



CareerWise Colorado
Tomorrow's Talent Today

KEY LESSONS LEARNED

Colorado's Modern Youth Apprenticeship System
Pilot-Preparation Phase

Summer 2017

Systems Building

Connecting Education and Industry in Colorado

CareerWise's mission is to create opportunities for youth and businesses across Colorado by developing and supporting an innovative, sustainable youth apprenticeship program. Through this business-led, student-centered model, CareerWise brings together public and private stakeholders to ensure that students have access to the skills and knowledge they need for financial and academic success, and that businesses have access to highly-trained talent.

CareerWise officially launched as an organization in September of 2016, with its first cohort of 116 youth apprentices starting their apprenticeships in June of 2017. Those apprentices will spend the next three years in their chosen apprenticeships across four different pathways (IT, business operations, financial services and advanced manufacturing) in three different communities in Colorado (the Denver metro area, Ft. Collins and Grand Junction). Between September of 2016 and June of 2017, CareerWise focused on preparing for the launch of these early, pilot years of the program – laying the groundwork for an eventual system that will host 20,000 apprentices in any given year.

This document provides an overview of the key lessons learned during the pilot preparation phase (the period between organization launch and apprenticeship launch.) CareerWise will produce similar lessons learned overviews after the first cohort of youth apprentices has completed its first year in the program.

The top-ten lessons learned during the pilot preparation phase included:

1. Identifying key enablers at the state level helps lay the foundation for a system
2. An intermediary is needed to lead planning, alignment and communication across stakeholders
3. Long planning lead-times are required to lay the groundwork for a successful launch
4. Starting small enables a focus on quality over quantity
5. A business-led approach provides the conditions for long-term sustainability
6. Developing a true system necessitates collaboration at the sector level
7. Permeability is the central design principle required for a virtuous ecosystem
8. Recruiting student participants requires changing perceptions about apprenticeships
9. Investing in relationships at all levels within districts and schools pays dividends
10. Logistical complexities and hurdles will require creativity and persistence

Identifying key enablers at the state level helps lay the foundation for a system

CareerWise Colorado officially launched as an organization just ten months before its first cohort of apprentices stepped into the workplace in June of 2017. By any measure, this timeline was very short – something the CareerWise team experienced acutely every day. It is important to note, however, that the organization was able to move with such speed due in part to the strong foundation that had been laid over the course of many years at the state and local levels – and to a policy environment conducive to its work.

CareerWise Colorado's pilot program builds on several foundational pieces of education and industry-strengthening work that has occurred at the state and local levels, including:

- **Efforts during the past several years to promote meaningful collaboration between industry and education:** The Colorado Workforce Development Council has paved the way for collaboration between industry and education stakeholders through its Sector Partnership work. More than 450 businesses are actively involved in sector partnerships across Colorado, which are industry-specific regional partnerships led by business, with economic development, education, and workforce development groups at the table. This work has helped business and education leaders get in the habit of working together to address workforce needs.
- **Work to strengthen industry associations:** The Colorado Office of Economic Development has taken an active role in fostering industry associations in key economic growth areas of the state. By forming public-private partnerships to launch and continue to grow industry associations, and through the Sector Partnership work described above, the advanced manufacturing, aerospace, bioscience, and information technology sectors have been supported to make greater strides in undertaking workforce-related activities.
- **Strong support from the Governor's office to promote experiential learning:** In 2015, Governor Hickenlooper formed the Business Experiential-Learning (BEL) Commission, tasked with developing, evaluating and implementing a systemic solution for integrated work-based education and training to meet the needs of Colorado's economy. The Commission's membership primarily includes CEOs from across the state who traveled to Switzerland to see that country's youth apprenticeship system in action, and is co-chaired by the executive director of the Colorado Department of Labor and Employment. Many of CareerWise's early partner employers serve as members of the BEL Commission, as well as on the Board of Directors of CareerWise.
- **A slate of workforce-related bills:** While workforce has been a top priority for Colorado lawmakers during the past several years, several pieces of legislation were particularly important for CareerWise's work. Legislation that supports collaboration between the Colorado Workforce Development Council, the Colorado Department of Education, and the Colorado Department of Higher Education to identify required competencies for the career pathways most important to Colorado's economy has been instrumental. In addition, legislation calling for the state to invest funds in competency development has been beneficial.

