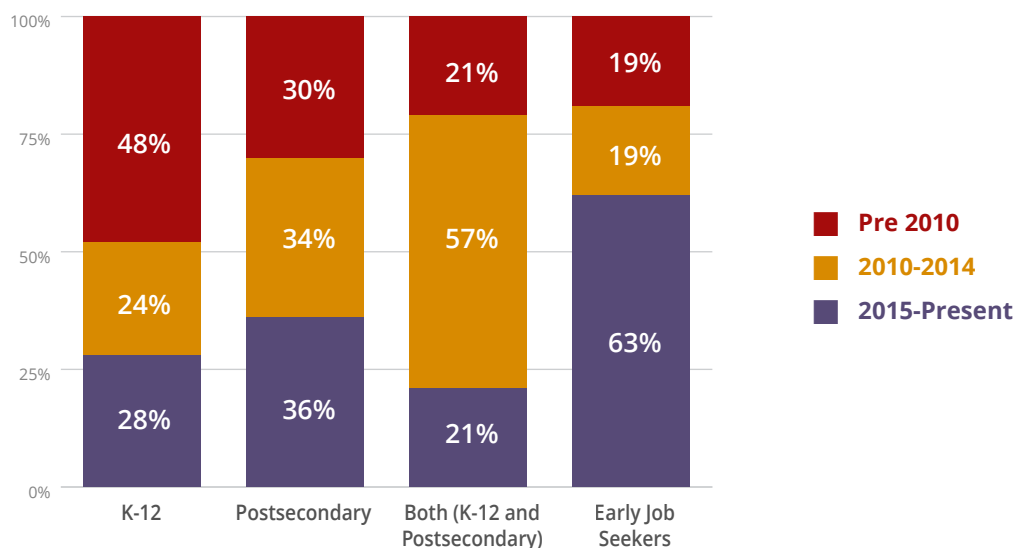
The career navigation market is a nascent market, and many products are still finding their footing.

The majority of products have fewer than 20 employees and less than \$1M in funding. Several of the products featured in this landscape analysis will likely no longer exist by next year.

The career navigation product landscape is underdeveloped, in large part because of budgetary constraints at the K-12 and postsecondary levels. However, mounting pressures around the rising cost of college and widening skills gaps—along with performance-based funding measures that increasingly include workforce metrics—are creating a powerful incentive to put more emphasis and budget behind career exploration and development.

Older legacy products in the K-12 segment may be hampering innovation.

Almost half (48%) of K-12 products came on the market before 2010—a much higher proportion than in postsecondary (30%). Long sales cycles and high switching costs in K-12 enable legacy players to maintain market dominance even without continuous innovation. Established products may not incorporate newer technologies or approaches that might be more effective than those available when they came on the market.

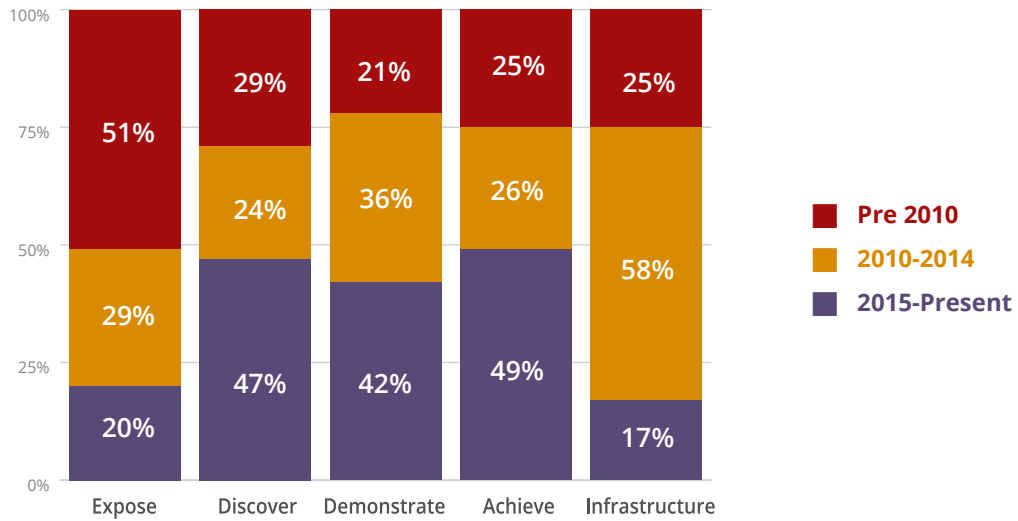


Distribution of products by targeted market segment and founding year range.*

*Though these percentages represent the entirety of our landscape distributions, the graphically presented totals in this paper may not add up to exactly 100% due to whole number percentage rounding.

