



# ADVANCING EQUITABLE INDUSTRY SPECIFIC CAREER PATHWAYS: K12 TO POSTSECONDARY PLAYBOOK

July 2019



# TABLE OF CONTENTS AND QUICK LINKS

INTRODUCTION .....	2
GETTING STARTED .....	3
Industry analysis.....	3
Establish a Steering Committee of Key Project Sponsors .....	5
Define Your Vision and Goals.....	6
Understand Your Current State .....	7
Financial Considerations .....	7
PATHWAY DEVELOPMENT PHASES AND DETAILS .....	8
Course Analysis and Development.....	8
Curriculum Development and Teacher Support.....	10
Build dual credit articulations between the high schools and college partners .....	10
Identify a clear pathway of college courses leading to degrees & certificates .....	11
Student career awareness.....	12
Marketing, Communications, and Family Engagement .....	13
Pathway Evaluation .....	14
CONCLUSION .....	15

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# INTRODUCTION

## ***Making the Case***

Career-oriented pathways have great power to capture a young person's interest and help maintain excitement for a bright future while they are still in high school. For some young people who have clarity and interest in a particular career path (such as a doctor or an engineer), course selection and dedication to advanced-level coursework are clear steps along their well-defined path. The bulk of high schoolers, however, don't have such a clear vision for their future, and thus don't have a guide for how to navigate their options.

When districts, schools, colleges, and employers get together to build a well-aligned pathway, it creates low-risk, high-potential opportunities for students who are still building their vision for themselves and allows them to "try on" various skill sets and opportunities without the financial and time costs that would come if they were to wait until college to explore a career discipline. Such pathways —when well-executed with mentors, job shadows, career speakers, and extra counseling support— can propel students far beyond the goals they may have once aspired to and help them make immediate connections between the learning taking place at school and opportunities that exist beyond their K-12 experience.

## ***Defining an Industry Career Pathway***

An industry-focused pathway is an intentional set of courses and supplemental learning experiences (in-school, after school, and out-of-school / summer) that are aligned with a variety of careers in a particular industry and give students opportunities to explore careers while learning both academic and technical skills that will prepare them to succeed in early-career jobs. The best career pathways begin in middle or high school and continue with direct articulations into postsecondary programs where young people earn certificates or degrees that qualify them for family-wage, high-demand jobs.

## ***Purpose of this Playbook***

The purpose of this playbook is to help school districts, colleges, nonprofits, and government entities, in partnership with business and industry, develop pathways from high school through postsecondary and into careers. The guidance comes from on-the-ground work in local school districts, and includes decades of experience gleaned from key stakeholders, partners, and advisors. You'll use this playbook if you want to build clear high-school-to-postsecondary pathways that lead to family-wage, high-demand careers, and if you are willing to remove barriers and improve systems so that all students are prepared to succeed in those careers.