Additionally, CareerWise benefits from an educational policy environment that creates a nimble architecture in which to build an innovative program like the one it has developed:

- **Graduation requirements:** The state's graduation policy explicitly enables competency-based learning and graduation criteria, creating additional room for learning in the workplace to contribute to high school completion. Importantly, in the state board of education approved menu of competency validation tools, industry credentials are recognized as a mechanism to demonstrate academic competency for the purposes of issuing a diploma.
- **Concurrent enrollment:** By leveraging Colorado's current concurrent enrollment system, participating high school apprentices can take skills-focused coursework in the community college system – thereby allowing them to earn debt-free college credit while also learning the skills critical to professional success. This is a fundamental building block CareerWise Colorado has used to create the beginnings of permeability within the system (see Section 7).
- **Industry credential attainment:** Incentives exist for districts that promote industry credential attainment. Districts receive a \$1,000 credit for each student who earns an industry credential as part of his or her high school experience. These funds can help districts add capacity to coordinate apprenticeships and other work-based learning.
- **Guaranteed transfer courses:** Colorado statute defines a set of courses as guaranteed transfer, meaning all public two- and four-year institutions must accept those courses from community college transcripts for their full core academic credit value. Again, CareerWise Colorado has used this mechanism as one way to support permeability within the system (see Section 7).
- **Endorsed diplomas:** Colorado allows districts to offer Postsecondary and Workforce Readiness (PWR) endorsed high school diplomas. These diplomas recognize achievement above and beyond standard high school graduation requirements and require that students demonstrate proficiency of skills that show they are “postsecondary and workforce ready.” With such a diploma in hand, a student is guaranteed admission at most public state colleges and universities, along with priority consideration at highly selective institutions such as the University of Colorado.
- **Prior learning assessment:** Prior Learning Assessment (PLA) will be used by CareerWise in the future to provide additional options to accumulate higher education credit for college-level learning that is taking place in the workplace. This will allow for a more seamless and flexible experience for apprentices and employers alike and will be an important enabler of scale.

An intermediary is needed to lead planning, alignment and communication across stakeholders

Creating a modern youth apprenticeship system requires a significant amount of work, creativity, communication across stakeholders, along with a healthy dose of persistence. In order to support such a system effectively, it is critical to identify an entity that will serve as the

primary leader of the effort and help create economies of scale through coordination of a wide variety of stakeholders. Such an entity needs to play the following roles:

- **Program design:** The entity serves to connect and translate between the different and complex systems and incentives of education and business, ensuring the unique needs of each party are met while also ensuring that overall program design will achieve its ultimate objectives and sustainability over the long term – which also requires some compromise by each party.
- **Project planning:** Given the multiple interdependencies that exist in creating this type of system it is important that the leading entity create, communicate and execute detailed, disciplined and integrated project plans across a large number of diverse stakeholders.
- **Communication:** It is critical for all participating and supporting stakeholders have all of the right information at the right time.
- **Problem solving:** Inevitably, unexpected challenges will arise. It is important that the leading entity be capable of addressing those challenges with creativity and persistence, and have the credibility and influence to execute on solutions identified.
- **Single point of contact:** It is helpful for all players (businesses, schools, training centers, etc.) to have a single point of contact when questions, ideas or challenges arise, with the organization able to direct information accordingly.

The early leaders involved in this work in Colorado decided it was best to start a new, nonprofit intermediary to play the role described above – with the ultimate end of building capacity and capability among other players who could support the system over time. They selected this model for many reasons:

- They believed it was important for this effort to be seen as business-led in nature and approach – and not weighed down by potential history from previous education-led initiatives that may not have accounted for the needs of the business community.
- They believed it was important for business buy-in that this work be seen as independent from the state and also independent from any single administration.
- In order to lay the foundation for a multi-sector system, they believed it was important that this work not be tied to any one sector or industry association.

Colorado has benefitted from having an independent intermediary driving forward this work in a business-led fashion. However, it has been very important that CareerWise has deep expertise on both the business and education sides of the equation in order to establish and maintain credibility with all participating stakeholders.

Long planning lead-times are required to lay the groundwork for a successful launch

There are two phases of distinct work that must occur prior to youth apprenticeship program launch, each of which takes a significant amount of planning and coordination – and therefore benefits from realistic and generous timelines.

