HIGH SCHOOL TO POSTSECONDARY
A Step-by-Step Toolkit
About Washington STEM and this project:
Washington STEM is a statewide, education nonprofit leveraging STEM for social change, removing barriers to credential attainment, and creating pathways to long-term economic security for historically excluded students. This is done through three main strategies: partnership, direct support, and advocacy. We collaborate with STEM Networks and cross-sector partners across the state to identify, amplify, and spread solutions to persistent big issues in STEM education.

Since 2019, we have worked with regional education leaders to co-design a data-driven process to improve postsecondary readiness opportunities for high school students. We facilitate a statewide community of practice, known as the High School to Postsecondary Collaborative, providing technical assistance and coaching for regional and district education leaders. This community of practice aims to improve equitable postsecondary preparation, particularly along lines of race and other intersectional demographics including but not limited to: gender, rurality, multilingualism, family income, disability status, etc.

About this Toolkit:
This toolkit is designed for use by teams of educators, especially high school and school district staff and regional leaders, who aim to work across initiatives, programs, and mandates to improve postsecondary outcomes for students. The resources and findings in this toolkit are updated periodically to reflect the collective knowledge of Washington STEM, STEM Networks and additional regional leaders, high school and district partners, and school communities.

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To learn more about this project, check out the resources below:
- High School to Postsecondary: A Toolkit for Improving Outcomes Through School-Based Inquiry Toolkit
- High School to Postsecondary: Technical Paper
- Career Readiness 101: Identifying and Eliminating Barriers in Dual Credit (OSPI GATE Equity Webinar) (PDF) (Webinar)

Blog Posts:
- High School to Postsecondary Collaborative (case study)
- The Co-Design Process: Research with, and for, Communities
- Life of the Data Bit: How Data Informs Education Policy
- Developing Equitable Dual Credit Experiences
- Listening to Student Voice: Improving Dual Credit Programs
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BACKGROUND AND PURPOSE

BACKGROUND

In 2020, Washington STEM joined a research-practice partnership led by staff at Eisenhower High School in Yakima, Washington, to identify, assess, and act upon barriers to dual credit programs. This work was funded primarily through an OSPI Building Equitable, Sustainable Dual Credit grant that called for partners to build accountability through data, cover student and program costs, and facilitate collaboration and local expertise. The partnership team co-created a process that connected a broad set of quantitative and qualitative data with community input to help the school leadership team identify and implement changes in practice at the school and district levels to increase equitable access to dual credit programs.

As Washington STEM has deepened partnerships with STEM Networks, additional regional leaders, and school and district leaders, this work has grown into the statewide “High School to Postsecondary Collaborative” and expanded beyond dual credit. School teams also increase their understanding of overall postsecondary outcomes, financial aid completion, advising, High School and Beyond Plan use, and student and staff experience in postsecondary awareness and preparation.

PURPOSE OF TOOLKIT

This toolkit is designed to help educators, especially high school and district staff, improve equitable postsecondary readiness by better understanding patterns between high school experiences and postsecondary outcomes. The data that school and district teams gather, analyze, and reflect on can help address the following kinds of questions:

- What activities and efforts are most effective for increasing our school’s Financial Aid completion rate?
- What do we know about our students’ postsecondary aspirations?
- Who do our students look to the most for guidance on their post high school plans?
- Which students are most systemically underserved in completing financial aid, completing dual credit courses, and enrolling in post-high school education?
- What ideas does our school community (students, families, staff) have for increasing and improving postsecondary preparation?
- What differences exist by race, gender, English language learner status, grade point average, and other student characteristics for participation in different types of dual credit, in different subject areas?
- How does dual credit enrollment correlate with postsecondary outcomes for our students?
- What are students’ post-secondary goals compared to their perception of support and readiness to achieve those goals?
- What do our staff and students know about Financial Aid and completing the FAFSA or WASFA?
The process outlined in this toolkit is designed to support school teams to use a range of data and inputs from the school community to better prepare students for their desired postsecondary pathways.

Teams use evidence to identify gaps and inequities in postsecondary readiness and outcomes, and co-design solutions and action plans to close those gaps.

The High School to Postsecondary Collaborative teams receive coaching and technical assistance from regional leads and Washington STEM; opportunities to learn with and from other school teams; and open access to all resources and materials related to the H2P Collaborative, with the following outcomes:

- **Surface, Confirm, and Challenge Hunches.** Understand patterns across high school course-taking, financial aid completion, and postsecondary enrollment, persistence, and completion.

- **Uncover Root Causes and Addressing Adult Bias.** Understand how staff and students learn about, talk about, and experience postsecondary preparation and support at school.

- **Co-Develop Solutions.** Increase trust and understanding of students’ and families’ experiences and expertise, working together to identify impactful school-level changes.

- **Change School Culture.** Equip school staff, including teachers, with updated, accurate, unbiased postsecondary preparation information and best practices for supporting students within the context of their role.

- **Tie it All Together.** Align with existing mandates and initiatives, including but not limited to High School and Beyond Planning, Comprehensive School Counseling Plans, Comprehensive Program Review, School Improvement, Course and Program Enrollment Review, Perkins Comprehensive Local Needs Assessment, and student belonging.
Embrace the “design squiggle” | Gathering the data for this work, changing adult mindsets, and changing school culture and practice is messy and takes time. We like to embrace the “design squiggle” when things don’t go exactly as planned:

In other words, expect the unexpected both in the process and analysis, and enter this work with a flexible learner’s mindset!

