

COLORADO DROPOUT PREVENTION FRAMEWORK



COLORADO
Department of Education

Introduction

Educational attainment is pivotal in preparing students for success after high school. Research shows that high school graduates are more likely to be employed, earn higher wages, and have better health outcomes (U.S. Department of Health and Human Services, n.d.). While gains have been made in Colorado in increasing graduation rates and reducing dropout rates, not all students have benefited from those gains.

Data from the [Colorado Department of Education](#) (CDE) show that dropout rates are higher and graduation rates lower for some students, including those experiencing homelessness, migrant students, students of color, and students who qualify for free or reduced-price lunch. In addition, many high school students are not engaged in challenging and connected experiences that fully prepare them for choices after high school.

Written for district and school teams and grounded in the core components of [student success systems](#), the **Colorado Dropout Prevention Framework** outlines five foundational practices and prioritizes four strategies to reduce dropout rates and increase student engagement in learning, graduation rates, credit attainment, and preparation for postsecondary options (sidebar).

- *Foundational Practices* are focused on creating and sustaining school environments that foster positive and effective conditions for learning.
- *Strategies* are evidence-based approaches to keep students on track for graduation and to intervene to support students at risk of dropping out or those who have already disengaged or dropped out.

Implemented within an equity frame focused on improving access, processes, and outcomes, the Foundational Practices and Strategies are intended to help districts and schools develop a systemic approach to dropout prevention that benefits all students, including those with diverse learning needs (Figure 1). Taking a systemic approach to student success provides opportunities to increase student readiness for postsecondary options, reduce disparities in statewide data, and ensure that all students have the opportunity to learn and succeed in their postsecondary aspirations.

Colorado Dropout Prevention Framework

The Colorado Dropout Prevention Framework was updated in 2023 to include five foundational practices and four strategies that support school and district efforts to reduce dropout rates and increase student engagement in learning, graduation rates, credit attainment, and preparation for postsecondary options.

Foundational Practices

- Connected Relationships and Culture
- Strong Family and Community Relationships
- Relevant and Engaging Learning Opportunities
- Data-Based Decision Making
- Aligned Policies and Practices to Build Coherence

Strategies

- On-Track/Early Warning Systems
- Multiple Pathways to Graduation
- Counseling the Whole Child
- Persistence, Recovery, and Reengagement

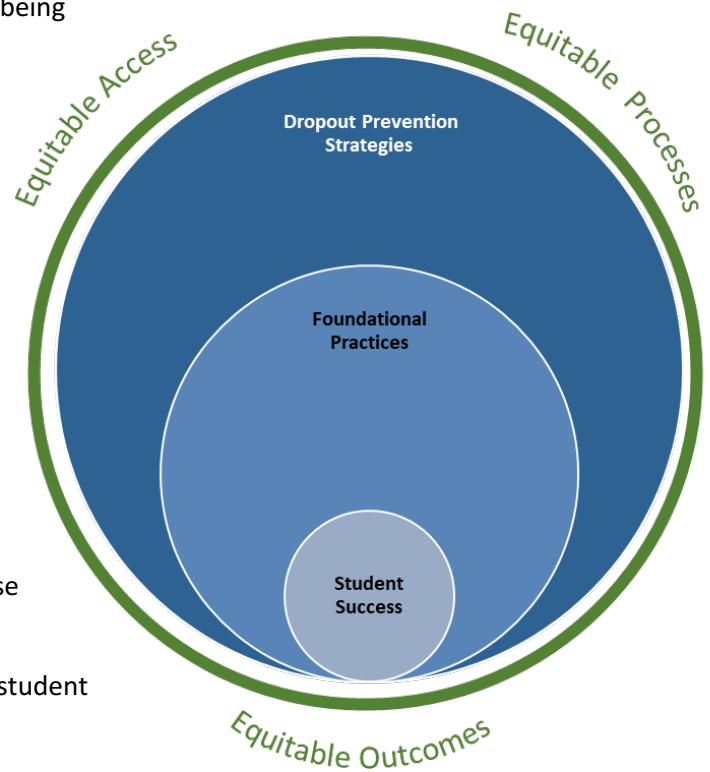
To learn more about the resources available to support dropout prevention efforts, visit the [Office of Dropout Prevention and Student Re-Engagement](#).

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The Colorado Dropout Prevention Framework helps districts and schools work within their own capacity and context to engage in proactive and preventive actions to:

- Increase student engagement in learning as a critical component of dropout prevention.
- Develop and improve programs, policies, and practices focused on increasing engagement in learning to address proactively and systemically the root causes leading to students dropping out of school.
- Acknowledge that school systems and supports must align with students’ chronic stress, trauma, mental health and well-being needs.
- Center equity in programs, policies, and practices to ensure the most vulnerable students are reached.
- Use data predictive of disengagement and dropout to support earlier intervention.
- Develop interventions and supports that are contextualized to meet individual student needs.
- Understand and promote multiple pathways to graduation that increase engagement and reengage students, leading to increased graduation rates.
- Create welcoming environments for students focused on fostering positive relationships and community to increase school connectedness.
- Engage with community resources to expand and enrich student supports.

Figure 1. Framework Organization





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Dropout Prevention Foundational Practices

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Foundational practices are focused on proactive systems-level efforts to engage students fully in learning by developing a positive climate for learning with strong relationships and a feeling of connectedness, establishing effective family and community partnerships, supporting student engagement in relevant and meaningful learning, engaging in data-based decision making, and aligning policies and practices. Foundational practices provide the groundwork for the implementation of the four dropout prevention strategies and are reflective of what Colorado districts and schools already prioritize in their school improvement and student success efforts (e.g., [Colorado's Four Domains of Rapid School Improvement](#); [Multi-Tiered System of Supports](#); Landscape of Well-Being; [Family, School, and Community Partnerships](#)).

Foundational Practices

- Connected Relationships and Culture
- Strong Family and Community Partnerships
- Relevant and Engaging Learning Opportunities
- Data-Based Decision Making
- Aligned Policies and Practices to Build Coherence

This section includes a brief overview and related resource for each of the following foundational practices:

- **Connected Relationships and Culture** improve the quality of the school experience for students, family, caregivers, educators, and others; and help build a sense of belonging for all.
- **Strong Family and Community Partnerships** enable schools to better understand student and family needs and to build strong partnerships that engage and support students inside and outside of school.
- **Relevant and Engaging Learning Opportunities** align to student interests and prepare students for postsecondary goals.
- **Data-Based Decision Making** that uses a continuous improvement process in the collection, analysis, and evaluation of relevant data.
- **Aligned Policies and Practices to Build Coherence** are flexible and accommodating to improve outcomes for all students.

Connected Relationships and Culture

Students who have a sense of belonging in their school are more likely to feel physically and emotionally safe at school, have strong relationships with others at school, and stay connected to school experiences. Schools that intentionally foster authentic and positive relationships with students help them feel empowered to direct their own learning and explore pathways forward. Schools that are consistently rated as having a poor school climate by students and families tend to have more disengaged students who may be at an increased risk of disengagement and dropping out.

Schools build on and strengthen relationships, not just between students and staff but also student to student, staff to staff, and staff to parents/guardians. The conditions supporting student agency, belonging, and connectedness also relate to physical, mental, and social-emotional well-being, which can be mutual priorities. Improving the quality of the school experience for students, parents/guardians, educators, and others helps build a sense of belonging for all.



Resources to support schools developing systems that build connectedness and a sense of belonging include:

- **School Climate Measures.** Measuring school climate can be an important first step in understanding the needs of students and staff. This information will help schools select the most useful strategies and resources for their individual setting that support developing school connectedness and a sense of belonging. Districts and schools can use reports from the biennial [Teaching and Learning Conditions Colorado](#) survey and collect data from students, families, and staff using school climate surveys, such as the [ED School Climate Surveys](#) tool. In addition, CDE's resource [Assessing School Climate Using Multiple Measures](#) provides guidance and examples of measures and assessments of school climate.
- **Connectedness and Belonging.** CDE's [Landscape of Well-Being and School Climate Improvement Strategies](#) include concrete actions schools can take to foster connections and relationships among students, teachers, administrators, and staff to increase student investment in the school community. In addition, schools and district strategies inside and outside of the school day provide enrichment, connection, and additional academic support including [after school programs](#).
- **Safety.** CDE's [Bullying Prevention and Intervention Resources](#) provides tools and resources that help schools, students, and their families support the development and implementation of bullying prevention strategies. The [Colorado Office of School Safety](#) organizes efforts, provides trainings, and coordinates efforts to improve school safety. CDE's School Safety Resource Center's [Resources for Positive School Climates At a Glance](#) and [School Safety and Crisis Resources](#) provide resources and tools that address student mental and physical safety, social-emotional needs, and mental health needs of students.

Strong Family and Community Partnerships

Strong family and community partnerships enable schools to better understand student and family needs and engage and support students inside and outside of school. Building family, school, and community partnerships can increase engagement and prevent students from dropping out of school. When families are involved in their child's education, particularly in high school, students are more likely to have higher attendance, a positive attitude about school, and improved academic achievement. Partnering with community groups (e.g., community-based organizations, neighborhood associations) can support the academic success and well-being of students, especially in the upper grades when opportunities for career-connected learning increase.

Collaboration between families and community partners requires infrastructure (e.g., educator and parent/guardian training, family engagement and partnership program standards, formal agreements) that ensures program administrators and participants are able to accomplish a shared vision and meet program goals. Examples of resources and supports that can be created through strong family and community partnerships include volunteering, student mentoring programs, out-of-school time programs, school events, pathway programs, service- and work-based learning, internships and apprenticeships, and community organization workshops. A systemic approach to building partnerships will help create a network of supports that are responsive to the needs of students, families, and the school community.

Resources to support schools in developing systems to build strong family and community partnerships include:

- **Family Partnership Measures.** CDE's resource [Measuring Parent Engagement and Family Involvement in Schools](#) includes a list of scales that can be used with parents/guardians to measure their involvement and ability to support the learning of their child(ren). CDE's [School-Family-Community Partnership Survey](#) is a tool that districts and schools can use to assess perceptions around family partnerships and outreach. Data gathered using these measures can help schools craft meaningful and tailored partnership strategies.