The first phase of work leading up to program launch is one of *momentum building*. It is important for a given community to identify whether there is (1) sufficient need and appetite for a youth apprenticeship model within the community; and (2) the right set of infrastructure and players to support the development of the model. For example, CareerWise's momentum-building phase included some of the following elements:

- **Seeing is believing:** CareerWise founder, Noel Ginsburg, took a delegation of 48 business leaders, school district superintendents, state agency leaders, funders and Colorado's Governor to Switzerland to see its youth apprenticeship system in action. Seeing an effective system firing on all cylinders was critical to gaining buy-in from the right leaders and inspiring the entrepreneurial action that followed.
- **Early adopters:** The long-term sustainability of this work requires that businesses see the value in this work (see Section 5). Several businesses indicated that they had workforce needs that could be addressed through youth apprenticeships. Because of the subsequent commitments from those early adopters, CareerWise was able to move forward in the knowledge that early demand from industry existed.
- **Lead player:** While it is critical that many types of stakeholders buy into the system, it is essential that a single player is identified as the lead player in this work. Given Colorado's unique system and culture, CareerWise determined that a new third-party intermediary would be the right lead player for this work (see Section 2).
- **Funding:** CareerWise identified early sources of revenue for this work in the form of philanthropic dollars, with the BEL Commission tasked with identifying state funding streams that could be supportive of the system in the longer term, providing confidence that the organization had at least a three-year runway for a pilot program to develop a proof of concept.

The second phase of work leading up to program launch is one characterized by meticulous *planning and coordination* across stakeholders. This period requires at least one year, but likely more in an environment in which the key players are not accustomed to working together. The planning period must allow for enough time for business-partner recruitment, which took between two to nine months for any given business partner, with additional time required for business onboarding and preparation.

Going forward, CareerWise will prepare and onboard new communities and new school district partners using a readiness framework over a 15-to-18-month horizon, which the organization believes is the sufficient timeframe for the necessary procedural steps and culture change to occur across district administration, school principals, teachers and counselors. Additionally, the planning and coordination phase must also allow sufficient time for other activities, including training plan development, supervisor training, student recruitment, the creation of an apprenticeship marketplace, and employer interviewing and hiring – much of which is dependent on the successful completion of earlier activities within the planning and coordination timeline.

Starting small enables a focus on quality over quantity

As a very young organization, CareerWise experienced the temptations of “starting big.” An eagerness on the part of school districts, industry associations and communities across the state to participate in the system meant that the team experienced pressure to set large participation targets for the program’s inaugural year – with a growth curve that reaches 20,000 youth apprentices annually (approximately 10 percent of the Colorado’s high-school juniors and seniors) within ten years. Ultimately, CareerWise launched its program in three communities with a cohort of 116 apprentices in its inaugural cohort across 40 businesses in four pathways: financial services, business operations, information technology and advanced manufacturing. A pilot cohort of this size enables the organization to demonstrate the efficacy of the program across a wide range of students and businesses – while also maintaining the focus on ensuring program quality before moving to scale over the next ten years.

In CareerWise’s youth apprenticeship system there are a number of levers for increasing scale and reach of the program: increasing the number of school district partners, broadening the geographic footprint in the state, and increasing the number of pathways offered. The organization quickly realized that each incremental increase in partners, footprint or pathways adds an order of magnitude of additional operational complexity. For instance, adding a new school district partner introduces a new set of school schedules to balance against employer schedule requirements. Additionally, each district carries with it its own set of unique policies, each of which introduces complexity when trying to create a unified, seamless experience for employer partners (see Section 10). Adding a new geography requires cultivation of an entire new ecosystem of players – school district partners, employers, and training centers – all of which must work together in new and often unfamiliar ways. And adding a new pathway requires not only that CareerWise develop training plans for that pathway, but that the organization also identify the right set of business partners, training center partners, and high schools with supportive pathways all within geographic proximity to one another.