Source: The Process of Design Squiggle by Damien Newman, thedesignsquiggle.com

Example project timeline:

<table>
<thead>
<tr>
<th>TIMEFRAME</th>
<th>SCHOOL/DISTRICT ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>August - December</td>
<td>• Establish school-level project teams</td>
</tr>
<tr>
<td></td>
<td>• Identify initial school-level student outcome goals and set up root cause analysis (based on ERDC, OSPI, and WSAC dashboards)</td>
</tr>
<tr>
<td></td>
<td>• Administer H2P student and staff surveys (~15 min each, Aug 15-Oct 15, need 70-80% completion)</td>
</tr>
<tr>
<td></td>
<td>• Set up NSC license, submit Graduates File, receive Student Tracker files</td>
</tr>
<tr>
<td></td>
<td>• Identify platform or data specialist support to curate high school course-taking data files with NSC Student Tracker data files</td>
</tr>
<tr>
<td></td>
<td>• Design, train staff, and implement student and family listening sessions</td>
</tr>
<tr>
<td>January - March</td>
<td>• Design, train staff, and implement student and family listening sessions</td>
</tr>
<tr>
<td></td>
<td>• Review available data (from National Student Clearninghouse (NSC), Student Information System, and student/staff surveys) with school teams and staff</td>
</tr>
<tr>
<td></td>
<td>• Implement Financial Aid “quick wins”</td>
</tr>
<tr>
<td></td>
<td>• Revisit and update student outcome goals and root cause analysis based on available data</td>
</tr>
<tr>
<td>March - June</td>
<td>• Implement Financial Aid “quick wins”</td>
</tr>
<tr>
<td></td>
<td>• Implement student and family listening sessions</td>
</tr>
<tr>
<td></td>
<td>• Revisit and update student outcome goals and root cause analysis based on available data</td>
</tr>
<tr>
<td></td>
<td>• Identify and implement school-level changes</td>
</tr>
<tr>
<td></td>
<td>• Reflect on school year, plan for changes in next school year</td>
</tr>
</tbody>
</table>

Next School Year: Follow the same schedule, with increased focus on implementing and assessing changes in school systems and practices and comparing new data with baseline data collected in previous year.
GETTING STARTED

STEP 1: COMMIT TO THE PROCESS

Changing postsecondary outcomes is no small feat—but with a solid commitment to the process, a learning mindset, and strong leadership support, it is absolutely possible. School and district educators need to consider several factors when deciding to commit, including but not limited to staff capacity, budget (for data access), ability to integrate with other initiatives, and student and staff survey capacity.

RESOURCE: Example School Partner Invite

WASHINGTON STEM HIGH SCHOOL TO POSTSECONDARY COLLABORATIVE

Join the Washington STEM High School to Postsecondary Collaborative to work with other high schools and districts and regional leaders to reimagine, design, and implement a postsecondary preparation system that is inclusive of all student aspirations, lights up possible a sense of belonging.

Recent data from 30+ high schools across Washington tells us that:

90% of high school students want:
• Apprenticeship
• 2-yr certificate
• 2 or 4 yr degree

40% of high graduates complete postsecondary

Furthermore, this persistent pattern is inequitable across the lines of race and other intersectional demographics.

OVERVIEW

Beginning in August 2023, Washington STEM, Scholar Fund, and regional leaders launched an 18-month guided process that supports regional/district leaders and school teams in evidence-based changes that increase direct postsecondary enrollment for students from all backgrounds. The Collaborative builds on the work of the Governor’s Leadership Institute, Eisenhower High School, and the Washington Pathways Project currently involved in the H2P Collaborative.

Benefits to School Communities

- Free access to National Student Clearinghouse data (annual $295 license cost)
- Free access to a drag-and-drop platform that simplifies complex high school data with customized visual reporting, reducing a days-long process to minutes
- Technical support to administer 15-minute annual student and staff surveys, 10-15 minute anonymous parent surveys, and Spanish, along with a school-specific Tableau dashboard of results
- Coaching and protocols for centering students and families in co-design, three family listening sessions.
- Support to align this work with existing mandates and priorities, e.g. Washington Improvement and High School and Beyond Planning
- Coaching on value and "how-to" of addressing adult mindset and systemic racial and other intersectional inequities in postsecondary preparation.

OUTCOMES

School teams will receive coaching and technical support from regional leads and Washington STEM: opportunities to learn with and from other school teams; and open access to all resources and materials related to the H2P Collaborative:

- Surface, Confirm, and Challenge Henches. Understand patterns across high school course-taking, financial aid completion, and postsecondary enrollment, persistence, and completion.
- Uncover Root Causes and Addressing Adult Bias. Understand how staff and students learn about, talk about, and experience postsecondary preparation and support at school.
- Co-Develop Solutions. Increase trust and understanding of students’ and families’ experiences and expertise, working together to identify impactful school-level changes.
- Change School Culture. Equip school staff, including teachers, with updated, accurate, unbiased postsecondary preparation information and best practices for supporting students within the context of their role.
- Tie it All Together. Aligning this work with existing mandates and initiatives, including but not limited to High School and Beyond Planning, Comprehensive School Counseling Plans, Comprehensive Program Review, School Improvement, Course and Program Enrollment Review, Perkins Comprehensive Local Needs Assessment, and student belonging.