- **Family-School-Community Partnerships (FSCP) Framework.** CDE’s [Family-School-Community Partnerships Framework](#) supports the development of active family partnerships and includes implementation resources such as a [user’s guide](#) with self-assessment rubrics for [schools](#) and [parents](#).
- **FSCP.** CDE offers the [Colorado Multi-tiered System of Supports \[MTSS\] Online Academy](#) that provides training resources for each topic in MTSS. Practitioners can choose from a variety of topics, which includes “Family-School-Community Partnerships.” CDE’s FSCP Office offers [online learning platform](#) courses focused on strengthening practitioners’ understanding of FSCP and how to leverage identified strategies and practices.
- **Collaborating With Community.** CDE’s [Promising Partnership Practices](#) are aligned with the National Standards for Family-School Partnerships and offer district and school leaders practice they can utilize. Standard 6 focuses on practices that support [Collaborating with Community](#).

Relevant and Engaging Learning Opportunities

Relevant and engaging learning opportunities create a learning environment in which students see the value and applicability of what they are learning and how it connects to their own lives and future goals. When students feel what they are learning is relevant and meaningful, they are more likely to stay engaged and motivated in working toward their postsecondary goals.

Instructional design that prioritizes student-centered learning experiences results in relevant and engaging lessons, strengthened relationships, and the creation of a sense of community in the classroom. Relevant and engaging learning opportunities go beyond core academics to encompass social and emotional learning that engage the whole student.

In addition, content and instruction should be appropriately challenging for students and include supports for gaps in learning. If the level of rigor is insufficient, students may detach out of boredom or not have access to material that will prepare them for the future.

Resources to support schools to develop relevant and engaging learning opportunities include:

- **Active Learning.** The Institute for Learning and Teaching at Colorado State University provides a variety of resources related to instructional strategies. [Active Learning](#) strategies engage students through intentional opportunities for students to interact with the content and their peers.
- **Cognitive Demand.** The [Hess Cognitive Rigor Matrices](#) combine Bloom’s Taxonomy with Webb’s Depth of Knowledge to provide a framework for educators to guide the development of learning experiences aligned with the demand of grade-level standards.

Data-Based Decision Making

Data-based decision making is essential to effective school practices. Data used to inform instructional and organizational decisions can lead to an increase in educator effectiveness and the likelihood of districts and schools meeting the unique needs of the students they serve. Schools are more likely to see success with data-based decision making using data that are available in real-time (and updated regularly) and rely on indicators that research has shown to be reliable.

While having data to inform decision making is a critical starting point, data-based decision making also depends on a process to analyze data and respond to what is learned from those data. Data-based decision-making practices align with school support and response systems (such as Response to Intervention, MTSS, Positive Behavior Interventions and Supports) and include a continuous improvement approach. When data on overall school engagement and progress is connected to instructional data, schools can choose more targeted strategies for supporting students who are showing signs of risk and develop stronger Universal/Tier 1 or whole school initiatives. By focusing on strategies and actions to



support schoolwide goals (such as Tier 1), targeting groups of students with similar needs (such as Tier 2), and tailoring interventions to meet a student’s specific needs, schools can improve outcomes for every student.

Resources to support schools and districts in engaging in data-based decision making include:

- **Colorado Multi-tiered System of Supports.** CDE offers the [Colorado Multi-tiered System of Supports Online Academy](#) that provides training resources for each topic in MTSS. Practitioners can choose from a variety of topics, including “Data-Based Problem Solving and Decision Making.”
- **Data-Based Problem-Solving and Decision-Making Practice Profiles.** CDE outlines [Practice Profiles](#) for districts and schools to gain a clear understanding of their role in the implementation of teaming structures that support effective and sustainable use of the Colorado MTSS framework.
- **Root Cause Analysis Toolkit.** CDE developed a [root cause analysis toolkit](#) to support schools and districts develop data narratives grounded in root cause analysis.

Aligned Policies and Practices to Build Coherence

Aligning policies and practices builds coherence between districts and schools as well as within and across schools. This allows all aspects of a school system to work together toward student success. Alignment also allows educators to focus efforts on efficiently and effectively identifying and responding to student needs using a tiered approach focusing on the whole student. Student-centered mindsets and supportive community relationships help create optimal conditions for implementing policies that drive practices focused on producing equitable student outcomes.

Policies and practices relevant to dropout prevention are varied and include discipline, attendance, grading, school climate, relationships, and behavior; policies and practices require intentional alignment to function optimally together and ensure that they reinforce and support efforts for engagement and student success and don’t unintentionally support student disengagement. Intentional setting of policies and practices and understanding the potential risks or drawbacks provides a stronger focus on success for all students.

Resources to support schools in developing aligned policies and practices that build coherence include:

- **Policies and Practices Review.** The Office of Dropout Prevention and Student Re-Engagement provides the [Policies and Practices Review Tool](#) for schools and districts to review their policy and practice structures, which is intended to guide the alignment of policies, practices, and supports.
- **Policies and Practices Related to Dropout Prevention.** [The Policies and Practices of Dropout Prevention](#) document from CDE provides an overview of the importance of focusing on aligning policies and practices with dropout prevention in mind.
- **Aligning Systems for Student Success.** The Grad Partnership guide, [Student Success Systems: Building on MTSS and EWS to Create a Unified System](#), provides a framework for integrating and aligning people and processes to develop a holistic system of student supports.

Dropout Prevention Strategies

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The strategies in the Colorado Dropout Prevention Framework support districts and schools develop goals and identify and implement evidence-based practices shown to be effective in keeping all students on track and intervening if students are at risk of dropping out. Colorado prioritized these four strategies for inclusion in the framework. Planning and carrying out these strategies to effectively reach all students means including implementation considerations for meeting the needs of students from vulnerable groups, such as students with diverse learning needs; students who are experiencing homelessness; students with an individualized education program; Black, Latinx, American Indian, Native Hawaiian students; or those who qualify for free or reduced-price lunch.

This section includes an overview and implementation considerations related to each of the following strategies:

- **On-Track/Early Warning Systems.** Systematically review data to identify students showing signs of being at risk of dropping out of high school or not meeting post-high school outcomes, understand what leads to elevated signs of risk, and provide targeted supports to students.
- **Multiple Pathways to Graduation.** Design pathways to provide students with clearly defined opportunities to customize their education to meet their unique needs and circumstances and gain real-world knowledge, skills, and experiences leading to high school and postsecondary success.
- **Counseling the Whole Child.** Develop data-driven, systemic school counseling programs and connections to intensive supports to encourage students in meeting academic, career, and personal development goals.
- **Persistence, Recovery, and Reengagement.** Develop programs to prepare students with the skills needed to successfully persist in graduating, allow students multiple methods for recovering content or credit when they have fallen behind, and identify students who have dropped out and support their transition back to school.

Strategies

- On-Track/Early Warning Systems
- Multiple Pathways to Graduation
- Counseling the Whole Child
- Persistence, Recovery, and Reengagement

On-Track/Early Warning Systems

Systematically review data to identify students showing signs of being at risk of dropping out of high school or not meeting post-high school outcomes, understand what leads to elevated signs of risk, and provide targeted supports to students.

On-Track/Early Warning Systems (EWS¹) use local and historical data and research-based indicators to help identify students showing signs of risk for missing key educational milestones, including on-time high school graduation and postsecondary readiness. Early warning indicator data are used with other sources of data and insights from people (including students) to help understand underlying student needs.

Most EWS collect data on three essential indicators that research has shown are most predictive of risk for not graduating, often referred to as the ABCs of early warning data:

- **Attendance:** In middle school: missing 9 days/quarter (or 36 days/year). In high school: missing 10% of instructional time.
- **Behavior:** Two or more mild or more serious behavior infractions.
- **Course Performance:** In sixth through eighth grades: failure in English or math, a grade point average of less than 2.0. In ninth through 12th grades: any course failure, failure to pass the ninth grade.

An EWS efficiently and systematically reviews data to identify students who show signs of being at risk of dropping out and is connected to a multi-level intervention and response system. Districts and schools using EWS may also expand on these indicators to include social-emotional learning or whole child measure, such as student belonging or connectedness, or specific benchmarks toward postsecondary readiness such as participation in an internship or advanced coursework to help inform strategies. The real power of an EWS is the ability to proactively act on these predictive data to match interventions to needs so as to get students back on track or stay on track for on-time graduation and postsecondary readiness. EWS depend on all relevant stakeholders having easily accessible and timely data as well as user-friendly tools or dashboards (including adequate licensing and access rights for technology).



Explore This Strategy

- [Overview](#)
- [Research Synthesis](#)
- [Implementation Considerations](#)
- [Equitable Implementation](#)



How EWS Supports Dropout Prevention and Student Engagement

- Monitoring student data through early warning indicator data consistently identifies students showing signs of risk for not graduating on time (McKee & Caldarella, 2016; Balfanz et al., 2007; Faria et al., 2017).
- Reviewing early warning indicator data regularly to intervene quickly can offer support to students before more intensive recovery efforts are needed (Lovelace et al., 2017; Corrin et al., 2016).
- Using indicators in attendance, course performance, and behavior is more predictive of student outcomes than demographics, socio-economic status, and other environmental factors historically used to identify students (Baker et al., 2019).

Learn more about the research behind this strategy: [EWS Research Synthesis](#)

¹ The acronym EWS is used throughout the framework to refer to both on-track and early warning systems.

Implementation Considerations

The following considerations are provided to inform district and school planning and implementation of the EWS strategy.

Strengthen Foundational Practices. The five foundational practices in the Colorado Dropout Prevention Framework guide districts and schools in building systems and practices that directly support this strategy. The review of data within an EWS can help inform the implementation of foundational practices. Review the [Dropout Prevention Foundational Practices and Strategies Crosswalk](#) for more information.

Adopt Responsive and Actionable Data Systems. Districts and schools can respond to student needs more quickly and effectively by structuring data systems so the right people can access the right data at the right time. Developing the technical and analytical skills of educators and key stakeholders (e.g., parents/guardians, students) enables teams to access, organize, and analyze systemic student data that help students be successful.