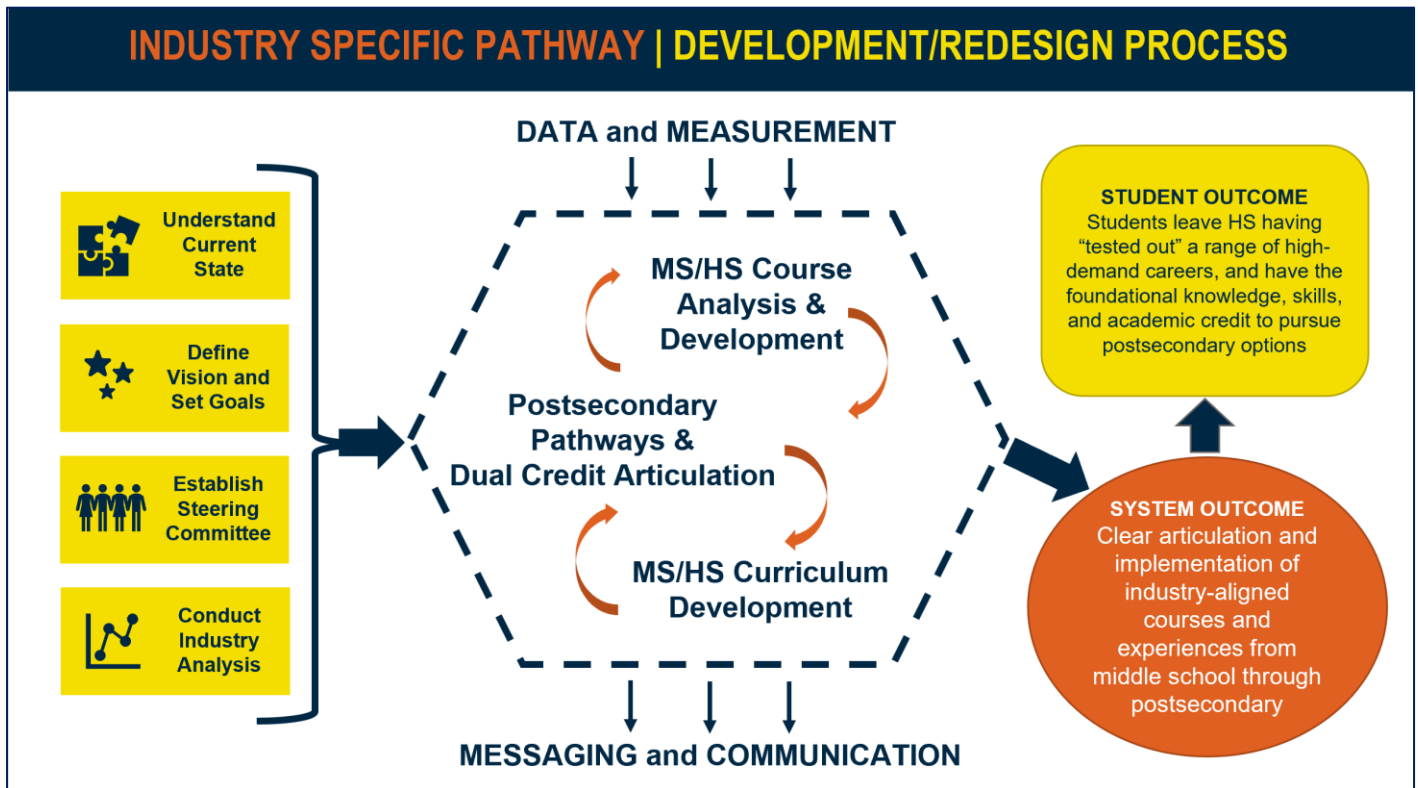
## ***Centering Equity***

While not an exhaustive toolkit on racial equity, this playbook provides guidance on how to have equity-centered conversations with project leaders, employers, educators, and families. When we talk about equity, we mean putting systems and structures in place to ensure a student's race, gender, or economic status does not predict their success, resulting in all students having equal opportunities to achieve their desired outcomes. This work may entail:

- Identifying which students are accessing current opportunities and which are not, and then determining what needs to change to ensure that all students --especially students of color, students living in poverty, and English language learners-- begin to access those opportunities. In the past, program developers may have started by looking at academic needs and building courses to impart those skills. But when those needs and courses are designed by people with the dominant viewpoint, they may have missed critical design elements that are needed to attract students who are historically underrepresented in particular fields.
- Removing barriers and adding structures to enable students to have equitable access to high-demand, high-wage careers across a community.
- Understanding that systems (schools, districts, postsecondary institutions, and businesses) may need to change to become more welcoming and supportive for all young people to make informed choices.

# GETTING STARTED

This section describes the steps and process for developing an industry specific pathway. The graphic below illustrates the general process for developing or redesigning an industry specific pathway.



## Industry analysis

A principled, employer-informed, and data-driven industry analysis is essential for building a career pathway that leads to high-demand, family wage jobs in your city or region. This type of industry analysis will be essential in making the case for a career pathway to district leaders (who need to commit energy and funding), other education stakeholders (higher education institutions, nonprofit partners), and government entities (who can also support with funding and/or policy decisions.)

**Table: components of industry analysis**

Useful component of industry analysis	Washington State resource	Why this is important / how you'll use it
Wage and employment projections for the sector in the next 5-40 years.	<a href="#">Labor Market and Credential Dashboard</a>  <a href="#">Workforce Development Council Data</a>	Helps make the case to funders and partner organization leadership for the importance and value of this new pathway.
Postsecondary education options in the local area that prepare people for those jobs.	<a href="#">CORI Matrix</a>	May highlight gaps that postsecondary partners can start to fill or point to excess capacity that your K-12 career pathway can fill.
Spotlight on 3-5 specific careers and the education required to access them. Choose 3 that require different levels of education (e.g. certificate, 2-yr or 4-yr degree, apprenticeship.)	<a href="#">Regional snapshots</a>	Helps to make the pathway concrete for teachers, students, and families.
Assessment of race / ethnicity and dual-language skills of current workforce vs. regional population.		Helps pathway designers incorporate a special focus on supporting underrepresented populations to access these opportunities & careers.
Clear detailing of the skills required in a wide variety of occupations in this industry, highlighting those skills that are useful across many careers in this industry.	<a href="#">O*NET</a>	Builds context for students and families considering this field and helps teachers and pathway developers build curriculum.
Pathway maps showing how degrees and stackable certificates lead to various jobs in an industry. <i>*Ideally these are non-linear and also demonstrate how to change jobs within the industry.</i>	<a href="#">WDC Career Mapping Resources</a>	Shows how mid-career adults can transition into the industry, and how young people who may not currently be planning to go straight to a degree program can build skills and earn money while staying on the path.
Baseline data on high-school to postsecondary to employment.	<a href="#">ERDC High School Graduate Outcomes</a>	Identifies gaps and helps to address those.