Building and assembling a system that is sophisticated enough to account for the complexities of scale requires a large upfront investment on the part of early philanthropic supporters and - perhaps even more importantly - a healthy dose of patience on the part of those funders. CareerWise very quickly learned that there is an inherent tension in building a larger system on the foundation of a small pilot program, especially for those taking on the financial risk who, ultimately, must tolerate a higher cost per participant throughout the pilot program/systems-building phase. However, CareerWise was able to create a detailed model of the longer-term potential of the system. This model shows that, as more communities across the state are included and as earned-income from business partners becomes part of the revenue model, there is a decreased reliance on philanthropy over time. Continual, open conversations with funders about scale during the pilot program are essential to cultivating philanthropic buy-in and confidence in the model.

Based on our experience, CareerWise recommends a cohort of 50-100 each year for a pilot period of any similar program, with rapid scale to follow. A cohort of this size allows for an

intensive focus on building and demonstrating quality in the early years, but it is also sufficiently significant in size to enable real learning in a pilot to occur. This thinking is bolstered by lessons from the Swiss youth apprenticeship system, which starts with a cohort of approximately 100 students when introducing and piloting a new occupation. This type of cohort size still requires significant recruiting efforts. In CareerWise's first planning year, approximately 25 percent of the businesses it pitched ended up committing to host apprentices, and the conversion rate among students who participated in some form of in-person pitch about the program was approximately 2.5 percent.

For those communities interested in building a system, CareerWise recommends starting with two or more pathways. By including more than one pathway – and, importantly, by including sectors that do and do not traditionally embrace apprenticeships – it demonstrates that apprenticeships are a viable form of education and training across a wide variety of sectors. In so doing, these pathways help lay the groundwork for a viable system that can grow to significant scale over time.

Finally, CareerWise recommends maximizing cohort size within any given partner for purposes of reducing complexity and ensuring participating apprentices have a sufficiently robust peer set to look to for support over the course of the apprenticeship. For instance, it is important to have a critical mass of apprentices when launching the program in any given geography (e.g., 10 or more) in order to ensure participating students have peers in the program and to create economies of scale where possible. Likewise, targeting cohort sizes of 5 or more in any given business significantly reduces operational complexity, as does focusing early participation among a few schools within a given school district versus including all schools in a district.

A business-led approach provides the conditions for scale and long-term sustainability

One of CareerWise's core design principles in developing a youth apprenticeship system is that it must be business-led in nature. For youth apprenticeships to persist through both good and bad economic times, the system must be designed to solve for true business need. This key design element creates a system with tangible business benefits and ensures that youth apprenticeships are not on the chopping block during hard times, like so many other philanthropically-driven programs in the workplace often are. The system is business-led for these reasons, but simultaneously student-focused; CareerWise also designed the youth apprenticeship experience to be deeply beneficial to students (see Section 7).

Some of the key business-led design principles fundamental to our theory of change include:

- **Positive ROI:** CareerWise designed the core elements of the apprenticeship experience (apprenticeship duration, occupations included, training provided, etc.) such that businesses can expect to see a positive return on investment by participating. Business partners can test different elements of the CareerWise financial model to determine whether the model holds true for their particular business environment.

- **Solve for pain points:** CareerWise works to identify alignment between core needs of its business partners and the value a modern youth apprenticeship provides. For most of the employers, the program addresses core workforce needs – for instance, needs to address persistent workforce shortages or an aging workforce, or needs for more sophisticated training programs to meet skills deficits. For some employers, youth apprenticeship solves a challenge they face in fostering diversity in the workplace, or in being more engaged in the local community. Other employers see youth apprenticeships as a way to foster innovation or drive culture changes related to mentorship within their organizations.
- **Employer inclusion:** Employers and industry associations are integral in the development of core products and strategies. For instance, the development of the CareerWise training plans was employer-led in nature, with key competencies for each pathway identified by subject matter experts from participating companies (see Section 6).
- **Competitive marketplace:** Unlike many other youth-focused workforce development programs, CareerWise created a true marketplace for talent, meaning that students applied for apprenticeship positions and employers hired and selected the apprentices that were the best fit. Students are not force-placed into apprenticeships; CareerWise does, however, offer support in screening and interviewing when requested by business partners.

Implementing a program with business-led design principles in place required an investment in organizational capacity. CareerWise recognized early-on that it should be as painless as possible for a business to participate – especially given that this is just one of many programs in which businesses are asked to participate. The experience must be seamless, professional, and one in which business does not have to do the heavy lifting of working with the education system. For all of these reasons, CareerWise established the relationship manager role within CareerWise. The relationship managers ensure that business partners have a single point of contact within the organization for all needs related to onboarding and ongoing management of the apprentice cohort.