EWS require a way to organize and visualize early warning indicator data, typically through a tool or dashboard. Visualizing the data allows teams to quickly identify which students or groups of students are showing elevated signs of risk. Ideally the tool or dashboard is integrated with existing school data systems. As schools adopt responsive and actionable data systems, considerations include:

- Using a program or dashboard to organize and display early warning indicator data that is user-friendly, allows for data aggregation and disaggregation, and is updated regularly.
- Providing access rights (including teachers, parents/guardians, and students, as appropriate) to the data program and set-up for use of necessary features and/or building opportunities for awareness of data
- Ensuring data are “real-time” or up to date as much as possible.
- Coordinating or integrating with related school data systems for deeper data analysis and use of trend data to examine more systemic interventions or initiatives.

Strengthen Human Practices, Processes, and Mindsets. EWS depend on individuals, teams of people, and entire school communities to understand, support, and carry out the practices and processes needed to make use of early warning indicator data. Educators and stakeholders depend on human systems and practices to respond to student needs, adjust adult practices and policies, and monitor how the system is being implemented.

The early warning indicator data, in combination with additional data from school data systems and stakeholder insights, help school teams identify areas to focus their investigation and understand underlying student needs, and match those students to supports. For example, knowing that a student has failed mathematics is not enough information to assign a responsive intervention. Rather, taking the time to speak with the student, the teacher, parents/guardians, and then reviewing attendance data and the student’s other class grades, may show that the student missed key instructional days due to absences.

Implementation Considerations

- Strengthen Foundational Practices
- Adopt Responsive and Actionable Data Systems
- Strengthen Human Practices, Processes, and Mindsets
- Use Responsive Supports and Actions

Implementation Tools and Resources

- [Indicators & Interventions: A Practical Manual for Early Warning Systems](#)
- [A Practitioner’s Guide to Implementing Early Warning Systems](#)
- [Early Warning Intervention and Monitoring System Implementation Guide](#)
- [Three Circle of Evidence-Based Decision Making to Support Students with Disabilities](#)
- [Measuring Fidelity](#)
- [GRAD Partnership Self-Reflection Tool](#)

As *schools* develop practices, processes, and mindsets to support EWS implementation, considerations include:

- Establishing a representative school team that meets frequently, and has the agency to engage in decision making rooted in data analysis.
- Using a data-based decision-making process or protocol to examine school and stakeholder data and input (including teachers, parents/guardians, and students) to uncover the root causes of why a student shows signs of elevated risk and where intervention may be most effective.
- Involving parents/guardians in understanding and addressing student needs throughout the process.
- Creating a process to monitor and follow up on student progress with interventions and supports.
- Engaging in continuous improvement cycles to examine school and team processes and trends in data in the EWS that may inform schoolwide practices.
- Approaching students with a strengths-based mindset.

Districts support implementation of human practices, processes, and mindsets by emphasizing the importance of using a systemic review of early warning indicator data to identify trends and individual students showing signs of risk. Districts can seek to understand needs and commonalities across schools to facilitate sharing resources and ideas. For example, in learning that one school is having success with a reading program that meets a need that is emerging from another school, the district can help to connect those individuals and resources.

Use Responsive Supports and Actions. EWS only works when actions are taken based on what is learned from early warning indicator data and deeper investigation into underlying student needs. Students have to be matched to and provided with interventions or supports that address their underlying needs, and trends need to inform whole school strategy and initiatives. These interventions and supports are most effective when aligned with a tiered response system. Alignment can provide a comprehensive approach to student supports and adult actions that are consistent across teams, grade levels, departments, and the entire school.

As schools develop systems to support students, or ensure integration with existing systems such as MTSS, considerations include:

- Assigning students to interventions that address underlying needs in response to signs of risk through the predictive indicators.
- Developing a comprehensive intervention catalogue of appropriate and available interventions aligned to student needs.
- Aligning supports and interventions with a multi-tiered framework and ensuring student supports are in response to early warning indicator data.
- Using early warning indicator data to both identify supports and interventions for individual schools and also school-level trends to inform improvements to practices across the school.
- Examining school systems and adult behaviors so they support student success (such as written and implemented policy, curriculum, and administrator practices).

Districts also play a role in how practices and policies (e.g., adult mindsets, instructional practices, district and school policies) impact implementation to address barriers related to adult action and systems. Districts support implementation of EWS by working to understand available interventions and student needs. This information can then be used to (1) facilitate sharing interventions and learning across schools, (2) identify additional supports to close

existing gaps, (3) help reduce redundancies in current offerings, and (4) provide infrastructure (such as software) and training.

Equitable Implementation of Early Warning Systems

Equitable implementation is the integration of “strong equity components, including explicit attention to the languages, cultures, histories, values, assets, and needs of different communities, during all steps of an implementation process” (Metz et al., 2020, p. 8).

Using a data-based systemic approach to identify students showing signs of being at risk for not graduating can contribute to district and school efforts in providing equitable support of students. The use of research-based early warning indicators in this approach is more predictive of risk than student characteristics, demographics, or relying on referrals, and leads to a more equitable allocation of supports and resources.

To support equitable implementation, districts and schools can consider the EWS strategy through the lens of equity in access, representation, and quality.

Equity in Access. What processes or practices need to be in place to ensure school teams have access to and use an early warning system?

- Use indicators in attendance, course performance, and behavior to identify students showing signs of risk. Examine trends to help inform action, including if some groups of students are overrepresented.
- Create or purchase a tool to make accessing and analyzing indicator data accessible and user-friendly and provide access (including licensing) to relevant users/stakeholders.
- Ensure broad understanding of EWS team purpose, intended outcomes, and integration with school practices and other school teams.
- Ensure all students, regardless of previous data, have access to intervention and support.

Equity in Representation. What processes or practices need to be put in place to ensure school team representation reflects the demographics of the student population and community in early warning systems?

- Create teams that represent the school community.
- Include students, teachers, parents/guardians, and community stakeholders in conversations for authentic engagement and deeper understanding.
- Analyze current student behavior and school pattern data to identify individual and group trends and examine policy and practices that ensure all student groups have opportunities for successful outcomes.

Equity in Quality. What processes or practices need to be put in place to ensure school team effective use of an early warning system?

- Follow data review protocols regularly.
- Review universal and tiered supports to ensure they are responsive to current student populations/needs year to year. Available supports address needs related to (at a minimum) attendance, behavior, and course performance, and align with the MTSS.
- Assign students to available interventions that respond to underlying needs and that are culturally and linguistically responsive.
- Track progress of students related to interventions.

Multiple Pathways to Graduation

Design pathways to provide students with clearly defined opportunities to customize their education to meet their unique needs and circumstances and gain real-world knowledge, skills, and experiences leading to high school and postsecondary success.

Pathways are structured academic and work based learning opportunities that increase the relevance and alignment of learning experiences to student interests and postsecondary education and workforce skills and goals by providing targeted and personalized instructional and learning programs. This can include pathways for students who are missing previous learning. Developing multiple pathways requires programs, schools, or systems that are tailored to student interest, postsecondary education and workforce opportunity, and community need. Pathways are intended to increase opportunities for success by providing students with options and increase agency in their own learning through rigorous, relevant, and supportive approaches to learning.



Explore This Strategy

- [Overview](#)
- [Research Synthesis](#)
- [Implementation Considerations](#)
- [Equitable Implementation](#)

Pathways build personalized experiences and make real-life connections between school and career options. Sometimes a pathway is a sequence of courses, sometimes it is applied learning opportunities within the same course, and sometimes it connects students with real-life or skills-based learning outside the classroom. Regardless of structure, all pathways should provide rigorous instruction and include core principles of student success, such as positive relationships with caring adults, quality instruction, opportunities to engage in learning experiences that connect life beyond school, as well as support and resources to help students explore postsecondary education and workforce options. Pathway programs in Colorado include: [Career and Technical Education](#) (courses and certifications); [Work-based Learning](#) (job opportunities and work training); [Innovative Learning Opportunities](#) Pilot Program (blend of in-person, off-campus, or outside of the classroom opportunities); [Concurrent Enrollment](#), [Early College High School](#), [Colorado P-TECH](#); [Online and Blended Learning](#) and [Alternative Education](#) programs or schools

In designing pathways, districts need to align to Colorado graduation requirements and should refer to and discuss local board policy with district leadership. In Colorado, three specific requirements are outlined in state statutes and board rules. All other graduation requirements are determined by local school board policy. The three requirements are:

- **Civics:** All students receiving a diploma must pass one [course in civics](#).
- **Holocaust and Genocide Studies:** All students receiving a diploma must pass one course that incorporates Holocaust and genocide studies.
- **Graduation Guidelines:** All students receiving a diploma must demonstrate readiness for college and career based on at least one measure in reading, writing, and communicating; and one measure in mathematics.



How Multiple Pathways to Graduation Support Dropout Prevention and Student Engagement

- Programs and curricula targeted at increasing the relevance of school can help prevent disengagement and reconnect students with relevant content (Rose & Bowen, 2021).
- Pathways that are connected to postsecondary career and education opportunities engage students in learning and provide a clear path after graduation (Dougherty, 2021; Heinrich, 2021; NCES, 2013; U.S. Ed, 2019).
- Multiple pathways can be leveraged as a schoolwide approach as well as serve as an intervention for individual students (Gottfried & Plasman, 2018; Phelps & Chan, 2016; Stipanovic et al., 2017).
- For students who are behind, pathways can provide a clear direction and needed scaffolds for high school and secondary success (Frost, 2016; Rix, 2022).

Learn more about the research behind this strategy: [Multiple Pathways to Graduation Research Synthesis](#)



Implementation Considerations

The following considerations are provided to inform district and school planning and implementation of the Multiple Pathways to Graduation strategy.

Strengthen Foundational Practices. The five foundational practices in the Colorado Dropout Prevention Framework guide districts and schools in building systems and practices that directly support this strategy. Review the [Dropout Prevention Foundational Practices and Strategies Crosswalk](#) for more information.

Develop Multiple Pathways. Districts can provide multiple pathways to graduation. Some pathways may be more universal and aimed at redesigning systems to meet the needs of large groups of students (e.g., career and technical education (CTE) pathways, academy structures, or alternative education programs or schools), while other pathways may work in current structures (e.g., work-based learning, innovative learning options, theme-based courses or course sequences, college credit in high school, career planning).

Using data (including needs assessments) as a guide, district leaders can develop pathways that allow students to customize their education to meet their unique needs and circumstances while accessing relevant experiences in which they gain real-world knowledge and skills. For example:

- CTE programs or other real-world learning experiences may provide direct skill-building opportunities that keep students engaged or to reengage students who would otherwise drop out.
- Schools and districts may consider flexible scheduling, including evening and weekend classes and work-based learning credit, to recognize students who are working and keep them engaged in learning.
- Schools and districts may build programs for career exploration and planning to help students better understand options, identify goals, and create plans for success.
- Schools and districts may build schools (e.g., career academies, early college whole school model) or programs to help students who are behind in credits.