**How to get this done:**

If this type of industry analysis has not been completed in the last five years, or it is not sufficiently detailed enough to pinpoint specific jobs that will be in high demand, it will be necessary to partner with an entity who can conduct this analysis for or with you. It's helpful if an outside partner who is recognized as a workforce and/or research authority, conducts this study to give you external validity when citing their work throughout the life of the project. If you have a local nonprofit education / workforce partner who has a good reputation in research, they may be able to find capacity to do the study. Additionally, partnering with a local university may allow you to have the work led largely by a graduate student under the guidance of faculty. Local Workforce Boards, Statewide Departments of Labor, and city departments of economic development are also good candidates for partnership.

## Establish a Steering Committee of Key Project Sponsors

A steering committee is a group of key stakeholders who will guide many of the critical decisions during this project, and as such, are the most important partners for success of this effort. Most likely you already formed this team, but it's not too late to add a member or re-evaluate another's role if the composition is not just right. You'll want to ensure that your steering committee includes leadership representation from:

- The K-12 entity (e.g. district) in which the pathway will be hosted. There are countless stories of foundations, nonprofits, and businesses who've tried to make change in public education without this, or "from the outside." It rarely finds lasting - or even temporary - success.
- A prominent higher education institution in your region.
- One or more influential local employer(s), or an organization with close ties to several employers.
- Your steering committee may also include representation from:
  - Your district and/or postsecondary Career and Technical Education (CTE) advisory committees in the pathway area of focus. These committees are charged with overseeing the CTE programs in their districts and ensuring that programs are aligned with industry needs, that the teachers are qualified and prepared to teach, that curriculum is high-quality and aligned, and that students are learning career readiness skills in addition to technical knowledge and skills. There will be significant overlap between the discussions of your steering committee and your CTE advisory committee, though their roles are different.
  - A nonprofit education support organization with a good track record of partnership, influence, and/or fundraising capacity.
  - A local foundation with a focus on impact.
  - A local agency (e.g. workforce development, city government, etc.)
  - A parent of one or more young people in your region, and/or a young graduate of your system who works in the industry of focus.

### *Roles and functioning of the steering committee*

Everyone on the steering committee needs to be able to influence the highest-level leaders in their organization, such as the Superintendent, the CEO and/or VPs (depending on company size), the Mayor or Governor, etc. If your committee members do not hold that influence, they may need to recruit a supervisor or higher-up to sit on the steering committee with them. At the same time, steering committee members also need to be in positions to get real work done.

Each organization represented on the steering committee is likely to be asked to make a significant change during the life of this project. In the school district, it may be adding a set of courses and potentially cutting others, which can be politically costly to superintendents if not managed well. Employer partners will be asked to host career visits, internships, and/or release employees to go out and speak to students. Ideally, employees would be compensated for this time, or released from work obligations, which requires high-level buy-in. We believe that the upsides of these tradeoffs—the benefits to students and the community—far outweigh the costs, but the leaders of the steering committee members' organizations need to be equally supportive.

### **The Role of Industry Advisors**

It is critical for your project to have a strong relationship with several employers from the industry that your pathway is focused on. These advisors will help you pinpoint the early-career workforce challenges that they are facing, which will inform important decisions about curriculum, course sequences and postsecondary degrees and credentials. Industry advisors may also be able to:

- Support student career connected learning experiences by connecting schools with industry professionals for worksite tours, classroom speakers, job shadows, internships, and more.
- Help build teacher knowledge and skills by hosting teacher-oriented job shadows and externships.
- Provide funding to cover cost gaps or provide letters of reference for grant opportunities.

Establishing a close and long-term relationship with industry advisors may also strengthen the Career & Technical Education General and/or Pathway Advisory Committee(s) at your district and college.

## **Define Your Vision and Goals**

Once the composition of your steering committee is clear, it will be important to build a shared vision. We believe there are three key components to this: 1) finding a north star, 2) having honest conversations about equity with your team members, and 3) identifying each steering committee member's "why" for committing to this work.

### **1. Find a North Star**

We encourage the group to find a "north star" - another pathway in your region, state, or promising program outside of your district that your team can visit together and/or deeply research. This gives you a shared frame of reference, something to point to as you move along your path and serve as a springboard for new ideas. It may also help to change the perspective if some members of the committee are blocked and may help you identify solutions to operational and strategic challenges. You may not like or be able to implement every aspect of this program, and you may identify two or three programs from which you pull different elements together to create a new north star. Regardless of the mechanism, it's a good idea to discuss and write down your vision of success.