Similarly, the Expose category—which largely serves K-12—is both underdeveloped and dated.

More than half of Expose products (51%) came on the market before 2010, compared to around a quarter in each of the other categories. Many of these products include long-standing career personality assessments like CliftonStrengths (formerly StrengthsFinder), MAPP, and MBTI (Myers-Briggs), which pre-date research into assessment technology over the last 20 years. Some still play a vital role, but there likely is significant room for positive disruption in the Expose category.



Distribution of products by framework category and founding year range.*

*Though these percentages represent the entirety of our landscape distributions, the graphically presented totals in this paper may not add up to exactly 100% due to whole number percentage rounding

Designing for the Future

As this report has outlined, the career product landscape is nascent and subject to a high level of churn. Given that, these views on how to support the ecosystem moving forward do not take the form of recommendations, but rather design considerations. Specifically, this paper is focused on the ways that incentives and business models in the market could be shaped to improve equity and expand opportunity for low-income, Black, and Latinx students. For the product market to achieve its full potential, it cannot just provide market-driven solutions for high-opportunity learners in well-resourced schools and colleges. It must provide solutions for learners who could most benefit from additional navigation support and guidance. To address this, this section raises key questions, barriers, and potential design solutions around three levers for change: demand, quality, and innovation.

Demand

How might we shift demand to reflect the importance of career navigation and guidance in a learner's trajectory?

Career navigation and guidance are critical to social and economic mobility. Unlocking their potential could solve many of the problems experienced by learners, parents, educators, administrators, or employers as they strive to turn education into meaningful careers. As Jeremy Podany, Founder and CEO of The Career Leadership Collective, says, “We have to move from, ‘We offer career services’ to, ‘Can we sincerely help every student with their future?’ ” In other words, the market must move from transactional last-mile services and products to more holistic support across the Career Navigation Cycle.

- **Key Barriers to this Future:** incentive misalignment, hidden product market, unknown product quality, lack of mindshare

K-12, postsecondary, and early adulthood programs have a profound opportunity to improve career navigation and guidance. But schools and postsecondary institutions are not usually incentivized to focus on career navigation and guidance—and advising

and career offices are dramatically under-resourced and have no budget for career navigation products that could boost their reach and efficacy. When they do have potential funds, educators often aren't aware of what products are available and have few ways to evaluate their effectiveness.

The products that advisors, teachers, and other college and school personnel typically do have at their disposal focus on academic advising to the exclusion of career. This is the result of—and contributes to—an overall lack of awareness about the importance of career navigation and guidance, especially for young people.

- **Design Solutions for the Future:** shift incentives, seed and diversify demand, increase awareness and information, scale distribution

Educators, policymakers, and philanthropists increasingly recognize the importance not just of academic outcomes—content mastery, retention, and graduation—but of ultimate career outcomes. New quality measures for middle school, high school, and postsecondary could be designed around economic mobility and incentivizing a focus on career navigation. At the same time, philanthropy, socially-minded capital providers, and entrepreneurs could explore revenue opportunities that do not rely on school or college buyers, given that incentives take a long time to change. Employers and consumers could be engaged in new ways, such as through consumer-friendly ISA models, and the market could expand to draw in trade unions, professional associations, and public workforce and education agencies. Such efforts could be seeded with grants and patient capital, while implementation grants could simultaneously boost K-12 and postsecondary demand.

Awareness campaigns around career navigation and guidance—and that it needs to happen early and often—could elevate its standing in the education field and the public discourse. That not only would create demand for greater investment, but would promote far better understanding of what works. Lastly, design challenges for new business models, and more robust go-to-market and sales training could help promising career navigation products scale their distribution.

Quality

How might we create evidence-based solutions for the most pressing career navigation and guidance challenges, and incentivize their use?

This report, for the first time, lays out the landscape of career navigation and guidance products and what they aim to do. But there is still limited understanding about what makes for an effective career navigation product. The education field—and more importantly, learners—would benefit from clear definitions of quality in career navigation products, improvements to their design and implementation, and efforts to understand how they can best serve disadvantaged populations. Such steps would encourage broader use of important products and services.