When developing and implementing pathway programs, it is important for districts and schools to consider the needs of their special populations including, but not limited to, differently abled students, pregnant or parenting teens, homeless students, or students who have been incarcerated. When schools and districts provide students with options, students may then customize their education pathway to meet their unique needs and circumstances and gain real-world knowledge, skills, and experiences.

Connect Students to Appropriate Pathways. Districts and schools will also need to design systems to connect students to the appropriate pathways and to ensure that student's previous learning doesn't entirely limit their future access opportunities. CDE's [Office of Postsecondary and Workforce Readiness](#) (PWR) provides supports and resources to help schools work through the personalization of a pathway through high school and to college and/or career for each student.

A key resource to help connect students to relevant pathways is the use of an [Individual Career and Academic Plan](#) (ICAP). The ICAP process guides students and families in the exploration of career, academic, and postsecondary opportunities. The [PWR Playbook](#) includes key guidance, examples, and resources to support districts and schools in

Implementation Considerations

- Strengthen Foundational Practices
- Develop Multiple Pathways
- Connect Students to Appropriate Pathways

Implementation Tools and Resources

- [Competency-Based Learning School-Design Rubric](#)
- [What Is Competency-Based Education? An Updated Definition](#)
- [Work-Based Learning Implementation Guide](#)
- [Career and Technical Education: An Evidence-Based Dropout Prevention Strategy](#)

implementing the ICAP process, including a [searchable database](#) of tools and resources developed by Colorado districts and schools. In addition to using ICAP as a universal strategy to support students in exploring personalized pathways through high school, districts and schools should also leverage existing systems such as EWS and MTSS to proactively identify students who may be in need of additional supports, and to explore whether alternative pathways may be appropriate and effective in meeting their needs.

Equitable Implementation of Multiple Pathways to Graduation

Implementing multiple pathways to graduation that are focused on producing equitable student outcomes requires strategic and intentional planning to target the unique needs of students. School communities need to collaborate and problem solve in determining student needs and finding solutions to fit those needs. Multiple pathways to graduation include programming that is regularly reviewed and modified for a student's unique situation from year to year.

To support equitable implementation of the Multiple Pathways to Graduation strategy, districts and schools can consider the strategy through the lens of equity in access, representation, and quality.

Equity in Access. What processes or practices need to be in place to ensure students have equitable access to and participate in available pathways?

- Develop inclusive recruitment strategies in partnership with students and families.
- Prioritize positive student and family outreach that includes focusing on groups that have not previously participated.
- Set clear participation targets.
- Intentionally and seamlessly integrate ICAP in school curriculum beginning as early as the sixth grade.
- Analyze policies and build in planning process such as ICAP to ensure that all students have access, even those with previous low performance.

Equity in Representation. What processes or practices need to be put in place to ensure student representation across pathways reflects the demographics of the overall student population?

- Collect and routinely examine participation data for over- and under-representation of student groups and engage students to capture input about barriers to access and engagement.
- Examine data from early warning systems to determine appropriate interventions based on root cause that targets increasing participation and engagement of traditionally marginalized students and provides multiple entry points for students.
- To the extent possible, avoid ability tracking or grouping students in ways that will result in de facto segregated pathways (e.g., specific subgroups of students overrepresented in college-bound pathways).

Equity in Quality. What processes or practices need to be put in place to ensure students are provided high-quality experiences in these pathways that are meaningful, meet rigorous standards, and adequately prepare students for college and/or career?

- Develop clear standards, expectations, and support for pathway experiences.
- Collect and routinely examine data from employers and community partners about pathway experiences.
- Collect data from students about pathway experiences.

Counseling the Whole Child

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Develop data-driven, systemic school counseling programs and connections to intensive supports to encourage students in meeting academic, career, and personal development goals.

Robust school counseling programs include multiple layers of support designed to strategically and effectively respond to student academic, social-emotional learning (SEL), and mental health needs. They work in combination with supportive school cultures and relationships that embrace the importance of shared responsibility for student success and safety.

School counselors, mental health providers, and support staff who carry out the mission and goals of school counseling programs have a unique opportunity to understand, identify, and assist students showing signs of dropout and disengagement. They play a critical role in developing and coordinating programs that integrate education, prevention, and intervention activities and serve as key connectors between students, parents/guardians, educators, and community members.

A data-driven, systemic school counseling program includes:

- Programs that are integrated across elementary, middle, and high schools to build alignment for student supports and services for postsecondary planning.
- Data use to identify students showing signs of being at risk for dropping out and support those students with necessary interventions.
- Schoolwide (Tier 1) student support efforts that include school counselors using comprehensive guidance or advisory curricula combined with SEL curricula.
- Systems to effectively triage students to appropriate services.
- Community partnerships to strengthen and broaden student supports.
- Mental health providers and/or effective partnerships with outside organizations to service students' mental health needs.
- Programs introducing counselors to students and parents/guardians as a supportive adult in the school environment.
- Parent/guardian training and community education sessions regarding effective student engagement and dropout prevention practices.
- Professional development activities for teachers and other staff on risk factors for dropping out, promising strategies for engaging and reengaging students, and effective ways of developing positive school climates.



Explore This Strategy

- [Overview](#)
- [Research Synthesis](#)
- [Implementation Considerations](#)
- [Equitable Implementation](#)



How Counseling the Whole Child Supports Dropout Prevention and Student Engagement

- School counselors play a critical role in leading a school's dropout prevention efforts as they are equipped with the tools to advocate for and intervene with students who show signs of risk of failing or dropping out (White & Kelly, 2010; Webber, 2018).
- School counseling programs can monitor student progress and use data to help meet student needs and address individual, school, or community factors that are linked with dropping out (Dahir & Cincotti, 2018; Tromski-Klingshirn & Miura, 2017).
- Interventions by school counselors before middle and high school can increase student engagement and prevent students from dropping out (Ecker-Lyster & Nileksela, 2016; What Works Clearinghouse, 2017).

Learn more about the research behind this strategy: [Counseling the Whole Child Research Synthesis](#)



Implementation Considerations

The following considerations are provided to inform district and school planning and implementation of the Counseling the Whole Child strategy.

Strengthen Foundational Practices. The five foundational practices in the Colorado Dropout Prevention Framework guides districts and schools in building systems and practices that directly support this strategy. Review the [Dropout Prevention Foundational Practices and Strategies Crosswalk](#) for more information.

Provide Individualized Student Support. Individual support for proactive planning as well as intervention and response helps students navigate and succeed in a variety of situations. School counselors and other support staff work one-on-one with students to ensure students feel more connected to the school, have clear plans for their future, and have resources and supports when needed. School counselors should be involved in guiding the transition to high school, including the freshman orientation process, to ensure that students know who to go to when they may need additional help for both academic and personal reasons (Tromski-Klingshirn et al., 2017).

School counselors and school counseling programs are a critical first layer in effectively referring students to mental health providers who can provide more intensive supports. [CDE's School Safety and Crisis Resources](#) provides resources for school teams to better assist students who may be experiencing chronic stress and trauma. Furthermore, through the completion and utilization of the [Individual Career and Academic Plan](#) (ICAP) counselors can work with students and their families to capitalize on the utility of the ICAP to help keep students on track to graduate.

Strengthen Counseling Programs. Comprehensive school counseling programs are designed to guide all students through a systematic series of supports, connect students to needed outside services, and provide resources to ensure students are ready for postsecondary education. Hosting professional learning sessions to educate teachers, school and district leaders, and parents/guardians on dropout prevention contributes to productive engagement and a positive school climate. Counselors are a part of teams that are identifying and/or designing student-level support. CDE's [School Counselors and College Transition Specialists guide](#) provides school counselors with tools and best practices specific to dropout prevention and student engagement to support the development of counseling programs and CDE's School Counselor Corps Grant Program for districts needing funding to hire school counselors.

Interweave Family, School, and Community Partnerships. Counseling services are best implemented when they have the support of school and district leaders, students, and their parents/guardians. School counselors are among the first people many parents/guardians and students interact with when a student is struggling, making it their responsibility to connect students to those in the school community who can help get students back on track. School counselors can use a collaborative leadership approach to build these partnerships and collectively problem solve, meet program goals, get buy-in from stakeholders, and lead programs that contribute to dropout prevention efforts.

Implementation Considerations

- Strengthen Foundational Practices
- Provide Individualized Student Support
- Strengthen Counseling Programs
- Interweave Family, School, and Community Partnerships

Implementation Tools and Resources

- [ASCA School Counselor Professional Standards & Competencies](#)
- [ASCA Student Standards: Mindsets & Behaviors for Student Success](#)
- [COVID-19: Crisis & Mental Health Resources](#)
- [MTSS Resources](#)
- [A School Counselor's Guide to Promoting a Culture of Academic Success](#)
- [WWC Intervention Report: Check & Connect.](#)
- [ASCA Standards in Practice](#)

Equitable Implementation of Counseling the Whole Child

Equitable counseling programs focus on the unique and changing student needs from year to year and support the development of staff to collectively meet student needs.

To support equitable implementation of the Counseling the Whole Child strategy, districts and schools can consider the strategy through the lens of equity in access, representation, and quality.

Equity in Access. What processes or practices need to be in place to ensure students have equitable access to counseling programs?

- Ensure systematic implementation of individual and group efforts that impact all students.
- Set clear participation targets in activities based on student groups and grade levels.
- Conduct regular needs assessments to understand mental health and nonacademic needs and gaps in services.

Equity in Representation. What processes or practices need to be put in place to ensure school team representation reflects the demographics of the student population and community in counseling?

- Create a team that includes counselors and other support providers who represent the school community and understand individual student needs.
- Counseling programs and teams intentionally respond to the unique needs of individual students using a tiered model that targets the needs of students showing early warning signs of disengagement. School counselors are a core part of these teams.
- Counseling programs and teams have a clear system that allows them to quickly identify students who have disengaged or are at risk of disengagement and respond with evidence-based interventions.