This business-led orientation has been made possible by having a business leader at the helm of CareerWise – one who not only instills a business mentality in our day-to-day operations, but who also garners significant credibility within the Colorado business community.

Developing a true system necessitates collaboration at the sector level

In creating a youth apprenticeship *system*, it is important that all apprentices complete their individual apprenticeship experiences having demonstrated mastery of a similar set of skills. It is this type of consistency that provides currency to the apprenticeship; only in this way can employers feel confident in the value of a CareerWise apprenticeship and understand the quality, training and skills development it implies.

Given the need to create consistency across individual apprenticeships for a given occupation, CareerWise has worked with industry intermediaries (e.g., industry associations such as the Colorado Technology Association or the Colorado Advanced Manufacturing Alliance) to foster cross-employer collaboration within a given sector. CareerWise has hired Program Managers and embedded them within those industry intermediaries with the mandate to create sector-specific strategies, support the development of training plans within the sector, and recruit businesses in a given sector to participate.

In partnership with industry intermediaries, CareerWise has worked at a sector level to align on high-demand, high-growth, good-paying jobs to include in the youth apprenticeship system. For instance, within the technology sector, employers aligned on the need for Computer Technicians, Quality Assurance Technicians and Junior Coders; CareerWise therefore launched its pilot IT pathway with a focus on those three occupations, with an expectation that it will expand to additional high-demand occupations in that pathway (e.g., cybersecurity) in the future. For each such occupation, CareerWise facilitated cross-employer round tables to align on the required competencies and selection of industry-valued credentials that reflect a mastery of those competencies. Each company participating in the CareerWise apprenticeship system for a given occupation commits to training its apprentice against those competencies -- and tracking achievement of those competencies in its learning management system. In this way, CareerWise uses training plans that were created in through an employer-driven process -- one that required collaboration and alignment across employers in a given sector. Going forward, CareerWise will facilitate periodic review of those competencies by employers within sectors to ensure that they evolve at the pace of innovation.

Several business partners have indicated a desire to go above and beyond the competencies included in the training plan and support apprentices to develop additional competencies or company-specific skills. In those cases, CareerWise has encouraged employers to provide such additional training -- but not at the expense of ensuring apprentices master the core set of competencies required as part of the apprenticeship in that given occupation. In this way, CareerWise ensures that roughly 80 percent of what is learned in a given apprenticeship is similar across companies, with an additional 20 percent that may be company- or job-specific. As a result, participating apprentices can have confidence in what they will learn by the end of the apprenticeship, and participating businesses can understand the value that a CareerWise apprenticeship implies.

One additional way to ensure that a given apprenticeship maintains currency across a wide variety of geographies and employers is through registration of training plans with the U.S. Department of Labor. While some of the partner employers for the first cohort of CareerWise youth apprenticeships have chosen to register their training plans, the vast majority have not. Going forward, CareerWise will register its training plans with the U.S. Department of Labor, which will allow it to serve as the "sponsor" for its business partners' apprenticeship programs. This provides the benefit of allowing youth apprenticeships to be registered while minimizing the administrative burden on any given company. Employers will be able to determine whether they will opt in to a registered apprenticeship program using the CareerWise sponsorship.

Permeability is the central design principle required for a virtuous ecosystem

Permeability—or, a system that creates multiple, increased education and training options for students over their lifetimes—is at the center of creating a framework that can scale and serve the needs of a meaningful number of students and businesses over time. It is critical to the success of the system that students have the opportunity to pursue the pathway of their choosing after the apprenticeship – whether that is career or college or both simultaneously. In Switzerland, the 70 percent of students who participate in the apprenticeship system have multiple opportunities over their lifetimes to either continue with their careers, switch careers, or continue with higher education. While the education system in Colorado is different in many important ways than the Swiss education system, CareerWise determined early on that it was important to identify mechanisms by which to build in such permeability.

The goal in creating a permeable system is enabling apprentices to move easily between various types of training, education, pathways and occupations as they navigate their career. The Swiss system is built on the concept of permeability. As the former U.S. Deputy Secretary of Labor Christopher Lu said, "On Switzerland's skills superhighway, it's easy to shift lanes, take detours and explore different routes." In a permeable system, no one choice precludes subsequent participation in a different choice; in other words, more students get more choices more often.