SCHOOL TEAMS

(Note schools already addressing equitable postsecondary preparation will likely require less additional capacity to take on this work)

<table>
<thead>
<tr>
<th>ROLE</th>
<th>RESPONSIBILITIES</th>
</tr>
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<tbody>
<tr>
<td>Project Lead (CCR Director/Specialist, Counselor, Assistant Principal)</td>
<td>Manage overall project • Participate in and contribute to regional workshops • Access and compile student data • Communicate with staff • Liaise with appropriate school and district staff for data access and analysis • Estimated 30-50 hours per school year</td>
</tr>
<tr>
<td>Data Lead (e.g. registrar)</td>
<td>Has access to student-level course-taking data • Manages NSC license, submitting and receiving data files • Basic Excel skills • Estimated 5-10 hours per school year</td>
</tr>
<tr>
<td>Principal/ Administrator</td>
<td>Approve the overall project • Dedicate 1-2 staff meetings to engage all staff in data analysis, addressing bias, professional learning and co-designing solutions • Communicate with staff • Allocate time for student and staff surveys • Estimated 10-15 hours per school year</td>
</tr>
<tr>
<td>Superintendent</td>
<td>Remove barriers for data access • Offer general support for project</td>
</tr>
<tr>
<td>District Director of College and Career or other District Liaison</td>
<td>Facilitate connections to central office to access data (e.g., connect with student information system data manager) • Bridge communication gaps between high school and central office</td>
</tr>
</tbody>
</table>
**Data Access** | One of the trickiest parts of this work is getting access to the right student-level data to understand how high school experiences impact postsecondary outcomes. It is important to have the right leaders in the school or district involved from the beginning to approve the overall process, remove data access barriers, and ensure the team has access to the data they’ll need. Depending on the size and structure of the district, this may be the Superintendent, College and Career or CTE Director, Data/IT specialists, Registrar, and/or CEDARS contact.

### STEP 2: CREATE THE TEAM

When creating the school team, consider the necessary roles (see below), as well as key influencers amongst staff, veteran staff (with a growth mindset), and people who are champions of postsecondary work in the school. Gathering and compiling data, allocating time for staff engagement, eliciting student input, and determining action steps requires a team of leaders. The school team must have a team lead, and we suggest this be the school counselor or college and career staff.

<table>
<thead>
<tr>
<th>SCHOOL TEAM:</th>
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<tbody>
<tr>
<td><strong>PROJECT LEAD</strong></td>
<td>(CCR Director/Specialist, Counselor, Assistant Principal)</td>
</tr>
<tr>
<td>Manage overall project • Participate in and contribute to regional workshops • Access and compile student data • Communicate with staff • Liaise with appropriate school and district staff for data access and analysis</td>
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</tr>
<tr>
<td><strong>DATA LEAD</strong></td>
<td>(e.g. registrar)</td>
</tr>
<tr>
<td>Has access to student-level course-taking data • Manages NSC license, submitting and receiving data files • Basic Excel skills</td>
<td></td>
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<tr>
<td><strong>PRINCIPAL/ADMINISTRATOR</strong></td>
<td></td>
</tr>
<tr>
<td>Approve the overall project • Dedicate time in 2-3 staff meetings to engage all staff in data analysis, addressing bias, professional learning and co-designing solutions • Communicate with staff • Allocate time for student and staff surveys</td>
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</tr>
<tr>
<td><strong>CORE CONTENT TEACHER</strong></td>
<td></td>
</tr>
<tr>
<td>Assist with school-wide design and implementation for student listening sessions and staff data analysis</td>
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</tr>
<tr>
<td><strong>CBO PARTNER</strong></td>
<td>(OPTIONAL)</td>
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<tr>
<td>Support data analysis and interpretation, co-design solutions and integrate with existing student supports.</td>
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<table>
<thead>
<tr>
<th>DISTRICT SUPPORTS</th>
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<tbody>
<tr>
<td><strong>SUPERINTENDENT</strong></td>
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<tr>
<td>Remove barriers (e.g. for data access)</td>
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</tr>
<tr>
<td><strong>DISTRICT DIRECTOR OF COLLEGE AND CAREER OR OTHER DISTRICT LIAISON</strong></td>
<td></td>
</tr>
<tr>
<td>Facilitate connections to central office to access data (e.g., connect with student information system data manager) • Bridge communication gaps between high school and central office</td>
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**Establish a Structure:** from the beginning, establish a consistent time, day, and dates for each meeting. This creates consistency for the teams to know when they are having their meetings, prioritizing it, and engaging in it. For example, one school will have their meeting every first Tuesday of the month at 1:15 PM for 85 minutes.
BUILD DATA CAPACITY

STEP 3: SURFACE ASSUMPTIONS

It is critical that the school team surfaces their hunches and assumptions about patterns and high school-to-postsecondary transition data before jumping into data analysis and action. This part of the process is essential for shifting adult intrinsic bias and mindsets.

Teams can start with more general questions like: What do we know about students once they leave our high school? What is our source of data/evidence?