Equity in Quality. What processes or practices need to be put in place to ensure students are provided high-quality experiences in school counseling that are meaningful and adequately prepare students for college and/or career?

- Develop clear standards and expectations for school counselors and the school counseling program.
- Develop defined roles for the need and expertise of mental health providers internal and external to the school.
- Analyze which students are served by which mental health providers to ensure that expertise meets individual student needs.
- Collect data from students about counseling experiences.
- Utilize ICAP to provide individual counseling to students showing early warning signs of disengagement.

Persistence, Recovery, and Reengagement

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Develop programs to prepare students with the skills needed to successfully persist in graduating, allow students multiple methods for recovering content or credit when they have fallen behind, and identify students who have dropped out and support their transition back to school.

In some cases, programs and interventions to support students who have already begun to disengage from the school system are needed to prevent a student from further disengaging or to reengage. These programs can be organized into three main categories:

- **Persistence.** Transition and summer bridge programs can help students as well as parents/guardians by providing social and academic support for students in new grades or new schools. This can be achieved through counseling and mentoring, goal setting and monitoring, teaching and practicing essential skills, family outreach, community engagement, and postsecondary and workplace readiness programming and training.
- **Recovery.** Credit and content recovery programs provide opportunities for students who have fallen behind the chance to “recover” content or credits and satisfy requirements for the courses in which they were unsuccessful by earning credit, often through different competency-based strategies.
- **Reengagement.** Student reengagement programs focus on reenrolling students who have dropped out of school. The reengagement process involves outreach, reenrollment, and interventions to support reengagement and educational persistence of out-of-school youth.



Explore this Strategy

- [Overview](#)
- [Research Synthesis](#)
- [Implementation Considerations](#)
- [Equitable Implementation](#)



How Persistence, Recovery, and Reengagement Support Dropout Prevention and Student Engagement

- Comprehensive transition programs that support students in their transition from middle school into high school lead to significantly lower course failure and dropout rates (Balfanz, 2009; Allensworth & Easton, 2005; Bruce et al., 2011).
- Students who are highly mobile and frequently transition among schools are more likely to fall behind academically, and have higher dropout rates during their periods of transition from school to school (Rumberger & Larson, 1998; Schwartz et al., 2017).
- Connecting out-of-school youth to quality educational pathways leads to high school completion, future employment, growth, and success on the individual and community levels (Hossain, 2015; Piparinen, 2006; Carter & House; 2010).
- Adult mentors combined with relevant learning through pathways leads to student engagement in learning, positive relationships with peers and adults, and improved course pass rates (Jenner et al., 2023; U.S. Department of Education, 2017; Chan et al., 2020).

Learn more about the research behind this strategy: [Persistence, Recovery, and Reengagement Research Synthesis](#)



Implementation Considerations

The following considerations are provided to inform district and school planning and implementation of the Persistence, Recovery, and Reengagement strategy.

Strengthen Foundational Practices. The five foundational practices in the Colorado Dropout Prevention Framework guides districts and schools in building systems and practices that directly support this strategy. Review the [Dropout Prevention Foundational Practices and Strategies Crosswalk](#) for more information.

Provide Transition Programs. Districts and schools can develop proactive programming to support student persistence through key points when students disengage along the path to graduation. Comprehensive transition programming includes, but is not limited to, providing social-emotional and academic support for students during three significant periods of transition:

- **Students Progressing to New Grade Levels.** Supports to assist students and their families with successfully negotiating their transition into middle or high school are multifaceted and can include outreach activities, academic guidance, mentoring, advisory or orientation programming, and postsecondary and workplace readiness programming. Accelerated middle school programs (e.g., self-contained academic programs to help struggling middle school students) have been found to keep students in middle school and positively transition to high school. CDE’s [School Counselors and College Transition Specialists guide](#) and [Workforce Transition Specialists & Employment Counselors guide](#) provide tools and resources to support the development of transition programs.
- **Students Moving Between Schools.** Highly mobile students—such as homeless youth, migrant students, and youth in foster care—are often most at risk during school-to-school transition periods and may also experience multiple transitions during their Grades K–12 journey. CDE’s [Homeless Education Resources](#), [Foster Care Education Resources](#), and [Migrant Education Program](#) provide tools and resources to help districts and schools develop programs to support highly mobile students during and outside of transitions.
- **Students Accessing Special Education Services.** Transition programs for students who receive special education services help prepare them to gain access to the supports and services necessary to become as independent as possible after high school graduation. CDE’s [Transition Toolkit for special needs students](#) provides tools and resources to support districts and schools in planning effective transition programs to help students successfully move from school to postsecondary education and training, independent living, and employment based on the student’s abilities, needs, and goals.

Offer Accessible and Flexible Credit Recovery Programs. Districts and schools may have a lot of flexibility and control over the type of content and credit recovery options they provide. Different programs or strategies may allow students to demonstrate learning or make up portions of a course in the same school year. And long-term approaches may allow students to work on their credit recovery classes in an assigned time period, over the summer, on school breaks, after school, on weekends, at home on their own, at night in school computer labs, or online. CDE’s [Mathematics Pathways](#), [Accelerating Learning](#), and [Credit Recovery](#) provides specific guidance and supports for the development of mathematics-focused credit recovery programs. Although most credit recovery programs tend to focus on math and

Implementation Considerations

- Strengthen Foundational Practices
- Provide Transition Programs
- Offer Accessible and Flexible Credit Recovery Programs
- Develop Student Reengagement Programs

Implementation Tools and Resources

- [Structuring Out-Of-School Time to Improve Academic Achievement: A Practice Guide](#)
- [Middle School Transition Planning Practices](#)
- [A Blueprint for Scaling Tutoring Across Public Schools](#)
- [Bringing Students Back to the Center: A Resource Guide for Implementing and Enhancing Re-Engagement Centers for Out-of-School Youth](#)
- [Issue Brief: Credit Recovery](#)

English language arts, districts and schools may want to explore whether students may need additional credit recovery options that are more inclusive of other content areas.

Develop Student Reengagement Programs. Out-of-school youth, like all youth, need positive relationships with caring adults, the opportunity to engage in learning experiences with real-world connections, and support and resources to help them figure out life outside of school. Reengaged youth also have unique challenges as they reenter high school that may be related to the learning they missed when out of school or what they were doing outside of school. To develop a reengagement program for out-of-school youth, districts and schools should:

- **Identify Disengaged Students.**
 - Keep an updated list of students who have been coded as dropouts and contact them through outreach programs.
 - Collect and examine student data on at least an annual basis to understand which students are disengaged, why they have left school (e.g., academic and nonacademic reasons such as pregnancy, health problems, incarceration, childcare/family care), and what unique challenges they may have as they reenter high school (e.g., gaps in knowledge or few course credits).
- **Identify Available Resources.**
 - Map the community's available resources for youth services that may support a student as they reengage in school and compare them with the demand for reengagement services.
 - Explore Colorado resources that can be used to support reengagement including:
 - [Rural Coaction grant](#)
 - [Expelled and At-Risk Student Services grant](#)
 - [Student Re-engagement Grant Program](#)
 - [Empowering Action for School Improvement grant](#)
- **Identify and/or Develop Alternative Educational Options.** Youth who leave high school need easier on-ramps back into school. Older youth may be uncomfortable reenrolling in a traditional high school alongside 14- and 15-year-old students. Returning students also might not be comfortable coming back to the school they left. To reengage out-of-school youth, districts and schools can offer a range of alternative education options for students (e.g., self-paced credit recovery, flexible school schedules, competency-based education, internships). These options can be designed as programs in a school or as a stand-alone school (e.g., [Alternative Education Campus Accountability](#)) depending on the need.
- **Connect with Youth Through Outreach, Assessment, and Referrals.** Out-of-school youth are often unaware of or unable to access existing support services. Often, outreach to this population of youth requires multiple strategies and an advocate to reengage them in education, help them access needed services, and find connections at the school. Look for multiple opportunities to also engage and communicate with parents/guardians—such as using school-based apps, phone calls, and reaching out through the community—to better understand and connect with the needs of out-of-school youth.

Equitable Implementation of Persistence, Recovery and Reengagement

There are many paths a student can take to graduation. Ensure that options for recovering lost opportunities and reengaging in school are effective for the students with the greatest need and consider how to equitably reach those students.

To support equitable implementation of the Persistence, Recovery, and Reengagement strategy, districts and schools can consider the strategy through the lens of equity in access, representation, and quality.

Equity in Access. What processes or practices need to be in place to ensure students persist and have access to recovery and reengagement programs?

- Ensure broad understanding of available transition programs, including how they support different student groups (e.g., highly mobile students, students in foster care).
- Identify and remove barriers to access (e.g., ensure communication efforts are linguistically diverse, remove onerous steps in reenrollment processes).
- Develop specific recovery programs and ensure they are accessible through a school's early warning system for schools Grades K–12.
- Incorporate systematic approaches to building meaningful relationships and connections between adults and students (e.g., advisory classes, interest-based clubs).
- Examine policies to ensure that previous performance does not limit future access (where possible).

Equity in Representation. What processes or practices need to be put in place to ensure student representation in persistence, recovery, and reengagement programs reflect the demographics of the overall student population?

- Collect and examine data on student participation and student experience in programs.
- Incorporate culturally responsive practices into persistence, recovery, and reengagement programs.

Equity in Quality. What processes or practices need to be put in place to ensure students are provided high-quality experiences in persistence, recovery, and reengagement programs?

- Develop clear standards and expectations for recovery and reengagement programs.
- Ensure recovery and reengagement programs include site-based teams with outlined specific roles and responsibilities of school staff.

Framework Appendices

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To support understanding and use of the Colorado Dropout Prevention Framework, supplemental materials have been developed. These include:

- [References](#)
- [Index of Implementation Resources and Tools](#)
- [Overview of Dropout Prevention Framework](#)
- [The Colorado Dropout Prevention Framework and Student Success Systems](#)
- [Dropout Prevention Foundational Practices and Strategies Crosswalk](#)
- Research Syntheses:
 - [Early Warning Systems Research Synthesis](#)
 - [Multiple Pathways to Graduation Research Synthesis](#)
 - [Counseling the Whole Child Research Synthesis](#)
 - [Persistence, Recovery, and Reengagement Research Synthesis](#)

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Index of Implementation Resources and Tools

This index provides full references to the implementation tools and resources included within the framework.