### **2. Discuss Equity in Student Outcomes**

Next, make sure all steering committee members are in alignment with the goals of building a career pathway with equity in mind. This can be a highly personal conversation and one that evolves over time, but it's important to begin by understanding what each member thinks and feels about equity. Some questions you may discuss in an initial steering committee meeting include:

- For each of us, what are my personal values that make this work important for *all* students, especially those students furthest from opportunity?
- Why is equitable access to educational opportunity, and educational success, important to each of our organizations?
- Who is the population we are *most* trying to serve? Why? How can we make sure the new system is designed with and for them? What barriers have they faced in our traditional system?
- If we are successful, what student outcomes do we expect? Are these in line with our equity goals?
- How have systems of power, privilege, and/or implicit bias created the type of educational ecosystem we have in our city/region today? What are some small or large steps we can take to begin to undo those?

### **3. Get clear on the "why" for your Steering Committee**

Ensure that each steering committee member has compelling reasons -in addition to equity- for dedicating significant time and effort to this project. Some questions that will help align around the "why" of this work include:

- When this pathway is fully built, and student outcomes are being met, what will be different for our community and our local economy? Why are we excited about that?

- Beyond the steering committee, what influential leaders will be most excited about the development of this pathway? How can we engage them as early supporters?
- What are some indicators that we will look to in determining whether we are on track to meet our pathway goals?

## Understand Your Current State

It is important that your team is grounded in knowledge about the industry, current and recent education and workforce efforts, and how change happens within and across your organizations before getting too deep in the work. If, for example, your school district has a history of innovative course design but challenges maintaining a high-functioning and/or reputable advisory board, you may need to start engaging the business sector well before their involvement is needed. Each committee member should take a few minutes to fill this out, then the group should compare answers and, where the ratings differ, discuss why each was so rated.

**Table: self-assessment**

	True most of the time	Sometimes or somewhat true	Area of concern
Our region has successfully implemented career pathways in the past.			
The school district is able to design and implement new courses in high schools that are relevant and engaging.			
The district regularly gets meaningful employer feedback on educational programs.			
Steering committee members have a history of working with the school district, and those projects met intended goals.			
Funding is secured for this project.			
We have the data we need to set our goals.			
We have the data capacity to track progress along the way.			

## Financial Considerations

Education funding is always a challenge, but creative and resourceful steering committee members can envision likely funding streams and develop a path to begin accessing those funds. Some costs to consider include:

- If the steering committee members have not worked together to develop a career pathway in the last decade, consider hiring a project manager (PM) to organize the work. Essential activities of the PM include:
  - Developing a workplan with key milestones and refining it in ever-increasing detail as the work moves forward.
  - Ensuring each committee member follows through on the things they commit to doing.
  - Developing initial documents and tools for steering committee members to edit so they do not have to craft everything from scratch (which can be difficult and time consuming.)
  - Talking to school staff, students, families, and community members to build awareness, energy, and secure participation for the new programs.
  - Shining a light on and helping to navigate disagreements or challenges as they arise among the steering committee.
  - Planning and facilitating project meetings.
- The PM should also work with each committee member to identify program costs as the designs emerge, especially at the school district and postsecondary levels.



- In general, the costly aspects of developing a career pathway include:
  - Operational Costs
    - New courses (e.g., additional teacher FTE), before existing / older courses fall away or are replaced by the new, more relevant courses.
    - School staff time to develop the courses and real-world experiences.
    - Additional student support from teachers and/or counselors for navigating courses, both career/technical and academic.
    - Transportation, if students will be moving schools and for students to have worksite experiences.
    - Instructional materials / curriculum
  - Capital Costs
    - Facilities
    - Equipment

## PATHWAY DEVELOPMENT PHASES AND DETAILS

Each of the categories of work below are critical to building a successful pathway. They are generally in order of how your steering committee should undertake the work, but they are not strictly linear. Your Project Manager (PM) should identify a workplan and timing of phases and bring this to one of the early steering committee meetings to give committee members the opportunity to course correct, suggest improvements, and to ensure that all committee members have a shared expectation for what will be happening and when.

### Course Analysis and Development

At its core, a career pathway is a set of learning experiences that help students build knowledge, understanding, and skills. Many will point to the sequence of courses as the most important piece, and while a well-intentioned set of courses are necessary for pathway success, they alone are not sufficient to claim a true pathway. Stakeholders will repeatedly ask about the sequence of courses, and thus course planning can be an important coalition-building experience while also helping stakeholders understand that the pathway experience is not complete without real-world and work-based learning experiences, rigorous academics, and career awareness experiences.

#### ***Course pathway landscape mapping***

To build a robust set of courses, it is necessary to identify what courses the district is currently offering, and how successful those courses are. This is important for understanding whether the district will need to build a new vs. improve something that already exists. It is also useful to deepening relationships with teachers and students who can help as courses shift or new courses get added.