As the team gets more comfortable with voicing their hunches and assumptions, begin documenting the conversation in a table like the one below (on a poster or whiteboard, virtual collaborative space, etc.):

<table>
<thead>
<tr>
<th>H2P Core Areas for Growth</th>
<th>Our current hunches and/or assumptions</th>
<th>Existing evidence/data that informs our hunches and/or assumptions</th>
<th>Further evidence/data that would help us test this hunch and/or assumption</th>
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</thead>
<tbody>
<tr>
<td>Advising/mentoring for postsecondary plans</td>
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<tr>
<td>Financial Aid Completion</td>
<td></td>
<td></td>
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<tr>
<td>Dual Credit Enrollment</td>
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<tr>
<td>Postsecondary enrollment, persistence, and completion</td>
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STEP 4: ACCESS PUBLICLY-AVAILABLE HIGH-LEVEL DATA

To better understand correlations between high school course-taking, financial aid completion, and postsecondary outcomes, educators can analyze:

- High-level (publicly available) data
- Student-level data
- A combination of both high-level and student-level data
Know Your Data Type | Educators and education researchers have increasingly used the equity-centered “levels of data” framework to drive educational decisions. There are three levels of data in the framework:

- “Satellite” data shows overall performance trends and gaps.
- “Map” data is slightly more focused, and could include formative data that helps drive instructional decisions.
- “Street” data centers the voices of the school community—students, staff and families—in driving educational change. It includes rapid feedback-cycles, and is biased toward action.

In this section, the high-level data from OSPI, WSAC, and ERDC is considered “satellite” data.

Source: “Street Data: A New Grammar for Educational Equity”

Table 1. Understanding different levels and types of high school-to-postsecondary data sources.

<table>
<thead>
<tr>
<th>Data Access Level</th>
<th>High School</th>
<th>Types of correlations we can make</th>
<th>Postsecondary</th>
</tr>
</thead>
</table>
| Publicly Available (not student-level) | **OSPI Report Card**  
- general enrollment count, demographics, WSIF indicators |  | **ERDC High School Graduate Outcomes**  
- enrollment (when, public WA institution, 2yr/4yr, persistence, completion, earnings by credential type) |
| WSAC Financial Aid Completion  
- completion rates year over year, by region, by district, by demographics |  |  |
| Restricted to LEAs (student-level) | **District/School School Information System**  
- courses taken, demographics, program enrollment, graduation status, FRPL |  | **National Student Clearinghouse**  
- quarterly enrollment, degree program, public/private institution(s), exit date |
| WSAC Financial Aid Portal  
- FAFSA started, errors, completed, missing signatures |  |  |

Know the Washington Application for State Financial Aid (WASFA) | The WSAC Financial Aid portal only includes FAFSA completion. Students whose U.S. citizenship status is undocumented (e.g. “DREAMers”) are eligible to complete the WASFA, which provides comprehensive aid through state allocations. WSAC does not track this data, but schools may have identity-protecting ways to track WASFA completion. See the Financial Aid section in this toolkit for best practices for increasing FAFSA and WASFA completion.
Using Publicly-Available Data on Student Outcomes

Washington state has a strong state longitudinal data system, meaning that educators have access to a wide range of publicly available data about students from early learning through career. This is a great place to start with school teams.

**RESOURCE: Facilitation Guide – Reviewing Publicly Available Data About Our Students**

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**5-Step Guide for Data Facilitation**

**Objective:** Drive actionable change through informed conversations around data, with a primary focus on improving postsecondary-going measures for students of color.

**Preparation**

1. Familiarize yourself with the provided public data sets:
   a. [Washington State Report Card](#)
   b. [High School Graduate Outcomes](#)
   c. [FAFSA Completion Portal](#)
2. Note down any immediate observations or patterns that stand out. This will help you guide the discussion.

**Step 1: Opening Remarks at School Meeting**

1. Begin by clearly communicating the goals of the meeting.
2. Explain the importance of examining the data to drive practice change and better solutions for students, especially students of color.
3. The publicly-available data linked above does not surface root causes—that information comes from student/staff surveys and listening sessions, but the publicly available data gives us a good starting point for understanding patterns.

**Step 2: Engaging with Data**

1. Display the datasets one by one and guide participants through the following set of questions:
   a. What are surprises in the data? (Elicit unexpected findings that might need further exploration)
   b. What are some strengths you see in the data? (Highlight positive trends or areas of improvement)
   c. What are some areas that need to improve? (Pinpoint areas of concern or those that need urgent attention)
2. If you believe the team is ready to go deeper, you can guide the team through the following set of questions:
   a. What similarities are you seeing in the data? (Seek patterns or consistent trends)
   b. What outliers are you seeing in the data? (Identify data points that deviate from the overall pattern)
   c. What questions do you have about the data? (Encourage curiosity and digging deeper)
Exercise 1: Your district’s goals
- Share a high-level overview of your district’s vision, goals, strategic plan (elevator pitch style!)
  - What are you/is your district hoping to improve or impact with regard to student outcomes?
  - To the degree possible, share the goals that are focused on closing equity gaps

Exercise 2: Your district’s data
- What is your current understanding of your students’ outcomes and your region’s assets/opportunities? Challenging/confirming your understanding of students’ outcomes
  - Jobs:
    - How many/what percent of projected job openings in the region require post-high school education in this region?
    - What are the top occupation openings? What do they pay (roughly, on average) annually?
    - WA STEM: Labor Market Credential Dashboard
      Choose “Job Projections-Major Groups” from the menu above the map. Select “Olympic” from Workforce Development area dropdown menu. Hover over the bar for each occupation to see details such as credential needed, projected openings, etc.