Foundational Practices	Strategies
<ul style="list-style-type: none"> • Connected Relationships and Culture • Strong Family and Community Partnerships • Relevant and Engaging Learning Opportunities • Data-based Decision Making • Aligned Policies and Practices to Build Coherence 	<ul style="list-style-type: none"> • On-Track/Early Warning Systems • Multiple Pathways to Graduation • Counseling the Whole Child • Persistence, Recovery, and Reengagement

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Overview of Dropout Prevention Framework

Written for district and school teams and grounded in the core components of [student success systems](#), the **Colorado Dropout Prevention Framework** outlines five foundational practices and four strategies to support district and school efforts to decrease dropout rates and increase student engagement in learning, credit attainment, postsecondary preparation, and graduation rates.

- *Foundational Practices* are focused on creating and sustaining school environments that foster positive and effective conditions for learning.
- *Strategies* are evidence-based approaches to keep students on track for graduation and to intervene to support students at risk of dropping out or those who have already disengaged or dropped out.

Implemented within an equity frame (equitable access, equitable processes, equitable outcomes), the Foundational Practices and Strategies are intended to help districts and schools develop a systemic approach to dropout prevention that benefits all students, including those with diverse learning needs.

Foundational Practices

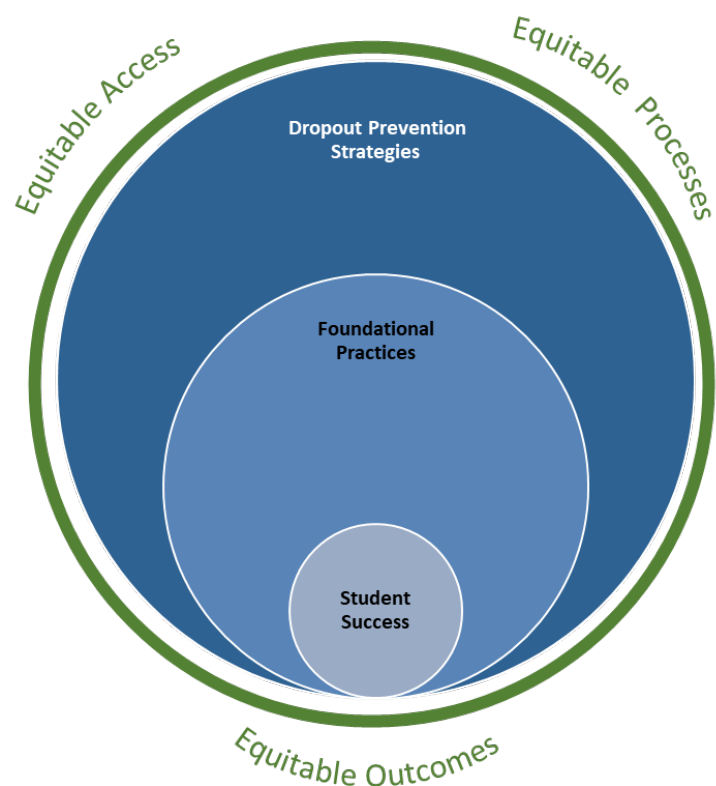
Connected Relationships and Culture that improve the quality of the school experience for students, family, caregivers, educators, and others; and help build a sense of belonging for all.

Strong Family and Community Partnerships that enable schools to better understand student and family needs and to build strong partnerships that engage and support students inside and outside of school.

Relevant and Engaging Learning Opportunities that align to student interests and postsecondary goals.

Data-Based Decision Making that grounds continuous improvement processes in the collection, analysis, and evaluation of relevant data.

Aligned Policies and Practices to Build Coherence that are flexible and accommodating to improve outcomes for all students (student-centered policy development and alignment).



Dropout Prevention Strategies

On-Track/Early Warning Systems to identify students showing signs of being at-risk of dropping out of high school, understand what leads to elevated signs of risk, and provide targeted supports to students.

Multiple Pathways to Graduation and postsecondary pathways that provide students with opportunities to customize their education to meet their unique needs and circumstances and gain real-world knowledge, skills, and experiences.

Counseling the Whole Child to support students in meeting academic, career, and personal development goals.

Persistence, Recovery, and Reengagement programs to prepare students to persist in graduating, allow students multiple methods for recovering credit, and support transitions back into school.

Colorado Dropout Prevention Framework and Student Success Systems

Student success systems enable schools to integrate practices focused on academic achievement with measures of well-being, belonging, and connectedness. Student success systems were developed by building from research and lessons learned through student support systems in EWS and MTSS (considering studies such as Allensworth & Easton, 2007; Balfanz, 2009; Faria et al., 2017; Mac Iver et al., 2019), and by considering what is needed to move these systems into the future. Recent research focusing on the importance of relationships, mindsets, and culture in schools is what moves student success systems toward the future. Supportive relationships with and among adults and students provide the foundation for student and school success (considering recent studies such as Grayson & Alvarez, 2008; Porter et al., 2023; Scales, 2013; Scales et al., 2022; Syvertsen et al., 2023). Student success systems combine four essential elements:

- **Strong, Supportive Relationships.** Student success systems build on and strengthen the relationships in a school. Enacting effective relationships requires a school culture of belonging in which everyone feels accepted and treated fairly. These relationships include those between school staff and students, students and students, staff and staff, and school staff and parents/guardians. Strong multidimensional relationships are the foundation to school and student success.
- **Real-Time, Actionable, Holistic Data.** School teams have access to and make use of research-based predictive indicators throughout the school year, and ensure data for these indicators are up to date and accessible. Data are actionable when they are based on key predictive indicators of attendance, course performance, and behavior; on information about student well-being, belonging, connectedness; and on additional insights from teachers, students, and parents/guardians.
- **Strategic Improvement Actions.** Schools and teams make decisions and take action based on available data. Actions and support for students are strategic and responses are student-centered and based on a holistic review of data. Analyzing and acting on these data involves school staff, students, and parents/guardians. The data connects to an adaptive improvement and response system, such as MTSS. Holistic data review is supported by frameworks or protocols that enable teams to regularly work collectively on data-informed actions and improvement efforts.
- **Student-Centered Mindsets.** Student success systems rely on having a school community with a shared set of student-centered mindsets. These shared mindsets are the foundation for understanding how and why student success systems are needed to ensure student growth and achievement. Mindsets are codeveloped through dialogue, reflection, and the shared experience of individuals in the school community. Student-centered mindsets ensure the efforts of student success system are focused on equity and inclusion, the data analysis and response efforts have a proactive and strength-based approach, continuous improvement is part of the work, and actions are based on evidence and shared understanding.

The four core components of student success systems work together to provide schools with a unified approach that integrates, extends, and increases the capacity of existing student support efforts. Implementing student success systems does not mean doing something new, but using what is already in place related to proactive efforts such as early warning systems and multi-tiered system of supports to achieve a greater impact.

The Colorado Dropout Prevention Framework integrates the four core components of student success systems and together they are part of the same continuum of efforts to engage students in school, ensure they are successful in school, and prepare them for success after school.



Dropout Prevention Foundational Practices and Strategies Crosswalk

This crosswalk provides illustrative examples of how each foundational practice can support the use of each strategy.

	On-Track/Early Warning Systems	Multiple Pathways to Graduation	Counseling the Whole Child	Persistence, Recovery, and Reengagement
Connected Relationships and Culture	<ul style="list-style-type: none"> Collect data that captures students' perspectives and experiences related to feelings of connectedness. Partner with students to understand subjective contextual factors that help inform interventions and educational pathway decisions. 	<ul style="list-style-type: none"> Develop pathways to graduation based on evolving student interests and needs. Engage in practices that foster strong student–adult relationships that help adults connect students to pathways based on students' interests and goals. 	<ul style="list-style-type: none"> Use a variety of modalities to effectively communicate course and pathway options to students that encourage students to pursue individualized interests. Schedule ongoing meetings with students that encourage meaningful connection and relationship-building. 	<ul style="list-style-type: none"> Engage students in a variety of activities that foster community and a sense of belonging. Create a positive culture and climate that prioritizes physical and emotional safety.



	On-Track/Early Warning Systems	Multiple Pathways to Graduation	Counseling the Whole Child	Persistence, Recovery, and Reengagement
<p>Strong Family and Community Partnerships</p>	<ul style="list-style-type: none"> Facilitate consistent and ongoing communication with families. Engage families in decision-making processes. 	<ul style="list-style-type: none"> Clearly communicate pathway options to families. Partner with families to support students pursuing postsecondary goals. Partner with local businesses to connect students to internship/work-based learning. 	<ul style="list-style-type: none"> Connect families to supportive resources. Partner with families to support students' developmental needs. Engage community members and organizations to support existing programming or provide new programming that can support students' social-emotional, educational, and career development. 	<ul style="list-style-type: none"> Partner with families to determine learning plans for students showing signs of disengagement. Partner with community-based organizations to provide a variety of credit attainment options (e.g., pathways, Early College, work-based learning). Connect students to community partners that connect to their areas of interest (e.g., internships, apprenticeships).
<p>Relevant and Engaging Learning Opportunities</p>	<ul style="list-style-type: none"> Partner with students to develop individualized interventions. 	<ul style="list-style-type: none"> Prioritize student-centered learning experiences. Gather student input to guide the adoption of pathway options response to student interests. 	<ul style="list-style-type: none"> Utilize a comprehensive scope and sequence that strategically counsels students through postsecondary planning. Adopt scheduling practices that are responsive to student interests. 	<ul style="list-style-type: none"> Connect students to individualized supports and resources.