#### ***Data analysis should include:***

- Availability of pathway-related courses by location - what courses are available where?
- Cohesion of site courses - for the courses in a particular school or service area, are they aligned in an increasingly-advanced sequence?
- What are courses preparing a student to know and be able to do, and is this aligned with the goals of the pathway and the needs of the local labor market?
- Within courses:
  - How well does the curriculum adhere to frameworks or standards that have been set and agreed upon by local industry leaders?
  - If the course is offered in a variety of sites, how much fidelity is there to frameworks or standards across the system?
  - Are the frameworks and standards aligned with job skill needs, and are the courses designed to help students understand these career connections?

- Student course-taking patterns and success - how many students are in each section of the course, over multiple years (if applicable), and what is the distribution of attendance and grades in the course? What are the demographics of who takes - and finds success in - each course?
  - Student course-taking patterns can provide high-level data about the relevance of a course and/or student satisfaction with the teaching. This is not always the case, however, as patterns may instead reflect issues of school scheduling, prioritizing, or lack of knowledge on behalf of students about the benefits of each course. Looking at student data is an important baseline but digging in further by talking with students and school staff is important before drawing conclusions.
- Student feedback - high school students are generally extremely honest about their experience in a course. Students will report if the content they are learning is practical and relevant or not. If the preponderance of students report that the work is easy, the teacher can increase the rigor. Multiple methods can be used to collect this information, from written surveys to individual conversations or structured focus groups. If a district is building a pathway anew, it's important to get student feedback on the idea and the relevance.

### **Course Development**

As mentioned earlier, the sequence of courses will be the most defining characteristic of the pathway, at least in the early years. There are several ways to approach course development, but the most critical is that the courses be decided upon based on the workforce needs of the region, not based on the courses a school or district already teaches, or the ones that parents, teachers, or administrators simply want.

Think also about developmental continuum of courses - much like college courses that start at the survey / introductory level, your pathway should as well. Therefore, first year (9th grade) courses are more likely to be “fundamentals of,” “career exploration,” or “introduction to” the field of focus, with courses in becoming more specialized and/or technical in years 2, 3, and 4.

**Table: Course development dos and don't**

Do include...	Do not base course decisions on...
Industry input, considering the needs in the workforce over the next 10-30 years.	A historic analysis of jobs available in the past or even current economy.
Input from higher education partners to ensure as tight an alignment as possible.	Current high schoolteacher availability or teaching desires. Teachers should <i>absolutely</i> be included in the discussions with higher ed and industry to every extent possible as they are the experts about how best scaffold knowledge and skill acquisition, but those skills must be determined in partnership with employers and higher ed.
Systematic student feedback. Students will rarely shy away from what is challenging or relevant, rather they will tell you if content is too easy, could be taught in a more interesting or relevant way, and/or if there are structures or routines in the way certain classes are run that hinder their learning.	Perceptions or anecdotal evidence of student interest. High school students are incredibly perceptive and should be active participants in this process.

### **How to get this done:**

1. Gather an inventory of courses offered in the local district. Visit these courses to understand what students are learning, how they are learning, why they're taking the course, what other courses they'd be interested in, how real-world experiences affect their mastery of course concepts, and more.
2. Identify courses offered in other schools in the region, state, or nationally who have a similar pathway focus to yours, or that are being taught in your north star school(s). (e.g., NAF Academies, other Career Academies, Project Lead the Way, etc.)

3. Pull together the list of state course codes, or, if available, approved courses. In Washington State, the [CIP Code chart](#) provides some guidance, and some model course frameworks can be requested from the Office of the Superintendent of Public Instruction.
4. Host a meeting with postsecondary and industry partners to identify the critical skills that young people will need, the skills and knowledge that can be gained at the high school level, and how, if that happens, it will articulate with postsecondary programs. If you have specific student pathway advisors, or teachers with relevant industry experience, include them here.
5. With school district partners, revisit the course inventories from steps 1, 2, and 3 and narrow the list to the 4-8 courses that are most feasible, interesting, and relevant.
6. Talk to students about what you learned from the meeting in step 4, and your analysis and proposal in step 5.
7. Incorporate feedback from students, then meet with postsecondary and industry partners to propose, discuss, and decide upon a course sequence.
8. Follow district and state procedures for adding new courses.
9. Build student internships and work-based learning opportunities into the course sequence. All stakeholders, but especially students, teachers, and administrators, need to know that these experiences will be part of the pathway from the beginning. On the teacher and administrator side, building internship programs takes time, effort, and partnerships. Many teachers and administrators have never done this, and thus need to get creative and be supported by the steering committee to make it happen. Students, on the other hand, may get very excited about the opportunity and use it as a reason to enroll in the pathway.