- Student Demographics:
  - What is the % of students identified as low-income within your school or district? What is it at the high school level?
  - What is the racial demographic breakdown of the students at your school/district? What is it at the high school level?
  - Gender, English Language Learner, migrant, homeless (unhoused), special education?
  - OSPI Demographic data: OSPI School Report Card

- Post-High-School Enrollment:
  - First year enrollment: Among your most recent high school cohorts (2015, 2016, 2017, 2018, 2019... including those who didn’t graduate from HSI), how many/what percent

If the school team needs more practice interpreting the available data, check out the following:

RESOURCE: Deep Dive into Data
This Toolkit is a living document provides guidance on accessing and interpreting quantitative and qualitative data sources related to the high school to postsecondary transition. Originally developed as part of the Bill and Melinda Gates Limitless Learning Network, 2023.

**Enlistment Data** | Military enlistment data is unavailable to schools. If schools have a reliable way to track enlistment, this data should be included in these discussions.

**STEP 5: Access Student Level Data**

Within the High School to Postsecondary Collaborative, schools/districts have access to an online platform that allows them to upload student level data from their local student information system and from the National Student Clearinghouse. This allows teams to look for specific correlations between factors at the high school level (i.e., dual credit enrollment, financial aid completion) with postsecondary outcomes (i.e., enrollment, persistence, completion). These correlations can also be determined manually through the use of matched spreadsheets and pivot tables, but the level of capacity and data literacy required to manually align these data makes the process inequitable for smaller and less-resourced districts.

Most schools and districts in Washington cannot be reasonably expected to organize, clean up, format, and manipulate these data into a useful analysis given current capacity. Washington STEM is working with H2P partners, state agencies, legislators, and other key stakeholders identify solutions that ensure that ALL districts and high schools in Washington have access to these key data at little to no cost.

In the meantime, school/district teams can set up an account with the National Student Clearinghouse, which provides postsecondary enrollment data based on a Graduates File that the school/district submits on a regular basis, for an annual fee. Schools/districts can also access the OSPI Internal Tableau server for more detailed data on student course-taking.

**General Guidelines for Accessing National Student Clearinghouse Data**

<table>
<thead>
<tr>
<th>STEPS TO ACCESS NSC DETAIL REPORT FILE</th>
<th>IMPORTANT NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Set up or renew annual license with NSC</td>
<td>Be sure to run this through the proper school/district channels. In some cases, the district already has an NSC license that a school staff may not know about. Or, the license and data transfer needs to go through specific district processes</td>
</tr>
<tr>
<td>2 Prepare and format a “Graduates File”</td>
<td>Submit 5-8 years of data</td>
</tr>
<tr>
<td></td>
<td>Be sure to include SSID’s. Without SSID’s, it will be much more difficult to match more detailed data points</td>
</tr>
<tr>
<td></td>
<td>See the “Common Graduates File Submission Errors”</td>
</tr>
<tr>
<td></td>
<td><strong>Submit “Graduates File”</strong> to NSC</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------</td>
</tr>
</tbody>
</table>
| 3 | • This file needs to be updated and re-submitted every year | • NSC will notify the contact person for the school district when the files are ready for secure download from the secure FTP account  
• New files will be available for 10 days on the home page after logging into your FTP account  
• After 10 days navigate to “Home Folder” then “Receive” to download files  
• **NSC will provide several files**, including some overall trends and visualizations. For H2P, the most useful file is the “Student Level Detail Report” |

**Understanding National Student Clearinghouse Data** | Sometimes the data from National Student Clearinghouse (NSC) does not match the overall postsecondary data from the Washington ERDC High School Graduates dashboard, or the NSC files are missing students who are known to have enrolled in some kind of program. Why is that?  

The NSC uses postsecondary student enrollment records (first and last name, birthdate, and perhaps other enrollment info) to generate the StudentTracker files. This means that if a student enrolls with a different name(s) or other information that doesn’t match the local student information system, the student may not be found by NSC at all.  

Additionally, private colleges are often slower to report their data, so students that are at private schools may appear missing from the NSC StudentTracker file.  

In terms of individual student details, like degrees earned, approximately 25% of CIP codes (classification of instructional programs/majors) are missing from degrees awarded at private 4-year institutions, and 50% of CIP codes are missing from degrees earned from private 2-yr institutions. A Classification of Instructional Program (CIP) code is assigned to academic programs at colleges and universities across the U.S., as well as degrees, certificates, and courses.  

There will always be a slight (2-5%) undercount in the NSC data because of the lag of NSC obtaining enrollment data from postsecondary institutions and then including it in their data sets.  

Finally, the ERDC has access to PCHEES (see pg. 39 in the [ERDC Handbook](#)) data, which may be more up-to-date than NSC data.
STEP 7: SET UP ROOT CAUSE ANALYSIS

In Step 3, school teams began to capture their questions and hunches. At this point in the process, teams need a place to organize and layer in data, questions, findings, and root causes. We recommend introducing a tool called a "fishbone diagram," which is a form of root-cause analysis. In the fishbone diagram, teams should be able to identify the overall problem, set an initial goal (can be revised later), and identify areas for improvement.

**Fish Head:** This is the part of the diagram where you write the main problem identified. It is the basis for completing the rest of the fishbone diagram template. With data from the ERDC High School Graduates Outcomes dashboard, teams can at least note the % of students who are enrolling in postsecondary. The % of students that aspire to postsecondary will be gleaned from the student survey.