	On-Track/Early Warning Systems	Multiple Pathways to Graduation	Counseling the Whole Child	Persistence, Recovery, and Reengagement
<p>Data-Based Decision Making</p>	<ul style="list-style-type: none"> Review student engagement data. Review student participation data. Disaggregate and review demographic data on students who drop out. 	<ul style="list-style-type: none"> Review student engagement data. Review student participation data. Disaggregate and review demographic data on students who drop out. 	<ul style="list-style-type: none"> Review student engagement with counseling-related services. Disaggregate and review demographic data on students who drop out. 	<ul style="list-style-type: none"> Review student engagement data. Review student participation data. Disaggregate and review demographic data on students who drop out. Understand how many students require reengagement services in the community.
<p>Aligned Policies and Practices to Build Coherence</p>	<ul style="list-style-type: none"> Integrate efforts with district and/or school MTSS framework. Consolidate school efforts that analyze data to identify student need. Review interventions and supports for gaps and redundancy. Consider intended and unintended outcomes of school policies and practices related to early warning indicators. 	<ul style="list-style-type: none"> Consolidate school efforts that analyze data to identify student need. Review existing pathways for access. Consider intended and unintended outcomes of school policies and practices related to multiple pathways (e.g., admissions criteria for early college, schedule for work-based learning experiences). 	<ul style="list-style-type: none"> Review student engagement with counseling-related services. Disaggregate and review demographic data on students who drop out. 	<ul style="list-style-type: none"> Consolidate school efforts that analyze data to identify student need. Review existing processes to identify and collaborate with community members and organizations. Review existing communication and collaboration processes and routines across schools in the district. Consider intended and unintended outcomes of school policies and practices related to persistence, recovery, and reengagement.



On-Track/Early Warning Systems Research Synthesis

On-Track/Early Warning Systems (EWS) allow educators to regularly review data to identify students showing signs of being at risk of dropping out of high school or not meeting post-high school outcomes, understand what leads to elevated signs of risk, and provide targeted supports to students. EWS uses local and historical data that respond to research-based indicators, along with other data sources and insights from people (including students), to help understand underlying student needs.

Most EWS rely on three indicators that research has shown are most predictive of risk for not graduating:

- **Attendance:** In middle school: missing nine days/quarter (or 36 days/year). In high school: missing 10% of instructional time.
- **Behavior:** Two or more mild or more serious behavior infractions.
- **Course Performance:** In grades 6–8: failure in English or math; a grade point average of less than 2.0. In grades 9–12: any course failure; failure to pass grade 9.

Districts and schools using EWS may also expand on these indicators to include social-emotional learning or whole child measures, such as student belonging or connectedness, or specific benchmarks toward postsecondary readiness, such as participation in an internship or advanced coursework. The real power of an EWS is the ability to proactively act on these predictive data to match interventions to needs so students can get back on track or stay on track for on-time graduation and postsecondary readiness.

The use of EWS supports dropout prevention and student engagement efforts in a number of ways:

- Monitoring student data through early warning indicator data consistently identifies students showing signs of risk for not graduating on time (McKee & Caldarella, 2016; Balfanz et al., 2007; Faria et al., 2017).
- Reviewing early warning indicator data regularly to intervene quickly can offer support to students before more intensive recovery efforts are needed (Lovelace et al., 2017; Corrin et al., 2016).
- Using indicators in attendance, course performance, and behavior is more predictive of student outcomes than demographics, socio-economic status, and other environmental factors historically used to identify students (Baker et al., 2019).

Research Overview

Early studies (2015–2019) regarding EWS primarily focused on the importance of using attendance, behavior, and course performance as indicators of students being at risk of not graduating from high school on time. A 2015 REL Northwest study of four districts in Oregon found that grade point average (GPA) and attendance in Grades 8 and 9 were valuable early warning signals to predict indicators of on-time graduation. These early indicators were especially important for males and English language learners because these groups of students were found to have the lowest graduation rates (Burke, 2015). Research continues to show that English language learners had higher dropout rates and lower graduation rates than non-English learners. In addition, typical early indicators (attendance, GPA) are not as accurate for English language learners as for other students (Deussen et al., 2017). These findings point to the importance of using multiple measures and strategies to support a range of students. Over time, efforts such as the Early Warning Intervention and Monitoring System (EWIMS) showed significant impacts on getting students back on track to graduation (Faria et al., 2017). In this study, EWIMS was used to support at-risk students at 73 randomly assigned high schools. EWIMS reduced the rate of chronic absence and course failure demonstrated by students.

Recent studies (2019–2023) continue to support the use of EWS to reduce chronic absenteeism and other factors that influence dropout rates. Indicators such as attendance rates, behavior data and course performance (ABCs) can be seen as early as the sixth grade. According to Balfanz and Byrnes (2019), chronic absenteeism is the strongest early indicator of a connection between behaviors in elementary school and the later risk for dropout. The researchers state “early chronic absenteeism both leads to lower academic performance in elementary school and a greater likelihood of being chronically absent in the middle grades” (p. 53). Bruch et al. (2020) studied grades K–12 public schools to develop a way to predict academic problems. In this study, academic problems were found to be absenteeism, suspension, poor grades, and low performance on state tests. These researchers found that “students with prior academic problems, social services involvement, and justice system involvement have higher rates of academic problems in the following months” (p. 6), leading to risk of dropout.

Early Warning Intervention and Monitoring Systems reduced the rate of chronic absence and course failure (Faria et al., 2017).

Research conducted in recent years focuses more on attendance and behaviors than academic indicators. A study of Oregon school districts found positive impacts of Early Indicator and Intervention Systems on chronic absenteeism (Sepanik et al., 2021). An evaluation of an early chronic absenteeism intervention program showed that the program lowered the percentage of students that were absent 21 or more days from 13.42% in the 2013–14 academic school year to 5.00% in the 2018–19 academic school year (Bundshuh et al., 2021). Another recent study reflects the importance of collecting and monitoring behavior data. The Adolescent Behavior Index (ABI) includes student self-reported perceptions of school climate and is linked to “behavioral engagement leading to positive college and career readiness outcomes.” In addition, ABI includes GPA, discipline, attendance, and tardiness. EWS can be particularly helpful for early interventions with special populations—students with disabilities were found to have lower ABI scores (Rifenbark et al., 2023). In addition, Clemens et al. (2019) found that routinely collected child welfare and education administrative data may be used to predict dropout risk for youth with a history of foster care, and to design early interventions to support such students.

Visit the Regional Educational Laboratories [Learning Series on Early Warning Systems](#) to access additional studies, implementation tools and resources, videos and infographics focused on the development and use of EWS.

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Multiple Pathways Research Synthesis

Pathways are structured academic opportunities that increase the relevance and alignment of learning opportunities to student interests and postsecondary skills and goals by providing targeted and personalized instructional and learning programs. Developing multiple pathways requires programs, schools, or systems that are tailored to student need and interest, postsecondary opportunity, and community need. Pathways are intended to increase opportunities for success by providing students with options and agency in their own learning through rigorous, relevant, and supportive approaches to learning.

Pathways build personalized experiences and make real-life connections between school and career options. Sometimes a pathway is a sequence of courses, sometimes it is applied learning opportunities within the same course, and sometimes it connects students with real-life or skills-based learning outside the classroom. Regardless of structure, all pathways should provide rigorous instruction and include core principles of student success, such as positive relationships with caring adults, quality instruction, targeted to student need, opportunities to engage in learning experiences that connect life beyond school, as well as support and resources to help students explore postsecondary options.

Pathway programs in Colorado include: [Career and Technical Education](#) (courses and certifications), [Work-based Learning](#) (job opportunities), [Innovative Learning Opportunities](#), [Concurrent Enrollment](#), [Early College High School](#), [Colorado P-TECH](#), [Online and Blended Learning](#), and [Alternative Education](#) programs or schools.

The use of multiple pathways supports dropout prevention and student engagement efforts in a number of ways:

- Programs and curricula targeted at increasing the relevance of school can help prevent disengagement and reconnect students with relevant content (Rose & Bowen, 2021).
- Pathways that are connected to postsecondary career and education opportunities engage students in learning and provide a clear path after graduation (Dougherty, 2021; Heinrich, 2021; NCES, 2013; U.S. Department of Education, 2019).
- Multiple pathways can be leveraged as a schoolwide approach as well as serve as an intervention for individual students (Gottfried & Plasman, 2018; Phelps & Chan, 2016; Stipanovic et al., 2017).
- For students who are behind, pathways can provide a clear direction and needed scaffolds for high school and secondary success (Frost, 2016; Rix, 2022).

Research Overview

The number of pathways to help high schools address student dropout issues and support secondary and postsecondary transitions has grown over the years. According to a recent study by Sattem and Hyslop (2021), “twenty-nine states offer multiple pathways to a high school diploma, providing students with options regarding the high school experiences they will have and, often, the postsecondary experiences for which they will be prepared” (p. 1). Multiple pathways can vary by state, district, and school but most pathways have been implemented using alternative educational programs or proficiency-based diploma programs within high schools. According to Waite and Pangelinan (2023), Holyoke Potomac Public Schools in Massachusetts cut their dropout rate by 10% through the use of Opportunity Academy, an alternative educational program. In an earlier study, Silvernail et al. (2013) focused on the implementation of a proficiency-based diploma program in Maine, which showed increased student engagement related to the proficiency-based diploma system.

One common pathway option is Career and Technical Education (CTE) as a strategy to increase high school graduation rates and reduce school dropout rates. The New Skills ready network, launched by JPMorgan Chase & Co., is a tool used to advance CTE practices across six states (Advance CTE, 2021). This network “partner[s] with local school systems, higher education, employers, and government entities to develop pathways and policy recommendations [to provide]



underserved students with access to higher education and real-world work experiences that lead to high-wage, in-demand jobs.” (Advance CTE, 2021, p. 1) CTE generally, and New Skills ready, are strategies and pathways that “provide significant learning and professional development opportunities for students at both high school and college levels” (Dobbs-Oates, 2019, p. 62).

Other studies have found work-based learning programs help high-school students with their transition to careers in postsecondary education. Goodman et al. (2021) propose the school-to-career model to create broad-based pathways to careers that emphasize “(1) the importance of work-based learning that connects students to employers; (2) curricula that emphasize soft skills and social capital to prepare young adults for their first jobs; (3) the need for supportive or wraparound services to help students get across the finish line; and (4) high schools that help students toward graduation while also earning credits toward postsecondary education” (p. 2). they further argue, programs that offer work-based learning prepare students through practical work experience, fostering soft skills and social capital, providing students with useful credentials and diplomas, and connecting them to potential employers (Goodman et al., 2021).

Work-based learning experiences provide students with a “continuum of learning and skill development experiences, from career exposure and career engagement to career experience” (Altstadt et al., 2020) and has been shown to have positive effects on retention and graduation rates as well as career development and motivation (Dobbs-Oates, 2019). The importance of work-based learning can be seen through a recent study by the Vermont Division of Vocational Rehabilitation Center (DVR), which received a 5-year grant from the Rehabilitation Services Administration to demonstrate evidence-based practices for providing Vermont high school students with work-based learning experiences in integrated settings. The DVR's Linking Learning to Careers program provides enhanced work-based learning experiences to help high school students with disabilities as they make the transition to careers or postsecondary education (Wissel, 2019).