Achieving permeability would mean that a completed four-year degree would no longer be the locked, singular gateway beyond which all opportunity lies. Instead, it would become one of many strategies to further learning and increase a worker's value as he or she is pursuing and exploring his interests and enhancing his abilities.

Permeability is critical to the system because it is the right thing to do for students. Certainly, creating a system that is door-opening versus a dead-end is the best decision to make on behalf of the students served by apprenticeship. But CareerWise also believes permeability is important because it promotes equity and ensures that highly-motivated students of all backgrounds apply – and that the work does not become a vocational program of days past designed only for "those kids."

When driven, open-minded students of all backgrounds participate in the system, everybody wins – businesses have a positive experience with the students they employ, and students have an opportunity to further their career and educational goals in a unique way that sets them up for being lifelong learners in the driver's seat of their career and education choices.

The conditions for permeability in a CareerWise modern youth apprenticeship system have been created in a number of ways:

- High-growth, high-demand pathways have been selected for inclusion in the system that lead to good, middle-class jobs (with entry-level salaries of \$40,000+ for most included occupations).

- Apprenticeship experiences are paid. Participating students can expect to earn \$30,000 or more in apprenticeship wages during the 3-year apprenticeship, which can be saved for higher education if desired.
- Each pathway includes attainment of an industry-valued credential, which will help apprentices signal real value in the marketplace upon completion of the apprenticeship.
- Each occupation is supported by a training plan that yields 30 debt-free college credits (approximately 13 of which are transferable credits) to apprentices -- equivalent to approximately one semester of college.
- CareerWise is currently working on enabling the attainment of additional credits through prior learning assessment (PLA) and partnership agreements with higher education institutions.

By designing a system that is permeable in nature--and therefore a door-opener--apprenticeships become attractive to students from all backgrounds. This has been reflected in CareerWise's early experiences as part of its pilot: the students who applied for an apprenticeship and were hired by CareerWise business partners are demographically representative of the organization's school district partners.

Recruiting student participants requires changing perceptions about apprenticeships

As CareerWise began its pilot-preparation phase, the team hypothesized that business recruitment would be the biggest challenge in preparing for the launch of the inaugural cohort of apprentices. While recruiting businesses to participate required significant effort, the organization was surprised that student recruitment turned out to be the biggest challenge in the first year. Compressed timelines played a role in student recruitment challenges, but they were also driven in large part by long-held perceptions of apprenticeship as trade-oriented programs for adults and limited public understanding of the benefits of modern youth apprenticeships.

Early on, CareerWise expected that efforts to support perception changes about apprenticeships would be required. A number of efforts were enacted to help communicate the value of the apprenticeships CareerWise supports, including:

- **Pathway selection:** CareerWise launched the program with a focus on prestigious, high-demand, well-paying jobs (for instance, jobs in information technology). While expansion to include the trades is anticipated over time, initial pathways were selected to avoid some of the stereotypes and connotations of what an apprenticeship is and is not.
- **Permeability:** As described in Section 7 above, CareerWise determined that it was critical to design the program with permeability in mind, and to communicate that permeability to interested students and parents to help them understand the type of doors a modern youth apprenticeship opens.
- **Value:** The real value a student could expect to realize by participating in the apprenticeship was communicated: hourly earnings, debt-free college credit, skills development, career exposure, and an industry-recognized credential.

As previously mentioned, the conversion rate among students who participated in some form of in-person pitch about the program was approximately 2.5 percent. In order to increase that conversion rate going forward, CareerWise will make several adjustments to its offerings and communications:

- **Higher-education linkages:** CareerWise will solidify higher-education opportunities and linkages, including the number and types of college credits available and partnership agreements with higher education institutions.
- **Seeing is believing:** For many students and parents, it was challenging to visualize what an apprenticeship would look and feel like. Going forward, CareerWise will support businesses to offer more in the way of open-house experiences to help students and parents get a better sense for any given company's culture, team, training approach and career advancement opportunities. Providing opportunities to learn from the experience of current apprentices will also be important for recruiting going forward.
- **Timing:** Recruiting timelines for the first cohort were very short; CareerWise is building in longer recruiting lead times going forward that are cognizant of other demands on student, teacher and counselor time.
- **Wall-to-wall culture change:** CareerWise is investing in developing relationships at all levels within participating districts and schools (see Section 9 below) to ensure students are hearing consistent messages about apprenticeship opportunities from multiple influencers.