**Spine:** Like all fish, the Fishbone diagram has a spine that branches out and provides support. On the one end is the head while leading away are all the bones branching off. Each of these represents a higher-level category that needs to be considered as an area that is contributing to the problem, and is therefore an area to improve.

**Bones:** The bones of the diagram branch out from the spine; this is where the various potential causes can be listed. You can add as many as you are able to identify. Within each bone, there are “causes” or “problem statements” - which are negative statements about the larger problem. These statements do not blame individual students, families, or staff -- it is about the system. The examples provided here are commonly found as areas for improvement. We recommend starting with these, and adding more that may come up through data analysis.
Postsecondary enrollment goal: Based on publicly-available data, school teams can set an initial goal for postsecondary enrollment and financial aid completion. It is important to set a realistic goal based on the school’s current performance. This interactive goal-setting tool helps school teams right-size their initial goals based on historical data.

**RESOURCE:** Interactive Goal Setting Template (2023-2024)

Use data from ERDC and OSPI to enter #'s into colored boxes—the rest of the calculations are automated.

<table>
<thead>
<tr>
<th>How many seniors are entering this Fall?</th>
<th>295</th>
</tr>
</thead>
<tbody>
<tr>
<td>What was the most recent 12th Grade graduation rate?</td>
<td>77%</td>
</tr>
<tr>
<td>What was the most recent PS direct enrollment rate?</td>
<td>54%</td>
</tr>
<tr>
<td>What is your target number of additional students you want to directly enroll in postsecondary?</td>
<td>15</td>
</tr>
</tbody>
</table>

Projected Direct Enrollees: 124
Previous Direct Enrollment Rate: 54%
Additional Direct Enrollees needed: 15
Percent Point Change of Direct Enrollment Rate: + 7%
Target Direct Enrollees: 139
Target Direct Enrollment Rate: 61%

Assuming the graduation rate remains at 77%, directly enrolling an additional 15 seniors would increase the target direct enrollment rate by 7% points to 61%.

At this point, teams can note the current direct postsecondary enrollment rate in the fish head, and note their postsecondary enrollment goal in the box in the lower left-hand corner of the root cause diagram. The data point on student aspirations to enroll will come from the student surveys (see next section).

**HOT TIP**

The goal-setting template linked above includes separate tabs for more specific goals on direct enrollment by race, FAFSA completion, and FAFSA completion by race. These goals should also be set as the teams dig further into their data.
ENGAGE SCHOOL COMMUNITY: STUDENTS, STAFF, FAMILIES, CBOs

STEP 9: STUDENT AND STAFF SURVEYS

Once the team, and ideally entire school staff, has a clearer understanding of course-taking patterns and correlations to postsecondary, it is time to better understand root causes of patterns in the quantitative data. If school teams are considering implementing only a part of the H2P process outlined in this toolkit, the surveys are often the most impactful for driving changes in school practice, adult bias, and school culture.

Check with school partners on district survey policies, and make sure to comply with all policies. For example, some districts require that parents/guardians have an opportunity to review a survey before it is distributed.

Staff Survey

School staff—including counselors, teachers, coaches, and others working directly with students—are often a primary source of information for students regarding course and postsecondary planning, and yet often underequipped with updated and accurate information to relay to students. Recent local research suggests that this is particularly true for students of color and first-generation students. The 10-minute survey below can be administered with staff to better understand how staff perceptions and practices influence students’ course-taking patterns.

RESOURCE: High School to Postsecondary STAFF Survey

Student Surveys

Understanding student perceptions and experiences is critical to making sense of course taking patterns and to removing barriers. Ideally the following 10-minute survey should be offered to all students across grade levels, in all programs, in their home language.

RESOURCE in English (Spanish version to be updated Spring 2024): High School to Postsecondary STUDENT survey
Survey administration tips:

- Schools are strongly encouraged to administer the survey over a short amount of time (e.g. one class period or one staff meeting).
- Some schools have achieved high completion rates by having students show their teacher the “survey completed” screen so the school team can track who has completed and provide an additional opportunity for students who did not complete.
- Students enrolled in Running Start or who spend time off-site (Skills Centers, work-based learning, etc.) will need to be contacted directly—their responses are equally as valuable as students who are on campus all day.

Analysis: Student and Staff Surveys

School teams are strongly encouraged to work with a data intermediary or someone who is familiar with data visualization to analyze the results across the two surveys. In general, H2P schools have found it helpful to ask the following questions of their data:

- How do the following compare? Across demographics?
  - Student aspirations and expectations (x% of students aspire to some form of postsecondary education) vs.
  - Staff perceptions of student aspirations (staff believe that x% of student aspire to some form of postsecondary education) vs.
  - Family expectations (x% of students’ families expect them to pursue some form of postsecondary education) vs.
  - Actual direct postsecondary enrollment rate

- What % of students believe that they can afford a 4-year college with financial aid support
  - NOTE: We ask this question specifically about 4-year college because it is generally understood that 4-year college is the most expensive compared to other forms of postsecondary education, and yet despite having the most generous aid package in the nation for college and career-training, too many Washington students think they cannot afford it.

- What % of students do staff believe can afford a 4-year college with financial aid support?

- What % of students and staff feel knowledgeable about different types and components of financial aid (FAFSA/WASFA, Washington College Grant, etc.)