## Curriculum Development and Teacher Support

Teachers are essential members of any team that will successfully implement a pathway, yet their role heretofore has been advisory at best. This is by design - teachers are busy, student-focused professionals. They've seen a variety of initiatives come and go, and we don't want to burn them out before their skills can be put to the best use. Until that time, district and college leaders and outside partners can do the bulk of the planning, and even the skill identification. But as soon as new courses are a certainty, it's time to bring in their expertise to develop knowledge and skill progressions, assessments of student learning, lesson plans and real-world project-based activities, and instructional materials.

### ***How to get this done:***

1. We strongly recommend finding time for full-day collaborative curriculum-building sessions involving all of the teachers in the pathway. This will help to establish collaboration across your school and/or district, ensure alignment between the courses in the pathway, allow teachers to make coordinated asks for support, and ensure that all students - regardless of zip code - have access to the same learning experiences and extra supports where needed. In an ideal world, this collaboration would also include visits to workplaces, and/or participation by industry advisors who can infuse relevant examples and prepare to host career connected learning experiences throughout the curriculum.
2. Leverage any and all curriculum and instructional materials that can be borrowed from other districts, as well as Open Educational Resources.
3. Ask teachers to identify their professional development and support needs as they implement the new courses, and, within reason, work with the district and Steering Committee to try to make them happen.
4. Once teachers have an emerging framework for their course, bring in some interested students or college students in a healthcare program to provide input.

## Build dual credit articulations between the high schools and college partners

Students are far more likely to complete their educational program when they feel that learning experiences are relevant and interesting. Nothing can be more discouraging than having to retake courses or review material that one already learned, especially if the student is responsible for the bill. The more that high school credits can count for college placement and/or credit, the more likely students are to pursue higher education and choose the institution that recognizes their previous work.

### What is a dual credit articulation?

Dual credit refers to courses that are taken before a student graduates from high school that provide credit for both high school graduation and college degree attainment. In many institutions, courses labeled as Advanced Placement, International Baccalaureate, CTE Dual Credit, and College in the High School have dual-credit articulations written into counseling protocol, though the details vary dramatically across institutions. It is additionally possible to set up dual-credit articulations between K-12 school districts and higher education institutions who agree to align standards, curriculum, assessments, and, at times, teaching strategies and/or specific project-based units. While this last method is significantly more time-consuming, it may be necessary for courses that do not have a common, consistent, and transparent set of standards and performance expectations in high schools or across professors and/or campuses at the college level.

It is important to note that dual credit is not the same as course placement, which refers to a course taken in high school that determines the level of course a student starts at upon college enrollment but does not give credit for courses taken previously in the sequence. It is equally important to get course placement right so students do not end up re-taking content they already mastered in high school.

### How to get this done:

1. Bring your postsecondary partners into the course development conversation as early as possible, even if the early steps are focused on the high school level. Make sure your postsecondary contacts know the process for course crediting, dual-credit articulations, and course placement at their institution.
2. Identify the high school courses that are similar to college courses. Dig in and find out: what are students expected to know and be able to do when they complete these courses? How similar are those expectations at the high school vs. college level? If they are similar, they are candidates for dual credit articulation. Expectations do not have to be exactly the same at the outset, as your dual credit articulation process can bring them together if they are close.

*Don't forget about prerequisites! College courses above the 100 level frequently have prerequisites. If you are trying to dual-articulate a course that has prerequisites, students may still be prevented from accessing their college credit because they didn't take a prerequisite first. Work with your college partners to determine whether the prerequisite course(s) also have a similar course at the high school level for which it may be possible to set up a dual-credit articulation.*

3. Once you have a list of candidate courses, identify the decision-makers in the process of dual-credit articulation at both the K-12 and college level, and approach them with a list of course targets. Make sure they understand that the ultimate goals are increased student degree attainment, and how dual-credit articulation can help reach those goals. Once the leaders agree, work with them to solidify the process.
4. Additional process steps may include:
  - Meetings between K-12 and college faculty to look at standards, curriculum, frameworks, assessments, and projects.
  - Analysis of written documentation of course details (standards, curriculum, assessments.)
  - Alignment of course across teachers, faculty members, and campuses within the K-12 and/or college first, or simultaneous with alignment across institutions.
  - Co-developing new standards, curriculum, frameworks, assessments, seminal projects, and/or key lessons to be taught by both K-12 and college faculty.
  - Identifying extracurricular supports at the high school level to help student attain college-level understanding, including tutoring, visits to the college courses, career-related field trips, etc.

### Identify a clear pathway of college courses leading to degrees & certificates

In general, college courses and degree requirements are clearly established by the colleges. They are not, however, always easy to access or understand, especially for high school students or those who are seeking information independent of working with a

counselor. Ensuring that course and pathway maps are easily accessible to high school students and the public helps students see that the road to a degree is clear and straightforward, not something that is confusing or intimidating.