As Andy Chan, Vice President for Innovation and Career Development at Wake Forest University, says, technology tools only work if students actually use them. “The problem with technology is that college students don’t perceive that they have the time, nor do they have an interest in using all these different systems,” he says. “The career services team members feel the same. We have to streamline the process for both students and staff—and focus on the strategic levers that ensure students use the tools and are genuinely engaged, motivated, and career-ready.”

- **Key Barriers to this Future:** unknown product quality, insufficient labor market data

As it stands, the education field simply doesn’t know what works for whom under what circumstances. Quality data on the labor market is typically walled-off from the public or is unusable for product builders because it is not granular enough, not regionally specific, or not complete and up-to-date. When good data does exist, it generally is hard and expensive to access, making it cost-prohibitive for many startup product developers.

In part because of insufficient data, there is no standard definition, or set of definitions, for quality in career navigation and guidance products. Scant research exists on implementation, outcomes, or basic efficacy, much less gold-standard testing like randomized controlled trials. However, more general research on tech-enabled tools shows that there is a high probability of bias in assessments and matching algorithms,⁵² potentially disadvantaging the most vulnerable populations of learners and job seekers. The research is also clear that those populations can disproportionately benefit from support in building social capital and developing occupational identity—and as it stands now, products supporting that area are underdeveloped.

- **Design Solutions for the Future:** support product and implementation research and development, promote research-based practices and products, build open source assessments

Greater research and development around quality measures, solution design, and implementation would all tremendously benefit the market of career navigation products and the education-to-career field more broadly. This could be achieved through funding and other support for quality studies, researcher-practitioner partnerships, and grants for high-fidelity implementation that can be studied. Findings from these efforts could be shared through more robust professional development for teachers, counselors, and advisors, and through the creation of a repository of high-quality, open source assessment tools. In that way, the emerging market of career navigation products would be built in the open.

Innovation

How might we support new approaches to supplement, adjust, or replace current ones in order to improve outcomes for underrepresented students?

The current career product market is heavily focused on meeting demand for “placement” services—helping opportunity seekers connect with jobs immediately available from employers. This work is critical, but the market needs a heavier focus on the full Career Navigation Cycle. Efforts to shift demand would enable a wider range of problems to be addressed through product innovation.