- Where/to whom do students turn for learning about postsecondary options? How does this data compare across demographics, particularly race and first-generation status?

- What % of staff report feeling knowledgeable about key postsecondary topics (enrollment, financial aid, dual credit)?

- What are students’ perceptions about the helpfulness of various school supports (advisory, High School and Beyond Plan)?
School teams need to consider survey fatigue when making plans to administer any survey. While there is some overlap across different student and staff surveys, the H2P student and staff surveys are designed to get student and staff perspectives on the same issues (aspirations, dual credit, financial aid, advising), and complement other data gathered along the way.

**STEP 10: LISTENING SESSIONS**

Despite being listed as the last step in this toolkit, student listening sessions can occur at any time during the school year—before, during, or after the other data has been collected. Conducting listening sessions requires trust, empathy, and a learner’s mindset. There are four main reasons why listening sessions are included in this process:

**WHY LISTENING SESSIONS?**

- **UNDERSTAND**
  - the problem and its root causes more deeply

- **UNCOVER**
  - hidden needs that aren’t being met within the current system

- **IDENTIFY**
  - or narrow down a systemic problem your team will work on

- **UPLIFT**
  - youth voices as the driving factor for this work

When staff are conducting listening sessions, it can sometimes turn into an advising session with students. To maintain focus on gathering input and co-designing solutions with students, staff are encouraged to designate time at the end of the listening session for direct advising support or set up another time entirely.

Start with the slide deck linked below to get an overview of how to design student listening sessions:

**RESOURCE:** [Student Listening Session Training](#)

This planning document helps the team develop their specific plan for listening sessions:
The following are specific examples used with Eisenhower High School students:

- Student Interview Protocol - English
- Student Interview Protocol - Spanish

Here is another source on Designing Empathy Interviews from OSPI.

**CONNECT THE DATA**

**STEP 11: BUILD OUT THE ROOT CAUSE DIAGRAM**

With data from surveys and listening sessions, the team can continue to add elements to their root cause diagram. Looking at these findings over time, and layered together, helps the team gain a deeper understanding of the root causes of any inequities or gaps found in their postsecondary enrollment data.

**Root Cause Analysis: Setting Up**

**STEP 12: PROCESS WITH STAFF**

With what we know about how much students rely on school staff for support and information, it is critical to meaningfully involve staff in sense-making and processing the data. Many of the solutions derived from the data and from listening carefully to students will involve staff in some way, and staff will have critical input on how to implement those solutions. In addition to asking staff to surface and reflect on their own hunches and assumptions (see Step 3), the following sets of questions are helpful for guiding conversations with staff throughout the process.

- What surprised you the most when you looked at the data?
- What confirms some of your hunches when you look at the data?
What has inspired you to dig deeper in your own professional practice?
What patterns do you notice?
What inequities or equalities of data by student group do you notice?
What data or patterns are prompting you to want to dig in deeper on the ‘why’ or root cause?
What are you seeing in the data that surprises you? What are you seeing that doesn’t surprise you?

**RESOURCE: [Example Work Session with School Staff](#)**

Facilitating conversations about student outcomes with staff will likely bring up implicit and/or explicit biases that need to be acknowledged and addressed in order to move forward with impactful solutions. Whomever is facilitating conversations with staff needs to be comfortable and skilled in recognizing and coaching adults through bias as it arises—whether it be about race, gender, culture, language, family income, or other intersectional factors.

The following resources may be helpful in preparing to lead conversations about the ways that race and other intersectional identities show up in the data, and how to work through biases that may perpetuate problematic patterns:

- [Observing Race and Ethnicity Through a New Lens: An Exploratory Analysis of Different Approaches to Measuring “Street Race,”](#) from The Urban Institute
- [The Do No Harm Project](#), from The Urban Institute
- [Street Data: A Next-Generation Model for Equity, Pedagogy, and School Transformation](#)
- [Diversity, Equity, and Inclusion: Strategies for Facilitating Conversations About Race](#), from Cultures Connecting
TEST DATA-DRIVEN CHANGES IN PRACTICE

Based on the previous five years, the following are examples of changes in practice made by school teams as a result of gathering, analyzing, and acting on data through the H2P process. This section will be updated as the current cohort wraps up their work and gathers data on the impact of these changes.

FINANCIAL AID

- **Financial Aid Family night** — Using the tools and resources provided, schools host financial aid nights that meet student and family needs. The nights are hosted in English and Spanish and include food, as they often run late. Not only have they helped with financial aid completion but they also have information sessions on how to read the financial aid award letter.

- **Individual Financial Aid support** — in partnership with school-based counseling and student support staff. Staff and families have a greater understanding of financial aid completion process; one-on-one technical support provided to students and families.

DUAL CREDIT

- **Dual Credit Events** — Based on student feedback that their peers were a significant influence on both their knowledge of, and interest in, dual credit, there will be student-led information sessions (led by 11th and 12th graders) to inform younger students about dual credit options. Informational sessions on dual credit programs will also be provided to students and their families in English and Spanish.

- **Partnership with Middle Schools** — Building on previous partnerships with local middle schools, the College and Career Director will hold dual credit informational sessions at feeder middle schools and will advise middle school students on how these programs can factor into their postsecondary planning.