Investing in relationships at all levels within districts and schools pays dividends

Partnering with a broad and diverse set of school district partners certainly comes with challenges – challenges related to working across multiple levels of leadership, navigating diverse policies, etc. It can therefore be tempting to find workarounds to avoid district bureaucracy in the interest of moving fast – for instance, focusing on direct-to-student or direct-to-family communications, running independent recruiting events, etc.

In the long run, however, CareerWise recognizes that the biggest influencers of students are typically those found inside school walls (teachers, counselors, parents, coaches, peers, etc.). In order for students to hear robust and consistent messaging about apprenticeship opportunities, the organization needs to help ensure an understanding of (and create champions for) apprenticeship across all of those key influencers.

Gaining such buy-in requires support and sponsorship of this type of program at the executive, district level as well as at the school level. Ensuring that teachers, counselors and parents understand and communicate the value that apprenticeships offer requires that individual school principals understand, support and disseminate the work across school teachers and staff. Going forward, CareerWise will develop close working relationships with both district and school leadership.

Developing these types of relationships and deep understanding of apprenticeships takes time. CareerWise is planning for a 15-to-18-month onboarding timeline for new district partners in the future. This extended timeline ensures all readiness criteria and partnership milestones are met, and perhaps most importantly, that all teachers, counselors and staff across the system can become familiar with the concept of apprenticeships and the value they can provide.

Logistical complexities and hurdles will require creativity and persistence

Not surprisingly, the development of a youth apprenticeship system comes with a host of logistical and operational complexities. In developing the blueprint for the CareerWise system, the organization experienced complexities related to designing the overall program and complexities related to implementing the program in every distinct geography and ecosystem. It is essential to have buy-in at the leadership levels of the state, within school districts, and across industry who can help problem-solve challenges and remove barriers as they arise.

Some of the logistical complexities experienced and addressed included:

- **Graduation requirements:** It is important that high school students participating in an apprenticeship be able to graduate on time. CareerWise ensured this would be possible for participating apprentices by working within the parameters of competency-based graduation requirements to allow students to receive credit for the skills they learn in the workplace. Additionally, the one criteria required for students applying for an apprenticeship is that they are already on track to graduate on time – reflecting the belief that, if a student is not currently on track to graduate on time, adding in the demands of an apprenticeship may jeopardize their chances of graduating on schedule.
- **School schedules:** Different districts – and often, different schools within a district – operate on different school schedules, meaning that students are available on varying timetables for time in the workplace. CareerWise addressed this by asking employers to indicate which schedules they could accommodate as part of the apprenticeship, and then asked students to verify with their school counselors as part of the application process that the school could accommodate the student being in the workplace during those times.
- **Transportation:** Travel within cities or between cities in Colorado can take a long time. As part of the application process, CareerWise required students to verify that they had a reliable form of transportation to and from the apprenticeship (in the form of their own transportation, public transportation, school transportation, or public transportation vouchers from their school).
- **Preparedness for work:** Many employers worried that 16-year-olds would not be ready for the workplace. As a result, CareerWise ran a week-long professional skills bootcamp for all hired apprentices that covered topics such as client confidentiality, writing professional emails, and participating in a business lunch.

- **Summer period:** Given that students are theoretically available for full-time work over summer periods, CareerWise asked the employer to mutually determine with the student what the student's schedule would be for the summer (e.g., part time or full time).
- **Background checks:** Each of CareerWise's school district partners has varying requirements related to background checks of supervisors and coaches in the workplace. As part of our apprentice agreement, CareerWise asked employers to disclose their background check policies so that students and parents could make a determination about their comfort level with those practices.
- **Data-sharing agreements:** Similarly, each of the school district partners has different requirements related to data sharing. As a result, CareerWise developed robust data-sharing agreements with district partners to enable the entry of competency achievement data by businesses into CareerWise's learning management system.
- **Applicant tracking system:** Given the unique requirements of the online apprentice marketplace, CareerWise is exploring development of a custom-built marketplace that will meet the diverse needs of all parties involved in the application process – employers, K-12 partners, students, teachers, counselors and parents.