Multiple pathways can also support individual students in their postsecondary transition. Athamanah and Cushing (2019) suggested using peer-mediated intervention (PMI) in work-based learning settings to improve the academic and social skills of students with autism spectrum disorder (ASD). Students with ASD can struggle to develop the skills needed to find and keep a job after graduating from high school. The findings from this study indicate that PMI increased independent vocational tasks, improved social interactions, and improved the quality of social interactions for the three students with ASD (Athamanah & Cushing, 2019).

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Counseling the Whole Child Research Synthesis

Robust school counseling programs include multiple layers of support designed to strategically and effectively respond to student academic, social-emotional learning (SEL), and mental health needs. They work in combination with supportive school cultures and relationships that embrace the importance of shared responsibility for student success and safety.

A data-driven, systemic school counseling program includes:

- Programs that are integrated across elementary, middle, and high schools to support alignment for student supports and services and to guide postsecondary planning.
- Data use to identify and support students showing signs of being at risk for dropping out and support those students with necessary interventions.
- Schoolwide (Tier 1) student support efforts that include school counselors using comprehensive guidance or advisory curricula combined with SEL curricula.
- Systems to effectively triage students to appropriate services.
- Community partnerships to strengthen and broaden student supports.
- Mental health providers and/or effective partnerships with outside organizations to service students' mental health and SEL needs.
- Programs introducing counselors to students and families/caregivers as a supportive adult in the school environment.
- Parent/caregiver training and community education sessions regarding effective student engagement and dropout prevention practices.
- Professional learning activities for teachers and other staff on risk factors for dropping out, promising strategies for engaging and reengaging students, and effective ways of developing positive school climates.

The use of counseling programs for the whole child supports dropout prevention and student engagement efforts in a number of ways:

- School counselors play a critical role in leading a school's dropout prevention efforts as they are equipped with the tools to advocate for and intervene with students who show signs of risk of failing or dropping out (White & Kelly, 2010; Webber, 2018).
- School counseling programs can monitor student progress and use data to help meet student needs and address individual, school, or community factors that are linked with dropping out (Dahir & Cincotti, 2018; Tromski-Klingshirn & Miura, 2017).
- Interventions by school counselors before middle and high school can increase student engagement and prevent students from dropping out (Ecker-Lyster & Nileksela, 2016; What Works Clearinghouse, 2017).

Research Overview

Counseling the whole child is based on research that supports multiple interrelated practices at the school and student levels that influence academic, SEL, and behavioral outcomes. Tier 1 schoolwide policies can support students' academic, SEL, and mental health needs. Positive Behavior Intervention and Support (PBIS) clearly define schoolwide expectations, use data-based decision making to monitor implementation and results, and include differentiated levels of support for students in response to their needs (Perry, 2017). Furthermore, having counselors involved in planning and implementing school events (e.g., open houses) to create a welcoming environment for students and families can be effective in keeping students engaged and reducing drop-out rates (Perry, 2017).

Researchers have found that programs addressing a wide range of needs for at-risk students are effective at supporting academic outcomes. *Check & Connect* continually monitors school performance and provides individualized attention through mentoring, case management, and other supports. A rigorous study found that *Check & Connect* has positive effects on staying in school (U.S. Department of Education et al., 2015). Building Assets, Reducing Risks (BARR), a



research-based program that focuses on whole child (academic, SEL, and physical needs) includes professional development for educators, use of data, and partnership with families. An independent evaluation found that BARR led to an increase in students passing core courses from 74% to 80%; the program also reduced chronic absenteeism and course failure rates (Bos et al. 2022). In addition, the GEAR UP program, based at Western Michigan University, worked with at-risk high school students in a local high-need rural area. This personalized early intervention strategy began in ninth grade and involved coaches working with students, parents, and teachers to establish a plan to improve academic achievement. Researchers found that treatment students performed almost an entire letter grade better than anticipated based on comparative student results from baseline studies. Well over 50% of students predicted to fail succeeded well enough to progress to the next grade level (Zeller et al., 2013).

The American School Counselor Association (ASCA) provides knowledge, skills, and competencies that a school counselor should have, and reviews and approves evidence-based counseling programs. Researchers found that well-implemented, research-based counseling programs improve student outcomes (Stevens, 2021). ASCA emphasizes the importance of collaboration among counselors, staff, and principal leadership to carry out effective programs, which may include positive behavior interventions, character education, drug and alcohol prevention/intervention, antibullying, self-esteem, and academic success (Stevens, 2021). In addition, these ASCA-approved programs—along with outside research studies—highlight the importance of relationships. One study found counseling and SEL programs influence students' connections to school and adults at the school (Stevens, 2021). Nava (2018) also found positive effects of an ASCA model program on student achievement and college readiness, particularly for African American students.

All Hands On Deck (Salina et al., 2013), a school counselor-led, schoolwide program, helped one school's graduation rate increase from 49% to 78.8% in 3 years (2009-2012). A case study showed that the program was a coordinated effort, aligned with ASCA's national model, and emphasized academics, social support, relationships, and trust. A study in Rhode Island showed strong and consistent correlations between increased amounts of school counseling services and positive student outcomes (Dimmitt and Wilkerson, 2012). Services included individual learning plans for students, regular consulting with teachers and parents, individual and group counseling, using data strategically, and conferences with students and families. The study showed it was particularly important to implement and expand counseling services in high minority, low-income Rhode Island schools where counseling services were lacking. Finally, a growing body of research suggests that trauma-informed school counseling is effective at supporting students' academic, SEL, and behavioral outcomes; particularly those most at risk of dropping out of school (Rumsey & Milsom, 2019).

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Persistence, Recovery, and Reengagement Research Synthesis

In some cases, programs and interventions to support students who have already begun to disengage from the school system are needed to prevent a student from further disengaging or to reengage. These programs can be organized into three main categories:

- **Persistence.** Transition and summer bridge programs can help students as well as parents/guardians by providing social and academic support for students in new grades or new schools. This can be achieved through counseling and mentoring, goal setting and monitoring, teaching and practicing essential skills, family outreach, community engagement, and postsecondary and workplace readiness programming and training.
- **Recovery.** Credit and content recovery programs provide opportunities for students who have fallen behind the chance to “recover” content or credits and satisfy requirements for the courses in which they were unsuccessful by earning credit, often through different competency-based strategies.
- **Reengagement.** Student reengagement programs focus on reenrolling students who have dropped out of school. The reengagement process involves outreach, reenrollment, and interventions to support reengagement and educational persistence of out-of-school youth.

The use of persistence, recovery, and reengagement supports dropout prevention and student engagement efforts in a number of ways:

- Comprehensive transition programs that support students in their transition from middle school into high school lead to significantly lower course failure and dropout rates (Balfanz, 2009; Allensworth & Easton, 2005; Bruce et al., 2011).
- Students who are highly mobile and frequently transition among schools are more likely to fall behind academically, and have higher dropout rates during their periods of transition from school to school (Rumberger & Larson, 1998; Schwartz et al., 2017).
- Connecting out-of-school youth to quality educational pathways leads to high school completion, future employment, growth, and success on the individual and community levels (Hossain, 2015; Piparinen, 2006; Carter & House; 2010).
- Adult mentors combined with relevant learning through pathways leads to student engagement in learning, positive relationships with peers and adults, and improved course pass rates (Jenner et al., 2023; U.S. Department of Education, 2017; Chan et al., 2020).

Research Overview

Several bodies of research inform the empirical understandings of persistence, recovery, and re-engagement. Drawing from studies of on students’ experiences, their interpersonal relationships, and schooling programs, the research synthesis indicates that there is a complex set of circumstances and factors—both in students’ personal lives and at school—that influence their abilities to persist, recover credit, and re-engage with academics.

Early studies (2013-2014) examined aspects of students’ lived experiences, from friendships to family dynamics to home life, to understand their schooling outcomes. One such study (Johnson et al., 2014) examined students’ peer relationships as an intervention. The study found that students’ relationships with peers could be leveraged effectively to provide school-based, social-emotional learning interventions. Moreover, Johnson et al. also argue that intervening in 9th grade can increase the possibility that students graduated on time by 12th grade. An effort to determine what methods are effective for increasing the likelihood of on-time graduation was also a focus of an evaluation study by Zhao (2013) which considered the effectiveness of an online re-engagement program. Those who completed the program had a 67% graduation rate and survey responses by both teachers and students indicated that they viewed the program positively. However, the course completion rate was 37%, which was viewed as a problem. The survey responses also



indicated a need for support, as teachers asked how to better support students in completing the program and students indicated they wanted more support as they worked to complete the program.

Over the next few years, the research field provided more guidance on how to establish such programs (US DoE resource guide, 2014) and further defined terms related to persistence, recovery, and re-engagement (Dary et al., 2016). For instance, one such study argued that dropping out need not be perceived as permanent, but rather such students still have the capacity to re-engage, recover, and graduate with supports (Barrat & Berliner, 2016). Online and virtual programs not only expanded the reach of such programs and the likelihood of graduating (Heinrich, 2021; Hart et al., 2019) but also which students might benefit from them. One study found that such virtual programs have a “relatively high rate of participation of economically disadvantaged, special education, and Black students” who were then on-track to earn a high school diploma on-time with their peers (Bentley, 2019). Career and technical education programs have also been found to be perceived as relevant and help students stay engaged (Dougherty, 2021; US DoE, 2019; NCES, 2013).

More recently (2020 onward), studies have found such flexible programs, like online or virtual credit recovery programs offered outside of school hours, over the summer or during other breaks in the school calendar, have broad benefit. A study by Thomas et al. (2020) suggested that such programs “increased students’ cognitive engagement” which they were able to maintain when they returned to “mainstream schooling.” The social-emotional connections to peers and teachers were identified as beneficial in earlier studies, a trend that continued in Lewis (2021), which found that students who do re-engage with their high schools and coursework have “strong perceptions of family” and other adults in their lives. Indeed, several studies over the last few years have found that social and familial connections to peers, teachers, and relatives have a positive impact on increasing the likelihood that students will persist with their schooling and graduate from high school (Balfanz, 2023; Chen et al., 2018; Hynes, 2015).

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