- **Spotlighting Staff** — As a way to hype and promote dual credit programs at Eisenhower High School, school leaders are spotlighting teachers and the different types of dual credit courses they teach. This will be done via flyers shared on social media, parentsquare, and other communication avenues.

- **Suite of dual credit resources** — Examine co-developing a suite of dual credit resources for advertising and promoting dual credit via multimodal means.

ADVISING

- **Staff Professional Development** — Based on staff feedback through surveys and conversations, the College and Career Director will provide ongoing support to staff as well as a dedicated half-day of professional development regarding different dual credit options and how to best support students in accessing those opportunities. This support will include comprehensive professional development related to implementation of the High School and Beyond Plan.

- **Advisory Period Changes** — With several students sharing that they needed more guidance and information on postsecondary options from the onset (e.g., freshman and sophomore year), the school team is planning on overhauling their advisory period curriculum for all grade levels to include college and career readiness lesson plans for each student every week throughout the year.
ERDC Dashboards — One school is using ERDC Dashboards as part of the advisory session activities to help students with future planning. Students are using the data to inform their post graduation plans and many are identifying and articulating the value of post high school credentials.

Engage District Level Administrators — One district brought in district-level administrators for a day, with the goal of every 12th grade student having a one-to-one check-in with an adult to assess their postsecondary plans and financial aid completion. An additional benefit was that the district administrators had a common on-the-ground experience with students, which increased motivation to change systems and processes. See their discussion protocol here.

MASTER SCHEDULE AND COURSE OFFERINGS

Expanding the Master Schedule — The school administration plans to expand the number of dual credit offerings in their master schedule to increase the number of students, from all demographics, enrolling in dual credit courses. The administration will review some recently offered honors classes for potential development into College in the High School courses, especially among math offerings.

Math Program Overhaul — Math teachers overhauled our math program to explicitly align with postsecondary goals: "Choose your path, then choose your math." This year we are implementing a pilot of new models that result in students meeting their postsecondary math requirement, not just a math credit. For example, Business Math (SCC BUS 102) through CTE dual credit will meet the quant requirement for many prof/tech degrees and certificates.

SCHOOL COMMUNITY ENGAGEMENT

Family feedback and Focus Groups — The school administration, with the support of Washington STEM, has designed weekly virtual parent group sessions to co-develop a set of dual credit recommendations. This serves as an approach to receive direct feedback from families on the types of postsecondary supports and information they are receiving (or not receiving) from their schools.

Follow-up interviews — Several schools indicated wanting to conduct follow-up interviews with students to learn how they can support their postsecondary readiness.

Second round of surveys — All schools indicated interest in following up with another round of staff and student surveying in a year from the initial project to assess the impact of their implementations and other data-driven changes.

Engaging Students with the Data — One educator engaged students directly in analyzing, interpreting, and reflecting on the ERDC High School Graduates outcomes dashboard for their high school. It is important to note that the school lead’s engaged students to consider their goals and decisions in light of the data while also focusing the school’s overall inquiry on systems-level factors.

Additional Resources

- College Knowledge (updated 2023)
- Washington Student Achievement Council Financial Aid Toolkit
- Washington Student Achievement Council Financial Aid Resources for Students
**FINAL NOTE AND NEXT STEPS**

This toolkit will be updated in Summer 2024 with additional resources and details, based on learning with and from the current regional leads and partner high school/district leads.

In addition to the H2P Collaborative, Washington STEM works with partners leading related postsecondary readiness efforts across the state, including The Bill and Melinda Gates Foundation [Washington State Initiative](https://www.gatesfoundation.org), the WSAC [Regional Challenge Grants](https://www.wsac.wa.gov), the Washington Association of Career and Technical Administrators (WACTA), and [Career Connect Washington](https://www.careerconnectwa.org). We anticipate more about how educators are integrating these opportunities to better prepare students, and will include lessons learned in the next round of updates to the toolkit.
CONTACTS AND ACKNOWLEDGEMENTS

Thank you to the partners who invited us to work on this project and who provided expertise and support along the way:

- Scholar Fund
- Degrees of Change
- Washington Education Research and Data Center
- South Central STEM Network
- Snohomish STEM Network
- Northwest STEM Network
- West Sound STEM Network
- Career Connect Southwest
- Apple STEM Network
- Career Connect NE
- Mid-Columbia STEM Network
- Capitol STEM Network
- Tacoma STEAM Network / Foundation for Tacoma Students
- NEWESD 101
- Richland School District
- Elma School District
- Gabriel Stotz, Yakima School District
- Staff and students at Eisenhower High School, Yakima School District
- Jason Boatright, Clover Park Technical College (formerly with OSPI)
- Katie Weaver Randall, Director of the Education Research and Data Center (formerly with OSPI)

Thank you to the Road Map Project/Community Center for Education Results (CCER), who provided support for their materials and data visualizations related to the College and Career Leadership Institute (CCLI), and additional thanks to Illuminate Evaluation Services for their development support of the original CCLI survey. Over half of the questions on the student and staff surveys were borrowed with permission from the CCLI surveys. Washington STEM staff have participated as CCLI facilitators and have learned about how to work with schools in looking at data, understanding implicit bias, and planning for changes in practices and policies at the school and district level. Much of that learning has influenced the work of Washington STEM’s dual credit initiatives.

For more information about using this toolkit in your region, please reach out to your local STEM Network. A directory of STEM Network partners is available online at the Washington STEM website.