- **Key Barriers to this Future:** business model, last-mile mindset

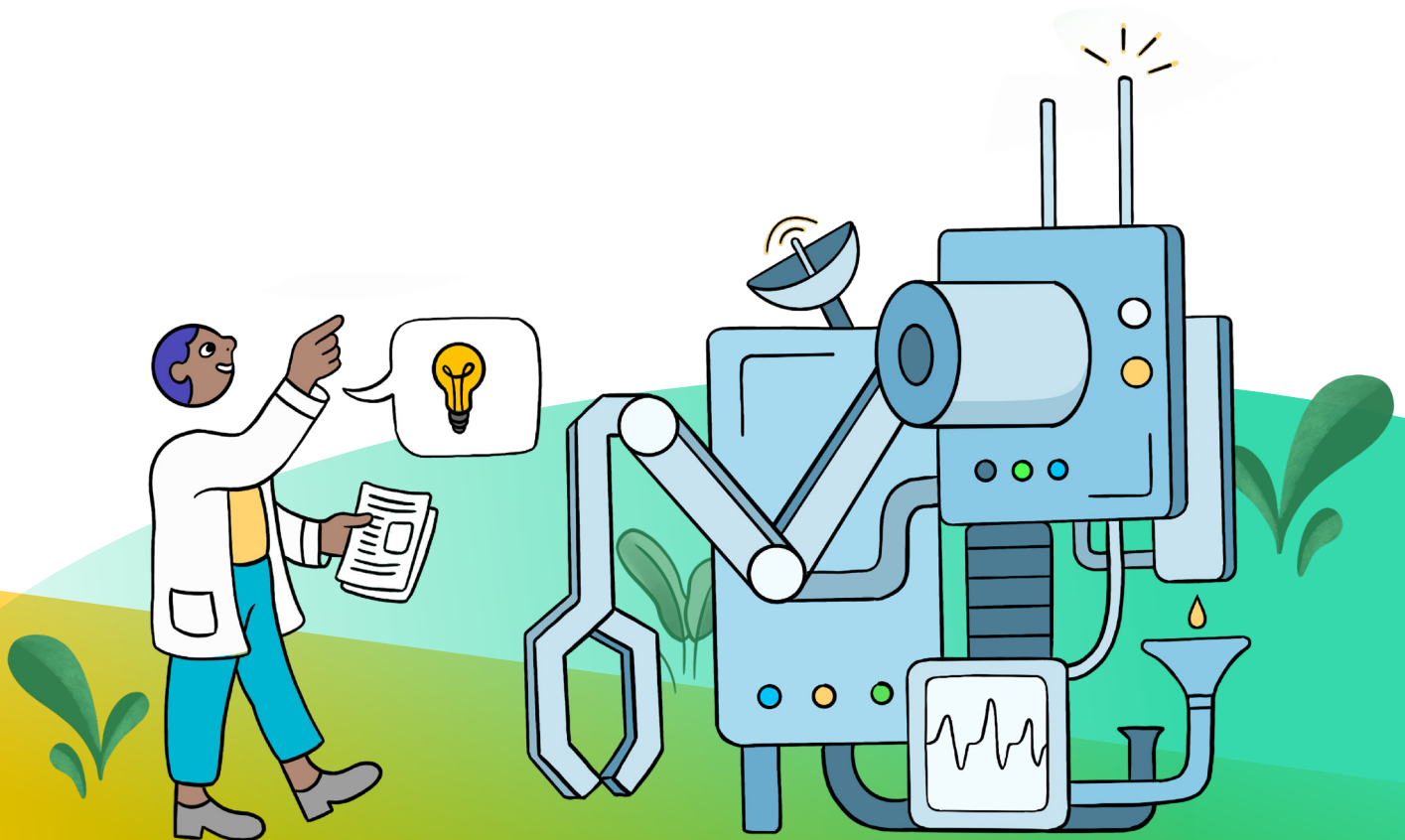
Capital providers, both philanthropy and venture, do not have a sophisticated understanding of the Career Navigation Cycle, and as a result, products are heavily focused on “last-mile” interventions rather than the full Cycle. Similarly, incentives for schools and postsecondary institutions—the demand side of the equation—are limited and also focused on last-mile outcomes, such as job placement rates and recent graduates’ salaries. Such outcomes are rarely disaggregated, obscuring important equity issues that the product market might address. Further, many business models—especially in the Expose and Discover categories—will not enable a 10x return on investment under today’s constructs, prohibiting venture capital participation.

- **Design Solutions for the Future:** attract patient and public capital, reduce innovation friction, create new incentives

The field would benefit substantially from investment in raising awareness around the importance of the Career Navigation Cycle, and in attracting patient capital and public funds. The impact of new capital could be extended by efforts to create low-friction environments for piloting and testing new product ideas akin to ASU’s Action Labs. Further, moonshot prizes and other incentives could encourage the creation of new product solutions in under-developed but high value categories, such as Expose products in post-secondary, and Achieve products in K-12.

The Future: Unlocking Potential

Young Americans urgently need more career-connected learning, navigation, and guidance that help them understand how to turn education into a career. Such career navigation needs to start early and happen often across education and early adulthood. Career navigation products can play an important role in delivering the tools and guidance learners need to explore, to make informed decisions, and to ultimately thrive in their careers. These products can help build a future where career navigation and guidance supports all learners starting in middle school and continuing throughout high school, postsecondary, and a long life of learning. But, as the research for this paper has shown, this market currently has both tremendous opportunity and barriers to wider success—and new solutions are critical to unlocking its full potential. If that can be done, the field will be that much closer to unlocking learners' full potential too.



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About Us

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entangled.solutions

Authors



Allison Dulin Salisbury
allison@entangled.group

Allison is a Senior Partner and the Head of Innovation at Entangled. Allison leads the design and build of dynamic solutions in partnership with philanthropies, universities, and companies, and writes about the future of learning, work, and economic mobility.



Kate Kraft
kkraft@entangled.group

Kate is an Engagement Manager at Entangled Solutions, focused on strategic planning and operations within the Economic Mobility and Higher Education Futures practices. She is passionate about unconventional learning models, the future of work, and new models for educational delivery nationwide and internationally.

Contributors:

Elyse Ashburn
Paul Freedman
Mrinmayee Patil
Matt Survis
Mohammad Riza
Nathan Ward
Bambang Widodo

Reviewers:

Mahnaz Charania
Julia Freeland-Fisher
Michael Horn
Michaela Leslie-Rule
Jeff Selingo
Noah Sudow

Supporters:

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