In some cases, as with high school courses, college courses or course sequences may be out-of-date or not relevant to current industry trends. Postsecondary partners should work with industry advisors to ensure that pathways are aligned with high-demand jobs and skills, and to develop cooperative learning opportunities wherever possible. Further, courses and course sequences are not always consistent across campuses in the college system, which can further lead to confusion for students. Every effort should be made to ensure a consistent program of study for students in your industry pathways to again avoid confusion and the potential for students to take courses that aren't required for their degree or certificate.

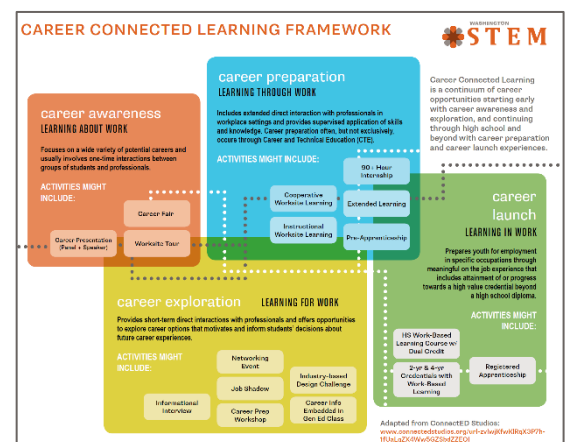
## Student career awareness

We cannot overstate the importance of career awareness activities for young people, beginning as early as elementary school. Most young people go to a doctor or dentist regularly, and possibly care for or visit with elderly family members, and thus begin to think those are the only medical careers that exist. Few students have any idea what it truly takes to care for and treat people with illness, to research and develop protocols for new drugs and medical devices, to manage the business side of hospitals and insurance, or to be a practitioner in a specialty field such as mental health. In any pathway that you may be developing, there are far more careers available than are visible to the general public, and certainly to young people.

Career awareness is even more critical for students from underrepresented backgrounds and underserved communities. Not only do these students often have fewer opportunities to meet and interact with a wide range of adult professionals, but when they do, they frequently do not see people they can relate to - people who look or speak like those in their community - and thus do not see these professions as a place that is welcoming of them.

### How to get this done:

1. Career awareness activities should start well before your pathway is fully built to increase demand for your pathway and ensure there will be knowledgeable students ready to sign up once it is available. So, start now in planning and conducting these experiences to build capacities and provide student experiences - there is no downside.
2. Consider each of the sections and actions of the [Career Connected Learning Framework](#). Are these elements in place in your schools / district / region? Are your employer partners on board with supporting these types of experiences? Are school and district policies supportive of students leaving campus to visit workplaces? Talk to students and learn: are *all* students welcome on those trips, or are there implicit barriers such as discipline consequences, hidden fees, or end-of-day transportation constraints that make it impossible for some students to participate?
3. Choose an activity or set of activities and begin recruiting employers. This is a key place where your industry advisors will be helpful. Workforce councils, industry roundtables, boards of public education funds and/or large youth-focused nonprofits are excellent groups to address - help them learn about the value of career-connected experiences for young people and ask for volunteers.
4. Do not expect that your school partners have the capacity to organize career-connected experiences, especially in the early years. It almost always requires a non-instructional staff member or an outside partner to build a career awareness program for several years until the relationships are strong enough and teachers & counselors have the contacts, the skills, and the motivation to organize and implement these activities on their own.



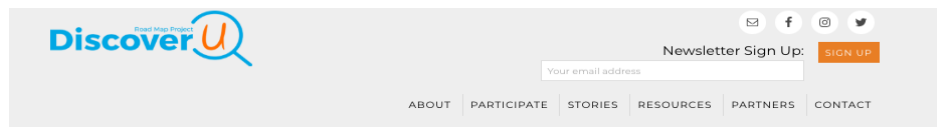
- Provide opportunities for your teaching staff to learn about careers in industry via teacher-only job shadows and career tours and one- to two-week teacher externships in the summertime. This will empower your teachers to bring their knowledge back to students and help them identify ways for industry professionals to support classroom learning experiences.

### Elementary and Middle School Career Awareness

The most robust systems of college and career awareness and access do not wait until high school to begin - they start as early as the primary grades. Objectives and activities for elementary students should focus on exposure to a variety of careers, building an understanding of the need for postsecondary education (as 70% of the jobs our local area will require a postsecondary degree or credential by 2030), and teaching students about the critical 21st century / job readiness skills that are ultimately important for learning and work. Some wonderful activities for elementary and middle school students include:

- Creating an ABC poster of careers (activity description in DiscoverU link below)
- Drawing self-portraits of students as career professionals
- Bingo game of postsecondary credentials

In the Seattle area, the Community Center for Education Results organizes a region-wide “DiscoverU” week. Their website includes posters, lesson plans, and activities for students of all ages. Visit them at <https://discoveruwa.org/resources/activities/>.



#### Activities & Lessons

DiscoverU provides tools and resources to support partners in providing engaging career and college exploration activities for students. We are continuously looking to add more activities to this list, so if you have an activity or resource you'd like to share, email Alejandra Pérez at [aperez@ccedresults.org](mailto:aperez@ccedresults.org).

#### Activities & Lessons

For Schools & Youth-Serving Organizations

 DiscoverU Activities Elementary Schools	 DiscoverU Activities Middle Schools	 DiscoverU Activities High Schools	 DiscoverU Activities All Students	 DiscoverU STEM Activities All Students
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## Marketing, Communications, and Family Engagement

Communicating effectively the goals of an initiative and the details of programs is critical to launching with success. Teachers and school leaders need to see and hear a consistent message about a program to feel that it's a solid initiative they can count on, and so they can “sing from the same songbook” when talking to others about it.

Additionally, explicit outreach needs to be done to underrepresented communities to build awareness of the pathway and to provide safe spaces to help students and families understand the opportunities and tradeoffs. In many school districts, materials need to be available in multiple languages. Meetings should be held so families and the community can learn about a program in person, with translators who can explain to families in their home languages.

Savvy fundraisers know that if a project or organization has clean materials, inspiring graphics, and a strong brand, they are more successful over time in their fund development efforts. While many nonprofit leaders will eschew branding and marketing as something to be left to corporate interests, we have learned that there are benefits to impact-focused endeavors as well, including:

- Beneficiaries, in this case students and families, are likely to be more aware of an organization and their programs if there is marketing that speaks to them.
- Grantmakers may be more likely to remember a program or organization if it is associated with a lively look and feel.
- Partners, in this case schools and businesses, may be more trusting of an entity who is organized enough to have both a strong program and a solid communications backbone.

## Pathway Evaluation

Most new initiatives have or can generate a significant amount of energy and buzz - and a commensurate amount of funding - to get off to a good start. But when they begin to lose their shininess, as other new initiatives come in their wake, and as leaders and champions turn over support for your initiative can wane. The antidote to this: data collection and reporting, including rigorous implementation and outcome data, qualitative data, and a developmental evaluation to guide ongoing programmatic decisions and surface a rich array of program outcomes and impact stories. Your steering committee should review data regularly for visibility and oversight if a course change is required based on what you're learning.

Start collecting data early, before your pathway launches, including:

- Numbers of students in your postsecondary pathway programs (in our case, health & medical degree and certificate programs) who graduated from your partner K-12 school district, and the years of their graduation. (From K-12 and postsecondary data systems.)
- Numbers of high school graduates going directly into those postsecondary pathway programs now, their demographics, and their reasons for pursuing these opportunities. (From K-12 and postsecondary data systems and/or student surveys.)
- Number of high school students interested in careers in your target pathway(s), their demographics, and their input into how the pathway should be designed to best support their needs. (From student surveys.)

Find ways to collect data annually starting now so you have long-term longitudinal data to refer to as your pathway grows.

Once your pathway launches, you should collect and track:

- Demographics of students in your program vs. the school and/or community it resides in, vs. your district as a whole, vs. the workforce in that industry currently. Are your program demographics matching your goal targets? If not, why not? You may have data to inform this, or you may need to collect it via student surveys or focus groups.
- Demographics of students who discontinue their participation in the program, as well as their direct input as to why it was not a fit for them. Are their reasons a reflection of their own growth? Their circumstances, and could / should you do something to address those? Or is it a reflection of something structural or affective happening in the program that needs to be corrected?
- Feedback and input from students in the pathway: What's working well for them? What is a challenge? What can you, teachers, school support staff, and others do to ensure they continue their course if that remains their interest?
- Input from students who are not in the pathway, especially if you are able to find students interested in the target career field who chose not to join the pathway. Are there stigmas or structural reasons why certain students are not signing up? Did they know about it, or would more information and marketing have helped?
- Stories from students who are finding success in the program. Interview them. Learn about their aspirations and how this program can help. If possible, invite them to talk to your advisory board, your school board, your funders, the superintendent, the local newspaper or TV station, and other leaders who will listen. Their stories will be critical for the sustainability of the program. Student stories coupled with strong participation numbers and the demographic mix you are seeking are the best way to ensure sustainability for your program.

Reviewing and reporting on data annually will not only shine a light on program improvements you can make to ensure strong outcomes but will also remind leaders and stakeholders of the power of your program to, hopefully, ensure support over the long-term.

## CONCLUSION

While not the only way to help young people access educational and career success, industry pathways can be an extremely powerful lever for change. Even still, not all pathways are created equal. We believe that all the steps - carefully considered and taken seriously - in this Playbook are essential for success. There may be other steps as well, that can improve the quality of your pathway or provide innovations in curriculum and student experiences. We would like to hear from you - have we missed anything? Do you have a suggestion or comment about what worked for you? Please drop us a note at: [info@washingtonstem.org](mailto:info@washingtonstem.org).